The Excavations at Khirbet el-Maqatir: 1995–2001 and 2009–2016

Volume 2

The Late Hellenistic, Early Roman, and Byzantine Periods



Scott Stripling

edited by
Scott Stripling and Mark A. Hassler

The Excavations at Khirbet el-Maqatir: 1995–2001 and 2009–2016

Volume 2

The Late Hellenistic, Early Roman, and Byzantine Periods

Scott Stripling

edited by
Scott Stripling and Mark A. Hassler

with contributions by
Yoav Farhi, Shimon Gibson, Matthew D. Glassman, Mark A. Hassler, Kevin W. Larsen, Suzanne Lattimer, Abigail Leavitt, Brian N. Peterson, Dvir Raviv, Peretz Reuven, Leen Ritmeyer, Lidar Sapir-Hen, Boyd V. Seevers, Frankie Snyder, Abra Spiciarich, and Katherine A. Streckert

Archaeopress Archaeology



Archaeopress Publishing Ltd
Summertown Pavilion
18-24 Middle Way
Summertown
Oxford OX2 7LG

www.archaeopress.com

ISBN 978-1-80327-211-5
ISBN 978-1-80327-212-2 (e-Pdf)

© Archaeopress and Associates for Biblical Research 2023

Cover images:

Front: A map of the town at Khirbet el-Maqatir in the first century CE. Photograph courtesy of Michael C. Luddeni.

Back, *left to right*: Bryant Wood (Director 1995–2013), Mark A. Hassler (Square Supervisor), and Scott Stripling (Director 2014–2016).

This book is available in print and as a free download from www.archaeopress.com



This work is licensed under a Creative Commons
Attribution-NonCommercial-NoDerivatives 4.0 International Licence
https://creativecommons.org/licenses/by-nc-nd/4.0/

Contents

Contributors iii

Preface v

Abbreviations vii

Geography and Topography 1

I. Stratigraphy and Architecture

1. Stratigraphy and Occupational History 8
Scott Stripling

2. Late Hellenistic and Early Roman Architecture 14
Brian N. Peterson

3. Monumental Tower and Fortification System 33
Mark A. Hassler

4. Subterranean Features 47
Scott Stripling with a contribution by Dvir Raviv

5. Byzantine Ecclesiastical Complex 71
Leen Ritmeyer and Scott Stripling

II. Small Finds

6. The Numismatic Finds from Khirbet el-Maqatir 95
Yoav Farhi with an appendix by Kevin W. Larsen

7. Ceramic Vessels 163
Peretz Reuven

8. Early Roman Limestone Vessels 231
Shimon Gibson

9. Glass Vessels 258
Abigail Leavitt and Scott Stripling

10. Inscriptions 277
Matthew D. Glassman

11. Jewelry and Personal Accessories 283
Frankie Snyder, Suzanne Lattimer, and Scott Stripling

12. Militaria 300
Katherine A. Streckert and Boyd V. Seevers

13. General Objects 313
Abigail Leavitt and Scott Stripling, with Frankie Snyder

14. Fauna 342
Abra Spiciarich, Scott Stripling, and Lidar Sapir-Hen

Conclusion 351

Appendix: Lists of Walls and Loci 352

Contributors

Yoav Farhi, PhD, Adjunct Lecturer of Archaeology in the Department of Bible Studies, Archaeology, and the Ancient Near East at Ben-Gurion University of the Negev

Shimon Gibson, PhD, Professor of Practice in the Department of History at the University of North Carolina–Charlotte

Matthew D. Glassman, PhD, Adjunct Professor of Religion in the Department of Religious Studies at Fairfield University

Mark A. Hassler, PhD, Professor of Old Testament in the Department of Biblical Theology and Exegesis at Virginia Beach Theological Seminary

Kevin W. Larsen, PhD, Vice President for Academic Affairs and Professor of New Testament in the Department of Bible and Christian Ministry at Mid-Atlantic Christian University

Suzanne Lattimer, MA, Field Archaeologist for the Associates for Biblical Research

Abigail Leavitt, MA, Objects Registrar and Assistant Director for the Associates for Biblical Research

Brian N. Peterson, PhD, Associate Professor of Old Testament and Hebrew in the Department of Theology at Lee University

Dvir Raviv, PhD, Senior Lecturer in the Martin (Szusz) Department of Land of Israel Studies and Archaeology at Bar-Ilan University

Peretz Reuven, MA, Independent researcher

Leen Ritmeyer, PhD, Ritmeyer Archaeological Design

Lidar Sapir-Hen, PhD, Senior Lecturer in the Department of Archaeology and Ancient Near Eastern Cultures at Tel Aviv University

Boyd V. Seevers, PhD, Professor of Old Testament Studies in the Department of Biblical and Theological Studies at the University of Northwestern–St. Paul

Frankie Snyder, MA, Independent researcher

Abra Spiciarich, PhD, Department of Archaeology and Ancient Near Eastern Cultures at Tel Aviv University

Katherine A. Streckert, MA, Associates for Biblical Research

Scott Stripling, PhD, Director of the Archaeological Institute at The Bible Seminary and Director of Excavations at Khirbet el-Maqatir and Shiloh for the Associates for Biblical Research

Preface

The excavations at Khirbet el-Maqatir began in 1995 under the direction of Bryant Wood and continued through January 2016, with the final three seasons under my direction. The location of Khirbet el-Maqatir within Area C of the West Bank as defined by the 1993 Oslo Accords meant that the Second Intifada (2001–2005) caused a hiatus from 2001 to 2008.

The final publication of the site builds on the work of previous researchers. The Khirbet el-Maqatir expedition advanced the regional exploration of the Biblical highlands by the Associates for Biblical Research. The exploration began with David Livingston's excavation of Khirbet Nisya (1979–2002). A new excavation at Shiloh (2017–present) continues the organization's regional approach to understanding settlement patterns from the Middle Bronze Age to the end of the Ottoman period. Israel Finkelstein's surveys in the 1980s provided valuable data on environmental, sociological, and anthropological matters.[1]

Volume 1 by Bryant Wood and Boyd Seevers presents the Bronze and Iron Age remains, while Volume 2 documents the 20-dunam (five-acre) settlement in the Late Hellenistic, Early Roman, and Byzantine periods. The 2010–2016 seasons focused on these later periods that shed significant light on life in the highlands of Benjamin in the late Second Temple period.

Excavation seasons ranged from two to six weeks in length, with participants numbering typically between 30 and 70. Students and faculty from Lee University contributed significantly from 2010 to 2016 and were joined by students and faculty from the following institutions: Adventist International Institute of Advanced Studies, Crown College, Dallas Theological Seminary, The Master's University and Seminary, Texas A&M University, Houston Baptist University, Tel Aviv University, Tidewater Bible College, Trinity Southwest University, University of Holy Land Studies, University of Northwestern–St. Paul, Virginia Beach Theological Seminary, Wharton County Junior College, and Yale University.

Staff members:

Roy Anderson, Surveyor
Gary Byers, Senior Archaeologist
Orna Cohen, Conservator
Yaakov Ehrlich, Surveyor
Yoav Farhi, Numismatist
Matthew D. Glassman, Square Supervisor
Mark A. Hassler, Director of Publications and Square Supervisor
Ellen Jackson, Metal Dectectorist
Ann Klauder, Assistant Pottery Registrar
Lou Klauder, Pottery Registrar
Suzanne Lattimer, Field Archaeologist
Abigail Leavitt, Objects Registrar and Square Supervisor
Michael C. Luddeni, Photographer
Donald McNeeley, Director of Information Technology and Square Supervisor
Walt Pasedag, Surveyor
Brian N. Peterson, Field Archaeologist
Leen Ritmeyer, Architect
Peretz Reuven, Ceramic Typologist
Steven Rudd, Square Supervisor
Boyd V. Seevers, Square Supervisor
Henry Smith, Director of Administration and Square Supervisor
Frankie Snyder, Small Finds
Sandy Souza, numerous roles
Scott Stripling, Director of Excavations, 2013–2016; Field Supervisor, 2010–2013
Bryant Wood, Director of Excavations, 1995–2013; Director Emeritus and Ceramic Typologist, 2014–2016

My special gratitude goes to Hananya Hizme, archaeological staff officer of Judea and Samaria and Deputy Director Benny Har Even. The excavation was conducted under their auspices. Yoav Zionet, Eyal Fierman, Miriam Hassid, and Nehora Shneler Peles provided excellent support. In the early years of the excavation, Yitzhak Magen and Yuval Peleg led the Civil Administration of Judea and Samaria. They strongly backed our efforts. I am equally indebted to Scott Lanser, the executive director of the Associates for Biblical Research, for the support that I received from my sponsoring organization. The entire board of directors deserves thanks, but I am especially appreciative of Gary

[1] Israel Finkelstein, Zvi Lederman, and Shlomo Bunimovitz, *Highlands of Many Cultures: The Southern Samaria Survey; The Sites*, 2 vols. Tel Aviv Sonia and Marco Nadler Institute of Archaeology Monograph Series 14 (Tel Aviv: Tel Aviv University Press, 1997); Israel Finkelstein and Yitzhak Magen, *Archaeological Survey of the Hill Country of Benjamin* (Jerusalem: Israel Antiquities Authority, 1993).

Byers who served as senior archaeologist through the 2014 season in addition to his board duties. Henry Smith, administrative director, efficiently managed myriad administrative tasks that lightened my load and enabled the excavation to become one of the largest in the southern Levant. Surveyor and board member Walt Pasedag also did double duty. Local landowner Khaldoun Bakker and his family helped me in various ways, including tool storage and procurement. His sons Odai and Mohammed grew up working on the Khirbet el-Maqatir dig. Hani Miflih and Samer Abunaima from Deir Dibwan poured much of their lives into the excavation as well.

Participant fees, small donations, and occasional major donations from anonymous philanthropists funded the enterprise. I am grateful and indebted to all who donated and volunteered.

The Near East Archaeological Society endorsed the Khirbet el-Maqatir excavation. Their journal, the *NEAS Bulletin*, published several important articles on the dig. Three of their officers—Donald McNeeley, Suzanne Lattimer, and Mark Hassler—served on my senior staff and made numerous contributions.

My entire staff contributed to the organization of this volume. Special thanks go to Mark Hassler for his exceptional editorial skills as coeditor, Donald McNeeley for tireless database support, Michael Luddeni for his world-class photography, and Leen Ritmeyer and Steven Rudd for their excellent graphics. Finally, I offer kudos to the contributors of the various chapters. They exceeded my high expectations.

Scott Stripling
Richmond, Texas, 2022

Abbreviations

ADCA	Archaeology Department of the Civil Administration of Judea and Samaria
BA	Bronze Age or basin
BCE	before the Common Era
BL	bowl
Byz	Byzantine period
c.	century
ca.	circa
Cat. no.	Category number
CAV	cavern
CE	casserole or Common Era
CJ	cooking ware jug
CL	cooking ware lid
CP	cooking pot
diam.	diameter
EI	Early Islamic period
ER	Early Roman period
FBWB	fine Byzantine ware bowl
FK	flask
FU	fusiform unguentarium
IAA	Israel Antiquities Authority
Iron	Iron Age
JG	jug
JT	juglet
KR	krater
LD	lid
LH	Late Hellenistic period
LP	lamp
no.	number
obj.	object
PU	piriform unguentarium
RT	roof tile
SJ	storage jar
wt.	weight

Geography and Topography

Khirbet el-Maqatir lies 16 km north of Jerusalem, just over the ridge on the east side of Route 60, the Jerusalem–Nablus road. The ancient east–west highway linking Ammon to Joppa ran just north of the site. The village of Deir Dibwan sits on the northern scarp of the Wadi el-Gayeh and provides the northern boundary for the archaeological site. On the opposite side of the wadi, 1 km northeast, rests the ancient ruins of et-Tell, the likely location of the Early Bronze Age city of Ai mentioned in the patriarchal narratives (Gen 12–13).

The area of Khirbet el-Maqatir is roughly two hectares, excluding the Byzantine monastery on the summit, which occupies only half a hectare. The Late Hellenistic and Early Roman ruins sit in a saddle atop one-half of a small fortress dating from Middle Bronze III to Late Bronze I. While the monastery on the ridge rose 890 meters above sea level, the Late Hellenistic and Early Roman ruins crested at 874–878 meters. This perch commanded a view of the Mount of Olives to the south, the Dead Sea, Jordan Valley, and Transjordan Mountains to the east, and the towering heights of Jebel Abu Amar to the north. Jagged bedrock punctuated the rugged terrain, making the southern approach the more practical course for ingress and egress in antiquity and modernity.

We failed to locate a permanent water source. Unless a source existed and it remains undetected, residents primarily depended on ubiquitous rock-hewn cisterns for water. Two springs likely supplemented the water needs of the population; one spring 1 km west of the settlement and the other 1.2 km northeast (*Geological Map* 2016).

Research History

The pantheon of pre-mandate explorers who documented the monastery include Edward Robinson, Charles Wilson, Claude Conder and Horatio Kitchner, William Thomson, Ernst Sellin, and Victor Guérin. Only Guérin ([1869] 1969, 57) noted the late Second Temple period ruins.

Over a century passed before Israel Finkelstein surveyed the site on December 13, 1981. He assigned site number 17-14/36/01 (Israel ref. Israel ref. no. 17378/14690) to the Late Hellenistic and Early Roman ruins (Finkelstein, Lederman, and Bunimovitz 1997, 519). The Bronze and Iron Age remnants received separate designations, but the Byzantine ecclesiastical complex remained undesignated. Finkelstein greatly underestimated the occupational boundaries of the Late Hellenistic and Early Roman khirbet. He estimated three dunams (ca. 0.3 ha; 0.74 acres) but ten dunams is more accurate (fig. I.1).

In 1994 Bryant Wood and Gary Byers, on behalf of the Associates for Biblical Research, investigated the site as the Ai of Joshua 7–8, an alternative to nearby et-Tell (fig. I.2). The following year, the archaeological staff officer of Judea and Samaria granted Wood an excavation license (no. 719). Excavations began May 20, 1995, and concluded January 5, 2017. Fifteen seasons of excavation spanned a 22-year period. The work ceased from 2001 to 2008 during and after the Second Intifada. In five of the last six years, winter sessions supplemented the summer sessions. I served as the director of excavations for the final three years of the project (license nos. 1275, 1303, and 1327).

During the years of excavation, we submitted reports annually to the archaeology staff officer of Judea and Samaria. The excavation team published peer-reviewed articles and preliminary reports in journals such as *Israel Exploration Journal* (*IEJ*), *Judea and Samaria Research Studies (JSRS)*, *Palestine Exploration Quarterly* (*PEQ*), the *Near East Archaeological Society Bulletin* (*NEASB*), *In the Highland's Depth* (*IHD*), and popular articles in periodicals such as *Qadmoniot*, *Artifax*, and *Bible and Spade*. Furthermore, staff members regularly presented findings at conferences and professional society meetings, including the American Schools of Oriental Research (ASOR), the Near East Archaeological Society (NEAS), the Asia Society, and In the Highland's Depth.

Identification of the Site

Bryant Wood (2008, 205–40) presents strong archaeological and geographical evidence to associate Khirbet el-Maqatir with biblical Ai of the Late Bronze Age, as do Stripling and Hassler (2018, 40–44). Et-tell, 0.6 km northeast of Khirbet el-Maqatir, enjoys universal acceptance as Ai of the patriarchal narratives (Gen 12–19) even though it appears to lack evidence of occupation at the time of the Israelite conquest and therefore may not be the Ai of the Late Bronze Age. The Associates for Biblical Research excavated the nearby sites of Khirbet Nisya (1979–2002) and Khirbet el-Maqatir (1995–2016) to explore alternate locations for the Ai of Joshua 7–8. The weight of evidence supports Khirbet el-Maqatir as the best candidate for Ai of the Late Bronze Age. Volume 1 deals with the Bronze Age and Iron Age ruins. The remains of the late

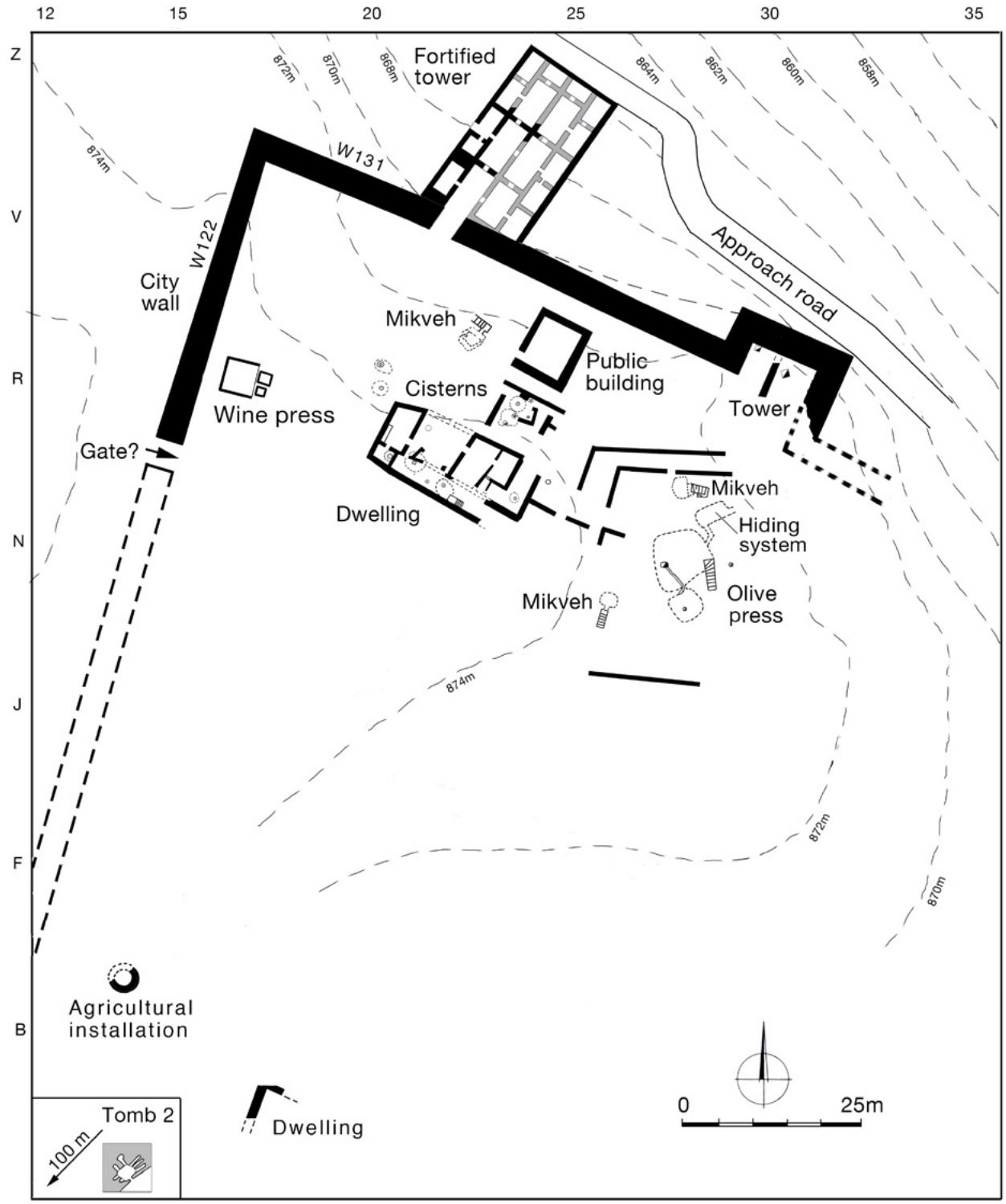


Figure I.1. Overview of the architectural remains of the town after excavation. Drawing by Leen Ritmeyer.

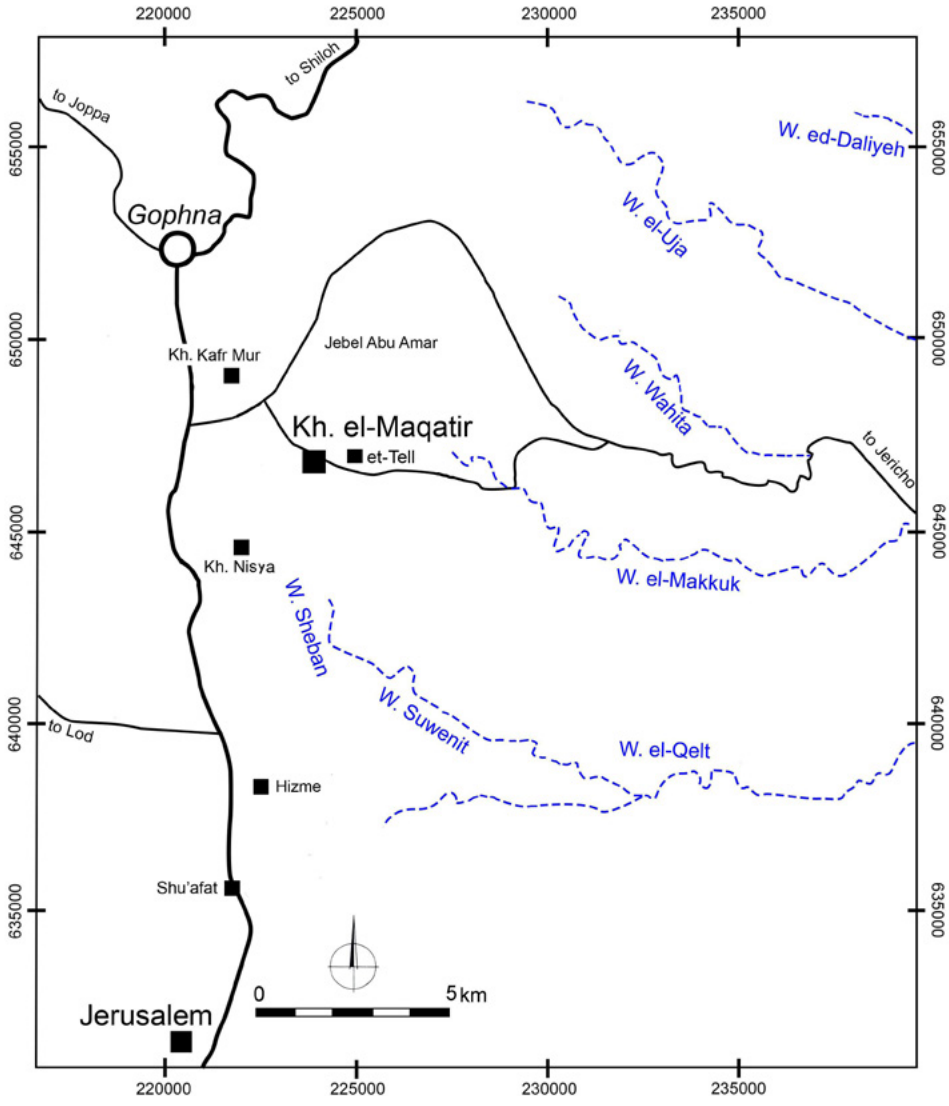


Figure I.2. Map of the region showing referenced sites.
Created by Dvir Raviv; edited by Steven Rudd.

Second Temple period town may pertain to Ephraim, mentioned in 2 Samuel 13:23, John 11:54, Josephus (*J.W.* 4.550–51), and 1 Maccabees 11:34.[1]

Excavation Goals

Our excavation goals evolved over time. In the early years, research focused on the unencumbered Bronze Age remains; little work was undertaken in the Late Hellenistic and Early Roman ruins. Before 2010, the team dug only two probes of the Late Hellenistic and Early Roman material. A section of the Late Hellenistic and Early Roman fortification wall was sectioned in 1998, and Square O25 underwent partial excavation in 1999. The unprotected Bronze Age remains proved to be in poor condition due to their proximity to the surface and periodic damage through plowing and probing. In hopes of revealing better-preserved Bronze Age remains beneath the heavy tumble of the late Second Temple period town, we excavated Squares Q20 and part of Q21 in 2010. The anticipated exposure of well-preserved Bronze Age remains occurred, thus the team opened adjacent squares in 2011 (P20 and P21). A wealth of Hasmonean, Herodian, and Early Roman pottery and coins resulted as well as a fenestrated wall, indicating the existence of a first-century house. Complete excavation of the courtyard-style house occurred over the next three seasons.

When I became the director of excavations in June 2013, the excavation of the Late Hellenistic and Early Roman village became the top priority, although important work continued in the Bronze Age and Iron Age sectors. Four goals guided the Late Hellenistic and Early Roman

[1] Stripling 2014, 88–94; 2015, 78; Peterson and Stripling 2017, 82*–83*. Aharonovich (2016, 94–95) embraces this hypothesis; Evans (2020, 6) and Wood (2018, 33) note its plausibility.

excavations: (1) improve understanding of the material culture, (2) elucidate the regional settlement pattern, (3) understand the major fortification system in light of similar fortifications in the Bethel Hills region, and (4) clarify daily life in the first centuries BCE and CE.

After achieving these goals, I brought the excavation to closure in January 2017. The first week of January was an extension of the 2016 campaign. Careful ceramic, numismatic, faunal, and architectural analyses yielded an accurate view of the material culture and daily life in the Bethel hills from the Hellenistic to Early Islamic periods. Khirbet el-Maqatir proved critical in understanding a regional settlement pattern, especially in the Early Roman period. For example, archaeologist Evgeny Aharonovich (2016, 94–95) posits that Khirbet Kfar Muir, Beitin, and Khirbet el-Maqatir (Ephraim?) formed a unified front resisting Vespasian's subjugation of the region in 69 CE. While similar to other fortification systems in Hasmonean and Herodian Judea, the Khirbet el-Maqatir tower dwarfed contemporary towers and may have served a critical role in the unified resistance suggested by Aharonovich.

Excavation Methods

Excavation methods followed the guidelines set forth in *Excavation Manual: Madaba Plains Project* by Larry Herr and Gary Christopherson (1998, rev. ed., ed. Philip R. Drey, Berrien Springs, MI: Andrews University Press).

Peter Briggs built the site grid that covered eight fields (Fields A–H). In 1995 surveyors engaged in building Route 60 graciously hiked to Khirbet el-Maqatir to provide the first benchmarks. Yaakov Ehrlich, a professional surveyor from nearby Ophrah, established the benchmarks and shot the targeted squares at the beginning of each season from 2009 to 2016 at no charge. Field B required northern expansion in 2014 in order to accommodate excavation of the large Herodian-era tower. Each square on the grid represents 6 × 6 meters (fig. I.3) as specified by the Madaba Plains protocols.

The nature of the heavy tumble and architectural remnants within the village proved impractical for the preservation of balks in many instances. When preserved, they represented the north and east 1 meter of the square. Not only was there nothing to *read* in the balks, but they were also unsafe for movement around the site. Furthermore, vandals often destroyed them. Vandalism also spoiled conservation and restoration efforts. Backfilling squares became the primary means of preservation.

In most instances, excavation reached bedrock. This method not only revealed myriad subterranean installations but also exposed the well-preserved Bronze and Iron Age strata beneath the Late Hellenistic and Early Roman strata. It resulted in a number of spectacular finds, including three Egyptian scarabs and a decapitated zoomorphic figurine.

Protocol adjustments resulted from efficiency gaps or the introduction of new technologies. We gradually refined our procedures for processing artifacts, such as pottery, coins, flints, and so forth. For example, we transitioned from manually drawing sherds for publication to scanning them digitally at the Hebrew University of Jerusalem.[2]

When the Israel Antiquities Authority lifted restrictions on the use of metal detectors at archaeological sites, I assigned a staff member to metal detect all the excavated loci and associated dump piles in the final five years of the expedition. This resulted in a tenfold increase in the recovery of coins and other metal objects over the previous seasons. Ellen Jackson's diligence in this regard proved especially helpful in recovering coins and other small objects. Numismatist Yoav Farhi also provided expertise in the recovery and identification of metal items.

Dry sifting in strategic areas, such as above and beneath floors and inside installations, yielded impressive results. Context determined whether a locus was dry sifted. The absence of water at Khirbet el-Maqatir limited our ability to extract certain data. Although wet sifting yields impressive results and narrows the percentage of archaeological small finds that are overlooked, it simply was impossible without water on site.

Likewise, seed flotation was not performed on sifted material. The meager paleobotanical remains that were recovered resulted from the careful excavation of the volunteers and supervisors. These were olive and date pits, along with grape and pomegranate seeds. Prior to 2016, all bones did not undergo systematic analysis. In 2016 we saved all excavated animal bones by locus to determine the animal economy of the residents. Excavators collected the bones by hand and deposited them in a labelled mesh bag. A zooarchaeologist labelled and classified each bone and prepared a comprehensive faunal report.

Furthermore, a drone captured aerial shots of the site and individual squares in the final three years of the excavation. During this same period, we converted databases from paper to digital formats, and I assigned a director of information technology.

[2] Ortal Haruch graciously facilitated this collaboration with Hebrew University.

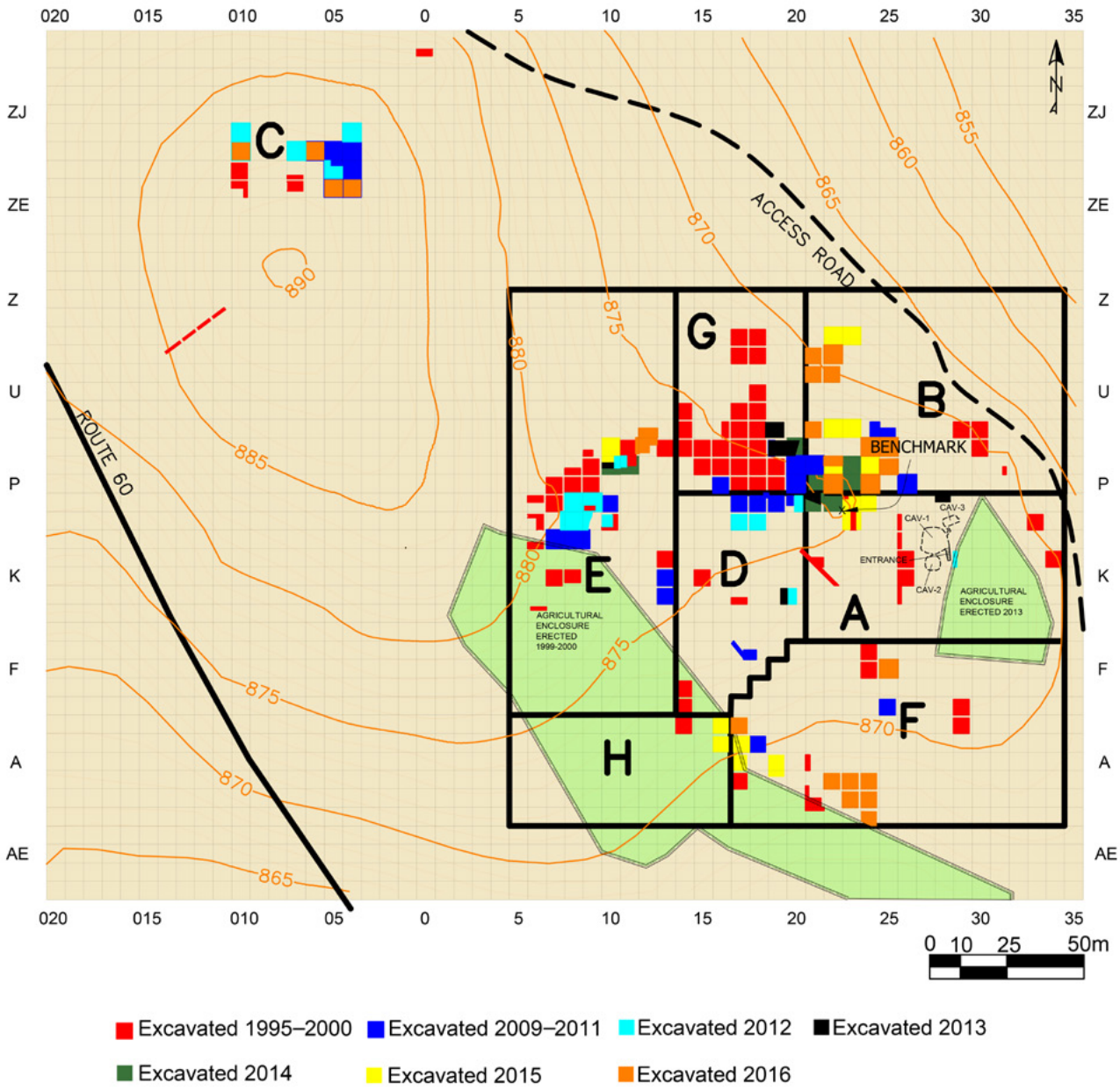


Figure I.3. Excavation site plan, 1995–2000 and 2009–2016. Benchmark elevation 876.27 meters at Square O23. Map reference 173.78, 146.93. Drawing by Jerry Taylor.

Preview of the Discoveries

Whereas volume 1 presents the Bronze Age and Iron Age discoveries, volume 2 focuses on the Late Hellenistic, Early Roman, and Byzantine periods (fig. I.4). Part 1 explains the site's stratigraphy and architecture. Seven strata came to light (chap. 1), five of which this volume covers. Chapters 2 and 3 document the Late Hellenistic and Early Roman civic architecture and military fortifications. Much of the building material for the late Second Temple period town was no doubt scavenged from the earlier fortress. This is especially true of the massive foundation stones in the Early Roman tower. The tower dwarfs contemporary towers in the southern Levant. Chapter 4 reveals Khirbet el-Maqatir's vast and fascinating subterranean world, including industrial caves, mikvaot, basements, silos, cisterns, and a hiding system used during both Jewish revolts against Rome. Perched on the hilltop, a coenobium-type Byzantine-era monastery likely commemorated the site's biblical connections (chap. 5). With the foundational phase dating to the fourth century, it is one of the oldest ecclesiastical structures in Palestine.

Part 2 explores the myriad small finds. Chapter 6 reveals the rich and varied numismatic corpus. This

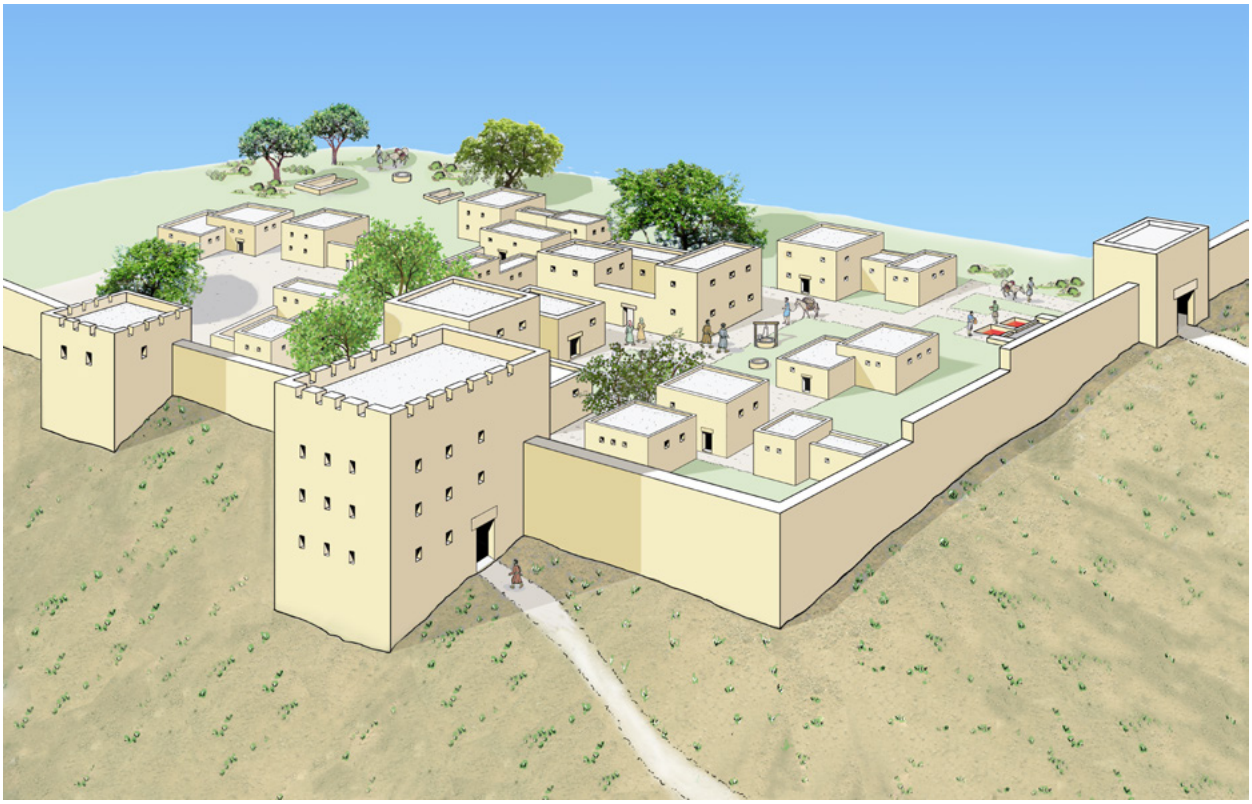


Figure I.4. Reconstruction of the town in the first century CE. Drawing by Leen Ritmeyer.

collection includes rare coins, reused coins, and early coins. All 1,322 coins were bronze, except seven. Chapter 7 catalogs the ceramic profile. With drawings generated by the scanners at Hebrew University, the plates lay out the evidence from clean and important loci. Chapter 8 classifies the chalkstone vessels from the Late Hellenistic and Early Roman periods. The corpus includes 169 pieces and five restored vessels. Petrographic analysis reveals the origin of the stone vessels. Chapter 9 deals with glass vessels, none of which survived whole. Chapter 10 explores the glyptic remains, which include an inscribed chancel post and a mysterious map (see cover), which reveals the blueprint of the late Second Temple period town. Chapters 11–13 expound on the jewelry, personal accessories, militaria, and general objects uncovered in the excavation. Finally, chapter 14 provides faunal analysis, revealing a shift in the focus of the animal economy over time.

Chronological Clarifications

Unless otherwise specified, I use 69 CE as the date of Vespasian's campaign north of Jerusalem which resulted in Khirbet el-Maqatir's destruction. I am aware that some scholars date this campaign to 68 CE. The ten coins from the third year of the First Jewish Revolt found at Khirbet el-Maqatir support the 69 CE date.

Likewise, scholars differ on the year in which the Bar Kokhba revolt ended. I use 135 CE, but I am aware that the revolt may not have ended until 136 CE. Explaining the arguments which support these chronological nuances lies outside purview of volume 2.

References

Aharonovich, Evgeny. 2016. "Khirbet Kefar Mur: A Jewish Settlement from the Second Temple Period on Mount Bethel and a Wall from the Time of the Great Revolt." [In Hebrew.] *In the Highland's Depth* 6:85–106.

Evans, Craig A. 2020. "The Testimony of Josephus (*J.W.* 4.317) and the Burial of Jesus." In *Defending the Historicity of the Resurrection of Jesus: Festschrift for Gary Habermas*, edited by Michael Licona, 1–16. Bellingham, WA: Lexham Press.

Finkelstein, Israel, Zvi Lederman, and Shlomo Bunimovitz, eds. 1997. *Highlands of Many Cultures: The Southern Samaria Survey; The Sites*. Vol. 2. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 14. Tel Aviv: Tel Aviv University Press.

Finkelstein, Israel, and Yitzhak Magen. 1993. *Archaeological Survey of the Hill Country of Benjamin*. Jerusalem: Israel Antiquities Authority.

Geological Map of Israel. Rev. ed. 2016. Ramallah, Sheet 8–IV, 1:50,000 scale. Jerusalem: Geological Survey of Israel. https://www.gov.il/BlobFolder/generalpage/ramallah-map/he/maps_Ramallah_2016.zip.

Guérin, Victor H. (1869) 1969. *Description géographique, historique et archéologique de la Palestine*. Vol. 1, *Judée*. Pt. 3. Reprint, Amsterdam: Oriental.

Peterson, Brian, and Scott Stripling. 2017. "Kh. el-Maqatir: A Fortified Settlement of the Late Second Temple Period on the Benjamin Plateau." *In the Highland's Depth* 7:61*–91*.

Stripling, Scott. 2014. "Have We Walked in the Footsteps of Jesus? Exciting New Possibilities at Khirbet el-Maqatir." *Bible and Spade*, Fall, 88–94.

Stripling, Scott. 2015. "Khirbet el-Maqatir: On the Benjamin-Ephraim Border." [In Hebrew.] *Qadmoniot* 150:78–83.

Stripling, Scott, and Mark Hassler. 2018. "The 'Problem' of Ai in Joshua 7–8: Solved after Nearly Forty Years of Excavation in the West Bank of Israel." *Bible and Spade*, Spring, 40–44.

Wood, Bryant G. 2008. "The Search for Joshua's Ai." In *Critical Issues in Early Israelite History*, edited by Richard S. Hess, Gerald A. Klingbeil, and Paul J. Ray Jr., 205–40. Winona Lake, IN: Eisenbrauns.

Wood, Bryant G. 2018. "The March to Jerusalem: Roman Brutality at Khirbet el-Maqatir." *Bible and Spade*, Spring, 32–37.

I. Stratigraphy and Architecture

1. Stratigraphy and Occupational History

Scott Stripling

Fifteen seasons of excavation over 22 years revealed seven identifiable strata at Khirbet el-Maqatir. The ruins lack the typical layering of a tell except in Square P22. In many cases modern vandalism and looting disturbed the unexcavated matrix, thus complicating stratigraphic analysis. Dates for the loci and strata derived from typological studies (ceramics, coins, and glass), glyptic analyses, scientific testing, architectural methods, and by observing the presence or absence of certain remnants, such as pig bones, limestone vessels, and eastern terra sigillata ware (table 1.1). Regional sites such as Khirbet Nisya, Khirbet Kafr Mur, and Shiloh yielded helpful parallels.[1] For example, the Khirbet el-Maqatir faunal assemblage closely matched the Shiloh faunal assemblage in the late Second Temple period. Ideology drove the carnivorous preferences of residents. Hence, Khirbet el-Maqatir's Strata 7, 2, and 1 contained significantly higher percentages of pig bones than Strata 6–3 when a Jewish population occupied the site. Generally, pig bones comprised approximately 1 percent of the animal bones in Jewish strata and about 4 percent in the non-Jewish strata. Thus, faunal analysis contributed to the identification of the transitions from Stratum 7 to 6 and from Stratum 3 to 2.

The first half of this chapter provides a general overview of the site's stratigraphy to help the reader understand the changes that occurred over time. The second half of the chapter presents a detailed analysis of Square P22 (and portions of adjacent squares), which contained the best-preserved stratigraphy at Khirbet el-Maqatir.

Stratification at Khirbet el-Maqatir

Stratum 7: Middle Bronze IIIA–Late Bronze IB, ca. 1650–1406 BCE
Abandonment phase, ca. 1406–1187 BCE
Stratum 6: Iron Age I–IIB, ca. 1187–701 BCE
Abandonment phase, ca. 586–290 BCE
Stratum 5: Early Hellenistic period, ca. 290–100 BCE
Stratum 4: Late Hellenistic and Early Roman periods, ca. 100–31 BCE
Stratum 3c: Earthquake to Herod Archelaus, ca. 31 BCE–10 CE
Stratum 3b: Early Roman period, ca. 10–69 CE
Stratum 3a: Intra-revolt and Bar Kokhba period, ca. 71–135 CE
Abandonment phase, ca. 135–370 CE
Stratum 2b: Early Byzantine period, ca. 370–485 CE
Stratum 2a: Late Byzantine period, ca. 485–636 CE
Stratum 1: Early Islamic period, ca. 636–749 CE

Volume 1 of *Khirbet el-Maqatir* covers Strata 7–6 (the Bronze and Iron Ages), whereas volume 2 mentions these periods only as a means of providing context for the later periods. The following discussion of Strata 5–1, the Early Hellenistic to the Early Islamic periods, summarizes the site's occupational history after the Iron Age.

Stratum 5: Early Hellenistic Period, ca. 290–100 BCE

Following an abandonment phase from approximately 586 BCE to about 290 BCE, a Jewish population resettled the site. The Babylonian invasion and subsequent captivity likely caused the abandonment.[2] A small but clearly identifiable amount of Early Hellenistic pottery and coins populated the site. In fact, the earliest coins dated to this time. The numismatic profile indicated increased activity during the reign of Antiochus III in the late-third century BCE and early second century BCE. The pertinent coins were as follows: 1 Yehizkiyah coin, 2 Ptolemy I coins, 2 Ptolemy II coins, 4 Ptolemy III coins, and 43 Antiochus III coins.

The silver Yehizkiyah coin (Catalog no. 1; cf. fig. 6.1) dated to the fourth century BCE. Its worn appearance indicated a long period of circulation, so it should not be interpreted uncritically as evidence of occupation at Khirbet el-Maqatir in the fourth century BCE. This comported well with the ceramic profile. Chapter 6 presents the numismatic finds, and chapter 7 presents the ceramic finds.

Some of the ubiquitous silos and cisterns (cf. chap. 4 and fig. 4.17) may date to Stratum 5, but whatever architecture existed from this period of resettlement did not survive, likely due to seismic events and later rebuilding.

[1] When appropriate, authors have cited parallels from more distant sites, such as Heshban, Magdala, Gamla, and Dora Europas.

[2] It is unclear if third-century BCE residents retained awareness of the ancient identification of the ruins upon which they built, possibly Ai of Joshua 7–8 and Ephron of 2 Chronicles 13:19 (Peterson and Stripling 2017, 82*–83*).

Table 1.1. Coins used for determining stratification

Stratum	Square	Locus	Coin no.[a]	Coin date
3c	P22	3	1092	ca. 23/22–12 BCE
			1116	5/6–10/11 CE
3b	O22	7	1164	54 CE
			1172	58/59 CE
			1198, 1199, 1201	67/68 CE
	P22	1	1162, 1163	54 CE
	R24	2	1171	58/59 CE
3a	CAV1	7	1242	93/94–195/196 CE
		10	1244	114–117 CE
		19	1243	112/113 CE
	CAV2	3	1245	134–135 CE
2b	ZF05	101	1266	Late 4th–5th cent. CE?
	ZG05	3	1252	383–395 CE
		6	1257	ca. 402 CE
		11	1273	Late 4th–5th cent. CE?
2a	ZH05	17	1278, 1279, 1295, 1296	ca. 450–550 CE
	ZH06	15	1301	539–541 CE
			1302	542–552 CE
			1303	552/553 or 562–564 CE
	ZH010	31	1276	ca. 450–550 CE
		35	1282	ca. 450–550 CE
	ZI04	8	1264	541–549 CE
1	ZF04	23	1305	708/709–749 CE

Source: Table by Kevin W. Larsen.
[a] cf. table 6.1.

Stratum 4: Late Hellenistic and Early Roman Periods, ca. 100–31 BCE

Stratum 4 represents an occupational period that encompassed the latter part of the Late Hellenistic period and the early part of the Early Roman period. The first clearly identifiable structures since the Iron Age appeared at Khirbet el-Maqatir in Stratum 4. Abundant pottery, coins, and glass filled this stratum. The floor of a large residential structure from Stratum 3 sealed several loci from Stratum 4. Chapter 2 provides details of this domicile. A complete pinched Hasmonean lamp (cf. fig. 7.1:20) came from just below the floor level (875 m), and by contrast, a Herodian lamp (cf. fig. 7.2:37) sat on the floor. Chalkstone vessels first appeared in Stratum 4. Chapter 8 covers the impressive chalkstone vessel assemblage from Khirbet el-Maqatir. Three or possibly four mikvaot, presented in chapter 4, dated to the first century BCE and reinforced the Jewish identity of the settlement. Two of these lay near an olive press cave—one to the north (Peterson and Stripling 2017, 71*) and the other to the south (Wood 2001, 254). This could indicate production of ritually pure oil for use in the Jerusalem temple (Adler 2008, 62–72). A coin (Catalog no. 46) recovered from the plaster of Mikvah 3 dated to Antiochus III (204–197 BCE). The coin's well-worn appearance indicated that it had likely circulated for generations prior to being encased in the plaster of Mikvah 3.

Stratum 3c: Earthquake to Herod Archelaus, ca. 31 BCE–10 CE

The large residential building (cf. fig. 2.8 for elevations), preserved to a height of 1.75 meters, required renovation in the Herodian period, perhaps as a result of earthquakes in 31 BCE and 27 BCE (Josephus, *Ant.* 15.121, 142; *J.W.* 1.371–77). As for the renovations, worked flagstones between Walls 114 and 116 intentionally blocked a doorway in Square O23. These walls also bore signs of reworking. The site may have been mostly abandoned for a year or two after the earthquake. Pottery, coins, glass, and chalkstone vessels populated Stratum 3c. Six coins of Herod Archelaus signaled the end of this stratum:

1. Catalog no. 1106 (Square O22, Locus 2, Pail 3, Elevation 875.48)
2. Catalog no. 1099 (Square N23, Locus 102, Pail 103, Elevation 874.63)
3. Catalog no. 1063 (Square O24, Locus 15, Pail 25, Elevation ca. 874.50)

4. Catalog no. 1098 (Square Q22, Locus 3, Pail 3, Elevation 874.61)
5. Catalog no. 1107 (Square 23, Locus 14, Pail 31, Elevation 868.72)
6. Catalog no. 1100 (Square O24, Locus 16, Pail 29, Elevation 874.21)

Stratum 3b: Early Roman Period, ca. 10–69 CE

The late Second Temple period town at Khirbet el-Maqatir reached its population apex in the first century CE. Inhabitants erected a substantial fortification wall (comprised of Walls 122 and 131 in the west and north, and possibly Walls 130 and/or 133 in the south) around the perimeter of the town. First century CE pottery from the fortification wall and the tower helped establish this date. The best-preserved portion was on the north (Wall 131 = 873.02 m) where it abutted the tower. The fortification wall averaged 1.5 meters wide, but it was wider and narrower in some places. On the west Wall 122 abutted the remains of the Bronze Age fortification wall (Wall 56). Excavation failed to reveal the Late Hellenistic and Early Roman gate complex. A Byzantine period agricultural clearing on the western fringes of the town and later architectural scavenging likely caused its destruction.

Seventy-five of the site's 1,322 coins dated to the first century CE, but prior to the First Jewish Revolt (66–70 CE) and are evenly distributed over the decades of the first century CE. However, 52 coins survived from year two of the uprising (April of 67 CE–March of 68 CE) and 10 coins from year three (April of 69 CE–May of 69 CE). This indicates a dramatic population increase or a hoarding of money from the spring of 67 CE to the summer of 69 CE. At that time Vespasian campaigned in the Bethel hills 10 miles (16 km) north of Jerusalem (Josephus, *J.W.* 4.550–51).

Similarly, the proliferation of pottery and glass indicated an increase in population. Builders abutted a massive tower (28 × 16 m) to the exterior of the northern fortification wall. Since the Pax Romana provided protection against foreign enemies, the possibility exists that the residents constructed the tower as part of the First Jewish Revolt, but this remains uncertain. Two Early Roman bodkin-tanged arrowheads survived in the tower, with one (Object 2425) embedded in the tower entrance. First Revolt period storage jars situated on bedrock further substantiated this date. The complex-courtyard house that was constructed in Stratum 4 and remodeled in Stratum 3c remained in use with various updating in Stratum 3b, as supported by the pottery on plates 7.3-9.

An olive press cave near the eastern edge of the site was situated between two mikvaot. A screw press and a beam press operated in the cave. Rebels in the First Jewish Revolt expanded and converted this system into a hiding complex (chap. 4). Excavation of the complex yielded eight disarticulated human skeletons. Carbon-14 dates from the skeletons and the tower synchronized with the other dating metrics, confirming a terminal date in the mid to late first century CE.

A classic kokhim-style tomb lay about one hundred meters south of the ruins on a scarp facing Route 60. Excavation of the tomb (Tomb 2; cf. fig. 4.1) yielded dental remains of 18 individuals.

Stratum 3a: Intra-revolt and Bar Kokhba Period, ca. 71–135 CE

After the year three Revolt coins, there is a gap in the numismatic sequence until a silver Trajan coin (Catalog no. 1244) dated to 117 CE, but likely lost during the Second Jewish Revolt. Early second-century CE pottery and a Bar Kokhba coin (Catalog no. 1245) indicated that rebels reused the First Revolt hiding complex in the Second Jewish Revolt. Chapter 4 presents a complete discussion. A very small amount of early second-century CE pottery came from the rest of the site, but 25 percent of the pottery from the hiding complex dated to the first third of the second century CE (cf. figs. 4.7–8). It appears that the occupation was largely limited to the hiding complex. It is also unclear how quickly residents returned to the town after its demise in approximately 69 CE. The only structure erected in Stratum 3a was a makeshift wall (cf. fig. 4.5) which blocked the entrance to the hiding system.

Stratum 2b: Early Byzantine Period, ca. 370–485 CE

After a hiatus of approximately 235 years in the occupational history of the site, building activity resumed at Khirbet el-Maqatir around 370 CE when Byzantine Christians established one of the earliest known churches in Palestine (chap. 5). This single-apse structure, oriented to the east, sat on a hill northwest of the late Second Temple period ruins at 890 meters above sea level. The new residents constructed terraces in the southern part of the first-century town for agricultural purposes, but apart from the occasional sherd, no evidence exists that the Byzantines occupied the earlier ruins. They did, however, scavenge the building material as evidenced by a possible ossuary fragment found in secondary use in the church. The badly damaged mosaics in the church failed to yield any inscriptions. Around 400 CE two additional apses were added, transforming the church into a triapsal form. In about 475 CE a monastery was added, which included an atrium and several rooms to the west of the church. The pottery assemblage reflects pottery forms which were common in the late-fourth and early-to-mid-fifth centuries CE.

Stratum 2a: Late Byzantine Period, ca. 485–636 CE

For unknown reasons, in the late-fifth century CE devotees rebuilt and significantly increased the

footprint of their ecclesiastical structure at Khirbet el-Maqatir. Rebels from the First Samaritan Revolt (484 CE) may have damaged or destroyed the earlier church. Such activity commonly occurred in the late-fifth- and sixth-century uprisings (Avi-Yonah 1956, 127–32). The monastic complex grew to the south, and an agricultural terrace to the north doubled the compound's size. Excavation revealed two distinct floors levels in the nave. The lower-level elevation was 888.02 while the upper level measured 888.17. Flagstone pavement replaced the earlier mosaic floor. In Squares ZFO4 and ZF05 this paving, elevation 889.11, formed a sealed locus which assisted in dating Stratum 2a. The pottery from Stratum 2a appears on plate 7.17. One recovered Corinthian capital in the nave revealed the type of columns that adorned the ecclesiastical complex (cf. fig. 5.12).

In a limestone kiln to the south, much of the stone from the earlier periods of occupation at Khirbet el-Maqatir was likely converted to lime for construction. Possible dates for the kiln range from the Byzantine to Ottoman periods. A large grain-silo on the western edge of the scarp likely dated to the Byzantine period.

Saint Euthemyus launched a monastic movement in the fifth century CE that ignited a surge in ecclesiastical construction in and near the Judean wilderness. Stratum 2a should be interpreted as part of this broader movement.

Stratum 1: Early Islamic Period, ca. 636–749 CE

The defeat of Heraclius and the Byzantine forces at the battle of the Yarmuk in 636 CE proved to be a watershed moment for the entire southern Levant. The shockwaves quickly reached the Benjamin hills. From the mid-seventh to the mid-eighth centuries CE, the ecclesiastical complex continued to function, albeit in a reduced capacity. A new wall (Wall 14) blocked the entrance, and only the western sector of the building remained in use. Excavation in this sector (Square ZI010, Locus 11, Pail 6) yielded a complete channel nozzle oil lamp (plate 7.20:13). It remained unclear if Christians or Muslims were responsible for this squatter occupation, but it seemed unlikely that Christians would block the entrance to a church.

Excavation in the late Second Temple period town yielded two gold Islamic coins and occasional sherds of glazed Islamic pottery. The great earthquake of 749 CE permanently terminated human settlement at Khirbet el-Maqatir.

Stratification in Square P22

Brian Peterson supervised the excavations in Squares P20–22 and helped make sense of the complex stratigraphy in those squares (Peterson 2017, 38–43; fig. 2.6). Square P22 encompassed a large dip in the bedrock with 3 meters of stratified remains, preserving all eight strata. Therefore, Square P22 merited a thorough analysis (fig. 1.1).

The remains of Strata 4 and 3 dominated the profile of Square P22. The remains included walls and floors (fig. 1.2). The ceramic and numismatic assemblages suggested construction and abandonment phases dating from both the Late Hellenistic and Early Roman periods. Paving surfaces covered fallen walls from the Late Hellenistic and Early Roman periods. For example, Walls 110 and 126 were razed to floor-level (874.86 m) and paved over with flagstones (875 m) in the early first century CE (Stratum 3c).[3] Wall 111, which has flagstones in a doorway situated on the northeastern end of the square, cuts through Wall 126. The later builders of Wall 111 (Stratum 3b) laid three foundation courses on the apparent earthquake destruction debris on top of Locus 3b and then filled in on each side of it with cobbles and miscellaneous fill as seen in Loci 3a and 10.

Walls 110 and 126 dated to the Late Hellenistic era and remained in use until either 64 BCE or 31 BCE when earthquakes hit the Jordan Valley and damaged sites in the Bethel hills. Evidence of raised floors with fill under them and wall modification also existed in adjacent squares to the west and east. Evidence of an earlier phase appeared in Locus 10 under the flagstone floor and in Locus 3a to the east of Wall 111. Extensive fill surrounded Walls 110 and 126 to support the flagstone floor. This fill contained some Late Hellenistic pottery and an abundance of Early Roman pottery. The two coins found among the stones on top of Wall 126 dated to Alexander Jannaeus (ca. 80 BCE). Loci 3a, 3b, and 10 contained the following coins: Alexander Jannaeus (14); Mattathias Antigonus, 40–37 BCE (1); Herod the Great, 37–4 BCE (1); and Augustus, 5–11 CE (1). Thus, the final occupational phase at Khirbet el-Maqatir, besides the ecclesiastical complex, dated to Stratum 3b (ca.10–69 CE). While some parts of the town appeared to have been rebuilt immediately after the 64 BCE earthquake, other parts were seemingly abandoned until several decades after the 31 BCE earthquake.

Ceramic evidence in Loci 3a and 10, the final phase of the town, indicated that it was not built until early in the first century CE. Numismatic finds supported this interpretation. Locus 1, the level above the flagstone floor, contained one coin of Antiochus IV (173–168 BCE), six of Alexander Jannaeus (104–80 BCE), two of Claudius (ca. 54 CE), and one Jewish Revolt coin dating to 68/69 CE. The three Roman-era coins along with first-century CE pottery indicated a period of occupation within the proposed span of 10–69 CE. The earlier coins likely remained in circulation well into the Early Roman period.

[3] The Appendix provides the wall elevations.

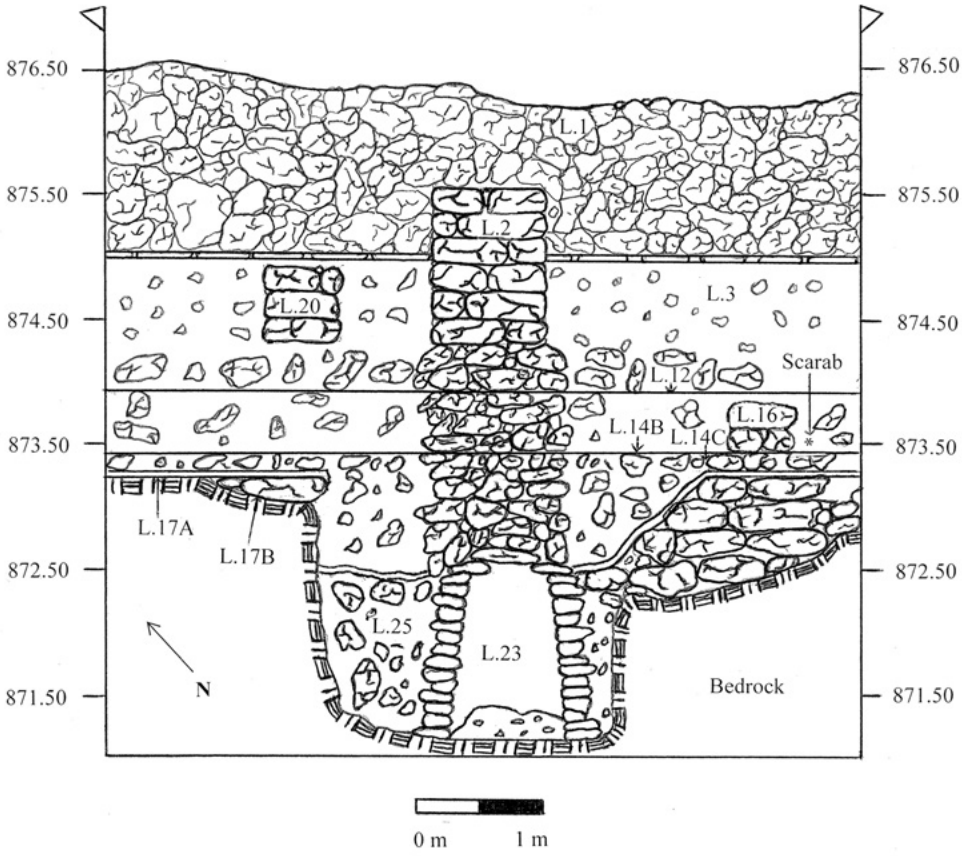


Figure 1.1 Cross section of Square P22. Drawing by Brian N. Peterson.

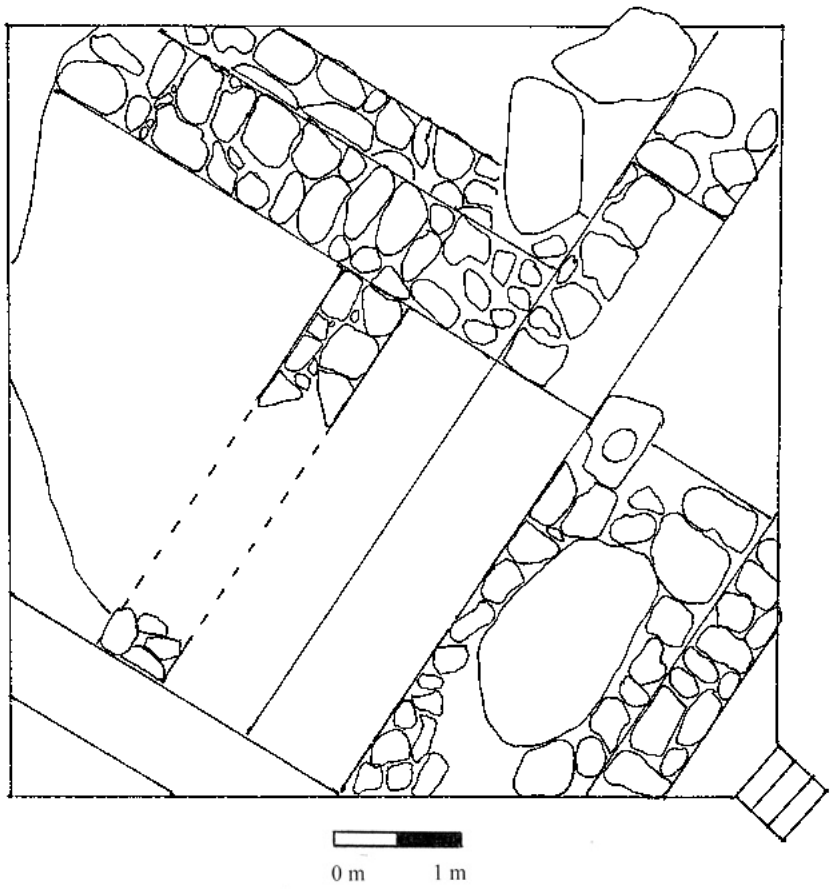


Figure 1.2 Top plan of Square P22. Drawing by Brian N. Peterson and Steven Rudd.

Evidence pointed to continuous occupation throughout the Hellenistic period (ca. 290–64 BCE). Residents, however, built Wall 126 around the time of Pompey's arrival in 63 BCE. Wall 126 sat atop a wider and earlier wall (Wall 127).

Wall 127 was approximately 0.5 meter wider than Wall 126 (fig. 1.2). Wall 127 may have been part of the inner face of the Bronze Age exterior fortification wall, which Hellenistic and Iron Age builders incorporated into their structures. Locus 9 rested immediately above Locus 11 and beside Wall 126. Coins from Locus 9 represented the following rulers: Antiochus III, 204–197 BCE (2); Antiochus IV or Demetrius I, approximately 173/2–150 BCE (1); and Alexander Jannaeus (3).

Finally, along with Wall 126 under the flagstone floor was Wall 110, which abutted Wall 126 but sat on fill just below Locus 10. Wall 110, therefore, dated to a period after the reign of Alexander Jannaeus. Because Wall 110 was built on material above the bottom level of Wall 126, it may have been part of the rebuild during the period between the two earthquakes of 64 and 31 BCE.

The stratification was even more detailed on the east side of Wall 111 due to the depth of the excavation. Locus 3 lay below Locus 1 and measured 1.1 meters. Locus 3 separated into Loci 3a and 3b based upon the likely Late Hellenistic floor level (ca. 874.30 m) on both sides of Wall 111. The remains below the floor level represent Stratum 4. Locus 3a, like Locus 10 on the west side of Wall 111, consisted of cobble fill (ca. 0.7 m in depth) placed around the remainder of the earlier Hellenistic walls and destruction debris after the 31 BCE earthquake when this portion of P22 was rebuilt in approximately 11 CE (Stratum 3b). Locus 3b designated the leveled earthquake debris (ca. 0.4 m thick) and floor line (ca. 874.30 m) after the 64 BCE earthquake. The floor line of Locus 3b functioned only in the decades between the earthquakes. This supported the theory that Wall 110, to the west of Wall 111, was a part of that reconstruction after the 64 BCE earthquake. The bottom elevation of Wall 110 (874.30 m) matched the elevation of the floor line of Locus 3b.

Below Locus 3b lay a packed matrix (Locus 12) of smaller cobble that seemed to be a floor about 0.12 meter thick. Locus 12 contained Alexander Jannaeus coins (3) and a coin of Antiochus III (204–197 BCE). An earring (Object 2205) and a piece of glass (Object 2035) rested on this surface. This room was associated with Wall 126 on the west side of Wall 111 before Wall 111 was constructed, sometime after 11 CE. Locus 12 thus represented the Late Hellenistic occupational period (Stratum 4) prior to the destruction in 64 BCE (fig. 1.2). Locus 3b revealed that the town was immediately rebuilt in approximately 63 BCE.

References

Adler, Yonatan. 2008. "Second Temple Ritual Baths Adjacent to Agricultural Installations: The Archaeological Evidence in Light of the Halakhic Sources." *Journal of Jewish Studies* 59, no. 1 (Spring): 62–72.

Avi-Yonah, Michael. 1956. "The Samaritan Revolts against the Byzantine Empire." [In Hebrew] *Eretz Israel* 4:127–32.

Peterson, Brian. 2017. "The Stratification of Tel Maqatir." *Bible and Spade*, Spring, 38–43.

Peterson, Brian, and Scott Stripling. 2017. "Kh. el-Maqatir: A Fortified Settlement of the Late Second Temple Period on the Benjamin Plateau." *In the Highland's Depth* 7:61*–91*.

Wood, Bryant G. 2001. "Khirbet el-Maqatir, 2000." *Israel Exploration Journal* 51 (2): 246–57.

2. Late Hellenistic and Early Roman Architecture

Brian N. Peterson

Excavations of the first-century town—mostly located within Fields A and B at Khirbet el-Maqatir—began almost from the outset in the year 1995 (figs. 2.1–3). Excavations of select squares, a silo, and a single-chamber kokhim tomb in May 2000 revealed clear evidence that the town dated to the first century (Wood 2001, 50–52). More extensive excavations, which began in 2010 and intensified from 2011 until excavations at the site ended in January 2017, further supported the original view that the last period of extensive settlement on the eastern portion of the site dated to the first century CE (Stratum 3b).

Numismatic and ceramic evidence also revealed that the town was occupied somewhat continuously from the Hasmonean period until its final destruction in 68/69 CE (Strata 5–3b). In light of the northern tower described in chapter 3, it is safe to assume that the town's fortifications resemble others in the province of Syria, such as Yodfat and Gamla during the First Jewish Revolt (Aviam 1999, 93, 95; Yavor 2010, 15–16). Aharonovich (2016, 95, 98) sees Khirbet Kfar Mur, Beitin, and Khirbet el-Maqatir as a triad of small towns that served as a line of defense against the approaching Roman army led by Vespasian. The destruction and general abandonment of Khirbet el-Maqatir reflects the might of the Roman Tenth Legion in 68/69 CE on their way to Jerusalem. The site may have also garrisoned Roman troops after its capture. This is especially likely if Khirbet el-Maqatir can be identified with Ephraim (see pp. 1-2 of this volume). Finally, even though excavations revealed evidence pointing to a brief occupation before and during the Bar Kokhba revolt (Stratum 3a)—at least in the case of the underground hiding system (see chap. 4)—the last occupational period ended in 68/69 CE congruent with Stratum 3b.

One issue related to dating the site was the mixed stratigraphy of the Late Hellenistic (Stratum 4) and Early Roman periods (Strata 3c–b). Many walls from the earlier periods (usually only one row of wall stones remained) served as foundations for later walls,



Figure 2.1. Khirbet el-Maqatir looking west-southwest and showing three of the occupational periods. Photograph by Michael C. Luddeni.



Figure 2.2. Second Temple period ruins of Khirbet el-Maqatir, looking east. Photograph by Todd Bolen.

something common in most multi-period sites. This was particularly the case on the eastern side of the settlement. In light of this reality, buildings and rooms related to the terminal period were sometimes unclear.

The Layout of the Town

The exact layout of the town remains unknown due to incomplete excavations, vandalism, and agricultural encroachment. Figure 2.4 shows the town's apparent plan. This plan resembles an etching of the town's layout on a rock outcropping (fig. 2.5). The image (Object 2572) clearly shows what appears to be an L-shaped design to the walls along with two or three buildings. The orientation of the map cannot be determined, but it does appear to show the town prior to the addition of the tower complex during the Early Roman era (fig. 2.7). If the rock etching was in fact a town map, then it proves that the earlier Hasmonean-era town of Stratum 4 lacked the large tower. This theory was strengthened in 2016 by excavations at the intersection of the tower with the city wall (Wall 131) on the western side of the tower. The typical unhewn boulder-and-chink construction of the tower walls did not interlock with the northern city-wall (Wall 131), which proved that the tower was added later (Peterson and Stripling 2017, 65*–68*).

The Construction Techniques

The excavated buildings showed signs of similar construction techniques. As was typical of home construction in the highlands, fieldstones of various sizes were the building material of choice due to their availability (Reich 1992, 1, 5; cf. Gen 11:3). Exterior walls of buildings ranged in thickness from 1.0 to 1.2 meters. On the other hand, interior walls ranged from 0.5 to 0.8 meters in thickness and varied between single-stone-wide walls and walls made from a double row of interlocking stones in a header and stretcher style. Masons used the typical boulder-and-chink method. The walls rested on bedrock. One exception was an Early Roman wall (Wall 111, Stratum 3b) in Square P22 which was built over earlier destruction levels due to a deep dip in the bedrock (fig. 2.6; Peterson 2017, 38–43; Stripling et al. 2017, 190–94, esp. 191). Gamla's builders used the same construction methods (Yavor 2010b, 153).

In most cases walls consisted of large and interlocking cornerstones (many unworked) with smaller fieldstones placed in header-and-stretcher format between these set points. Cobblestones filled the voids between the interlocking fieldstones, and *debesh* served as mortar. Despite the lack of evidence, a thin mud-based plaster

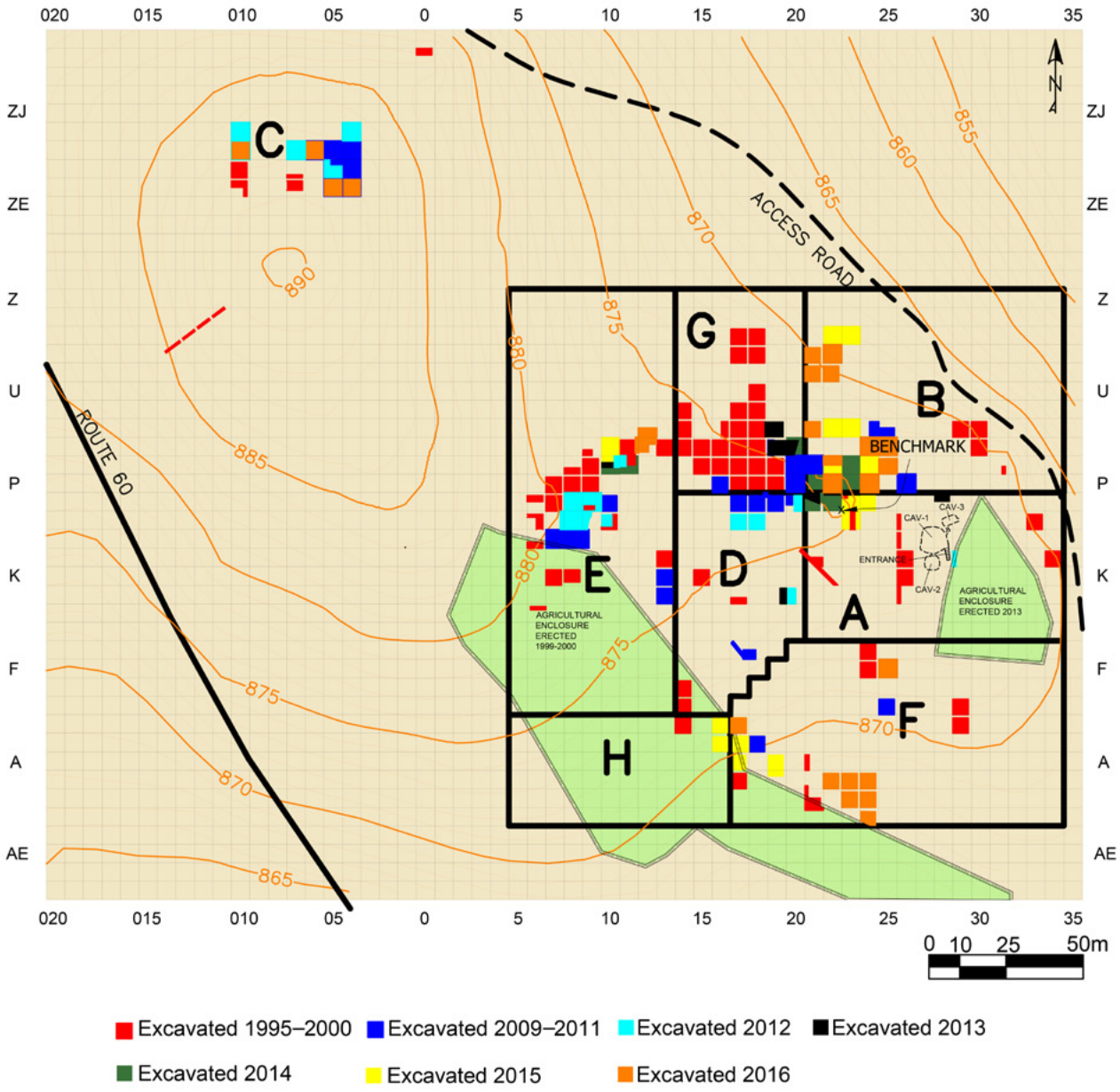


Figure 2.3. Excavation squares, 1995–2000 and 2009–2016. Benchmark elevation 876.27 meters at Square O23. Map reference 173.78, 146.93. Drawing by Jerry Taylor.

likely sealed the walls from unwanted moisture and improved the aesthetics.[1]

Some of the tallest walls excavated at Khirbet el-Maqatir belonged to the Stratum 3b courtyard house (figs. 2.7–9; Walls 101, 103, and 104).[2] A fenestrated wall along with its bounding wall on the east remained intact to just over 1.5 meters (fig. 2.10). Another series of well-preserved walls, from Stratum 3c or earlier, survived in the northern tower's intersection with Wall 131. The walls closest to Wall 131 survived to over 2 meters. The excellent preservation can be attributed to two factors. First, builders used many stones in their construction of homes especially those with multiple stories. When the walls collapsed, they formed a large rock pile preserving the walls underneath. Second, the large stone piles from the destruction apparently encouraged later farmers to discard unwanted fieldstones there, creating even larger piles.

[1] Byers, Stripling, and Wood 2016, 81*; Hirschfeld 1995, 226; Homsher 2012, 2–3; Peterson 2015, 94–95.
[2] The house may be better identified as a *complex-courtyard* house as defined by Hirschfeld (1995, 22).

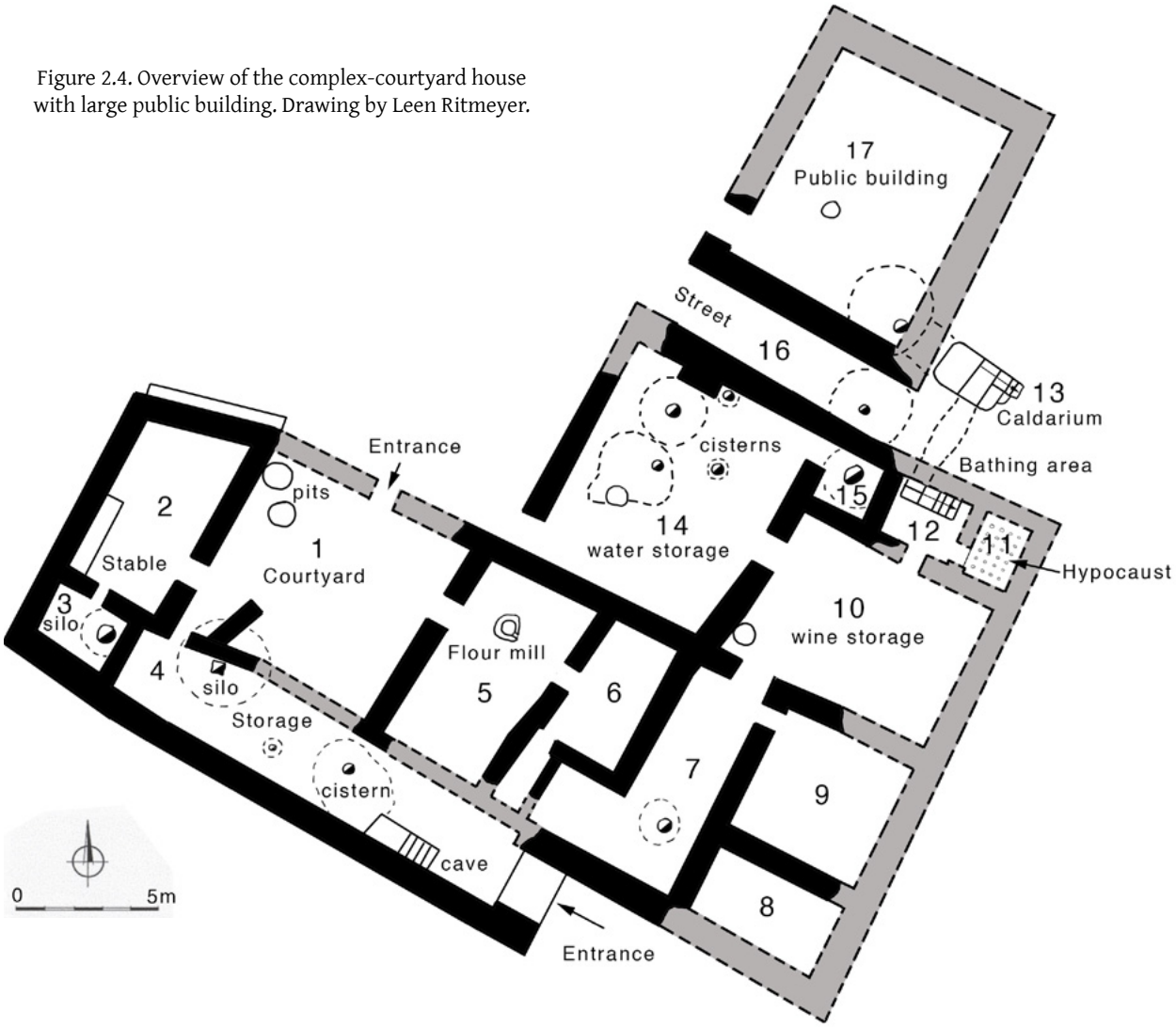


Figure 2.4. Overview of the complex-courtyard house with large public building. Drawing by Leen Ritmeyer.



Figure 2.5. Stone etching of the town before the tower's addition. Photograph by Michael C. Luddeni.

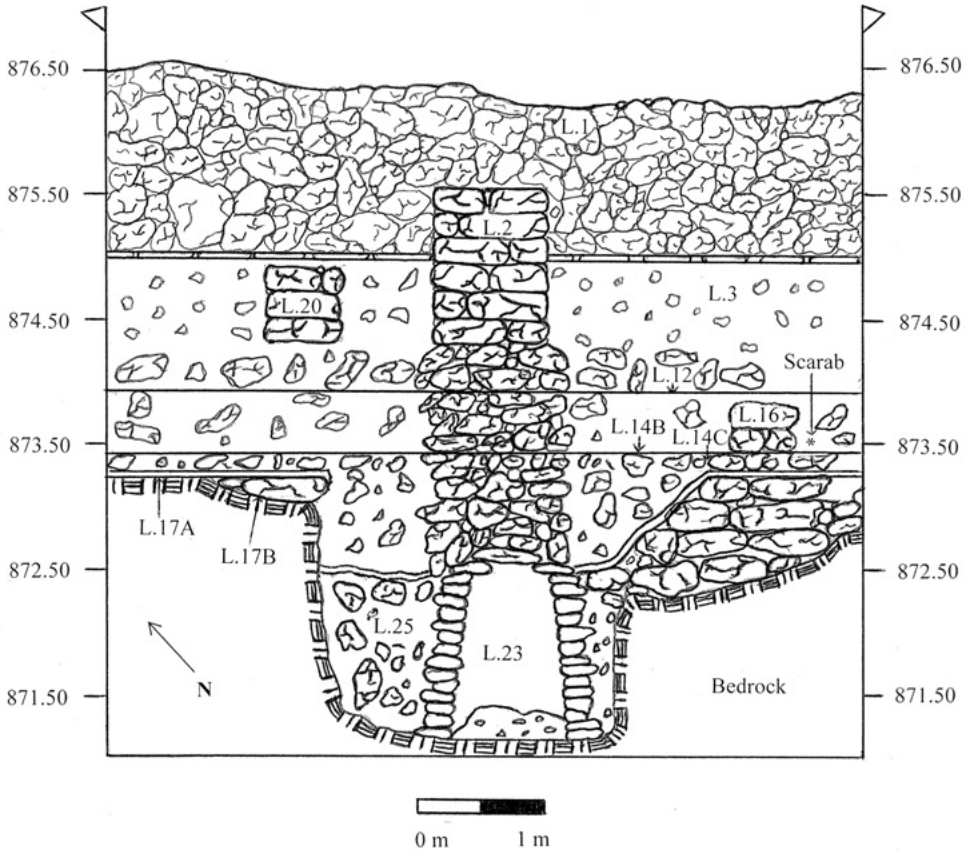


Figure 2.6. Cross section of Square P22 with Early Roman-era wall built atop earlier destruction levels. Drawing by Brian N. Peterson.

Apart from numismatic and ceramic evidence, a fenestrated wall in Square P20 helped date the town. Fenestrated walls, typical of the Early Roman period, are found throughout the region at sites such as Capernaum, Gamla, Hauran, Golan, Galilee, the Mount Carmel area, the Hebron Hills, and the Negev.[3]

Although excavations revealed no intact windows, the doorways that were found were framed with hammered (semi-worked) fieldstones or worked stone jambs similar to Gamla (2010b, 154). Excavations revealed two door jambs and windowsills (fig. 2.11) along with one in-situ threshold made of hard limestone similar to the *mizzi yahudi* stone used elsewhere in the region (Peterson 2015, 91; cf. Taxel and Feldstein 2006, fig. 2).

Ceilings (roofs) and floors varied throughout the town. Some floors had flagstone paving (figs. 2.12–13) similar to Gamla and Shiloh (some Roman-era rooms at Shiloh attest stone and pebble floors), while others used beaten mud like at Magdala.[4] The dirt floors were hard to identify due to the damage created by falling debris (cf. Yavor 2010b, 155). Flat roofs used the wattle-and-daub style, whereas pitched rafters had roofing tiles as possibly attested by the finds at Khirbet ʻEleq.[5] Excavations yielded a dozen tiles from a pre-70 CE context.[6]

As figures 2.4 and 2.8 show, many rooms in the courtyard house and the surrounding buildings included silos, cisterns, and pits. Some of them may date to earlier periods, such as the Iron-Age silo in Square P22 (fig. 2.6, Locus 23). Most, however, were in use from the Hasmonean period onward (Strata 5–3b). In some cases, the silos were sealed so the rooms could be repurposed. This seems to have been the case with the silo in Room 3 (figs. 2.4, 2.12) with the fenestrated wall.

[3] Byers, Stripling, and Wood 2016, 84*; cf. Stager 1985, 14; Corbo 1975, 184, 193; Peterson 2015, 94. Byers also notes Hirschfeld (1995, 68–72, 267–68; figs. 43, 44, 195, 196), Yavor (2010, 34–35, fig. 2.24, 79–80), Yavor (2010b, 154), and Magness (2011, 14, fig. 21).

[4] Gamla: Yavor 2010, 110, fig. 2.138; Yavor 2010b, 154–55; Syon and Yavor 2005, 40; Magdala: Zapata-Meza et al. 2018, 100. Shiloh: Finkelstein 1993, 63.

[5] Wattle and daub: Hirschfeld 1995, 237–39; Magness 2011, 13; Peterson 2015, 95–96; Byers, Stripling, and Wood 2016, 82*. Roofing tiles: Hirschfeld 2000, 320–21, figs. 202–3.

[6] Luke 5:19 refers to a first-century CE house with a ceramic tile roof.

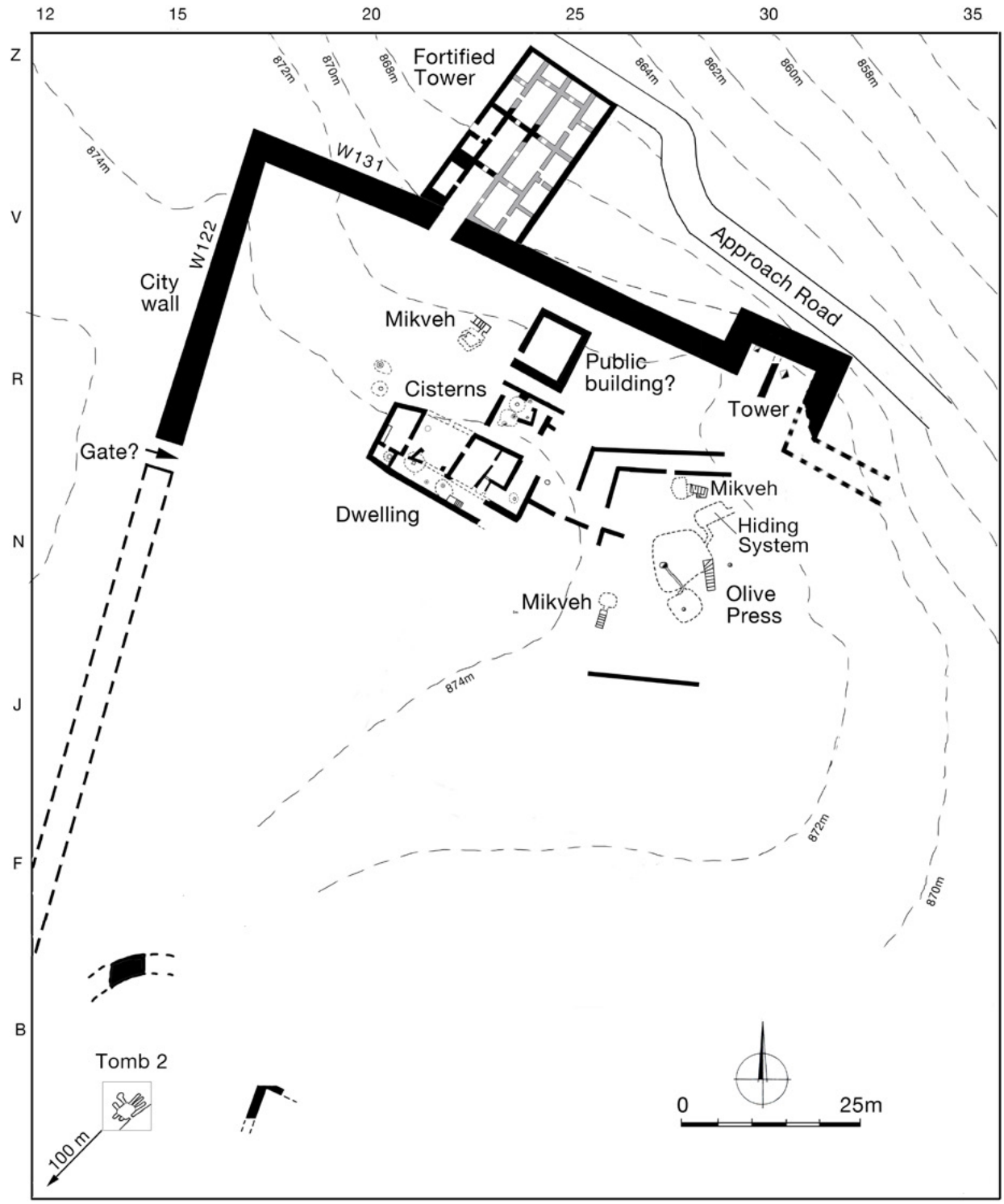


Figure 2.7. Overview of the town showing the tower. Drawing by Leen Ritmeyer.

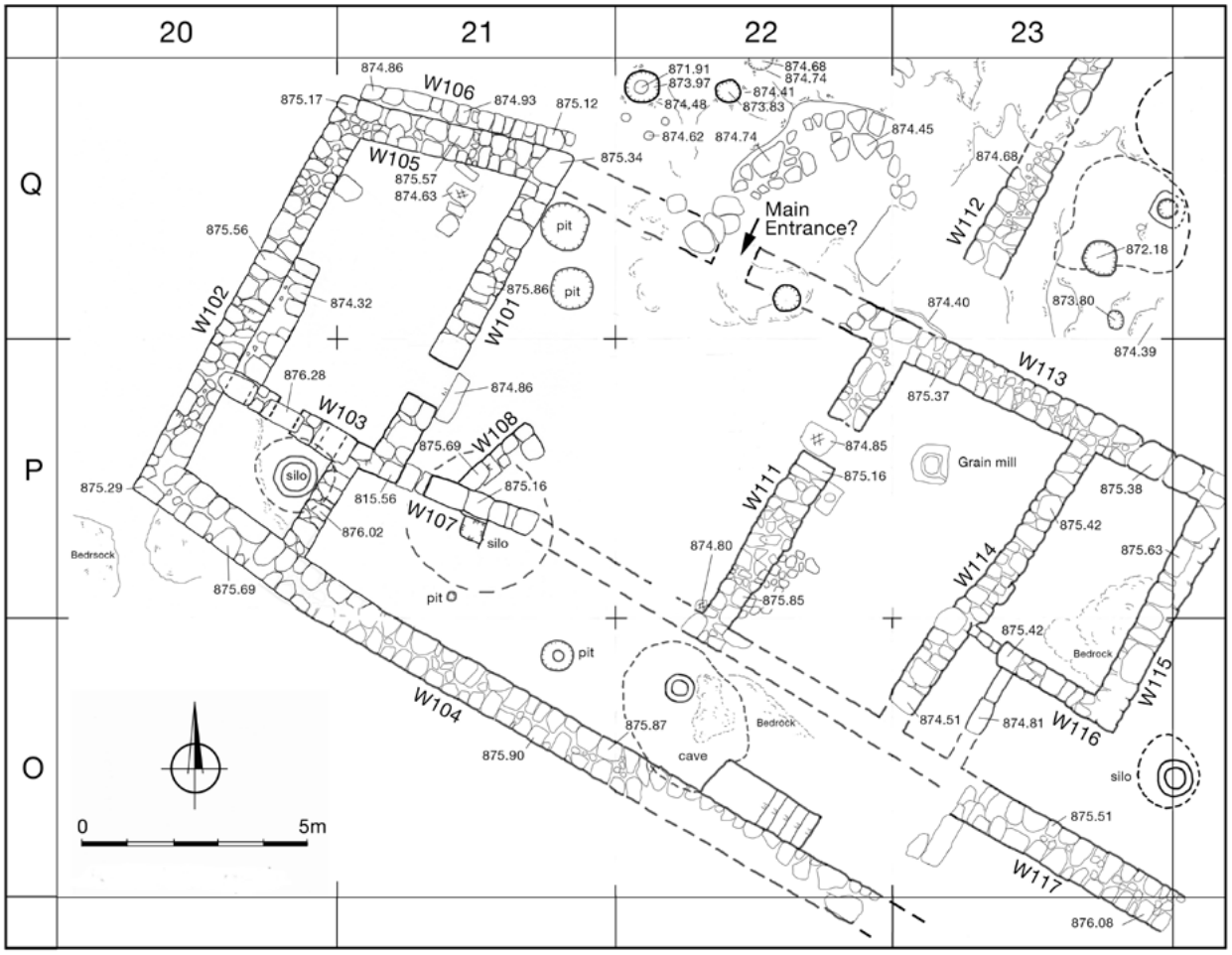


Figure 2.8. Overview of the complex-courtyard house. Drawing by Leen Ritmeyer.

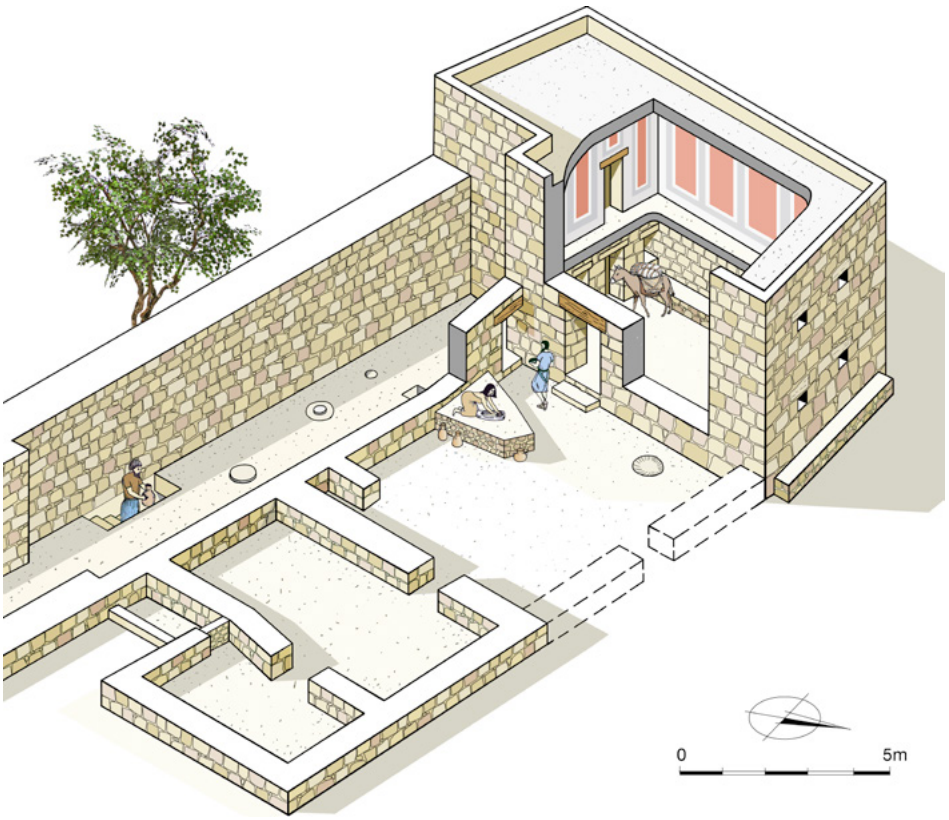


Figure 2.9. A reconstruction of the first-century house, Squares O21–22, P20–22, and Q21. Drawing by Leen Ritmeyer.



Figure 2.10. Intact fenestrated wall preserved to over 1.5 meter in Square P20. Photograph by Michael C. Luddeni.



Figure 2.11. Door or windowsill and threshold in situ in Square O24 with windowsill lying partially exposed 1 meter to the right of the threshold. Photograph by Suzanne Lattimer.



Figure 2.12. Flagstone floor (Locus 15) in Room 3 of Square P20 southwest corner of the complex-courtyard house. Photograph by Michael C. Luddeni.

The Buildings

Initial publications detailed the courtyard house through the 2011 season (Byers, Stripling, and Wood 2016, 80*–88*). Five additional seasons of labor in the eastern portion of Khirbet el-Maqatir revealed more structures from the late Second Temple period. Ceramic and numismatic evidence helped date these buildings. The finds confirmed the last period of significant occupation: the First Jewish Revolt. The courtyard house stood out as the most impressive building (figs. 2.8–9, and 2.4).[7]



Figure 2.13. In-situ socket stone (*lower left*) and flagstones (*center*) in the doorway of Room 5, looking west. Note the razed Wall 126 (*center top*). Photograph by Brian N. Peterson.

Room 1

This room served as the central unroofed courtyard for the house bounded by Rooms 2, 4, and 5. It measured approximately 7.5 × 7.0 meters. The main reason for identifying Room 1 as the courtyard is that an in-situ threshold stone was found at the opening to Room 2 in Wall 101 as well as a definable step into Room 4, which would make the courtyard elevation lower than the rooms. And a raised work-area sat just outside of the doorway to Room 4 (fig. 2.9). Figures 2.8–9 and 2.4 show the reconstructed wall which likely enclosed the courtyard. This wall may have been a continuation of Wall 113 that joined Wall 105. It seems to have been destroyed in antiquity or by modern vandals.

Two pits were situated on the western side of the courtyard near Wall 101 (fig. 2.8; for pits see Yavor 2010b, 155; Aharonovich 2016, 90; and Zapata-Meza et al. 2018, 90). The one farthest north was abandoned before it was completed; whereas, the one south of it was completed and perfectly bowl-shaped, about 0.5 meters deep and approximately 1 meter in diameter. Both pits were devoid of dateable artifacts. The presence of terra-cotta colored clay next to Wall 101 hints that the pit may have been used for mixing clay for pottery making. It is also possible that these pits may have been from an earlier period and the central courtyard of the first century CE may have been covered with flagstones, typical of this period. This possibility is bolstered by the fact that two earlier walls in Square P22 (Walls 110 and 126) appear to have been razed to below the courtyard floor-levels. The fill around these razed walls and under the later floor was rich in Late Hellenistic and Early Roman pottery.[8] The razed walls date before 68/69 CE to an earlier phase (perhaps Stratum 3c or before) in the late Second Temple period. Two Alexander Jannaeus coins in the middle of razed Wall 126 may bolster this interpretation (Catalog nos. 959 and 190). The doorway of Wall 111 had five in-situ flagstones averaging 0.3–0.5 meters square (fig. 2.13). These likely served as a floor that covered the remains of earlier Walls 110 and 126, which were only a few centimeters below the later floor line. Magdala showed a similar stratification (Zapata-Meza et al. 2018, 97). The elevation of these flagstones matched the elevation of the in-situ threshold stone for Room 2 (fig. 2.8).

Room 2

This room was just north of the Room 3. Room 2 measured 3.5 × 7.0 meters with a doorway in the southeast portion of Wall 101 (fig. 2.8). The room shows signs of being repurposed in the Hasmonean period (Strata 5 or 4) or later. Although omitted from the top plan (fig. 2.8), in the northwest corner of Wall 102 where it meets Wall 105, there was a 1.5-meter section of wall that was about 10 cm narrower than the rest of the wall. This appears to have been an earlier opening used in the first century BCE (Stratum 4) or during the early first century CE (Stratum 3c). The room may have been used for a dwelling or for holding animals as a stable. Animal urine and fecal matter might explain why most

[7] Parallels: Hirschfeld 1995, 57; Horowitz 1980, 107–12; Strange, Longstaff, and Groh 2006, 71–122, esp. 72–74.

[8] This same phenomenon is attested Khirbet Kfar Mur where Aharonovich (2016, 90) identified several floor-levels representing multiple Early Roman phases. Segal (2008) documents a similar pattern at Tel Ishqaf.



Figure 2.14. Early Roman cooking pot in situ in Room 2. Photograph by Brian N. Peterson.

of the coins found just below floor level were heavily corroded. Late Second Temple period coins populated this area. Later, perhaps after the well-attested earthquake of 31 BCE (cf. Josephus, *Antiquities* 15.121, 142; *Jewish War* 1.371–77), the room was incorporated into the courtyard house, and the fenestrated wall (Wall 103) was added to make a perhaps smaller stable area. Most of the pottery in this room dated to the Early Roman period.

In the southwestern part of the room abutting Wall 102 was what appeared to be a low narrow bench 0.5 meters high and about 3 meters long, like those found at Sepphoris (Strange, Longstaff, and Groh 2006, 75). Removal of this bench revealed an in-situ Early Roman cook pot (Type CP 3; see fig. 7.2:24) in a depression in the ground used for storage (fig. 2.14).[9] It is possible that the bench was added later or was part of the collapsed Wall 102 and only looked like a bench. Similarly, on the outside (north) of Wall 105, a secondary wall (Wall 106) was only a couple of rows of stones in height and built directly against Wall 105. This too may have been a bench possibly facing a street or walkway to the north (cf. Zapata-Meza et al. 2018, 97).

The floor of Room 2 consisted of beaten earth. The doorway had an in-situ threshold stone outside the room in the courtyard area and an in-situ socket stone inside, on the south side of the opening which indicated an in-swinging door. The doorway's lintel stone lay in the courtyard. Room 2 was the approximate span for a flat wattle-and-daub roof with free-spanning supporting beams.[10] This building likely had two stories as figure 2.9 depicts.

Room 3

Room 3 in the courtyard house measured roughly 2 × 3 meters inside and had a flagstone floor. The coins on and under the floor (Square P20, Locus 15) in this area date to the first century BCE, but the coins and pottery point to the first century CE (see chaps. 6 and 7). Given the long circulation of coins, it is likely that the coins remained in circulation at the same time as the later pottery. Thus, the floor dates to the Early Roman period of Stratum 3b. A silo in the northeast corner of the room contained coins (Catalog nos. 1201 and 1204) dating to the period contemporaneous with the flagstone floor. The latest coin (Catalog no. 1239) dated to the third year of the First Jewish Revolt. A large flat stone sealed the top of the silo. This cover was found broken and inside of the silo. A fenestrated wall (Wall 103) divided Rooms 2 and 3 (fig. 2.10).

Room 4

Room 4, east of Room 3, measured 3.5–4.0 meters in width and was over 20 meters in length. The room had a silo (Square P21, Locus 10) and a unique underground room to the east in Square O22 (Loci 5 and 11). The underground room included well-hewn stairs and an arched entrance (fig. 2.4; see chap. 4). A coin of Nero found on the stairs pointed to a first-century CE date (ca. 58/59 CE; Catalog no. 1172). Coins from the First Jewish Revolt (Catalog nos. 1193 and 1209) and the Hasmonean period came from within this subterranean room. While it might have been an elaborate cistern commensurate with that found at Magdala (Zapata-Meza et al. 2018, 90), it more likely served as a basement. Several triangular oil lamp niches, typical of the late Second Temple period, pocked the walls.

The far eastern end of Room 4 likely had another opening (fig. 2.4). However, while the current plans show one long room in antiquity there may have been intermediate walls subdividing this larger room. Before the room was completely excavated and the details of each room could be confirmed, modern vandals destroyed any possible evidence of intermediate walls. Some fragments of door jambs and sills were found after the vandalism.

Geometric pavers were discovered in the western sector of the room close to the dividing wall between Rooms 3 and 4. Under the floor (Square P21, Locus 3), two Early Roman glass beakers with 34 coins strewn around them came to light (Peterson and Stripling

[9] This type of cooking pot has been found at numerous sites dating to the Early Roman period (Zapata-Meza et al. 2018, 103–4, fig. 14:5–6; cf. Fischer 2012, 29, fig. 2.29). Based on discovery of these pots at Kefar Ḥananya, Magdala, Gamla, Capernaum, Jerusalem, and Masada the date ranges from the mid-first century BCE to the mid-second century CE.

[10] Byers, Stripling, and Wood 2016, 82*–83*; Reich 1992, 10; Netzer 1992, 24; Peterson 2015, 95–96.

2017, 76*–78*). Several parallels exist for the beakers.[11] The coins dated to the Early Roman period; more than half of them dated to years two and three of the First Jewish Revolt. Aharonovich (2016, 92n4) uncovered the same numismatic profile at nearby Khirbet Kafr Mur. The year-three coins were the latest coins found. This fixed the date for the home's destruction at 68/69 CE. The destruction date was further confirmed by the numerous coins found in the silo in the same room which had a 5 cm burn and ash layer at its lowest level along with numerous Early Roman ceramic types, especially the bag storage-jar. Similar destruction and burn levels were found at Khirbet Kafr Mur (Aharonovich 2016, 90, 92). However, the longer and wider Wall 104 to the south appears to have been built in the Late Hellenistic period (Stratum 4 or earlier) due to a Hasmonean pinched lamp found in the foundation trench (cf. Sussman 2007, 90–93; Peterson 2013, 98–102). These types of lamps appear in numerous sites such as Shiloh, Khirbet Nisya, Tell en-Nasbeh, and Jerusalem (Sussman 2007, 92). On the other hand, an intact undecorated Herodian knife-pared lamp was found beside the entrance to the silo.[12]

Room 5

Room 5 lay east of the central courtyard (Room 1) and had the approximate inside dimensions of 4.0 × 7.5 meters. Portions of Squares O22 and P22–23 comprised this room. The wall construction resembled contemporary walls across the site although most walls (Walls 107, 111, and 114) only survived to about 1 meter in height. Vandals destroyed Wall 107 and other walls. The only key artifacts and architectural features found in this room were an in-situ socket stone, which was excavated just inside of the main opening to Room 5 in Wall 111 (fig. 2.13), and a partial grain mill or oil press (fig. 2.8). The lintel for the main opening of Room 5 was found in the courtyard (Room 1) in front of the doorway.

Room 6

Room 6 (2.5 × 4.75 m inside) opened into Room 5 and may have served as a storage room. While there was an earlier doorway in the southwest corner of the room (Square O23, Locus 10) in Wall 116, later construction dating to the final phase of occupation (Stratum 3b) sealed it. This later construction consisted of a one-stone-wide wall (0.25 m) preserved to about 1 meter in height (figs. 2.4, 2.8). The original opening, before it was sealed, was 1.2 meters wide. The blocking of this doorway clearly showed the transition from Phases 1 to 2 (of Stratum 3b) of the courtyard house, a reality evidenced in transitional phases elsewhere such as Stratum 3, Phase 3b at Magdala (Zapata-Meza et al. 2018, 94–95, 97).

Room 7

Rooms 7–12, 14, and 15 may have been a continuation of the courtyard house thus making it more akin to the *complex-courtyard house* as defined by Hirschfeld (1995, 22, 44–57, 290) and as seen at Ramat Hanadiv (Mount Carmel), Kalandiya (Judea), and Qasr e-Leja (Samaria) (Hirschfeld 1995, 100). The other possibility is that these rooms formed a secondary dwelling east of, although attached to, the courtyard house. Room 7 fell within Squares O23–24 and P24 and was in the shape of a reversed L. It measured 3 meters on the narrow end and 5.5 meters on the wide end. The length was slightly under 8 meters. The discovery of a Herodian lamp tip in Wall 117, a 1-meter-wide wall on the south end of the room, indicated its construction in the Early Roman period. Coins from the room dated from the Hasmonean period to the First Jewish Revolt (e.g., Catalog no. 1210), and the ceramics fit the late Second Temple period. Preserved walls such as Wall 117 ranged from 1 meter to 2 meters in height. The one unique feature in the room, a silo, spanned Squares O23 and O24. This bell-shaped silo measured about 2 meters deep and appeared to have been filled during the first century BCE or later because all the coins within it (Square O24, Loci 13–15, 17) dated to the Hasmonean period, except one questionably dated coin of Herod the Great or Herod Archelaus (Catalog no. 1063). Of course, dating strata solely by numismatic evidence can be problematic (Syon and Yavor 2005, 60–61). Also, five imbrex roof tiles, apparently dating to the first century CE, were excavated in this room in Square O24, Loci 9, 11, and 15.

While Room 7 may have been a stand-alone room, it is possible that the area was two rooms, one southwest and the other northeast. Excavations revealed that the room was divided at one point (not shown on fig. 2.4) with a wall running between Wall 115 on the west and Wall 152 to the east (fig. 2.11). In this wall there was what appears to be a door jamb and threshold. The room to the south could be a small courtyard servicing Rooms 7 (the northeastern portion), 8, and 9. This could explain why the silo was filled-in at a later period and contained only Hasmonean coins. This would also explain why there was a windowsill found in this room that would have been part of the opening in Wall 152 looking into Room 8 (fig. 2.11). The courtyard may have been accessible from the small area south of Room 6 through the main entrance on the south side of Wall 117, which was on the eastern end of Room 4 (fig. 2.4).

[11] Zapata-Meza et al. 2018, 110–17; Barag 1991, 137–40; 1996; Jackson-Tal 2016b, 29–62; 2016a, 63–78; 2016c, 70–95. For glass remnants at Khirbet el-Maqatir, see chap. 9.

[12] Lamp parallels: Zapata-Meza et al. (2018, 106–7, fig. 15.2), Yavor (2010, 89, fig. 2.100), and Barag and Hershkovitz (1994, 1–147).

Rooms 8–9

The purpose of these rooms remains unclear, but they may have been used for storage or sleeping areas if the building was not two stories (cf. Hirschfeld 1995, 289). The inside dimensions of Room 8 measured 5.0 × 2.5 meters, while Room 9 was 5.0 × 4.5 meters. The more easterly portions of these rooms in Square O25 were not excavated. On the western end of Room 8 there appeared to be a window opening in Wall 152 looking into the possible secondary courtyard. A windowsill was found at the base of Wall 152 below this proposed window opening into Room 8 (fig. 2.11). On the other hand, Room 9 has a 0.75-meter doorway in the northwestern part of the room in Wall 152. A tabun oven in Square P24 sat just inside this doorway. As such, this room could have been a kitchen at some point. The coins and pottery from these rooms, likely part of the mansion, point to the first century CE. The presence of imbrex roof tiles reinforce this date.

Room 10

Also dubbed the wine storage room, Room 10 measured 5.3 × 7.5 meters inside. It fell predominantly in Square P24. The room had two entrances (in Walls 115 and 161) and a doorway in Wall 162 accessing the home's proposed bathing area (Rooms 11 and 12). Wine storage



Figure 2.15. Tiled wine vat.
Photograph by Michael C. Luddeni.

seemed like the appropriate designation because the room featured a well-preserved plastered silo (Square P24, Locus 21) with an intact tiled mosaic floor (fig. 2.15). The ratio of white to red tesserae was 6:1. A depression in the bedrock (Square P24, Locus 18) formed a wide channel leading to the vat. The channel probably collected juice from crushed grapes (fig. 2.16). The coins in this depression dated to the first century BCE or earlier with the latest one (Catalog no. 1075) dating to Herod the Great (37–4 BCE). The pottery from the room predominately dated to the Early Roman period, and the coins mostly displayed Alexander Jannaeus or his successors, including one (Catalog no. 587) found



Figure 2.16. Suzanne Lattimer standing in depression in the bedrock leading to the tiled wine vat.
Photograph by Michael C. Luddeni.

through metal detection in the plaster of the wine vat.[13]

During the first century CE, Alexander Jannaeus coins were popular among the Jews, so the presence of so many of these coins in a first-century CE context was expected.[14] Nevertheless, the anomaly is not finding First Jewish Revolt coins, which were prevalent in the western portion of the mansion in Rooms 1–6.[15] It is possible that at Khirbet el-Maqatir these later coins, which would have been closer to the surface because they were from the last period of occupation, may have been looted. These rooms on the northeastern portion of the site were mostly covered with no more than 0.5 meters of soil before reaching bedrock; whereas, the rooms on the south and southwestern portions of the site were buried almost 2 meters deep in debris and were therefore less likely to be looted.



Figure 2.17. Two stepped pools, looking west. Photograph by Michael C. Luddeni.



Figure 2.18. Stepped bathing area in Room 12. Photograph by Michael C. Luddeni.

Rooms 11–13

These rooms comprised the proposed bathing area of the courtyard house (fig. 2.4). Room 13 likely served as a caldarium, which heated the stepped bathing area in Room 12. It lay outside of the mansion itself. Room 12 also served as the entrance room and dressing area, and Room 11 housed a possible hypocaust system. Aharonovich (2016, 88) excavated a contemporary bathhouse at Khirbet Kafr Mur only two kilometers southeast. Excavations at Khirbet el-Maqatir yielded two hypocaust pillars, but not in situ. The most fascinating aspect to this bathing system was the two parallel stepped pools connected by a 3.5-meter long × 0.56–0.65-meter wide × 1.16-meter high tunnel, which was partially plastered (figs. 2.17–19). The tunnel ran under the street (fig. 2.4). The stepped area on the north side of the street probably served as the caldarium area with the second stepped pool in Room 12 functioning as the frigidarium. Wall 153 divided the street from the living area. A thin wall with a thick layer of plaster divided the 3.5-meter long tunnel. The possibility exists that the stepped frigidarium was later repurposed as a mikveh.

[13] Only two coins from the Early Roman period came from the square; one in Square P24, Locus 8 (Catalog no. 1146; Tiberius, 30/31 CE), a locus closer to the surface, and one in the wine vat (Catalog no. 1105; Herod Archelaus, 4–6 CE).

[14] Zapata-Meza et al. 2018, 119; Syon 1992, 35; 2015, 44–47; Hadas 2006; Syon and Yavor 2005, 61. For example, at Yodfat (Adan-Bayewitz and Aviam 1997, 156–57), Gamla (Syon 2014, 115, 134, 142–46), and a variety of other places (e.g., Samaria, Jerusalem, Gibeon, and Khirbet Ṭabaliya) in Israel this seems to be the reality (Syon 2015, 45–46). In the sites mentioned immediately above, later coins were found even though there was a preponderance of the earlier coins, especially those of Alexander Jannaeus.

[15] In the preliminary reports at Magdala, a similar phenomenon appeared in Area B (Zapata-Meza et al. 2018, 119). The pottery dated to the Late Hellenistic and Early Roman eras, but all the coins were Hasmonean.



Figure 2.19. Tunnel from caldarium to bathing area in Room 12. Photograph by Michael C. Luddeni.

Room 14

At 8.2 × 7.0 meters inside, Room 14 covered portions of three squares (Squares P23, Q23, and Q24). The walls survived less than 1 meter in height and spanned 1.1 meters or less in width. An entrance in the southwestern corner of the room likely functioned as a main entrance to this section of the home. Another doorway in the eastern side of the room opened into the bathing area and wine storage room. The presence of a large cistern (4 m long × 2.9 m wide × 2.34 m deep) and a smaller one (2.4 m in diameter × 2.2 m deep) points to its use as a water storage and domestic area, although secondary usage of the cisterns was likely. The discovery of stone grinders and a tabun in this room may indicate a work area (cf. Hadas 2006).

The size of the room points to three different possibilities for the roof. First, due to its width, if the room had a flat roof, it would have required central pillars for support. Pillar bases were not found during excavations, but pillars may have sat directly on bedrock. Another possibility could be that the room had a pitched roof with ceramic tiles. The tiles found in the surrounding squares support this idea. The last possibility is that it was an open area with low walls or a courtyard.

Most of the coins dated to the Hasmonean period (or earlier) with only one, found in one of the cisterns, dating to the reign of Herod the Great (Catalog no. 1096). As with the rest of the mansion, most ceramic evidence from this room dates to the Early Roman period, but Late Hellenistic pottery was also present.

Room 15

This small room straddled Squares Q24 and Q25 and measured 2 × 2 meters. It opened into Room 14 (fig. 2.4). Excavation exposed a silo (Square Q25, Locus 11) opening in the center of the room. The silo measured 2 meters in diameter and was not completely excavated. It also connected to another silo or cistern (Square Q25, Locus 5) discovered in the middle of the street (fig. 2.4). All the coins except one Late Roman coin (Catalog no. 1253) date to the period of Herod the Great, Alexander Jannaeus and his successors, or earlier. The room appears to have been used for storage only.

Room 16

Room 16 designates a large room dubbed the *public building* with one main entrance (fig. 2.4). The outside dimensions measured 9.4 meters (Walls 143 and 145) by 11 meters (Walls 144 and 146), making it too large for a flat roof with free-spanning beams and wattle-and-daub construction. Excavation did not yield remnants of wattle-and-daub mud impressions. If this room had a flat roof, it would have required intermediate posts and beams spaced along the center of the room. The walls averaged 1.2 meters in thickness and survived to 1.0–1.2 meters in height. Excavations of the northern portion of the room (Squares S24 and S25) revealed a central wall dividing at least the northern end of the room.

Three silos filled the room's subterranean space—one on the north and two on the south. The southern silos may have only been used in an earlier period. The pottery and coins from the silos matched those found in the rest of the town. The second silo, located on the southeastern side of the room in Square R25, may be an entrance to the caldarium (fig. 2.4). No coins were found in this installation, but the presence of stone vessel fragments and Early Roman pottery points to its use in the late Second Temple period.

The building could have been used for public meetings. Or it was a one-room house (cf. Matt 5:15) separate from the mansion. Hirschfeld (1995, 21) identifies this type of house as a *simple house*, common in the countryside.

Three of the four coins found on the floor-level dated to the Early Roman period, and one dated to the Late Hellenistic period. This large building sat on one of the

higher spots in the town which was on the brow of the town's northern slope.

The Winepress and Olive Press

Two other important features were discovered during excavations. First, a large grape pressing and collection area sat just inside the first-century walls on the west side of town in Squares R17 and S18 (fig. 2.20). The winepress was excavated in 1996 and 1997. It operated inside a repurposed western chamber of the Bronze Age city gate. It included a gathering silo (Square S18, Locus 20), treading area (Square R17, Locus 7), settling tank (Square R17, Locus 13), and storage vat (Square R17, Locus 21). The main treading area was 1.55 meters in diameter and 1.12 meters deep. The settling tank and storage vat were in the entry corridor of the Bronze Age fortress gate. A trough connected the treading area to the collection pool or settling area (1.5 m square and intact to 1.3 m deep), which was made of worked limestone blocks and sealed with clay plaster. There was also a stone pillar in the middle of the settling pool which was 0.4 meters in diameter and 0.35 meters high. Its purpose was unclear. A plastered storage vat (1.03 × 1.12 × 0.65 m deep) made from limestone blocks lay on the south side of the settling tank. It had a mosaic floor and a sump hole 14 cm deep in the southeast corner. Figure 2.15 shows a similar tiled silo and sump. In 1997 a gathering silo (Locus 20) was excavated a few meters to the north in Square S18. It measured 3 meters in diameter and 1.9 meters deep. Its base was cut into the bedrock with the remainder made of stones situated above ground and plastered. All the ceramic evidence associated with these installations point to the Late Hellenistic and Early Roman periods, with the majority being Early Roman.



Figure 2.20. Winepress and storage. Photograph by Michael C. Luddeni.



Figure 2.21. Cavern 1 showing olive-press weights. Photograph by Michael C. Luddeni.

The second feature was the underground olive press room (figs. 2.21; 4.2–4) and adjoining chambers. These rooms doubled as hiding areas during the First and Second Jewish Revolts (chap. 4; Peterson and Stripling 2017, 80*–81*). These types of hiding systems have been found throughout Samaria and the Benjamin region.[16] The hiding system included three subterranean areas cut into the bedrock. The main entrance to Cavern 1—the main chamber—was closed off and sealed to make it appear as a mikveh. Cavern 2, a large cistern, was joined to Cavern 1 by a short tunnel; and Cavern 3, a small room, had a longer tunnel connecting it to Cavern 1. Openings in the ceiling of Cavern 1 and Cavern 2 may have been used for ventilation or to lower people into the hiding system. Excavations revealed connecting tunnels between the chambers as well as human skeletal remains dating to the Great Revolt. Ceramic, numismatic, and glass vessel fragments indicate that the hiding system was used during both revolts.

[16] Parallels: Raviv et al. (2015, 123–50), Kloner and Zissu (2003, 181–216; 2009, 9–28), Kloner, Zissu, and Nili Graicer (2015, 151–63), Dar (2015, 111–22), Frumkin and Langford (2015, 95–110), and Raviv, Har-Even, and Tavger (2016, 19*–20*).



Figure 2.22. Street running between Wall 143 of the public building and Wall 153 to the south. Photograph by Michael C. Luddeni.



Figure 2.23. Flagstones on the street in Square R24. Photograph by Brian N. Peterson.

The Streets

While multiple streets likely existed in the town, only one can be identified with certainty. The street ran east-west, adjacent to the large public building (figs. 2.4, 2.22–23). The street measured approximately 2 meters wide and resembled those found at Magdala (Zapata-Meza et al. 2018, 97). Flagstones on the street coincide with the paving style at Gamla (Yavor 2010, 29, 32, 78, figs. 2.15; 2.21), although many were robbed in antiquity or disturbed by modern looters. A silo (Locus 5) in Square Q25 lay beneath the eastern end of the street, but this appears to have been from an earlier period and filled in during the last period of occupation (Stratum 3b). Of the six coins found in the fill (Locus 7) of the silo, all but one was from the period before 31 BCE (Catalog no. 1118 dates to the period of Augustus). The street appeared to have been part of the reconstruction after the earthquake of 31 BCE associated with Stratum 3c (Peterson 2017, 39–40, 43).

Conclusion

The multiple rooms of this mansion may in fact comprise two or more dwellings or a complex-courtyard mansion.[17] For example, excavations at Magdala uncovered several buildings with a dozen or more rooms (Zapata-Meza et al. 2018, 83–126). Nevertheless, the rooms on the western side of Khirbet el-Maqatir clearly reflect the typical courtyard house of the period; however, because much of the eastern portion of the town remains unexcavated or has been destroyed by the construction of an agricultural enclosure in 2012, it is clear that the town included numerous buildings and perhaps even other mansions.

The ceramics, limestone vessels, and Jewish Revolt coins cast Khirbet el-Maqatir as a typical Judean village or hamlet in the late Second Temple period (Peterson and Stripling 2017, 68*–75*), like Khirbet Kafr Mur, Magdala, and Gamla (Aharonovich 2016, 98; Zapata-Meza et al. 2018, 119; Syon 2015, 87–95). Finally, even though the coins suggested a robust Late Hellenistic occupation, the pottery indicated a population apex in the first century CE. Some areas of the site may have seen more use than others depending on the rate of rebuild after the destructive earthquakes.

References

Adan-Bayewitz, David, and Mordechai Aviam. 1997. "Iotapata, Josephus and the Siege of 67: Preliminary Report on the 1992–94 Seasons." *Journal of Roman Archaeology 10:131–65.*

Aharonovich, Evgeny. 2016. "Khirbet Kefar Mur: A Jewish Settlement from the Second Temple Period on Mount Bethel and a Wall from the Time of the Great Revolt." [In Hebrew.] *In the Highland's Depth* 6:85–106.

Aviam, Motti. 1999. "Yodfat: The Exposure of a Jewish City in the Galilee from the Second Temple Period and the Great Revolt." [In Hebrew.] *Ancient Antiquities* 118:92–101.

Barag, Dan. 1991. "The Contribution of Masada to the History of Early Roman Glass." In *Roman Glass: Two Centuries of Art and Invention*, edited by Martine Newby and Kenneth Painter, 137–40. Occasional Papers 13. London: Society of Antiquaries of London.

Barag, Dan. 1996. "Phoenicia and Mould-Blowing in the Early Roman Period." *Annales de l'Association Internationale pour l'Histoire du Verre* 13:77–92.

Barag, Dan, and Malka Hershkovitz. 1994. "Lamps from Masada." In *Masada IV: The Yigael Yadin Excavations, 1963–1965; Final Reports; Lamps, Textiles, Basketry, Cordage and Related Artifacts, Wood Remains, Ballista Balls*, by Dan Barag et al., 1–147. Masada Reports. Jerusalem: Israel Exploration Society.

Byers, Gary A., D. Scott Stripling, and Bryant G. Wood. 2016. "Excavations at Khirbet el-Maqatir: The 2009–2011 Seasons." *Judea and Samaria Research Studies* 25 (2): 69*–109*.

Canaan, T. 1933. *The Palestinian Arab House: Its Architecture and Folklore*. Jerusalem: Syrian Orphanage Press.

Corbo, Virgilio C. 1975. *Cafarnao*. Vol. 1, *Gli edifici della città*. Studium Biblicum Franciscanum, Collectio major 19. Jerusalem: Franciscan Printing Press.

Dar, Shimon. 2015. "The Function of the Underground Complexes during the Bar-Kokhba War." [In Hebrew.] *In the Highland's Depth* 5:111–22.

Finkelstein, Israel, Shlomo Bonimovitz, and Zvi Lederman. 1993. *Shiloh: The Archaeology of a Biblical Site*. Edited by Israel Finkelstein. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 10. Tel Aviv: Institute of Archaeology of Tel Aviv University.

Fischer, Moshe. 2012. *Ḥorvat Meṣad: A Way-Station on the Jaffa-Jerusalem Road*. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology 30. Tel Aviv: Yass Publications in Archaeology.

Frumkin, Amos, and Boaz Langford. 2015. "Nahal Delaya, Samaria, Israel: A Unique Concentration of Karstic Caves and Hundreds of Years of Refuge." [In Hebrew.] *In the Highland's Depth* 5:95–110.

Hadas, Gideon. 2006. "'En Gedi." *Hadashot Arkheologiyot: Excavations and Surveys in Israel* 118. http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=348&mag_id=111.

Hirschfeld, Yizhar. 1995. *The Palestinian Dwelling in the Roman-Byzantine Period*. Studium Biblicum Franciscanum, Collection minor 34. Jerusalem: Franciscan Printing Press.

Hirschfeld, Yizhar. 2000. *Ramat Hanadiv Excavations: Final Report of the 1984–1988 Seasons*. Jerusalem: Israel Exploration Society.

Homsher, Robert S. 2012. "Mud Bricks and the Process of Construction in the Middle Bronze Age Southern Levant." *Bulletin of the American Schools of Oriental Research*, no. 368 (November): 1–27.

Horowitz, Gabriel. 1980. "Town Planning of Hellenistic Marisa: A Re-appraisal of the Excavations after Eighty Years." *Palestine Exploration Quarterly* 112, no. 2 (July): 93–111.

Jackson-Tal, Ruth E. 2016a. "The Glass from the 1995 Excavations in Camp F at Masada: The Use of Luxury and Common Early Roman Glass in Military Context." *Levant* 48:63–78.

Jackson-Tal, Ruth E. 2016b. "Glass Vessel Use in Time of Conflict: The Evidence from the Bar Kokhba Refuge Caves in Judaea, Israel (135/136 C.E.)." *Bulletin of the American Schools of Oriental Research*, no. 376 (November): 29–62.

[17] While this chapter encompasses only the domestic areas, the fortified tower also yielded insights into life at Khirbet el-Maqatir (see chap. 3).

Jackson-Tal, Ruth E. 2016c. "Nabataean Cultural Habits: The Glass Finds from Oboda." *Israel Exploration Journal* 66 (1): 70–95.

Kloner, Amos, and Boaz Zissu. 2003. "Hiding Complexes in Judaea: An Archaeological and Geographical Update on the Area of the Bar Kokhba Revolt." In *The Bar Kokhba War Reconsidered: New Perspectives on the Second Jewish Revolt against Rome*, edited by Peter Schäfer, 181–216. Texts and Studies in Ancient Judaism 100. Tübingen: Mohr Siebeck.

Kloner, Amos, and Boaz Zissu. 2009. "Underground Hiding Complexes in Israel and the Bar Kokhba Revolt." *Opera Ipogea* 1:9–28.

Kloner, Amos, Boaz Zissu, and Nili Graicer. 2015. "The Hiding Complex at Ḥorvat Qasra, Southern Judean Foothills." [In Hebrew.] *In the Highland's Depth* 5:151–63.

Magness, Jodi. 2011. *Stone and Dung, Oil and Spit: Jewish Daily Life in the Time of Jesus*. Grand Rapids: Eerdmans.

Netzer, Ehud. 1992. "Massive Structures: Processes in Construction and Deterioration." In *The Architecture of Ancient Israel: From the Prehistoric to the Persian Periods; In Memory of Immanuel (Munya) Dunayevsky*, edited by Aharon Kempinski and Ronny Reich, 17–27. Jerusalem: Israel Exploration Society.

Peterson, Brian N. 2013. "The Lamps of Khirbet el-Maqatir." *Bible and Spade*, Fall, 98–102.

Peterson, Brian N. 2015. "Home Construction in Jesus' World." *Bible and Spade*, Fall, 88–97.

Peterson, Brian. 2017. "The Stratification of 'Tel' Maqatir." *Bible and Spade*, Spring, 38–43.

Peterson, Brian, and Scott Stripling. 2017. "Kh. el-Maqatir: A Fortified Settlement of the Late Second Temple Period on the Benjamin Plateau." *In the Highland's Depth* 7:61*–91*.

Raviv, Dvir, Benny Har-Even, Evgeny Aharonovitz, and Aharon Tavger. 2015. "Hiding in the Desert: Hiding Complexes from the Time of Jewish Revolts against the Romans in South Samaria and the Benjamin Desert." [In Hebrew.] *In the Highland's Depth* 5:123–50.

Raviv, Dvir, Benny Har-Even, and Aharon Tavger. 2016. "Khirbet el-Qutt: A Fortified Jewish Village in Southern Samaria from the Second Temple Period and the Bar Kokhba Revolt." [In Hebrew.] *Judea and Samaria Research Studies* 25:17*–35*.

Reich, Ronny. 1992. "Building Materials and Architectural Elements in Ancient Israel." In *The Architecture of Ancient Israel from the Prehistoric to the Persian Periods; In Memory of Immanuel (Munya) Dunayevsky*, edited by Aharon Kempinski and Ronny Reich, 1–16. Jerusalem: Israel Exploration Society.

Segal, Orit. 2008. "Tel Ishqaf." *Hadashot Arkheologiyot: Excavations and Surveys in Israel* 120. http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=826&mag_id=114.

Stager, Lawrence. 1985. "The Archaeology of the Family in Ancient Israel," *Bulletin of the American Schools of Oriental Research*, no. 260 (Autumn): 1–36.

Strange, James F., Thomas R. W. Longstaff, and Dennis E. Groh. 2006. *Excavations at Sepphoris*. Vol. 1, *University of South Florida Probes in the Citadel and Villa*. Brill Reference Library of Judaism 22. Leiden: Brill.

Stripling, Scott. 2015. "Khirbet el-Maqatir: On the Benjamin-Ephraim Border." [In Hebrew.] *Qadmoniot* 150:78–83.

Stripling, Scott, Baruch Brandl, Brian Peterson, and Boyd Seevers. 2017. "A Scarab of Psametik I from Kh. el-Maqatir." *Palestine Exploration Quarterly* 149, no. 3 (July): 186–200.

Sussman, Varda. 2007. *Oil-Lamps in the Holy Land: Saucer Lamps; From the Beginning to the Hellenistic Period; Collections of the Israel Antiquities Authority*. BAR International Series 1598. Oxford: Archaeopress.

Syon, Danny. 1992. "Gamla: Portrait of Rebellion." *Biblical Archaeological Review*, January/February, 21–37.

Syon, Danny. 2014. "The Coins." *Gamla III: The Shmarya Gutmann Excavations, 1976–1989; Finds and Studies*, pt. 1, 109–231. IAA Reports 56. Jerusalem: Israel Antiquities Authority.

Syon, Danny. 2015. *Small Change in Hellenistic-Roman Galilee: The Evidence from Numismatic Site Finds as a Tool for Historical Reconstruction*. Numismatic Studies and Researches 11. Jerusalem: Israel Numismatic Society.

Syon, Danny, and Zvi Yavor. 2005. "Gamla 1997–2000." *'Atiqot* 50:37–71.

Taxel, Itamar, and Amir Feldstein. 2006. "Khirbat Ibreika." *Hadashot Arkheologiyot: Excavations and Surveys in Israel* 118. http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=433&mag_id=111.

Tzaferis, Vassilios. 1989. *Excavations at Capernaum*. Vol. 1, *1978–1982*. Winona Lake, IN: Eisenbrauns.

Whittaker, Dick. 2009. "Ethnic Discourses on the Frontiers of Roman Africa." In *Ethnic Constructs in Archaeology: The Role of Power and Tradition*, edited by Ton Derks and Nico Roymans, 189–206. Amsterdam Archaeological Studies 13. Amsterdam: Amsterdam University Press.

Wood, Bryant G. 2001. "Khirbet el-Maqatir, 2000." *Israel Exploration Journal* 51 (2): 246–52.

Wood, Bryant G. 2018. "The March to Jerusalem: Roman Brutality at Khirbet el-Maqatir." *Bible and Spade*, Spring, 32–37.

Yavor, Zvi. 2010a. "The Architecture and Stratigraphy of the Eastern and Western Quarters." In *Gamla II: The Shmarya Gutmann Excavations, 1976–1988; The Architecture*, by Danny Syon and Zvi Yavor, 13–112. IAA Reports 44. Jerusalem: Israel Antiquities Authority.

Yavor, Zvi. 2010b. "Building Techniques and Urban Planning." In *Gamla II: The Shmarya Gutmann Excavations, 1976–1988; The Architecture*, by Danny Syon and Zvi Yavor, 153–57. Jerusalem: Israel Antiquities Authority.

Zapata-Meza, Marcela, Andrea Garza, Diaz Barriga, and Rosaura Sanz-Rincón. 2018. "The Magdala Archaeological Project (2010–2012): A Preliminary Report of the Excacvations at Migal." *'Atiqot* 90: 83–125.

3. Monumental Tower and Fortification System

Mark A. Hassler

Archaeological fieldwork revealed fortifications at Khirbet el-Maqatir during the Late Hellenistic and Early Roman periods. Two towers and two walls came to light. The monumental northern tower used megalithic construction and thick walls—some walls 2.5 m thick. The tower's massive base measured 28 × 16 meters (448 m2), making it the largest-known tower-base west of the Jordan River during the late Second Temple period. The base dwarfed contemporary towers and even outsized Jerusalem's Phasael tower (Josephus, *Jewish War* 5.166) and Herodium's largest tower (Netzer 1981, 92–96). The northern tower was first published in a preliminary article by Brian Peterson and Scott Stripling (2017, 63*–68*). A subsequent write-up by Mark Hassler presented the tower in detail and supplied the numismatic results, radiocarbon dating, and architectural data (Hassler, Streckert, and Seevers 2020). The final publication now adapts excerpts from the 2020 report, adds information, and introduces other facets of the fortification system: the northeastern tower and the village's defensive walls. This report demonstrates how the monumental tower and fortification system fit within their ancient contexts. The research contributes to the academic literature regarding the military architecture and material culture of the southern Levant in the late Second Temple period.

Excavation Results

Archaeological fieldwork at Khirbet el-Maqatir has clarified portions of the village's fortification system. Workers uncovered two fortification towers and two fortification walls.

Fortification Towers

Leen Ritmeyer discovered two towers at the northern end of the site. Both towers, the northern tower and the northeastern tower, increased the security capacity of the settlement's circumferential wall.

Northern Tower

In 2015 and 2016 the northern tower was excavated to determine its layout, functions, and occupational history. The massive tower (28 × 16 m) abutted the perimeter wall (figs. 3.1–2). The archaeological work on the tower involved two excavation squares (Squares



Figure 3.1. Aerial view of the northern tower (*center*) and fortification wall (*left*) in Field B, 2016. Photograph by Barry Kramer.

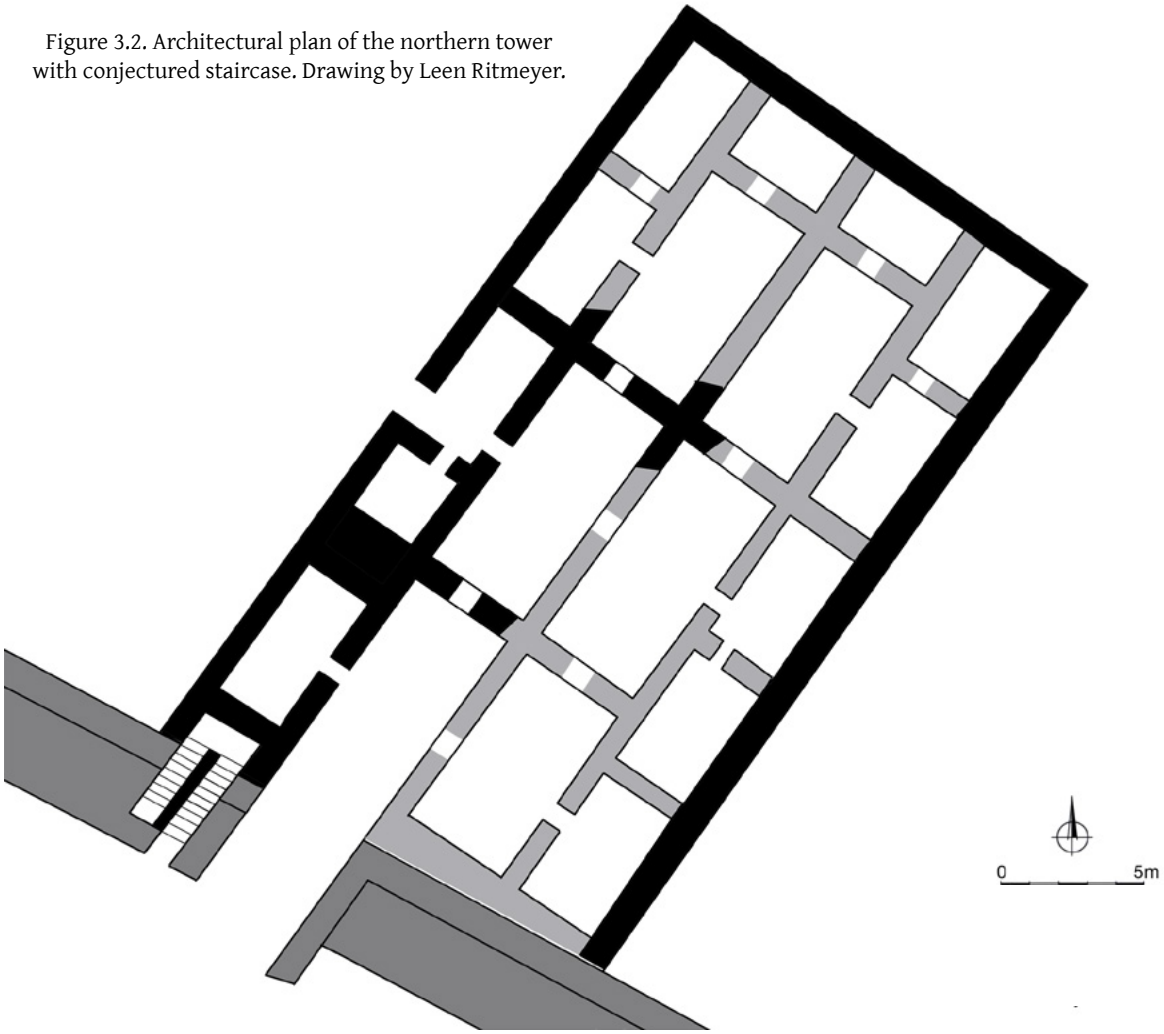


Figure 3.2. Architectural plan of the northern tower with conjectured staircase. Drawing by Leen Ritmeyer.

Table 3.1. Statistical summary of artifacts from the northern tower

	Square W22	Square X23	Square X22[a]	Total
Coins	71	56	18	145
Arrowheads	0	1	1	2
Slingstones	0	1	0	1
Socket stones	0	2	0	2
Ceramic vessels (mendable)	1	2	0	3
Potter's marks	2	0	0	2
Oil lamps	1	1	0	2
Limestone vessels	3	0	0	3
Glassware (diagnostic)	3	1	0	4
Basalt grindstones	3	1	0	4
Loom weights	1	0	0	1
Cosmetic makeup applicators	0	2	0	2
Tacks	2	1	0	3
Nails	9	0	0	9
Hooks (metal)	1	0	0	1
Blades (metal)	1	0	0	1
Chisels	1	0	0	1
Flint debitage	0	4	0	4
Unidentified	1	9	0	10
Total	101	81	19	201

[a] Only the southeast sector of Square X22 was excavated.

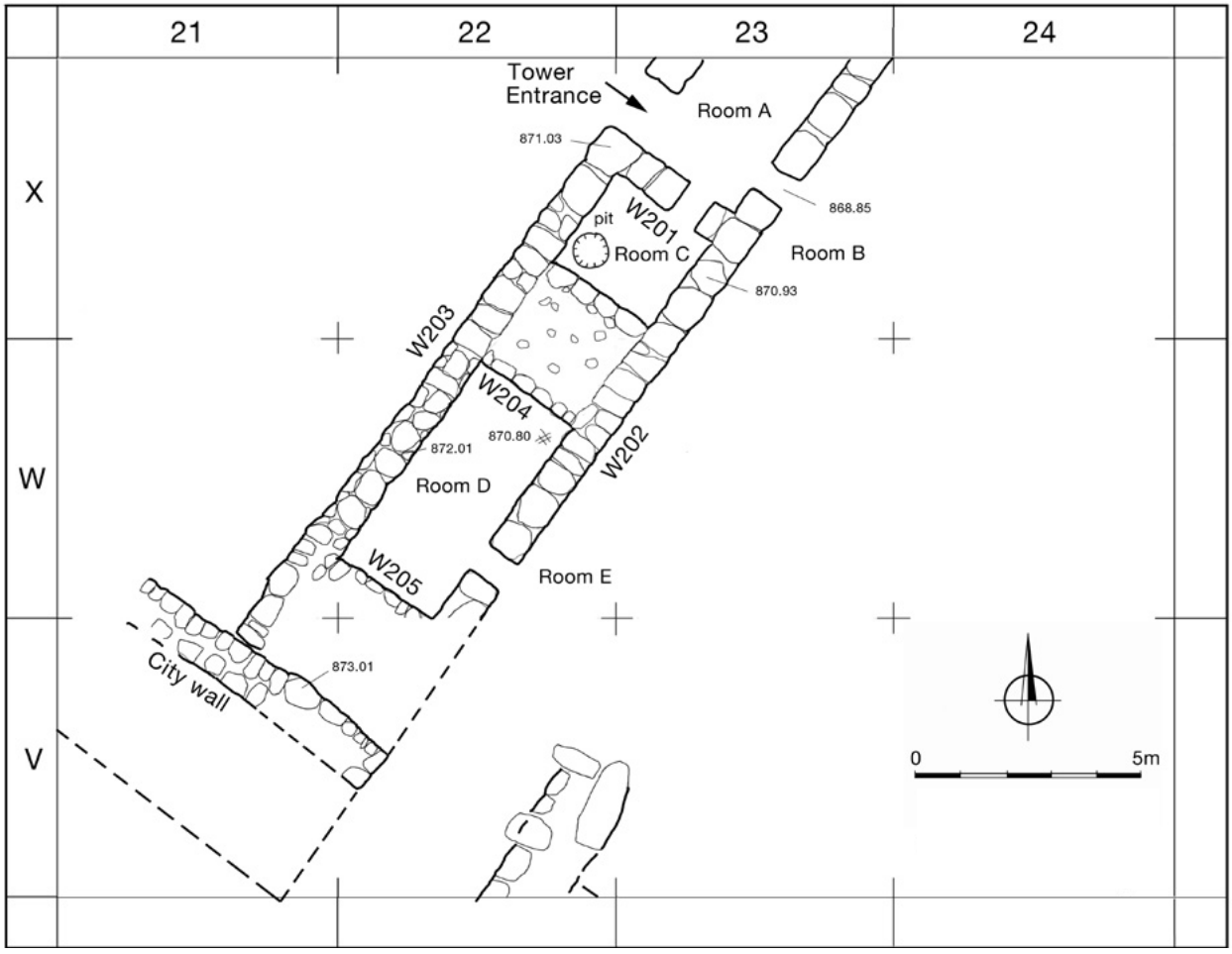


Figure 3.3. Rooms A–E of the northern tower. Drawing by Leen Ritmeyer.

W22 and X23), one partial square (X22), and two probe trenches (V21–W21 and V22). The squares (5 × 5 m) lacked standing balks. From topsoil to bedrock, the deepest vertical depth excavated was 2.4 meters (Square X22). Two excavation seasons yielded 56 artifacts in addition to 145 coins (table 3.1).

The excavation of the tower exposed five rooms and two installations (fig. 3.3). Three rooms aligned end to end along the tower's western side (Rooms A, C, and D). Three rooms were not excavated fully because they extended beyond square boundaries (Rooms A, B, and E). On the western side, the tower had an exterior entrance.

Room A contained three doorways: the tower's exterior doorway and two interior doorways leading to Rooms B and C (fig. 3.4). The threshold of the exterior doorway measured 1.3 meters wide, twice the width of the tower's internal doorways. In Room A, a small tabun (41 × 51 × 48 cm) sat flush against Wall 201 at the threshold of the doorway to Room C. In Room A, two socket stones came to light. One stone (Object 2473), a lower socket stone, stabilized a door. The stone remained in the field in situ, therefore its depth was not measured (50 × 50 × ? cm; fig. 3.4). The other door socket (Object 2474), an upper socket stone, was discovered amidst tumbled wall stones not in situ. Both sockets matched one another in diameter (25 cm) and depth (25 cm). Also in Room A, just above the in-situ socket stone, the metal detectorist found an arrowhead (Object 2425) lodged into the wall.

In Room B, two storage jars (Objects 2476 and 2477) were uncovered in situ near the doorway (fig. 3.5). The jars sat against the southeast facade of Wall 202 just above bedrock. One jar measured 52 cm in height, 93 cm in girth, and 11 cm in rim diameter. The other jar, comparable in size, lacked a restorable rim. The formators restored the jar to a height of 38 cm. Its girth measured 89 cm.

Room C (2.3 × 2.1 m) had one doorway. The room's southwest corner featured a pit carved into bedrock. The opening, 85 cm in diameter, lacked a capstone. The pit did not constitute a sealed locus. It lacked evidence of plaster or water channels, therefore it could have functioned as a silo rather than a cistern. But the function remains unknown because by the end of 2015 only 88 cm of the pit had been dug. Vandalism



Figure 3.4. Room A with in-situ socket stone (*center*) in Square X23, 2015, view southeast. Photograph by Michael C. Luddeni.



Figure 3.5. Storage jars from Room B of the northern tower. Photograph by Mark A. Hassler; reconstructed by Mark A. Hassler and Abigail Leavitt.

during the offseason deterred us from cleaning out the remainder of the pit the next year. Nevertheless, the pit yielded one arrowhead (A044615, Object 2429), 14 coins, and broken pottery.

Floor-level in Rooms A, B, and C was approximately 689.0 meters above sea level. We did not discover in-situ flooring in these rooms, but we did determine the floor-level by observing the top elevation of the in-situ socket stone in Room A (869.0 m), the bottom elevation of the two in-situ storage jars resting against the wall in Room B (868.9 m), the top elevation of the threshold in the doorway joining Rooms A and B (868.9 m), and the top elevation of the subterranean pit in Room C (869.2 m).

Room D (5.2 × 2.1 m) occupied the tower's southwest corner (fig. 3.6). A doorway led to Room E. Both rooms contained in-situ flagstone paving fragments at the same elevation (870.8 m) (fig. 3.7). In Room D, other flagstone pavers emerged elsewhere at the same elevation. Thus, floor-level in Rooms D and E was about 2 meters higher than in Rooms A, B, and C. The elevation differed because the tower sat on a hillside.

The tower's walls arose from bedrock. They ran parallel and perpendicular at 30 and 120 degrees. The walls exemplified boulder-and-chink construction with predominately semi-hewn stones and cobbles. Megaliths abounded, many of which approached or exceeded one meter in length. Table 3.2 displays the data concerning the five walls of the tower that were excavated. As the table shows, the tower's outer wall (Wall 203) measured 1.4 meters wide. The thickest walls spanned 2.5 meters (Walls 204 and 205). No wall of the



Figure 3.6. Rooms D (*center*) and E (*right*) in Square W22, 2016, view north.
Photograph by Michael C. Luddeni.



Figure 3.7. In-situ flagstone flooring in the northeast corner of Room D. Photograph by Michael C. Luddeni.

Table 3.2. Register of walls from the northern tower

No.	Square	Rows	Courses	Width	Height	Elevation
201	X23	1	2–4	.8	1.9	869.1–871.0
202	X23	1	2–4	.8	2.1	868.8–870.9
	W22		4–6		1.8	872.2–870.4
203	X22	2+	6	. . .[a]	1.9	869.1–871.0
	W22	3–4	7–9	1.4	1.6	870.0–870.4
204	X22	1+fill	11–13	2.5	2.4	869.1–871.5
	W22	1+fill	7–8		1.1	870.4–871.5
205	W22	1+fill	5–10	2.5	1.6	870.6–870.1

Note: Measurements given in meters.
[a] Outside the area of excavation.

tower was preserved to a greater height than Wall 204, the northern face of which retained 11–13 courses and remained intact to a height of 2.4 meters.

The northern tower bequeathed 145 coins from the excavated loci. Almost all the coins came from fill in the tower's rooms—loci containing a mix of Late Hellenistic and Early Roman pottery. Table 3.3 displays the coin count and chronological distribution. As the table attests, the tower had coins from Antiochus III the Great (early second century BCE) through the First Jewish Revolt against Rome, with one coin from the Late Roman period. At least 92 of the 145 coins (63%) belonged to Alexander Jannaeus or his successors. Importantly, the coinage stopped abruptly in 69 CE. Ten coins were minted in year two of the revolt (67 CE or 68 CE) and another from year three (68 CE or 69 CE) (Catalog no. 1233, A045066).

Fourteen coins were discovered at or below floor-level in unsealed loci (table 3.4). They came from three rooms of the tower (Rooms A, B, and D). Nine coins of



Figure 3.8. Coin of Tiberius, Catalog no. 1141.
Photograph by Michael C. Luddeni.

Table 3.3. Chronological distribution of coins from the northern tower

Date	Ruler or period	Coins
204–197 BCE	Antiochus III	5
175–150 BCE	Antiochus IV or Demetrius I	3
129–80 BCE	Hasmonean	2
129–80 BCE	John Hyrcanus I or Alexander Jannaeus	11
104–80 BCE or later	Alexander Jannaeus or successors	92
100–1 BCE or 301–500 CE	Hasmonean, Herodian, or Late Roman	1
63 BCE	Dora	1
40–37 BCE	Mattathias Antigonus	1
37–4 BCE	Herod I	4
4 BCE–6 CE	Herod Archelaus	1
5–11 CE	Roman governor under Augustus	2
17–19 or 25 CE	Roman governor under Tiberius	6
42 CE	Agrippa I	1
59 CE	Roman governor under Nero	3
67–69 CE	First Jewish Revolt	11
450–550 CE	Late Roman	1
	Total	145

Table 3.4. Coins found near bedrock (at or below floor level) in the tower

Cat. no.	ADCA no.	Room	Locus	Pail	Location	Elevation	Date	Ruler or era
298	44632	A	14	34	Sieve	. . .	129–79 BCE	John Hyrcanus I or Alexander Jannaeus
205	44643	A	14	34	16	868.8	85–80 BCE	Alexander Janneaus
455	44642	A	14	34	16	868.9	85–80 BCE	Alexander Janneaus
499	44634	A	14	34	16	868.9	80 BCE or later	Alexander Jannaeus or successors
456	45318	A	14	34	Sieve	. . .	80 BCE or later	Alexander Jannaeus or successors
1141	44633	A	14	34	Sieve	. . .	30 CE	Under Tiberius
12	44635	B	13	33	18	868.9	204–197 BCE	Antiochus III
340	44643	B	13	33	18	868.9	80 BCE or later	Alexander Jannaeus
35	45087	D	15	42	26	870.4	204–197 BCE	Antiochus III
305	45085	D	15	42	15	870.3	129–79 BCE	Hasmonean
629	45093	D	15	42	15	870.3	80 BCE or later	Alexander Jannaeus or successors
436	45059	D	15	40	14	870.4	80 BCE or later	Alexander Jannaeus or successors
832	45072	D	15	40	9	870.3	80 BCE or later	Alexander Jannaeus or successors
437	45090	D	15	42	21	870.4	80 BCE or later	Alexander Jannaeus or successors

this group dated to 85 BCE or later (Alexander Jannaeus or his successors) and the latest (Catalog no. 1141; fig. 3.8) dated to 30 CE (Tiberius). These coins from Room A came from the same locus as the in-situ lower socket stone in Locus 14.

Northeastern Tower

In 1997 workers exposed the village's northeastern fortification tower in Field B (figs. I.1 and 3.9). The three excavated squares (Squares R30, S29, and S30) yielded 12 objects. The tower contained two cisterns, both with rectangular-shaped openings. The cistern in Square R30 was only partially excavated, while the cistern in Square S29 remained unexcavated. The latter cistern had much lime plaster in an associated locus of beaten-earth surface and flat-lying sherds (Locus 3). Steps carved into bedrock provided easy access to the cistern.

Fortification Walls

Eight excavation squares in Field G elucidated the village's northern wall and western wall. When standing at the northwestern corner of the fortification wall, the eye could trace the western wall 50 meters toward the south, and the northern wall 80 meters toward the northeastern tower, even prior to excavation (fig. 3.9). Beyond that, the fortification walls remain untraceable. Fieldwork in 1997–99 exposed the northwestern corner of the wall and a 13 meter stretch of the western wall.

The northwestern corner of the perimeter wall saw the light of day when four adjoining squares underwent excavation (Squares W17, W18, X17, and X18) (fig. 3.10). In these squares, 31 of the 51 objects (61%) were flints. The northern wall (Wall 131) consisted of a two-row outer face, a one-row inner face, and internal fill (Squares W18 and X18). It measured 3.9 meters thick

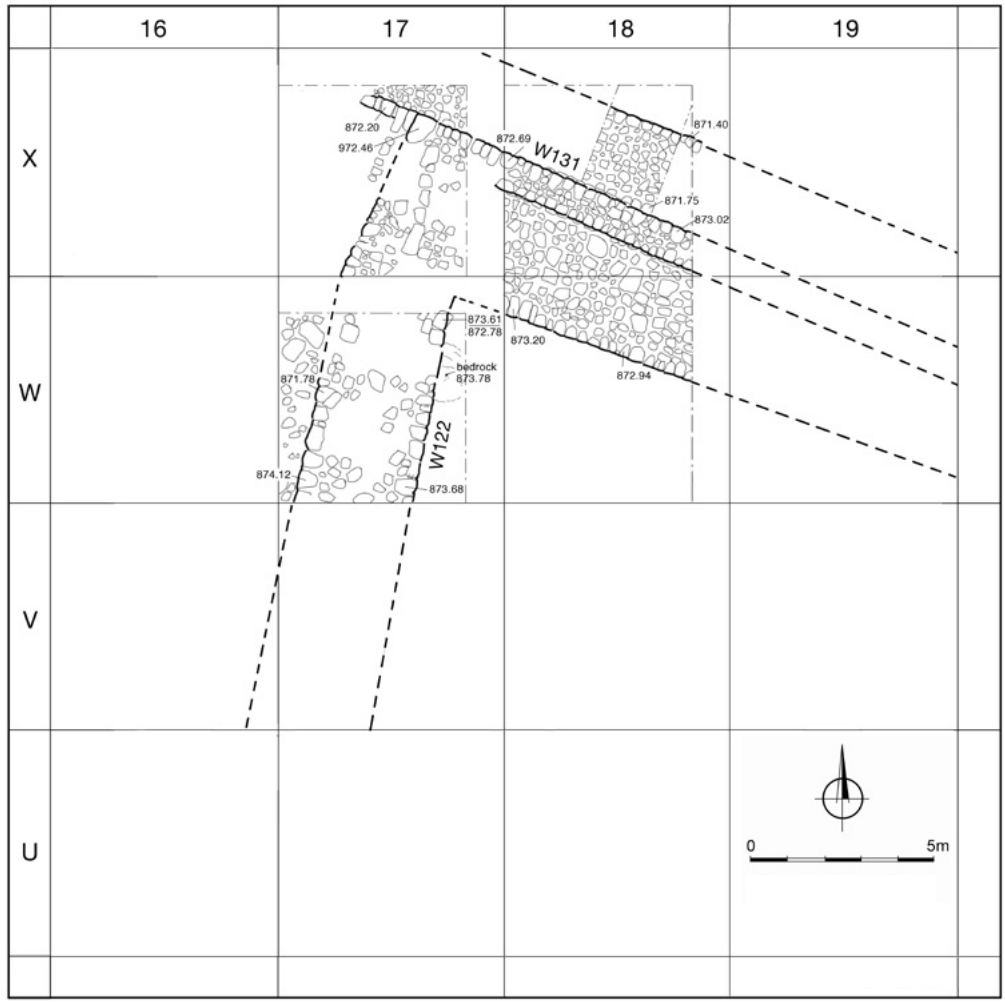


Figure 3.9. Northeastern fortification tower at Khirbet el-Maqatir. Drawing by Leen Ritmeyer.

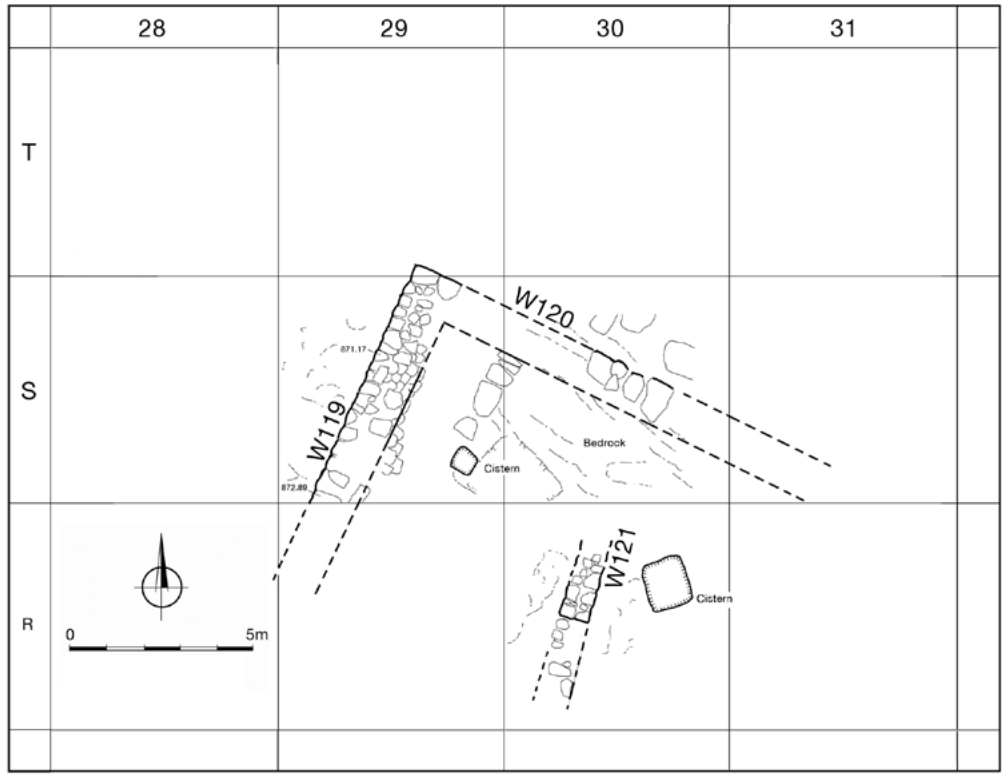


Figure 3.10. Northwest corner of the fortification wall. Drawing by Leen Ritmeyer.

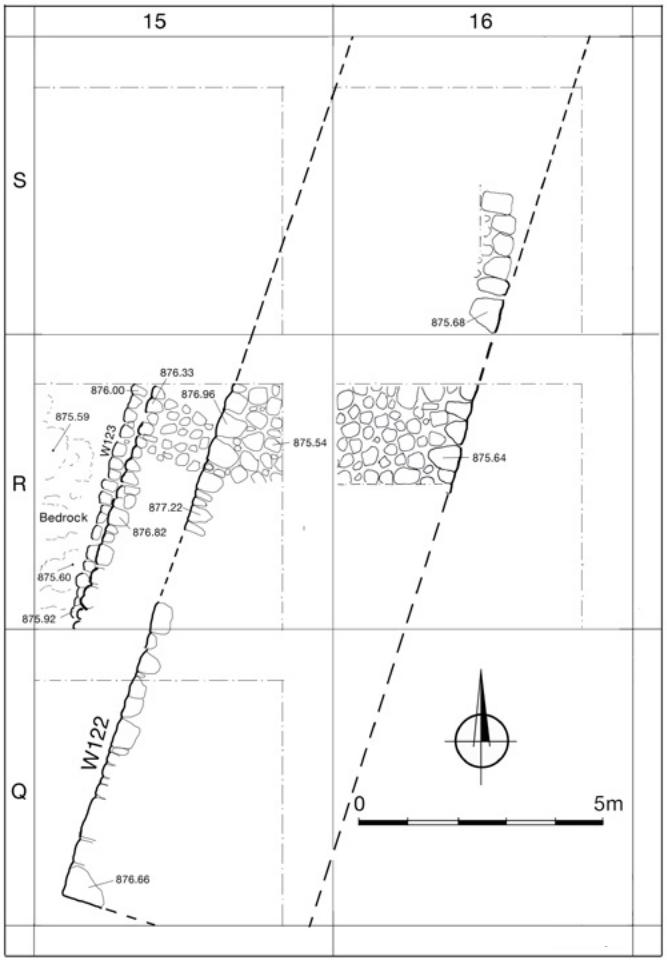


Figure 3.11. Western wall of the fortification system. Drawing by Leen Ritmeyer.

with six courses preserved to a height of 0.8 m. In Square W17, the western wall (Wall 122) spanned 3.0 meters thick and consisted of a one-row outer face, a one-row inner face, and internal fill. Underneath both walls was a leveling fill, placed on the uneven bedrock to make a level surface for the construction of the walls.

About 30 meters south of the northwestern corner, the western wall traversed four adjacent squares (Squares Q15, R15, R16, and S16). Figure 3.11 shows the fortification wall at 5.0 meters thick.

Discussion of the Excavation Results

The archaeological data affords an interpretation of the towers and walls. The data even allows for a historical reconstruction of the Khirbet el-Maqatir's defensive structures.

Fortification Towers

The monumental northern tower merits a discussion of its construction and destruction dates as well as its size and purposes. The northeastern tower, however, yielded little interpretive data and only a general date of occupation.

Northern Tower

The tower yielded 517 diagnostic sherds (cf. chap. 7). Five hundred sherds (97%) date to the Late Hellenistic or Early Roman periods (Strata 4–3b). This count excludes the sherds found in surface debris or immediately outside the tower. The pottery came from unsealed loci that contained a mix of Late Hellenistic and Early Roman sherds.

The size of the tower. The monumental tower employed megaliths and thick walls (some walls 2.5 m thick). Its massive base (28 × 16 = 448 m2) made it one of the largest towers in the region during the late Second Temple period. The base outsized Ḥorvat Ṣalit's tower (20 × 19 = 380 m2) and Herodium's largest tower (⌀ 18 = 254 m2). It even exceeded to footprint of Jerusalem's Phasael tower, even if Josephus used the long cubit (21 × 21 = 441 m2). Many contemporary towers averaged 10–13 square meters. For perspective, figure 3.12 and table 3.5 identify selected fortification towers during the late Second Temple period.

Only wall stubs survived of the Khirbet el-Maqatir tower, so one can only surmise the height and number of stories on the basis of analogy. In the Roman period, towers along fortification walls tended to arise one story above the wall, and fortification walls averaged 9 meters in height (fig. 3.13; Johnson 1983, 37–39; Lander 1984, 47). The height of the perimeter wall at Khirbet el-Maqatir remains unknown; but if the northern tower matched the norms, it would have stood about 13 meters high (two to three stories). Vassilios Tzaferis (1974, 86) regards two-story towers as common: "Massive two-storied towers, similar to the tower at Giv'at Shaul, were in wide use in the Hellenistic and Roman periods. They were built either alone, for observation or garrisoning, mostly along roads or highways, or as part of a fortress." Though two-story towers were typical (with a 12 × 12 base), the tower at Khirbet el-Maqatir might have been even taller given its massive base (28 × 16 m), megalithic construction, and stout walls—some walls 2.5 meters thick. The smaller but analogous tower at Ḥorvat ʿEleq, for instance, is conjectured at four or five stories (fig. 3.14). A contemporary tower in Diocaesarea, Turkey, has six stories preserved with a base of 16 × 13 = 208 m2 and outer walls 1.2 m thick (McNicoll 1997, 178–81). Figure 3.15 displays the Khirbet el-Maqatir tower reconstructed with four stories. Regardless of the number of stories, the height of the tower would have

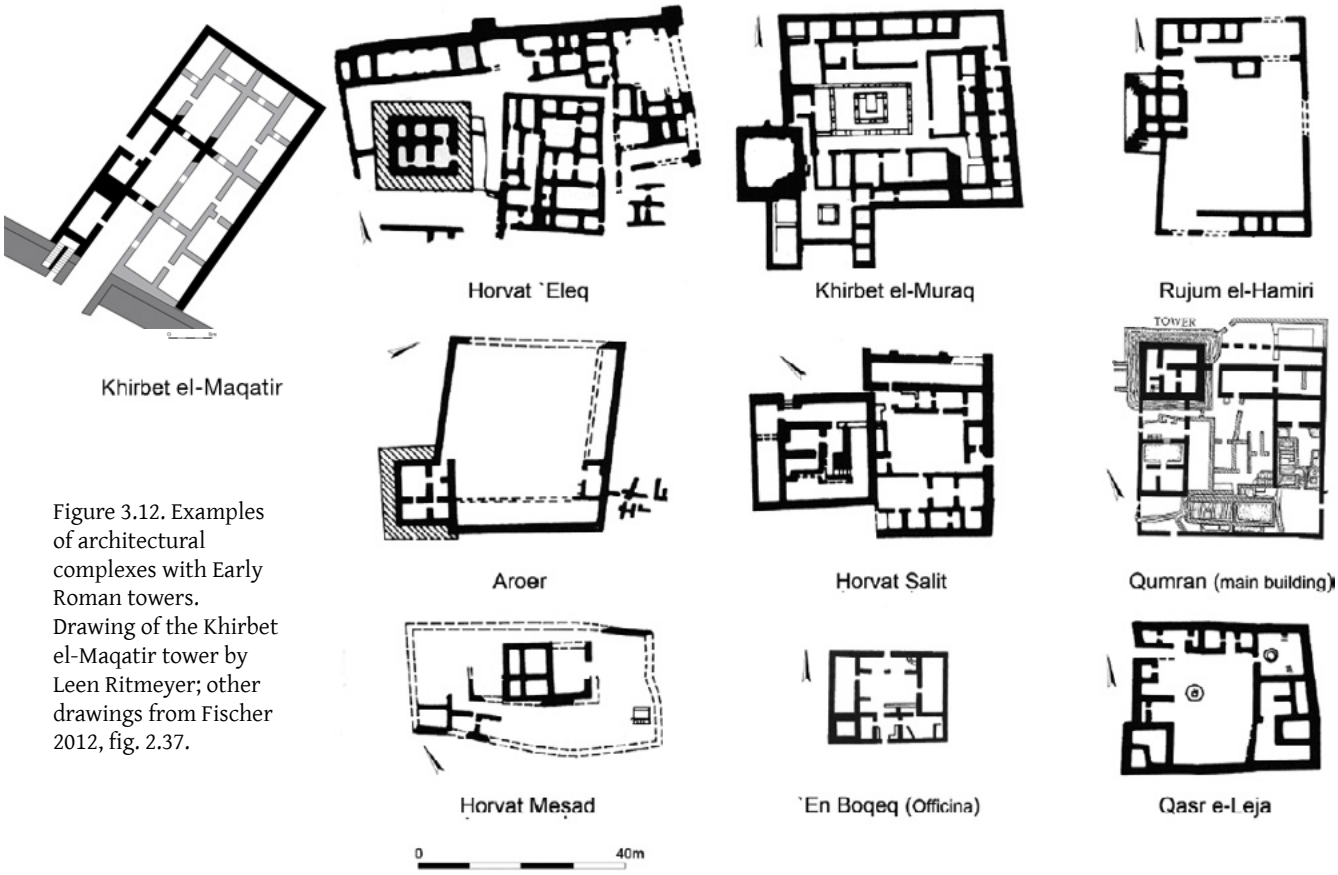


Figure 3.12. Examples of architectural complexes with Early Roman towers. Drawing of the Khirbet el-Maqatir tower by Leen Ritmeyer; other drawings from Fischer 2012, fig. 2.37.

Table 3.5 Selected fortification towers during the late Second Temple period

Location	Base	Height	Stories	Outer walls
Khirbet el-Maqatir	28 × 16 = 448	...	...	1.4 m thick, boulder and chink
Jerusalem (Phasael)[a]	21× 21 = 441	48	9?	Ashlar fit
Ḥorvat Ṣalit[b]	20 × 19 = 380	...	...	1.2–2.3 m thick
Archelais[c]	17 × 17 = 289	9*	...	1.2 m thick, ashlar fit
Herodium[d]	ø 18 = 254	40†	...	Ashlar fit
Ḥorvat Maẓad[e]	18 × 12 = 216	...	...	0.8–1.0 m thick
Tel Goded[f]	14 × 14 = 196	...	...	1.0 m thick
Jerusalem (Hippicus)[a]	13 × 13 = 169	42	8?	Ashlar fit
Khirbet el-Muraq[g]	13 × 13 = 169	...	...	...
Ḥorvat ʿEleq[h]	13 × 12 = 156	20–25†	4–5†	1.4 m thick, “crudely dressed”
Arad[i]	12 × 12 = 144	...	...	1.6 m thick
Rujm Abu Ḥashabe[j]	12 × 12 = 144	...	...	1.0 m thick, headers and stretchers
ʿAroʿer[k]	13 × 11 = 143	7†	2†	1.5 m thick, ashlar fit
Ḥorvat ʿAqav[l]	12 × 11 = 132	10–12†	3+†	1.2 m thick
Jerusalem (Mariamne)[a]	11 × 11 = 121	27	5?	Ashlar fit
Khirbet Qumran[m]	11 × 10 = 110	...	...	1.2 m thick
Givʿat Shaʾul[n]	10 × 9 = 90	...	2	0.7–1.0 m thick, boulder and chink
Qasr e-Leja[o]	9 × 9 = 81	4+†	...	1.5 m thick
Gamla[p]	ø 8–10 = 50–79	...	...	Headers, roughly dressed
ʿOfarim[q]	9 × 8 = 72	...	...	1.0–1.7 m thick, rough-hewn stones
ʿEn Boqeq[r]	4 × 4 = 16	3+†	2+†	0.7 m thick, ashlar fit

[a] For the Jerusalem towers—Phasael, Hippicus, and Mariamne, see Josephus, *Jewish War* 5.161–76. Calculations in the table use the long cubit (52 cm) rather than the short cubit (44 cm). Short-cubit equivalents: Phasael, 18 × 18 = 324 m2, 40 m tall, 8 stories. Hippicus, 11 × 11 = 121 m2, 35 m tall, 7 stories. Mariamne, 9 × 9 = 81 m2, 22 m tall, 4 stories. [b] Alon 1986, 94–95. [c] Hizmi 2008, 1600. [d] Netzer 1981, 92–96. [e] Fischer 2012, 24–25. [f] Gibson 1994, 213–14. [g] Damati 2008, 1962. [h] Hirschfeld 2000, 687–90. cf. Tepper and Peleg-Barkat 2014, 66–72. [i] Aharoni 1993, 85. [j] Fischer and Isaac 1996, 244. Hirschfeld 2000, 716–17. [k] Taxel 2011, 316–22. [l] Hirschfeld 2000, 709–11. [m] De Vaux 1993, 1235–41. [n] Tzaferis 1974, 85. [o] Dar 1986, 10. [p] Yavor 2010, 17–20. [q] Riklin 1997, 95. [r] Fischer et al. 2000, 6, 17, 20.
* Height conjectured by the archaeologist.
† Preserved height.

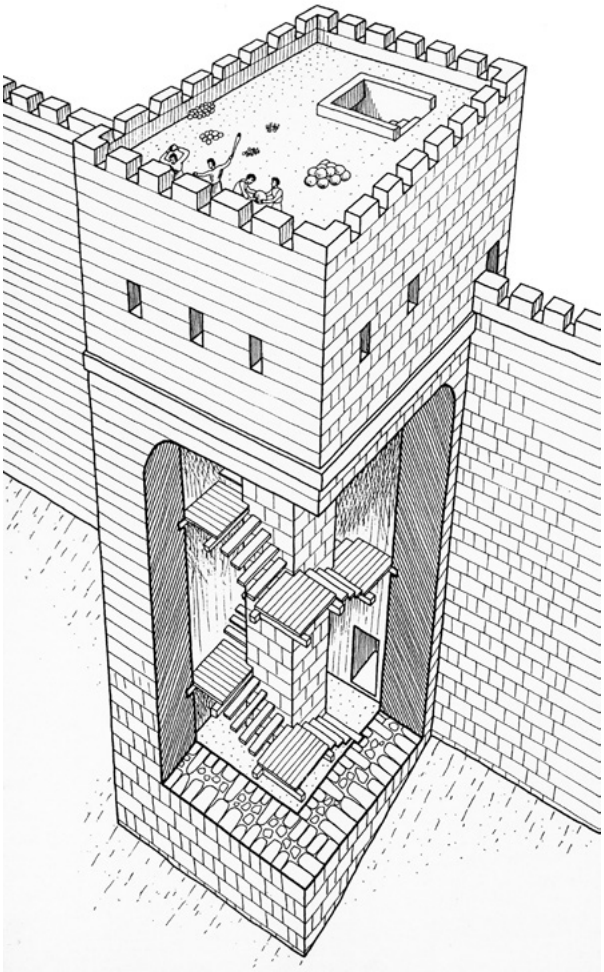


Figure 3.13. Tower at Dor, Second Temple period. Drawing by Leen Ritmeyer.

been a few meters greater along the northern face because the hillside slopes downward.

The date of the tower's construction. The village flourished in the Late Hellenistic period, but the tower itself was not built until sometime after the construction of the settlement's perimeter wall. Indeed, the tower abutted the perimeter wall, it did not interlock, as a probe trench in Square V21 confirmed (fig. 3.16). Moreover, a map of the village (Object 2572, A044925) lacks the northern tower in its blueprint. The map was etched into the flat surface of a limestone boulder (fig. 2.5; Stripling 2015, 81). The anepigraphic and iconic map lacked the northern tower, suggesting that the map was etched prior to the tower's construction. This fascinating discovery stands out as an archaeological anomaly. Though not an exact parallel, an image of Arad's Iron Age fortification system appears on the so-called Arad fortress seal (Schniedewind 2019, 40).

The coins fix the earliest possible date for the tower's construction. A coin (Catalog no. 621) found in a sealed locus (Wall 202) dates to 80 BCE or later (Alexander Jannaeus or his successors). The metal detectorist discovered the coin deep within the wall's mortar. The wall could not have been erected before the coin was stamped. In addition, a coin of Alexander Jannaeus (Catalog no. 340; fig. 3.17) lay on bedrock near the two in-situ storage jars from the Herodian period. In

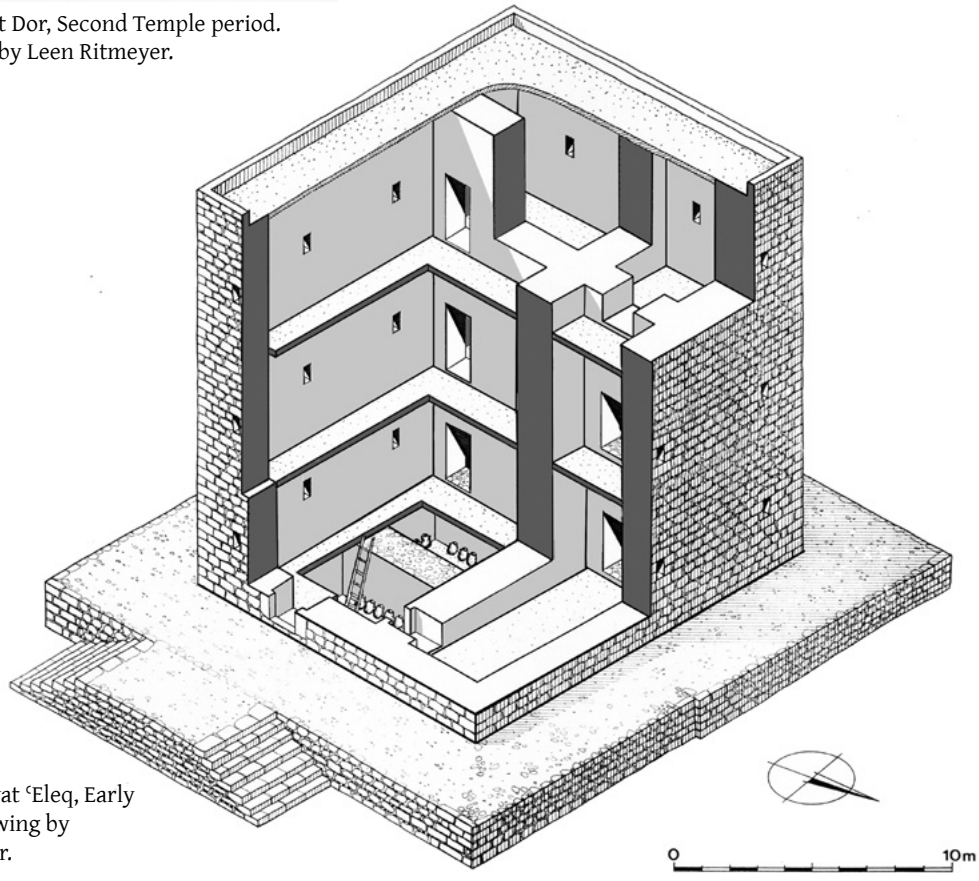


Figure 3.14. Tower at Ḥorvat ʿEleq, Early Roman period. Drawing by Leen Ritmeyer.

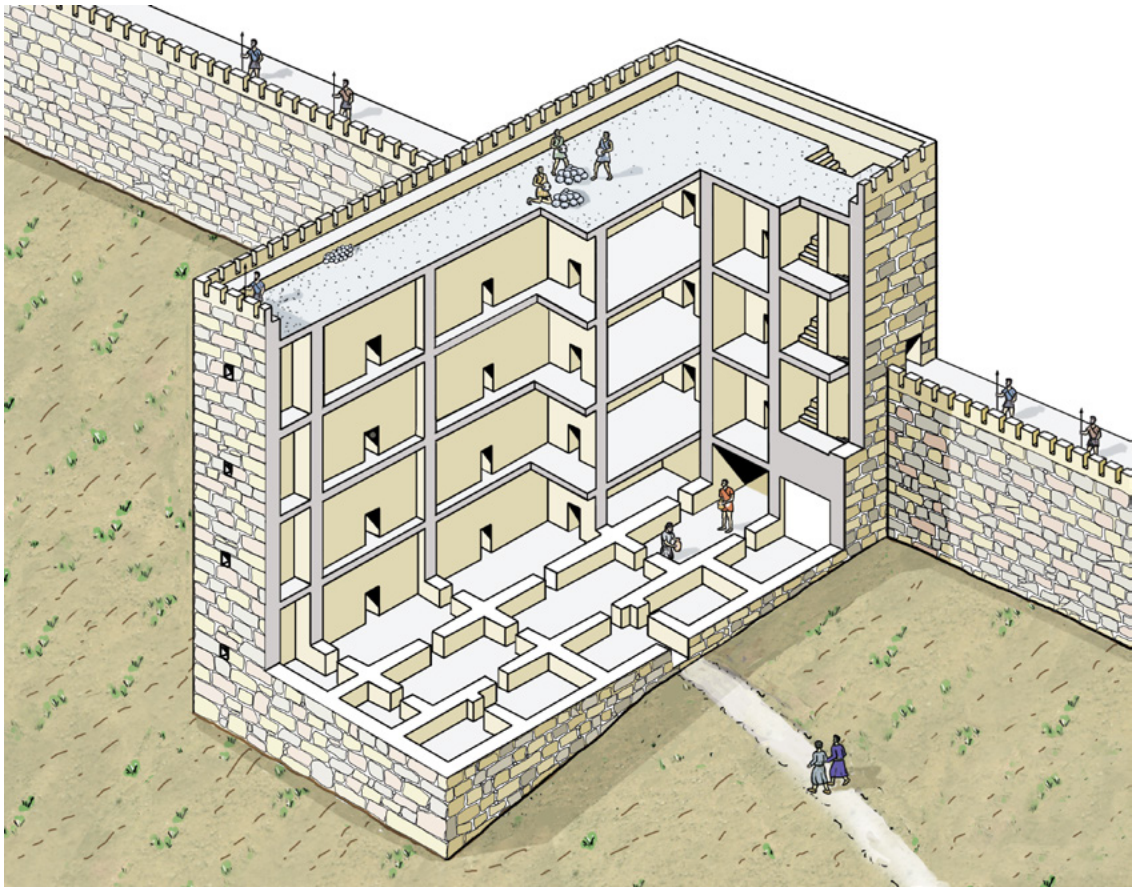


Figure 3.15. Northern fortification tower at Khirbet el-Maqatir. Drawing by Leen Ritmeyer.



Figure 3.16. Western wall of the tower (*left*) abutting the perimeter wall (*right*). Photograph by Michael C. Luddeni.



Figure 3.17. Coin of Alexander Jannaeus, no. 340. Photograph by Michael C. Luddeni.

all, the coins set the *terminus post quem* for the tower's construction at 80 BCE (Stratum 4).

The date of the tower's destruction. The tower fell in approximately 69 CE with the village (Stratum 3b). The pottery, charcoal, and coins support this date. The latest pottery from the tower dates to the Early Roman period. For example, the in-situ storage jars (Objects 2476 and 2477) sitting at floor-level date to the Early Roman period. The diagnostic vessel represents a typical storage jar of the first century CE, with a plain rim and a ridge at the bottom of a long neck (cf. Geva 2017, 120, 179–80, plates 6.2:2, 12.2:1). Charcoal from floor-level in Room D underwent carbon-14 testing in 2018 by Elisabetta Boaretto at the Weizmann Institute. According to her unpublished report, for ±1σ there was a 68.2 percent probability of 50–86 CE, and for ±2σ there was a 95.4 percent probability of 23–125 CE. Another report by her confirms that the char came from the same period as the human bones in Cavern 1 (Boaretto in Peterson and Stripling, 2017, 90*–91*). Furthermore, the tower's 145 coins maintain a consistent representation from Antiochus III until their sudden termination at the First Jewish Revolt (table 3.3). This pattern holds true site-wide among the 1,326 coins from the late Second Temple period town. The town's most recent coins were minted in year three of the revolt (68–69 CE). Thus, a demise in 69 CE fits perfectly with other destruction evidence at the site.

During the First Revolt, the Roman army destroyed Jewish sites in the region before finally sacking Jerusalem in 70 CE. Only 2 km southeast of Khirbet el-Maqatir, Khirbet Kafr Mur also had a fortification system destroyed in year three of the First Jewish Revolt (Aharonovich 2016, 90).

The purposes of the tower. The northern tower served multiple purposes. One purpose, fortification, is apparent because the tower affixed to the outside of the town wall and because it used megaliths. The ancient builders constructed the tower with megaliths, cobbles, and one-man stones. It appears that the carpenters salvaged some megaliths from the ruins of the site's Bronze Age fortress. The tower's location on the hillside gave the defenders an advantage against threats from the north.

The tower fulfilled other functions too. As Yizhar Hirschfeld (2000, 692) rightly explains, "In the Herodian period, towers were used for defense, for dwellings, for storage, as observation posts, and for other purposes. A particularly important purpose, however, was to create an impression of status, power, and affluence." The psychological aspects of towers continued into the crusader period (Ellenblum 2007). In addition to being a defensive stronghold, the northern tower functioned as a dwelling, as attested by the presence of domestic and cosmetic implements (table 3.1). Moreover, the tower provided food or water storage, as indicated by the subterranean pit (silo or cistern) and the two in-situ storage jars (Objects 2476 and 2477). By comparison, the tower at Ḥorvat ʿEleq also had food storage jars sitting at floor-level in situ (Hirschfeld 2000, 690). And the tower at Givʿat Shaʾul had a plastered cistern (Tzaferis 1974, 86).

The northern tower broadcasted power and served to intimidate detractors. From the roof, Jerusalem was within eyeshot, just as it was from other vantage points at the site. Khirbet el-Maqatir sat in the northern Judean hills 16 km north of Jerusalem, 870 meters above sea level, along the Joppa–Amman road and east of the central ridge route. A vantage point and strategic location such as this made the site a suitable military outpost for policing the Joppa–Amman road (cf. Pažout 2018, 178).

Northeastern Tower

The pottery from the tower dated to the Late Hellenistic or Early Roman periods (Strata 4–3b). Only a small number of sherds originated from the Bronze Age (Middle Bronze, and Late Bronze I).

Fortification Walls

At the northwestern corner of the settlement's fortification, the pottery underneath and within the walls was fired in the Late Hellenistic or Early Roman periods (Loci 9 in Squares X18 and W18). A coin of Alexander Jannaeus (Catalog no. 246) discovered within the northern wall in Square W18 establishes the *terminus post quem* for the construction of the fortification wall at 80 BCE (Strata 4–3b).

The settlement's western wall contained sherds embedded within it which date to the Late Hellenistic or Early Roman periods. Coins of Alexander Jannaeus (Catalog no. 984) and John Hyrcanus I (nos. 257 and 260) from the base of the wall (Square S16) set the earliest possible date for the construction of the western wall at 80 BCE.

Historical Reconstruction

Sometime after 80 BCE in the Late Hellenistic or Early Roman period, the inhabitants constructed the fortification walls and towers (Strata 4–3b). They built the northern tower subsequent to the perimeter wall. In 69 CE during the First Jewish Revolt, the Roman army destroyed the fortified village (Stratum 3b). When Khirbet el-Maqatir fell, the attackers invaded the northern tower. Inside the tower's entrance, an arrowhead (Object 2425) lodged into the wall. During the invasion, an archer apparently shot the arrow at the tower door. When he shot, the door had already been compromised, so the arrow entered the tower and

lodged into the wall in Room A, just above the in-situ socket stone. Ultimately, the Roman military destroyed the Jewish village prior to sacking Jerusalem and the temple in 70 CE. In a parallel situation, archaeologists recovered arrowheads and bolts in the castle gate at the crusader town of Arsur on the Mediterranean coast; the Mamluks used the bolts to burn the fortification in 1265 CE (Ashkenazi, Golan, and Tal 2013, 255).

References

Aharoni, Miriam. 1993. "The Israelite Citadels." In "Arad," by Yohanan Aharoni, Ruth Amiran, Ornit Ilan, and Miriam Aharoni. In *The New Encyclopedia of Archaeological Excavations in the Holy Land*, edited by Ephraim Stern, 1:82–87. Jerusalem: Israel Exploration Society.

Aharonovich, Evgeny. 2016. "Khirbet Kefar Mur: A Jewish Settlement from the Second Temple Period on Mount Bethel and a Wall from the Time of the Great Revolt." [In Hebrew.] *In the Highland's Depth* 6:85–106.

Alon, D. 1986. "Ḥorvat Ṣalit (Kh. Salentaḥ)." *Hadashot Arkheologiyot: Excavations and Surveys in Israel* 5:94–96.

Ashkenazi, D, O. Golan, and O. Tal. 2013. "An Archaeometallurgical Study of 13th-Century Arrowheads and Bolts from the Crusader Castle of Arsuf/Arsur." *Archaeometry* 55 (2): 235–57.

Damati, Emanuel. 2008. "Muraq, Khirbet el- (Ḥilkiya's Palace)." In *The New Encyclopedia of Archaeological Excavations in the Holy Land*, edited by Ephraim Stern, 5:1961–63. Jerusalem: Israel Exploration Society.

Dar, Shimon. 1986. *Landscape and Pattern: An Archaeological Survey of Samaria, 800 B.C.E.–636 C.E.* Pt. 1. British Archaeological Reports International Series 308. Oxford: B.A.R.

De Vaux, Roland. 1993. "Qumran, Khirbet and 'Ein Feshkha," by Roland de Vaux and Magen Broshi. In *The New Encyclopedia of Archaeological Excavations in the Holy Land*, edited by Ephraim Stern, 4:1235–41. Jerusalem: Israel Exploration Society.

Eisenberg, Michael. 2013. "Military Architecture." In *Hippos: Sussita of the Decapolis; The First Twelve Seasons of Excavations, 2000-2011*, by Arthur Segal, Michael Eisenberg, Jolanta Młynarczyk, Mariusz Burdajewicz, and Mark Schuler, 1:86–127. Haifa: Zinman Institute of Archaeology, University of Haifa.

Ellenblum, Ronnie. 2007. *Crusader Castles and Modern Histories*. Cambridge: Cambridge University Press, 2007.

Fischer, Moshe. 2012. *Ḥorvat Meṣad: A Way-Station on the Jaffa-Jerusalem Road*. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology 30. Tel Aviv: Yass Publications in Archaeology.

Fischer, Moshe, Mordechai Gichon, and Oren Tal. 2000. *ʿEn Boqeq: Excavations in an Oasis on the Dead Sea*. Vol. 2, *The* Officina*: An Early Roman Building on the Dead Sea Shore*. Edited by Moshe Fischer and Oren Tal. Mainz: von Zabern.

Fischer, Moshe, and Benjamin Isaac. 1996. *Gazetteer*. In *Roman Roads in Judea II: The Jaffa-Jerusalem Roads*. By Moshe Fischer, Benjamin Isaac, and Israel Roll, 113–288. British Archaeological Reports International Series 628. Oxford: Tempvs Reparatvm.

Geva, Hillel. 2017. *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*. Vol. 7, *Areas Q, H, 0-2 and Other Studies*. Jerusalem: Israel Exploration Society.

Gibson, Shimon. 1994. "The Tell ej-Judeideh (Tel Goded) Excavations: A Re-appraisal based on Archival Records in the Palestine Exploration Fund." *Tel Aviv* 21 (1): 194–234.

Hassler, Mark A., Katherine A. Streckert, and Boyd V. Seevers. 2020. "A Monumental Fortification Tower and Militaria: Late Hellenistic and Early Roman Military Architecture and Equipment Discovered at Khirbet el-Maqatir, Israel." *In the Highland's Depth* 10, no. 1 (Spring): 37*–69*.

Hirschfeld, Yizhar. 2000. *Ramat Hanadiv Excavations: Final Report of the 1984–1998 Seasons*. Jerusalem: Israel Exploration Society.

Hizmi, Hananya. 2008. "Beiyudat, Khirbet el- (Archelais)." In *The New Encyclopedia of Archaeological Excavations in the Holy Land*, edited by Ephraim Stern, 5:1600–602. Jerusalem: Israel Exploration Society.

Johnson, Stephen. 1983. *Late Roman Fortifications*. London: Batsford.

Lander, James. 1984. *Roman Stone Fortifications: Variation and Change from the First Century A.D. to the Fourth*. British Archaeological Reports International Series 206. Oxford: B.A.R.

Lawrence, A. W. 1979. *Greek Aims in Fortification*. Oxford: Clarendon.

McNicoll, A. W. 1997. *Hellenistic Fortifications: From the Aegean to the Euphrates*. Oxford Monographs on Classical Archaeology. Oxford: Clarendon.

Netzer, Ehud. 1981. *Greater Herodium*. Qedem 13. Jerusalem: Institute of Archaeology, Hebrew University of Jerusalem.

Pažout, Adam. 2018. "Early Roman Fortifications in the Northern Negev: A Spatial Analysis." *Limes XXIII: Proceedings of 23rd International Congress of Roman Frontier Studies, Ingolstadt 2015*, edited by C. Sebastian Sommer and Suzana Matešić, 1:174–80. Beiträge zum Welterbe Limes, Sonderband 4. Mainz: Nünnerich-Asmus Verlag, 174–80.

Peterson, Brian, and Scott Stripling. 2017. "Kh. el-Maqatir: A Fortified Settlement of the Late Second Temple Period on the Benjamin Plateau." *In the Highland's Depth* 7:61*–91*.

Riklin, Shimʻon. 1997. "The Courtyard Towers in the Light of Finds from 'Ofarim." [In Hebrew.] *'Atiqot* 32:42*, 95–98.

Rocca, Samuel. 2008. *The Forts of Judaea, 168 BC–AD 73: From the Maccabees to the Fall of Masada*. Fortress 65. Oxford: Osprey.

Schniedewind, William M. 2019. "Commander of the Fortress? Understanding an Ancient Israelite Military Title." *Biblical Archaeology Review*, January–February, 39–44.

Segal, Arthur. 2014. "The Fort (The Central Structure): Architectural Analysis." In *Excavations of the Hellenistic Site in the Kibbutz Sha'ar-Ha'Amaqim (Gaba), 1984–1998: Final Report*, by Arthur Segal, Jolanata Młynarczyk, and Mariusz Burdajewicz, 35–47. 2nd ed. Haifa: Zinman Institute of Archaeology, University of Haifa.

Stripling, Scott. 2015. "Khirbet el-Maqatir: On the Benjamin-Ephraim Border." [In Hebrew.] *Qadmoniot* 150:78–83.

Taxel, Itamar. 2011. "Stratigraphy and Architecture." In *Tel ʿAroer: The Iron Age II Caravan Town and the Hellenistic-Early Roman Settlement; The Avraham Biran (1975-1982) and Rudolph Cohen (1975-1976) Excavations*. Vol. 1, *Text*, by Yifat Thareani, 315–41. Annual of the Nelson Glueck School of Biblical Archaeology, Hebrew Union College—Jewish Institute of Religion 8. Jerusalem: Nelson Glueck School of Biblical Archaeology, Hebrew Union College—Jewish Institute of Religion.

Tepper, Yotam, and Orit Peleg-Barkat. 2014. "The Fortified Complex at Ḥorvat ʿEleq in Ramat HaNadiv: A Reappraisal." In *"From Watch Tower to Fortified City": Forts and Fortresses in Northern Israel from the Canaanites to the IDF* [in Hebrew], edited by Mordechai Aviam, 65–74. Land of Galilee 3. Tzemach: Kinneret Academic College, Institute of Galilean Archeology.

Tzaferis, V. 1974. "A Tower and Fortress near Jerusalem." *Israel Exploration Journal* 24 (2): 84–94.

Yavor, Zvi. 2010. "The Architecture and Stratigraphy of the Eastern and Western Quarters." In *Gamla: The Shmarya Gutmann Excavations, 1976–1988*. Vol. 2, *The Architecture*, by Danny Syon and Zvi Yavor, 13–112. IAA Reports 44. Jerusalem: Israel Antiquities Authority.

4. Subterranean Features

Scott Stripling with a contribution by Dvir Raviv

Subterranean installations include man-made pits, cisterns, silos, mikvaot, and other complexes chiseled into bedrock.[1] In biblical times they supported daily life by storing goods, food, and water. Most installations factored into urban planning and construction because the removed stone provided construction material for the buildings. Residents could renovate installations or create new ones as needs arose. While the top elevations of the installations varied at Khirbet el-Maqatir, many bottom elevations reached the same depth: approximately 872 meters. At this elevation, builders likely encountered a transition from the soft limestone of the Amminadav formation to a layer of hard dolomite which discouraged deeper quarrying. The 43 subterranean installations at Khirbet el-Maqatir from the Hellenistic and Early Roman periods include a hiding complex, an olive press cave, a wine vat, mikvaot, storage structures, and a tomb.

Hiding Complex

The Khirbet el-Maqatir hiding complex boasted rich finds. It was the first hiding system with dateable remnants excavated in the mountainous area north of Jerusalem. The hiding complex (Installation 43) lay beneath the eastern part of the site, alongside two ritual baths, cisterns, and remains of buildings (fig. 4.1). Excavation failed to expose a connection between the entrance of the system and a structure on the surface. Builders hewed the subterranean features into an open bedrock courtyard, formed from limestone of the Amminadav formation (*Geological Map* 2016). The system consisted of three sections: the olive press cave in Cavern 1 (Installation 38), the cistern in Cavern 2 (Installation 18), and a hiding wing that included a tunnel and an internal hiding room (Cavern 3) (figs. 4.2–4). We did not assign a separate installation number to Cavern 3. Entrance to the system was via a terraced staircase (width 1.2–1.4 m; 9 steps) leading to a landing, which connected to four final steps leading to the bottom of Cavern 1.

Cavern 1 measured 8.5 × 10 meters, and the height of the ceiling reached 3.0–3.6 meters. Rock-cuttings, four weight-stones, and two massive stones that served as screw-press bases came to light along the western wall. Excavations at two adjacent sites, Khirbet Nisya (Livingston 2003, 137–41) and Khirbet Ghureitis (unpublished) revealed similar elements in olive press caves from the Second Temple period. Interestingly, two mikvaot bordered the olive press cave: one 10 meters north and the other 15 meters southwest (Wood 2001, 251–52), a possible evidence for the production of oil in purity (Adler 2008, 62–72).

A stone wall sat atop the steps at the entrance to Cavern 1. This wall blocked the entrance with the exception of a small opening required for crawling between the top of the wall and the ceiling of the hall (fig. 4.5). Logically, this wall served as part of the hiding complex. In the ceiling of the olive press cave near the western wall, an elliptical opening about 1 meter in diameter provided ventilation. The opening may be the remains of a storage pit that preceded the quarrying of the olive press cave. It also provided ingress and egress if exigent circumstances required closure of the main opening.

In the southern wall of the olive press chamber about 1 meter above floor level, a narrow open passage or bench 0.7 meters wide and 0.8 meters long abutted Cavern 2. Above the bench rebels created an opening in the wall that separated the main chamber from the water cistern at a high level (2 m above its bottom) in a manner that enabled its continued use. The opening enabled the troglodytes to draw water secretly, a phenomenon known from many hiding complexes throughout Judea. Tavger and Raviv document examples of this from nearby sites (2013, 162; Raviv 2018, 2:118). In addition to incorporating an active cistern into the system in a disguised manner, the opening allowed air to circulate. Multilayered plaster with white-gray colors typical to the Late Hellenistic and Early Roman periods (Porath 2002, 35–36) covered the cistern's walls. Metal detection revealed two coins struck under Alexander Jannaeus or later successors (80/79 BCE or later) within the plaster (Catalog nos. 495 and 513). These coins revealed that the cistern was dug no earlier than the Hasmonean-Herodian period.

A hiding tunnel 1.25 meters above floor level extended north from the northeast wall of Cavern 1 (fig. 4.5). The tunnel rested on the line between the harder limestone below and the softer chalk above. The length of the tunnel measured 3.80 meters, the average width was 0.45–0.50 meters, and its height 0.70–0.60 meters.

[1] Team members contributed to this chapter's research: John Davis (tombs), Yoav Farhi (coins), and Steven Rudd. Dvir Raviv coauthored the section on the hiding complex.

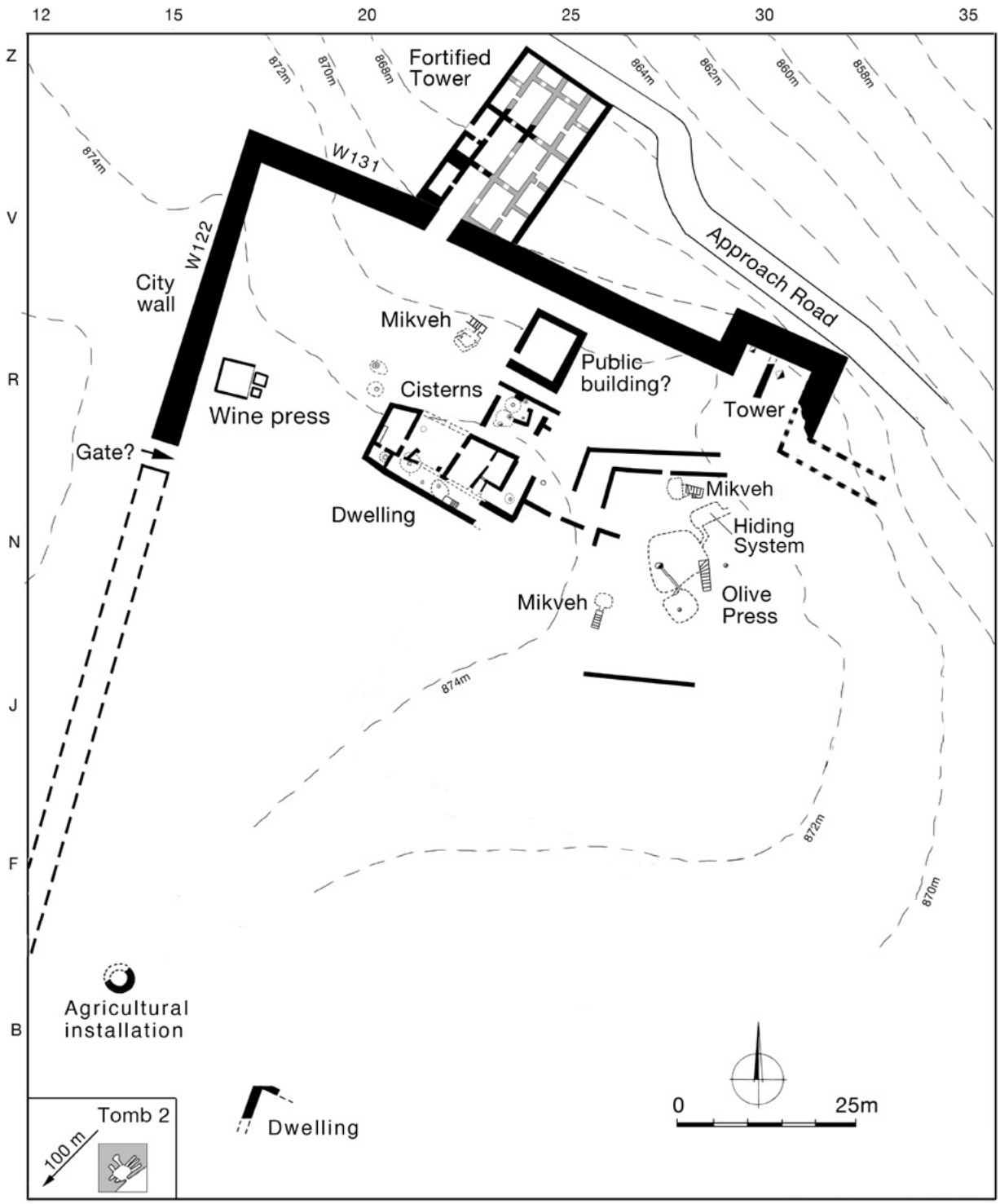


Figure. 4.1. Plan of the site. Drawing by Leen Ritmeyer.

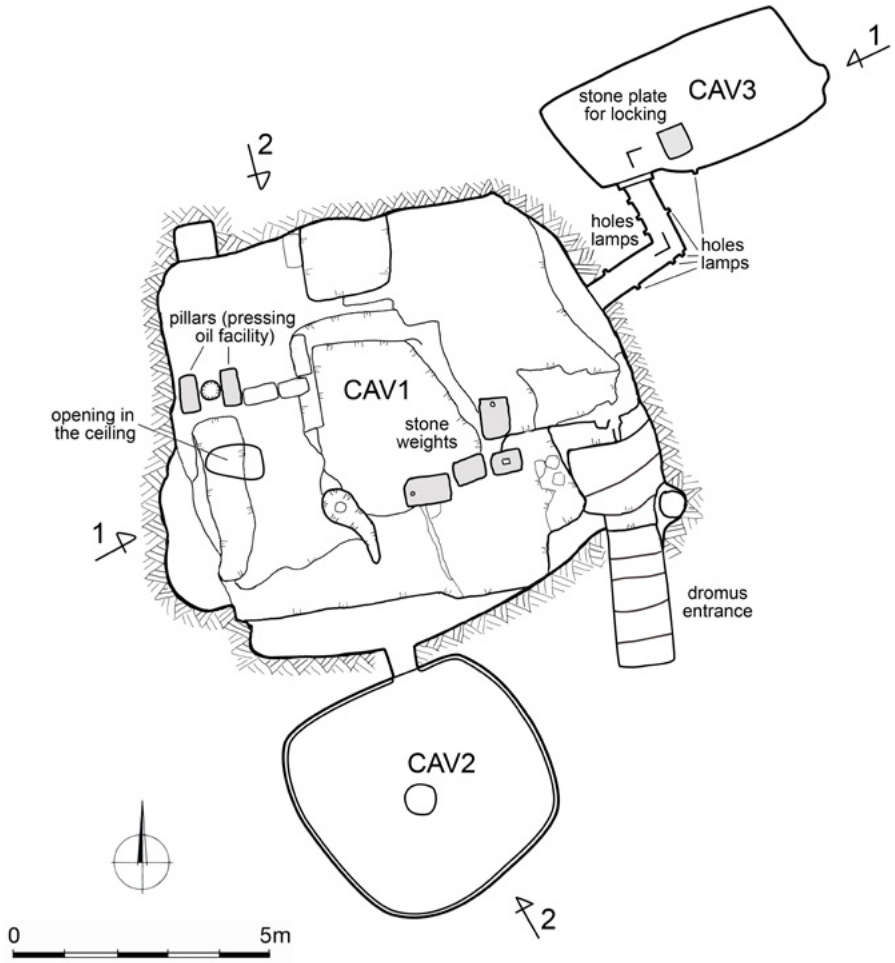


Figure. 4.3. Reconstruction of the hiding complex's usage period. Drawing by Dvir Raviv.

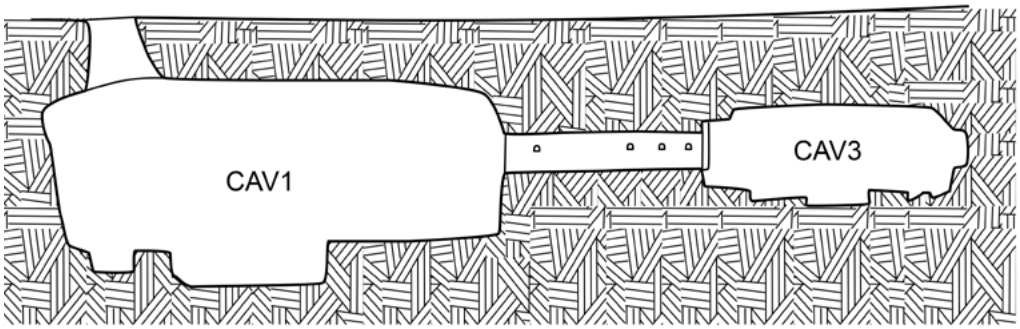


Figure. 4.2. Plan and section of the hiding complex. Drawing by Dvir Raviv.

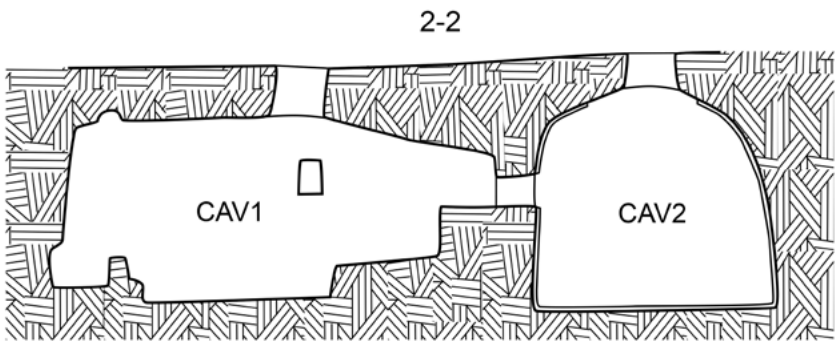


Figure. 4.4. Hiding complex, a reconstruction of the section of usage period.
Drawing by Dvir Raviv.



Figure. 4.5. Wall blocking the entrance to Cavern 1. Photograph by Michael C. Luddeni.



Figure. 4.6. Locking installation in the inner hiding room in Cavern 3. Photograph by Dvir Raviv.

The tunnel's architects chiseled eight oil-lamp niches in the tunnel walls near the ceiling. Three of the sockets pock the center on the western wall, on the inner left part of the tunnel. This location suggests a left-handed hewer who advanced toward Cavern 3 (cf. Kloner and Tepper 1987, 58–59). In the middle of the tunnel about 2 meters from the olive press room, the tunnel turns north at 90 degrees and leads to Cavern 3. The room measured 2.5 × 5 meters, its height 1.5–1.8 m, and its shape irregular. At the point of connection between the tunnel and the hiding room, builders hewed a niche around the opening of the tunnel that allowed its closure from the inside. A stone plate (0.50 × 0.50 m, width 0.15 m) found in situ at the bottom of the hiding room (fig. 4.6) restricted passage.

Many hiding complexes employed similar locking installations, such as nearby Khirbet el-Musharriqa (Klein and Raviv 2013, 219). Masons chiseled an oil-lamp niche in Cavern 3's southern wall, 0.7 m east of the opening of the tunnel.

In summary, when constructing the hiding complex, the inhabitants

1. converted Cavern 1 into a hiding room by blocking the entrance with a stone wall, while leaving a narrow, camouflaged opening;
2. quarried a passage to Cavern 2 in a manner that enabled secret use; and
3. cut Cavern 3, creating a tunnel that led to an internal room which could be blocked from the inside.

Furthermore, dozens of jars and cooking vessels indicate significant food storage, as explained next.

The Findings, Dates, and Functions

The discoveries in the hiding complex represent human activity at the site during Iron Age I, the Hellenistic period, and the Roman period (tables 4.1–3). Ceramic and glass vessels and coins dominate the material remains. The ceramic finds include 486 vessels, mostly storage and cooking vessels, of types known in the rural area of Judea during the late Second Temple period and through the end of the Bar Kokhba revolt. Most of the finds came from within the drift matrix that covered Cavern 1. The rest of the finds came from the bottom of Cavern 2, and a few finds derived from Cavern 3. Tables 4.4–5 present a division of the pottery finds by subperiod, type, and place of discovery. Cavern 1 yielded the earliest ceramic finds, including five Iron Age I sherds. These may represent ancient use of the space, but more likely these sherds reflect contamination from the surface. In addition, five jar fragments that dated to the Pre-Hasmonean period from Cavern 1 are noteworthy because they could represent the date of the initial quarrying of the olive press cave. This data dates the establishment of the settlement to Stratum 5 (ca. 290–100 BCE). The fortification wall and significant demographic growth date to Stratum 4 (100–31 BCE). Most finds from Cavern 1, about 150 jars and 50 cooking pots, dated to the Hasmonean and Herodian periods (late-second century BCE–first century CE) and represent the peak of activity for the olive press cave and the rest of the site. The finds in Cavern 2 may represent the date of its quarrying (Late Hasmonean or Early Herodian period), its use (late Second Temple period), and its integration into the hiding complex (as an active water cistern or as a hiding place) during the two revolts against Rome.

Only three indicative sherds came from Cavern 3: a jar, a bowl (or basin), and a juglet (fig. 4.7:1, 10). The first two clearly date to the period between the revolts, and the third generally dates to the first or second centuries CE.

The percentage of jars (about 60%) was relatively high in comparison to the rest of the finds. This anomaly indicated the storage potential in Cavern 1 during the period of industrial use in the late Second Temple period and after its conversion to a hiding complex. It seems likely that during the revolts, the large cooking vessels, constituting about 30 percent of the total finds, became storage vessels, and together with the storage jars they constituted about 90 percent of all ceramic finds dating to these periods. Such finds are typical to other hiding complexes' assemblages (Kloner and Tepper 1987, 339–40). Among the noteworthy first-century finds were fragments of a Herodian lamp and an Italian lamp (fig. 4.8:1), though the first may also represent the first third of the second century CE (Rosenthal and Sivan 1978, 80; Barag and Hershkovitz 1994, 47).

Separating the pottery assemblage of the late Second Temple period from the assemblage that was brought to the hiding complex during the Great Revolt presents a methodological challenge due to the similarity in the pottery types used during this period. As a result, it is difficult to determine which artifacts represent the stage of olive press activity and which finds belong to the hiding stage. Most problematic are the types that appear in the mid-first century CE and continue in use until the Bar Kokhba revolt (fig. 4.7:3, 6, 7, 9, 20–22). These may belong at least in part to the Great Revolt. Among the vessels are 9 jars, 16 cooking pots, several jugs, kraters, and a casserole, as well as a fragment of a Herodian lamp. A coin from year three of the revolt (68/69 CE) from Cavern 2 unambiguously belongs to the Great Revolt period.

About 26 percent of the total finds discovered in the subterranean system clearly date after 70 CE, so it appears likely that inhabitants brought these vessels to the cave during the Bar Kokhba revolt. The Bar Kokhba finds include jars, cooking pots, jugs, kraters, casseroles, bowls, and oil lamps, including Judean oil lamps (figs. 4.7:1, 4, 55, 8, 10–19; 4.8:2–3). The green clay and black and white inclusions of three Bar Kokhba jars match jars from the 'Abud cave (types 'Abud-SJ8A and 'Abud-SJ9B; Raviv, 2018, 3:68–69), the Rimonim cave, and Cave 4 of Wadi al-Habibi (p. 108). The last two caves lie only a few kilometers east of Khirbet el-Maqatir.

In addition to the dozens of post-70 CE pottery vessels from the hiding complex, three second-century CE glass sherds from Cavern 1 probably date to the Bar Kokhba revolt (fig. 4.9; table 4.3). Two of them were bowls, while the third was a plate or shallow bowl. Of the two bowls, one featured a crimped-trail decoration while the other had a double-folded ledge below the rim.

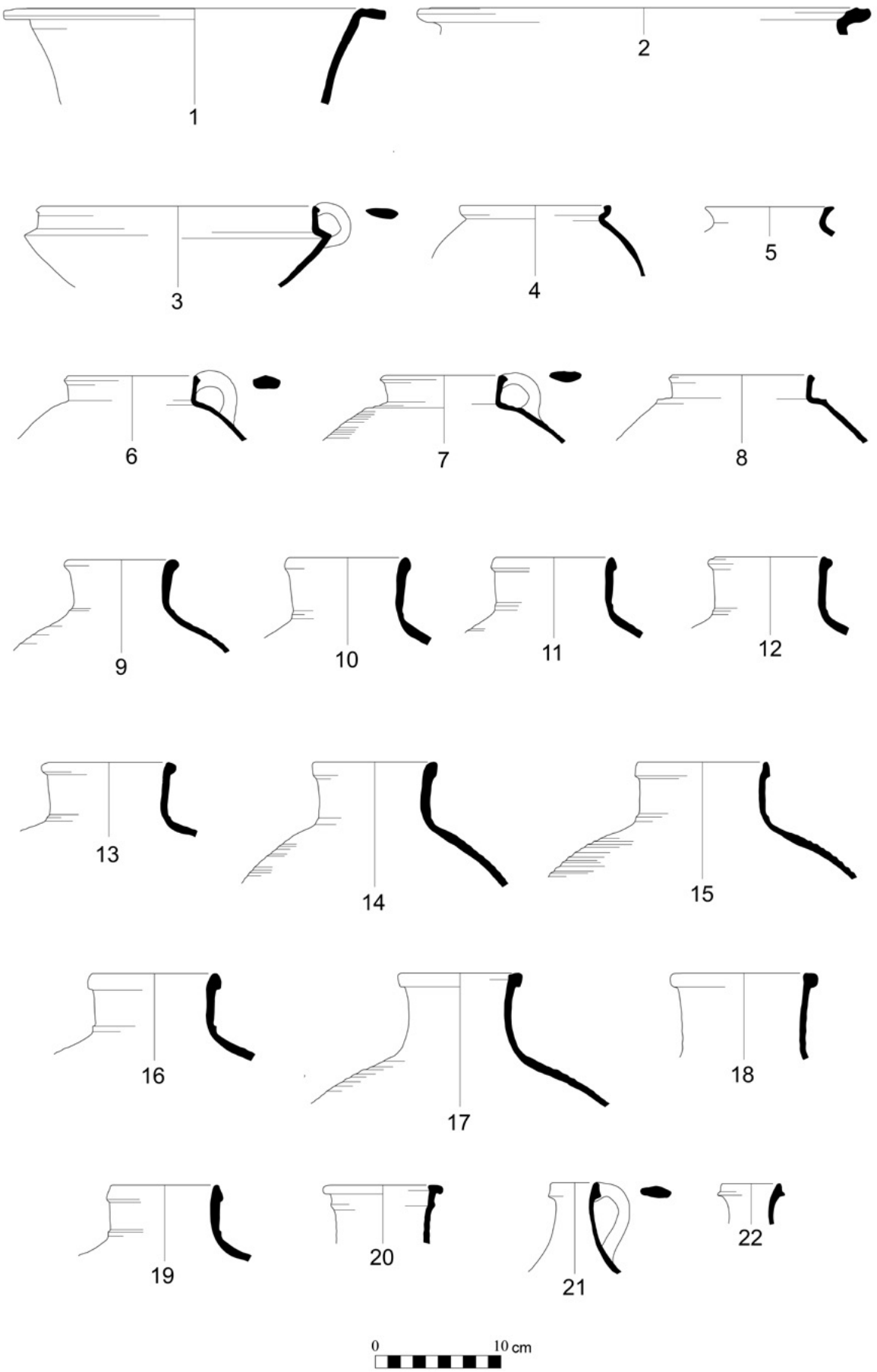


Figure. 4.7. Pottery vessels (first and second centuries CE) from the hiding complex. Drawing by Dvir Raviv.

Table 4.1. Pottery vessels (first–second centuries CE) from the hiding complex

No.	Reg. no.	Type	Description	Parallel
1	CAV3 L11/P1/2	Basin/bowl	Light-brown yellowish clay, white and gray grits, gray interior	Variant at Ein Gedi: Hirschfeld 2007, 445, plate 2:18 Variant at Petora: Rapuano 2013, 64, fig. 2:21
2	CAV1 L21/P32/1	Krater	Yellowish red clay, white and gray grits, gray interior	Jericho (Roman Villa): Bar-Nathan and Eisenstadt 2013, 63, plate 1.8:665
3	CAV1 L19/P56/3	Casserole	Reddish brown clay, well fired, gray interior	Variant at Jericho (Roman Villa): Bar-Nathan and Eisenstadt 2013, 61, plate 1.6:628
4	CAV1 L7/P19/1	Casserole	Reddish brown clay, well fired, gray interior	Jericho (Roman Villa): Bar-Nathan and Eisenstadt 2013, 70, plate 1.15:740
5	CAV1 L7/P15/2	Cooking pot	Reddish brown clay, dark gray, gray interior	Jericho (Roman Villa): Bar-Nathan and Eisenstadt 2013, 60, plate 1.5:624
6	CAV1 L29/P53/3	Cooking pot	Dark gray clay, dark gray, well fired	Jericho (Roman Villa): Bar-Nathan and Eisenstadt 2013, 60, plate 1.5:614 Wadi ed-Daliyeh: Lapp and Lapp 1974, plate 28:17
7	CAV1 L7/P15/4	Cooking pot	Reddish brown clay, few small white grits, gray interior	Masada: Bar-Nathan 2006, 179, plate 29:43 Cave of Letters: Yadin 1963, 113, fig. 41:A.10
8	CAV1 L10/P27/1	Cooking pot	Reddish brown clay, white grits, gray interior	Masada: Bar-Nathan 2006, 179, plate 29:42 Jericho (necropolis): Hachlili and Killebrew 1999, 122, fig. 3.59:10
9	CAV2 L3/P8/8	Storage jar	Light brown yellowish clay, light gray interior	Matmon cave: Bar Adon 1961: 38, fig. 1:1 Khirbet Umm el-'Umdan: Rapuano 2013, 75, fig. 7:116
10	CAV3 L3/P1/1	Storage jar	Yellowish light-brown clay, large white and gray grits, gray interior	Cave of the Sandal: Eshel and Zissu 1998, 126, plate 4:1 Avior Cave: p. 123, plate 1:2
11	CAV1 L7/P15/1	Storage jar	Light-brown yellowish clay, few white and gray grits, gray interior	Jericho (Roman Villa): Bar-Nathan and Eisenstadt 2013, 66, plate 1.11:696–97
12	CAV1 L10/P27/2	Storage jar	Light-brown yellowish clay, few white and black grits, gray interior	'Abud Cave: Zissu et al. 2009, 497, plate 2:17 Jericho: Bar-Nathan 2002, 274, plate 24:413
13	CAV1 L29/P57	Storage jar	Light-brown yellowish clay, few white and gray grits, gray interior	Variant of no. 12
14	CAV1 L7/P15/3	Storage jar	Reddish yellow clay, few white and gray grits, gray interior	Shiloh: Raviv 2018c, 38, plate 4:36–37
15	CAV1 L7/P19/4	Storage jar	Red yellowish clay, few white and gray grits, gray interior	Ein Gedi: Hirschfeld 2007, 406, plate 68:12 Shiloh: Raviv 2018c, 37, plate 3:16
16	CAV1 L7/P15/5	Storage jar	Red yellowish clay, few small white and gray grits, gray interior	Jericho (Roman Villa): Bar-Nathan and Eisenstadt 2013, 56, plate 1.1:559
17	CAV1 L7/P19/8	Storage jar	Light-brown yellowish clay, few white and gray grits, gray interior	Jericho (Roman Villa): Bar-Nathan and Eisenstadt 2013, 57, plate 1.2:567
18	CAV1 L7/P19/9	Storage jar	Light-brown gray clay, few small white and gray grits, gray interior	El-Jai Cave: Eshel and Zissu 1998, 96, plate 1:13 'Abud Cave: Zissu et al. 2009, 497, plate 2:15
19	CAV1 L27/P44/3	Storage jar	Light-brown yellowish clay, few white grits, dark gray interior	Avior Cave: Eshel and Zissu 1998, 123, plate 1:1
20	CAV1 L7/P19/6	Jug	Reddish light-brown clay, few small white grits, gray interior	Variant at Wadi ed-Daliyeh: Lapp and Lapp 1974, plate 28:5
21	CAV1 L19/P43	Jug	Reddish brown clay, well fired, gray interior	Wadi ed-Daliyeh: Lapp and Lapp 1974, plate 28:1 Jericho (Roman Villa): Bar-Nathan and Eisenstadt 2013, 69, plate 1.14:723
22	CAV2 L3/P8/9	Jug	Reddish brown clay, few small white grits, gray interior	Shiloh: Raviv 2018c, 56, plate 8:2, 4 Midras (Complex 20): Kloner 1987, 342, plate 1:1

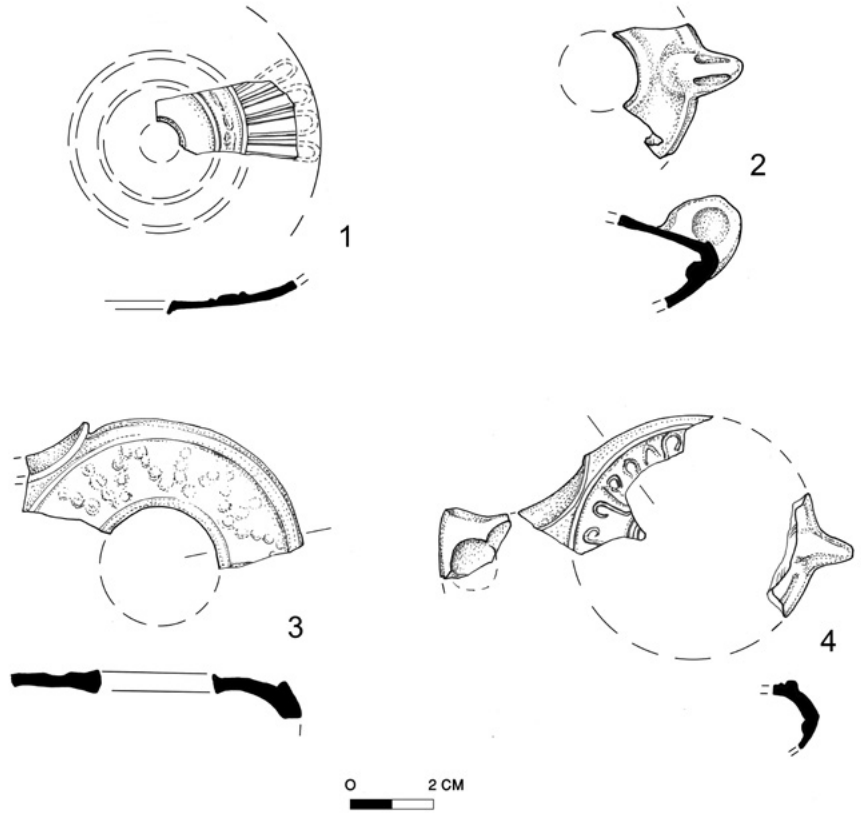


Figure. 4.8. Oil lamps (first and second centuries CE) from the hiding complex (Cavern 1) and in the ritual bath (Cavern 4). Drawing by Dvir Raviv.

Table 4.2. Oil lamps (first–second centuries CE) from the hiding complex (CAV1) and ritual bath (CAV4)

No.	Reg. no.	Type	Description	Parallel
1	CAV1 L7/P15	Italian	Buff clay, red slip	Masada: Barag and Hershkovitz 1994, 81, no. 150
2	CAV1 L4/P16	Judean	Light-brown yellowish clay, few small white and gray grits	General discussion: Rosenthal and Sivan 1978, 82–85; Barag and Hershkovitz, 1994, 59–78
3	CAV4 L1/PZ	Judean	Light-brown reddish clay, few small white grits, gray interior	Variant in Sussman 2012, 122, no. 6
4	CAV1 L20/P36	Judean	Reddish light-brown clay, few small white grits, gray interior	Sussman 1972, 138, no. 197

In addition to the pottery and glass vessels dated to the period between the two revolts, excavations yielded four coins from the second century CE: one bronze coin of Tyre dating to 93/94–195/196 CE (Catalog no. 1242); two coins of Trajan—a silver dinar dating to 114–117 CE (Catalog no. 1244) (fig. 4.10) and a bronze coin from Alexandria dating to 112/113 CE (Catalog no. 1243); and one small bronze coin, restruck by the Bar Kokhba administration. The restruck coin, which dated to the third year of the revolt (134/135 CE) (fig. 4.11), bears the Hebrew legend [ם]לחרות ירושל (for the freedom of Jerusalem) and the Hebrew name שמעון (Shimon) (Catalog no. 1245). The Tyrian coin and the two coins of Trajan were discovered in Cavern 1, while the Bar Kokhba coin came from Cavern 2.

Excavation near the bottom of Cavern 1 produced several human skeletons. Carbon-14 tests dated the skeletons to the first century CE (Peterson and Stripling 2017, 90*–91*), leading the excavators to identify the remains as Jewish refugees hiding during the Great Revolt. If this date is correct, it is reasonable to assume that the refugees of the Second Revolt did not know of the existence of skeletal remains under their feet. A human mandible was found under the white matrix near the tunnel entrance. This suggests that the quarrying of Cavern 3 may have occurred in the Second Revolt. Also, the fragmentary remains of two individuals were discovered in Cavern 3. If the remains from Cavern 3 were from individuals not represented in Cavern 1, then there would be six individuals in Cavern 1 and two individuals in Cavern 3. Assuming this wing was carved in the Second Revolt period, these could

Table 4.4. Pottery from the hiding complex by subperiod and type

Subperiod	Jars	Pots	Jugs	Juglets	Casseroles	Bowls	Lamps	Other	Total
Iron I	3	1					1		5
Hellenistic and Hasmonean	133	23	2				1	1[a]	160
Early Roman (until 70 CE)	77	58	8	1	4	6	1	3[b]	158
Middle Roman (70–136 CE)	80	39			2	1	4	2[c]	128
Hellenistic–Roman (unclassified)			17	7	2			9[d]	35
Total	293	121	27	8	8	7	7	15	486

[a] 1 ungentarium. [b] 3 kraters. [c] 1 jug-jar, 1 cooking bowl. [d] 4 basins, 4 flasks, 1 pedestal.

Table 4.5. Pottery from the hiding complex by subperiod and location

Subperiod	Cavern 1	Cavern 2	Cavern 3
Iron I	5		
Early Hellenstic	5		
Hasmonean	154	1	
Early Roman (until 70 CE)	86	72	
Middle Roman (70–136 CE)	118	7	3
Hellenistic–Roman (unclassified)	35		
Total	403	80	3

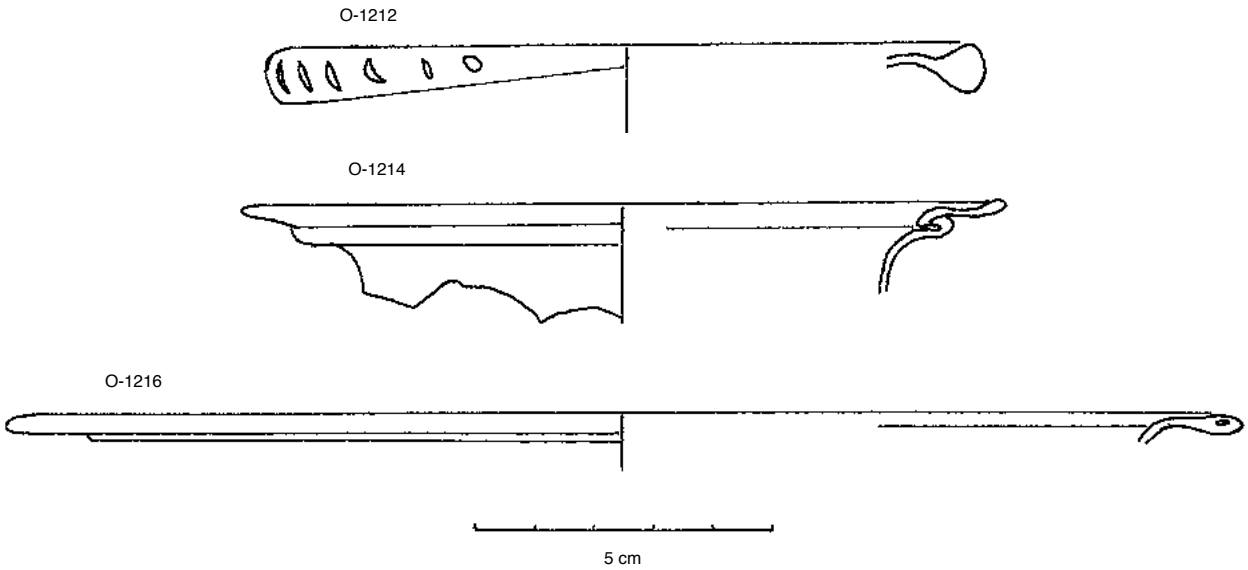


Figure. 4.9. Glass vessels (70–135 CE) from the hiding complex (Cavern 1). Drawing by Abigail Leavitt.

Table 4.3. Glass vessels (70–135 CE) from the hiding complex (CAV1)

No.	Object	Description	Parallel
1	1212	Crimped-trail bowl rim, bluish-green	Variants: Jackson-Tal 2009, plate 18.3:1–4
2	1214	Double-fold bowl rim, bluish-green	'Abud Cave: Zissu et al. 2009, 499, plate 5:34
3	1216	Plate rim, blue	Jackson-Tal 2009, plates 16.5:2; 14.4:1 Avior Cave: Eshel and Zissu 1998, 139, plate 5:2

belong to Bar Kokhba refugees, though the possibility also exists that scavenger animals moved bones from Cavern 1 to Cavern 3. In this case, all human remains belong to the First Revolt.

Thus, the finds of the hiding complex indicated two periods of use: The Great Revolt and the Bar Kokhba revolt. Based on the numerous finds from the end of the first century BCE to the first century CE, rebels likely connected Caverns 1 and 2 during the Great Revolt. The finds in Cavern 3 from the period between the revolts suggests that this wing may have been added to the system during the Bar Kokhba revolt. However, the simple plan of the eastern wing, the paucity of its finds,



Figure. 4.10. Trajan coin discovered in Cavern 1. Photograph by Michael C. Luddeni.



Figure. 4.11. Bar Kokhba coin (third or fourth year of the revolt) discovered in Cavern 2. Photograph by Michael C. Luddeni.

and the existence of similar hiding complexes from the time of the Great Revolt leaves open the possibility that this wing dates to the Great Revolt. Hiding tunnels from the Great Revolt, including a sharp angle, were discovered at Nesher-Ramla (Melamed 2010, 90, 94–95) and at Khirbet ʻEtri (Klein, Ganor, and Goldenberg 2019).

In summary, the findings of the system indicate three main periods of use: the late Second Temple period, the Great Revolt, and the Bar Kokhba revolt. The system developed as follows: During the late Second Temple period there was an olive press in the main cave, which was immediately to the north of a large bell-shaped cistern. During the Great Revolt, Jewish residents converted the olive press cave into a hiding place by blocking the entrance with a stone wall, bringing food storage vessels to the cave, and connecting it to the water cistern so that it could be used in secret. During the Bar Kokhba revolt, they added a short, curved tunnel and an internal hiding room that could be locked from the inside. However, given the existence of similar hiding complexes dating to the First Revolt and even earlier (see below), the possibility exists that Cavern 3 was quarried during the first revolt.

Discussion and Historical Implications

The finds from the hiding complex indicated the active participation of the site's residents in the two revolts against the Romans. The destruction evidence in the hiding complex and throughout the site points to the Great Revolt. The Bar Kokhba finds from the hiding complex merit renewed discussion regarding reoccupation of conquered sites.

Evidence from the Great Revolt and the Bar Kokhba Revolt

Excavation yielded much evidence of the destruction from the Great Revolt. These findings include the following: a 5-cm-thick layer of ash in several areas of the site, two broken jars found on the floor of the fortified tower at the northern perimeter of the site, a whole Herodian oil lamp on the floor of the large residential structure in the center of the site (Squares P20–22), as well as glass vessels and coins. Numerous silos contained pottery and coins that dated to the late Second Temple period until the Great Revolt, some including a layer of ash. Finally, 62 coins from the second and third years of the First Jewish Revolt were discovered throughout the site. According to the preliminary findings of the excavators, the site sat vacant from the third year of the Great Revolt until the Byzantine period (Peterson and Stripling, 2017, 76*–77*, 80*, and note 37). However, the Bar Kokhba finds discovered in the hiding complex, which included dozens of vessels—storage vessels and a broad repertoire of day-to-day vessels, indicate reuse of the settlement during the Bar Kokhba revolt. Excavations yielded twelve imbrex roof tiles, some from clean Early Roman contexts. Hirschfeld (2000, 320–21, fig. 202–3) published ceramic roof tiles from a pre-70 CE settlement layer at Khirbet ʿEleq. However, Peleg-Barkat and Tepper (2014, 66–67) have shown there is a settlement layer from the period between 70–136 CE at Khirbet ʿEleq, which makes it possible that the roof tiles date to the post-70 CE period. Currently, the evidence for ceramic roof tiles in post-70 CE sites, in particular those connected to the Roman army, is stronger than the evidence from pre-70 CE sites.

A Judean oil lamp fragment (fig. 4.8:4) from a nearby ritual bath (Mikveh 3; Cavern 4), as well as surface fragments of jars and cooking pots dating to after 70 CE hint at a possible squatter occupation near the end of the intra-revolt period. The evidence clearly indicated that the town suffered significant damage during the Great Revolt, and even if the site revived it was a small settlement compared to its size during the late Second Temple period.

Of the 1,322 coins discovered in the excavation, 160 dated to the Early Roman period and only three to the period between the revolts.

The most likely scenario is that inhabitants abandoned the site during the period between the revolts and revived the subterranean hiding complex only at the beginning of the Second Revolt or possibly slightly earlier. A similar phenomenon, recently documented, occurred at sites located on the border of the desert area east of the Bethel hills and southern Samaria (Raviv et al. 2015b, 123–50). However, the Early Roman pottery assemblages throughout the site fail to clarify the scope of the settlement at Khirbet el-Maqatir, if any, during the period between the revolts.

As noted, the Bar Kokhba ceramic finds constitute about one quarter of the total finds discovered in the hiding complex. Based on the quantity of storage and cooking vessels (about 120 in number, with an estimated storage capacity of 20 liters each), as well as the area of the hiding spaces (close to 100 square meters), no more than 20–30 people occupied the hiding complex.

The Bar Kokhba coin discovered in the system holds great significance. Such coins constitute a major tool in determining the boundaries of the area under the control of the Bar Kokhba administration and have only been discovered in refuge caves, not in settlement sites in the northern Judean hills.

The findings from the hiding complex of Khirbet el-Maqatir supplement and amplify the results of excavations and surveys conducted at sites and refuge caves in the Bethel hills (fig. 4.12). These findings indicate a complex historical picture that includes destruction of the Jewish settlement during the Great Revolt, possible partial settlement during the period between the revolts, participation in the Bar Kokhba revolt, and destruction or abandonment at the end of the Second Revolt.

Historical Context of the Revolts

Josephus describes the subjugation of the area north of Jerusalem by the Roman army (*Jewish War* 4.550–51). Studies of the region extensively discuss his commentary (Safrai 1980, 320–39; Aharonovich 2016, 95–93; Raviv 2018, 1:97–92). The Bethel hills region suffered severe damage in comparison to areas farther from Jerusalem, and many sites did not rebuild after the Great Revolt (Raviv 2018, 1:96–97).

The devastation resulted from the struggle to conquer Jerusalem and its surroundings during the Great Revolt and a Roman military presence after 70 CE. According to Josephus, after Vespasian conquered the toparchy of Gophna, he stationed troops at Bethel and Ephraim (*Jewish War* 4.551), sites that are commonly identified near Khirbet el-Maqatir: Bethel with the village of Beitin or el-Bireh and Ephraim with village of et-Tayibeh (Tsafrir, Di Segni, and Judith Green 1994, 64, 81). Khirbet el-Maqatir could also be the site of Ephraim (Peterson and Stripling 2017, 25*–27*).

Research Status of Intra-revolt Sites

Among the noteworthy sites destroyed but not rehabilitated after the Great Revolt is Khirbet Kafr Mur, located 3 km northwest of Khirbet el-Maqatir. Excavations at Khirbet Kafr Mur revealed evidence of a violent struggle and a settlement gap between the Great Revolt and the Byzantine period (Aharonovich 2016, 88). The renewal and continuity of the Jewish settlement in the Bethel hills region (the Toparchy of Gophna) during the period between the revolts can be ascertained from both the written sources and the archaeological findings. Josephus describes the placement of priests in the city of Gophna by Titus during the siege of Jerusalem (*Jewish War* 11.115–16) as well as the rebuilding of places destroyed during the war (9.442).

Further evidence comes from the names of settlements in the Bethel hills region that are mentioned in rabbinic sources that relate to the period between the two revolts. These include Beit el De-Yahud, Beit Rima, Gophna/Gophnit, 'Iqesh and Timna (Klein 1939, 155–61). One noteworthy source is the Lamentations Rabba I, 45 (Munich Manuscript 229), which mentions a series of sites located in the eastern part of the Bethel hills. These sites were centers of Jewish refugees and locations at which Hadrian garrisoned Roman troops at the end of the Bar Kokhba revolt: Bet El de-Yahud (Bethel of Judea), Beit Rimon Valley, and Cyprus River (for site identifications and additional suggestions, see Spanier 2000, 41–49; Mor 2016, 155–58).[2] Further literary documentation of settlements comes from the Judean desert scrolls which date to the period between the revolts. The Murabba'at 115 mentions "Beit Arda in the toparchy of Gophna" and "Galuda in the Toparchy of Akrabim." This document, dated to 124 CE, indicates that the administrative division of Judah from the end of the Second Temple period continued until the Bar Kokhba revolt (Benoit 1961, 243–54; Sar-Avi 2004, 71–76).

The excavations conducted in the Bethel hills region also indicate continuity and renewal of some Jewish settlement after the Great Revolt. Yitzhak Magen (2004, 14, 23) argued that "There is also no proof of a Jewish uprising in this region, even during the Bar Kokhba Revolt . . . . Most of the inhabitants of the Land of Benjamin fled and did not return to their villages, thus

[2] The Buber edition uses the name Bethlehem instead of Beit El.

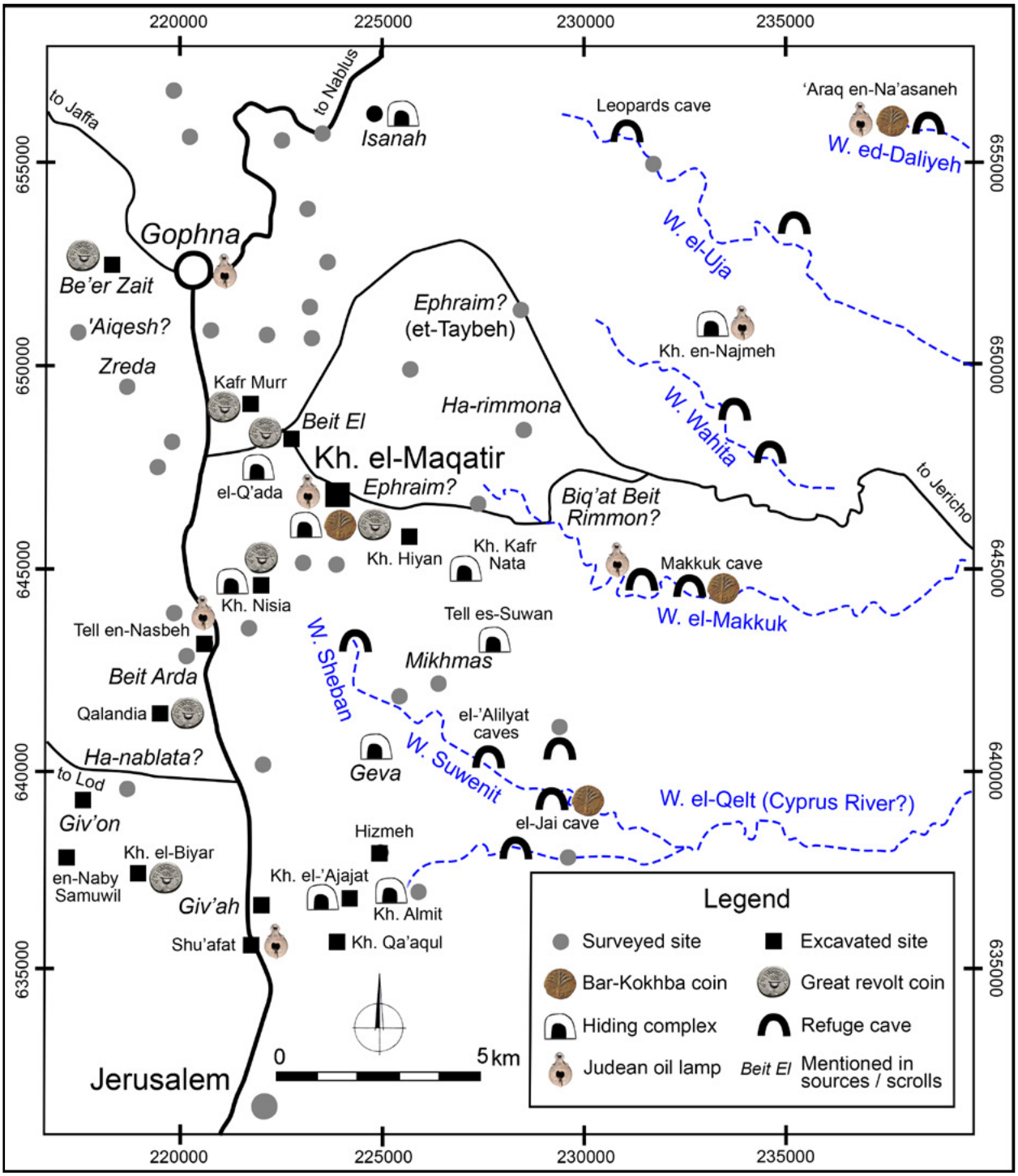


Figure. 4.12. Settlement in the eastern Bethel hills during the late Second Temple period through the Bar Kokhba revolt. Map by Dvir Raviv.

not taking part in the Bar Kokhba Revolt." However, the results of excavations conducted at a series of sites in the Bethel hills region and published recently indicate some continuity of settlement until the Bar Kokhba revolt (Raviv 2018, 1:100–101).[3]

Among the documented Bar Kokhba remains at the settlement sites, the hiding complexes are notable and clearly indicate the preparations of the residents of

[3] Sites include Khirbet Almit (Raviv et al. 2015b, 133–38), Bethel (Zissu 2001, 33–34), Jifna (Zelinger 2001, 103–12), Khirbet Nisya (Zissu 2001, 69), Shu'afat (Sklar-Parnes, Rapuano, and Bar-Nathan 2005, 35*–41*; Bar-Nathan and Sklar-Parnes 2007, 57–64; Bijovsky 2007, 65–72); Tel en-Nasbeh (Zissu and Klein 2014, 199–224), and Hizma (Magen 2002, 52, 61). Although Magen dated the pottery assemblage to the first century CE, the pottery plates indicate typical vessels of the period between the revolts (e.g., storage jars presented in fig. 2.59:9–19), and a discus oil lamp (fig. 2.61:7).

this area for the Second Revolt. Until 2009, only four sites were known in the Bethel area in which hiding complexes existed: el-Q'ada (south of Beitin), Jaba, Khirbet en-Najama, and Khirbet Nisya (Zissu 2001, 29–30, 34–35, 69–71). In two of the four sites, there is only an oral report without a description of the systems. These hiding complexes were published without any datable finds, and therefore, may have been hewn during the Great Revolt or earlier (Shivtiel 2018, 98–115). Since 2009, hiding complexes have been documented in six other sites in the eastern Bethel hills region (in addition to dozens more in the region of the western Bethel hills): Khirbet Almit (Raviv et al. 2015b, 133–38), Burj el-Isanah (Raviv 2018, 2:113–14), Khirbet Kafr Nata (2:118), Khirbet el-Musharriqa (Klein and Raviv 2013, 216–20), and Tell es-Suwan (Raviv et al. 2015a, 81–91). Other hiding complexes existed at Khirbet en-Najama (Raviv et al. 2015b, 129–32) and Jaba (Zeev H. Erlich, oral communication). The Jaba hiding complex lies under the village mosque. Shimon Gibson confirms that this is one of the hiding systems that has recently been published with Bar Kokhba complexes. According to Gibson (oral communication), first-century CE and early second-century CE pottery existed in this system.

The importance of the recently published systems stems from the Bar Kokhba finds in them (except for Tell es-Suwan system which had non-dateable finds). The Khirbet el-Maqatir complex increases the number of known hiding complexes and is the only one to yield a large assemblage of Bar Kokhba finds, including Bar Kokhba coins.

Sizes of Hiding Complexes in Judea

The dimensions of the hiding complexes of the Judean hills are modest compared to those in the Judean foothills. This seems to be due to the hard rocks that are exposed in most of the hill country which consist mainly of limestone and dolomite rocks from the Cenomanian-Turonian formations. The hardness of the rocks likely dictated the quarrying of relatively simple and small systems, maximizing the utilization of natural underground cavities. The *kokh* tomb at Khirbet el-Maqatir illustrates this proposal. Two of the niches remained unfinished, probably due to the hardness of the stone. Accordingly, large hiding complexes, such as at Khirbet Alamit and Jaba, only appear in places where soft chalk from Senonian formations exist.

Hiding Systems at Non-settlement Sites

In addition to the finds from the settlement sites, the Bar Kokhba finds recovered in a series of refuge caves located in the northern Judean Desert is also pertinent. These caves lie in the cliffs of streams that descend from the top of the Bethel hills to the east (toward the valley of Jericho). The similarity to the other hiding complexes indicates participation of the Jews of this region in the revolts against the Romans, especially in the Second Revolt. Such refuge caves lie in the following wadi channels: Prat (el-Qelt), Michmas (es-Suweinit), Makuk, el-Wahita, el-'Uja, ed-Daliya, and Ketef Jericho (Qarantal cliffs). Raviv's bibliography documents the concentration and distribution of these caves (1:243–57). Particularly noteworthy are caves that occupy the drainage basins near Khirbet el-Maqatir: the Wadi Sheban caves about 3 km southwest of the site and the wadi Makuk caves about 7 km east.

Abandonment after the Bar Kokhba Revolt

The fragmentary remains in Cavern 3 of two individuals are the only possible remnants of those who inhabited the hiding complex during the Second Revolt. The scarcity of human bones from the time of the Second Revolt, if any, compared to the large amount of pottery found in the hiding complex from that period suggests that those who were hiding survived and left the site during the revolt or at its end. A similar picture of abandonment or destruction emerges from other excavated sites from the period in question in the area of the Bethel hills. It seems that the Jewish settlement in this area suffered destruction at the end of the Bar Kokhba revolt and was resettled by a non-Jewish population in a gradual and protracted process during the Late Roman and Byzantine periods (Klein 2011a, 314–33; 2011b, 119–34). The findings of the excavations at Khirbet el-Maqatir, both from the hiding complex and from the site's surface, indicate abandonment at the end of the Bar Kokhba revolt and a settlement gap in the subsequent period.

Summary

The excavation findings of the hiding complex at Khirbet el-Maqatir provide an important contribution to the reconstruction of the settlement history of the site and of the rural area north of Jerusalem. The well-dated assemblages of the Great Revolt and the Bar Kokhba revolt are of great importance. This is the first time that well-dated artifacts from the Second Revolt have been discovered in a settlement context in the Bethel hills region. These finds, especially the Bar Kokhba coin, solidly support the assumption that the Bar Kokhba administration controlled this area. The rebels in the north of the Judean hills survived and remained in some of their towns at least until the third year of the revolt (Zissu 2001, 322; Zissu et al. 2016, 38).

Olive Press Cave

Like inhabitants of other villages in the Bethel hills in the late Second Temple period, residents of Khirbet el-Maqatir produced oil. It remains unclear if these staples merely met the dietary needs of the local population, or if they bartered surplus commodities.

Prior to serving as the main chamber of the hiding complex detailed above, Cavern 1 (Installation 38) functioned as an olive oil production center (fig. 4.3) in the late Second Temple period (Strata 4–3). A screw press and a beam press with four massive weights operated in Cavern 1, but the crushing basin was missing. Four vats collected the oil.

Wine Vat

In 1996 and 1997 excavation of Khirbet el-Maqatir's Bronze Age gate exposed a winepress (Installation 39) (fig. 2.22) pertaining to Strata 4 and 3. Chapter 2 documents this industrial installation. Installation 5, discussed below, may have also functioned as a wine vat.

Mikvaot

The practice of ritual immersion in stepped water-installations began in the Hasmonean period. Obsession with ritual purity reached its apex in the first century CE. Over 1,000 mikvaot are known from this period (Adler 2021, 45). Mikvaot continued to play an important role in Jewish daily life until the end of the Bar Kokhba revolt in ca. 135 CE. Immersion as a means of achieving ritual purity diminished gradually in the following centuries.

Mikvaot always featured a stairway leading down to water. Divided stairways were not found at Khirbet el-Maqatir. All the mikvaot contained stone vessel fragments commonly associated with ritual purity. Parallels for the Khirbet el-Maqatir mikvaot exist at numerous sites, such as Khirbet Nisya (Livingston 2003, 97), Jericho (Netzer 1982, 106–19) and Jerusalem (Adler 2006, 209–15).

Mikveh 1

Excavated in 2000 in Square L26, Mikveh 1 (Installation 40) had an interior radius of 2.2 × 2.5 meters with a bottom elevation of 870.50 meters (fig. 4.13). The opening measured 1 × 3 meters. Nine steps provided ingress and egress. Six 0.9-meter-wide steps lead to an arched entrance. Steps six and seven were twice as long as the other steps. The first half of Step 7 was 0.6 m wide, and the remainder was the width of the chamber. The final two steps were the full width of the chamber. Two openings were cut on the surface but did not penetrate the mikveh. The first one lay 15 cm northwest of the northwest corner of the entrance stairway. It was oval in shape, 25 × 28 cm, and 51 cm deep. The second, above the first step inside the water chamber, was oblong in shape, with a radius of 35 × 40 cm, and a depth of 10 cm. The pottery within the mikveh was a mix of many time periods, with the vast majority dating to the Early Roman period. Excavation yielded a slingstone and a fragment of a lathed chalkstone bowl (Object 486).



Figure. 4.13. Mikveh 1. Photograph by Michael C. Luddeni.

Mikveh 2

Excavated in 2013 in Square O28, Mikveh 2 (Installation 41) oriented east-west and had a bottom elevation of 871.61 meters (fig. 4.14). The opening measured 1.25 × 2.7 meters, and the interior was 2 × 3 meters. Five 1.1-meter-wide stairs uniformly descend 2.24 meters and turn left at Steps 4 and 5. There were 530 diagnostic sherds that filled the installation, with three-fourths dating Early Roman and one-fourth dating Late Hellenistic. Five coins were interspersed with the pottery: Demetrius I (Catalog no. 84), Alexander I (Catalog no. 89), Antonius Felix (54 CE; Catalog no. 1160), Valerius Gratus (Catalog no. 1123), and year two of the Jewish revolt (Catalog no. 1226).

Mikveh 3

Excavated in the 2013 and 2014 seasons in Squares S22–23, Mikveh 3 (Installation 42) received the designation Cavern 4 (fig. 4.15). The stairway was L-shaped, with four steps leading down from northwest to southeast, with elevations of 873.78, 873.35, 872.98, and 872.55



Figure. 4.14. Mikveh 2. Photograph by Michael C. Luddeni.

shape. The pottery was almost entirely Late Hellenistic and Early Roman with the majority being Early Roman. Excavation yielded two jar stoppers, one jar stand (Object 1884, A044520), Early Roman glass fragments, two flint blades, one stone vessel fragment (Object 1559), and 21 coins.[4]

Storage Structures

Three categories of storage installations exist at Khirbet el-Maqatir: silos and cisterns, general pits, and basements. The ubiquity of these subterranean installations underscores the importance of excavating squares to bedrock, especially at sites dating to the late Second Temple period. Table 4.6 details a summary of the installations.

Silos and Cisterns

Silos and cisterns share almost identical physical characteristics; therefore, it is difficult to differentiate them. Superficially, silos were for dry storage like grain, and cisterns were for wet storage. Future residual analysis may help with differentiation. Ancient inhabitants drew water by lowering a receptacle from a small, tapered opening at the surface, or at times, they used stairs or ladders for more convenient access. Silos and cisterns were carved in bedrock in bowl, teardrop, bell, and bottle shapes. Bell-shaped silos were typical of the Iron Age, Hellenistic, and Early Roman



Figure. 4.15. Mikveh 3. Photograph by Michael C. Luddeni.

meters. These steps led to a landing (elevation 872.25), another step leading southwest (elevation 872.10), and four more steps, curving to the right, and continuing west to the bottom of the installation (elevation 871.06). The lower four steps have elevations of 871.75, 871.59, 871.41, and 871.06. The mikveh has an irregular bell

[4] Coins: 12 Alexander Jannaeus or later successors (80 BCE or later), two Herod the Great (37 BCE–1 BCE; Catalog no. 1088), three Valarius Gratus under Tiberius (16/17 CE; Catalog no. 1121, Catalog no. 381, and Catalog no. 955), two Herod Agrippa I (37–43 CE) 535; and two Antiochus III (204–197 BCE; Catalog no. 416 and Catalog no. 49). One Antiochus coin, Catalog no. 46, came from the mikveh's plaster.

Table 4.6 Summary of the subterranean installations

Type & no.	Square	Elevation	Size	Depth	Plaster	Pottery	Notes
Silos and cisterns							
1	S29–30	870.7[a]	. . .	. . .		LH/ER	Incomplete
2	P26	870.0	2.0 × 2.0	3.0		mixed	Bell shape
3	S25	870.9	0.7 × 0.6	2.3		LH/ER	Bell shape
4	R19	872.1	2.0 × 2.0	2.4		LH/ER	7 coins
5	P24	871.9	1.6 × 1.6	2.0	✓	Mixed/ER	Tiled floor
6	S18	871.7	1.9 × 1.9	3.0	✓	LH/ER	Superstructure
7	O21	872.3	1.9 × 2.1	2.1		LH/ER	In-situ cover
8	P21	871.3	3.3 × 3.3	3.1		LH/ER	2 revolt coins
9	R20	872.1	2.2 × 2.2	2.0	✓	LH/ER	In-situ cover
10	R20	872.0	2.2 × 2.2	2.0	✓	LH/ER	Bell shape
11	P20	872.0	1.5 × 1.8	2.3		LH/ER	3 revolt coins
12	Q24	872.1	2.4 × 2.4	2.2	✓	LH/ER	Lamp niche
13	X22	868.3	. . .	2.0		LH/ER	Incomplete
14	R24	871.9	2.0 × 2.0	2.0		Mixed	LH coins
15	Q22, R22	. . .	4.0 × 4.0	1.5		LH/ER	Incomplete
16	Q25	871.9	2.6 × 2.6	2.4		. . .	Connects to no. 17
17	Q25	. . .	2.0 × 2.0	2.0		. . .	Connects to no. 16
18	L27–28, 7–28	868.6	4.7 × 4.7	5.2	✓	LH/ER	Hiding complex
Generic pits							
19	P17	. . .	. . .	. . .		LH/ER	Cup shape
20	N23	. . .	. . .	0.6		LH/ER	Filled with ash
21	Q21	. . .	. . .	0.3		. . .	Cup shape
22	Q21	. . .	1.0 × 1.0	0.5		. . .	
23	P21	. . .	0.1 × 0.1	0.3		. . .	In-situ cover
24	S19	871.8	1.5 × 1.4	2.0		LH/ER	128 coins
25	S19	873.3	0.9 × 0.7	0.4		LH/ER	13 coins
25	Q22	874.2	2.0 × 2.0	0.5		LH/ER	
27	Q22	. . .	0.5 × 0.5	0.4		. . .	Grinder
28	Q25	874.0	0.3 × 0.2	0.3		. . .	
29	Q24	874.2	0.8 × 0.8	0.4		. . .	Yellow soil
30	Q22	873.7	0.6 × 0.6	0.5		LH/ER	
31	R20	873.6	0.9 × 1.1	. . .		. . .	
32	R20	873.8	0.8 × 1.1	. . .		. . .	Oval shape
Basements							
33	P23, Q23	872.9	2.5 × 4.5	1.2		ER	1 revolt coin
34	Q23	872.2	4.0 × 2.9	2.3		ER	
35	O22	872.0	. . .	2.2	✓	ER	Lamp niche
36	Q25, R25	870.9	6.0 × 3.8	3.3	✓	ER	Bathhouse
Tomb							
37[b]		. . .	. . .	. . .		ER	7 kokhim
Olive press cave							
38	M27–28, 27–28	868.8	8.5 × 10.0	3.6		ER/LR	Flanked by mikvaot
Wine vat							
39	R17, S18	. . .	ø1.6[c]	1.1	✓	ER	Tiled vat floors
Mikvaot							
40	L26	870.5	2.2 × 2.5	. . .	✓	ER	6 steps
41	O28	871.6	2.0 × 3.0	. . .	✓	ER	5 steps
42	S22–23	871.1	. . .	2.7	✓	ER	10 steps
Hiding complex							
43	L27–28, M27–28, N27–28, 28–29	868.8	20 × 12	3.6	Partial	ER/LR	3 chambers

Note: All measurements in meters.

[a] All elevations are bottom elevations except Installation 1 which is a top elevation. (No bottom elevation was recorded for Installation 1.)

[b] Tomb 2 lies approximately 100 m southwest of the walled town.

[c] The main treading area.

periods in highlands and lowlands settlements. Such facilities served various storage purposes including liquids such as oil and wine. Examples exist at Gibeon (Pritchard 1964, 9–31), Jezreel (Franklin 2018, 76*–82*) and in western Samaria sites (Dar 1986, 157–58). Late Hellenistic and Early Roman parallels to the silos and cisterns at Khirbet el-Maqatir were excavated at Khirbet Nisya (Livingston 2003, 96, 126), Nazareth (Kloner and Tepper 1987, 310, fig. 151), and Khirbet el-Qutt (Raviv, Har-Even, and Tavger, 2016, 19*–20*).

Some silos and cisterns have a narrow, tapered surface-opening for a capstone, while others have broad openings. Capstones protected the contents from contamination and maximized floor space inside dwellings. Capstones cover holes that were generally 50 cm in diameter, just wide enough for a person to access. Residents removed capstones to lower or raise containers or their contents. Ladders, no doubt, assisted in the process.

As table 4.6 illustrates, 18 silos and cisterns from the late Second Temple period came to light during excavations at Khirbet el-Maqatir. Most of these were generic, but three were atypical and merit individual treatment.

Installation 5 was bell shaped and plastered with an interior diameter of 1.64 meters. The capstone was missing, and an assortment of debris filled the cistern. Early Roman pottery dominated the ceramic profile. Objects included the following: one colonnette, one fragment of Early Roman glass, two grinders, two nails, one oil press stone, one stone vessel cup (restorable), three triangular pavers, ten coins, and three tubuli fragments. The tubuli fragments, along with others found in adjacent squares, suggest the presence of a small bathhouse that served the inhabitants of the large complex-courtyard house in the center of the site.

The most remarkable feature of Installation 5 was the perfectly preserved mosaic floor. For each red tesserae, there were six white tesserae (fig. 4.16). A depression in the middle of the floor formed a sump measuring 52 cm in diameter and 15 cm in depth. The function of this installation remains uncertain since no exact parallels exist. It seems unlikely to have been a simple cistern and more likely served as a wine vat or a pool within a private bathhouse. A 1.5-meter-long conduit (0.46 × 0.90 m) ran along the surface of Square P24 and could have channeled water or wine into the installation. The conduit contained 12 coins and a mix of pottery.

Installation 8 in Square P21 was bell shaped with an opening diameter of 0.63 meters (fig. 4.17). The interior diameter measured 3.3 meters, and the maximum depth was 3.1 meters. It was not plastered, and the capstone was missing. Late Hellenistic and Early Roman pottery (306 diagnostic sherds) populated the installation, with

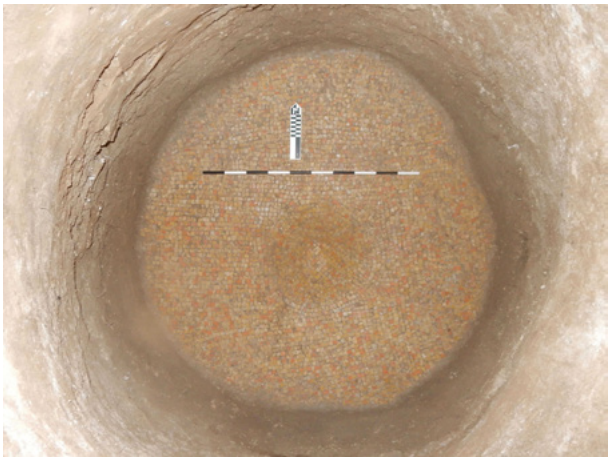


Figure. 4.16. Storage vat with tiled floor. Photograph by Michael C. Luddeni.

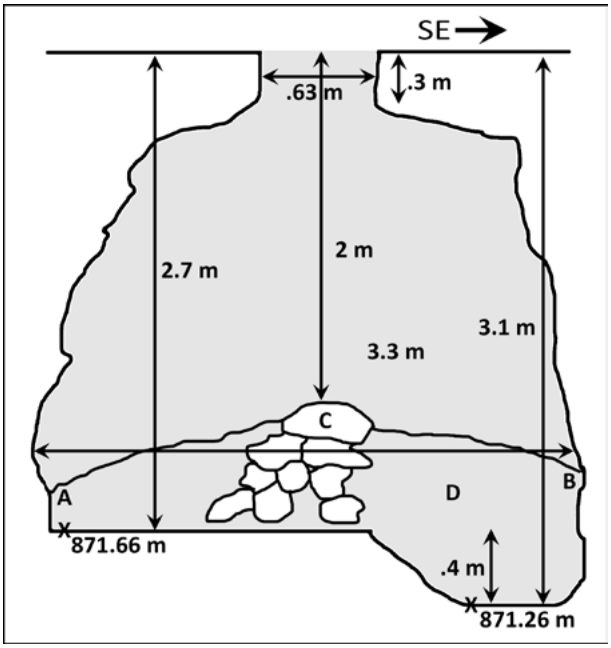


Figure. 4.17. Bell-shaped silo in Square P21. Original drawing by Brian N. Peterson; digitalized by Steven Rudd.

the vast majority being Early Roman. Objects included the following: one bone tool, two slingstones, one stone vessel fragment, one grinding stone, one jar stopper, assorted fragments of Early Roman glass, and seven coins, including two coins from year two of the Great Revolt.

Installations 16 and 17 in Square Q25 interconnect, with a bottom elevation of 871.93 meters (fig. 4.18). The wall separating them is less than 10 cm thick. It remains unclear if either installation had plaster.

The diameter of installation 16 measured 2.6 × 2.6 meters with a depth of 2.4 meters. Builders carved a triangular oil-lamp niche below the surface opening. Objects include the following: 1 flint blade, 1 iron tool, 1 arrowhead, 2 grinders, 1 nail, and 13 coins.

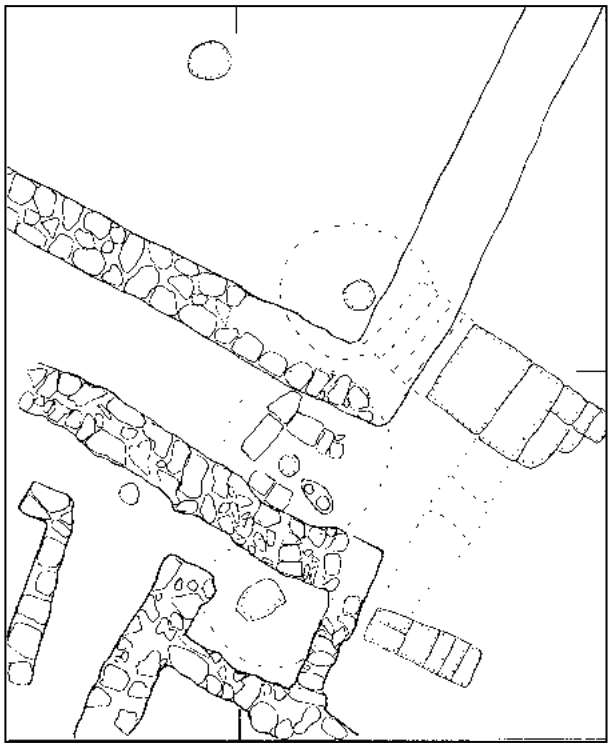


Figure. 4.18. Interconnected silos in Square Q25. Drawing by Abigail Leavitt.

The diameter of Installation 17 measured 2.0 × 2.0 meters with a depth of 2.0 meters. Builders chiseled two triangular oil-lamp niches below the surface opening. Excavation of Installation 17 failed to produce any pottery or objects.

Generic Pits

Pits are shallow, oval, or round-shaped cuts or depressions in bedrock. They are usually carved but sometimes occur naturally. General pits do not have the typical shape of a silo or cistern. Pits served a wide range of functions including dry or wet storage, pottery holders (a type of jar stand), mortars for grinding, and structural sockets. Table 4.6 summarizes the 14 pits at Khirbet el-Maqatir.

Basements

The installations which cannot be classified as mikvaot, silos, cisterns, or pits fall within the category of basements. These basements normally served as storage cellars. Excavations revealed four such installations.

The first basement, Installation 33 in Squares P23 and Q23, received the designation Cavern 5. This installation consists of two chiseled chambers plus a third small chamber which seems to be a natural crevice. Chamber 1 features an entrance with a chiseled threshold from the west, accessible through an opening beneath a bedrock cleft. Chamber 2 lies to the north and adjacent to Chamber 1. An entry with a chiseled threshold connects Chambers 1 and 2. Chamber 2 also opens to the surface through a circular opening. Chamber 3 is a very small opening extending north of Chamber 2 and just below a surface cleft.

The pottery within Installation 33 was almost exclusively Early Roman, with only one Middle Bronze sherd present. Excavation of the installation yielded five coins. Four of these were Hasmonaean coins, and one dated to year two of the Great Revolt.

Installation 33 almost certainly functioned as a basement during the Early Roman period, but it is possible that it also doubled as a hiding system during the Great Revolt.

The second basement, Installation 34 in Square Q23, was a natural cave which inhabitants expanded for storage purposes. Two natural crevices and two man-made holes open into this cellar. Entrance 1 just southeast of Square Q23's center measured 0.75 meters in diameter, and Entrance 2, on the eastern edge of Square Q23, was 0.40 m in diameter. It featured an inset lip, presumably for supporting a stone lid which was missing. The basement measured 4 meters long × 2.9 meters wide × 2.34 meters deep. The top elevation was 874.41 meters, and the bottom elevation was 872.18 meters.

The soil within Installation 34 was moist, reddish-brown earth (Munsell 7.5 YR 3/3). An abundance of Late Hellenistic and Early Roman pottery filled the soil, with the vast majority being Early Roman. Objects included the following: 15 coins, a nearly complete MB III juglet, and an earring.

This basement lay beneath the floor of a room within the complex-courtyard house interpreted as a storage room. The basement greatly increased the room's storage capacity.

The third basement, Installation 35 in Square O22, was accessed via eight steps which at the bottom passed through a bedrock arch (fig. 4.19). The well-preserved stairs measured 1.2 meters wide. A circular opening to the west of the stairs served as a second entrance. Builders hewed a triangular oil-lamp niche about 20 cm below the capstone, on the west side. Plaster covered the entire installation. The Late Hellenistic (20%) and Early Roman (80%) pottery indicates a period of usage in the late Second Temple period (Strata 4 and 3). Objects include the following: fifty coins, one arrowhead, two beads, one earring, four fragments of Early Roman glass, one grinder, three nails, one ostracon, and one stone vessel fragment.

The fourth basement, Installation 36, likely served as part of a bathhouse in the first century CE. Two parallel



Figure. 4.19. Basement in the complex-courtyard house. Photograph by Michael C. Luddeni.

stairways in Squares Q25 and R25 provided ingress and egress (fig. 4.20). A tunnel connected the stairwells. The tunnel measured 0.56 meters wide × 1.05 meters high × 3.5 meters long. A plastered earthen wall divided the tunnel. This wall may indicate reuse of Installation 36 as a double mikveh, perhaps during the Great Revolt. Like Installation 34, a separate circular opening to the surface lies to the west of the Square R25 staircase. This opening, inside the public building to the north of the street, led to a cistern-like chamber that connected with the R25 staircase. The bottom elevation of the chamber measured 870.88, with a depth of 3.3 meters. Plaster completely covers Installation 36. While small amounts of Bronze Age, Iron Age, and Late Hellenistic pottery populated the installation, Early Roman pottery dominated the ceramic profile. Objects included the following: 56 coins, 6 stone vessel fragments, 5 cosmetic applicators, 6 grinder fragments, numerous nails and tacks, glass fragments, 1 arrowhead, and 1 piece of worked bone.

Tomb

John Davis excavated three tombs at Khirbet el-Maqatir in the year 2000. Only Tomb 2 (Installation 37) dates to the late Second Temple period. It lies approximately 100 meters southwest of the walled town. The tomb was stratigraphically excavated and the tools analyzed. The limited artifactual and human skeletal remains impeded a full cultural reconstruction. Although looters previously emptied the tomb, many human



Figure. 4.20. Installation 36 with dual-staircase entrance. Photograph by Michael C. Luddeni.

teeth and bone fragments survived. Austin Robbins, DDS, analyzed the teeth from the tombs with a focus on morphological and pathological issues. He also suggested the number of burials in the tombs and noted the ages at the time of death.

The excavation goals were as follows:

1. To obtain cultural and physical information on the inhabitants of Khirbet el-Maqatir.
2. To recover anthropological and osteological data leading to a better understanding of mortality rates, family relationships, pathology, stature factors, and diet.
3. To gain knowledge of tomb plans and their construction through analysis of masonry work in the tomb. Tool analysis provides important data concerning a tomb's construction or modification as in Heshbon Tomb F.27 (Davis 1978, 132).

The meager amount of recovered bone was insufficient to achieve the first two goals. However, the third goal was realized.

Excavation Results

Tomb 2 (fig. 4.21) is a single-chamber Early Roman sepulcher with seven *kokhim* extending from three walls. Ceramic analysis suggests that Byzantine era inhabitants reused the tomb. Dental analysis indicates the burial of 18 individuals ranging from 4 to 50 years of age. Seven of those interred in Tomb 2 were designated as follows: three adults of 50 or more years of age, three adults at 25–30 years of age, and one child of 4–5 years of age. All adults had signs of dental attrition. The statistical sample of age at death is too small to draw any conclusions about mortality rates.

Reddish-brown soil (Munsell 5YR 4/4) covered the surface of the tomb entrance (Locus 1). It was loosely packed with some sherds, human bone fragments, and one human tooth. The latter two items were probably due to tomb robbing activity.

Locus 2, under Locus 1, featured the same soil color as Locus 1 but was filled with 6–9 cm cobblestones. This locus yielded Iron Age I and Early Roman sherds and three human teeth.

The hard-packed dark-red fill (Munsell 2.5YR 3/6) with a few cobble-sized stones in front of the tomb entrance reached bedrock and constituted Locus 3. Four sherds dated to the Early Roman period, and one dated to the Mamluk period.

A shallow trench (Locus 6) cut in the rock 1.5 meters south of the entrance of the tomb contained tightly packed reddish soil (Munsell 5YR 5/4) down to bedrock. The trench measured 80 × 30 cm and contained one Early Roman sherd.

A layer of tightly packed, dark reddish-brown soil (Munsell 5YR 3/4) that measured 90 × 54 cm occupied the area immediately inside the entrance. Modern looters likely created this Locus 4 deposit. It contained two modern glass fragments and a 1954 Norwegian coin (Catalog no. 1324).

Below Locus 4 lay reddish-brown soil (Munsell 5YR 4/4) that covered the east sector of the main chamber floor to bedrock (Locus 5). This layer was contiguous and homogenous with Locus 11 which contains the same soil type down to bedrock in the west sector of the main chamber. These layers likely date to the first use of the tomb in the Early Roman period. Locus 5 contained five

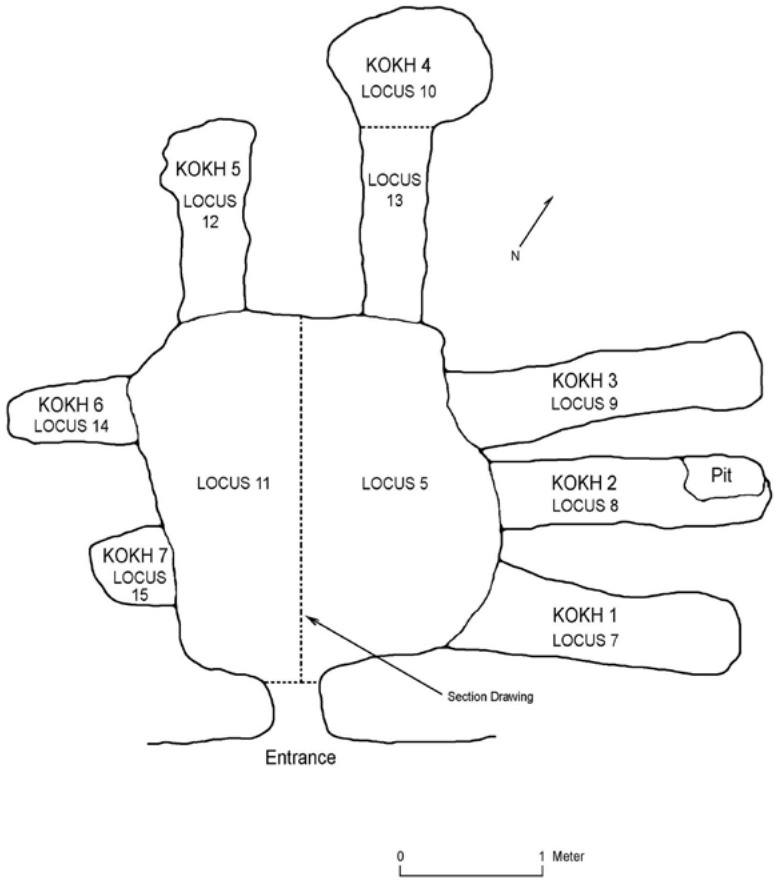


Figure. 4.21. Late Second Temple period tomb. Drawing by John Davis.

human teeth, human bone fragments, and one piece of Early Roman glass (Object 452). Locus 11 contained three Early Roman sherds, teeth, bone fragments, and one glass fragment. Lime chips in Locus 5 resulted from the tomb's masonry work. The center of the floor did not have a square-cut depression which was common to Early and Late Roman kokhim-style tombs (Davis 1978, 130–32).

Two molars from Locus 5 exhibited dental attrition which likely resulted from the deceased's diet (cf. Chamberlain 1994, 17). Excessive crown wear in molars is often due to the tiny stone particles which mix with flour during the grinding process. The stone particles destroyed dental enamel. The rate of wear helps to determine the age of an individual (Brothwell 1965, 67–70). Because of the relative consistency in tooth wear, such dating serves a primary function (White, Black, and Folkens 2012, 388). Since bone remnants in Tomb 2 were highly fragmentary and unreadable, dental analysis was the most reliable method to determine age at the time of the interments.

Kokh 1, which radiated from the southeast corner of the tomb, contained loosely packed reddish-brown soil (Munsell 5YR 4/4) (locus 7) which matched that of Locus 5 within the main chamber. The top of the kokh entrance was round, but the interior ceiling was flat. The width of Kokh 1 measured 38 cm, and it was 2 meters deep. It contained bone fragments and teeth as well as three Early Roman sherds.

Based on the teeth discovered in Kokh 1, it appeared to have been used for three burials: a 20 year old, a 50-plus year old, and an 8 year old. It was not unusual for a kokh to be used for multiple burials. Families owned kokhim tombs and when all the burial niches were filled, they pushed bones, usually in ossuaries, to the back to facilitate reuse. At Heshbon, a single locus contained the remains of 10 individuals (Davis 1978, 138), and at Abila several loculi contained multiple burials (1985, 76–77).

Kokh 2 extended from the tomb's east wall. Locus 8, the matrix inside Kokh 2, contained reddish-brown soil (Munsell 5YR 4/4) and was 1.8 meters long. A few cobblestones and human bone fragments littered the surface. A Byzantine period sherd may indicate reuse of the tomb in a later period, or the sherd may be contamination. The same mason (or masons) who cut the other kokhim no doubt also cut Koch 2. The tools consisted of 1.4 mm and 1.5 mm rounded point chisels. The marks on the walls of the kokhim exhibited similar patterns and stroke lengths of 12 to 14 cm.

Kokh 3 also extended from the east wall and had a slightly rounded opening and a flat ceiling. The fill (Locus 9) consisted of reddish-brown soil of the same color and texture as Kokhim 1 and 2. Small cobblestones covered the surface. No pottery was present, but there were a few human bone fragments and teeth. The same sized tool blade marks and stroke patterns as Kokhim 1 and 2 exist in Kokh 3. Kokh 3 contained the remains of at least three individuals: an 8 year old, a 20–25 year old, and a 50 year old.

Two kokhim extended from the north wall. Kokh 4 measured 2.2 meters long with an enlarged and rounded end that measured 1.2 meters wide by 1.6 meters deep. Locus 10 designates the very pale-brown (Munsell 10YR 7/3), tightly packed and sterile soil at the end of Kokh 4.

Locus 13, the fill in the main shaft, consisted of reddish-brown soil (Munsell 5YR 4/4) which contained one human tooth and a few human bone fragments. No sherds were present in this locus. A small depression (1.0 × 0.4 m) in the center of the kokh (Locus 17) was free of bones and teeth and contained the same soil type.

Kokh 5, also extending from the north wall, was shorter than Kokhim 1–4 but contained the same reddish-brown soil. It measured 1.4 meters in depth and was 33 cm wide. It appears that the mason did not finish the kokh due to a vein of chert. This hard, stone vein continued along the base of the west wall and prevented the mason from finishing Kokhim 6 and 7.

Kokh 6 reached west and measured 90 cm deep. It contained human bone fragments and three human teeth. The soil was reddish-brown (Munsell 5YR 4/4). Kokh 7 oriented west and was only 50 cm deep, due to the hard chert. The small amount of deposited soil, like Kokh 6, was reddish-brown (Munsell 5YR 4/4).

Tomb Construction

A sector below Locus 5 on the east side of the tomb (Locus 16) that measured 1.5 × 1.0 meters contained lime fragments and tightly packed lime chips. Some flat fragments measured 8 × 15 cm and the chips 2 × 4 cm. This was evidence of the original mason's work on the tomb. These masons used six different chisels: 1.4 mm flat-edge blade, 1 mm flat blade, 1.4 mm round point, 1 mm round point, 5 mm flat blade, and a 2 mm flat blade.

It appears that the kokhim were cut starting with Kokh 1. From stroke lengths and angles, it appears that no less than three masons worked in the tomb. The same mason formed Kokhim 6 and 7. Stroke patterns were short (6 to 11 cm) as compared to the 12 to 13 cm strokes found elsewhere. Kokhim 6 and 7 were likely the last to be cut.

References

Adler, Yonatan. 2006. "The Ritual Baths near the Temple Mount and Extra-Purification before Entering the Temple Courts: A Reply to Eyal Regev." *Israel Exploration Journal* 56: 209–15.

Adler, Yonatan. 2008. "Second Temple Ritual Baths Adjacent to Agricultural Installations: The Archaeological Evidence in Light of the Halakhic Sources." *Journal of Jewish Studies* 59, no. 1 (Spring): 62–72.

Adler, Yonatan. 2021. "Watertight and Rock Solid: Stepped Pools and Chalk Vessels as Expressions of Jewish Ritual Purity." *Biblical Archaeological Review* 47 (May-June): 44–51.

Aharonovich, Evgeny. 2016. "Khirbet Kefar Mur: A Jewish Settlement from the Second Temple Period on Mount Bethel and a Wall from the Time of the Great Revolt." [In Hebrew.] *In the Highland's Depth* 6:85–106.

Bar Adon, Pesach. 1961. "Expedition C." In *The Judean Desert Cave: Archaeological Survey*, by Rachel Bar-Nathan, 34–48. [In Hebrew.] Bulletin of the Israel Exploration Society 25. Jerusalem: Israel Exploration Society.

Bar-Nathan, Rachel. 2006. *Masada VII: The Yigael Yadin Excavations; 1963–1965; Final Reports; The Pottery of Masada*. Masada Reports. Jerusalem: Israel Exploration Society.

Bar-Nathan, Rachel, and Irina Eisenstadt. 2013. "The Ceramic Corpus from the Roman Estate at Jericho: Late 1st–Early 2nd Centuries C.E." In *Hasmonean and Herodian Palaces at Jericho: Final Reports of the 1973–1987 Excavations*. Vol. 5, *The Finds from Jericho and Cypros*, by Rachel Bar-Nathan and Judit Gärtner, 3–84. Jerusalem: Israel Exploration Society.

Bar-Nathan, Rachel, and Deborah A. Sklar-Parnes. 2007. "A Jewish Settlement in Orine between the Two Revolts." [In Hebrew.] *New Studies in the Archaeology of Jerusalem and Its Region* 1:57–64.

Barag, Dan, and Malka Hershkovitz. 1994. "Lamps from Masada." In *Masada IV: The Yigael Yadin Excavations, 1963–1965; Final Reports; Lamps, Textiles, Basketry, Cordage and Related Artifacts, Wood Remains, Ballista Balls*, by Dan Barag et al., 7–147. Masada Reports. Jerusalem: Israel Exploration Society.

Benoit, Pierre. 1961. "Textes Grecs et Latins." In *Les Grottes de Murabba'at*, by P. Benoit, J. T. Milik, and R. de Vaux, 209–80. Discoveries in the Judean Desert 2. Oxford: Clarendon.

Bijovsky, Gabriela. 2007. "The Coins from the Shu'afat (Giv'at Sha'ul) Excavations: A Preliminary Report." [In Hebrew.] *New Studies in the Archaeology of Jerusalem and Its Region* 1:65–72.

Chamberlain, Andrew. 1994. *Human Remains*. Interpreting the Past. Berkeley: University of California Press.

Dar, Shimon. 1986. *Landscape and Pattern: An Archaeological Survey of Samaria, 800 B.C.E.–636 C.E.* BAR International Series 308. Oxford: B.A.R.

Davis, John J. 1978. "Heshbon 1976: Areas F and K." *Andrews University Seminary Studies* 16:129–47.

Eshel, Hanan, and Boaz Zissu. 1998. "Finds from the Bar Kokhba Period in the Caves at Ketef Jericho." In *Refuge Caves of the Bar Kokhba Revolt*, edited by Hanan Eshel and David Amit, 113–51. [In Hebrew.] Tel Aviv: Tel Aviv University.

Franklin, Norma. 2018. "Exploring the Function of Bell-Shaped Pits: With a View to Iron Age Jezreel." In *Lawrence E. Stager Volume*, 76*–82*. Eretz-Israel: Archaeological, Historical and Geographical Studies 33. Jerusalem: Israel Exploration Society.

Geological Map of Israel. Rev. ed. 2016. Ramallah, Sheet 8–IV, 1:50,000 scale. Jerusalem: Geological Survey of Israel. https://www.gov.il/BlobFolder/generalpage/ramallah-map/he/maps_Ramallah_2016.zip.

Gordon, Benjamin D. 2007. *Baths of the Herodian Period in Judea, 37 BCE–70 CE*. MA thesis, Hebrew University of Jerusalem.

Hachlili, Rachel, and Ann E. Killebrew. 1999. *Jericho: The Jewish Cemetery of the Second Temple period*. IAA Reports 7. Jerusalem: Israel Antiquities Authority.

Hirschfeld, Yizhar. 2000. *Ramat Hanadiv Excavations: Final Report of the 1984–1988 Seasons*. Jerusalem: Israel Exploration Society.

Hirschfeld, Yizhar. 2007. "Pottery from the Early Roman Period at the Essene Site (Area A)." In *En-Gedi Excavations II: Final Report (1996–2002)*, edited by Yizhar Hirschfeld, 455–63. Jerusalem: Israel Exploration Society.

Jackson-Tal, Ruth E. 2009. *Early Roman Glass Vessels from Dated Contexts in Palestine: From Pompey to Hadrian (63 BCE–135 CE)*. [In Hebrew.] PhD diss., Hebrew University of Jerusalem.

Klein, Eitan. 2011a. *Aspects of the Material Culture of Rural Judea during the Late Roman Period (135–324 CE)*. [In Hebrew.] PhD diss., Bar-Ilan University.

Klein, Eitan. 2011b. "Gophna during the Late Roman Period in Light of Artistic and Epigraphic Finds." [In Hebrew.] *In the Highland's Depth* 1:119–34.

Klein, Eitan, Amir Ganor, and Gidon Goldenberg. 2019. "Horbat 'Etri: Insula F." *Hadashot Arkheologiyot: Excavations and Surveys in Israel* 131. http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=25579&mag_id=127.

Klein, Eitan, and Dvir Raviv. 2013. "Hiding Complexes in the Toparchies of Gophna and Timna and the Northern Borders of the Bar-Kokhba Administration." [In Hebrew.] *Jerusalem and Eretz-Israel* 8–9:211–32.

Klein, Samuel. 1939. *Eretz Yehuda*. [In Hebrew.] Tel Aviv: Tel Aviv University.

Kloner, Amos, and Yotam Tepper, eds. 1987. *The Hiding Complexes in the Judean Shephelah*. [In Hebrew.] Tel Aviv: Israel Exploration Society.

Lapp, Paul W., and Nancy L. Lapp, eds. 1974. *Discoveries in the Wâdī ed-Dâliyeh*. Annual of the American Schools of Oriental Research 41. Cambridge: American Schools of Oriental Research.

Livingston, David. 2003. *Khirbet Nisya: The Search for Biblical Ai, 1979–2002; Excavation of the Site with Related Studies in Biblical Archaeology*. Manheim, PA: Associates for Biblical Research.

Magen, Yitzhak. 2002. *The Stone Vessel Industry in the Second Temple Period: Excavations at Hizma and the Jerusalem Temple Mount*. Edited by Levana Tsfania. Judea and Samaria Publications 1. Jerusalem: Israel Exploration Society.

Magen, Yitzhak. 2004. "The Land of Benjamin in the Second Temple Period." In *The Land of Benjamin*, edited by Noga Haimovich-Carmin, 1–28. Jerusalem: Israel Antiquities Authority.

Melamed, Alexander. 2010. "Hiding Complexes." In *Salvage Excavations at Nesher–Ramla Quarry*, by Shlomo Kol-Ya'akov, 1:89–97. Haifa: University of Haifa.

Mor, Menahem. 2016. *The Second Jewish Revolt: The Bar Kokhba War, 132–136 CE*. Brill Reference Library of Judaism 50. Leiden: Brill.

Netzer, Ehud. 1982. "Ancient Ritual Baths (Miqvaot) in Jericho." *Jerusalem Cathedra* 2:106–19.

Oppenheimer, Aharon. 1996. "Urbanization and City Territories in Roman Palestine." In *The Jews in the Hellenistic-Roman World Studies in Memory of Menahem Stern* [in Hebrew], edited by Isaiah M. Gafni, Aharon Oppenheimer, and Daniel R. Schwartz, 209–26. Jerusalem: Shazar Center and the Historical Society of Israel.

Peleg-Barkat, Orit, and Yotam Tepper. 2014. "Between Phoenicia and Judaea: Preliminary Results of the 2007–2010 Excavation Seasons at Horvat 'Eleq, Ramat HaNadiv, Israel." *Strata* 32:49–80.

Peterson, Brian, and Scott Stripling. 2017. "Kh. el-Maqatir: A Fortified Settlement of the Late Second Temple Period on the Benjamin Plateau." *In the Highland's Depth* 7:61*–91*.

Porath, Yosef. 2002. "Hydraulic Plaster in Aqueducts as a Chronological Indicator." In *The Aqueducts of Israel*, edited by David Amit, Joseph Patrich, and Yizhar Hirschfeld, 25–36. Journal of Roman Archaeology Supplementary Series 46. Portsmouth, RI: Journal of Roman Archaeology.

Pritchard, James B. 1964. *Winery, Defenses, and Soundings at Gibeon*. Museum Monographs 26. Philadelphia: University of Pennsylvania Press.

Rapuano, Yehudah. 2013. "The Pottery of Judea between the First and Second Jewish Revolts." *Strata* 31:57–102.

Raviv, Dvir, Benny Har-Even, and Aharon Tavger. 2016. "Khirbet el-Qutt: A Fortified Jewish Village in Southern Samaria from the Second Temple Period and the Bar Kokhba Revolt." [In Hebrew.] *Judea and Samaria Research Studies* 25:17*–35*.

Raviv, Dvir. 2018. *The Settlement in South Samaria during the Hellenistic and Roman Periods according to Archaeological Surveys*. [In Hebrew.] 3 vols. PhD diss., Bar-Ilan University.

Raviv, Dvir, Evgeny Aharonovich, Benny Har-Even, Aharon Tavger, Boaz Langford, and Amos Frumkin. 2018. "Findings from the Bar-Kokhba Revolt in Qibiya and Na'ale Caves in the Western Bethel Hills." [In Hebrew.] *In the Highland's Depth* 8:85–101.

Raviv, Dvir, Benny Har-Even, Evgeny Aharonovich, and Aharon Tavger. 2015a. "The Hiding Complex at Tell es-Suwan Desert Benjamin." [In Hebrew.] *Judea and Samaria Research Studies* 24:81–91.

Raviv, Dvir, Benny Har-Even, Evgeny Aharonovich, and Aharon Tavger. 2015b. "Hiding in the Desert: Hiding Complexes from the Time of Jewish Revolts against the Romans in South Samaria and the Benjamin Desert." [In Hebrew.] *In the Highland's Depth* 5:123–50.

Rosenthal, Renate, and Renée Sivan. 1978. *Ancient Lamps in the Schloessinger Collection*. Qedem 8. Jerusalem: Hebrew University of Jerusalem.

Safrai, Zeev. 1980. "Vespasian's Campaigns of Conquest in Judea." [In Hebrew.] In *Jerusalem in the Second Temple Period: Abraham Schalit Memorial Volume*, edited by Aharon Oppenheimer, Uriel Rappaport, and Menahem Stern, 320–39. Jerusalem: Yad Ben Zvi.

Sar-Avi, Doron. 2002. *Toponyms Mentioned in the Documents Dated to the Roman Period, Discovered in the Judaean Desert*. [In Hebrew.] MA thesis, Bar-Ilan University.

Sar-Avi, Doron. 2004. "Beit Arda in the Toparchy of Gophna." [In Hebrew.] *Judea and Samaria Research Studies* 13:71–76.

Shahar, Yuval. 2000. "From Jerusalem to 'Orine': Consequences of the First Revolt in the Vicinity of Jerusalem." [In Hebrew.] In *New Studies on Jerusalem: Proceedings of the Sixth Conference*, edited by Avraham Faust and Eyal Baruch, 187–201. Ramat Gan: Bar-Ilan University.

Shivtiel, Yinon. 2018. "The Hiding Complex at Horbat Rosh Maya, Haifa: A Landmark in the Appearance of Hiding Complexes during the Hasmonean Period." [In Hebrew.] In *Tel-Hai Galilee Studies III*, edited by Tziona Grossmark, Haim Goren, Mustafa Abbasi, and Zeevik Greenberg, 98–118. Tel-Hai Galilee Studies 3. Tel Hai: Tel-Hai College.

Sklar-Parnes, Deborah A., Yehudah Rapuano, and Rachel Bar-Nathan. 2004. "Excavations in Northeast Jerusalem: A Jewish Site in between the Revolts." *New Studies on Jerusalem* 10:35*–41*.

Spenier, Joseph. 2000. "On the Identification of Biq'at Beit Rimon." [In Hebrew.] *Al Atar* 6:41–46.

Sussman, Varda. 1972. *Ornamented Jewish Oil Lamps: From the Fall of the Second Temple through the Revolt of Bar Kochba*. [In Hebrew.] Jerusalem: Israel Exploration Society.

Sussman, Varda. 2012. *Roman Period Oil Lamps in the Holy Land: Collection of the Israel Antiquities Authority*. BAR International Series 2447. Oxford: Archaeopress.

Tavger, Aharon, and Dvir Raviv. 2013. "The Underground Hiding Complex at Khirbet Si'a South of Shilo Valley." [In Hebrew.] *In the Highland's Depth* 3:155–69.

Tsafrir, Yoram, Leah Di Segni, and Judith Green. 1994. *Tabula Imperii Romani: Iudaea, Palaestina: Eretz Israel in the Hellenistic, Roman and Byzantine Periods; Maps and Gazeteer*. Jerusalem: Israel Academy of Sciences and Humanities.

White, Tim D., Michael T. Black, and Pieter A. Folkens. 2012. *Human Osteology*. 3rd ed. Oxford: Academic Press.

Wood, Bryant G. 2001. "Khirbet el-Maqatir, 2000." *Israel Exploration Journal* 51 (2): 246–57.

Yadin, Yigal. 1963. *The Finds from the Bar Kokhba Period in the Cave of Letters*. Jerusalem: Israel Exploration Society.

Zelinger, Yehiel. 2001. "A Jewish Burial Cave at Jifna." [In Hebrew.] *Judea and Samaria Research Studies* 10:103–12.

Zissu, Boaz. 2001. *Rural Settlement in the Judaean Hills and Foothills from the Late Second Temple Period to the Bar Kokhba Revolt*. [In Hebrew.] PhD diss., Hebrew University of Jerusalem.

Zissu, Boaz, and Eitan Klein. 2014. "On the Use and Reuse of Rock-Cut Tombs and a Ritual Bath at Tell en-Naṣbeh: New Perspectives on the Roman and Byzantine Necropoleis." In *"As for me, I will dwell at Mizpah . . .": The Tell en-Naṣbeh Excavations after 85 Years*, edited by Jeffrey R. Zorn and Aaron J. Brody, 199–224. Piscataway, NJ: Gorgias.

Zissu, Boaz, Boaz Langford, Roi Porat, Uri Davidovich, and Amos Frumkin. 2009. "Finds from the Bar Kokhba Period from the 'Abud Cave." In *Refuge Caves of the Bar Kokhba Revolt* [in Hebrew], edited by Hanan Eshel and David Amit, 478–509. Jerusalem: Israel Exploration Society.

Zissu, Boaz, Boaz Langford, Roi Porat, and Amos Frumkin. 2016. "Coins from the 'Abud Cave in Southwestern Samaria from the Time of the Jewish Revolts against Rome." *Israel Numismatic Journal* 19:33–44.

5. Byzantine Ecclesiastical Complex

Leen Ritmeyer and Scott Stripling

From the establishment of the early church in the first century until the fourth century when Constantine made Christianity the Roman Empire's official religion, most Christians met in private homes for worship (cf. Acts 2:46). Such a place of worship functioned as a domus ecclesia or house church (Tsafrir 1995a, 1). Devotees often adapted their private homes for communal worship. Usually, one of the larger rooms, such as the triclinium, served for religious gatherings, or a separate hall-like room was added to the building. Examples of house churches exist in Capernaum (Corbo 1993, 71), Dura Europos in Syria (Snyder 2003, 128), and the Anaploga Villa near Corinth in Greece (Gill and Gempf 1994, 960).[1]

The growth of Christianity in the fourth century necessitated larger buildings to accommodate the many worshipers, and the prominence of the domus ecclesia diminished. The construction of churches became the primary architectural focus during the Byzantine period. Two kinds of churches developed: the basilica with its long hall and the centrally designed (circular, octagonal, or hexagonal) memorial church.

The church at Khirbet el-Maqatir operated from the fourth to the eighth centuries CE and represents the basilica type. The basilica-style church emerged from the Roman civic-style of the stoa building of the forum with its nave, aisles, and apse. Byzantine Christians built the Khirbet el-Maqatir basilica in the late-fourth century and added the monastery in the fifth century. The style was not new to the region. A large basilica building, known as the Royal Stoa, stood at the southern end of the Temple Mount in Jerusalem (Ritmeyer 2006, 90–94).

This basilica type proved most suitable for conducting worship services. Most Byzantine synagogues also followed the basilica plan. The Byzantine period was characterized by significant building activity along the central hill-country ridge, following the ancient road that ran from Hebron to Shechem. The Khirbet el-Maqatir church was one of many churches in the region. Nearby church buildings adorned the sites of Burj Beitin 1 km northwest, Beitin 1.2 km to the northwest, and Khirbet Ḥaiyân 2.2 km to the southeast.[2]

Christian monasticism also flourished in the Byzantine era, with many pilgrims to the Holy Land choosing to remain in the country and live in remote areas such as Sinai, Galilee, the Judean Desert, and Samaria. The ecclesiastical complex at Khirbet el-Maqatir is characteristic of several monasteries found in the latter region, with the concentration of such settlements strongly connected to the nearby biblical events.

There were two types of monasteries in this period. One type, the laura, consisted of a group of caves or cells in which monks would seclude themselves all week, meeting together only on Saturdays or Sundays for communal worship and to receive food rations for the week (Hirschfeld 1992, 11, 18–47). The other type of monastery, the coenobium, was a compound (usually walled), in which monks lived a communal life with a strict daily routine of work and prayer. The monastery at Khirbet el-Maqatir represents the second type.

An interest in biblical sites led nineteenth century explorers to the ruins at Khirbet el-Maqatir. They found the remains of a church and monastery and documented their findings.

Exploration and Identification of the Ecclesiastical Complex

The site of the church and monastery of Khirbet el-Maqatir sits 15 km north of Jerusalem, just east of Route 60 (*Geological Map* 2016). The site lies 3.7 km east of el-Bireh, 1.6 km southeast of Beitin, and 1 km west of Khirbet et-Tell. The two-hectare basilica-style church and coenobium monastery covered the summit of a hill which is approximately 890 m above sea level (fig. 5.1). The ecclesiastical complex overlooked the earlier settlements that date from the Middle Bronze Age to the Early Roman periods. Khirbet el-Maqatir commands a view of the Arab village of Deir Dibwan. The word *deir* in Arabic means "monastery," prompting nineteenth century explorers to search the surrounding hills for a church and monastery.

[1] See also Miller (1972) and Murphy-O'Connor (2002). For a treatment of early house-churches and pre-Constantinian ecclesiastical edifices, see Byers and Stripling (2013, 31–34).

[2] See also Albright 1968, 2; Ovadiah and de Silva 1981, 208; and Bagatti 2002, 33–34. For Burg Beitin, see Kelso (1958, 3; 1968, 53), Albright (1968, 2), Ovadiah and de Silva (1981, 208), Bagatti (2002, 33–34), and Kansha (2016, 13–16). For Beitin, see Conder (1881, 219), Kelso (1968, 7, 53), Ovadiah and de Silva (1981, 208), and Bagatti (2003, 32–33). For Khirbet Haiyân, see Callaway and Nicol (1966) and Bagatti (2002, 34–35).

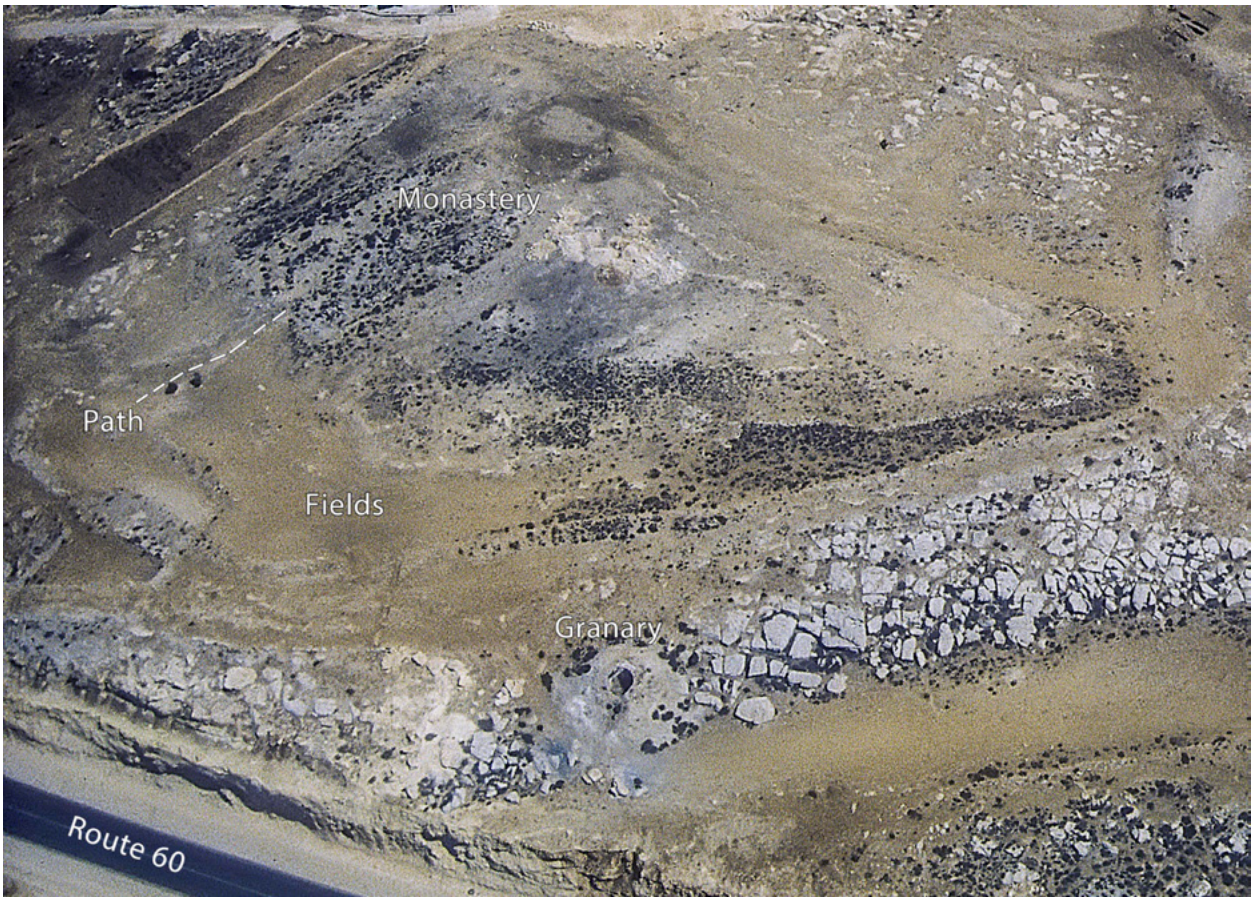


Figure 5.1. The hill at Khirbet el-Maqatir on which the ecclesiastical complex rested, aerial view, looking east. Photograph by Todd Bolen.

Edward Robinson initiated exploration of the site. His 1838 explorations on horseback won him the title "father of biblical geography." His enquiry to the local inhabitants concerned the location of Joshua's Ai, and a Greek priest in the village of Taibye pointed to Khirbet el-Maqatir. This identification failed to impress Robinson, but he recognized that there were ecclesiastical remains on the site: "There never was anything here but a church" (Robinson and Smith 1841, 126).

In 1863 Victor Guérin paced the dimensions of the church and recorded its measurements (Guérin 1869, 56–57). When Charles Wilson arrived in 1866, he took accurate measurements of the site and wrote the following:

> We could hardly resist coming at once to the conclusion that the site of Abram's altar was perfectly well known to the early Christians—as Ai was certainly known to them by name down to the fourth century—and that the church was purposely built on the spot in commemoration of the events which had taken place there.[3]

He also observed many Corinthian capitals on the site.

Soon afterward, Conder and Kitchener published an outline plan of the church in the *Survey of Western Palestine*, but the capitals had apparently been removed (fig. 5.2) (1882, 353).

In 1882 William Thomson also noted the remains of the ecclesiastical structure, essentially echoing the observations of those who came before him (94–95). Schneider conducted a more detailed survey in 1934 and published a plan of the church (fig. 5.3). He wrote the following:

> Almost due south of Burj Beitin, about a half kilometer across the valley, lies Khirbet el-Maqatir, with remains of an important Byzantine church, perhaps of the fourth century, and probably marking the stone on which Jacob pillowed his head. It [Khirbet el-Maqatir's ecclesiastical complex] is likely to come from the fifth and sixth centuries, while the church itself, as mentioned above, is technically much better executed, and may well be from the 4th century. I believe it may be the Church of Jacob mentioned by Jerome. (1934, 189)

[3] Wilson 1869, 124. Our excavation confirmed the exactness of Wilson's measurements. For a full treatment of Khirbet el-Maqatir as biblical Ai, see volume 1 of the Khirbet el-Maqatir final publications.

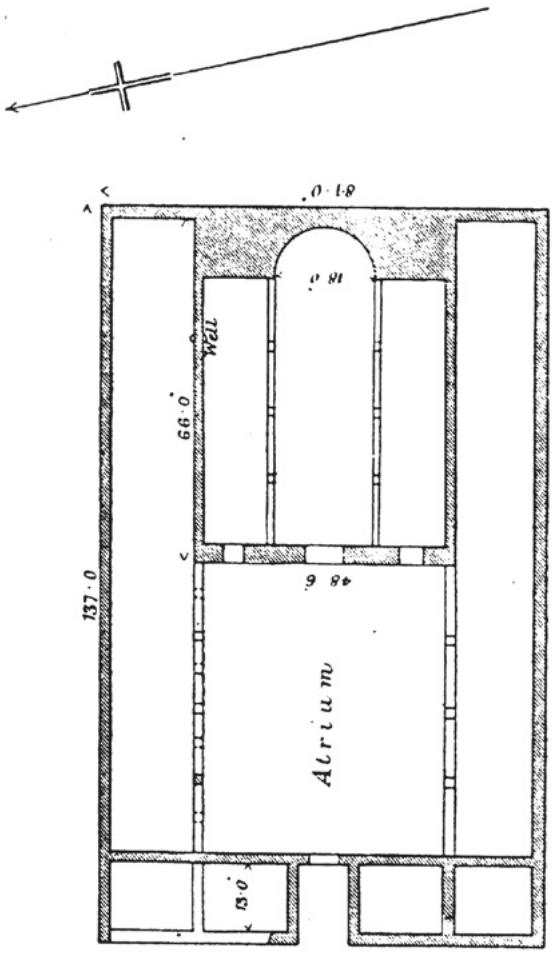


Figure 5.2. Plan of the church at Khirbet el-Maqatir according to Conder and Kitchener.

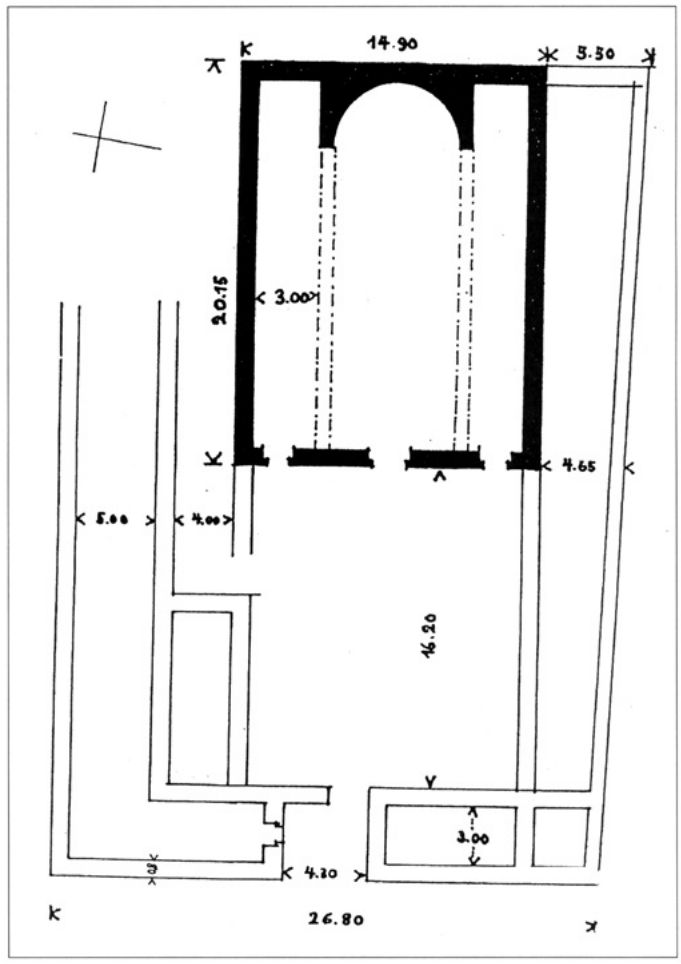


Figure 5.3. Plan of the church at Khirbet el-Maqatir according to Schneider.

Clearly, these early explorers linked the site with places visited by Abraham in Genesis 12 and Jacob in Genesis 28. Their records mention only a church, indicating their ignorance that it was part of an ecclesiastical complex five times larger.

In June 1998 architect Leen Ritmeyer and photographer Mike Luddeni surveyed the upper ruins of Khirbet el-Maqatir on behalf of the Associates of Biblical Research (ABR). They identified and photographed surface remains and architectural elements. Despite the fact that most of the walls and pillars of the church and monastery had been removed and placed in secondary use by inhabitants of the nearby villages of Beitin, el-Bireh, and Deir Dibwan, the remaining foundations made it possible to identify the layout of this complex before any excavations took place (Kelso 1958, 4; 1968, 8).

The preliminary result of this investigation showed, beyond doubt, that the architectural remains belonged to a monastery instead of solely to a church, as presumed by some earlier explorers (fig. 5.4). The church appears to have been built in the late-fourth century and likely remained in use, with various repairs and remodeling, until the devastating earthquake of 749 CE.

Under the directorship of Bryant Wood, The Master's College with Todd Bolen as leader carried out a few days of excavation work on the southeast corner of the monastery (Squares ZF04 and ZF05) in the spring of 1998 and in autumn of 1999 (Bolen 1999). They discovered remains of walls, a stone floor, tesserae, and a sill stone. In excavating the southeast corner of the monastery, they found that many of the elements noted by the nineteenth century explorers had disappeared. The Second Intifada (2000–2005) prohibited their further excavation in the area.

In 2010 Scott Stripling launched systematic and extensive excavations of the church and monastery. These excavations continued intermittently until June 2016. The whole east side of the basilica underwent excavation, as did a large part of the central nave, a section of the monastery, and some rooms on the west side of the building complex.

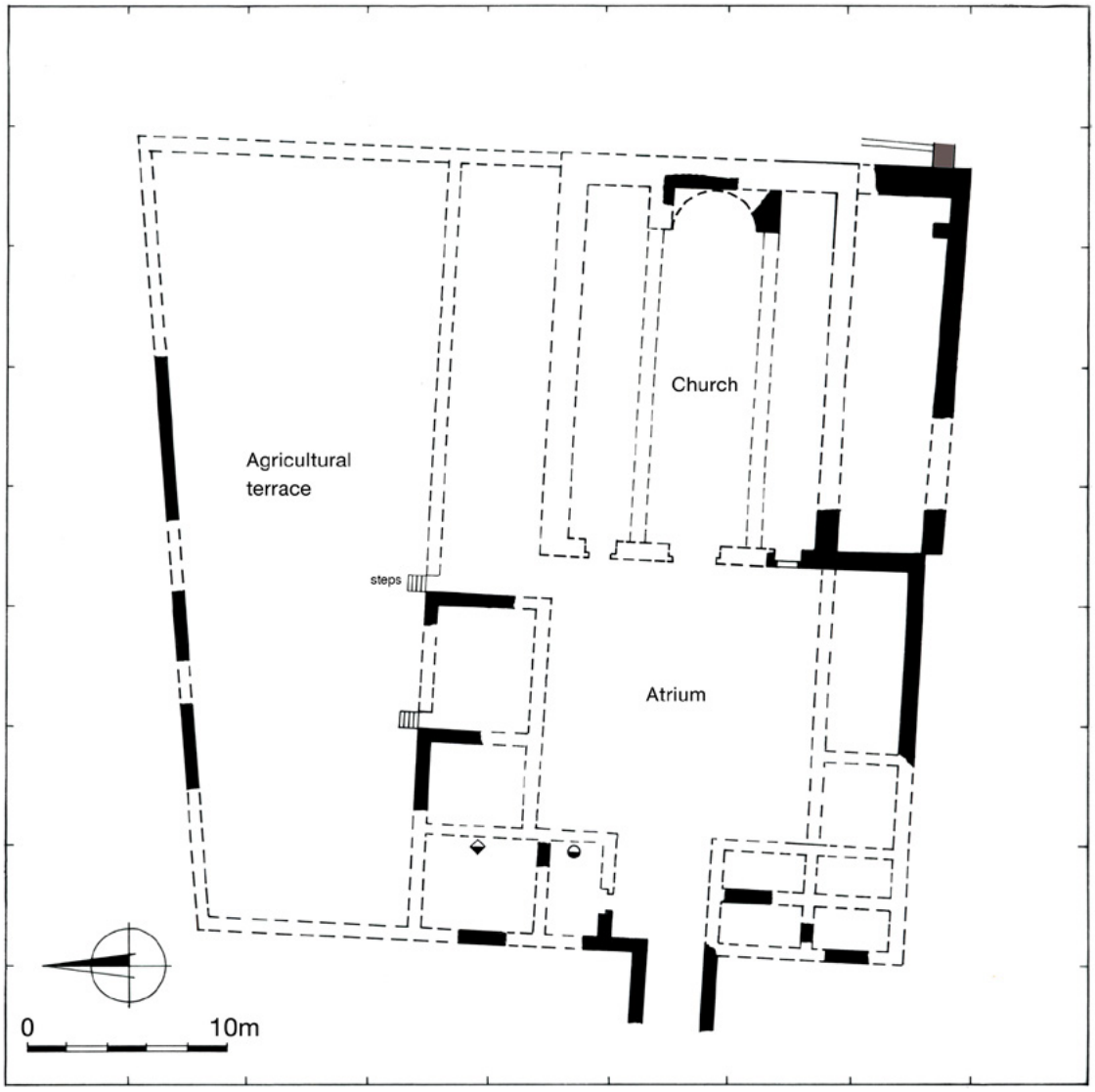


Figure 5.4. Preliminary plan of the ecclesiastical complex, 1998. Drawing by Leen Ritmeyer.

Architectural Remnants of the Ecclesiastical Complex

The renewed excavations showed that the Byzantine monastery at Khirbet el-Maqatir consisted of an east-facing triapsal church, flanked by at least one side building and an atrium to its west (fig. 5.5). The basilica-style church represents the earliest element of this complex. A finely built wall (Wall 18) abuts the east wall of the church, indicating that an important building once stood to the east or northeast of the basilica. The rooms to the west of the atrium and near the main entrance to the monastery comprise the latest additions to the complex, dating to the seventh or eighth centuries CE.

These buildings form a coenobium-type monastery, surrounded by terraced agricultural fields (fig. 5.6). A limekiln lies just outside the southern perimeter of the complex. The 1.50 m thick circular wall and the gray burnt-limestone residue may indicate a local production of the monastery's construction mortar, or the kiln may have come into use only after the ecclesiastical complex's demise (figs. 5.7–8). The steep slopes surrounding the monastery form a natural boundary, apparently eliminating the need for building of a perimeter wall, as no such wall remains.

The Byzantine builders in Palestine preferred local *cenonian* (soft) and *mizzi yahudi* (hard) limestone for construction. They normally roofed basilicas with terra-cotta tiles in the tegulae and imbrix style, as at Khirbet el-Maqatir. Limestone flags and mosaics served as floors. Mosaics often boasted inscriptions; however, those found at the Khirbet el-Maqatir complex failed to yield any discernible words, probably due to the badly damaged state in which they emerged. Excavation at Khirbet el-Maqatir produced six marble fragments that were likely part of the altar, chancel screen, and chancel post.

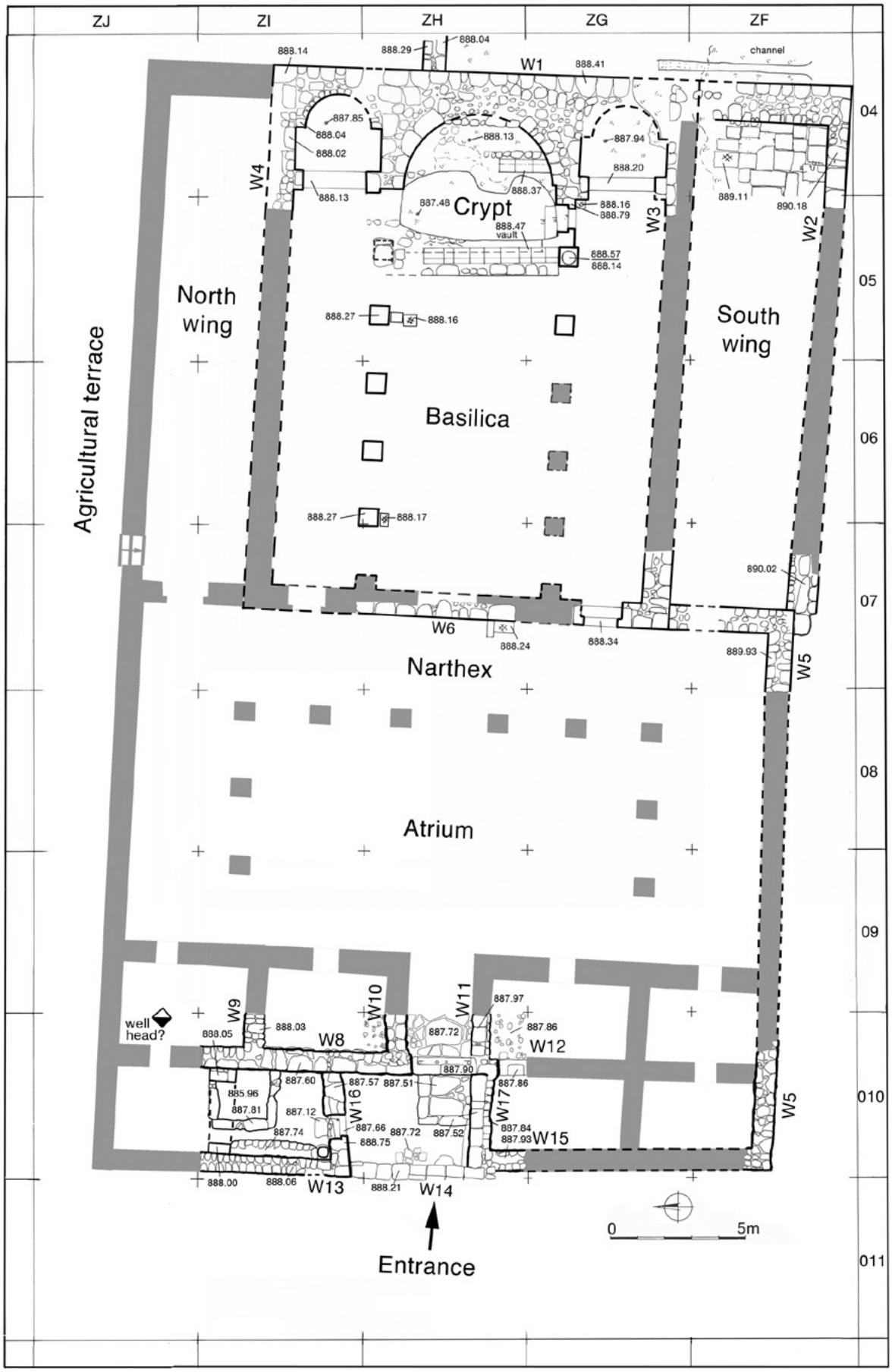


Figure 5.5. Plan of the ecclesiastical complex at the end of the excavations in 2013. Drawing by Leen Ritmeyer.

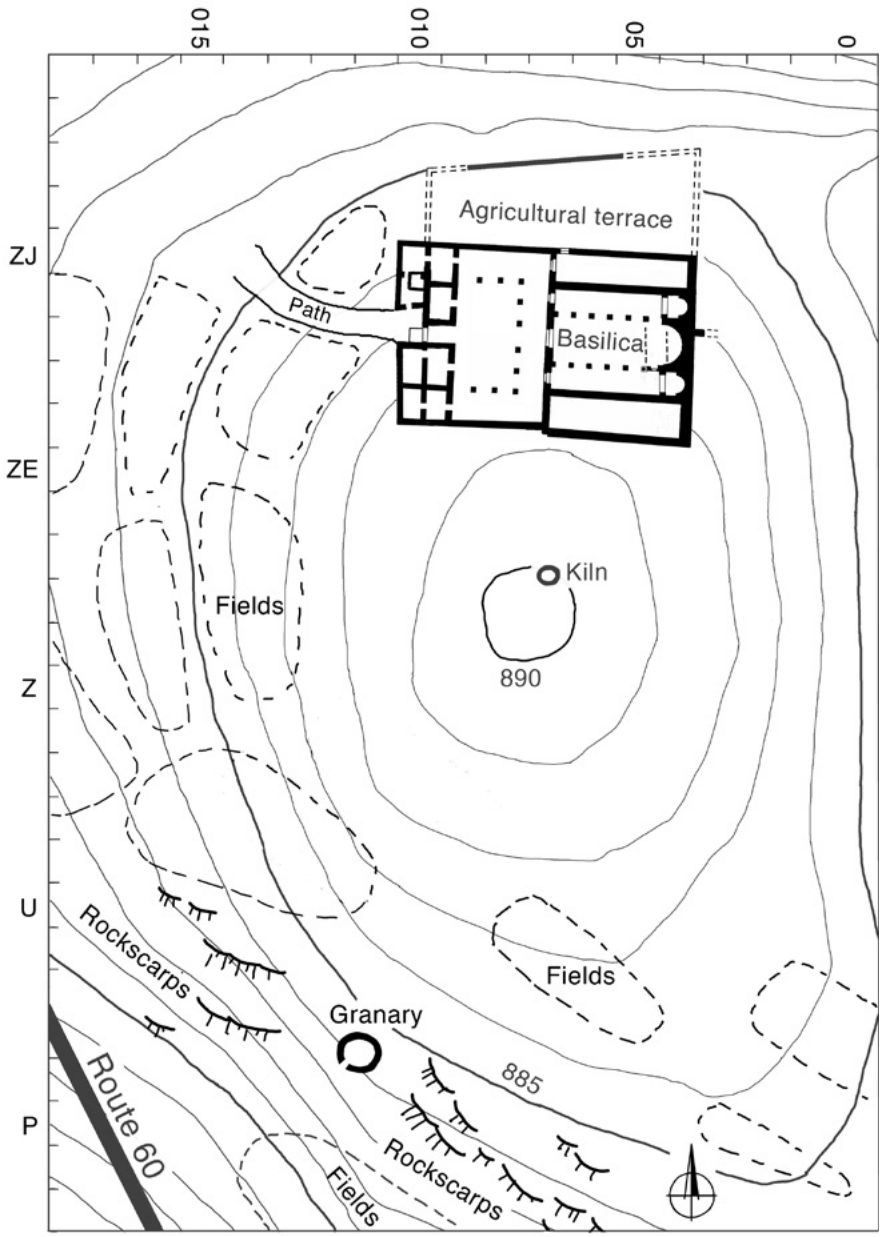


Figure 5.6. Overall plan of the monastery and its surroundings. Drawing by Leen Ritmeyer.



Figure 5.7. Limekiln. Photograph by Michael C. Luddeni.

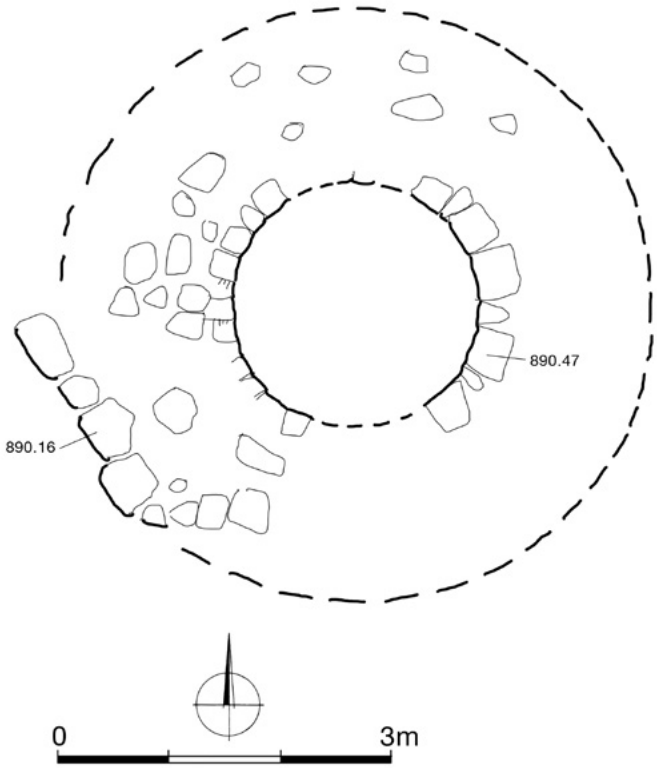


Figure 5.8. Plan of the limekiln. Drawing by Leen Ritmeyer.

Remnants of the Basilica

The basilica measures 39.35 m long and 15.50 m wide. Two rows of five pillars separate the 6 m wide central nave from the two 3 m wide side aisles. At the east end of the central aisle, a vaulted crypt apparently supported a staircase leading to the bema in the central apse. The two side aisles terminate in two small rooms that have imperfectly formed semicircular apses, perhaps indicating a transition from the monapsal form in the fourth century to the fully triapsal form in the fifth century (fig. 5.9). Examples of this type of change can be seen in the churches at Haluza (Elusa) and at Shivta in the Negev (Negev 1974, 400–422).

The main entrance passed through the center of the church's west wall (Wall 6). Two smaller side entrances provided access to the side aisles. The 1.20 m wide southern entrance survived. The two rows of pillars rested on single square plinths. Six of these plinths were found in situ during excavations (fig. 5.10). The southeast one supported an Attic column-base. These plinths measured approximately 90 cm per side. A few original limestone floor slabs survived in situ next to some of the plinths. The largest slab measured 60 cm square.

Four fragments of column shafts survived on the surface. During the 2012 excavations, an intact limestone column (height 2.55 m; top diameter 42 cm; bottom diameter 52 cm) emerged near the east end of the basilica (figs. 5.11; 5.17). The column had evidently fallen from the in-situ base. The orientation of the column in relation to the nearby capital indicated that an earthquake likely caused the collapse. A nearby Corinthian pilaster-capital (height 50 cm; diameter 50 cm) indicates that the architraves on top of the columns terminated in pilasters that engaged with the east and west walls (fig. 5.12).

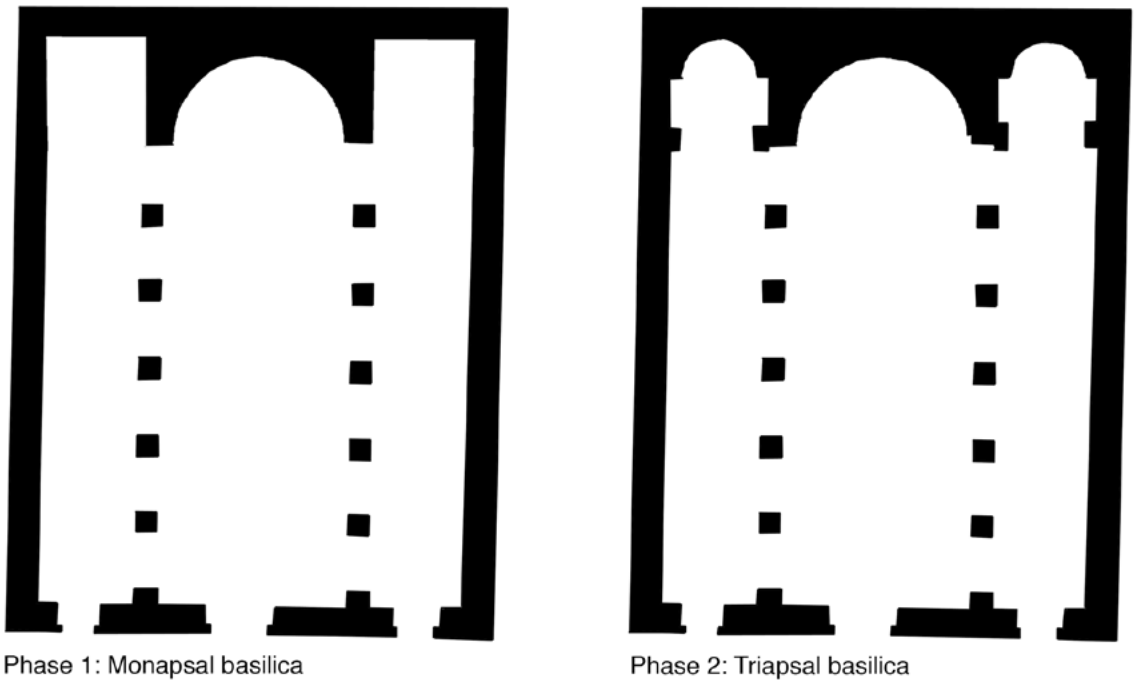


Figure 5.9. Plans of the monapsal church and the triapsal church. Drawing by Leen Ritmeyer.



Figure 5.10. The remains of the central apse with the crypt in the foreground and column bases in the center of the picture, looking west. Photograph by Michael C. Luddeni.



Figure 5.11. Complete column. Photograph by Michael C. Luddeni.

Reports from the Department of Antiquities dating from the 1920s indicate that in 1925 an unspecified number of complete columns were removed from the site in order to construct a veranda for the mosque in el-Bireh.[4] Local residents also removed two column-bases and placed them in a school in Beitin. In 1990 villagers from Deir Dibwan removed five other column fragments (each with a diameter of 46 cm) and a large sill or lintel stone and placed them in the fenced-in center of the traffic circle at the western approach to their village (fig. 5.13).[5] One of these is a complete column boasting a total height of 2.37 m, including the 46 cm high Corinthian capital that appears very worn. It stood on a 64 cm square base. These columns were smaller than the one found inside the basilica and may therefore have belonged to the atrium.

[4] In about 1925 residents of el-Bireh removed columns, lintels, and bases from the ecclesiastical complex at Khirbet el-Maqatir. The columns were not excavated but removed from the surface of the ground, and no punitive action ensued. Two column-bases were relocated to Beitin. One column and a base were left lying near the visible apse. See the reports on Khirbet el-Maqatir by the government of Palestine, Department of Antiquities (posted in the Israel Antiquities Authority's Scientific Archive, 1919–1948, http://www.IAA-Archives.org.il/search.aspx?loc_id=11666&type_id=).

[5] Information obtained from landowner Khaldoun Bakker in December 2010.



Figure 5.12. Corinthian pilaster capital (Object 699). Photograph by Michael C. Luddeni.



Figure 5.13. Columns and architectural elements removed from Khirbet el-Maqatir and placed in the village of Deir Dibwan. Photograph by Michael C. Luddeni.

The Crypt



Figure 5.14. The crypt and doorway, looking south. Photograph by Michael C. Luddeni.

Excavation revealed a crypt in front of the central apse (fig. 5.14).[6] The existence of a crypt may indicate that the basilica was commemorative. A thin layer of fine white plaster laid on worked bedrock seals the floor and side benches of the crypt. A metal detector indicated the possible existence of a coin in the plaster. Careful removal confirmed that an early Byzantine coin (383–395 CE); Catalog no. 1252) lay within the bench's

[6] Originally, crypts were typically found beneath the main apse of a church but later were also located beneath naves and transepts. Occasionally the floor level had to be raised to accommodate a crypt. A crypt often served as a chapel or burial place.



Figure 5.15. Early Byzantine coin found in the plaster of the crypt (Catalog no. 1252). Photograph by Michael C. Luddeni.

plaster (fig. 5.15). The remains of the arch springs—three vault stones on the east side of the crypt and nine on the west—rested on top of the approximately 50 cm high benches. The original ceiling consisted of a 5.6 m long vault with a span of 3 m. A low doorway at the east end of the south aisle allowed access to the vaulted area. To the immediate east of this doorway, a single paving slab belonging to the south aisle of the basilica survived in situ at the same level as the aforementioned paving slabs in the central aisle. No finds inside the crypt indicated whether it contained a reliquary, a sarcophagus, or some other sacred object. Interestingly, within the crypt's fill, we recovered an ossuary or sarcophagus fragment with a rosette motif, typical of the late Second Temple period. This may have functioned in secondary usage. This fragment may have also been part of the chancel. Twelve coins from the Hasmonean and Herodian periods found in and around the ecclesiastical ruins also testify to the pre-Byzantine history of Khirbet el-Maqatir.

The area in front of the small doorway leading into the crypt yielded many artifacts, including a complete column (previously mentioned), a well-preserved Corinthian pilaster-capital, and a fragment of a chancel screen. One side of the capital was perfectly flat and unworked, indicating that it engaged a joining wall. The thousands of tesserae found here likely indicate that the side aisles had an upper story floor paved with mosaic tiles.



Figure 5.16. Central apse and crypt, looking south. Photograph by Michael C. Luddeni.



Figure 5.17. East wall of the basilica with the south apse in the foreground, looking north. Photograph by Michael C. Luddeni.

The Apses

The central apse formed an integral part of the basilica's east wall (Wall 1) (fig. 5.16). Two courses of large-to-medium stones, dry-laid on bedrock, form the foundation of the semicircular apse that measured 5.50 m wide. The preserved height is about 70 cm, well below the original floor level of the apse that sat above the crypt.

South of the central apse and north of Wall 3 lies a 3 m wide room (fig. 5.17). Two jambs on either side of a 2.4 m long threshold or sill stone form the entrance to this room. On the east side rests the partial foundations of a 3 m wide imperfectly formed semicircular apse. North of the central apse and south of Wall 4 exists a similar room also with two jambs at the entrance on either side of another 2.1 m long sill stone (fig. 5.18). The dimensions of this room are similar to the one on the south. A single curved line of small stones lies at the east end and forms the foundation of a second side apse of similar dimensions to the one in the south. This proves the triapsal blueprint of the basilica. The early explorers never saw these small side rooms, and



Figure 5.18. East wall of the basilica with the north apse in the foreground, looking south. Photograph by Michael C. Luddeni.

therefore, thought that the basilica was monapsal. The northern room probably served as the prosthesis, a storage room for the sacred vessels. The southern room likely functioned as the diaconicon, storage for vestments and liturgical books for the service.

The Atrium

The atrium (fig. 5.5) lies immediately west of the nave and east of the main entrance to the ecclesiastical complex. Wall 5 forms the southern boundary of the atrium. The majority of the central part of the atrium remains unexcavated, but small sections of white and red mosaic flooring exist in situ. The ratio of white-to-red tesserae equals six to one. The smaller set of columns, referenced above, would have surrounded the open central space of the atrium.

Remnants of the Monastery

The monastery at Khirbet el-Maqatir was typical of contemporary monasteries in the Holy Land. Unfortunately, the monastery remnants at Khirbet el-Maqatir are poorly preserved.

The Entrance

An extant dirt path led from the west to the entrance of the monastery. Walls 8 and 12 form the original west wall of the monastery that had a centrally located entrance flanked by several rooms. Excavation revealed three phases in the entrance (fig. 5.19). The preserved sill measures 1.80 m wide, and the sockets indicate that a double door operated here (fig. 5.20). A platform (32 cm high, 1.9 m wide, and 1.8 m deep) functioned as a step into the main entrance. This entrance lay on the longitudinal axis of the basilica. Two wooden doors, with a total width of 1.9 m, led into a 2.4 m wide passageway that existed between Walls 10 and 11. A room 4.5 m wide and partially excavated to the north of the passageway lies between Walls 9 and 10. Another room lies north of Wall 9. A small part of a cobble floor was excavated to the south of Wall 11, indicating that another room existed there. It is likely that two rooms of similar dimensions occupied the area south of the passageway.

The Western Rooms

Walls 15 and 17 form a room to the south of the main entrance area, while another room, enclosed by Walls 13 and 16, lies to the north of the main entrance. Walls 16 and 17 abut the southern wall of the atrium, and therefore, appear to have been added on the west of the monastery at a later stage. Wall 14 closed off the access area in front of the monastery entrance. Early Islamic pottery, coins, and lamps were found in this area, apparently dating to the final phase of the structure's use.

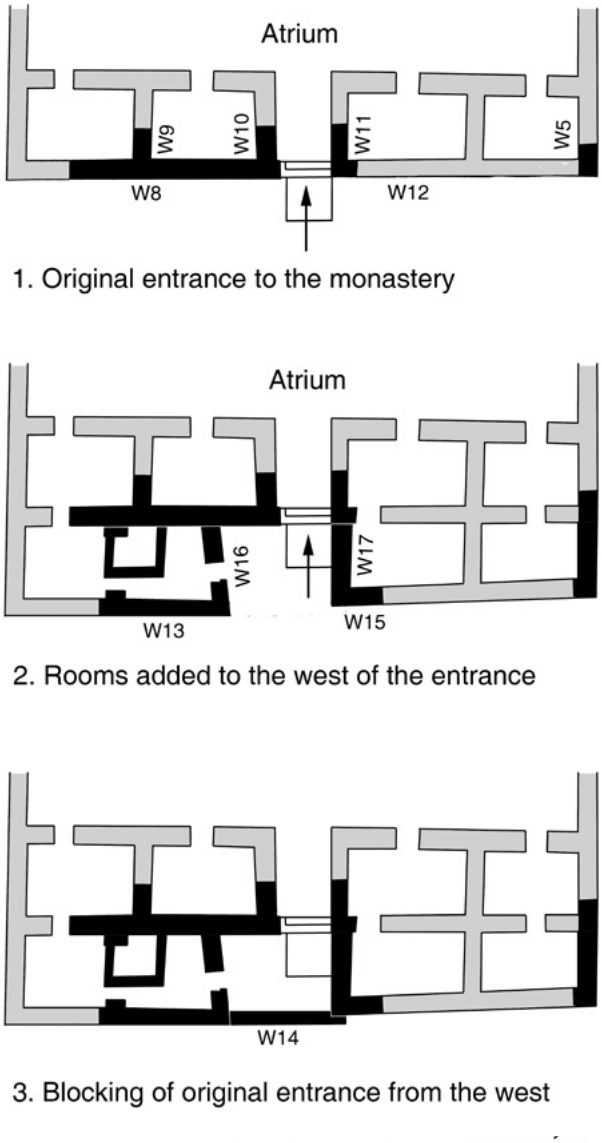


Figure 5.19. Three phases in the entrance. Drawing by Leen Ritmeyer.

A 65 cm wide doorway in the middle of Wall 16 gave access to the northern room (fig. 5.21). The two extant pilasters would have carried an arch that supported the ceiling. A low 50 cm deep bench ran along the west wall and an almost 1.7 m square and 85 cm high plastered installation stood below the arch (fig. 5.22). It may have functioned as a baptistery, but there are no steps leading in or out of the installation. Wooden steps could have provided ingress and egress. Likewise, the plastered installation may have had an agricultural or utilitarian purpose for storing liquids such as water, wine, or olive oil.

The Southern Wing

A room paved with large limestone slabs (fig. 5.23) sits south of the basilica proper. The southeast corner of this room also constitutes the southeast corner of the monastery. Twenty-three paving stones, averaging



Figure 5.20. The entrance to the ecclesiastical complex, looking west. Photograph by Michael C. Luddeni.



Figure 5.21. The entrance to the ecclesiastical complex, looking north, with rooms on both sides. The room to the north has two pilasters. Photograph by Michael C. Luddeni.



Figure 5.22. View of room to the north of the entrance, looking south, with a plastered installation in the foreground. Photograph by Michael C. Luddeni.



Figure 5.23. Southeast corner of the ecclesiastical complex. Photograph by Michael C. Luddeni.

45 × 70 cm, were visible and well-preserved. Removal of these pavers in 2016 facilitated access to the sealed locus beneath the floor. The pavers lay on a 10–15 cm thick layer of plaster above the bedrock. The eastern wall (Wall 1) of the room stands 1.50 m thick and represents the southern continuation of the east wall of the basilica. The room's southern wall (Wall 2) measures 70 cm wide, with the width of the room being 4.9 m. This latter wall appears to continue west for about 15 m, where it meets the southeast corner of the atrium. Four small fragments of red fresco and many pieces of plaster were recovered nearby, indicating that the wall was originally plastered and finished with fresco. A 50 cm wall abuts Wall 2 at 1.4 m west of the interior corner of the room, but as it rests on the paving slabs, it must belong to a later period. It is not clear if this approximately 15 m long room subdivided into smaller rooms. It may have served as a chapel adjoining the church or as a refectory. A plastered rock-cut channel runs to the north of this side room, apparently for drainage of the rainwater that fell on the roof of the church.

Architectural History of the Ecclesiastical Complex

The first phase of the church dates to the fourth century and the monastery to the fifth century. The church's construction was superior to the monastery's construction. The single apse church was constructed around the middle of the fourth century CE but likely fell in the earthquake of 363 CE. Soon afterward, a triapsal church replaced the earlier structure.

In 2016 in-situ stone pavers in five areas were removed and the fill below them examined; three paved areas lay at the entrance to the ecclesiastical complex, one inside the basilica, and the other in the east end of the south wing. The pottery in these sealed loci in the entrance indicated that the vestibule dates from the early fifth century. Removal of the large pavers in the east end of the south wing exposed ceramic and numismatic evidence that this area belonged to a subsequent phase (ca. 475 CE). Architectural substantiation for this phase can be found in the fact that the western end of Wall 2 does not line up properly with the atrium's southern wall (Wall 5). The southern wing, therefore, represents a subsequent addition to the monastery. A hoard of coins, including two coins of Justinian I, below the in-situ basilica floor proved that the pavement was laid in the mid-sixth century. It seems plausible that the ecclesiastical complex suffered severe damage in the Samaritan Revolt of 556 CE and was rebuilt years later during the reign of Justinian I (527–565 CE). This phase lasted at least up to the Persian invasion of 614 CE.

The last occupational phase is Early Islamic. Wall 14 lies between Walls 13 and 15, effectively blocking the entrance to the monastery. This created another room that could only have been accessed from the atrium area, which may have been destroyed by then. The building of this wall indicates a major change in the use and occupation of the complex. The Persian invasion of the land in 614 CE, followed by the Muslim conquest of 636 CE, caused a major interruption in monastic life (Hirschfeld 1992, 16–17). The monasteries were cut off from the Byzantine Empire, resulting in the abandonment of many of them, likely including the Khirbet el-Maqatir complex. The Muslim conquest greatly limited the number of Christian pilgrims coming to the Holy Land. Although the architectural fabric of the building complex survived, the blocking of the main entrance and adding of rooms indicate that it may have ceased to operate as a monastery, instead serving as a Muslims dwelling or farmstead. The entrance area

shows the architectural and historical development very clearly (fig. 5.19).

A tentative historical sequence of the ecclesiastical complex is as follows:

Phase 1: Construction of a monapsal basilica in approximately 350 CE that was destroyed in the earthquake of 363 CE.

Phase 2: A few decades or so later, in the early fifth century (ca. 400 CE), a triapsal basilica rose on the ruins of the early church.

Phase 3: In about 475 CE, an atrium with several rooms was added to the west.

Phase 4: As the coenobium expanded, perhaps around 500 CE, a wing was added to the south of the basilica and perhaps to the north as well.

Phase 5: Another phase can be observed at the west end of the monastery. West of Walls 8 and 12, several rooms were added, probably due to a further expansion of the monastery around 556 CE. This rebuild may have been triggered by the Samaritan Revolt of 566 CE and lasted at least until the Persian conquest of 614 CE.

Phase 6: The last observable phase is the construction of Wall 14 in the seventh century, turning the entrance area into a room, either around 614 CE or 636 CE.

Phase 7: The great earthquake of 749 CE ended the functional life of the ecclesiastical complex.

Proposed Reconstruction of the Ecclesiastical Complex

The entrance to the monastery lies on the longitudinal axis of the basilica. This symmetry, combined with an awareness of regional parallels, provides a reasonable reconstruction (fig. 5.24). The plan of the monastery and church closely resembles the layout of the fifth-century ecclesiastical complex at Kursi (Tzaferias 1993, 893–96).

Reconstruction of the Basilica

Although not fully excavated, it is possible to reconstruct the basilica's plan from the layout of the surrounding building remains and visible surface-remains. The chancel part of the church can be reconstructed with a high degree of confidence since the foundations of the apses and the springs of the vaulted crypt survived intact. Likewise, the excavated column bases and in-situ flagstone flooring abutting them allow for a realistic conception of the nave. Excavation of the atrium

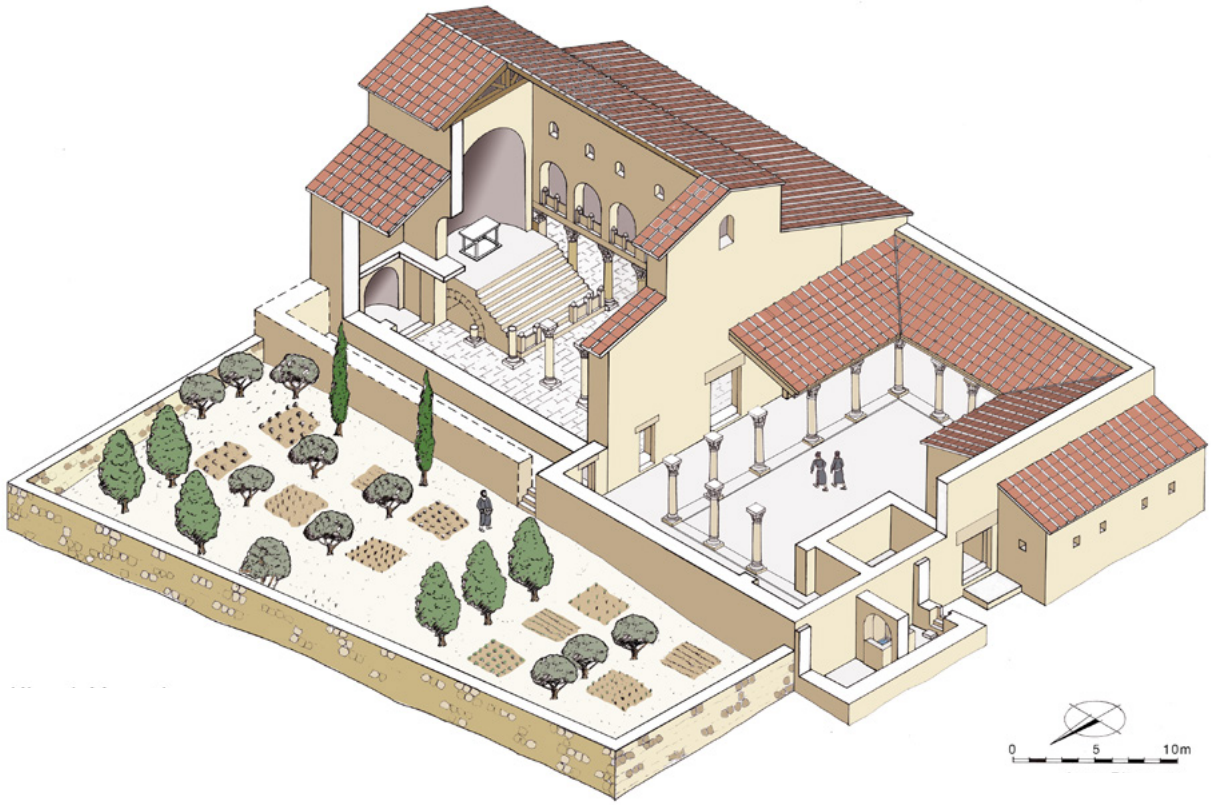


Figure 5.24. Reconstruction of the Byzantine ecclesiastical complex. Drawing by Leen Ritmeyer.

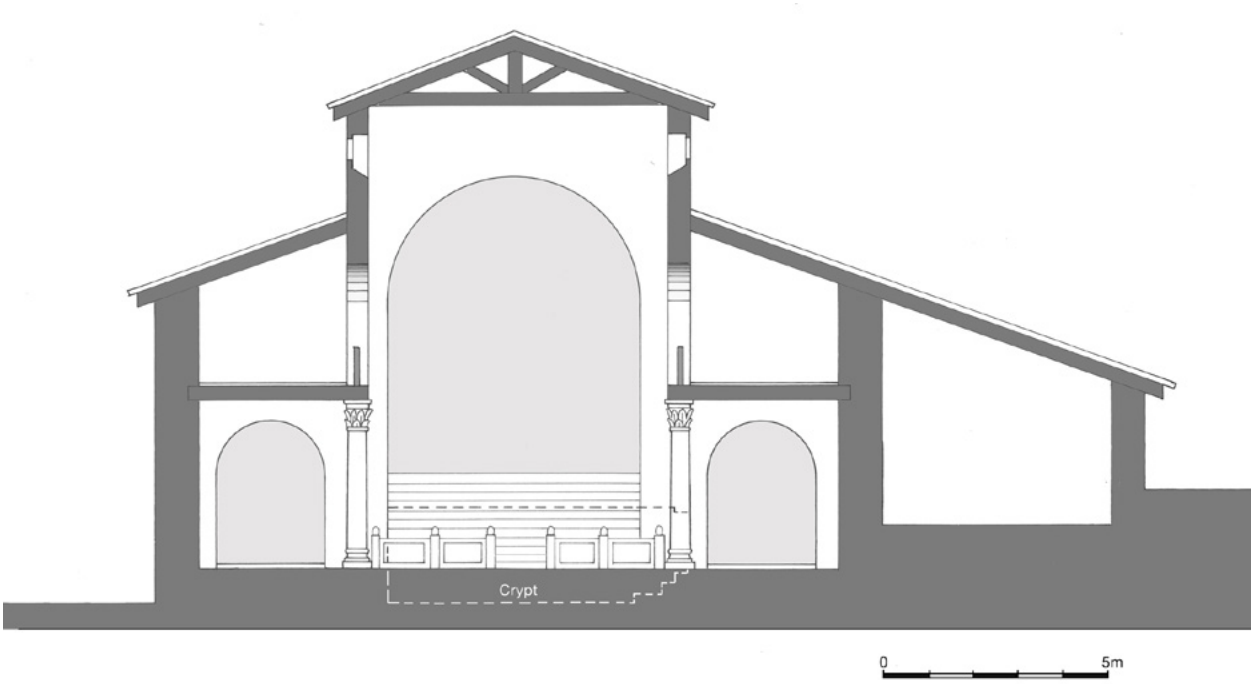


Figure 5.25. Reconstruction plan (N-S section) emphasizing elevation and illumination. Drawing by Leen Ritmeyer.

and the western rooms complete the data needed for reconstruction.

The Atrium

Wall 5 serves as the southern boundary wall of the atrium. The distance between the existing interior southeast corner of the atrium and the southwest corner of the basilica measures 4.25 m. This distance mirrors the distance between the northwest corner of the basilica and the projected north wall of the monastery. Using symmetry, the north wing of the atrium would therefore also have been 4.25 m wide.

The atrium would have had three 4.25 m wide corridors in the north, east, and south. The rooms east of Walls 8 and 12 would have had east facing doors, and therefore, comprised part of the atrium. Space exists for two rows of three columns on the north and south sides of the atrium, while six columns stood along the east corridor. On this reconstructed plan, the two sets of three pillars rest on the continuation of the outer walls of the basilica. The eastern corridor may have functioned as the narthex of the church as no proper narthex existed.

A cistern or well likely lay beneath the central pavement of the atrium courtyard to provide water for the monks. This installation remains buried and undocumented.

The Narthex and Nave

The narthex, here likely the eastern part of the atrium, was reserved for novices, while the baptized members of the church stood inside the nave and side aisles of the building. The roof of the central nave rose higher than the side aisles so that windows in this clerestory could illuminate the building (fig. 5.25). Fragments of colored glass from what appears to have been both round and square windows were found during the excavations. From these fragments it was possible to reconstruct one fairly complete circular window made of green glass having a diameter of 20 cm (fig. 5.26). Two pieces of brown and green glass of about 8 cm long appear to have derived from small square windows. The two sets of glass fragments may have belonged to a clerestory window as shown in this tentative reconstruction

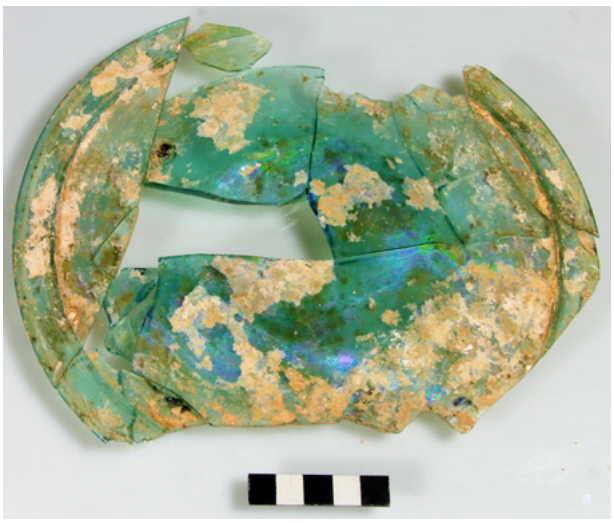


Figure 5.26. Reconstructed green circular window. Photograph by Michael C. Luddeni.

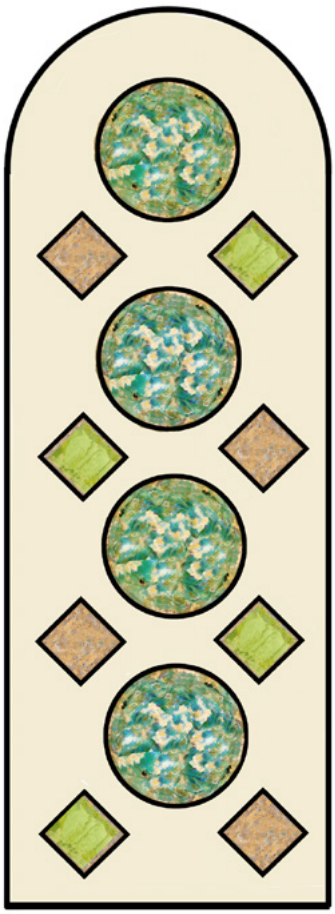


Figure 5.27. Reconstruction proposal for a clerestory window based on surviving fragments. Drawing by Leen Ritmeyer.

drawing based on other Byzantine churches. The colored pieces of glass would have been set in a frame made of stucco (fig. 5.27).

The Chancel

The east end of the central nave, reserved for the priests, formed the chancel. From here, the priests conducted the liturgy. The outstanding feature of this area is the vaulted crypt in front of and below the central apse. The vaulted crypt necessitated a stairway to reach the floor of the central apse from the main hall (fig. 5.28). Reconstructing the 5.6 m wide semicircular vault shows that it must have supported an unusually high (2 m) stairway that led to the upper level of the chancel. At the foot of this stairway, a low barrier made of screens and posts prevented the laity from entering the sacred area. Five excavated fragments (Objects 672, 847, 863, 871, and 2537) formed part of a marble chancel-screen that was part of this barrier (fig. 5.29). There were also three limestone chancel screen fragments (Objects 671, 734, 868 [A044345]). Two additional limestone fragments, Objects 671 and 734 (A044337), belonged to the central wreath, and two other marble fragments (Objects 863 and 2537) were part of the outer frame. Another fragment with a small rosette came from the side of a screen (fig. 5.30). As the frame had a different profile, it must have belonged to a different screen. A central opening allowed the clergy to enter the apse.

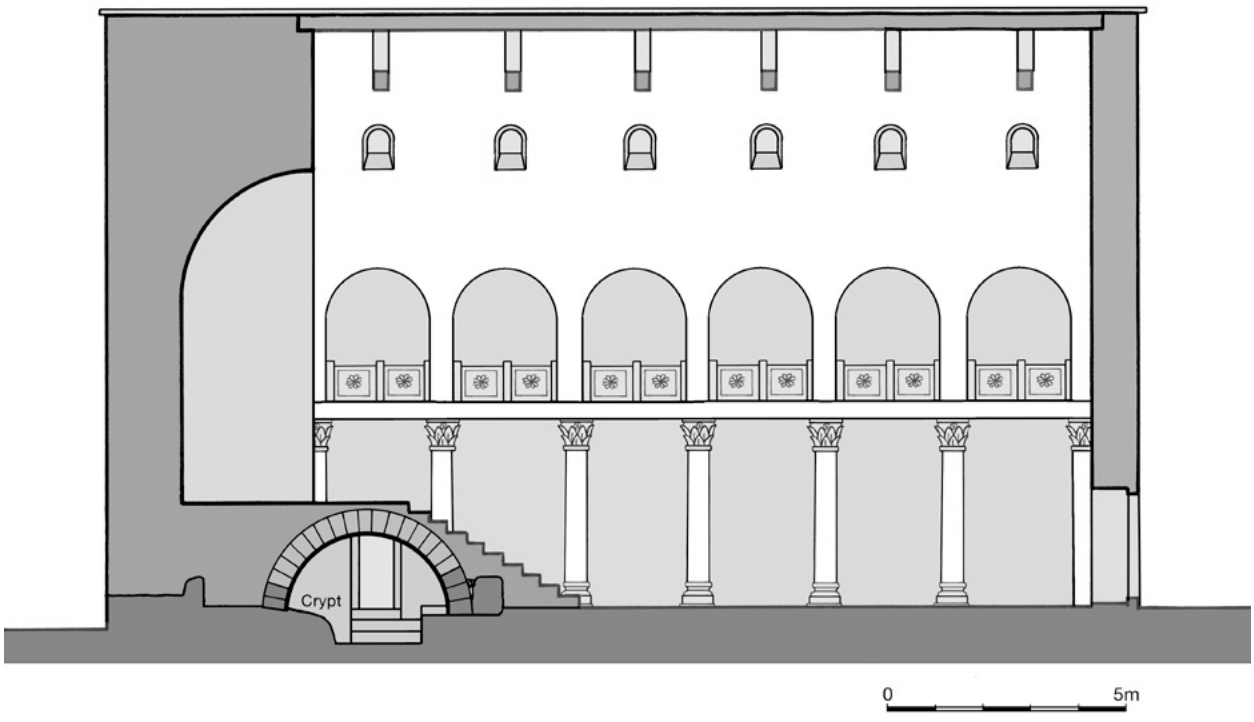


Figure 5.28. Reconstruction of east–west section through the basilica, looking south. Drawing by Leen Ritmeyer.

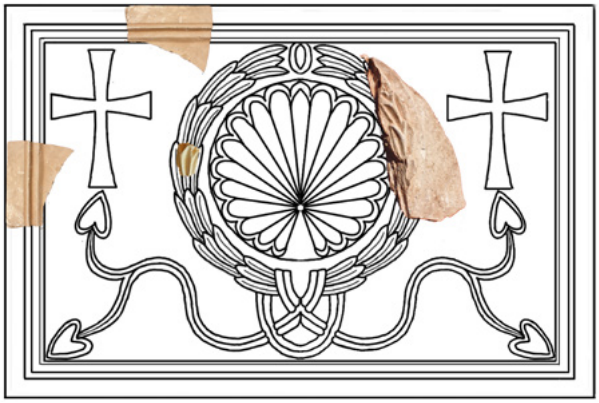


Figure 5.29. Reconstruction of marble chancel screen. Fragments 863 and 2537 belonged to the outer frame, and fragments 671 and 734 (A044337) formed part of the central wreath. Drawing by Leen Ritmeyer.

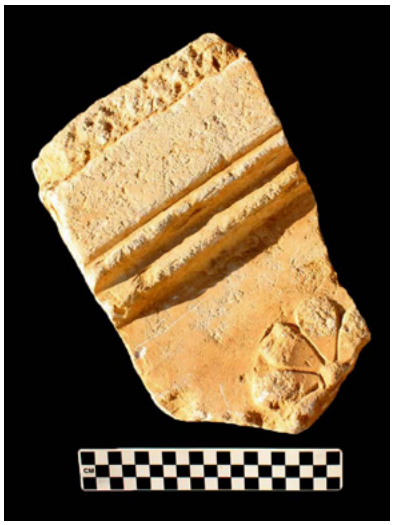


Figure 5.30. Object 868 (A044345), with rosette decoration, part of the side of a chancel screen. Photograph by Michael C. Luddeni.



Figure 5.31. Fragment of limestone barrier with rosette (Object 738). Photograph by Michael C. Luddeni.

The choir probably stood on the stairway, as it was part of the chancel.

The many tesserae in the area give a strong indication that a second story stood over the side aisles. Arches would have been built in the wall above the two colonnades of the basilica in order to make it possible to view the central nave from above. A limestone fragment decorated with a rosette (fig. 5.31) was found nearby and would most likely have formed part of a safety barrier that was placed inside the arched openings (fig. 5.28).

Reconstruction of the Monastery

Only a small portion of the monastery can be confidently reconstructed. Squares ZF04 and ZF05 may have formed part of the refectory. The excavation of the western rooms reveals the monastery's northwest corner.

The Western Rooms

Beginning at the room north of Wall 16 and taking into consideration that single arches usually stood in the center of rooms, it is logical to suggest that this room measured twice as long as the distance from Wall 16 to the pilasters. The projected northwest corner of this long room would form the northwest corner of the monastery. A wall running east from this reconstructed corner and parallel with the basilica would form the north wall of the monastic complex. If the partially excavated room north of Wall 9 had the same north–south dimension as that between Walls 10 and 9, then the north wall of this room would coincide with the reconstructed north wall of the monastery.

A doorway in Wall 16 gave access to the northern room (fig. 5.20). Arch springs and extant pilasters indicate that an arch supported the ceiling. A bench ran along the western wall and a plastered installation (fig. 5.22) occupied the room's northeast corner. The installation may have served as the church's baptistery or simply for water storage. Excavation failed to clarify the function.

The Southern Wing

Around 500 CE monks added a wing to the south of the basilica. The wing measured about 20 m long and 5 m wide. Large square limestone pavers set in plaster floored the addition to the monastery. Fresco likely adorned the walls. The wing supported second-floor rooms as indicated by the thick layer of mosaic tiles that populated Squares ZF04 and ZF05. Excavation failed to clarify the function of this wing but given its size and location within the ecclesiastical complex it probably served as a refectory or a chapel. It may have also been used for general storage or as a pantry.

Sacred Architecture and Symbolism of the Ecclesiastical Complex

The basilica building, in its adapted shape, proved eminently suitable for Christian religious practices. The different areas of the basilica and its atrium reflect the graded system of sanctity prevalent in Byzantine church architecture. The entrance lay at the west side of the basilica, and on entering the church, the attention of the worshipers focused naturally on the chancel at its eastern end.

An altar usually stood in the central apse, sometimes below a ciborium, a freestanding canopy supported by pillars. The only surviving part of the altar is the upper part of one leg that supported the table and featured a capital with an inscription (fig. 5.32). This marble fragment (Object 860, A044344) was found in the atrium and measures 13.5 cm long. It bears a Greek inscription typical of its era and type: A-P-ω(?) (cf. chap. 10). Semicircular stone benches ran along the wall of the apse to provide seating for the priests. A centrally placed higher seat, a synthronon, was reserved for the bishop or deacon of the church. Clergy preached sermons from a pulpit, called an ambo, which was accessed from inside the chancel but projected into the central nave.[7] It was often made of wood. None of these elements survived at Khirbet el-Maqatir.

According to Wilkinson, Byzantine basilica buildings were suitable for combining function with symbol:

> A description of the services held in Palestinian churches during the Byzantine period suggests that the church structures were designed not only to meet the purely functional requirements of the liturgy, but also to embody older, familiar symbols. The buildings reflect the conjunction of function and symbol, the merging of two very different processes. (1995, 17)

Christian assemblies resembled synagogue services. Both began with a procession bringing up respectively the books of the Gospels or the Torah scrolls, followed by prayer, readings, and a sermon. Both services ended with a blessing from the religious leader. Synagogues and churches could not be architecturally distinguished in many instances.

The main hall of the basilica was open for baptized believers, but only the clergy entered the chancel. At Khirbet el-Maqatir, as in many churches, the plan of the central nave and the chancel reflect the plan of the tabernacle and the temple. The space in the central nave is twice as long as that of the chancel (fig. 5.33). The chancel compares with the holy of holies in ancient Israel's sanctuaries, while the nave reflects the holy place (fig. 5.34). Novices did not enter these sacred spaces but remained in the narthex, which compares to the porch or court outside these sanctuaries. It served as a transition between secular and sacred space.



Figure 5.32. Capital of an altar leg (Object 860, A044344). Photograph by Michael C. Luddeni.

In the seventh century, Maximus the Confessor rightly suggested that the chancel represents heaven and the nave earth (Berthold 1985, 189). The chancel screen at the foot of the stairway represents the veil in the tabernacle and temple that separated the most holy from the holy place. Additional curtains sometimes made the screening more complete.

The layout of the church plan symbolically reflects the heavenly tabernacle of the book of Revelation. The holy place in Solomon's Temple, reflected in the text of Revelation 15:5 ("the sanctuary [*naos*] of the tent of witness in heaven") could refer to that part of the central nave that lies in front of the chancel.

The semicircular benches where the presbyters sat and the central synthronon resemble Revelation 4:3–4 which envisages the "One" sitting on a throne in heaven and 24 elders sitting on 24 seats round about the throne. The altar stood in front of the synthronon, just as Revelation 8:3 speaks of a golden altar before the throne.

The Scriptures were read from the ambo which priests accessed from the chancel that projected into the nave. Symbolically, this is how the Word of God came down from heaven, just as Jesus, the incarnation of the Word of God, came down from heaven (John 6:51, 58; Rev 19:13).

[7] The foundation of an ambo and a good example of a synthronon were excavated in Rehovot-in-the-Negev. See Tsafrir and Hollum (1993) and Tsafrir (1995b, 294–302).

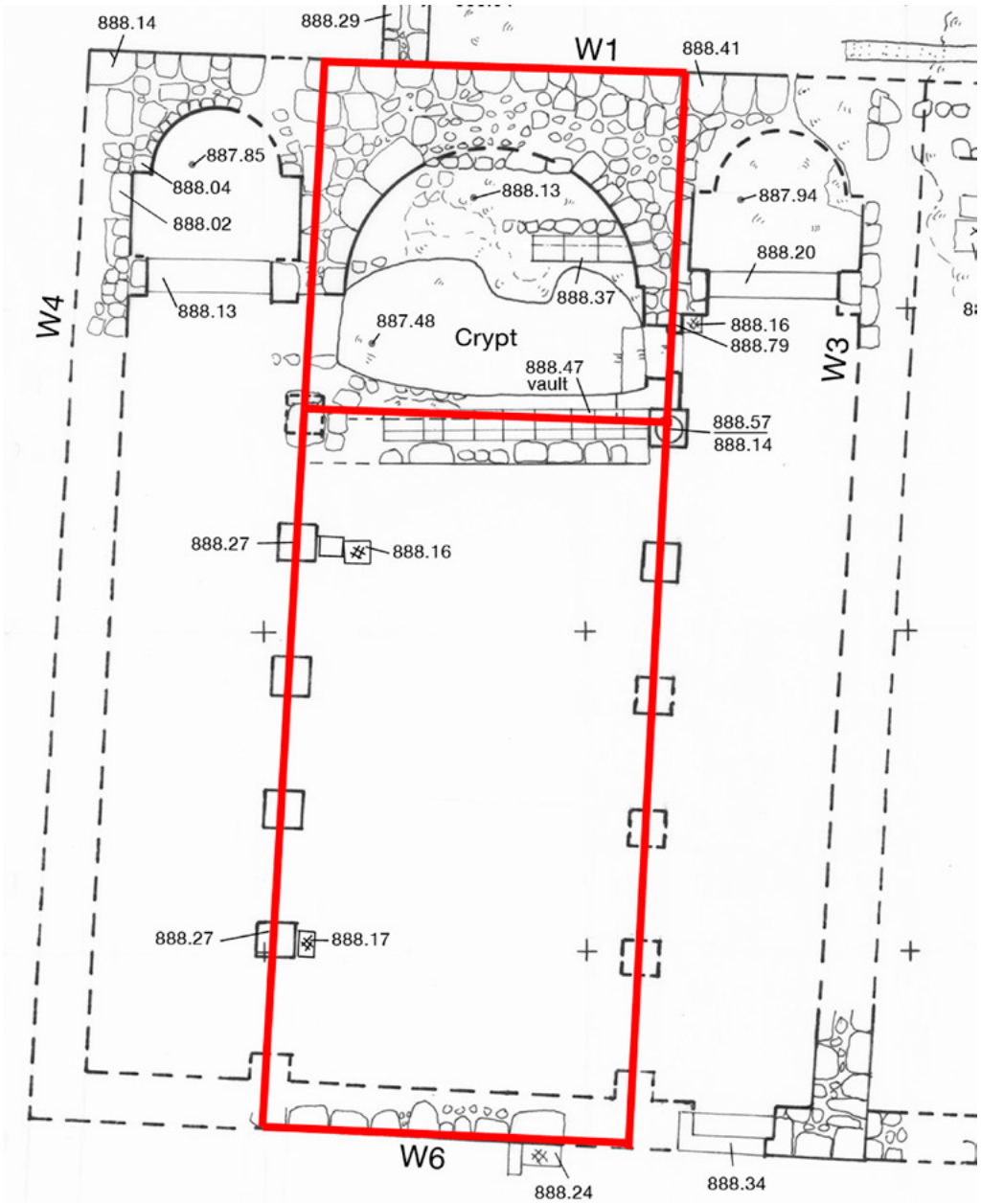


Figure 5.33. Plan of the basilica with proportions of the tabernacle or Solomon's Temple superimposed. Drawing by Leen Ritmeyer.

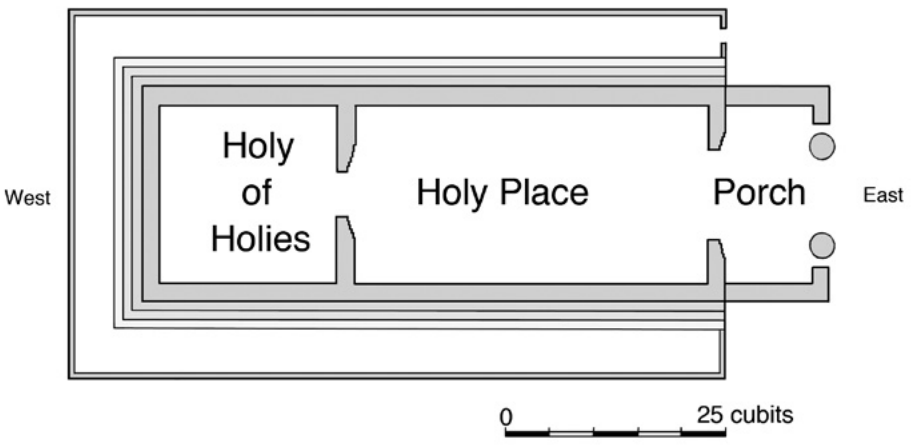


Figure 5.34. Plan of Solomon's Temple. Drawing by Leen Ritmeyer.

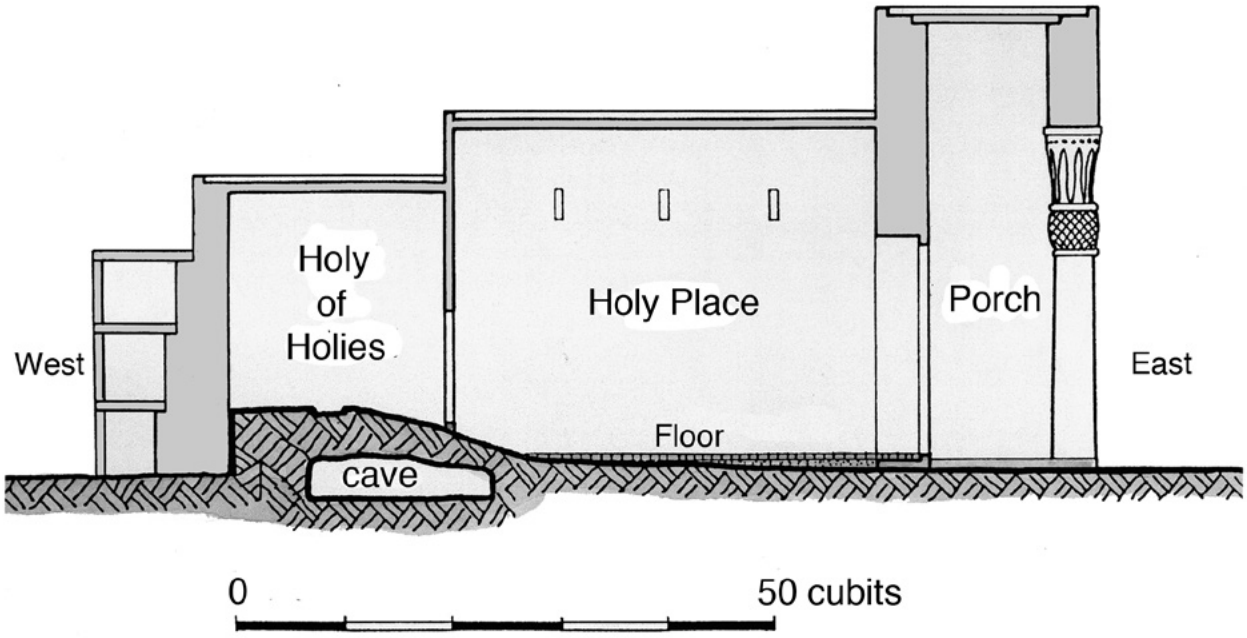


Figure 5.35. East–west section through Solomon's Temple, looking south. Drawing by Leen Ritmeyer.

This suggested interpretation in no way negates the probability of the influence of the Roman basilica upon the architectural development of Byzantine churches (Krautheimer 1992, 11). The architectural layout of the basilica shows how the building operated, but there appears to be a symbolic meaning as well that would have comforted and inspired the people who worshiped there.

The crypt lies below the chancel. Reliquaries with the remains of deceased saints were often kept in crypts. This again echoes the idea of the souls under that altar of Revelation 6:9. As noted, a 2 m high stairway had to be constructed over the vault of the crypt in order to reach the upper level of the chancel (fig. 5.29). This is slightly lower than the 2.75 m high ramp that led up from the holy place in Solomon's Temple to the holy of holies (fig. 5.35). It remains unclear if this was done intentionally, but the similarity may indeed support the analogy between the basilica of Khirbet el-Maqatir and Solomon's Temple.

Agricultural Production near the Ecclesiastical Complex

Typically, monks cultivated gardens at monasteries to support themselves with agricultural produce. Horticulture had a high priority in the lives of monks. A walled agricultural terrace lay to the immediate north of the Khirbet el-Maqatir monastery and could be accessed through a door in the middle of the wall of the north wing (fig. 5.5). Three preserved steps point to this practice although they have not been excavated (fig. 5.36). This terrace still boasts good soil and could have yielded abundant vegetables and fruit.

Water drawn from a wellhead in one of the rooms of the atrium (not investigated) would have provided irrigation to the more tender plants. Vines usually grew in such places, providing both grapes for eating and wine for drinking and also shelter from the hot sun. A rock-cut channel near the southeast corner of the basilica may have filled a water reservoir.



Figure 5.36. Three steps leading down from the north wing to the agricultural terrace. Photograph by Michael C. Luddeni.



Figure 5.37. Interior view of the granary. Photograph by Michael C. Luddeni.

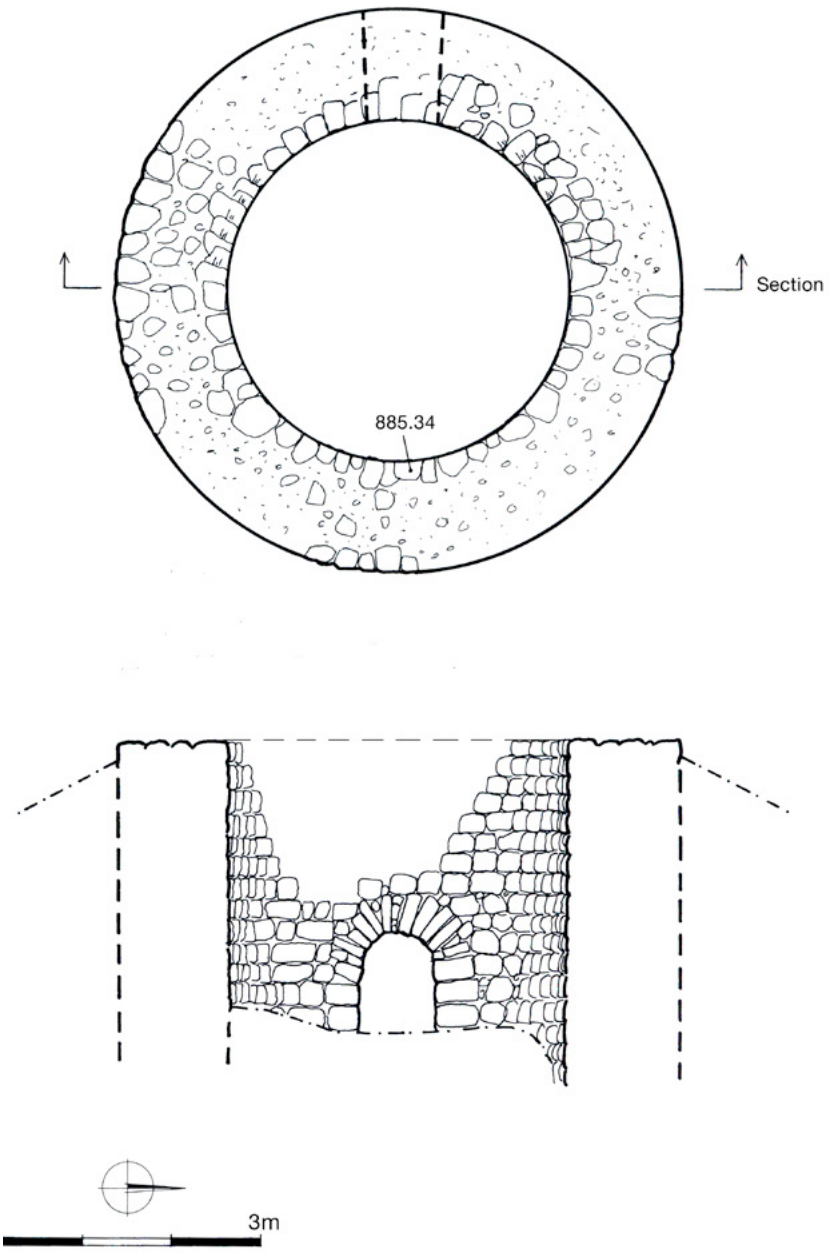


Figure 5.38. Plan and section of the granary. Drawings by Leen Ritmeyer.

Rocky areas surrounded the monastery, but many fields remain distinguishable on the lower slopes of the hillside. It is possible that nearby agricultural areas previously cultivated during the first century were also put to good use. Excavated oil and wine presses demonstrate the potential for agriculture. The surrounding valleys may also have been cultivated.

A granary (figs. 5.37–38), built on the rocky scarp to the west, attests to the growing of grains, such as barley and wheat, in the nearby fields. Olive trees and vines would have been planted between the rocks and on the narrow rocky terraces. Grain, wine, olive oil, and dried fruits formed the staple diets of the monks. Surplus produce may have been sold in the markets. Apparently, rainwater sufficed for primary irrigation of the fields. Two nearby springs, 1 km due west and 1.2 km northeast, would have supplemented the water needs of the monks (*Geological Map* 2016).

Cattle, sheep, goats, and chickens dominated the faunal remains from the sealed loci in Squares ZH10, ZG10, and ZF05 according to the 2017 faunal report prepared by Abra Spiciarich and Lidar Sapir-Hen of Tel Aviv University. These domestic animals would have provided the monks with milk, wool, eggs, and the occasional meat meal.

Conclusion

Byzantine monasteries often commemorated key events in the Bible, including those in the Bethel hills. The nineteenth century explorers who visited Khirbet el-Maqatir interpreted the Byzantine remains as a church, but excavations by the Associates for Biblical Research revealed that this building was only one element in a much larger ecclesiastical complex. Despite the fact that much of the architectural elements observed by the explorers have been robbed for use in building-work in nearby villages, enough remains on the site to enable the formation of a basic plan. The study of architectural parallels with monasteries in Judea and Samaria has also made it possible to realistically reconstruct this ecclesiastical complex from the Byzantine period. The plan of the triapsal basilica is well known during the Byzantine period in Israel and beyond. The basilica at Khirbet el-Maqatir conforms to the general layout of contemporary Byzantine churches.

References

Albright, William F. 1968. "The Site of Bethel and Its Identification." *The Excavation of Bethel (1934–1960)*, by James L. Kelso, 1–3. Annual of the American Schools of Oriental Research 39. Cambridge: American Schools of Oriental Research.

Berthold, George C., ed. 1985. *Maximus Confessor: Selected Writings*. Classics of Western Spirituality. New Jersey: Paulist.

Bolen, Todd. 1999. "The Byzantine Church of Khirbet el-Maqatir." *Bible and Spade*, Summer, 91–94.

Byers, Gary A., and Scott Stripling. 2013. "Those Indefatigable Byzantines." *Bible and Spade*, Fall, 31–34.

Callaway, Joseph A., and Murray B. Nicol. 1966. "A Sounding at Khirbet Haiyân." *Bulletin of the American Schools Oriental Research*, no. 183 (October): 12–19.

Conder, Charles R. 1881. "The Mountains of Judah and Ephraim." In *Picturesque Palestine, Sinai and Egypt*, edited by Charles W. Wilson, 1:193–238. New York.

Conder, Charles R., and Horatio H. Kitchener. 1882. *The Survey of Western Palestine:Memoirs of the Topography, Orography, Hydrography, and Archaeology*. Vol. 2, *Samaria*. London.

Corbo, Virgilio. 1993. "The Church of the House of St. Peter at Capernaum." In *Ancient Churches Revealed*, by Yoram Tsafrir, 71–76. Jerusalem: Israel Exploration Society.

Geological Map of Israel. Rev. ed. 2016. Ramallah, Sheet 8–IV, 1:50,000 scale. Jerusalem: Geological Survey of Israel. https://www.gov.il/BlobFolder/generalpage/ramallah-map/he/maps_Ramallah_2016.zip.

Gill, David W. J., and Conrad Gempf, eds. 1994. *The Book of Acts in Its First Century Setting*. Vol. 2, *The Book of Acts in Its Graeco-Roman Setting*. Grand Rapids: Eerdmans.

Guérin, Victor. 1869. *Description géographique, historique et archéologique de la Palestine*. Vol. 1, *Judée*. Pt. 3. Paris: L'Imprimerie impériale.

Hirschfeld, Yizhar. 1992. *The Judean Desert Monasteries in the Byzantine Period*. New Haven: Yale University Press.

Kansha, H. 2016. "A Byzantine Church at Beitin, Palestine." In *Archi-Cultural Interactions through the Silk Road: 4th International Conference, Mukogawa Women's University, Nishinomiya, Japan, July 16–18, 2016, Proceedings*, edited by iaSU2016 Japan Publication Committee, 13–16. Nishinomiya: Mukogawa Women's University Press, 2016.

Kelso, James L. 1958. "The Third Campaign at Bethel." *Bulletin of the American Schools of Oriental Research*, no. 151 (October): 3–8.

Kelso, James L. 1968. *The Excavation of Bethel (1934–1960)*. Annual of the American Schools of Oriental Research 39. Cambridge: American Schools of Oriental Research.

Krautheimer, Richard. 1992. *Early Christian and Byzantine Architecture*. 4th ed. New Haven: Yale University Press.

Miller, Stella G. 1972. "A Mosaic Floor from a Roman Villa at Anaploga." *Hesperia* 41:332–54.

Murphy-O'Connor, Jerome. 2002. *St. Paul's Corinth: Text and Archaeology*. Wilmington, DE: Glazier, 178–84.

Negev, Avraham. 1974. "The Churches of the Central Negev. An Archaeological Survey." *Revue biblique* 81, no. 3 (July): 400–422.

Ovadiah, Asher, and Carla Gomez de Silva. 1981. "Newly Discovered Churches." In "Supplementum to the Corpus of the Byzantine Churches in the Holy Land." Supplement, *Levant* 13 (1): 200–261.

Ritmeyer, Leen. 2006. *The Quest: Revealing the Temple Mount in Jerusalem*. Jerusalem: Carta and the Lamb Foundation.

Robinson, Edward, and Eli Smith. 1841. *Biblical Researches in Palestine, and in the Adjacent Regions*. Vol. 2. Boston.

Schneider, Alfons M. 1934. "Bethel und seine altchristlichen Heiligtümer." *Zeitschriftdes Deutschen Palastina-Vereins* 57:186–90.

Snyder, Graydon F. 2003. *Ante Pacem: Archaeological Evidence of Church Life before Constantine*. Rev. ed. Mercer University Press.

Thomson, William M. 1882. *The Land and the Book*. Vol. 2, *Central Palestine and Phoenicia*. New York.

Tsafrir, Yoram. 1995a. "The Development of Ecclesial Architecture in Palestine." *Ancient Churches Revealed*, by Yoram Tsafrir, 1–16. Jerusalem: Israel Exploration Society.

Tsafrir, Yoram. 1995b. "The Early Byzantine Town of Rehovot-in-the-Negev and Its Churches." In *Ancient Churches Revealed*, by Yoram Tsafrir, 294–302. Jerusalem: Israel Exploration Society.

Tsafrir, Yoram, and Kenneth G. Hollum. 1993. "Reḥovot-in-the-Negev." In *The New Encyclopedia of Archaeological Excavations in the Holy Land*, edited by Ephraim Stern, 4:1274–77. Jerusalem: Israel Exploration Society.

Tzaferis, Vassilios. 1993. "Kursi." In *The New Encyclopedia of Archaeological Excavations in the Holy Land*, edited by Ephraim Stern, 3:893–96. Jerusalem: Israel Exploration Society.

Wilkinson, John. 1995. "Christian Worship in the Byzantine Period." In *Ancient Churches Revealed*, by Yoram Tsafrir, 17–27. Jerusalem: Israel Exploration Society.

Wilson, Charles W. 1869. "On the Site of Ai and the Position of the Altar Which Abraham Built between Bethel and Ai." *Palestine Exploration Fund Quarterly Statement* 2 (4): 123–26.

II. Small Finds

6. The Numismatic Finds from Khirbet el-Maqatir

Yoav Farhi

The 1,322 ancient coins, 5 modern coins, and a few related objects were discovered during the 1995–2016 excavation seasons at Khirbet el-Maqatir.[1] All were individual finds, except seventeen Late Roman coins which were probably all or part of a foundation deposit in the monastery in the northwestern part of the site (Field C). Many coins were found in the same locus, however, since these accumulations could not be identified with certainty as dispersed hoards or assemblages, they are treated here as stray finds.[2]

The coins are cataloged chronologically according to type (table 6.1).[3] A few related numismatic objects are included in this report and listed in table 6.2. All the coins and related objects shown in the plates are presented at a scale of 1:1 unless otherwise indicated. The coins included in the figures within the text are not at 1:1 scale.

Most of the objects presented below were discovered as a result of the systematic and controlled use of a metal detector on a daily basis during the final five seasons and in all excavation areas.[4] The discovery of many hundreds of metal objects in all types of loci emphasizes the importance of such a device in all excavations, particularly those with strata dated to the classical periods.

[1] Orna Cohen preserved the coins, and Michael C. Luddeni and Shlomi Amami photographed them. The plates were prepared by Michael C. Luddeni. I wish to thank them all. I owe special thanks to Miriam Hasid, curator of the Civil Administration's Archaeology Department, for her assistance with accessing the coins in storage.

[2] Table 6.A.5 lists all the coins found in their archaeological context. See for example the accumulations in Square P21, Locus 3, and in Square S19, Locus 4. In addition, table 1.1 shows coins used to support the stratification.

[3] I use the conventional term *mint* without implying any judgment as to the actual organization of coin production or to its exact location. It is possible, for example, that royal or provincial authorities made use of private contractors to produce occasional issues of coinage, rather than operating an official, permanent mint. It is also possible that coins (especially those that do not bear a mint name) that are usually attributed to a certain city, such as the Hasmonean coins to Jerusalem, were actually not all struck in that city. However, since the Hasmonean coins were certainly struck by the authorities located in Jerusalem, they are assigned to the Jerusalem mint.

[4] Ellen Jackson operated the metal detector, and I wish to thank her for her great work.

Numismatic Discussion

The ancient coins range from the Macedonian period (late fourth century BCE) to the Fatimid period (tenth to eleventh centuries CE). Two coins were gold (Catalog nos. 1307, 1308), five silver (nos. 1, 91, 92, 97, 1244), one silver-plated (no. 1309), five lead (nos. 255, 256, 1283, 1284, 1321), and the rest bronze. Selected coins from the assemblage merit discussion.

The Macedonian Period (Late Fourth Century BCE)

A small silver coin was the earliest one to be found (no. 1) at Khirbet el-Maqatir. This YHD coin has a male head on its obverse and a horned and winged lynx, with the Paleo-Hebrew legend *Yehizkiya* (יחזקיה) on its reverse (fig. 6.1). This coin, which was probably struck soon after the Macedonian conquest of the region, is extremely rare and was the first of its type to be discovered in a controlled excavation.



Figure 6.1. YHD coin from the Macedonian period, period, Catalog no. 1. Scale 3:1. Photograph by Michaeol C. Luddeni.

The Early Hellenistic Period (Third to Second Centuries BCE)

Eight Ptolemaic coins, struck under Ptolemy I (nos. 2–3), Ptolemy II (nos. 4–5), and Ptolemy III (nos. 6–9) came to light at Khirbet el-Maqatir. One coin (no. 2) was very worn and thus probably circulated widely before it arrived at the site. The coins struck under Ptolemy II include two

rare specimens. The first (no. 3) is a silver quarter obol of the YHD type (fig. 6.2). This coin has the head of Ptolemy I on its obverse and the Ptolemaic eagle, accompanied by the Paleo-Hebrew legend *Yhd* (יהד) on its reverse. Like the other YHD coin (no. 1), this type is also rare in controlled excavations, and to date only three examples have been recorded.[5]



Figure 6.2. YHD coin from the Ptolemaic period, no. 3. Scale 3:1. Photograph by Michael C. Luddeni.

Another rare specimen is coin no. 4 (fig. 6.3). This infrequent Tyrian *diobol* of Series 3 was the first of its kind to be published, and so far, it is the only specimen known from a controlled excavation (Farhi and Lorber 2012, 48–50).



Figure 6.3. Ptolemaic coin of Ptolemy II, no. 4. Photograph by Michael C. Luddeni.

These Ptolemaic coins, in addition to coin no. 1, might belong to an Early Hellenistic period settlement at the site, which probably started no sooner than Ptolemy II. However, the absence of other Ptolemaic coins suggested that these few coins circulated later, possibly during the Seleucid period.

The Seleucid period was represented by 90 coins (nos. 10–99); the majority were struck under Antiochus III and IV. All the coins struck under Antiochus III seem to belong to the same small type bearing the head of young Antiochus III as Apollo on the obverse and Apollo standing with a bow and arrow, on the reverse. At least 40 coins of this type were found at Khirbet el-Maqatir (nos. 10–49; fig. 6.4); this was one of the largest assemblages of this type from a controlled excavation.[6]



Figure 6.4. Seleucid coin of Antiochus III (including side view), no. 37. Photograph by Michael C. Luddeni.

Houghton and Lorber divide this coin into six major types. They assign four common types (with additional subtypes) to Antioch (*SC* 1:401–3, Objects 1052, 1055, 1058–1059); another type (with additional subtypes) was assigned to an unknown mint associated with Antioch (*SC* 1:404, Object 1064). The division of these first five types is based on the various control-marks on the reverse of the coins. They attribute the final type to Akko-Ptolemais (*SC* 1:416–17, Object 1096). This last type seems to differ from the other types mainly by the lack of controls and its generally less refined style. However, since these coins were small, and in many cases, partly illegible, either due to poor preservation or since the strike was not centered, it was usually impossible to detect any controls, and thus, it was difficult to divide them accurately according to the above-mentioned types. Moreover, based on recent finds of this type at Maresha (at least 69 coins, 42 of them in a hoard) and Gan Sorek (143 coins), Ariel drew certain conclusions (2019a, 330–32) and suggested that this imitation type was struck not only in Akko-Ptolemais but also in the south at Maresha under Alexander Balas (2019a, 331). However, he cautioned that the southern mints were not acting independently.

> Nevertheless, I am not claiming here that any of these sites *by themselves* struck the crude and thick, head right / standing Apollo coins. In fact, a number of styles of these coins appeared to be represented, and it may be best to view the phenomenon as one by which imitative series were struck in a *number* of mints, in 'Akko-Ptolemais *and* elsewhere further south. (Ariel 2019a, 332)

Ariel also notes that only 32 such coins are known from Akko-Ptolemais, while 395 coins of this type are known from Mount Gerizim (Ariel 2019a, 331).[7] Considering the

[5] For the first two specimens see Gitler and Lorber 2006, 32, Object 26 (from Horbat Etri) and p. 35, Object 8 (from Jerusalem). For the third example, see Farhi, forthcoming (from Ramat Rahel).

[6] See the list of provenance finds of this type in *SC* (1:417) and Syon (2016, 205–6).

[7] Importantly, the number of coins found in excavations is also the result of the way the excavation is run. Some excavations sift every bucket and use metal detectors while others do not. Since this type of coin is very small, the excavation method is crucial for recovering

hundreds of coins from Mount Gerizim, the possibility exists, in my opinion, that there was also an inland mint, perhaps at Samaria. Since it is impossible to determine with high confidence the location of the actual mint of these specimens, I suggest a tentative division between Antioch and Akko-Ptolemais/other mints.

I assigned the specimens from Khirbet el-Maqatir to five groups (A–E), mainly according to the size and shape of the flans. I cataloged the thickness of the flans since this is one of the characteristics of this type of Antiochus III and might assist in further studies of these coins. The flans used for this imitative type were usually irregular; their thickness varied from 2 mm to 4.5 mm, and their weights ranged from 0.78 grams to 3.20 grams (with outliers of 5.5 mm and 5.06 grams, as in no. 37; fig. 6.4). This indicated that there was no importance to the weight of the individual specimen and that the flans were made by cutting cross-sections of bronze rods. Thus, they should be different from the straight edge or slightly rounded cast flans.[8] On one hand, these coins suggested that some activity, possibly of a military nature, may have taken place at the site immediately following the Fifth Syrian War (202/201–198 BCE) (Houghton and Lorber 2002). On the other hand, they could just be evidence for the small change supplied by the Seleucid administration and used by the local population.

One coin (no. 50) was unclear, as it seemed that the obverse had a standing figure. If so, it seemed that the obverse was struck with the reverse die.

Another coin (no. 53) pertained to Seleucus IV from Antioch, and this was the only coin from Khirbet el-Maqatir that was struck between the large assemblages under Antiochus III and Antiochus IV. At least 22 coins of the later king were found; the majority pertained to ʻAkko-Ptolemais (nos. 55–74), and all were struck on serrated flans. Two additional coins—one common type of Tyre (no. 54) and the other less common, probably from Ashkelon (no. 75)—were both struck on beveled flans.

The most common type of Antiochus IV was the small-serrated denomination with a diademed, radiated head of the king on the obverse and a veiled and draped standing goddess on the reverse (nos. 58–74). This small type is known from various sites in Judea and Samaria and was probably the main coin used by the Jewish population in these regions in the Late Hellenistic period, even though it carried motifs that were likely offensive to the Jewish population. A similar type was struck, also under Demetrius I, and thus some of the coins of this type from Khirbet el-Maqatir, which were in a poor state of preservation, could not be assigned to one king or the other (nos. 76–81). Coin no. 75 typified the largest denomination of Antiochus IV found at the site. This coin, possibly from the mint of Ashkelon, was much less common in excavations and possibly dates to the period of the Hasmonean revolt (fig. 6.5).



Figure 6.5. Seleucid coin from Ashkelon, Object 75. Photograph by Michael C. Luddeni.

The coins of Demetrius I (nos. 82–88) were all of the same serrated small type, similar to the one already known under Antiochus IV. One coin pertained to Alexander Balas (no. 89), while excavations yielded two coins of Demetrius II. The first coin (no. 90) was a small Tyrian coin, similar to the coin of Antiochus IV from the same mint (no. 54). The second coin was a silver tetradrachm from his second reign (no. 97). Six coins of Antiochus VII belonged to the intermediate period between Demetrius's first and second reigns (nos. 91–96). The first two were silver coins from Tyre; one was a tetradrachm (no. 91), and the second was a didrachm (no. 92); both dated to 135/134 BCE. Some coins (nos. 93-96) were small bronzes, all of the same type. This type had a lily, a symbol of Jerusalem, on one side and the anchor, a Seleucid royal symbol, on the other side, accompanied by the name of the king; it was struck in Jerusalem after the city fell to Antiochus VII.[9]

The three Tyrian silver coins (nos. 91–92, 97; fig. 6.6) were the main plank of the regional economic system during the Late Hellenistic period, and thus, their existence at Khirbet el-Maqatir could indicate local transactions. However, these coins had another use for the Jewish population; they might relate to the half-shekel tax which every Jewish man contributed to the temple annually (Liver 1963). The coins from Tyre contained an extremely high percentage of silver, and the Tyrian mint was universally trusted not to debase their coinage. This mint's coins, shekels and half-shekels, were therefore chosen by the Jewish sages for use as the official coin for the payment of this tax, at least until the outbreak of the First Jewish Revolt in 66 CE, when Jewish silver coins were minted in Jerusalem (Ben-David 1969; Meshorer 1984; *TJC*, 73–75).

Seleucid coins circulated in Jewish communities all over the region during most of the second century BCE, as

them. Thus, the absence of such coins is not evidence of their absence.

[8] For discussion regarding the production of Seleucid coins, see *SC* 2:53–75.

[9] See the recent discussion of this type by Ariel (2019b).



Figure 6.6. Tyrian silver coins, nos. 91–92, 97. Photograph by Michael C. Luddeni.

suggested by the presence of Seleucid (and Ptolemaic) coins in Jewish contexts of the Hasmonean period at rural sites (Farhi et al. 2009, 128–29, 137, Objects 1–5; 2016b, 73) and in Jerusalem (Ariel 2010, 236; 2014, 362–63). At that time, Hasmonean coins were not yet being struck (i.e., before the days of John Hyrcanus I), but possibly later as well, but in smaller quantities.

The Hasmonean Period (Late Second Century to 37 BCE)

The Hasmonean period at Khirbet el-Maqatir was represented by no less than 958 coins (nos. 100–1052, 1054–1059). At least twenty-one coins dated to John Hyrcanus I (nos. 100–120); all but one were of the common prutah type which had two conjoined cornucopias (horns of plenty) with a pomegranate between the horns on one side and on the other side a Paleo-Hebrew legend in the wreath, bearing the ruler's name and titles. Much less common was the half-prutah type (no. 120; fig. 6.7), with a palm branch on its obverse and a lily flower on its reverse.



Figure 6.7. Hasmonean, half-prutah of Alexander Jannaeus, no. 119. Photograph by Michael C. Luddeni.

Coins in the name of Judah Aristobulus are rarer than all other Hasmonean rulers since he ruled only one year. He only struck one type (two conjoined cornucopias with a Paleo-Hebrew legend). Our excavations yielded two coins of this type (nos. 121, 122).

Most Hasmonean coins from Khirbet el-Maqatir and other Jewish sites of the late Second Temple period pertained to Alexander Jannaeus and possibly some to his successors. At least 58 belonged to the common type, already struck under his father and brother, bearing two conjoined cornucopias on one side and a Paleo-Hebrew legend on the other (nos. 123–170).

Alexander Jannaeus was the first Hasmonean ruler to use Greek legends on his coins. His first type with a Greek legend was probably the one with a rose on one side and an anchor on the other side (*TJC* Group N), of which no coins were recovered at Khirbet el-Maqatir. This is not surprising—this type is scarce because it was later overstruck by dies of the two conjoined cornucopias with a Paleo-Hebrew legend group (*TJC* Group T). Eleven such overstruck coins were discovered (nos. 171–181). Since these overstrikes are more common than the original rose or anchor type, it seems possible that almost all of these coins were restruck before they were put into circulation, rather than upon recall from the public. Thus, the fact that not even one coin of the original type was found at the site, among the hundreds of Hasmonean coins, clearly supports this suggestion.

Seventy-two coins were of a later type. One side displayed an eight-pointed star in diadem, the Hebrew name Yehonatan or Yonatan, and the title of the king in Paleo-Hebrew between the rays. The other side had an anchor surrounded by a Greek legend bearing the Greek name of the king (Alexander) and his title (king) (nos. 182–254; *TJC* Group K).

Two less-common coins of Alexander Jannaeus were made of lead and bore an Aramaic legend (nos. 255–256; *TJC* Group M; fig. 6.8). The reason for minting these lead coins or tokens, as well as the date of this type, remains unknown. Based on evidence from the antiquities market, as well as on the small amount of this type known from excavations in Israel, it seemed that it originated from a mint in Transjordan (*TJC*, 47–48).



Figure 6.8. Hasmonean lead coins of Alexander Jannaeus, nos. 255–256. Photograph by Michael C. Luddeni.

The most widespread coin at Khirbet el-Maqatir was the well-known anchor and star type (*TJC* Group L), of which 738 specimens were discovered. Of them 720 were

of the small denomination (*TJC* Subgroups L4–15; Objects 333–1052). It remains unknown if these small coins were used as a half-prutah from the latter days of Alexander Jannaeus and under his successors, or if it circulated as a regular prutah in periods when no other coins were struck.[10] Many coins of this type from Khirbet el-Maqatir derived from contexts postdating the Hasmonean period, a common phenomenon at many other Jewish sites.[11] This evidence suggested that they circulated over a long period of time and were used until the end of the Second Temple period (Meshorer 2006, 19; Syon 2014, 144–46). Since coins were struck from the time of Herod to the First Jewish Revolt, it is possible that during this period this type did circulate as a half-prutah. These Hasmonean coins, especially the type of two conjoined cornucopias with a legend in the wreath and the small anchor or star type, were the most common of all Jewish coins and have been discussed at length by many scholars.[12]

Coin no. 1053 was struck at Dora (fig. 6.9), which along with Ashkelon and Demetrias, were the first cities under the Romans to mint in this region, soon after the arrival of Pompey in 64/63 BCE.[13] The coins of Dora are rare, and especially those from its early years. The find of this rare coin at Khirbet el-Maqatir was surprising, and as far as I know, this is the first coin of this type to be found in a controlled excavation.



Figure 6.9. Roman provincial coin of Dora, no. 1053. Photograph by Michael C. Luddeni.

Mattathias Antigonus, the last Hasmonean king, who ruled for a brief period between 40 BCE and 37 BCE, was represented by six coins (nos. 1054–1059). In contrast to all other Hasmonean coins, the coins of Antigonus were struck on flans cast in a two-sided mold, resulting in thick and impressive coins.[14] Antigonus struck a known series of three denominations. Examples were found of each denomination (fig. 6.10)—one of the large (no. 1054), one medium (no. 1055), and four small (nos. 1056–1059).

Coins of Antigonus are uncommon in controlled excavations. Based on finds from Jerusalem, the Judean Desert, and the Dead Sea area, it was previously suggested that the coins of Antigonus only circulated in an area extending east of Jerusalem (see Bijovsky 2004, 76). Based on finds from several sites west, north, and south of Jerusalem, it now seems certain that coins in the name of Antigonus circulated in these areas and probably all over Judea, at least until Herod's victory over Antigonus in 37 BCE.[15] These coins from Khirbet el-Maqatir could have been brought to the site by one or more of Antigonus's supporters, members of the local community, or someone who fled from another place during the war between Herod and Antigonus.

Herod the Great to the Destruction of the Second Temple (ca. 40 BCE to 70 CE)

Excavation yielded 54 coins from the Herodian dynasty. Forty-one (nos. 1064–1104) were of Herod the Great; three (nos. 1105–1107) were of his son Archelaus; and ten (nos. 1150–1159) were minted in the name of his grandson, Agrippa I.

Of the coins of Herod, it should be noted that no. 1064 (fig. 6.11), the largest denomination, probably struck in 37 BCE, is not a common find in excavations.



Figure 6.10. Hasmonean coins of Mattathias Antigonus, nos. 1054–1056. Photograph by Michael C. Luddeni.

[10] For the metrology of Hasmonean coins, see Hendin 2009, 109–14.
[11] For further discussion of this type, see the appendix.
[12] See for example Shachar 2004; Hendin and Shachar 2008; Hendin 2009; Farhi 2016b, 73–74.
[13] For Demetrias, see recently Farhi and Bessarabov 2019.
[14] For the production of these coins, see *TJC*, 53.
[15] See Ariel (1998, 132–33) for finds from Shoham, Jaffa, and Khirbet el-'Aqd. Isolated finds from north and south of Jerusalem are also reported (Ariel 1998, 132; Sion and Ariel 2001, 115). See Farhi 2010, 198–99, Objects 15–18, and pp. 209–10; Farhi and Melamed 2014, 110–13; Farhi 2020, 258, Object 71 (isolated finds and a small hoard from Nesher-Ramla quarry); 2016b, 94, Objects 271, 272 (isolated finds from Khirbet Qeiyafa), and Farhi, forthcoming (isolated find from Ramat Rahel).

According to Ariel and Fontanille (2012, 151), of the 541 coins of Herod that are documented from Jerusalem, only nine (2012, 152, table 19) are the large type, similar to no. 1064.



Figure 6.11. Herodian coin of Herod I, no. 1064. Photograph by Michael C. Luddeni.

The coins of Agrippa I were all of his most common type, struck in Jerusalem, and bearing the "year 6" designation. In that year (41/42 CE) Agrippa I was granted dominion over Judea and Samaria. This was the peak of his political career. Since many thousands of this type of coin are known and all bear the same date, Meshorer suggests that these coins were also struck during Agrippa's seventh and eighth regnal years, but the date on them was not changed because of the great importance of the sixth year of his reign (*TJC*, 97). It is surprising that only ten coins of this type were recovered from Khirbet el-Maqatir. Logically, excavation of a first century CE Jewish site in Judea would produce many more "year 6" coins of Agrippa I.

Coins representing the period of the Roman governors (prefects or procurators) over Judea were struck under Augustus (nos. 1108–1120), Tiberius (nos. 1121–1148), Claudius (nos. 1160–1165), and Nero (nos. 1166–1179). One Nabataean coin of Aretas IV was also discovered (no. 1149).

The latest Jewish coins presented in this group are the coins of the First Jewish Revolt (nos. 261–302), which included 52 coins of "year two" (nos. 1180–1231) and ten coins of "year three" (nos. 1232–1241). The bulk of them derived from clear archaeological and architectural contexts which were destroyed. The evidence of the coins, that the site was destroyed in the third year of the revolt (68/69 CE), corelated with the historical sources which note that during this year Vespasian destroyed settlements north of Jerusalem on his way to Jerusalem (*War* 4:550–51).

The Herodian coins, as well as the coins of the Roman governors and those of the First Jewish Revolt, were well-known types that are common in most excavations of Jewish sites dating from the days of Herod to the end of the Second Temple period.

From the Destruction of Jerusalem to the Bar Kokhba Revolt (ca. 70–135 CE)

Four coins dated to the period between the First Jewish Revolt and the Bar Kokhba revolt (nos. 1242–1245). One was a bronze coin of Tyre which dated to 93/94–195/196 CE (no. 1242). Two coins were of Trajan: one was a bronze coin from Alexandria, which dated to 112/113 CE (no. 1243); and the second was a silver dinar from the mint in Rome, which dated to 114–117 CE (no. 1244; fig. 6.12).



Figure 6.12. Roman dinar of Trajan, no. 1244. Photograph by Michael C. Luddeni.

The latest coin in this group was a small bronze coin, restruck by the Bar Kokhba administration (Object 1245; fig. 6.13). This coin, which dated to the third year of the revolt (134/135 CE), bore the Hebrew legend לחרות ירו[שלם] ("for the freedom of Jerusalem") and the Hebrew name שמעון.



Figure 6.13. Bar Kokhba coin, no. 1245. Photograph by Michael C. Luddeni.

These four coins derived from a hiding complex which was excavated in the eastern sector of the site (Raviv, Stripling, and Farhi 2021, 13). The Tyrian coin and the two coins of Trajan came from Cavern 1, while the Bar Kokhba coin came from Cavern 2.

This coin is of great significance because Bar Kokhba coins constitute a major tool in determining the boundaries of the area under the control of the Bar Kokhba administration. Prior to this find, Bar Kokhba coins had only been discovered in the northern Judean hills in refuge caves and not at settlement sites like Khirbet el-Maqatir. This Bar Kokhba coin, from the third year of the revolt, supports the suggestion that this area was under the control of the Bar Kokhba administration, and that the rebels in the north of the

Judean hills survived until the third year of the revolt (Raviv, Stripling, and Farhi 2021, 13).

Only three of the 1,322 coins from the excavation dated to the period between the revolts, and all three were found within the hiding complex. This fact suggests that the site was abandoned between the revolts. The local inhabitants probably abandoned the site after its destruction in the First Jewish Revolt and arrived there as rebels and revived the subterranean hiding complex near the beginning of the Bar Kokhba revolt.

The Late Roman and Byzantine Periods (Fourth to Mid-seventh Centuries CE)

The numismatic finds reflected a total gap between the Bar Kokhba coin (134/135 CE) and the coins from the mid-fourth century CE.[16] Fifty-nine coins (nos. 1246–1304) dated to the Late Roman and Byzantine periods and represented the next stage of occupation at the site. Together with the archaeological evidence they point to the change of the population from Jewish to Christian.

The earliest example in this group was a cut bronze coin (ca. 1/3 of the coin) struck as a commemorative type under Constantine the Great in order to reaffirm Rome as the traditional capital of the empire. Since the coin was intentionally cut, it was probably used in a later period, when small change was needed, and relatively large denomination were cut to satisfy the need for a smaller change. This phenomenon was common in the fifth century CE, and in fact, the coin came from a fifth-century CE context.

The vast majority of these later coins were well-known types common in most excavations in the region alongside remains dated to the same period. The common fourth-century types were the *vota* (nos. 1248 and 1249; 378–383 CE) and *salus reipublicae* (nos. 1250–1255; 383–395 CE). The common fifth-century type is the *concordia aug* (404–406 CE) and its imitations (up to 455 CE) (nos. 1258–1261).

Notable are two sixth-century CE *minimi*. One was a Vandalic issue of Hilderic from Carthage (no. 1263), and the second was an Ostrogothic coin of Baduila from Ticinum (no. 1264; fig. 6.14). The latter was a rare issue of which only a few specimens have come from controlled excavations in the country.[17]



Figure 6.14. Ostrogothic coin of Baduila, no. 1264. Photograph by Michael C. Luddeni.

Many coins in this group were worn and preserved poorly, and therefore, could not be attributed to a specific ruler (nos. 1265–1283). Some were made of lead (nos. 1283–1284) or cast (nos. 1285–1299); both types commonly dated to approximately 450–550 CE based on the fabric and size of the flans. A few other coins, as well as one token, which might date to the Late Roman and Byzantine periods, are listed under the unidentified coins (nos. 1316–1318, 1321).

Excavations yielded only a small number of Byzantine coins: three coins of Justinian I from the six century CE (nos. 1301–1303) and one coin of Constans II from the mid-seventh century CE (no. 1304). The coins of Justinian were found together in one sealed locus which was probably related to the construction of the monastery.

Seventeen coins were found in this sealed locus under the pavement of the church; a few of them were embedded in the plaster, and the rest were scattered within a 20 cm radius. The fact that this assemblage was found in the foundations of a building, the low value of the coins, and the relatively bad condition of many of the coins, indicate that this assemblage might reflect the custom of concealing sums of money, mostly worn coins of low denominations and usually in walls or floors, as foundation deposits for apotropaic or votive reasons (see Suchodolski 1996, 322–24). Such assemblages were placed in both private and public buildings during their construction or renovation.[18] The major difference between floor or wall foundation deposits and hoards, such as savings or emergency hoards, was that the owners of hoards intended to retrieve them but were unable to do so, presumably due to tragic circumstances, while foundation deposits were not meant to be retrieved. Thus, this buried assemblage can be considered a foundation deposit. If so, the construction or renovation of the ecclesiastical complex in which it was discovered can be dated to the mid-sixth century CE, during the reign of Justinian I or shortly thereafter. Since this group of 17 coins

[16] Numismatists refer to 324 CE to 498 CE as the Late Roman period. Byzantine coinage starts only in 498 CE with the monetary reforms of the Emperor Anastasius I, who introduced a new system of copper currency that abandoned the use of pictorial designs in favor of large value Greek letter marks.

[17] According to Bijovsky (2012, 325) only seven coins of this type are documented in the IAA database, six from Jerusalem and one from Ramat HaNadiv.

[18] For further examples of small accumulations of coins interpreted as foundation deposits, see Meshorer 1976; 2007; Bijovsky 2004; Ariel 2007; Farhi 2016a, 617–18; forthcoming. For floor foundation coin deposits in synagogues, see Ahipaz 2013. For further evidence from the Late Roman period, see Bijovsky 2012, 90–99.

was found scattered and not sealed within some kind of container, it is uncertain that we have all the coins that were put there originally. Thus, it is impossible to present a comprehensive picture of this find. Therefore, these coins are presented in table 6.1 and not discussed separately.

The coin of Constans II was a surface find. The absence of other Byzantine coins, dated before and after Justinian I, from sealed loci of the monastery, suggests that some renovation of the building took place under Justinian I. The ceramic assemblage supports this suggestion (see chap. 7, pp. 00).

The Early Islamic Period to Modern Times (Mid-seventh to the Twentieth Century CE)

Excavations produced seven coins from the early and Late Islamic periods (nos. 1305–1311). The earliest coins are two Umayyad post-reform issues from the late seventh and eighth centuries CE (nos. 1305–1306). Three fractions—two of gold dinars (nos. 1307–1308; fig. 6.15) and one of a silver dirham (no. 1309)—were intentionally cut in order to make small change. The two gold coins were typical of the Fatimid period, probably from the tenth or eleventh centuries CE, while the silver fraction was hard to properly identify because it was worn and folded. The use of cut gold and silver coins was common in the Umayyad, Abbasid, and Fatimid periods, mainly from hoards (see, e.g., Kool et al. 2011; Kool, Schindel, and Baidoun 2019). The stray finds at Khirbet el-Maqatir are uncommon.



Figure 6.15. Islamic cut-gold coins, coins, nos. 1307–1308.
Photograph by Michael C. Luddeni.

The few Islamic coins derived from fills and topsoil contexts. Thus, the numismatic evidence from Khirbet el-Maqatir suggested that the excavated area was probably not continuously occupied from the end of the Byzantine period (and probably already from the mid-sixth century CE) to modern times.[19]

The modern coins shed light on a few of the periods when the site was visited in the late nineteenth and twentieth centuries CE. The earliest coin in this group was a British farthing from 1884 (no. 1322) which was probably brought to the site by a traveler. This coin represents the area under Ottoman rule. Next is a 5 mils coin struck under the British Mandate in 1927 (no. 1323). The next coin, struck in Norway in 1954 (no. 1324), was probably brought to this area by a visitor while the area was under Jordanian rule. The last two coins, struck by the State of Israel, displayed motifs which harken back to two of the tragic periods of the site in antiquity. A coin (no. 1325) from 1973 had on its obverse a three-stringed lyre, which was copied from a Bar Kokhba bronze coin, while a coin (no. 1326) from 1981, had on its obverse a chalice copied from the silver coins of the First Jewish Revolt.

Related Objects

Table 6.2 lists four related objects—one made of silver and three of bronze. The first object (Object A; fig. 6.16) is a *hacksilber*, chisel cut from a concave and round silver object. Hacksilber (irregularly cut silver) describes cut or broken pieces of silver ingots, coins, jewellery, and other silver objects used as currency. Material in this form was weighed on scales against standardized weights for the purposes of exchange or payment, both before and after the invention of coinage as the primary means of exchange and the development of different coinage systems.[20]



Figure 6.16. Hacksilber, Object A.
Photograph by Michael C. Luddeni.

Because the use of hacksilber pieces began in the Bronze Ages and continued through the Iron Ages, and because this object from Khirbet el-Maqatir was a surface find, it was impossible to determine its date. However, based on comparison to hoards and stray finds that include similar hacksilber pieces dated to the sixth–fourth centuries BCE, it is possible that this object was used for payment during the transitional period that preceded the use of coins as the main means of exchange and possibly later, into the late fourth century BCE.

The other three objects (B–D; fig. 6.17) seem to be byproducts of a metallurgical process, possibly related to flan production.[21] These bronze objects include two pieces of casting channels. The first one (B) is larger than the second one (C) and has a chisel mark, possibly made while the flans were cut from the "flan-tree." The last piece (D) appears to be a reject flan, but this is uncertain.

[19] However, pottery fragments from later periods were found in the repurposed entry to the ecclesiastical complex (see chap. 7, pp. 00).

[20] Hacksilber hoards in the Levant date from as early as the Middle Bronze Age II but were more common from the Iron Age I to the Persian period (Gitler 2006, with many references). For individual finds of hacksilber pieces, see Farhi 2016a, 161–66.

[21] For evidence of flan production and coin minting in Judea in the first century BCE and the first century CE, see Schauer 2010; Ariel 2012.



Figure 6.17. Byproducts of a metallurgical process, Objects B–D. Photograph by Michael C. Luddeni.

Unfortunately, these objects are not convincing enough to support the possibility that coins or flans were produced at Khirbet el-Maqatir since they could be byproducts of another metallurgical process, or they could have arrived to the site after the process was performed elsewhere.

Table 6.1. Coins from the Khirbet el-Maqatir excavations

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
Macedonian Period YHD coin										
1*	044378 1057	0.21	7	12	Male head to left, Alexander III?	Horned and winged lynx to left. Below: *Yehizkiya* (יחזקיה), in Paleo-Hebrew script	ca. 333 BCE	Jerusalem	*TJC*: 199, no. 24; Gitler et al. forthcoming, Type 19 (dies: O2?/ unrecorded; this coin)	Silver fraction Quarter obol (half gera?)
PTOLEMAIC Ptolemy I (304–282 BCE)										
2*	044858 2178	15.11	29×30	12	Laureate head of Zeus right; dotted border	[ΒΑΣΙΛΕΩΣ ΠΤΟΛΕΜΑΙΟΥ] Eagle with spread wings standing left on thunderbolt; in left field A; dotted border	294–265 BCE	Alexandria	*CPE* I/2: 16, no. B40	Series 2. Diobol. Worn. Trident punch on reverse
3*	041397 0743	0.12	6	12	Diademed head of Ptolemy I to right	Eagle with spread wings standing left; to left YHD (יהד), in Paleo-Hebrew script	294–282 BCE	Jerusalem	*TJC*: 200, no. 32a; *CPE* I/1: 304, no. 252; Gitler et al. forthcoming, Type 37b (unrecorded pair of dies; this coin)	Quarter obol (Attic standard); partly broken
Ptolemy II (283/2–246 BCE)										
4*	041378 0664	24.34	30	12	Laureate head of Zeus right; dotted border	ΠΤΟΛΕΜΑΙΟΥ - ΒΑΣΙΛΕΩΣ, Eagle with closed wings standing left on thunderbolt, club in left field, double cornucopia under eagle's far wing; dotted border	ca. 265–260 BCE	Tyre	Farhi and Lorber 2012: 48–50 (this coin); *CPE* I/2: 75, no. B333	Series 3. Diobol. Central cavities
5*	041801 1355	12.40	23×25	12	Laureate head of Zeus right; dotted border	[ΠΤΟΛΕΜΑΙΟΥ] - ΒΑΣΙΛΕ[ΩΣ], Eagle with open wings standing left on thunderbolt; dotted border	Same			Series 3. Obol. Central cavities. Worn

Note: Coins bearing an asterisk are illustrated in plates 1–9.

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
Ptolemy III (246–222 BCE)										
6*	041901 1438	2.20	15×15.5	12	Horned head of Zeus-Ammon right, wearing taenia; dotted border	ΠΤΟΛΕΜΑ[ΙΟΥ] - [ΒΑ]ΣΙ[ΛΕΩΣ], Eagle with closed wings standing left on thunderbolt; cornucopia in left field	246–222 BCE	Alexandria	*CPE* I/2: 95, no. B401	Series 5. Dichalkon. Central cavities
7*	041365 0642	3.18	16×17	12	Horned head of Zeus-Ammon right, wearing taenia; dotted border	ΒΑΣΙΛΕΩΣ ΠΤΟΛΕΜΑΙΟΥ Eagle standing left, on thunderbolt; wings closed, in left field club; dotted border	ca. 240–223/2 BCE	Tyre	*CPE* I/2: 116, no. B471	Series 5. Dichalkon Central cavities
8*	044714 2216	5.49	19×20	12	Horned head of Zeus-Ammon right, wearing taenia; dotted border	ΒΑΣΙΛΕ[ΩΣ] - ΠΤΟΛ[ΕΜΑΙΟΥ] Eagle standing left, on thunderbolt; wings closed, in left field club; dotted border	Same	Tyre	*CPE* I/2: 116, no. B469	Series 5. Hemiobol. Worn
9*	044976 2658	10.09	23	12	Laureate head of Zeus right	[---] Eagle standing left, on thunderbolt; wings closed. Illegible mint mark			Cf. *CPE* I/2: 116, no. B468	Series 5. Obol. Central cavities. Worn
SELEUCID Antiochus III (223–187 BCE)										
Group A – Large flans, mainly circular										
10*	044907 2522	2.49	12	12	Head of Apollo right, laureate	[ΒΑΣΙΛΕΩΣ - ΑΝΤΙΟΧΟΥ] Apollo stg. left, holding arrow in extended right hand and resting left on bow. Illegible control in left?	ca. 210–187 BCE	Antioch?	*SC* I: 402–404, nos. 1052, 1055, 1058–1059, 1064.	Thick.: 3mm
11*	041799 1593	2.13	12	12	Same type	Same type	Same	Same	Same	Thick.: 3mm
12	044636 2384	2.05	11×12	12	Same	Same	Same	Same	Same	Thick.: 3mm
13*	045051 2843	2.00	11.5×12	12	Same	Same	Same	Same	Same	Thick.: 2.5mm
14	044842 1902	1.86	12	12	Same	Same	Same	Same	Same	Thick.: 3mm
15	045117 2979	1.73	10.5× 11.5	12	Same	Same	Same	Same	Same	Thick.: 3mm
16*	045126 3004	1.22	11.5×12	12	Same	Same	Same	Same	Same	Thick.: 2mm
17*	041896 1390	1.21	11×12	12	Same	Same. In left field A	Same	Same	Same	Thick.: 2mm
Group B – Smaller flans, mainly thin, circular - nicely executed but not centered struck										
18*	044801 2030	1.71	10	12	Head of Apollo right, laureate	[ΒΑΣΙΛΕΩΣ - ΑΝΤΙΟΧΟΥ] Apollo stg. left, holding arrow in extended right hand and resting left on bow. Illegible control in left?	ca. 210–187 BCE	Antioch?	*SC* I: 402–404, nos. 1052, 1055, 1058–1059, 1064.	Thick. 3mm
19*	041897 1730	1.55	10	12	Same type	Same type	Same	Same	Same	Thick.: 3mm

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
20*	044785 2089	1.53	8.5×9.5	12	Same	Same	Same	Same	Same	Thick.: 4mm
21*	045087 2912	1.21	10	12	Same	Same	Same	Same	Same	Thick.: 2.5mm
22*	044908 2523	1.05	9.5	12	Same	Same	Same	Same	Same	Thick.: 2.5mm
23*	041233 0929	0.78	10	12	Same	Same	Same	Same	Same	Thick.: 2mm
Group C – Medium size and thin flans, semi-crude type										
24*	041234 0936	1.51	11	1	Head of Apollo right, laureate	[ΒΑΣΙΛΕΩΣ - ΑΝΤΙΟΧΟΥ] Apollo stg. left, holding arrow in extended right hand and resting left on bow. Illegible control in left?	ca. 210–187 BCE	Antioch or Akko-Ptolemais?	*SC* I: 402 – 404, nos. 1052, 1055, 1058 – 1059, 1064 and 416–417, no. 1096	Thick.: 2.5mm
25	044784 2085	1.21	10.5× 11.5	12	Same type	Same type	Same	Same	Same	Thick.: 2mm
26*	044443 1173	1.17	9.5×11	9	Same	Same	Same	Same	Same	Thick.: 2.5mm
27	045192 3119	0.98	10	-	Same	Same	Same	Same	Same	Thick.: 2mm. Worn
28	044698 2230	0.94	11	12	Same	Same	Same	Same	Same	Thick.: 2mm. Worn
Group D – Mainly small and thin flans, crude type										
29	041800 1657	1.36	10×10.5	1	Head of Apollo right, laureate	[ΒΑΣΙΛΕΩΣ - ΑΝΤΙΟΧΟΥ] Apollo stg. left, holding arrow in extended right hand and resting left on bow. Illegible control in left?	ca. 198–187 BCE	'Akko-Ptolemais?	*SC* I: 416–417, no. 1096	Thick.: 2.5mm
30	044778 2095	1.24	8.5×9	12	Same type	Same type	Same	Same	Same	Thick.: 3.5mm
31	044783 2098	1.20	9×10	-	Same	Same	Same	Same	Same	Thick.: 2.5mm. Worn
32*	041789 1371	0.59	9.5	6	Same	Same	Same	Same	Same	partly broken. Thick. 1.5-2mm
33*	045098 2933	1.79	10×11	12	Same	Same	Same	Same	Same	Thick.: 3.5mm
34	041236 1034	1.66	9×10	-	Same	Same	Same	Same	Same	Thick.: 3mm. Worn
35*	045086 2911	0.79	8×8.5	-	Same	Same	Same	Same	Same	Thick.: 2mm
36	041235 0992	0.98	9×9.5	12	Same	Same	Same	Same	Same	Thick.: 2.5mm
Group E – Mainly thick flans, some irregular, crude or semi-crude type										
37*	044825 1976	5.06	13×13.5	-	Head of Apollo right, laureate	[ΒΑΣΙΛΕΩΣ - ΑΝΤΙΟΧΟΥ] Apollo stg. left, holding arrow in extended right hand and resting left on bow. Illegible control in left?	ca. 198–187 BCE	'Akko-Ptolemais?	*SC* I: 416 – 417, no. 1096	Thick.: 5.5mm. Worn
38*	041791 1639	3.20	11	12	Same type	Same type	Same	Same	Same	Thick.: 4.5mm.

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
39	041391 0726	2.91	11	12	Same	Same	Same	Same	Same	Thick.: 4mm. Worn.
40*	045010 2764	2.62	10.5	12	Same	Same	Same	Same	Same	Thick.: 4mm.
41	045219 3185	2.49	10×12	-	Same	Same	Same	Same	Same	Thick.: 4mm. Worn
42	045273 3263	2.40	12×13	1	Same	Same	Same	Same	Same	Thick.: 3mm. Worn
43	045004 2758	1.83	10	-	Same	Same	Same	Same	Same	Thick.: 3mm. Worn
44	041798 1646	1.75	10	-	Same	Same	Same	Same	Same	Thick.: 3.5mm Worn
45*	041895 1469	1.70	10	12	Same	Same	Same	Same	Same	Thick.: 3.5mm
46*	044592 2453	1.55	11×12.5	6	Same	Same	Same	Same	Same	Thick.: 3mm. Crude flan and dies
47	045094 2931	1.46	11×11.5	-	Same	Same	Same	Same	Same	Thick.: 3mm. Worn
48	044675 2295	1.28	10×11	-	Same	Same	Same	Same	Same	Thick.: 2.5mm. Worn
49	041790 1574	1.77	10×10.5	-	Same	Same	Same	Same	Same	Thick.: 3mm. Worn.
50*	044699 2231	1.45	9×10	-	Figure standing?	Same				Thick.: 3mm. Obverse struck with reverse die?
51	041797 1626	0.98	7×8.5	-	Illegible	Illegible				Thick.: 3mm. Date by flan
Uncertain if these belong to the same type as above.										
52*	041894 1662	1.06	9	-	Unclear (horn?)	[---] Apollo stg. left, holding arrow in extended right hand and resting left on bow?				Thick.: 2mm
Seleucus IV Philopator (187–175 BCE)										
53*	041780 1374	6.76	20	12	Draped bust of Dionysus right, wreathed with ivy, thyrsus over shoulder. Behind head, control:A+B	ΒΑΣΙΛΕΩΣ ΣΕΛΕΥΚΟΥ Prow left; above prow, control (worn)	187–175 BCE	Antioch	*Cf. SC* II: 16, no. 1316.2 (k?)	Serrated flan. Central cavity
Antiochus IV Epiphanes (175–164 BCE)										
54*	045019 2786	2.13	14.5×15	12	Diademed head of Antiochus IV right; dotted border	[---] Palm tree; dotted border	175–ca. 168 BCE	Tyre	*SC* II: 87, no. 1470	
55*	041237 1106	3.45	15×16	12	Veiled bust of Laodice IV right; dotted border	[---] Elephant head left; dotted border	175–ca. 173/2 BCE	ʻAkko-Ptolemais	*SC* II: 90–91, no. 1477 (2)	Serrated flan. Central cavities
56*	045269 3258	2.27	14	12	Head of Apollo right, laureate., behind, monogram; dotted border	ΒΑΣΙΛΕΩΣ / ΑΝΤΙΟΧΟΥ Apollo seated left on omphalos, testing arrow and resting hand on grounded bow; dotted border	175–ca. 173/2 BCE	ʻAkko-Ptolemais	*SC* II: 91, no. 1478	Serrated flan Central cavities
57	040756 0717	2.55	14	12	Same type	Same type	Same	Same	Same	Same

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
58*	045185 3112	2.79	13.5×14	12	Diademed, radiate head of Antiochus IV right, behind, monogram; dotted border	ΒΑΣΙΛΕΩΣ/ ΑΝΤΙΟΧΟΥ Veiled and draped goddess standing facing, holding long scepter or torch; dotted border	173/2–168 BCE	ʻAkko-Ptolemais	*SC* II: 92, no. 1479	Serrated flan
59	041900 1291	2.75	13.5×14.5	12	Same type	Same type	Same	Same	Same	Same
60	045043 2811	2.73	13×13.5	12	Same	Same	Same	Same	Same	Same
61*	044837 1910	2.48	13	12	Same	Same	Same	Same	Same	Same
62	041238 0971	2.39	13.5	12	Same	Same	Same	Same	Same	Same Worn
63	044713 2217	2.36	14×14.5	12	Same	Same	Same	Same	Same	Same
64	044911 2527	2.34	13.5	12	Same	Same	Same	Same	Same	Same Worn
65	044827 1974	2.30	13.5	1	Same	Same	Same	Same	Same	Same
66	041387 0718	2.27	13	12	Same	Same	Same	Same	Same	Same Worn
67	041794 1693	2.15	14	12	Same	Same	Same	Same	Same	Same
68	041242 1104	2.12	12.5×13.5	12	Same	Same	Same	Same	Same	Same
69	045188 3115	2.00	13×14	1	Same	Same	Same	Same	Same	Same
70	044994 2698	1.97	14	12	Same	Same	Same	Same	Same	Same
71	041415 0788	1.91	14	12	Same	Same	Same	Same	Same	Same Worn
72*	041243 1095	1.83	13.5×14	12	Same	Same	Same	Same	Same	Same
73	041898 1426	1.70	13.5×14	12	Same	Same	Same	Same	Same	Same Worn
74	028525 0089	1.67	13	12	Same	Same	Same	Same	Same	Same Worn
75*	045042 2810	4.68	18×19	12	Head of Antiochus IV right, radiate and diademed.	[ΒΑΣΙΛΕΩΣ] / ΑΝΤΙΟΧΟΥ Nike in biga to left; in left field monogram: Π+Α?	173/2 –ca. 164 BCE	ʻAkko-Ptolemais or Ascalon?	*SC* II: 93–94, no. 1484.2	Bevelled. Central cavities
Antiochus IV Epiphanes (175–164 BCE) or Demetrius I Soter (162–150 BCE)										
76	041239 0889	2.27	13	-	Illegible	[---] Veiled and draped goddess standing facing, holding long scepter or torch.		ʻAkko-Ptolemais	*SC* II: 92, no. 1479 or p. 181, no. 1679	Serrated flan. Worn
77	045203 3150	1.97	13.5	-	Same type	Same type		Same	Same	Same
78	044726 2183	1.93	15	-	Illegible	Illegible		Same	Same	Same
79	044677 2293	1.91	12	-	Illegible	Illegible		Same	Same	Same
80	045184 3111	1.89	13×14	-	Same type	Same type		Same	Same	Same
81	041795 1366	1.82	13	-	Same	Same		Same	Same	Same

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
Demetrius I Soter (162–150 BCE)										
82*	041404 0770	2.49	14×16	12	Head of Demetrius I right	[---] Veiled and draped goddess standing facing, holding long scepter or torch		ʻAkko-Ptolemais	Cf. *SC* II: 181, no. 1679	Serrated flan. Worn
83	044333 0603	2.38	3	12	Same type	Same type		Same	Same	Same. Worn
84*	041240 0986	2.19	3×15	12	Same	Same		Same	Same	Same
85	044769 2105	2.15	3×13.5	12	Same	Same		Same	Same	Same
86	041793 1608	2.07	2.5× 14.5	12	Same	Same		Same	Same	Same
87	044715 2215	1.87	5	12	Same	Same		Same	Same	Same. Worn. 1/3 is broken
88*	041899 1429	1.60	4×15	12	Same	Same		Same	Same	Same
Alexander I Balas (152–146 BCE)										
89*	041241 1085	3.13	14×15	12	Head of Alexander I right, diademed; dotted border	ΒΑΣΙΛΕΩΣ / ΑΛΕΞΑΝΔΡΟΥ Apollo seated left on omphalos, testing arrow and resting hand on grounded bow; dotted border		Unknown mint, probably in Syria.	*SC* II: 233, no. 1816	Serrated flan. Worn
Demetrius II Nicator First Reign (146–138 BCE)										
90*	041893 1731	1.61	13	12	Head of Demetrius II right, diademed	[ΒΑ]ΣΙΛΕΩΣ – [---] Palm-tree; in right field date, ΞΡ[---]	146/5–140/ 139 BCE	Tyre	*SC* II: 304, no. 1970	
Antiochus VII Euergetes [Sidetes] (138–129 BCE)										
91*	044591 2692	14.17	27	12	Diademed and draped bust of Antiochus VII right, beardless, dotted border	ΒΑΣΙΛΕΩΣ / ΑΝΤΙΟΧΟΥ Eagle standing left on ship's ram, palm branch under far wing; in left field, club, above: control mark (A/ PE); in right field, date, HOP, above: control mark (AΣ); between eagle's leg: control (>); dotted border	Year 178 = 135/4 BCE	Tyre	*SC* II: 384–385, no. 2109.6	Silver tetradrachm
92*	041792 1606	6.31	19×20	12	Diademed and draped bust of Antiochus VII right, beardless, dotted border	ΒΑΣΙΛΕΩΣ / ΑΝΤΙΟΧΟΥ Eagle standing left on ship's ram, palm branch under far wing; in left field, club, above: control mark (A/ PE); in right field, date, HOP, above: control mark (AΣ); between eagle's leg: control (>); dotted border	Year 178 = 135/4 BCE	Tyre	*SC* II: 385–386, no. 2110.6	Silver didrachm

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
93*	041802 1596	3.00	14×15.5	12	Lily on stem; dotted border	ΒΑΣΙΛ[ΕΩΣ] ΑΝΤΙΟΧΟΥ on left, ΕΥΕΡΓ[ΕΤΟΥ] on right Anchor. Illegible date	132/1–131/0 BCE	Jerusalem	*SC* II: 392, no. 2123	
94*	045040 2808	1.90	13×15	-	Illegible	Same type	Same	Same	Same	Worn
95*	045150 3028	2.75	15	12	Same type	Same	Same	Same	Same	
96*	045263 3250	2.14	12.5×14	12	Same	Same	Same	Same	Same	
Demetrius II Nicator Second Reign (129–125 BCE)										
97*	028523 0113	13.58	27	12	Diademed and draped bust of Demetrius II right, beardless, dotted border	ΒΑΣΙΛΕ[ΩΣ]/ [Δ] ΗΜΗΤΡΙΟΥ Eagle standing left on ship's ram, palm branch under far wing; in left field, club, above: mint mark (Α/ ΡΕ); in right field, date, (ϛΠΡ), above: mint mark (ΑΣ); between eagle's leg: control (Μ); dotted border	186 = 127/6 BCE	Tyre	*SC* II: 429, no. 2195.4	Silver tetradrachm
Uncertain Seleucid Ruler										
98	041796 1423	1.33	13	-	Head right	Illegible				Serrated flan. Broken, ca. half coin
99	045140 3018	1.70	12	12	Head right	Figure stg.?				Worn. Serrated flan?
HASMONEAN John Hyrcanus I (134–105/4 BCE)										
100*	041804 1494	2.24	14.5×15	12	Paleo-Hebrew legend in wreath, with Greek A above: נחוהי/גהנהכה/הרבחולד/ מידוהי	Two conjoined cornucopias with pomegranate between horns	125–104 BCE	Jerusalem	Cf. *TJC*: 201, Group A	
101*	041956 1439	1.68	13×13.5	12	Paleo-Hebrew legend in wreath: סיד/והיה/רבחולד /גה והכהנ/נחוהי	Same	Same	Same	Cf. *TJC*: 202–203, Group B	
102	028516 0123	2.57	14×15	12	Same יהוחנן/[---]	Same	Same	Same	Same	
103	044334 0607	2.07	13×14	12	Same יהוחנן/כהן גדל/וחבר [-- -]	Same	Same	Same	Same	
104*	041228 0972	2.11	13.5	12	Same יהוחננה/כהנהגדל/וחבר[- --]	Same	Same	Same	Same	
105	041951 1274	2.81	13.5×14	12	Same יהוחנן/הכהן הג[---]/ לוחבר [---]	Same	Same	Same	Same	
106	044656 2341	2.09	13×14	12	Same יהוחנן/הכהן הגד/לו[---]	Same	Same	Same	Same	
107	045236 3204	1.81	12	12	Same יהוחנ/נהכהן הג/ לוחברה/[---]	Same	Same	Same	Same	
108	041919 1819	1.59	12.5	12	Same יהוחנן/[---]	Same	Same	Same	Same	

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
109*	041225 0920	1.86	12×12.5	12	Same יהו/חננהכה/הגדל/חבר/ יה[---]	Same	Same	Same	Cf. *TJC*: 203–204, Group D	
110	041808 1555	3.02	13.5× 15.5	4	Same יהו/חננהכ/[---]ב[---]	Same	Same	Same	Same	
111	028517 0122	1.95	13.5	12	Same /[---]יהוח[---]/[---] חבר[---]	Same	Same	Same	Same	
112*	044620 2401	1.89	12×13	6	Same יהו/ח]ננהכה/גדל/וח[---]	Same	Same	Same	Cf. *TJC*: 204–205, Group E	
113	045031 2799	2.07	13.5×14	12	Same יהוח/ננהכה/וח[---]	Same	Same	Same	Same	
114*	045089 2914	1.90	13	12	Same יהו/ננהוח/דלהמ	Same	Same	Same	Same	
115	045227 3192	1.68	13×15.5	12	Same יהו/חנ[---]/נגד[---]	Same	Same	Same	Same	
116*	041364 0641	2.45	14	12	Same יהוח/ננהכהנה/יהי	Same	Same	Same	Cf. *TJC*: 202–203, Group F	
117*	041395 0730	2.38	13×14	12	Same יהו/חננהכ/הנהגד/ לראשה[---] /היה	Same	Same	Same	Cf. *TJC*: 207–209, Group I	
118	041420 0794	2.29	13×14	12	Same יהוח[---]/הכהנה/ גדלראש[---]	Same	Same	Same	Same	
119	045050 2842	1.94	13.5	12	Same יהו/חננהכה/נהגדל/ ראש[---]/[---]	Same	Same	Same	Same	
120*	041803 1411	0.90	9.5×10.5	12	Palm branch, flanked by four-line Paleo-Hebrew legend: יהוחננה/כהנהגדל/[---]	Lily flower between two ears of grain	Same	Same	Cf. *TJC*: 203, Group C or p. 209 Group J	Half prutah
Judah Aristobulus (105/4–104/3 BCE)										
121*	041953 1736	2.48	14	1	Paleo-Hebrew legend in wreath: יהוד/הכהנגד/ולוחבר/ היהוד/ימ	Two conjoined cornucopias with pomegranate between horns		Jerusalem	Cf. *TJC*: 217–218, Group U	
122*	044808 2096	1.56	13.5×14	1	Same יהוד/הכהנגד/ולוחבר/ היהוד/ימ	Same		Same	Same	
Alexander Jannaeus (104/3–76 BCE)										
123*	045049 2820	1.48	13×13.5	11	Paleo-Hebrew legend in wreath: יהו/נתנהכ/הנ הגד/וחבר/ [---]	Two conjoined cornucopias with pomegranate between horns	104/3–ca. 85 BCE	Jerusalem	Cf. *TJC*: 211–213, Group P	
124*	044789 2072	1.91	13	11	Same: [יהו]/נתנהכ/הנ הגד/ וחברה/יהו	Same	Same	Same	Same	
125*	044494 1127	1.92	12×15	6	Same: יהו/נתנה/הכהנ הגד/ל וחב/[---]	Same	Same	Same	Same	
126*	044453 1195	2.20	13×13.5	12	Same: יהו/נתנהכ/הנ הגד/ חברה/[---]	Same	Same	Same	Same	
127*	044919 2568	1.48	13×13.5	12	Same: ה/נתנהכ/הנ הגד/וחבר	Same	Same	Same	Same	
128*	044776 2097	2.01	14	5	Same: יהו/נתנה[כ]/הנ הגד/ וחבר	Same	Same	Same	Same	
129*	044742 2161	1.36	13×14	12	Same: יהו/נתנהכ/הנ הגד/וחבה/ יהד	Same	Same	Same	Same	

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
130*	045211 3159	1.46	11.5× 14.5	12	Same: יהו/נתנהכ/הנ הגדלו/[--- חביהו ?]	Same	Same	Same	Same	
131	044968 2650	2.17	13.5×14	7	Same: יהונ/תנהכהנ/ גדלוחב	Same	Same	Same	Same	
132	028521 0023	2.40	14×15	12	Same type, similar legend	Same	Same	Same	Same	
133	044824 1978	2.16	14×14.5	12	Same	Same	Same	Same	Same	
134	044791 2044	1.36	11×13	6	Same	Same	Same	Same	Same	
135	044696 2254	1.40	12.5	12	Same	Same	Same	Same	Same	
136	044691 2266	1.99	11×13	12	Same	Same	Same	Same	Same	
137	044948 2612	1.46	13×13.5	12	Same	Same	Same	Same	Same	
138	044633 2387	2.08	13×15	12	Same	Same	Same	Same	Same	
139	044971 2653	2.32	14	12	Same	Same	Same	Same	Same	
140	044974 2656	1.84	14×15	12	Same	Same	Same	Same	Same	
141	045139 3017	1.08	12×13	12	Same	Same	Same	Same	Same	
142	045231 3198	2.01	13	6	Same	Same	Same	Same	Same	
143	045265 3252	2.65	14	12	Same	Same	Same	Same	Same	
144	044637 2383	2.31	14	6	Same	Same	Same	Same	Same	
145	041952 1393	2.13	13.5×14	11	Same	Same	Same	Same	Same	
146	041955 1387	2.41	13.5×14	5	Same	Same	Same	Same	Same	
147*	044422 1629	1.61	12×13.5	12	Same	Same	Same	Same	Same	Chisel cut
148	041865 1552	1.52	13×14	6	Same	Same	Same	Same	Same	
149	041807 1561	1.73	12×14	11	Same	Same	Same	Same	Same	
150*	041226 1007	2.60	13.5×14	2	Paleo-Hebrew legend in wreath: יהונ/תנהכ/הנ הג/ ולוחבר/[---	Two conjoined cornucopias with pomegranate between horns	104/3–ca. 85 BCE	Jerusalem	Cf. *TJC*: 213–214, Group Q	
151*	044959 2623	2.09	14×16	12	Same: יהונ/תנכה/דל[---]/ימ	Same	Same	Same	Same	
152*	044673 2314	1.88	14×15	12	Same: יהונ/תנהכה/הגדולוח/ ברהי/י	Same	Same	Same	Same	Chisel mark on reverse
153	044812 2042	1.59	13×15	12	Same type, similar legend	Same	Same	Same	Same	
154*	044437 1155	1.80	13.5×16	1	Paleo-Hebrew legend in wreath: יהונת/נהכה גד/ל וחבר/ [---	Two conjoined cornucopias with pomegranate between horns	104/3–ca. 85 BCE	Jerusalem	Cf. *TJC*: 214–215, Group R	
155*	045280 3270	1.86	12.5×14.5	12	Same type, similar legend	Same	Same	Same	Same	Crude flan
156*	044472 1346	2.08	14	4	Same	Same	Same	Same	Same	
157*	045113 2975	1.18	12×13	1	Same	Same	Same	Same	Same	
158	041950 1732	1.58	14×15	12	Same	Same	Same	Same	Same	

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
159	041814 1489	1.73	15.5	6	Same	Same	Same	Same	Same	
160*	044735 2171	1.90	15	12	Paleo-Hebrew legend in wreath: יונתן/הכהנ ה/גדל הה/יה	Two conjoined cornucopias with pomegranate between horns	104/3–ca. 85 BCE	Jerusalem	Cf. *TJC*: 215–216, Group S	
161*	045180 3107	1.74	13.5×14	2	Same: יונתנה/כהנ ג/וחבר/הר	Same	Same	Same	Same	Reverse overstruck?
162	045039 2807	1.94	13.5×14	12	Same type, similar legend	Same	Same	Same	Same	
163*	044905 2510	2.59	15×16	6	Same	Same	Same	Same	Same	
164	045133 3011	1.74	14.5×15	11	Same	Same	Same	Same	Same	
165	045160 3053	0.93	13×14.5	6	Same	Same	Same	Same	Same	
166	041954 1292	1.47	12×14	4	Same	Same	Same	Same	Same	
167*	041227 1113	2.01	14×15	7	Same	Same	Same	Same	Same	
168*	041806 1554	1.51	13×14	6	Same	Same	Same	Same	Same	
169	044651 2350	2.56	14×14.5	7	Same	Same	Same	Same	Same	
170	041411 0784	1.71	13×14	7	Same	Same	Same	Same	Same	
171*	041863 1598	3.05	15×16	12	Paleo-Hebrew legend in wreath: יונתן/הכהנ ה/[---]ב Traces of under type: BAΣ[---]ΔPOY	Two conjoined cornucopias with pomegranate between horns	104/3–ca. 85 BCE	Jerusalem	Cf. *TJC*: 216–217, Group T	Overstruck on Group N
172*	045202 3149	2.78	15.5×16	12	Similar: יונתן/הכהנ Traces of under type: BAΣIΛ[---]	Same type	Same	Same	Same	Same
173*	045241 3220	1.81	14.5× 15.5	12	Similar: יונתן/הכהנה/גדלחב/י[---] Traces of under type: anchor in circle	Same type; traces of under type: Paleo-Hebrew legend in wreath	Same	Same	Same	Same
174*	044989 2693	1.39	14.5×15	11	Same: יונתן/הכהנ ה/גדל וחב/יה	Same type; traces of under type: [---]נתנ-המל[---]	Same	Same	Same	Same
175*	045149 3027	1.68	16×17	-	Same type, similar legend	Same type	Same	Same	Same	Same
176*	044704 2226	1.97	13×14	12	Same	Same	Same	Same	Same	
177*	045182 3109	2.14	15×16	-	Same	Same	Same	Same	Same	Same
178*	045122 3000	1.74	12×13	11	Same	Same	Same	Same	Same	Same
179*	045173 3079	2.43	14×14.5	-	Illegible legend in wreath	Anchor in circle, around: BA[---]POY	Same	Same	Same	The reverse was not overstruck
180*	044734 2172	2.15	14×15	-	Illegible legend in wreath	Same, traces of under type: anchor in circle	Same	Same	Same	
181*	041811 1331	1.46	16	1	Illegible legend in wreath; traces of under type: Two conjoined cornucopias with pomegranate between horns	Two conjoined cornucopias with pomegranate between horns	Same	Same		Obverse overstruck with a reverse die

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
182*	044811 2086	2.56	15×16.5	-	יהונתן המלך Eight-pointed star in diadem; between rays, Paleo-Hebrew legend	ΑΛΕΧΑΝΔΡΟΥ ΒΑΣΙΛΕΩΣ Anchor surrounded by Greek legend	ca. 85–80 BCE?	Same	Cf. *TJC*: 209, Group K	
183*	045125 3003	3.37	16×17	-	Same type	Same type	Same	Same	Same	
184	044813 2041	2.90	15×15.5	-	Same	Same	Same	Same	Same	
185*	044809 2091	2.75	15×16	-	Same	Same	Same	Same	Same	
186	041949 1267	2.63	16	-	Same	Same	Same	Same	Same	
187	044913 2529	2.58	13.5×15	-	Same	Same	Same	Same	Same	
188*	045244 3223	2.44	14.5×16	-	Same	Same	Same	Same	Same	
189	044625 2396	2.41	14×15	-	Same	Same	Same	Same	Same	
190*	045103 2938	2.09	15×16	-	Same	Same	Same	Same	Same	Obverse struck three times
191*	041911 1499	2.08	14.5×16	-	Same	Same	Same	Same	Same	
192*	041841 1653	2.08	14.5	-	Same	Same	Same	Same	Same	
193*	044658 2339	2.08	15	-	Same	Same	Same	Same	Same	
194	041831 1634	2.05	14×15.5	-	Same	Same	Same	Same	Same	
195	045197 3144	2.04	14×15	-	Same	Same	Same	Same	Same	
196*	044997 2701	2.04	13.5×15	-	Same	Same	Same	Same	Same	Reverse is double struck
197	041854 1304	2.00	15×16	-	Same	Same	Same	Same	Same	
198	041948 1611	1.95	15	-	Same	Same	Same	Same	Same	
199*	044846 1898	1.93	14×15	-	Same	Same	Same	Same	Same	Chisel mark on obverse
200*	041879 1644	1.92	14×15	-	Same	Same	Same	Same	Same	
201	044978 2660	1.90	14×15	-	Same	Same	Same	Same	Same	
202	044602 2443	1.85	13.5×14	-	Same	Same	Same	Same	Same	
203	044915 2544	1.81	14×14.5	-	Same	Same	Same	Same	Same	
204*	045062 2855	1.81	14.5×15	-	Same	Same	Same	Same	Same	
205	044643 2374	1.80	14	-	Same	Same	Same	Same	Same	
206	044650 2351	1.80	13	-	Same	Same	Same	Same	Same	Obverse struck on reverse
207	041844 1421	1.79	13.5×15	-	Same	Same	Same	Same	Same	
208*	041851 1370	1.79	14×15	-	Same	Same	Same	Same	Same	
209*	044425 1647	1.76	14	-	Same	Same	Same	Same	Same	Obverse is double struck
210	041914 1664	1.73	16	-	Same	Same	Same	Same	Same	

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
211*	044679 2278	1.71	13.5	-	Same	Same	Same	Same	Same	
212*	041873 1676	1.70	13×14	-	Same	Same	Same	Same	Same	Crude type
213*	041223 1112	1.67	15	-	Same	Same	Same	Same	Same	
214	044654 2347	1.66	13×15	-	Same	Same	Same	Same	Same	
215	045061 2854	1.57	14.5×15	-	Same	Same	Same	Same	Same	
216*	041850 1443	1.54	13×14.5	-	Same	Same	Same	Same	Same	
217*	041215 0935	1.53	14	-	Same	Same	Same	Same	Same	
218	044845 1899	1.48	13	-	Same	Same	Same	Same	Same	
219	041874 1603	1.48	13×16	-	Same	Same	Same	Same	Same	
220	041876 1642	1.44	12×13.5	-	Same	Same	Same	Same	Same	
221*	045218 3175	1.43	14×15.5	-	Same	Same	Same	Same	Same	Crude reverse die
222	044619 2402	1.42	14	-	Same	Same	Same	Same	Same	
223	045201 3148	1.42	14×15	-	Same	Same	Same	Same	Same	
224	045165 3058	1.38	13×15	-	Same	Same	Same	Same	Same	
225	041855 1694	1.36	15	-	Same	Same	Same	Same	Same	
226*	041872 1698	1.34	14.5×16	-	Same	Same	Same	Same	Same	
227	041957 1527	1.34	13×16	-	Same	Same	Same	Same	Same	
228	041881 1459	1.33	13×14	-	Same	Same	Same	Same	Same	
229*	041938 1271	1.32	14×15	-	Same	Same	Same	Same	Same	
230	041926 1289	1.28	14	-	Same	Same	Same	Same	Same	
231*	041842 1601	1.27	14×14.5	-	Same	Same	Same	Same	Same	Chisel mark on reverse
232	044491 1135	1.26	13×13.5	-	Same	Same	Same	Same	Same	
233	045082 2907	1.26	12×15	-	Same	Same	Same	Same	Same	Crude style
234	041947 1524	1.25	13×14	-	Same	Same	Same	Same	Same	
235	041861 1595	1.23	13.5×15	-	Same	Same	Same	Same	Same	
236*	041927 1583	1.22	13×13.5	-	Same	Same	Same	Same	Same	Reverse is double struck
237*	044782 2090	1.22	14×14.5	-	Same	Same	Same	Same	Same	
238	044627 2394	1.15	13×14	-	Same	Same	Same	Same	Same	
239*	044848 1894	1.11	13×15	-	Same	Same	Same	Same	Same	Chisel mark on obverse
240*	044536 1437	1.08	13×14	-	Same	Same	Same	Same	Same	
241*	045189 3116	1.08	14×15	-	Same	Same	Same	Same	Same	

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
242	041222 1114	1.06	13×14	-	Same	Same	Same	Same	Same	
243	041934 1431	1.03	13.5×16	-	Same	Same	Same	Same	Same	
244*	045073 2884	0.98	13	-	Same	Same	Same	Same	Same	
245*	041917 1300	0.95	12×13	-	Same	Same	Same	Same	Same	Crude flan
246*	028510 0148	0.93	13.5×14.5	-	Same	Same	Same	Same	Same	
247*	044772 2102	0.92	12×17	-	Same	Same	Same	Same	Same	Crude flan
248	041400 0752	0.88	12×14	-	Same	Same	Same	Same	Same	
249*	044607 2438	0.88	13.5	-	Same	Same	Same	Same	Same	
250*	044418 1599	0.68	11.5×12.5	-	Same	Same	Same	Same	Same	
251	041413 0786	1.37	14×15	-	Same	Same	Same	Same	Same	
251a	044807 2000	1.51	14	-	Same	Same	Same	Same	Same	
252*	041442 0806	1.47	14×15	-	Similar, but the rays are designed as dots and no legend between them	Similar type. Small and thin anchor	Same	Same	Cf. *TJC*: 209, Group K15	
253	045191 3118	1.00	13×14	-	Same	Same	Same	Same	Same	Worn
254	No A 1514	2.02	16	-	Same type	Same type	Same	Same		The coin is missing
255*	041425 0813	3.73	17	9	Aramaic legend in three lines: [---]/[---]/מלכא	Anchor surrounded by a circle, around it Greek legend: [---]Ω[---]	ca. 80 BCE		Cf. *TJC*: 211, Group M	Lead coin
256*	045267 3256	2.90	15×16	12	Aramaic legend in three lines: [---]/אלכסנ/דרוס	Anchor surrounded by a circle, around it Illegible Greek legend: [---]	Same		Cf. *TJC*: 211, Group M1	Lead coin
Unclear Hasmonean Ruler										
257	028509 0124	1.71	13×14	-	Paleo-Hebrew legend in wreath; name of ruler is uncertain	Two conjoined cornucopias with pomegranate between horns	125–ca. 85 BCE	Jerusalem		
258	028513 0007	2.59	13×15	12	Same	Same	Same	Same		
259	028518 0121	1.97	13.5×15	12	Same	Same	Same	Same		
260	028514 0137	2.68	14	12	Same	Same	Same	Same		
261*	041367 0636	1.75	14	9	Same	Same	Same	Same		Reverse is double struck
262	044810 2088	1.62	13	12	Same	Same	Same	Same		Burnt?
263	044815 2036	2.03	13×14	12	Same	Same	Same	Same		
264	041376 0701	1.33	13	12	Same	Same	Same	Same		
265	041362 0703	1.76	13×14	-	Same	Same	Same	Same		
266	041412 0785	1.38	12×14	1	Same	Same	Same	Same		
267	041417 0791	2.50	14×16	12	Same	Same	Same	Same		

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
268	044630 2391	1.46	13×14	-	Same	Same	Same	Same		Chisel mark on reverse
269	044487 1149	1.75	14×15	12	Same	Same	Same	Same		
270	044486 1153	1.82	13.5×15	-	Same	Same	Same	Same		
271*	044483 1159	2.48	13×14	4	Same	Same	Same	Same		
272*	041224 1055	2.12	13.5	-	Same	Same	Same	Same		
273	041198 1078a	1.54	12×13	12	Same	Same	Same	Same		
274	041888 1667	2.00	13.5	12	Same	Same	Same	Same		
275	041886 1738	2.25	13×14.5	12	Same	Same	Same	Same		
276	041883 1525	2.28	13×15	11	Same	Same	Same	Same		
277	041889 1392	2.41	13×14	12	Same	Same	Same	Same		
278	041885 1290	2.26	13×15	12	Same	Same	Same	Same		
279	041884 1272	2.11	12.5×13	-	Same	Same	Same	Same		
280	041813 1628	1.84	13	12	Same	Same	Same	Same		
281	041812 1334	1.63	13×14	6	Same	Same	Same	Same		
282	041810 1339	1.56	13	12	Same	Same	Same	Same		
283	041809 1305	1.54	12.5×13	-	Same	Same	Same	Same		
284	041805 1689	2.44	13.5×14	6	Same	Same	Same	Same		
285	044857 1854	1.82	13×14	6	Same	Same	Same	Same		
286	044852 1876	1.63	13.5×14	6	Same	Same	Same	Same		
287	044839 1908	1.84	12×13	-	Same	Same	Same	Same		Corroded (burnt?)
288	044828 1956	1.54	12×13.5	12	Same	Same	Same	Same		
289	044816 2028	2.11	13×14.5	-	Same	Same	Same	Same		Corroded (burnt?)
290	044814 2039	1.77	12.5×13	12	Same	Same	Same	Same		
291	044767 2115	1.46	13×14.5	12	Same	Same	Same	Same		
292	044748 2141	1.34	11.5×13	-	Same	Same	Same	Same		Chisel cut
293	044697 2253	2.60	14.5	12	Same	Same	Same	Same		
294	044692 2265	2.01	13.5×14	12	Same	Same	Same	Same		Corroded (burnt?)
295	044683 2274	2.07	14×15	12	Same	Same	Same	Same		Corroded (burnt?)
296	044678 2292	2.34	14×15	-	Same	Same	Same	Same		Corroded (burnt?)
297	044640 2380	1.97	12.5×13	12	Same	Same	Same	Same		
298	044632 2388	2.25	14×14.5	12	Same	Same	Same	Same		

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
299	044628 2393	1.82	13×13.5	-	Same	Same	Same	Same		Corroded (burnt?)
300	044613 2432	1.90	12.5×13	12	Same	Same	Same	Same		
301	044921 2566	1.57	12.5×15	-	Same	Same	Same	Same		
302	044969 2651	1.56	11.5	-	Same	Same	Same	Same		Corroded (burnt?)
303	045033 2801	1.38	14.5	-	Same	Same	Same	Same		Corroded (burnt?)
304	045070 2873	2.19	13×14	6	Same	Same	Same	Same		
305	045084 2909	2.22	13.5×15	6	Same	Same	Same	Same		
306*	045111 2973	1.56	14×16	6	Same	Same	Same	Same		
307	045142 3020	1.68	13.5	4	Same	Same	Same	Same		Corroded (burnt?)
308	045152 3045	1.85	13.5×14	12	Same	Same	Same	Same		
309	045168 3061	1.67	13	12	Same	Same	Same	Same		
310	045194 3121	2.23	14.5×15	12	Same	Same	Same	Same		Corroded (burnt?)
311	045207 3155	1.46	13×15	-	Same	Same	Same	Same		Corroded (burnt?)
312	045245 3224	2.07	12.5×13	-	Same	Same	Same	Same		
313	041925 1752	1.82	13×15	-	Same	Same	Same	Same		
314*	045110 2972	1.24	13.5×14.5	-	Blundered legend	Same	Same	Same		Struck on broken flan
Alexander Jannaeus (104/3–76 BCE) and/or later Successors (76–40 BCE)										
***TJC* L 1–3**										
315*	041148 0927	1.48	12×14		[מלכא אלכסנדרוס שנת כה] Eight-pointed star surrounded by circle of dots; around, Aramaic legend	ΒΑΣΙΛΕΩΣ [ΑΛΕΧΑΝΔΡΟΥ] Anchor in plain circle. Flanking the anchor, date, [LKE]	Year 25 = 79/8 BCE	Jerusalem	Cf. *TJC*: 210, Group L 1–3	See appendix for further discussion regarding the L group
316*	041939 1670	1.23	13×14		Same type	Same type	Same	Same	Same	Chisel mark on obverse
317*	044661 2326	0.77	13×15		Same	Same	Same	Same	Same	
318*	045226 3193	1.13	13×16		Same	Same	Same	Same	Same	
319 –332					Same	Same	Same	Same	Same	
***TJC* L 4–7**										
333*	041141 1124	1.08	11×12		[מלכא אלכסנדרוס שנת כה] Eight-pointed star surrounded by circle of dots; around, Aramaic legend	ΒΑΣΙΛΕΩΣ [ΑΛΕΧΑΝΔΡΟΥ] Anchor in plain circle	79/8 BCE or later	Jerusalem	Cf. *TJC*: 210, Group L 4–7	Chisel marks on both sides
334*	041182 1074c	0.80	11×12		Same type	Same type	Same	Same	Same	Struck on crude flan
335*	041280 1017	0.56	10×12.5		Same	Same	Same	Same	Same	
336*	041352 0990	1.06	12×13		Same	Same	Same	Same	Same	

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
337*	041918 1830	1.00	12×13		Same	Same	Same	Same	Same	
338*	044414 1563	0.58	10		Same	Same	Same	Same	Same	
339*	044624 2397	0.83	11.5×12		Same	Same	Same	Same	Same	
340*	044644 2373	1.08	12×13		Same	Same	Same	Same	Same	
341*	044725 2184	0.33	11×15		Same	Same	Same	Same	Same	
342*	044747 2142	1.10	12×14		Same	Same	Same	Same	Same	
343*	045002 2756	1.07	11.5×14		Same	Same	Same	Same	Same	
344*	045232 3199	0.92	12×13		Same	Same	Same	Same	Same	
345–481					Same	Same	Same	Same	Same	
					***TJC* L 8**					
482*	041184 1074e	0.73	11×12		[---] Six-pointed star surrounded by circle of dots; around, Illegible (or partly illegible) Aramaic legend	[---] Anchor in plain circle; surrounded by Illegible (or partly illegible) Greek legend	79/8 BCE or later	Jerusalem	Cf. *TJC*: 210, Group L 8	
483*	041278 1062	0.86	11×13		Same type	Same type	Same	Same	Same	
484*	041306 1098a	0.63	9×12		Same	Same	Same	Same	Same	
485*	041327 1096b	0.45	9.5×11		Same	Same	Same	Same	Same	
486*	041866 1557	0.51	13×13		Same	Same	Same	Same	Same	
487*	041878 1695	1.15	13×13.5		Same	Same	Same	Same	Same	
488*	041915 1463	0.72	11.5×12		Same	Same	Same	Same	Same	Double struck
489*	041941 1500	0.93	11×13.5		Same	Same	Same	Same	Same	
490*	044297 0181	0.61	10×14		Same	Same	Same	Same	Same	Pierced, due to casting process
491*	044408 1418	0.94	11×12		Same	Same	Same	Same	Same	
492*	044424 1645	0.44	10×11		Same	Same	Same	Same	Same	Reverse is double struck
493*	044427 1660	1.09	13		Same	Same	Same	Same	Same	
494*	044429 1688	0.69	11×12.5		Same	Same	Same	Same	Same	Pierced, due to casting process
495*	044490 1137	0.72	12×13		Same	Same	Same	Same	Same	
496*	044546 1455	0.45	8×11.5		Same	Same	Same	Same	Same	Small flan
497*	044563 1526	0.35	7.5×12		Same	Same	Same	Same	Same	
498*	044573 1597	0.97	10×13		Same	Same	Same	Same	Same	
499*	044635 2385	0.42	10×11		Same	Same	Same	Same	Same	

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
500*	044695 2262	0.54	10×11		Same	Same	Same	Same	Same	
501*	044718 2212	0.88	11×12		Same	Same	Same	Same	Same	
502*	044920 2565	0.71	10×12		Same	Same	Same	Same	Same	Chisel mark on obverse
503*	045045 2812	0.61	11×12		Same	Same	Same	Same	Same	Struck on broken flan
504*	045075 2900	0.52	10×11		Same	Same	Same	Same	Same	Struck on broken flan
505*	045123 3001	0.48	12		Same	Same	Same	Same	Same	Struck on broken flan
506*	045159 3052	0.45	11		Same	Same	Same	Same	Same	Struck on broken flan
507–691					Same	Same	Same	Same	Same	
***TJC* L 9–13**										
692*	041160 1059d	0.37	9.5×10		Six-pointed star surrounded by circle of dots	Anchor in plain circle	79/8 BCE or later	Jerusalem	Cf. *TJC*: 210, Group L 9–13	
693*	041251 1077a	0.37	11×13		Same type	Same type	Same	Same	Same	
694*	041264 0933	0.42	10×11		Same	Same	Same	Same	Same	
695*	041284 1069	1.08	11×11.5		Same	Same	Same	Same	Same	
696*	041312 1108a	0.22	6.5×8.5		Same	Same	Same	Same	Same	
697*	041945 1668	0.45	10×10		Same	Same	Same	Same	Same	
698*	044400 1422	0.62	9×13		Same	Same	Same	Same	Same	
699*	044568 1566	0.42	8.5×10		Same	Same	Same	Same	Same	
700*	044572 1591	0.21	9		Same	Same	Same	Same	Same	
701*	044589 1733	0.57	10×11		Same	Same	Same	Same	Same	
702*	044641 2379	0.20	9×10		Same	Same	Same	Same	Same	
703*	044646 2370	0.34	10		Same	Same	Same	Same	Same	
704*	044710 2220	0.64	10×11		Same	Same	Same	Same	Same	
705*	044736 2170	0.61	10×11		Same	Same	Same	Same	Same	
706*	044790 2045	0.39	11		Same	Same	Same	Same	Same	
707*	044840 1907	0.80	11.5×12		Same	Same	Same	Same	Same	
708*	044979 2661	0.43	10×13		Same	Same	Same	Same	Same	Struck on broken flan
709*	044987 2690	0.71	10×11		Same	Same	Same	Same	Same	Chisel mark on reverse
710*	045222 3188	0.57	11×12		Same	Same	Same	Same	Same	
711*	045229 3195	0.77	10×12.5		Same	Same	Same	Same	Same	
712*	045230 3197	0.78	11×12.5		Same	Same	Same	Same	Same	Chisel mark on reverse
713–940					Same	Same	Same	Same	Same	

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
					***TJC* L 14**					
941*	041165 1061c	0.17	8×10		Rays of a star	Anchor	79/8 BCE or later	Jerusalem	Cf. *TJC*: 210, Group L 14	
942*	041335 1099	0.42	8.5×12		Same type	Same type	Same	Same	Same	
943*	041336 1097	0.22	8×11		Same	Same	Same	Same	Same	
944*	044469 1342	0.18	7×8		Same	Same	Same	Same	Same	
945*	044534 1435	0.35	7×9		Same	Same	Same	Same	Same	
946*	045022 2790	0.66	9×10		Same	Same	Same	Same	Same	
947*	045115 2977	0.28	8×10		Same	Same	Same	Same	Same	
948*	045216 3165	0.23	7×7.5		Same	Same	Same	Same	Same	Unstruck?
949*	045272 3261	0.49	8×12		Same	Same	Same	Same	Same	
950–1018					Same	Same	Same	Same	Same	See table 6.A.5
					***TJC* L 15–16**					
1019*	041845 1523	0.57	7.5×14		Rays of a star	Anchor	79/8 BCE or later	Jerusalem	Cf. *TJC*: 210, Group L 15–16	
1020*	041862 1369	0.94	10×15.5		Same type	Same type	Same	Same	Same	
1021*	044383 1240	0.25	7.5×10		Same	Same	Same	Same	Same	
1022*	044580 1671	0.57	7×13		Same	Same	Same	Same	Same	Reverse is double struck
1023*	044590 1734	0.56	10×13		Same	Same	Same	Same	Same	
1024*	045145 3023	0.56	9×10		Same	Same	Same	Same	Same	
1025 – 1050					Same	Same	Same	Same	Same	
					***TJC* L – star with 7 rays**					
1051*	045186 3113	1.18	11.5×14	-	[---] Seven-pointed star surrounded by circle of dots; around, Illegible (or partly illegible) Aramaic legend	[---] Anchor in plain circle; surrounded by Illegible (or partly illegible) Greek legend	79/8 BCE or later	Jerusalem	Unpublished	
1052*	044910 2526	0.90	12	-	Same type?	Same type	Same	Same		It is possible that two rays are attached together
					ROMAN PROVINCIAL					
1053*	045013 2767	8.73	22×22.5	12	Bust of Doros right	Tyche standing to left, holding palm branch and caduceus; in upper left field, date, LA; in upper right field, monogram; in lower left field, [ΔΩ]PI/[TΩ]N	Year 1 = 63/2–61/60 BCE	Dora	*CHL*: 40, no. 2	

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
HASMONEAN **Mattathias Antigonus (40–37 BCE)**										
1054*	044952 2616	15.05	22×23	12	Double cornucopia; around and in between, Paleo-Hebrew legend: מתתיה ה[כהן הגדול וחבר היהודים]	Wreath of ivy leaves; around, Greek legend: [ΒΑΣΙΛΕΩΣ ΑΝΤΙΓΟΝΟΥ]		Jerusalem	*TJC*: 218–219, no. 36	
1055*	041447 0811	8.14	19×20	7	One cornucopia, around Paleo-Hebrew legend: [---]מתתיהכה	Greek legend in wreath: ΒΑCΙΛ/ ΕΩC Α[Ν]/ΤΙΓΟ[Ν]		Same	*TJC*: 220, no. 37h	
1056*	041818 1362	1.97	12.5×13	12	Retrograde Paleo-Hebrew legend in wreath: מתת/יה	Double cornucopia with ear of grain between horns		Same	*TJC*: 220, no. 40	
1057*	045253 3232	1.68	12×14	12	Same type	Same		Same	Same	
1058*	044758 2131	1.47	12×15	3	Same type	Same		Same	Same	
1059*	044653 2348	1.79	13×14	6	Same type	Same		Same	Same	
Alexander Jannaeus (or later successors) or Herod I										
1060*	045256 3243	0.70	10.5×12	-	Cornucopia (?) with Greek letters in field?	Illegible letters?				
1061	045132 3010	1.01	11×11.5	-	Illegible. Traces of wreath?	Illegible				
1062	041847 1575	1.03	11×12	-	Illegible	Same				
1063	044670 2317	1.24	12×13	-	Same	Same				
HERODIAN **Herod the Great (37–4 BCE)**										
1064*	028522 0064	10.70	24×27	12	ΒΑΣΙΛΕΩΣ-ΗΡΩΔΟΥ Tripod with lebes stg. on podium, flanked by date on left: ΛΓ, and monogram on right:$	Helmet with cheek pieces and star on top, flanked by two palm leaves	Year 3 = 37 BCE	Jerusalem	*TJC*: 221, no. 44	
1065*	044440 1170	1.79	17	12	+ surrounded by an opened diadem; around, Greek legend: [ΗΡΩ]ΔΟΥ [ΒΑCΙΛΕΩΣ]	Table with three curved legs standing on flat platform; upon it, a flat vessel; on left and right, two bent palm branches	ca. 30/29 BCE	Same	*TJC*: 222, no. 49	
1066*	045155 3048	2.97	18.5×19	-	Same type	Same type	Same	Same	Same	
1067*	041824 1677	2.56	17×19	11	Same	Same	Same	Same	Same	
1068*	045195 3142	2.05	16×17	4	Closed diadem; around, Greek legend: ΗΡΩ[ΔΟΥ] ΒΑ[CΙΛΕΩΣ]	Table with three curved legs standing on flat platform	Same	Same	*TJC*: 222, no. 53a	
1069*	041232 0993	1.42	14×15	-	Similar, but legend in vertical lines?	Table with three curved legs standing on flat platform	Same	Same	*TJC*: 222, no. 54	
1070*	044904 2509	0.89	13×13.5	-	Greek legend in two concentric lines: [ΗΡWΔΟΥ] [ΒΑCΙΛΕΩΣ]	Anchor, surrounded by circle decorated with running row of Y design	ca. 27–23 BCE	Jerusalem	*Cf. TJC*: 223, nos. 61, 63	

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
1071*	045130 3008	0.91	11.5×13	-	Same type	Same type	Same	Same	Same	
1072*	045136 3014	0.97	12.5×13	-	Same	Same	Same	Same	Same	Worn
1073*	045276 3266	0.80	11×13	-	Same	Same	Same	Same	Same	
1074*	041890 1467	1.23	13	-	Same	Same	Same	Same	*TJC*: 223, no. 63	
1075*	045143 3021	0.82	12.5×14.5	-	Same	Same	Same	Same	Same	
1076*	044467 1299	0.65	12×13	-	[---]EVC Greek legend in dotted circle	Anchor in plain circle, around, zig-zag line	Same	Same	Cf. *TJC*: 223, no. 64.	
1077*	045135 3013	0.80	11×13	9	Table with three curved legs; around, Greek legend: [HPΩ]ΔOY BA[CIΛEΩΣ]	Two crossed palm branches in circle	Same	Same	*TJC*: 222, no. 55	
1078*	045134 3012	0.76	12	-	[---]BA Same	Same	Same	Same	Same	Worn
1079*	044657 2340	1.58	13	12	Cornucopia; on left and right, Greek legend: [B]ACIΛ-HPW[Δ]	Eagle standing right	23/2–12 BCE	Same	Cf. *TJC*: 224, no. 66	
1080*	045270 3259	1.25	12×15	11	Same type	Same type	Same	Same	Same	Obverse is double struck
1081*	041231 0937	1.17	15.5	12	Anchor; around, Greek legend: [HPWΔOY] BA[CIΛE]	Double cornucopia with caduceus between horns; above, five pellets	ca. 23/2–12 BCE	Same	*TJC*: 222–223, no. 59	Struck on broken flan
1082*	041823 1604	1.47	14×15	11	Same type	Same type	Same	Same	Same	
1083*	041822 1683	1.77	13×15	12	Same	Same	Same	Same	Same	
1084	044447 1177	1.15	12×13.5	11	Same	Same	Same	Same	Same	
1085	041825 1414	1.23	14	11	Same	Same	Same	Same	Same	
1086	045074 2899	1.42	13.5×14	11	Same	Same	Same	Same	Same	
1087	041821 1696	1.46	13.5×15	9	Same	Same	Same	Same	Same	
1088	041820 1680	1.73	14	5	Same	Same	Same	Same	Same	
1089	041819 1697	1.41	13×14.5	12	Same	Same	Same	Same	Same	
1090	041891 1270	1.61	14×14.5	10	Same	Same	Same	Same	Same	
1091	041826 1687	1.49	13×14	6	Same	Same	Same	Same	Same	
1092*	044757 2132	1.38	13.5×14	11	Same	Same	Same	Same	Same	
1093	044755 2134	1.47	14×15	6	Same	Same	Same	Same	Same	
1094	045148 3026	1.43	13.5×15	4	Same	Same	Same	Same	Same	
1095	044712 2218	1.55	13×15	6	Same	Same	Same	Same	Same	
1096	044711 2219	1.27	12×15	5	Same	Same	Same	Same	Same	
1097*	044709 2221	1.60	13.5×14	6	Same	Same	Same	Same	Same	
1098	044665 2322	1.24	12.5×14.5	5	Same	Same	Same	Same	Same	

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
1099*	044723 2186	1.43	14.5×15	5	Same	Same	Same	Same	Same	
1100	044622 2399	1.80	15×16	11	Same	Same	Same	Same	Same	
1101*	045157 3050	1.47	13×17.5	4	Same	Same	Same	Same	Same	Worn
1102*	045200 3147	1.15	12×15	11	Same	Same	Same	Same	Same	Worn
1103	045118 2980	1.15	13	-	Same	Same	Same	Same	Same	
1104*	045224 3190	0.59	12×14	3	Anchor, surrounded by Greek legend: [HPWΔOY] [BACIΛEΩΣ]	A galley with ram, oars and aphlaston to left	12 BCE?	Same	Cf. *TJC*: 223, no. 65.	
Herod Archelaus (4 BCE–6 CE)										
1105*	045080 2905	1.11	14	12	Two parallel cornucopiae turning right: [HPWΔ]	[EΘNAP] Below, galley sailing left		Jerusalem	Cf. *TJC*: 225, no. 71	Crude
1106*	041892 1268	1.10	13.5×14	-	HP[W] Prow of galley left	Legend in wreath: [EΘN]		Jerusalem	Cf. *TJC*: 225, no. 72	
1107*	044659 2336	2.69	16×17	11	Vine branch with bunch of grapes and small leaf; above: HPWΔOY	Crested helmet with two cheek pieces; below, small caduceus and legend: [EΘNAPXOY]		Jerusalem	Cf. *TJC*: 226, no. 73	
ROMAN GOVERNORS OF JUDAEA Under Augustus (27 BCE–14 CE)										
1108*	044708 2222	1.58	16	12	KAICA-POC Ear of grain	Palm tree; in fields, date, [L]-Λς	Year 36 = 5/6 CE	Jerusalem	*TJC*: 256, no. 311.	Coponius
1109*	041389 0723	2.26	16×17	3	KAICA-POC Ear of grain	Palm tree; in fields, date, [L]-ΛΘ	Year 39 = 8/9 CE	Jerusalem	*TJC*: 256, no. 313.	Ambibulus?
1110*	041424 0812	1.92	16×17	11	Same type	Same type	Same	Same	Same	
1111	045006 2760	2.06	15	12	Same	Same	Same	Same	Same	
1112	044793 2040	1.69	16	12	KAICA-POC Ear of grain	Same, but date, L-M or MA	Year 40 or 41 = 10/11 or 11/2 CE	Jerusalem	*TJC*: 256, nos. 314–315.	Ambibulus?
1113	041783 1545	1.46	15.5×16	11	Same	Same	Same	Same	Same	
1114*	041905 1391	2.27	17×18	10	KAICA-POC Ear of grain	Same, but date, L- MA	Year 41 = 10/11 CE	Jerusalem	*TJC*: 256, no. 315.	Ambibulus
1115	044606 2439	1.57	16	12	KAICA-POC Ear of grain	Palm tree; date illegible	5/6–10/11 CE	Jerusalem	Cf. *TJC*: 256, nos. 311–315	Coponius? or Ambibulus?
1116	044800 2031	1.53	15×17	12	Same type	Same	Same	Same	Same	
1117	044963 2645	1.63	16	12	Same	Same	Same	Same	Same	
1118	045124 3002	1.38	15×15.5	12	Same	Same	Same	Same	Same	
1119	045206 3153	1.65	15×16	12	Same	Same	Same	Same	Same	
1120	041903 1669	1.96	15×16	12	Same	Same	Same	Same	Same	
Under Tiberius (14–37 CE)										
1121*	041782 1630	1.56	14× 15.5	7	Legend in wreath: KAI/[CAP]	Double cornucopiae crossed, with caduceus between horns; above: TIBE[PIOY]; in field, date, L- Γ	Year 3 = 16/7 CE	Jerusalem	*TJC*: 257, no. 320	Valerius Gratus

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
1122*	044779 2094	2.18	16×17	12	TIB/KAI/CAP Legend in wreath	Palm branch; in fields: IOY-ΛIA / L- Є	Year 5 = 18/9 CE	Jerusalem	Cf. *TJC*: 257, no. 328	Valerius Gratus. Reverse is double struck
1123	041216 0991	2.18	15×16	-	Same type	Same type	Same	Same	Same	Worn
1124	044795 2037	2.55	15	12	Same	Same	Same	Same	Same	
1125*	044750 2139	2.16	15×16	12	Same	Same	Same	Same	Same	
1126	044706 2224	2.14	14×15	12	Same	Same	Same	Same	Same	
1127	044700 2247	2.07	15×15.5	12	Same	Same	Same	Same	Same	
1128*	044629 2392	1.87	15	12	Same	Same	Same	Same	Same	Pierced
1129	045277 3267	2.30	15	11	Same	Same	Same	Same	Same	
1130*	041382 0706	2.30	16×17	12	Same	Same	Same	Same	Same	
1131*	041396 0731	3.02	17×18	6	TIB/KAI/CAP Legend in wreath	Palm branch; in fields: IOY-ΛIA /L – IA	Year 11 = 24/5 CE	Jerusalem	*TJC*: 258, no. 329	Valerius Gratus
1132*	044438 1166	1.94	15.5	12	Same type	Same type	Same	Same	Same	
1133	041781 1302	2.10	15	11	Same	Same	Same	Same	Same	
1134	041777 1372	1.97	15.5×16	11	Same	Same	Same	Same	Same	
1135	041394 0729	2.22	16.5	12	TIB/KAI/CAP Legend in wreath	Palm branch; in fields: IOY-ΛIA; Illegible date	17–19 or 24/5		Cf. *TJC*: 257–258, nos. 327–329	Valerius Gratus
1136	041401 0753	2.38	17	12	Same	Same	Same	Same	Same	
1137	045028 2796	1.90	15×15.5	12	Same	Same	Same	Same	Same	
1138*	044403 1449	2.50	16	11	[TIBERIOY] KAICAPOC LIς Simpulum	[IOYΛIA K] AICAPOC Three ears of grain tied together	Year 16 = 29/30 CE	Jerusalem	*TJC*: 258, no. 331	Pontius Pilatus
1139*	041388 0722	1.80	15	12	Same type	Same type	Same	Same	Same	
1140*	040759 0667b	1.92	16×17	11	Same	Same	Same	Same	Same	
1141	044634 2386	2.27	15.5×16	11	Same	Same	Same	Same	Same	
1142	041399 0751	1.98	15	12	Same	Same	Same	Same	Same	
1143	044917 2563	1.61	15×15.5	10	Same	Same	Same	Same	Same	
1144*	041924 1821	1.65	15	1	TIB[EPIOY KAICA] POC Lituus	Date in wreath: LIZ	Year 17 = 30/1	Jerusalem	*TJC*: 258, no. 333	Pontius Pilatus
1145	041906 1729	1.93	15	-	Same type	Illegible date in wreath	30/1–31/2 CE	Same	*TJC*: 258, nos. 333–334	Burnt?
1146	044966 2648	1.92	14×15	-	Same type	Same type	Same	Same	Same	Burnt
1147	041787 1685	1.89	14.5×15	-	Same	Same	Same	Same	Same	
1148	041786 1486	2.38	15×17	-	Same	Same	Same	Same	Same	

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
NABATAEANS **Aretas IV (ca. 9/8 BCE–40 CE)**										
1149*	044442 1172	1.99	14	12	Jugate busts of Aretas IV and Shaqillat to right	Crossed cornucopiae, between Nabataean legend: חרת[ת]/ שקל	17/8–39/40 CE		Meshorer 1975: 105, nos. 112–114; Barkay 2019: 119, Type 188	Worn
HERODIAN **Agrippa I (36/7–44 CE)**										
1150*	040761 0637	2.43	17	12	ΒΑCΙΛΕWC- ΑΓΡΙΠΠΑ Canopy	Three ears of grain issuing from between two leaves; on left and right, date, L-ς	Year 6 = 41/2 CE	Jerusalem	*TJC*: 231, no. 120	
1151*	044608 2437	2.89	16×16.5	12	Same type	Same type	Same	Same	Same	
1152	041384 0713	2.56	16×18	11	Same	Same	Same	Same	Same	
1153	041385 0715	2.77	17	12	Same	Same	Same	Same	Same	
1154*	041406 0772	2.54	18	11	Same	Same	Same	Same	Same	
1155	041817 1495	2.51	18	11	Same	Same	Same	Same	Same	
1156*	041816 1609	2.53	17	11	Same	Same	Same	Same	Same	
1157*	041815 1434	2.09	16.5×17	11	Same	Same	Same	Same	Same	
1158	044780 2093	2.85	16.5×17	11	Same	Same	Same	Same	Same	
1159	044652 2349	2.69	17	12	Same	Same	Same	Same	Same	
ROMAN GOVERNORS OF JUDAEA **Under Claudius (41–54 CE)**										
1160*	041229 0987	2.06	16×16.5	12	[NEPW] KΛAY K[AICAP] Two oblong shields and two spears, crossed	Palm tree; above: [B]PIT; below: [L]-IΔ / [K]-AI	Year 14 = 54 CE	Jerusalem	*TJC*: 259, no. 340	Antonius Felix
1161	040757 0714	2.56	15×17	12	Same type	Same type	Same	Same	Same	
1162*	041788 1549	2.20	16	7	Same	Same	Same	Same	*TJC*: 259, no. 341	Crude type
1163*	044841 1906	2.51	16×17	2	Same	Same	Same	Same	*TJC*: 259, no. 341	Crude type
1164*	041902 1737	2.42	15.5×16.5	6	TI [KΛAYΔIOC KAI] CAP ΓEPM Two crossed palm branches; in field, date, L IΔ	IOY/ΛIA [AΓ] / PIΠ[ΠI/NA] Legend in wreath	Year 14 = 54 CE	Jerusalem	*TJC*: 259, no. 342	Antonius Felix
1165	040758 0707	2.06	16×17	11	Same type	Same type	Same	Same	Same	
Under Nero (54–68 CE)										
1166*	041393 0728	2.54	16×18	12	[NEP/WNO/C] In wreath	LЄ KAIC-APOC Palm branch	Year 5 = 58/9 CE	Jerusalem	*TJC*: 260, no. 345	Festus?
1167*	041366 0635	1.70	15	6	Same type	Same type	Same	Same	Same	Crude style
1168	044461 1221	1.85	16	2	Same	Same	Same	Same	Same	
1169*	041904 1466	2.27	14×16	12	Same	Same	Same	Same	Same	Crude style

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
1170	045030 2798	2.60	16.5×17	11	Same	Same	Same	Same	Same	
1171*	045156 3049	1.88	15×15.5	9	Same	Same	Same	Same	Same	
1172	041907 1741	2.66	16	12	Same	Same	Same	Same	Same	
1173	041785 1625	2.14	15.5	12	Same	Same	Same	Same	Same	
1174	041784 1686	1.77	15×16	5	Same	Same	Same	Same	Same	
1175	044774 2100	1.28	15	6	Same	Same	Same	Same	Same	
1176*	044705 2225	2.40	16.5×17	11	Same	Same	Same	Same	Same	
1177	044694 2263	2.48	15.5×16	12	Same	Same	Same	Same	Same	
1178	041834 1792	1.44	14×16	-	Same	Same	Same	Same	Same	
1179	040755 0724	2.48	16	11	Same	Same	Same	Same	Same	
FIRST JEWISH REVOLT (66–70 CE) Year Two (67/8 CE)										
1180*	041426 0804	3.30	16×17	12	שנת שתים Amphora with wide rim, fluted belly and two handles; Paleo-Hebrew legend	[ציון] חרת Vine leaf with small branch and tendril; Paleo-Hebrew legend		Jerusalem	*TJC*: 241, no. 196a	
1181*	041920 1818	3.09	19	12	Same type	Same type		Same	Same	
1182*	041392 0727	2.70	15×17	12	Same	Same		Same	Same	
1183*	041422 0796	2.93	17×19	11	Same	Same		Same	Same	
1184*	041962 1580	2.56	18	11	Same	Same		Same	Same	
1185	041441 0805	3.18	16×17	12	Same	Same		Same	Same	
1186*	041443 0807	3.39	17.5	12	Same	Same		Same	Same	
1187	041444 0808	1.93	14×16	12	Same	Same		Same	Same	
1188	045017 2771	2.65	16	12	Same	Same		Same	Same	
1189	045025 2793	2.88	17	11	Same	Same		Same	Same	
1190*	045097 2932	2.69	17.5	12	Same	Same		Same	Same	Pierced
1191	045021 2789	3.47	18×19.5	12	Same	Same		Same	Same	
1192	044738 2165	2.35	16×17	11	Same	Same		Same	Same	
1193	041966 1424	2.45	16×17	10	Same	Same		Same	Same	
1194	041943 1269	2.73	17.5×18	12	Same	Same		Same	Same	
1195*	041964 1528	2.60	16	6	Same	Same		Same	Same	
1196	041960 1582	2.51	17	11	Same	Same		Same	Same	
1197	041835 1640	1.82	16.5×17	12	Same	Same		Same	Same	
1198	041958 1740	2.58	16.5×17	11	Same	Same		Same	Same	

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
1199	041828 1637	3.22	17×18	12	Same	Same		Same	Same	
1200*	041838 1682	2.76	16×16.5	1	Same	Same		Same	Same	Chisel cut on reverse
1201*	041839 1638	2.56	16×17	12	Same	Same		Same	Same	Chisel cut on reverse
1202*	041961 1581	2.21	15×17	5	Same	Same		Same	*TJC*: 241, no. 196	
1203*	041963 1578	2.98	17×17.5	11	Same	Same		Same	Same	
1204	041836 1338	2.66	17	12	Same	Same		Same	Same	
1205*	045234 3201	3.52	17×19	3	שנת שתים Amphora with wide rim, fluted belly and two handles; Paleo-Hebrew legend	חרות ציון Vine leaf with small branch and tendril; Paleo-Hebrew legend		Same	*TJC*: 241, no. 197	
1206*	045026 2794	2.01	16.5×17	12	Same type	Same type		Same	Same	
1207*	045066 2858	2.98	16×17	12	Same	Same		Same	Same	
1208	045088 2913	2.69	16×17	11	Same	Same		Same	Same	
1209*	041942 1389	2.64	16	12	Same	Same		Same	Same	
1210	044849 1888	2.96	17	11	Same type	Same type, but legend is either תרח or תורח		Same	Cf. *TJC*: 241, nos. 196–197	
1211	041829 1462	1.86	16	11	Same	Same		Same	Same	Crude
1212	041967 1473	2.88	16	5	Same	Same		Same	Same	
1213	041965 1498	2.42	17	12	Same	Same		Same	Same	
1214	041837 1365	3.36	18	11	Same	Same		Same	Same	
1215*	041403 0761	1.94	16×17	12	Same	Same		Same	Same	Pierced
1216	041405 0771	2.25	17	12	Same	Same		Same	Same	
1217	041414 0787	1.93	16×17	12	Same	Same		Same	Same	
1218	041418 0792	2.86	17	12	Same	Same		Same	Same	
1219	041421 0795	2.48	17	12	Same	Same		Same	Same	
1220*	041423 0797	3.19	17×19	12	Same	Same		Same	Same	
1221	041436 0799	2.07	17	12	Same	Same		Same	Same	
1222	041437 0800	2.77	16×17	12	Same	Same		Same	Same	
1223*	041439 0802	3.21	17×18	12	Same	Same		Same	Same	
1224*	041440 0803	2.52	16×17	12	Same	Same		Same	Same	Double struck
1225	041445 0809	3.18	17	12	Same	Same		Same	Same	
1226	041230 1084	2.71	17	12	Same	Same		Same	Same	
1227*	044942 2597	2.80	16.5	11	Same	Same		Same	Same	

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
1228*	044984 2686	3.37	17	10	Same	Same		Same	Same	Crude
1229	045063 2856	2.45	15×16	11	Same	Same		Same	Same	
1230	045085 2910	2.33	17×18	12	Same	Same		Same	Same	
1231	040760 0646	2.63	17	11	Same	Same		Same	Same	
Year Three (68/9 CE)										
1232*	044823 1993	2.78	15.5×16.5	11	ש[נת] שלוש Amphora with wide rim and lid, fluted belly and two handles; Paleo-Hebrew legend	חרות [צ]יון Vine leaf with small branch and tendril; Paleo-Hebrew legend		Jerusalem	Cf. *TJC*: 242, no. 204	
1233	045064 2857	1.99	16.5	12	Same type	Same type		Same	Same	
1234	041419 0793	2.72	16×17	12	Same type	Same type, but legend is either חרת or חרות		Same	Cf. *TJC*: 242, nos. 204–205	
1235	041438 0801	1.77	16×17	12	Same type	Same type		Same	Same	
1236*	041446 0810	3.43	15×18	12	Same	Same	Same	Same	Same	
1237	044462 1222	2.55	17	5	Same	Same	Same	Same	Same	
1238	044833 1929	1.51	14.5×15.5	11	Same	Same	Same	Same	Same	
1239	041827 1487	2.04	16	6	Same	Same	Same	Same	Same	
1240	041959 1663	2.33	15.5×16	1	Same	Same	Same	Same	Same	
1241	040754 0790	2.41	16×17	12	Same	Same	Same	Same	Same	
ROMAN PROVINCIAL										
1242*	044439 1167	7.65	19×20	12	Head of Tyche right, veiled; behind, palm branch	[---] IEPAΣ/ MHTPOΠO/ΛEWS Galley to left	93/4–195/6 CE	Tyre	*BMC* Phoenicia: 262–264, nos. 313–330	
ROMAN PROVINCIAL and IMPERIAL Trajan (98–117 CE)										
1243*	041922 1745	1.18	12×13	1	Head of Trajan right, laureate	Headdress of Isis/ crown of horns, uraei disk and plumes; date, L-Iς	Year 16 = 112/3 CE	Alexandria	*BMC Alexandria*: 67, no. 559 (identified as year 13); Farhi 2018, 266, no. H33	
1244*	044452 1194	3.37	18×19	6	IMP CAES NER TRAIAN OPTIM AVG GER DAC PARTHICO Head of Trajan right, laureate and draped	PM TR P COS VI PP SPQR Mars walking right, holding spear in right hand and trophy in left over shoulder.	114–17 CE	Rome	*RIC* II: 268, no. 340	Silver dinar
BAR KOKHBA REVOLT (132 – 135 CE)										
1245*	044448 1179	6.02	17	12	Palm tree with seven branches and two clusters of fruits; below, Paleo-Hebrew legend: /שמע ון	Bunch of grapes; around, paleo-Hebrew legend: לחרות ירו[של]	134–135 CE	Judea	*TJC*: 255, no. 302a	

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
LATE ROMAN Constantine I (306–337 CE)										
1246*	041433 0822	0.43	14	-	[VRBS-ROMA] Helmeted bust of Roma left, wearing imperial mantle	She-wolf stg. left, suckling Romulus and Remus; in ex., [---] T[---]	330–335 CE		Cf. *LRBC* I: 5, no. 70	Cut (ca. 1/3 of the coin) Probably used as small change in the 5th cent. CE
(355–361 CE)										
1247*	045104 2939	1.23	12×14	6	[---] Bust right, pearl-diademed, draped and cuirassed	[SPES REI-PVBLICE] Emperor stg. left, in military dress, holding globe and spear; Illegible mint name			Cf. *LRBC* II: 92, no. 2315	
(378–383 CE)										
1248*	041361 0676	0.88	12	6	[---] Bust right, pearl-diademed, draped and cuirassed	VOT/X/MVLT/XX In wreath; Illegible mintmark				
1249*	041375 0700	0.86	12.5×13.5	-	DN[---] Bust right, laureate and draped	Unclear *Vota* type				Worn
(383–395 CE)										
1250*	041358 0639	1.06	13.5	12	[---] Bust right pearl diademed, draped and cuirassed	SALVS REI-PVBLICAE Victory advancing left, and dragging captive. In left field,$; Illegible mintmark				Double struck
1251*	045151 3044	1.05	12×13.5	5	DN[---] Bust right pearl diademed	Same type. In ex.: TES B		Thessalonica	Cf. *LRBC* II: 82, nos. 1873–1875	
1252	041427 0816	0.72	11	6	[---] Bust right pearl diademed	Same type				
1253	045166 3059	1.07	10×12	12	[---] Head right	Same				Worn
1254	045264 3251	0.98	10.5×11.5	12	[---] Bust right pearl diademed	Same				
1255	041377 0702	0.97	11	12	[---] Bust right	Same type?	Same?			
First half of 5th century CE										
1256*	041430 0819	0.94	13×15	12	[---] PF AVG Bust draped and pearl diademed to right	GLOR[IA ROMANO] RVM Three emperors facing, holding spears; in ex., SMKA	ca. 402 CE	Cyzicus	*LRBC* II: 98, nos. 2590–2592	
1257	041429 0818	0.97	12×13	-	[---] Bust right	Illegible	Same			
1258	045213 3161	0.64	10	6	[---] Bust right	[---] Cross	ca. 404–406 CE		Cf. Bijovsky 2012: 113, fig. 16	Worn
1259*	045268 3257	0.74	12×12.5	6	[---] Bust right	[---] Cross	ca. 404–406 CE		Cf. Bijovsky 2012: 113, fig. 16	
1260*	044951 2615	1.25	11×12	9	[---] Bust right	Cross within wreath	ca. 425–455 CE		Cf. Bijovsky 2012: 113, fig. 15	

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
1261	044433 1707	0.79	10	6	[---] Bust right	Cross in wreath	C. 404–455 CE			Worn
Leo I (457–474 CE)										
1262*	044931 2584	0.91	9.5×10	6	Bust of Leo I? right	Monogram	457–474 CE		Cf. *LRBC* II: 91, no. 2270	Identification uncertain
VANDALIC Hilderic (523–530 CE)										
1263*	045285 2581	0.48	8.5×9	6	[---] Bust right	Cross potent within wreath	523–530 CE	Carthage	Bijovsky 2012: 313, fig. 117	
OSTROGOTHIC Baduila (541–552 CE)										
1264*	041428 0817	0.84	9	12	[---]- TASI Bust of Anastasius right, diademed	Monogram	541–549 CE	Ticinum	Bijovsky 2012: 323–326, fig. 124	
Worn and Illegible Late Roman coins (4th–6th centuries CE)										
1265	044960 2624	1.00	11	-	Illegible	Illegible	4th –early 5th cent. CE?			
1266	044916 2562	0.37	12	-	[---] Bust right	Illegible	Late 4th–5th cent. CE?			Broken
1267	044930 2583	0.70	9×10	-	[---] Bust right	Illegible	Same			
1268	044934 2587	0.83	9×10.5	-	Same	Same	Same			
1269	028519 0120	0.89	9	-	Same	Same	Same			
1270	044899 2504	0.73	9×10	-	Same	Same	Same			
1271	044938 2591	0.49	9×11	-	Illegible	Illegible	Same			
1272	041359 0640	1.01	12×13	-	Same	Same	Same			
1273	041432 0821	0.76	12	-	Same	Same	Same			
1274	044937 2590	0.33	8.5	-	Illegible	Unclear monogram?	Second half of 5th cent. CE?			
1275	044935 2588	0.35	7×7.5	-	Illegible	Illegible	ca. 450–550 CE			
1276	044961 2625	0.35	8	-	Same	Same	Same			
1277	041370 0688	0.18	6.5×7	-	Same	Same	Same			
1278	041372 0694	0.29	6-8	-	Same	Same	Same			
1279	041374 0696	0.66	9	-	Same	Same	Same			
1280	044929 2579	0.69	9×10	-	Same	Same	Same			
1281	044928 2578	0.85	7.5	-	Same	Same	Same			
1282	045048 2815	0.22	7.5×8	-	Same	Same	Same			
1283*	044895 2500	0.66	8.5×9	-	Same	Same	ca. 450–550 CE			Lead
1284*	045112 2974	0.47	7×8	-	Same	Same	Same			Same
1285*	041402 0759	0.22	10	-	Illegible	Illegible	Same		Bijovsky 2012: 119–128	Cast

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
1286*	041832 1311	0.26	8.5×9	-	Same	Same	Same		Same	Same
1287	045286 2580	0.18	8×9.5	-	Same	Same	Same		Same	Same
1288*	045284 2582	0.20	7.5×9	-	Same	Same	Same		Same	Same
1289	044932 2585	0.13	8	-	Same	Same	Same		Same	Same
1290	044933 2586	0.30	10	-	Same	Same	Same		Same	Same
1291	044954 2618	0.20	9	-	Same	Same	Same		Same	Same
1292*	045198 3145	0.11	7	-	Same	Same	Same		Same	Same
1293	045261 3248	0.17	8×9.5	-	Same	Same	Same		Same	Same
1294	041368 0682	0.20	10	-	Same	Same	Same		Same	Same
1295	041371 0693	0.12	8	-	Same	Same	Same		Same	Same
1296	041373 0695	0.10	7×8	-	Same	Same	Same		Same	Same
1297	028520 0010	0.53	11	-	Same	Same	Same		Same	Same
1298	044485 1165	0.13	11	-	Same	Same	Same		Same	Same
1299*	044417 1592	0.09	7×8	-	Same	Same	Same		Same	Same
BYZANTINE **Justinian I (527–565 CE)**										
1300	044936 2589	0.40	7.5	-	Illegible	Palm tree	534–565 CE	Carthage	Bijovsky 2012: 317–321, fig. 120	*Nummus*. Worn, pierced
1301*	044927 2575	0.53	10	9	[---] Bust right	VOT/XIII Within a linear border and a wreath	539–541 CE	Carthage	Bijovsky 2012: 238–239, fig. 78	*Nummus*
1302*	044940 2593	0.45	8	-	Illegible	*Rho-cross*, below: a - w	542–552 CE	Carthage	Bijovsky 2012: 240–242, figs 80 –81	*Nummus*
1303*	044939 2592	3.84	15.5×16	7	[---] Bust right	**I**, surmounted by cross; to left, [A/N/N/O]; to right, date, [---]μ In ex.: CON	552/3 or 562– 564 CE	Constantinople	Cf. *DOC* I: 100–101, nos. 86, 94–95; Bijovsky 2012: 225–226	*Decanummium*
Constans II (641–668 CE)										
1304*	045275 3265	3.08	19×21	6	EN TÒ[---]- [---]KA Constans stg., facing, holding long cross and globus cruciger	**M** Above, star; beneath, a. To left,: K/w/N; to right: CTA[N]; in ex.: X[---]?	Year 15 or 16 = 655/6 or 656/7 CE	Constantinople	Cf. *DOC* II/2: 452, Nos. 75a or 76a	
ISLAMIC **Umayyad, Post-reform (after 696/7 CE)**										
1305*	044894 2499	4.04	21×22.5	11	Within a double circle with striations; لا اله/ الا الله/ وحده	Within plain circle; محمد/ رسول/ الله In right field palm branch. Around, unclear marginal legend [بسم الله ضرب هذا الفلس بالرملة]	708/9–749 CE	Al-Ramla	Cf. Ilisch 1993: 12, nos. 48–49	
1306	041431 0820	4.29	17×18	-	Within a circle: لا اله/ الا الله/ وحده	Illegible	696– 750 CE			

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
Fatimid										
1307*	044990 2694	0.54	5.5×9.5	-	Unclear Arabic legend within a circle, surrounded by another unclear marginal legend.	Unclear Arabic legend within a circle, surrounded by another unclear marginal legend	ca. 10th–11th cent. CE			Cut gold dinar
1308*	045212 3160	0.47	6.5×11	-	Same	Same	Same			Same
Unclear Islamic										
1309*	041833 1243	0.48	10×17	-	[---] Traces of Arabic legend within a plain circle	[---] Plain circle				Silver plated dirham. Cut, c. ¼ of the coin. Possibly Sasanian?
1310	044891 2480	0.57	14.5×18	-	Traces of Arabic legend	Illegible				Possibly Mamlūk
1311	044906 2511	1.30	15×16.5	-	Traces of Arabic legend	Illegible				Possibly Mamlūk
UNIDENTIFIED										
1312	044946 2610	0.71	14	-	Illegible	Illegible	2nd cent BCE–1st CE			Bevelled flan. Broken, c. half coin
1313	045067 2859	0.55	10×12	-	Same	Same	1st cent. BCE or 4th–5th cent. CE			Hasmonean/ Herodian or LR
1314	044980 2666	1.80	14×15	-	Same	Same	1st cent. BCE–1st cent. CE			Bevelled. Worn
1315	044853 1871	0.94	14	-	Same	Same	1st cent. CE?			Bevelled. Worn
1316	044851 1879	0.85	10	-	Same	Same	5th cent. CE?			Worn
1317	041221 0988	0.57	7.5	-	Same	Same	Same			
1318	041218 0994	0.78	9	-	Same	Same	Same			
1319	041220 1004	0.41	12.5	-	Same	Same				Broken, c. half coin
1320	044380 0861	2.38	15	-	Same	Same				Corroded and worn
1321*	041369 0687	0.42	14	-	Illegible	Illegible	5th–6th cent. CE?			Lead token? Cust
MODERN										
1322*	041357 0638	2.60	21	12	VICTORIA D:G: - BRITT:REG:F:D: Bust of Queen Victoria left, laureate, hair in a bun	FARTHING Britannia seated facing right, helmeted, holding trident, leaning right on shield. In right field, ship; in left field, lighthouse. In ex., date: 1884	1884	London, England		1 Farthing Bronze

Cat. no.	ADCA no. / Object no.	Wt. (g)	Diam. (mm)	Axis	Obverse	Reverse	Date of coin	Mint	References	Notes
1323*	041217 1013	2.76	20	12	Around central hole, wreath of olive leaves surrounded by /(א״י) פלשתינה / PALESTINE فلسطين Below, date in English and Arabic numerals: 1927	Around central hole, the denomination 5 MILS in Hebrew, English and Arabic	1927	London (Royal mint)		5 Mils Steel-copper alloy
1324*	No A 0449	1.50	15	12	19-54 Date, divided by crowned monogram	NORGE 10 ØRE Below, crossed hammers on raised square	1954	Norway		10 Øre Copper-Nickel
1325*	045077 2902	6.40	25.5	12	‘Israel’ (in Hebrew and Arabic) Three-stringed lyre	25 אגורות תשל״ג	1973	State of Israel		25 Agorot Copper-nickel alloy
1326*	No A 1132	4.93	23	12	שקל ישראל Chalice	1 שקל The denomination in Hebrew. Around, “Israel” (in Hebrew, English and Arabic) and Hebrew date: תשמ״א	1981	State of Israel		1 Shekel Copper-nickel alloy

Table 6.2. Related objects

Obj.	ADCA no. Object no.	Wt. (g)	Diam. (mm)	Description	Date
A	045255 3242	.66	6 × 9	Hacksilber; chisel cut from a concave or round silver object	5th–4th c. BCE?
B	041219 1003	.31	4 × 10	Bronze casting channel with a chisel mark; beveled; possibly related to flan production	1st c. BCE–1st c. CE
C	044432 1706	.58	6.5 × 9	Small rectangular and beveled bronze piece; probably part of casting channel; possibly related to flan production	1st c. BCE–1st c. CE
D	044421 1627	.25	10	Small lunate bronze piece; possibly part of mint remains	1st c. BCE–1st c. CE

Note: For Object A, compare Farhi (2016b, 161–66); for Object B compare Schauer (2010, 103, fig. 3b).


3:1
1
2
3:1
3
4
5
6
7
8
9
10
11
13
16
17
18
19
20
21
22
23
24
26
32
33
35
37
38
40
45

Plate 6.1


46
50
52
53
54
55
56
58
61
72
75
82
84
88
89
90
91
92
93
94
95
96
97
100
101
104
109
112
114
116
117
120
121
122
123
124
125
126
127

Plate 6.2


128
129
130
147
150
151
152
154
155
156
157
160
161
163
167
168
171
172
173
174
175
176
177
178
179
180
181
182
183
185
188
190
191
192
193
196
199
200
204
208

Plate 6.3


209
211
212
213
216
217
221
226
229
236
237
239
240
241
244
245
246
247
249
250
252
255
256
261
271
272
306
314
315
316
317
318
333
334
335
336
337
338
339
340

Plate 6.4


341
342
343
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712

Plate 6.5


941
942
943
944
945
946
947
948
949
1019
1020
1021
1022
1023
1024
1051
1052
1053
1054
1055
1056
1057
1058
1059
1060
1064
1065
1066
1067
1068
1069
1070
1071
1072
1073
1074
1075
1076
1077
1078
1079
1080

Plate 6.6


1081
1083
1092
1097
1099
1101
1102
1104
1105
1106
1107
1108
1109
1110
1114
1121
1122
1125
1128
1130
1131
1132
1138
1139
1144
1149
1150
1151
1154
1156
1157
1160
1162
1163
1164
1166
1167
1169
1171
1176
1180
1181
1182

Plate 6.7


1183
1184
1186
1190
1195
1200
1201
1202
1203
1205
1206
1207
1209
1215
1220
1223
1224
1227
1228
1232
1236
1242
1243
1244
1245
1246
1247
1248
1249
1250

Plate 6.8


1251
1256
1259
1260
1262
1263
1264
1283
1284
1286
1287
1289
1293
1300
1301
1302
1303
1304
1305
1307
1308
1309
1321
1322
1323
1325
1326

Plate 6.9

Appendix: Alexander Jannaeus Coins of the *TJC* Group L Type

Kevin W. Larsen

Khirbet el-Maqatir produced an abundance of Hasmonean coins. Of the 1,327 coins recovered, at least 960 were Hasmonean—and of them 873 are attributed to Alexander Jannaeus with 738 (84.5%) categorized as *TJC* Group L (cf. table 6.A.1).[22] Meshorer's category Group L is for coins whose obverse has an eight- or six-ray star surrounded by a border of dots; around the border is an Aramaic inscription. The reverse has an anchor surrounded by a circle; around the circle is a Greek inscription. This grouping is also the only group of Alexander Jannaeus coins that has a date (year 25, 79/78 BCE). Meshorer identifies seventeen variants within Group L (*TJC*, 210). Using his identification of variants, table 6.A.2 displays the coin distribution for each variant.

Table 6.A.1. Alexander Jannaeus coins by *TJC* group

TJC group	Coin count	% of all Alexander Jannaeus coins
P-R	37	4.2
S	11	1.3
T	11	1.3
K	74	8.5
M	2	0.2
L	738	84.5

Table 6.A.2. *TJC* Group L coins by subgroup

TJC group	Coin count	% of all Alexander Jannaeus coins	Weight (g)	Mean weight (g)
L1–3	18	2.1	0.74–1.86	1.27
L4–7	149	17.1	0.30–1.86	0.84
L8	210	24.0	0.25–1.31	0.66
L9–13	249	28.5	0.14–1.23	0.48
L14	78	8.9	0.09–0.66	0.29
L15–16	32	3.7	0.20–1.23	0.52
L 7–ray star	2	0.2	0.90–1.18	1.04
Total	738	84.5		

Numismatists have observed and commented for some time that coins L7–17 are poorly made, likely "Jannaeus imitations" (Hendin and Shachar 2008, 89 n.6; Ariel and Fontanille 2012, 58). Often the flans are irregular, the striking is off center, or the die was irregularly made (e.g., instead of eight rays there are six [or in some cases five or one ray] or the rays of the star are designated as dots).

A Previously Unpublished Variant of *TJC* Group L

Two group L coins are particularly noteworthy as they appear to be the first coins published as having seven rays instead of the anticipated eight or six. The first is coin no. 1051. The border of dots that surrounds the star (characteristic of Group L) is visible on the left (six dots) and right (two and a half dots) of the star. The rays of this star are not very long and begin to give the appearance of being dots. In the eight- and six-ray Alexander Jannaeus stars, the rays mirror each other across the center point. This star has a ray that is not mirrored (fig. 6.A.1).



Figure 6.A.1. Coin of Alexander Jannaeus, Catalog no. 1051. *Top*, obverse and reverse; *bottom*, overlay showing a non-paralleled ray. Photograph by Michael C. Luddeni; read by Kevin W. Larsen and C. Corbin Kuhn.

The second is coin no. 1052. The border of dots that surrounds the star (characteristic of Group L) is visible on the top left arch around the star. Three rays are clearly identified with three other rays having only the base of the ray near the center of the star uncorroded and intact. Of the six easily identified rays, the bottom of each ray is about 1 mm in width with a fraction of a mm space between each ray. At the bottom of the star is a potential seventh ray. A likely remnant of the bottom of the seventh ray is visible within the 2 mm space that exists between two of the rays. The dark marking within the space is approximately 1 mm in width, consistent with the other rays. A final consideration for proposing a seventh ray is that there is an unmirrored ray across the center point of the star (see fig. 6.A.2).



Figure 6.A.2. Coin of Alexander Jannaeus, Catalog no. 1052. *Top*, obverse and reverse; *bottom*, overlay showing non-paralleled ray. Photograph by Michael C. Luddeni; read by Kevin W. Larsen and C. Corbin Kuhn.

[22] Coins whose reading is uncertain have been excluded from all figures.

Even though we have two Group L coins with seven-rays, and Meshorer provides an image of a seven-ray star of the Group K type (*TJC*, Group K22), we should not read any special symbolism or meaning into the production of a seven-ray star versus the eight- or six-ray star. This is likely an anomaly resulting from poor craftsmanship in the making of the die. Upon a quick look at these coins, they were first assigned to the L7–17 group as another example of a crudely made coin, and only later were identified by the author as having seven rays.

The Circulation of *TJC* Group L Coins in Relation to Other Coins

As noted, the *TJC* Group L coins are some of the smallest Jewish coins ever minted, and the subgroups of L7–17 classify the most poorly minted coins in this group. Unless meticulous metal detection and wet sifting is done of all excavated material at a site, one can surmise that many of these coins go unrecovered in the course of excavation, especially when they are encrusted with dirt and hidden to the naked eye.[23] Due to the metal detectorist a total of 1,322 ancient coins were recovered (plus five modern coins). Of these 1,322 coins, 873 (66.04%) are clearly identified as Alexander Jannaeus coins. Of these 873 coins attributed to Alexander Jannaeus (or later successors), 135 are classified as *TJC* Groups P-R, S, T, K, and M with the remaining 738 (84.5%) being *TJC* Group L coins. To appreciate the proportion in another way, 55.82 percent of all coins recovered at Khirbet el-Maqatir are *TJC* Group L coins.

In recent discussions of the *TJC* Group L coins, many numismatists have followed the initial suggestion of Minc (1981) and Shachar (2004) in combining these similar coins into a broad category, and suggesting they are chronologically the last of the Alexander Jannaeus coins minted. For the benefit of comparing Khirbet el-Maqatir with other excavated sites, I follow this grouping (L7–17). However, a better grouping might be L4–17 as the inferior copies or perhaps L8–17 (keeping the eight-ray star version as "authentic" Alexander Jannaeus coins and the six-ray star as the later imitations).

Shachar (2004, 10) asserts, "one should expect to find significant quantities of Type 7 coins [i.e., *TJC* Group L7–17], relative to total coin finds, total Hasmonean finds, and total Jannaeus finds, at a site where there was habitation post-Jannaeus." Khirbet el-Maqatir confirms his conclusion in a strong way. Namely, 72.74 percent of the Alexander Jannaeus coins are of the *TJC* Group L7–17 type. Table 6.A.3 provides a comparison of *TJC* Group L7–17 coin finds at Khirbet el-Maqatir to various other sites.

Table 6.A.3. *TJC* Group L7–17 coins as a percentage of all Alexander Jannaeus coins

% of Jannaeus coins of *TJC* Group L7–17	
Judea[a]	
Khirbet el-Maqatir	72.7
Khirbet Qeiyafa[a]	74.8
Horvat Mazad[b]	62
Jerusalem[c]	32
Galilee	
Gamla[d]	30
Yodefat-Iotapata[e]	47
Meiron[f]	50

Note: The intense use of a metal detector during the excavations at Khirbet el-Maqatir and Khirbet Qeiyafa contributed to the higher yield of *TJC* Group L coins (along with many other coins and metal objects).
[a] Farhi 2016. [b] Gur 1998. [c] Ariel 1982. [d] Syon 2014. [e] Adan-Bayewitz and Aviam 1997. [f] Raynor and Meshorer 1988.

But does Khirbet el-Maqatir support Shachar's and others' (e.g., Rappaport 1984, 39; Syon 2014, 115; Farhi 2016, 73) proposal that the large quantity of these coins is evidence of their continuous use and perhaps minting, well after the death of Alexander Jannaeus? If the continuous production of these Alexander Jannaeus coins after his death is not allowed, one is left to conclude, using Khirbet el-Maqatir data, that 72.74 percent of his coins were struck in the last three years of his reign while 27 percent were struck in his first twenty-four years. The evidence from Khirbet el-Maqatir affirms the data from other sites: people in the first century CE continued to use Alexander Jannaeus coins.

Table 6.A.4 presents the squares and loci at Khirbet el-Maqatir where coins from the first centuries BCE and CE lay in the same context. Squares and loci were chosen if they produced coins from both the first century BCE and the first century CE, and we completed excavation work beyond surface exploration. To assist in the contextual analysis, the table also provides the percentage of diagnostic pottery that is Late Hellenistic or Early Roman.

Of the excavated squares beyond just surface exploration, approximately fifty-five produced coins. What table 6.A.4 shows is that *TJC* Group L7–17 coins appeared in twenty-one of these squares alongside coins minted by Herod I and his successors or by the Roman governors of Judea or alongside coins minted during the First Jewish Revolt. Nineteen loci, representing ten excavation squares (or 20% of the excavation area), produced First Jewish Revolt coins and *TJC* Group L7–17 coins together. The table shows that of the fifty-eight

[23] In the first seven years of excavating at Khirbet el-Maqatir, workers discovered only thirty-five coins. However, the final five seasons (2012–2016) had a metal detectorist work the site alongside excavation crews and recover another 1,292 coins. When a coin was found in situ, the excavators recorded its location and elevation in the square, adding to the contextual analysis.

Table 6.A.4. *TJC* Group L7–17 coins with first century BCE/CE coins in their excavation context

Square	Locus	(A)	(B)	(C)	(D)	Square	Locus	(A)	(B)	(C)	(D)
CAV1	7	97 (ER)	2	2		Q22	2	90	2	1	
	19	100	1		1		3	91	3	1	
CAV4	1	98	6	3		Q24	3	98	6	1	
O22	2	89	3	1	2		4	97	7	2	
	4	92	9	2	3	Q25	1	9 (LH) 71 (ER)	3	1	
	6	98	9	1	4		7	11 (LH) 52 (ER)	5	1	
	7	99	7	2	3		10	3 (LH) 92 (ER)	3	1	
O23	1	92	5	1			12	9 (LH) 89 (ER)	5	1	
	2	100	1	1		R20	4	98	7	1	
	15	94	1		1		8	94	6	1	
	21	No pottery	1	1			13	70	1	1	
O24	4	88	2	1	?1	R24	1	7 (LH) 77 (ER)	3	3	
	9	84	1	1	1		2	78 (ER)	1	3	
P20	18	92	6	1	4	R25	1	91 (ER)	7	2	
P21	1	60 (LH/ER) 34 (ER)	3	4		S21	2	1 (LH) 96 (ER)	1	1	
	3	53 (LH/ER) 38 (ER)	5	2	18	S24–25	5	80 (ER)	1	1	
	10	11 (LH/ER) 87 (ER)	2	2	2	W22	1	100	4	1	1
	12	97	2	1			6	100	5	1	
P22	1	91	20	4	1		8	90 (LH/ER) 9 (ER)	7		1
	3	96	10	2			11	20 (LH/ER) 76 (ER)	9	1	4
	6	98	2	1	1		12	38 (LH) 50 (ER)	4	1	
	15	92	7	1			15	100 (ER)	5		4
P23	8	85	5	1		X22	3	No pottery	2	1	
	9	94	8	8	1		4	97	7	1	
P24	8	83	4	1			9	93	4	2	
	17	2 (LH) 73 (ER)	5	1			10	100	8	5	
	18	87 (ER)	6	1			11	97	4	1	
	21	5 (LH) 81 (ER)	6	1			14	100	3	3	
Q21	13	55 (LH/ER) 7 (ER)	2	6	1		16	100	2	1	

Note: Column headings are as follows: (A) percentage of diagnostic pottery that is Late Hellenistic or Early Roman; (B) number of Alexander Jannaeus *TJC* Group L7–17 coins; (C) post-Hasmonean to pre-First Revolt coins (37 BCE–67 CE); and (D) First Revolt coins.
Source: Data for column A was drawn from the end-of-season square supervisor reports or the pottery registrar's record.

Table 6.A.5. Coins from Khirbet el-Maqatir as found within squares and loci

Square	Locus	Coin description	Coin date	No. (cf. table 6.1)
CAV1	1	Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	739
	2	Antiochus IV	175–ca. 173/172 BCE	55
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	213
	3	Alexander Jannaeus *TJC* Group S	104/3–ca. 85 BCE	167
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	242
	4	Unclear Hasmonean ruler	125–ca. 85 BCE	269
		Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	125, 126
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	345, 346, 347
		Alexander Jannaeus or later *TJC* Group L8–13, 15–17	79/78 BCE or later	507, 508, 509, 510, 713, 1025
		Late Roman (worn and illegible)	ca. 450–550 CE	1298
	7	Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	511
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	950
		Herod I	ca. 23/22–12 BCE	1084
		Aretas IV (Nabataean)	9 BCE–40 CE	1149
		Roman Provincial (Tyre)	93/94–195/196 CE	1242
	8	Herod I	30/29 BCE	1065
	10	Trajan	114–117 CE	1244
	19	John Hyrcanus I	125–104 BCE	108
		Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	512
		First Jewish Revolt (Year 2)	67/68 CE	1181
		Trajan	112/123 CE	1243

Square	Locus	Coin description	Coin date	No. (cf. table 6.1)
	25	Roman governor under Tiberius (Pontius Pilatus)	30/1 CE	1144
	29	Roman governor under Nero (Festus?)	58/59 CE	1178
	33	Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	337
CAV2	1	Alexander Jannaeus or later *TJC* Group L8–9	79/78 BCE or later	495, 513
	3	Alexander Jannaeus *TJC* Group L1–3	79/78 BCE	319
		Roman governor under Nero (Festus?)	58/59 CE	1168
		First Jewish Revolt (Year 3)	68/69 CE	1237
		Bar Kokhba Revolt	134–136 CE	1245
CAV4	1	Antiochus III	ca. 198–187 BCE	49
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	225, 226
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	380, 381
		Alexander Jannaeus or later *TJC* Group L8–11, L15	79/78 BCE or later	533, 534, 535, 740, 1029
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	955
		Alexander Jannaeus (or later) or Herod I		1062
		Herod I	ca. 23/22–12 BCE	1087, 1089
		Roman governor under Tiberius (Valerius Gratus)	16/17 CE	1121
	2	Antiochus III	ca. 198–187 BCE	46
	3	Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	199, 218, 239
		Alexander Jannaeus or later *TJC* Group L8–9	79/78 BCE or later	536
A22	1	Alexander Jannaeus *TJC* Group S	104/103–ca. 85 BCE	164
A23	1	Unclear Hasmonean ruler	125–ca. 85 BCE	308
		Alexander Jannaeus (or later) or Herod I		1061
A25	1	Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	847
AA22	1	Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	649
AA23	1	Late Roman	383–395 CE	1251
AA24	1	Alexander Jannaeus *TJC* Group L1–3	79/78 BCE	328
		Alexander Jannaeus *TJC* Group L7	79/78 BCE or later	463
AA25	1	Unclear Hasmonean ruler	125–ca. 85 BCE	311
		Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	484, 849
AB23	1	Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	850
	2	Unclear Hasmonean ruler	125–ca. 85 BCE	301
	3	Alexander Jannaeus *TJC* Group Q	104/103–ca. 85 BCE	151
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	502, 851, 852
AB24	1	Alexander Jannaeus *TJC* Group L7	79/78 BCE or later	464
		Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	853
AB25	1	Alexander Jannaeus *TJC* Group M	ca. 80 BCE	256
		Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	854
		Herod I	12 BCE?	1104
		Late Roman	ca. 404–406 CE	1259
AC23	1	Late Roman	383–395 CE	1254
AC24	1	Antiochus IV	175–ca. 173/172 BCE	56
		Unclear Hasmonean ruler	125–ca. 85 BCE	312
		Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	143
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	188
		Alexander Jannaeus *TJC* Group L7	79/78 BCE or later	465
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	650, 855
AC25	1	Antiochus VII	132/131–131/130 BCE	96
		Alexander Jannaeus *TJC* Group L7	79/78 BCE or later	466
B18	1	Late Islamic?		1310
B25	1	Antiochus III	ca. 198–187 BCE	41
C17	1	Unclear Hasmonean ruler	125–ca. 85 BCE	286
		Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	651
		Unidentified	1st c. CE?	1315
	6	Unclear Hasmonean ruler	125–ca. 85 BCE	291
		Alexander Jannaeus or later *TJC* Group L9	79/78 BCE or later	856
	7	Unclear Hasmonean ruler	125–ca. 85 BCE	293
		Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	135
	11	Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	187
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	467
D23	1	Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	130
E17	1	Unidentified	5th c. CE?	1316

Square	Locus	Coin description	Coin date	No. (cf. table 6.1)
E19	1	Alexander Jannaeus *TJC* Group T	104/103–ca. 85 BCE	173
E25	1	Alexander Jannaeus *TJC* Group L7	79/78 BCE or later	468
		Alexander Jannaeus (or later) or Herod I		1060
E26	1	Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	652
F25	1	Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	123
		Alexander Jannaeus *TJC* Group L4	79/78 BCE or later	343
		Alexander Jannaeus or later *TJC* Group L15	79/78 BCE or later	1043, 1044
		Roman governor under Augustus (Ambibulis?)	8/9 CE	1111
	2	Unclear Hasmonean ruler	125–ca. 85 BCE	304
F26	1	Roman governor under Tiberius (Valerius Gratus)	18/19 CE	1129
F27	1	Antiochus III	ca. 210–187 BCE	26
G17	2	John Hyrcanus I	125–104 BCE	103
G24	1	Unclear Hasmonean ruler	125–ca. 85 BCE	271
		Roman governor under Tiberius (Valerius Gratus)	24/25 CE	1132
G25	1	Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	973
		Herod I	23/22–12 BCE	1080
G26	1	Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	949
		Alexander Jannaeus or later *TJC* Group L16	79/78 BCE or later	1045
G27	1	Antiochus III	ca. 198–187 BCE	42
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	469
		Constans II	655/656 CE or 656/657 CE	1304
G28	1	Herod I	ca. 27–23 BCE	1073
H16	1	Late Islamic?		1311
H23	1	Unclear Hasmonean ruler	125–ca. 85 BCE	313
I19	1	Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	647, 844, 845
J19	4	Alexander Jannaeus *TJC* Group L7	79/78 BCE or later	462
J20	1	Alexander Jannaeus or later *TJC* Group L9–14	79/78 BCE or later	846
K15	1	Alexander Jannaeus or later *TJC* Group L8–14	79/78 BCE or later	490
K21	1	John Hyrcanus I	125–104 BCE	107
K22	1	Alexander Jannaeus or later *TJC* Group L15	79/78 BCE or later	1026
K24	1	Alexander Jannaeus or later *TJC* Group L15	79/78 BCE or later	1027
K25	1	Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	714
M28	1	Alexander Jannaeus or later *TJC* Group L11	79/78 BCE or later	715
N18	2	Antiochus III	ca. 198–187 BCE	39
N19	1	Alexander Jannaeus *TJC* Group Q	104/103–ca. 85 BCE	150
		British Mandate	1927 CE	1323
N21	1	Antiochus III	ca. 210–187 BCE	14
		Late Roman	ca. 404–406 CE	1258
N23	102	Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	133
		Herod I	ca. 23/22–12 BCE	1099
N33	1	Alexander Jannaeus *TJC* Group L7	79/78 BCE or later	348
O18	9	Unclear Hasmonean ruler	125–ca. 85 BCE	261
O21	1	Antiochus IV or Demetrius I	175–164 BCE or 162–150 BCE	76
		Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	142
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	221
		First Jewish Revolt (Year 2)	67/68 CE	1205
	2	Demetrius I	162–150 BCE	83
	3	Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	349, 350
		Roman governor under Tiberius (Valerius Gratus)	24/25 CE	1133
		Sasanian/Islamic?		1309
	10	Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	217
	12	Alexander Jannaeus *TJC* Group L7–8	79/78 BCE or later	336
		Alexander Jannaeus or later *TJC* Group L9	79/78 BCE or later	716
		Unidentified	5th c. CE?	1317
	15	Unclear Hasmonean ruler	125–ca. 85 BCE	281, 283
		Alexander Jannaeus *TJC* Group T	104/103–ca. 85 BCE	181
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	197
		Alexander Jannaeus or later *TJC* Group L9	79/78 BCE or later	717

Square	Locus	Coin description	Coin date	No. (cf. table 6.1)
	17	Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	207
	20	Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	352
O22	1	Alexander Jannaeus or later *TJC* Group L15	79/78 BCE or later	1028
	2	Antiochus III	ca. 210–187 BCE	17
		Antiochus IV	173/172–168 BCE	73
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	186
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	353
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	514, 718
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	951
		Archelaus	4 BCE–6 CE	1106
		First Jewish Revolt (Year 2)	67/68 CE	1193, 1194
	4	Antiochus III	ca. 210–187 BCE	19
		Antiochus III	ca. 198–187 BCE	45
		Demetrius I	162–150 BCE	88
		Demetrius II	146/145–140/139 BCE	90
		Unclear Hasmonean ruler	125–ca. 85 BCE	276
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	227, 234, 243
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	354, 355, 356
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	488, 497, 515, 516, 517, 518, 719, 720, 721
		Herod I	ca. 27–23 BCE	1074
		Roman governor under Tiberius (Pontius Pilatus)	30/31–31/32 CE	1145
		First Jewish Revolt (Year 2)	67/68 CE	1195, 1211, 1212
	6	Antiochus III	ca. 210–187 BCE	11
		Demetrius I	162–150 BCE	86
		Antiochus VII	135/134 BCE	92
		Antiochus VII	132/131–131/130 BCE	93
		Alexander Jannaeus *TJC* Group T	104/103–ca. 85 BCE	171
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	219, 231, 235, 236
		Alexander Jannaeus *TJC* Group L7	79/78 BCE or later	357
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	498, 519, 520, 521, 522, 700, 722, 723
		Herod I	ca. 23/22–12 BCE	1082
		Agrippa I	41/42 CE	1156
		First Jewish Revolt (Year 2)	67/68 CE	1184, 1196, 1202, 1203
	7	Antiochus III	ca. 198–187 BCE	44
		Unclear Hasmonean ruler	125–ca. 85 BCE	275
		Judah Aristobulus	105/104–104/103 BCE	121
		Alexander Jannaeus *TJC* Group R	104/103–ca. 85 BCE	158
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	194, 198, 200, 209, 220, 250
		Alexander Jannaeus *TJC* Group L6–7	79/78 BCE or later	358, 359
		Alexander Jannaeus or later *TJC* Group L8–11, 15	79/78 BCE or later	492, 523, 701, 724, 1023
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	952
		Roman governor under Claudius (Antonius Felix)	54 CE	1164
		Roman governor under Nero (Festus?)	58/59 CE	1172
		First Jewish Revolt (Year 2)	67/68 CE	1198, 1199, 1201
		Late Roman (worn and illegible)	ca. 450–550 CE	1299
	9	Antiochus III	ca. 198–187 BCE	38
		First Jewish Revolt (Year 2)	67/68 CE	1197
O23	1	John Hyrcanus I	125–104 BCE	105
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	228, 254
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	360
		Alexander Jannaeus or later *TJC* Group L8–13	79/78 BCE or later	524, 525, 725, 726
		Agrippa I	41/42 CE	1157
	2	Antiochus III	ca. 198–187 BCE	51
		Unclear Hasmonean ruler	125–ca. 85 BCE	280
		Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	147
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	361
		Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	727
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	953
		Roman governor under Nero (Festus?)	58/59 CE	1173
		Late Roman	ca. 404–455 CE	1261

Square	Locus	Coin description	Coin date	No. (cf. table 6.1)
	12	Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	149
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	338
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	526, 699, 728, 729
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	954
	13	Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	730
	15	Unclear Hasmonean ruler	125–ca. 85 BCE	288
		Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	124
		Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	527
		First Jewish Revolt (Year 2)	67/78 CE	1210
	17	Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	362
	21	Unclear Hasmonean ruler	125–ca. 85 BCE	279
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	229
		Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	528
		Herod I	ca. 23/22–12 BCE	1090
	26	Antiochus III	ca. 198–187 BCE	37
		Antiochus IV	173/172–168 BCE	65
		Alexander Jannaeus or later *TJC* Group L9	79/78 BCE or later	731
	27	Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	363
024	1	Unclear Hasmonean ruler	125–ca. 85 BCE	285
		Alexander Jannaeus or later *TJC* Group L8–10	79/78 BCE or later	529, 732, 733, 734
	4	Antiochus III	ca. 210–187 BCE	18
		Unclear Hasmonean ruler	125–ca. 85 BCE	289
		Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	134
		Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	530, 706
		Roman governor under Augustus (Ambibulis?)	10/11 or 11/12 CE	1112
		First Jewish Revolt (Year 3)	68/69 CE	1232
	5	Alexander Jannaeus *TJC* Group Q	104/103–ca. 85 BCE	152
		Alexander Jannaeus *TJC* Group L7	79/78 BCE or later	364, 365
		Alexander Jannaeus or later *TJC* Group L9–10	79/78 BCE or later	735
	7	Unclear Hasmonean ruler	125–ca. 85 BCE	290
	9	Antiochus III	ca. 210–187 BCE	20
		Unclear Hasmonean ruler	125–ca. 85 BCE	262
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	185, 237
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	366, 367
		Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	736
		Agrippa I	41/42 CE	1158
		First Jewish Revolt (Year 2)	67/68 CE	1192
	11	Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	368
		Alexander Jannaeus or later *TJC* Group L10–11	79/78 BCE or later	737
	12	Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	129
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	369
	14	Ptolemy III	ca. 240–223/222 BCE	8
		Antiochus IV	173/172–168 BCE	63
		Demetrius I	162–150 BCE	87
		Unclear Hasmonean ruler	125–ca. 85 BCE	295
		Alexander Jannaeus *TJC* Group L1–3	79/78 BCE	320
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	370, 371, 372, 373, 374, 375
		Alexander Jannaeus or later *TJC* Group L8–9	79/78 BCE or later	501, 531, 532
	15	Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	214
		Alexander Jannaeus *TJC* Group L3–6	79/78 BCE	321
		Alexander Jannaeus *TJC* Group L7	79/78 BCE or later	376, 377, 378
		Alexander Jannaeus or later *TJC* Group L9	79/78 BCE or later	737
		Alexander Jannaeus (or later) or Herod I		1063
	16	Alexander Jannaeus *TJC* Group L6–8	79/78 BCE or later	379
		Herod I	ca. 23/22–12 BCE	1100
	17	Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	189
		Alexander Jannaeus *TJC* Group L7	79/78 BCE or later	339
	18	Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	738
027	1	Late Roman (worn and illegible)	ca. 450–550 CE	1293
	3	Demetrius I	162–150 BCE	84
		Roman governor under Tiberius (Valerius Gratus)	18/19 CE	1123
		Roman governor under Claudius (Antonius Felix)	54 CE	1160

Square	Locus	Coin description	Coin date	No. (cf. table 6.1)
	4	Alexander I Balas	152–146 BCE	89
		First Jewish Revolt (Year 2)	67/68 CE	1226
O32	1	Alexander Jannaeus *TJC* Group K10	ca. 85–80 BCE?	232
P20	1	Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	344
	10	First Jewish Revolt (Year 2)	67/68 CE	1231
	13	Ptolemy I	294–282 BCE	3
		Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	653
	14	Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	654
		Alexander Jannaeus or later *TJC* Group L15	79/78 BCE or later	1046
	15	Alexander Jannaeus *TJC* Group L1–3	79/78 BCE	329
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	655, 656, 857
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	974
	17	Alexander Jannaeus *TJC* Group L1–3	79/78 BCE	330
	18	Antiochus IV or Demetrius I	175–164 BCE or 162–150 BCE	81
		Unclear Hasmonean ruler	125–ca. 85 BCE	282
		Alexander Jannaeus *TJC* Group R	104/103–ca. 85 BCE	159
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	470
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	657, 658, 659, 660
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	975, 976
		Roman governor under Augustus (Ambibulis?)	10/11 CE or 11/12 CE	1113
		First Jewish Revolt (Year 2)	67/68 CE	1204, 1209, 1214
		First Jewish Revolt (Year 3)	68/69 CE	1239
	20	Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	491, 661, 662, 663, 664, 698, 858, 859
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	977, 978
		Mattathias Antigonus	40–37 BCE	1056
P21	1	Antiochus III	ca. 198–187 BCE	34, 36
		Antiochus IV	173/172–168 BCE	62
		John Hyrcanus I	125–104 BCE	104
		Alexander Jannaeus or later *TJC* Group L8–10	79/78 BCE or later	537, 741
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	956
		Roman governor under Augustus (Ambibulis?)	8/9 CE	1109
		Roman governor under Tiberius (Valerius Gratus)	18/19 CE	1130
		Roman governor under Nero (Festus?)	58/59 CE	1167, 1179
	3	Antiochus IV	173/172–168 BCE	71
		Unclear Hasmonean ruler	125–ca. 85 BCE	266, 267
		John Hyrcanus 1	125–104 BCE	118
		Alexander Jannaeus *TJC* Group S	104/103–ca. 85 BCE	170
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	251, 252
		Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	742, 743, 744
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	957, 958
		Mattathias Antigonus	40–37 BCE	1055
		Roman governor under Tiberius (Pontius Pilatus)	29/30 CE	1139, 1142
		Agrippa I	41/42 CE	1152
		First Jewish Revolt (Year 2)	67/68 CE	1180, 1183, 1185, 1186, 1187, 1217, 1218, 1219, 1220, 1221, 1222, 1223, 1224, 1225
		First Jewish Revolt (Year 3)	68/69 CE	1234, 1235, 1236, 1241
	10	Demetrius I	162–150 BCE	82
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	248
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	538, 745
		Roman governor under Tiberius (Valerius Gratus)	17–19 or 24/25 CE	1136
		Agrippa I	41/42 CE	1154
		First Jewish Revolt (Year 2)	67/68 CE	1215, 1216
	12	Antiochus III	ca. 210–187 BCE	24
		Alexander Jannaeus or later *TJC* Group L8–10	79/78 BCE or later	539, 746
		Herod I	ca. 23/22–12 BCE	1081
		Unidentified	5th c. CE?	1318

Square	Locus	Coin description	Coin date	No. (cf. table 6.1)
P22	1	Antiochus III	ca. 198–187 BCE	29
		Uncertain Seleucid ruler		98
		Unclear Hasmonean ruler	125–ca. 85 BCE	287
		John Hyrcanus I	125–104 BCE	100
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	382, 383, 384, 385, 386
		Alexander Jannaeus or later *TJC* Group L8–11, L15–16	79/78 BCE or later	493, 540, 541, 542, 543, 544, 545, 546, 747, 748, 749, 750, 751, 752, 753, 1022, 1030, 1031, 1032
		Roman governor under Tiberius (Pontius Pilatus)	29/30 CE	1138
		Agrippa I	41/42 CE	1155
		Roman governor under Claudius (Antonius Felix)	54 CE	1162, 1163
		First Jewish Revolt (Year 3)	68/69 CE	1238
	2	Alexander Jannaeus *TJC* Group L1–3	79/78 BCE	322
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	547, 548, 929
	3	Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	182, 184
		Alexander Jannaeus *TJC* Group L3	79/78 BCE	323, 324
		Alexander Jannaeus *TJC* Group L7–8	79/78 BCE or later	387, 388
		Alexander Jannaeus or later *TJC* Group L8–13	79/78 BCE or later	550, 551, 552, 553, 554, 555, 754, 755
		Mattathias Antigonus	40–37 BCE	1058
		Herod I	ca. 23/22–12 BCE	1092
		Roman governor under Augustus	5/6–10/11 CE	1116
	4	Antiochus III		52
		Antiochus IV	173/172–168 BCE	61
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	192, 210
		Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	697
	6	Unclear Hasmonean ruler	125–ca. 85 BCE	274
		Alexander Jannaeus *TJC* Group L1–3	79/78 BCE	316
		Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	556, 557
		Roman governor under Augustus	5/6–10/11 CE	1120
		First Jewish Revolt (Year 3)	68/69 CE	1240
	8	Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	190
		Alexander Jannaeus or later *TJC* Group L8–9	79/78 BCE or later	558, 559
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	959
	9	Antiochus III	ca. 210–187 BCE	25
		Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	560
	10	Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	203
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	389
	11	Ptolemy I	294–265 BCE	2
		Antiochus III	ca. 210–187 BCE	28
		Antiochus IV or Demetrius I	175–164 BCE or 162–150 BCE	78
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE	341, 474
	12	Antiochus III		50
		Alexander Jannaeus *TJC* Group L6–7	79/78 BCE or later	390
		Alexander Jannaeus or later *TJC* Group L8–9	79/78 BCE or later	561, 562
	14	Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	211
	15	John Hyrcanus I	125–104 BCE	112
		Alexander Jannaeus *TJC* Group S	104/103–ca. 85 BCE	169
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	206, 222
		Alexander Jannaeus *TJC* Group L6–8	79/78 BCE or later	391, 392, 393, 394, 395
		Alexander Jannaeus or later *TJC* Group L8–9	79/78 BCE or later	563, 564, 565
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	960
		Mattathias Antigonus	40–37 BCE	1059
		Agrippa I	41/42 CE	1159
P23	1	Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	756
	3	Antiochus IV	173/172–168 BCE	59
		Unclear Hasmonean ruler	125–ca. 85 BCE	278
		Alexander Jannaeus *TJC* Group S	104/103–ca. 85 BCE	166
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	230
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	396
		Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	566, 567

Square	Locus	Coin description	Coin date	No. (cf. table 6.1)
	5	Alexander Jannaeus *TJC* Group L6	79/78 BCE or later	397
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	961
	7	Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	757
	8	Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	216
		Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	486, 758, 759, 760
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	962
		Herod I	ca. 23/22–12 BCE	1085
	9	Antiochus III	ca. 198–187 BCE	32
		Seleucus IV	ca. 187–175 BCE	53
		Antiochus IV	173/172–168 BCE	67
		Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	148
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	208, 212
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	398
		Alexander Jannaeus or later *TJC* Group L8–10, L15	79/78 BCE or later	494, 496, 568, 761, 762, 1020, 1033, 1034
		Herod I	30/29 BCE	1067
		Herod I	ca. 23/22–12 BCE	1083, 1088, 1091
		Roman governor under Tiberius (Valerius Gratus)	24/25 CE	1134
		Roman governor under Tiberius (Pontius Pilatus)	30/31–31/32 CE	1147, 1148
		Roman governor under Nero (Festus?)	58/59 CE	1174
		First Jewish Revolt (Year 2)	67/68 CE	1200
	13	Unclear Hasmonean ruler	125–ca. 85 BCE	284
		John Hyrcanus I	125–104 BCE	110
		Alexander Jannaeus *TJC* Group S	104/103–ca. 85 BCE	168
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	399
		First Jewish Revolt (Year 2)	67/78 CE	1213
P24	1	Antiochus IV or Demetrius I	175–164 BCE or 162–150 BCE	77
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	569, 762
		Late Roman (worn and illegible)	Late 4th–5th c. CE?	1270
		Late Roman (worn and illegible)	ca. 450–550 CE	1283
	3	Antiochus III	ca. 210–187 BCE	10, 22
		Antiochus IV	173/172–168 BCE	64
		Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	127, 137
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	400, 401
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	570, 571, 930, 931, 932
		Alexander Jannaeus or later 7—ray star	79/78 BCE or later	1052
	8	Unidentified	2nd c. BCE–1st CE	1312
		Unclear Hasmonean ruler	125–ca. 85 BCE	302
		Alexander Jannaeus *TJC* Group P, T	104/103–ca. 85 BCE	139, 174
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	201
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	402
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	575, 933, 934, 935
		Roman governor under Tiberius (Pontius Pilatus)	30/31–31/32 CE	1146
	11	Ptolemy III		9
		Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	131
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	403
	12	Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	763
	14	Antiochus III	ca. 198–187 BCE	43
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	196
	15	Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	579, 580
	16	Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	581
		Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	764, 765
	17	Antiochus IV	173/172–164 BCE	75
	17	Antiochus VII	132/131–131/130 BCE	94
		Alexander Jannaeus *TJC* Group L6	79/78 BCE or later	404
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	503, 506, 582, 583, 766
		Herod I	ca. 27–23 BCE	1075
	18	Antiochus IV	173/172–168 BCE	60

Square	Locus	Coin description	Coin date	No. (cf. table 6.1)
	18	Antiochus IV	173/172–168 BCE	60
		Uncertain Seleucid ruler		99
		Unclear Hasmonean ruler	125–ca. 85 BCE	307
		Alexander Jannaeus *TJC* Group P, S	104/103–ca. 85 BCE	141, 165
		Alexander Jannaeus *TJC* Group L7	79/78 BCE or later	405
		Alexander Jannaeus or later *TJC* Group L9–11, L15	79/78 BCE or later	767, 768, 769, 770, 1024
		Herod I	ca. 23/22–12 BCE	1094
	19	Unclear Hasmonean ruler	125–ca. 85 BCE	306
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	406
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	584, 770
	21	Antiochus VII	132/131–131/130 BCE	95
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	233
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	407
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	585, 586, 587, 771, 772, 773
		Archelaus	4 BCE–6 CE	1105
	22	Alexander Jannaeus *TJC* Group T	104/103–ca. 85 BCE	175
		Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	774, 775
Q17	17	Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	665
Q20	1	Alexander Jannaeus or later *TJC* Group L8–14	79/78 BCE or later	666
Q21	8	Alexander Jannaeus *TJC* Group M	ca. 80 BCE	255
		Roman governor under Augustus (Ambibulis?)	8/9 CE	1110
	13	Antiochus IV	175–ca. 173/172 BCE	57
		Antiochus IV	173/172–168 BCE	66
		John Hyrcanus I	125–104 BCE	117
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	588, 776
		Roman governor under Tiberius (Valerius Gratus)	17–19 or 24/25 CE	1135
		Roman governor under Tiberius (Valerius Gratus)	24/25 CE	1131
		Agrippa I	41/42 CE	1153
		Roman governor under Claudius (Antonius Felix)	54 CE	1161, 1165
		Roman governor under Nero (Festus?)	58/59 CE	1166
		First Jewish Revolt (Year 2)	67/68 CE	1182
Q22	1	Alexander Jannaeus *TJC* Group S	104/103–ca. 85 BCE	163
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	408
	2	Alexander Jannaeus *TJC* Group L1–6	79/78 BCE	317
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	409
		Alexander Jannaeus or later *TJC* Group L8–9	79/78 BCE or later	589, 590
		Roman governor under Tiberius (Pontius Pilatus)	29/30 CE	1143
	3	Alexander Jannaeus *TJC* Group L1–3	79/78 BCE	326
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	410, 411
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	591, 777
		Herod I	ca. 23/22–12 BCE	1098
	5	Alexander Jannaeus *TJC* Group L4	79/78 BCE or later	412
		Alexander Jannaeus or later *TJC* Group L8–9	79/78 BCE or later	592
	7	Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	778, 779, 780, 781, 782
Q23	1	Alexander Jannaeus *TJC* Group L1–3	79/78 BCE	327
		Alexander Jannaeus or later *TJC* Group L9–11, L16	79/78 BCE or later	783, 1021
	2	Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	413
		Alexander Jannaeus or later *TJC* Group L8–10	79/78 BCE or later	593, 594, 595, 596
		Late Roman (worn and illegible)	ca. 450–550 CE	1286
	3	Alexander Jannaeus *TJC* Group P, R	104/103–ca.85 BCE	146, 156
		Alexander Jannaeus or later *TJC* Group L8–11, L15	79/78 BCE or later	597, 598, 784, 785, 786, 1035
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	944
	4	Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	414
	5	Alexander Jannaeus or later *TJC* Group L9–11, L15	79/78 BCE or later	787, 1036
	8	John Hyrcanus I	125–104 BCE	120
		Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	599
	9	Ptolemy III	246–222 BCE	6
		John Hyrcanus I	125–104 BCE	101
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	191, 240
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	415, 416, 417
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	487, 489, 600, 601, 787
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	945, 963

Square	Locus	Coin description	Coin date	No. (cf. table 6.1)
Q24	3	Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	247, 251a
		Alexander Jannaeus *TJC* Group L4–8	79/78 BCE or later	342, 418, 419
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	602, 788, 789, 790
		Roman governor under Nero (Festus?)	58/59 CE	1175
	4	Antiochus III	ca. 198–187 BCE	30, 31
		Unclear Hasmonean ruler	125–ca. 85 BCE	263
		Judah Aristobulus	105/104–104/103 BCE	122
		Alexander Jannaeus *TJC* Group P, Q	104/103–ca. 85 BCE	128, 153
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	603, 604, 605, 606, 704, 791
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	964
		Roman governor under Tiberius (Valerius Gratus)	18/79 CE	1122, 1124
	5	Alexander Jannaeus or later *TJC* Group L9–10	79/78 BCE or later	705, 792
	11	Alexander Jannaeus *TJC* Group S, T	104/103–ca. 85 BCE	160, 180
		Herod I	ca. 23/22–12 BCE	1096
	12	Herod I	ca. 23/22–12 BCE	1095
Q25	1	Antiochus IV	173/172–168 BCE	70
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	195
		Alexander Jannaeus *TJC* Group L7	79/78 BCE or later	420
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	607, 793
		Roman governor under Augustus	5/6–10/11 CE	1119
		Late Roman (worn and illegible)	ca. 450–550 CE	1292
		Fatimid	ca. 10th–11th c. CE	1307
	2	Antiochus III	ca. 198–187 BCE	47
		Unclear Hasmonean ruler	125–ca. 85 BCE	303
		John Hyrcanus I	125–104 BCE	119
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	421, 422, 423
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	608, 794, 795, 796, 797, 798, 799, 800, 801
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	965
		State of Israel	1973 CE	1325
	3	Antiochus VII	135/134 BCE	91
		Alexander Jannaeus *TJC* Group S	104/103–ca. 85 BCE	162
	4	Unidentified	1st c. BCE–1st c. CE	1314
	7	Alexander Jannaeus or later *TJC* Group L8–11, L15	79/78 BCE or later	505, 609, 610, 802, 1037
		Roman governor under Augustus	5/6–10/11 CE	1118
	10	Antiochus III	ca. 210–187 BCE	16
		Antiochus III	ca. 198–187 BCE	33
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	183
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	611, 612, 803
		Herod I	ca. 27–23 BCE	1071
	12	Antiochus III	ca. 210–187 BCE	15
		Unclear Hasmonean ruler	125–ca. 85 BCE	309
		Alexander Jannaeus *TJC* Group S, T	104/103–ca. 85 BCE	161, 172, 177
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	224
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	424, 425
		Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	613, 614
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	947, 966
		Herod I	ca. 23/22–12 BCE	1103
		Late Roman	383–395 CE	1253
	14	Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	804, 805
R12	Sift	Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	648
R16	3	Late Roman (Worn and illegible)	Late 4th–5th c. CE?	1269
R17	1	Alexander Jannaeus *TJC* Group L1-3	79/78 BCE	331
	2	Unclear Hasmonean ruler	125–ca. 85 BCE	258
		Late Roman (Worn and illegible)	ca. 450–550 CE	1297
R18	3	Herod I	37 BCE	1064
R19	1	Unclear Hasmonean ruler	125–ca. 85 BCE	270
	3	Unclear Hasmonean ruler	125–ca. 85 BCE	1055
		Alexander Jannaeus *TJC* Group L3	79/78 BCE	315
		Alexander Jannaeus or later *TJC* Group L9	79/78 BCE or later	860
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	979

Square	Locus	Coin description	Coin date	No. (cf. table 6.1)
	8	Antiochus IV	173/172–168 BCE	68, 72
		Alexander Jannaeus *TJC* Group L7	79/78 BCE or later	335
	8	Antiochus IV	173/172–168 BCE	68, 72
		Alexander Jannaeus *TJC* Group L7	79/78 BCE or later	335
		Alexander Jannaeus or later *TJC* Group L8–9	79/78 BCE or later	667, 668, 861
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	980
R20	1	Alexander Jannaeus *TJC* Group R	104/103–ca. 85 BCE	154
	2	Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	981
	4	YHD Coin	ca. 333 BCE	1
		Alexander Jannaeus *TJC* Group L7	79/78 BCE or later	333
		Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	862, 863, 864, 865, 866, 867
		Herod I	30/29 BCE	1069
	8	Ptolemy II	ca. 265–260 BCE	5
		Unclear Hasmonean ruler	125–ca. 85 BCE	277
		Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	145
		Alexander Jannaeus or later *TJC* Group L8–13, L15	79/78 BCE or later	669, 670, 868, 869, 870, 1047
		Roman governor under Augustus (Ambibulis?)	10/11 CE	1114
	10	Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	982
	12	Alexander Jannaeus or later *TJC* Group L12–13	79/78 BCE or later	871
	13	Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	245
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	983
		Herod I	ca. 27–23 BCE	1076
R24	1	Unclear Hasmonean ruler	125–ca. 85 BCE	314
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	615, 806
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	948
		Herod I	ca. 27–23 BCE	1072, 1077, 1078
	2	Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	807
		Herod I	30/29 BCE	1066
		Herod I	ca. 23/22–12 BCE	1101
		Roman governor under Nero (Festus?)	58/59 CE	1171
	3	Alexander Jannaeus *TJC* Group T	104/103–ca. 85 BCE	179
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	967
	4	Alexander Jannaeus or later *TJC* Group L15	79/78 BCE or later	1038
R25	1	Antiochus IV	173/172–168 BCE	58, 69
		Antiochus IV or Demetrius I	175–164 BCE or 162–150 BCE	80
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	241
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	616, 617, 618, 808
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	968, 969
		Alexander Jannaeus or later 7-ray star	79/78 BCE or later	1051
		Herod I	30/29 BCE	1068
		Herod I	ca. 23/22–12 BCE	1102
	3	Antiochus III	ca. 210–187 BCE	27
		Unclear Hasmonean ruler	125–ca. 85 BCE	310
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	253
		Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	809
	6	Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	810
		Fatimid	ca. 10th–11th c. CE	1308
	7	Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	711
S14	1	Antiochus III	ca. 210–187 BCE	13
S16	3	Demetrius II	127/126 BCE	97
		Unclear Hasmonean ruler	125–ca. 85 BCE	259
		John Hyrcanus I	125–104 BCE	102, 111
	4	Unclear Hasmonean ruler	125–ca. 85 BCE	257
	W4B.1	Unclear Hasmonean ruler	125–ca. 85 BCE	260
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	984
S17	6	Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	132
S18	101	Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	671
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	985
	102	Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	672
S19	1	John Hyrcanus 1	125–104 BCE	109
	2	Antiochus III	ca. 210–187 BCE	23

Square	Locus	Coin description	Coin date	No. (cf. table 6.1)
		Alexander Jannaeus *TJC* Group L7–8	79/78 BCE or later	472
		Alexander Jannaeus or later *TJC* Group L9	79/78 BCE or later	872
	3	Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	473
		Alexander Jannaeus or later *TJC* Group L8–10, L16	79/78 BCE or later	673,674, 694, 873, 874, 875, 876, 877, 878, 1048
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	986, 987
	4	Unclear Hasmonean ruler	125–ca. 85 BCE	273
		Alexander Jannaeus *TJC* Group L1–2	79/78 BCE	325, 332
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE	334, 475, 476, 477, 478, 479, 480, 481
		Alexander Jannaeus or later *TJC* Group L8–11, L16	79/78 BCE or later	See footnote[a]
S20	1	Alexander Jannaeus or later *TJC* Group L7	79/78 BCE or later	471
S21	1	Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	504, 811
	2	Alexander Jannaeus or later *TJC* Group L11	79/78 BCE or later	812
		Herod I	ca. 23/22–12 BCE	1086
		Late Roman	355–361 CE	1247
S24-S25	2	Ptolemy II	ca. 265–260 BCE	4
	3	Alexander Jannaeus *TJC* Group L4–7	79/8 BCE or later	426
	5	Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	970
		Roman governor under Tiberius (Pontius Pilatus)	29/30 CE	1140
	7	Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	427
T18	1	Antiochus IV	173/172–168 BCE	74
T20	1	Unidentified		1319
		Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	577
U15	1	Alexander Jannaeus *TJC* Group R	104/103–ca.85 BCE	155
U19	1	Alexander Jannaeus *TJC* Group L4–6	79/78 BCE or later	351
U26	1	Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	813
V21	1	Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	244
		Alexander Jannaeus or later *TJC* Group L9–11, L15	79/78 BCE or later	814, 1039
V22	1	John Hyrcanus I	125–104 BCE	115
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	223
		Alexander Jannaeus *TJC* Group L1	79/78 BCE	318
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	428
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	619, 815
V24	1	Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	620
W18	2C	Alexander Jannaeus *TJC* Group K	ca.85–80 BCE?	246
		Roman governor under Nero (Festus?)	58/59 CE	1169
		Alexander Jannaeus or later *TJC* Group L16	79/78 BCE or later	1050
W21	1	Alexander Jannaeus *TJC* Group R	104/103–ca. 85 BCE	157, 178
		Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	816
		First Jewish Revolt (Year 2)	67/68 CE	1227
		Late Roman (worn and illegible)	ca. 450–550 CE	1284
W22	1	Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	817, 818, 819
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	971
		Herod I	ca. 27–23 BCE	1070
		First Jewish Revolt (Year 2)	67/78 CE	1190
	2	First Jewish Revolt (Year 2)	67/78 CE	1188
	3	Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	820
	4	Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	204
		Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	621
	5	Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	622
	6	Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	140
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	429, 430
		Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	708, 821, 822, 823
		Mattathias Antigonus	40–37 BCE	1054
		Roman governor under Augustus	5/6–10/11 CE	1117
		Late Roman (worn and illegible)	ca. 450–550 CE	1291
	8	Antiochus III	ca. 198–187 BCE	40
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	623, 624, 625, 709, 824, 825, 826
		Roman Provincial (Dora)	63/62–61/60 BCE	1053
		First Jewish Revolt (Year 2)	67/68 CE	1228

Square	Locus	Coin description	Coin date	No. (cf. table 6.1)
	10	John Hyrcanus I	125–104 BCE	114
		Alexander Jannaeus or later *TJC* Group L15	79/78 BCE or later	1040
	11	Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	215
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	431, 432, 433, 434
		Alexander Jannaeus or later *TJC* Group L8–11, L15	79/78 BCE or later	626, 827, 828, 829, 1041, 1042
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	972
		Roman governor under Tiberius (Valerius Gratus)	17–19 or 24/25 CE	1137
		First Jewish Revolt (Year 2)	67/68 CE	1189, 1191, 1206, 1229
	12	Antiochus IV	175–ca. 168 BCE	54
		John Hyrcanus I	125–104 BCE	113
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	627, 830, 831
		Alexander Jannaeus or later *TJC* Group L14	79/78 BCE or later	946
		Roman governor under Nero (Festus?)	58/59 CE	1170
	15	Antiochus III	ca. 210–187 BCE	21
		Antiochus III	ca. 198–187 BCE	35
		Unclear Hasmonean ruler	125–ca. 85 BCE	305
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	435, 436, 437
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	628, 629, 832
		Unidentified	1st c. BCE or 4th–5th c. CE	1313
		First Jewish Revolt (Year 2)	67/68 CE	1207, 1208, 1230
		First Jewish Revolt (Year 3)	68/69 CE	1233
X22	3	Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	193
		Alexander Jannaeus *TJC* Group L6–8	79/78 BCE or later	438, 439
		Alexander Jannaeus or later *TJC* Group L11	79/78 BCE or later	703
		Agrippa I	41/42 CE	1151
	4	Unclear Hasmonean ruler	125–ca. 85 BCE	297
		Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	144
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	202, 249
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	440, 441, 442
		Alexander Jannaeus or later *TJC* Group L8–13	79/78 BCE or later	630, 631, 632, 702, 936
		Roman governor under Augustus (Coponius? or Ambibulis?)	5/6–10/11 CE	1115
X23	1	Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	443
		Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	634, 635
	6	Demetrius I	162–150 BCE	85
		Alexander Jannaeus *TJC* Group L6–8	79/78 BCE or later	444, 445
	7	Alexander Jannaeus *TJC* Group L4–6	79/78 BCE or later	446
	9	Unclear Hasmonean ruler	125–ca. 85 BCE	294
		Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	636, 637, 833, 834
		Roman governor under Augustus (Coponius)	5/6 CE	1108
		Roman governor under Tiberius (Valerius Gratus)	18/19 CE	1127
	10	Unclear Hasmonean ruler	125–ca. 85 BCE	292
		Alexander Jannaeus *TJC* Group L5–7	79/78 BCE or later	447, 448, 449, 450, 451
		Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	638, 639, 640, 641
		Herod I	ca. 23/22–12 BCE	1093, 1097
		Roman governor under Tiberius (Valerius Gratus)	18/19 CE	1125, 1126
		Roman governor under Nero (Festus?)	58/59 CE	1176
	11	Antiochus III	ca. 198–187 BCE	48
		Antiochus IV or Demetrius I	175–164 BCE or 162–150 BCE	79
		Unclear Hasmonean ruler	125–ca. 85 BCE	296
		Alexander Jannaeus *TJC* Group P, T	104/103–ca. 85 BCE	136, 176
		Alexander Jannaeus or later *TJC* Group L7–8	79/78 BCE or later	452, 453
		Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	500, 642
		Roman governor under Nero (Festus?)	58/59 CE	1177
	13	Antiochus III	ca. 210–187 BCE	12
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	340, 454
	14	Unclear Hasmonean ruler	125–ca. 85 BCE	298
		John Hyrcanus I	125–104 BCE	106
		Alexander Jannaeus *TJC* Group P	104/103–ca. 85 BCE	138

Square	Locus	Coin description	Coin date	No. (cf. table 6.1)
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	205
		Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	455, 456
		Alexander Jannaeus or later *TJC* Group L8–9	79/78 BCE or later	499, 835
		Herod I	23/22–12 BCE	1079
		Archelaus	4 BCE–6 CE	1107
		Roman governor under Tiberius (Pontius Pilatus)	29/30 CE	1141
	16	Unclear Hasmonean ruler	125–ca. 85 BCE	268, 299, 300
		Alexander Jannaeus *TJC* Group K	ca. 85–80 BCE?	238
		Alexander Jannaeus or later *TJC* Group L8–10	79/78 BCE or later	643, 836
		Roman governor under Tiberius (Valerius Gratus)	18/19 CE	1128
X25	1	Alexander Jannaeus or later *TJC* Group L9–10	79/78 BCE or later	837
Y22	1	Alexander Jannaeus or later *TJC* Group L16	79/78 BCE or later	1019
Y23	1	Alexander Jannaeus or later *TJC* Group L7	79/78 BCE or later	457
		Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	712
Z22	1	Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	644, 838, 839
		Mattathias Antigonus	40–37 BCE	1057
	2	Alexander Jannaeus or later *TJC* Group L7	79/78 BCE or later	458, 459
		Alexander Jannaeus or later *TJC* Group L8–11	79/78 BCE or later	645, 840, 841, 842
	5	Alexander Jannaeus or later *TJC* Group L7	79/78 BCE or later	460
		Alexander Jannaeus or later *TJC* Group L9–11	79/78 BCE or later	843
Z23	1	Alexander Jannaeus *TJC* Group L4–7	79/78 BCE or later	461
ZF04	1	Great Britain	1884 CE	1322
	23	Agrippa I	41/42 CE	1150
		Umayyad, Post Reform (Al–Ramla)	708/709–749 CE	1305
ZF05	101	Late Roman (worn and illegible)	Late 4th–5th c. CE?	1266
ZG04	2	Late Roman	ca. 402 CE	1256
ZG05	3	Late Roman	383–395 CE	1252
	6	Late Roman	ca. 402 CE	1257
	9	Late Roman	330–335 CE	1246
	11	Late Roman (worn and illegible)	Late 4th–5th c. CE?	1273
ZG07	1	Umayyad	696–750 CE	1306
ZH04	1	John Hyrcanus I	125–104 BCE	116
		Late Roman	383–395 CE	1250
		Late Roman (worn and illegible)	Late 4th–5th c. CE?	1272
	4	Ptolemy III	240–223/222 BCE	7
ZH05	2	Alexander Jannaeus or later *TJC* Group L8	79/78 BCE or later	646
	5	Late Roman	378–383 CE	1248
		Late Roman	383–395 CE?	1255
	7	Unclear Hasmonean ruler	125–ca. 85 BCE	264
	8	Unclear Hasmonean ruler	125–ca. 85 BCE	265
	9	Late Roman	378–383 CE	1249
	14	Late Roman (worn and illegible)	ca. 450–550 CE	1277, 1294
	15	Unidentified		1321
	17	Late Roman (worn and illegible)	ca. 450–550 CE	1278, 1279, 1295, 1296
ZH06	15	Late Roman (worn and illegible)	Late 4th–5th c. CE?	1267, 1268, 1271
		Late Roman	ca. 425–455 CE	1260
		Late Roman (worn and illegible)	ca. 450–550 CE	1275, 1280, 1281, 1287, 1288, 1289, 1290
		Late Roman (worn and illegible)	Second half of 5th c. CE?	1274
		Late Roman (Leo I)	457–474 CE	1262
		Vandalic (Hilderic)	523–530 CE	1263
		Justinian I	534–565 CE	1300
		Justinian I	539–541 CE	1301
		Justinian I	542–552 CE	1302
		Justinian I	552/553 CE or 562–564 CE	1303
ZH010	11	Unidentified		1320
	31	Late Roman (worn and illegible)	4th–early 5th c. CE?	1265
		Late Roman (worn and illegible)	ca. 450–550 CE	1276
	35	Late Roman (worn and illegible)	ca. 450–550 CE	1282

Square	Locus	Coin description	Coin date	No. (cf. table 6.1)
ZI04	1	Late Roman (worn and illegible)	ca. 450–550 CE	1285
	8	Ostrogothic (Baduila)	541–549 CE	1264

[a] 482, 483, 484, 485, 549, 572, 573, 574, 576, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 695, 696, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906. 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 941, 942, 943, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000, 1001, 1002, 1003, 1004, 1005, 1006, 1007, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1015, 1016, 1017, 1049.

loci that had *TJC* Group L7–17 coins, 70 percent had Late Hellenistic or Early Roman pottery comprising over 90 percent of the total pottery found in the locus. With the exception of seven loci, 88 percent of the loci had *TJC* Group L7–17 coin totals equal to or greater than the combined total of coins minted by Herod I or his successors or the Roman governors of Judea.

In order to propose a reason for why first century CE Jews used Alexander Jannaeus coins, we should weigh two considerations. First, historians have long recognized that currency in the ancient world served as a way to make political statements (for an example of such a discussion with Hasmonean coins, see Hendin 2007). Essentially, coins are a means of spreading propaganda. Some numismatists and historians have begun to explore the idea that the use of Hasmonean coins beyond the Hasmonean era was an act of opposition to foreign interference and control. Thus their use was a (passive-aggressive?) demonstration of nationalistic loyalty (e.g., in the Golan and Galilee, see Syon 2014, 146; Aviam 2004, 21). Given the numerous miqvaot and stone vessels recovered at Khirbet el-Maqatir, there is little doubt that the village was entirely Jewish. If political statements are discernible through the use of coins, then the *repertoire* of Khirbet el-Maqatir coins may point even more to a distinctly Jewish village, perhaps a village with few loyalties to Rome and her sympathizers (e.g., Herod and his successors). Eighty-nine percent of the recovered coins minted between Alexander Jannaeus and the third year of the First Jewish Revolt were Hasmonean or revolt coins (n= 940/1056), with the remaining 11 percent issued by Herodian rulers or by Roman governors of Judea.

Analyzing all of the Hasmonean coins in relationship to first century CE coins is beyond the scope of this brief essay. However, a cursory look at the coins found by locus suggests an affirmative conclusion that Hasmonean coins, in general, were widely used in the first century CE, not just the *TJC* Group L coins (cf. table 6.A.5). For example, twenty-one John Hyrcanus I coins were recovered at Khirbet el-Maqatir. Ten of the twenty-one coins (47.6%) had first-century CE coins in the same locus, and five of those loci had John Hyrcanus I and First Revolt coins in the same context. Therefore, there is reason to consider the validity of the idea that the Hasmonean coins would be a convenient means of making a political statement in the late first BCE and first century CE.[24]

But we have not addressed specifically the continued use of the *TJC* Group L coins in the first century CE, especially the L7–17 coins. Perhaps the practical function of the *TJC* Group L7–17 coins was to serve as a smaller denomination (e.g., half-prutah [plural: prutot]) to larger denominations. Herod I minted small denomination coins. Meshorer (*TJC*, 72) describes Herod's half-prutah with terminology similar to the Group L7–17 coins, "the investment of much work in them [i.e., small bronze coins] was not worthwhile, and therefore specimens are found that are inaccurate in their designs and particularly in their weights and sizes." However, by the time of Archelaus, Meshorer attributes his "crude coins" (i.e., "unclear designs and inscriptions and a 'wild' style, and are underweight" [*TJC*, 81]) to the mint having to turn out large numbers of coins in a short time. "We do not tend to regard them as coins of lower denominations, and the fact that their weight is half that of the ordinary prutah or even less does not necessarily indicate that they are half-prutot" (*TJC*, 81). Hendin takes the opposite position and says that Archelaus's coins were half-prutot coins (2009, 117).

After Archelaus, Agrippa I minted four different denominations. His smallest denomination coins from the Jerusalem mint are two to four times the weight of the average *TJC* Group L7–17 coin (*TJC*, 231). It appears that the Roman governors did not mint coins smaller than a prutah. For example, the coins assigned to Pontius Pilate average in weight around two grams (*TJC*, 258) and those assigned to Festus (under Nero) are around 1.75 grams. These weights are well above the average 0.5 grams of the *TJC* Group L7–17 coins.

Having the appearance of half-prutah (*TJC*, 41), we may reasonably suggest that the *TJC* Group L7–17 coins remained a useful small change currency, especially if such small change currency was no longer being minted by the beginning of Archelaus's reign. Hendin (2009,107) concludes that the half-prutah is equivalent to a lepton, the smallest of coins as evidenced by Mark 12:42. Some might suggest that there was a need for more coins in circulation, especially before Agrippa I struck his

[24] Goldstein and Fontanille (2013, 56) assert that the coinage of Antigonus is the first Jewish coinage minted for political or dynastic reasons.

popular coin in 41/42 CE (*TJC*, 97). But if Agrippa's coins were so popular, they must not have been popular with the villagers at Khirbet el-Maqatir for only ten Agrippa I coins were found there (in contrast to the twenty-one John Hyrcanus I coins).

Nevertheless, if one maintains that there was a need for small change currency, this creates a problem for arguing for their continued use as political statements. If they were used for such a purpose, there are no alternative half-prutah coins available that they are replacing. Why were rulers not producing small change currency (i.e., currency smaller than a prutah)? Was there no need for it? Information is not available on the economic environment to know if inflation from the first century BCE to the first century CE would make coins like a half-prutah obsolete (similar to several modern western countries who contemplate eliminating a one cent piece). Or, perhaps, small change was not minted because people had already rejected Herod's half-prutah in favor of the Hasmonean coins. Archelaus minted a half-prutah, but it was widely unpopular, and as a result, it is very rare in the archaeological record. Perhaps as a result of the people's rejection of new half-prutot, no further attempts were made by governing authorities to mint such small change. Therefore, perhaps the initial use of Hasmonean coins was a political statement of displeasure with Herod I and the continued use of the *TJC* Group L7–17 coins into the first century CE was necessitated by the lack of any further minting of small value currency. While we cannot deny that *TJC* Group L7–17 coins were used in the first century CE, the reason why these coins were used deserves more reflection and a broader analysis beyond what can be done here.

Conclusion

The controlled excavation of coins with a metal detector at Khirbet el-Maqatir provides a unique opportunity to propose a more comprehensive picture of the coins in circulation. This brief appendix focused on the voluminous coins of Alexander Jannaeus, minted toward the end of his life and possibly by his successors. The *TJC* Group L coins have a new variant for the catalog, a seven-ray star. I conclude definitively that *TJC* Group L coins were commonly used in the first century CE. However, the volume of coins is not able to tell us how they functioned in the local markets.

References

Adan-Bayewitz, David, and Mordechai Aviam. 1997. "Iotapata, Josephus, and the Siege of 67: Preliminary Report on the 1992–94 Seasons." *Journal of Roman Archaeology* 10:131–65.

Ahipaz, Nili. 2013. "Floor Foundation Coin Deposits in Byzantine-Period Synagogues." In *Hoards and Genizot as Chapters in History*, English editing by Deborah Stern, 63*–69*. Haifa: Hecht Museum, University of Haifa.

Ariel, Donald T. 1982. "A Survey of Coin Finds in Jerusalem (until the End of the Byzantine Period)." *Liber Annuus* 32:273–326.

Ariel, Donald T. 1998. "Hasmonean Coins Found in the Cave of the Warrior." In *The Cave of the Warrior: A Fourth Millennium Burial in the Judean Desert*, by Tamar Schick, 131–37. IAA Reports 5. Jerusalem: Israel Antiquities Authority.

Ariel, Donald T. 2007. "Coins of En-Gedi." In *En-Gedi Excavations I: Final Report (1961–1965)*, by Ephraim Stern, 423–27. Jerusalem: Israel Exploration Society.

Ariel, Donald T. 2010. "Coins." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*, edited by Hillel Geva. Vol. 4, *The Burnt House of Area B and Other Studies*, 236–47. Jerusalem: Israel Exploration Society.

Ariel, Donald T. 2012. "Judean Perspectives of Ancient Mints and Minting Technology." *Israel Numismatic Research* 7:43–80.

Ariel, Donald T. 2014. "Coins from Area Z." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*, edited by Hillel Geva. Vol. 6, *Areas J, N, Z and Other Studies*, 362–68. Jerusalem: Israel Exploration Society.

Ariel, Donald T. 2019a. "The Coins." In *Excavations at Maresha, Subterranean Complex 169: Final Report; Seasons 2000–2016*, by Ian Stern, 326–52. Annual of the Nelson Glueck School of Biblical Archaeology 11. Jerusalem: Hebrew Union College Press.

Ariel, Donald T. 2019b. "A Second Seleucid Coin Attributed to Jerusalem." *Israel Numismatic Research* 14:41–72.

Ariel, Donald T., and Jean-Philippe Fontanille. 2012. *The Coins of Herod: A Modern Analysis and Die Classification*. Ancient Judaism and Early Christianity 79. Leiden: Brill.

Aviam, Mordechai. 2004. "First Century Jewish Galilee: An Archaeological Perspective." In *Religion and Society in Roman Palestine: Old Questions, New Approaches*, edited by Douglas R. Edwards, 7–27. New York: Routledge.

Barkay, Rachel. 2019. *Coinage of the Nabataeans*. Qedem 58. Jerusalem: Hebrew University of Jerusalem.

Ben-David, Arie. 1969. *Jerusalem und Tyros: Ein Beitrag zur palästinensischen Münz- und Wirtschaftsgeschichte (126 a.C.–57 p.C.)*. Kleine Schriften zur Wirtschaftsgeschichte 3. Sonderreihe der list Gesellschaft 1. Basel: Kyklos.

Bijovsky, Gabriela. 2004. "A Hoard of Coins of Mattathias Antigonus from ʿEin Feshkha." *Israel Exploration Journal* 54 (1): 75–76.

Bijovsky, Gabriela. 2012. *Gold Coin and Small Change: Monetary Circulation in Fifth–Seventh Century Byzantine Palestine*. Polymnia: Numismatica Antica e Medievale 2. Trieste: University of Trieste.

BMC Alexandria. Poole, Reginald Stuart. 1892. *A Catalogue of the Greek Coins in the British Museum: Alexandria and the Nomes*. London: British Museum.

BMC Phoenicia. Hill, George Francis. 1910. *A Catalogue of the Greek Coins in the British Museum: Phoenicia*. London: British Museum.

CHL. Meshorer, Ya'akov. 2013. *Coins of the Holy Land: The Abraham and Marian Sofaer Collection at the American Numismatic Society and the Israel Museum*. With Gabriela Bijovsky and Wolfgang Fischer-Bossert. Edited by David Hendin and Andrew Meadows. Ancient Coins in North American Collections 8. New York: American Numismatic Society.

CPE. Lorber, Catharine C. 2018. *Coins of the Ptolemaic Empire*. Pt. 1, *Ptolemy I through Ptolemy IV*. Vol. 2, *Bronze*. Numismatic Studies 32. New York: American Numismatic Society.

DOC. Bellinger, Alfred R., and Philip Grierson, eds. 1966 and 1968. *Catalogue of the Byzantine Coins in the Dumbarton Oaks Collection and in the Whittemore Collection*. Vol. 1, *Anastasius I to Maurice, 491–602*, by Alfred R. Bellinger. Vol. 2, *Phocas to Theodosius III, 602–717*, by Philip Grierson. Pt. 2, *Heraclius Constantine to Theodosius III (641–717)*. Washington: Dumbarton Oaks Research Library and Collection.

Farhi, Yoav. 2010. "The Coins." In *Salvage Excavations at Nesher-Ramla Quarry*, by Shlomo Kol-Ya'akov, 1:197–213 and 364–67. Haifa: Zinmann Institute of Archaeology, University of Haifa.

Farhi, Yoav. 2016a. "The Coins." In *Ramat Raḥel III: Final Publication of Yohanan Aharoni's Excavations (1954, 1959–1962)*, by Oded Lipschits, Yuval Gadot, and Liora Freud, 2:588–623. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 35. Winona Lake: Eisenbrauns.

Farhi, Yoav. 2016b. *Khirbet Qeiyafa*. Vol. 5, *Excavation Report, 2007–2013: The Numismatic Finds; Coins and Related Objects*. Jerusalem: Israel Exploration Society.

Farhi, Yoav. 2018. "Coins from the 2008–2009 Excavation Seasons: Isolated Coins from Selected *Loci* and a Hoard of Bronze Coins from the 2ND Century CE." In *Salvage Excavations at Nesher-Ramla Quarry*. Vol. 2, *2008–9 Excavations*, by Shlomo Kol-Ya'akov, 253–75. Haifa: Zinman Institute of Archaeology, University of Haifa.

Farhi, Yoav. 2020. "The Coins from 2010–2015 Excavations of Underground Hiding Complexes at Nesher-Ramla Quarry." In *Underground Hiding Complexes and Installations at Nesher-Ramla Quarry*, by Alexander Melamed, 247–66. Haifa: Zinman Institute of Archaeology, University of Haifa.

Farhi, Yoav. Forthcoming. "The Numismatic Finds from Ramat Raḥel 2005–2010 Excavations: Isolated Coins, Two Hoards from the Roman Period and Related Objects." In *Ramat Raḥel V: The Renewed Excavations by the Tel Aviv-Heidelberg Expedition (2005–2010)*. Vol. 2, *The Finds, Summary and Conclusions*, by Oded Lipschits, Liora Freud, Manfred Oeming, and Yuval Gadot, 00–00. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 00. Winona Lake, IN: Eisenbrauns.

Farhi, Yoav, and Boris Bessarabov. 2019. "The Bronze Coinage of Demetrias (by the Sea): New Types and a Comprehensive Catalogue." *Israel Numismatic Research* 14:73–90.

Farhi, Yoav, and Catharine Lorber. 2012. "A Note on Two Ptolemaic Bronze Coins from Israel." *American Journal of Numismatics* 24:45–51.

Farhi, Yoav, and Alexander Melamed. 2014. "Two Coin Hoards from Underground Complexes at Nesher-Ramla Quarry." *Israel Numismatic Research* 9:109–31.

Farhi, Yoav, Yuval Gadot, David Ilan, Jessie Pincus Ben-Avraham, Itamar Taxel, Levana Tsfania, and Shlomit Bechar. 2009. "The Givat Sher-Modi'in Community Based Excavation: Preliminary Report on the 2004–2006 Seasons." *Strata* 27:89–148.

Gitler, Haim. 2006. "A *Hacksilber* and Cut Athenian Tetradrachm Hoard from the Environs of Samaria: Late Fourth Century BCE." *Israel Numismatic Research* 1:5–14.

Gitler, Haim, and Catharine Lorber. 2006. "A New Chronology for the Ptolemaic Coins of Judah." *American Journal of Numismatics* 18:1–41.

Gitler, Haim, Catherine Lorber, and Jean-Phillipe Fontanille. Forthcoming. *The Yehud Coinage: A Study and Die Classification of the Provincial Silver Coinage of Judah*. Jerusalem: Israel Numismatic Society.

Goldstein, Isadore, and Jean-Philippe Fontanille. 2013. "The Small Denominations of Mattathias Antigonus: Die Classification and Interpretations." *Israel Numismatic Research* 8:55–72.

Gur, Zvi, 1998. "Coins in Archaeology: Horvat Mazad—A Case Study." MA thesis, Tel Aviv University.

Hendin, David. 2007. "Numismatic Expressions of Hasmonean Sovereignty." *Israel Numismatic Journal* 16:76–91.

Hendin, David. 2009. "The Metrology of Judaean Small Bronze Coins." *American Journal of Numismatics*, 2nd series, 21:105–21.

Hendin, David, and Ilan Shachar. 2008. "The Identity of YNTN on Hasmonean Overstruck Coins and the Chronology of the Alexander Jannaeus Types." *Israel Numismatic Research* 3:87–94.

Houghton, Arthur, and Catharine Lorber. 2002. "Antiochus III in Coele-Syria and Phoenicia." *Israel Numismatic Journal* 14:44–58.

Ilisch, Lutz, ed. 1993. *Sylloge Numorum Arabicorum Tübingen*. Vol. 4a, *Bilād aššām*. Pt. 1, *Palästina*. Tübingen: Wasmuth.

Kool, Robert, Ariel Berman, Orit Shamir, and Yotam Tepper. 2011. "A Late Tenth-Century Fatimid Coin Purse from Bet She'an." *'Atiqot* 67:31*–41*.

Kool, Robert, Nicolas Schindel, and Issa Baidoun. 2019. "A New Assemblage of Cut Gold Fragments from the Crusader Period." *Israel Numismatic Research* 14:169–92.

Liver, J. 1963. "The Half-Shekel Offering in Biblical and Post-biblical Literature." *Harvard Theological Review* 56, no. 3 (July): 173–98.

LRBC. 1965. Carson, R. A. G., P. V. Hill, and J. P. C. Kent. *Late Roman Bronze Coinage, A.D. 324–498*. Pt. 1, *The Bronze Coinage of the House of Constantine, A.D. 324–46*, by P. V. Hill and J. P. C. Kent. Pt. 2, *Bronze Roman Imperial Coinage of the Later Empire, A.D. 346–498*, by R. A. G. Carson and J. P. C. Kent. London: Spink.

Meshorer, Ya'akov. 1975. *Nabataean Coins*. Qedem 3. Jerusalem: Hebrew University of Jerusalem.

Meshorer, Ya'akov. 1976."The En-Gedi Hoard." In *Actes du 8ème Congrès International de Numismatique: New York-Washington, Septembre, 1973*, edited by Herbert A. Cahn and Georges Le Rider, 111–12. Paris: Association internationale des Numismates professionnels.

Meshorer, Ya'akov. 1984. "One Hundred Ninety Years of Tyrian Shekels." In *Studies in Honor of Leo Mildenberg: Numismatics, Art History, Archaeology*, edited by Arthur Houghton, Silvia Hurter, Patricia Erhart Mottahedeh, and Jane Ayer Scott, 171–79. Wetteren: Numismatic Romaine.

Meshorer, Ya'akov. 2006. "The Coins from Qumran." *Israel Numismatic Journal* 15:19–23.

Meshorer, Ya'akov. 2007. "The En-Gedi Hoard." In *En-Gedi Excavations I: Final Report (1961–1965)*, by Ephraim Stern, 411–21. Jerusalem: Israel Exploration Society.

Minc, Henryk, 1981. "Coins of Alexander Yannai." *Journal of the Society for Ancient Numismatics* 12, no. 3 (Fall): 49–67.

Rappaport, Uriel. 1976. "The Emergence of Hasmonean Coinage." *Association for Jewish Studies Review* 1:171–86.

Rappaport, Uriel. 1984. "Numismatics." In *The Cambridge History of Judaism*. Vol. 1, *Introduction: The Persian Period*, edited by W. D. Davis and Louis Finkelstein, 25–59. Cambridge: Cambridge University Press.

Raynor, Joyce Toby, and Ya'akov Meshorer. 1988. *The Coins of Ancient Meiron*. With Richard Simon Hanson. Meiron Excavation Project 4. Cambridge: American Schools of Oriental Research.

Raviv, Dvir, Scott Stripling, and Yoav Farhi. 2021. "A Hiding Complex from the Two Jewish Revolts against the Romans at Khirbet el-Maqatir in the Eastern Bethel Hills." *Near East Archaeological Society Bulletin* 65:1–23.

RIC. Mattingly, Harold, and Edward A. Sydenham. 1926. *The Roman Imperial Coinage*. Vol. 2, *Vespasian to Hadrian*. London: Spink.

SC. 2002 and 2008. *Seleucid Coins: A Comprehensive Catalogue*. Pt. 1, *Seleucus I through Antiochus III*, by Arthur Houghton and Catharine Lorber. Pt. 2, *Seleucus IV through Antiochus XIII*, by Arthur Houghton, Catharine Lorber, and Hoover Oliver. New York: American Numismatic Society.

Schauer, Yaniv. 2010. "Mint Remains from Excavations in the Citadel of Jerusalem." *Israel Numismatic Research* 5:99–108.

Shachar, Ilan. 2004. "The Historical and Numismatic Significance of Alexander Jannaeus's Later Coinage as Found in Archaeological Excavations." *Palestine Exploration Quarterly* 136, no. 1 (April): 5–33.

Sion, Ofer, and Donald T. Ariel. 2001. "The Struggles between Herod and Antigonus in the Qarantal Cliffs." [In Hebrew.] *Judea and Samaria Research Studies* 10:113–18.

Suchodolski, S. 1996. "Absence of Mind or Magic? A Few Remarks on the So Called Small or Single Coin Finds." *Numismatica e Antichità Classiche* 25:317–27.

Syon, Danny. 2014. "The Coins." In *Gamla III: The Shmarya Gutmann Excavations 1976–1989; Finds and Studies*, pt. 1, 109–231. Israel Antiquities Authority Reports 56. Jerusalem: Israel Antiquities Authority.

Syon, Danny. 2016. "The Hellenistic, Roman and Byzantine Coins." In *'Akko II: The 1991–1998 Excavations; The Early Periods,* by Moshe Hartal, Danny Syon, Eliezer Stern, and Ayelet Tatcher, 203–26. IAA Reports 60. Jerusalem: Israel Antiquities Authority.

TJC. Meshorer, Ya'akov. 2001. *A Treasury of Jewish Coins from the Persian Period to Bar Kochba*. Jerusalem: Ben Zvi.

7. Ceramic Vessels

Peretz Reuven

The pottery discussed in this chapter came from Fields A and B, dated Late Hellenistic to Early Roman, and from Field C, dated to the Byzantine and Early Islamic periods. Part 1 catalogs the pottery types found at Khirbet el-Maqatir according to time periods: Hellenistic, Early Roman, Byzantine, and Early Islamic. Part 2 presents selected loci in plates which represent the pottery found in different areas, arranged according to date and location. These plates present well-stratified and clean loci from the major architectural structures dating to the later periods: the Late Hellenistic and Early Roman complex-courtyard house in Fields A and B, the Early Roman tower on the northern extremity of the site in Field B, and the Byzantine ecclesiastical complex in Field C. Chapter 4 of this volume presents the pottery found in the subterranean hiding system. The plates in part 2 will be presented according to the main structures, in each structure according to its location (square), and in each square according to stratigraphy from the lower to the upper. In addition, some plates present selected types of pottery which were not presented in the other plates. A few drawings are supplemented by photographs, courtesy of Gary Urie.

Pottery Typology

The entire ceramic assemblage is described together according to typology, accompanied by four figures: 7.1, Late Hellenistic; 7.2, Early Roman; 7.3, Byzantine; and 7.4, Early Islamic. Due to the small number of complete vessels recovered, the analysis is based mainly on rim typology. The ceramic assemblages from three key representative loci are presented in separate plates.

The vast majority of the vessels were made of plain ware and were locally produced, similar to the vessels in Jerusalem, its vicinity, and throughout Judea. The main characteristics are presented with the ceramic assemblage of each period. Here, only surface treatment and decoration, painted or plastic, is noted. This chapter's pottery typology uses the following abbreviations:

BA	basin
BL	bowl
CE	casserole
CJ	cooking ware jug
CL	cooking ware lid
CP	cooking pot
FBWB	fine Byzantine ware bowl
FK	flask
FU	fusiform unguentarium
JG	jug
JT	juglet
KR	krater
LD	lid
LP	lamp
PU	piriform unguentarium
RT	roof tile
SJ	storage jar

Late Hellenistic Pottery

The Hellenistic ceramic finds from Fields A and B dated to the Late Hellenistic period, starting in the second century BCE in the Hasmonaean period, with an increase in the second half of the century and continuing into the first century BCE. Vessels typical of the Persian–Early Hellenistic periods were rare in the excavation. The majority of the Late Hellenistic pottery contained several types which first appeared at the end of the second century BCE but became common in the first century BCE. Only a few loci yielded clean Late Hellenistic pottery. All these loci were from Field B, and the pottery from these loci formed the basis for the Khirbet el-Maqatir typology from this period. Nevertheless, Late Hellenistic pottery types appeared in the majority of the loci in Fields A and B. These are not discussed separately since most of them were represented in the secure Late Hellenistic loci. Only a few types which were not represented there were added to the typological discussion.

This section presents the ceramic finds from the stratified Late Hellenistic loci from Field B. Since the clean and sealed Late Hellenistic loci were few in number and had a variety of types, the typological discussion covers some vessels from the Late Hellenistic and Early Roman loci in order to present the full variety of the Hellenistic types found at the site. The majority of the clean loci continued undisturbed into the Early Roman period and presented a mixture of Late Hellenistic and Early Roman pottery. Vessel types that continued from the Late Hellenistic period to the Early Roman period and were found in mixed Late Hellenistic and Early Roman loci are discussed in the Early Roman pottery typology. These types, and all other types, are covered as parts of the same sequence.

All the Late Hellenistic pottery at Khirbet el-Maqatir was local, sometimes called *plain ware* or *coarse ware*. The vessels were mostly made of coarse clay with a lightly colored exterior and a gray core. Cooking vessels

were made of reddish clay. The ware of all the vessels contained white grits in various sizes and quantities. The vessels of the second century BCE were relatively larger and of coarser ware than those from the first century BCE, which were of thinner fabric and fired better.

The Khirbet el-Maqatir pottery is representative of the local repertoire of vessels used in Jerusalem and throughout Judea in the second and early first centuries BCE. As in Jerusalem, there was an attempt to continue using traditional pottery forms which were popular in earlier periods, with continuous typological developments. This evolutionary process can be seen clearly on the lamps. The local, folded, wheel-made type of the Persian and Early Hellenistic periods continued to be produced but became smaller and with a more delicate fabric and pinched with a flat base. This type appeared alongside locally made imitations of the imported, closed Attic lamp which was introduced to Judea in the Hellenistic period. At some sites like Maresha, the wheel-made lamp was almost absent from the ceramic repertoire of the Late Hellenistic period and was replaced by imported lamps and local imitations of the closed Attic lamp (Geva 2003, 115).

It is problematic to make a comparative typological-chronological analysis of the Late Hellenistic ceramic finds from most sites in Judea, Benjamin, and the Shephelah because of stratigraphic problems, the nature of the finds, and the limited publications available. None of the Hellenistic strata at other sites have yielded a clear, continuous, long, and well-dated stratigraphic sequence—sites such as Gezer (Gittin 1990), Maresha (Levin 1999), the Armenian Garden in Jerusalem (Tushingham 1985, figs. 12–25), Beth-Zur (Lapp and Lapp 1968b), and Ramat Raḥel (Aharoni 1964). Their chronology was based mainly on comparative-typological study (Geva 2003, 116).

The Hellenistic vessel typology in this volume is based on the comparative-typological study done on the pottery from Areas W and X-2 in the Jewish Quarter (Geva 2003, 113–75). The timespan of the Late Hellenistic pottery from Khirbet el-Maqatir—the second half of the second century BCE to the beginning of the first century BCE—matches the Jewish Quarter assemblage from the same period. Likewise, only a small number of Early Hellenistic vessels were found at both sites.

Storage Jars

Storage jars constituted a large percentage of the Late Hellenistic pottery from Khirbet el-Maqatir. This is true of other Late Hellenistic sites such as the Jewish Quarter in Jerusalem (Geva 2003, 121), Beitin (Lapp 1968a, 78), and Apollonia (Fischer and Tal 1999, 229).

The jars were made of cruder and thicker ware than contemporary jugs and bowls. Their color ranged from light gray to various shades of light brown, and the core was usually gray to light gray. The fabric of the jars contained a large quantity of white grits of various sizes and was medium to well fired.

The Judean jars clearly showed a typological development during the Hellenistic period as seen in their size, shape, and rim forms. The earlier jars were larger and bag-shaped, with four handles. The later jars were much smaller with a bag or cylindrical shape and only two handles (Geva 2003, 122). At first, the jars had a very short out-curved neck and a thickened rim (Type SJ 1). Later, they developed a tall neck, and the rim tended to change from rounded to squared (Type SJ 2). Collar rimmed jars (Type SJ 3) appeared at the end of the Late Hellenistic period. These jars had a tall, straight, vertical neck. The collar lengthened gradually from the beginning to the end of the period.

Type SJ 1 (Fig. 7.1:1–2)

Type SJ 1 had a very short neck or were neckless, with a thick rim which turned down sharply (fig. 7.1:1–2). The Jewish Quarter produced two subtypes.

Subtype SJ 1a was a jar with a thickened and normally square rim (fig. 7.1:1). Parallels to this type came from the Jewish Quarter, Area W, Stratum 4 (Geva 2003, plate 5.2:18–19) and Area X-2, Strata 6–5 (2003, plate 5.10:1–2). Both examples dated from the second half of the second century BCE to the beginning of the first century BCE. Beth-Zur yielded a complete Type SJ 1a jar, which dated to the second century BCE (Lapp and Lapp 1968b, fig. 19:1). Parallels dating to the mid-second century BCE were found at Gezer (Gittin 1990, plate 36:6–9). Finally, the Beitin excavations produced second century BCE parallels (Lapp 1968a, plate 68:1–16).

Subtype SJ 1b had a triangular thickened rim (fig. 7.1:2). A parallel came from Area W, Stratum 4 of the Jewish Quarter (Geva 2003, plate 5.4:15). It dated from the second half of the second century BCE to the beginning of the first century BCE. Type SJ 1b also was found at Gezer and dated to the second half of the second century BCE (Gittin 1990, plate 39:1–4).

Type SJ 2 (Fig. 7.1:3–4)

The SJ 2 jar was large and bag shaped with relatively thick ware. Usually, it had four large handles. The neck was relatively tall and curved out. The rim was always thickened and curved out. This type was typical of the Hellenistic period. As seen in the Jewish Quarter, it was still very common at the end of the second century BCE; it is commonly understood as the typical jar of the Early Hasmonean period (Geva 2003, 122).

Two subtypes were distinguished in the Jewish Quarter: SJ 2a—a jar with a rounded or undercut rim (fig. 7.1:3), which was characteristic to the early strata: Stratum 5 in Area W and Stratum 7 in Area X-2; and SJ 2b, a jar with a thickened square rim, which was pointed at the bottom (fig. 7.1:4). Storage jars with the SJ 2a rim form were the dominant SJ 2 type which was most typical in the second half of the second century BCE (Geva 2003, 123).

Parallels to SJ 2a came from the Jewish Quarter in Area W, Stratum 5 (Geva 2003, plate 5.1:1, 7, 9–10) and Area X-2, Stratum 7 (2003, plate 5.6:1–4, 6). These parallels were from the earliest strata in the Jewish Quarter which dated from the second half of the second century BCE to the beginning of the first century BCE. The second parallel came from Beth-Zur (Lapp and Lapp 1968b, fig. 22:7–8), where storage jars of this type were most typical in the middle of the second century BCE. Finally, at Gezer this type appeared continuously in the Hellenistic period from the mid-third century BCE to the end of the second century BCE (Gittin 1990, plates 32:1–4; 33:3–4; 36:1–5; 41:1).

Parallels to SJ 2b appeared in Jerusalem's Jewish Quarter in Area W, Stratum 4 (Geva 2003, plates 5.2:20–23), and in Area X-2, Stratum 7 (2003, plate 5.6:7) and Strata 6–5 (2003, plate 5.8:1). All examples dated from the second half of the second century BCE to the beginning of the first century BCE. Also, this form was found in Area E, Stratum 4, in the Jewish Quarter (Geva and Hershkovitz 2006, plate 4.3:4–6, 9). Stratum 4 also included second century BCE vessels, but most vessels dated to the middle of the first century BCE (Geva and Hershkovitz 2006, 99). Another parallel came from Jericho in Stratum EH2, which dated to approximately 85/75–31 BCE (Bar-Nathan 2002, plate 3, Object 12). At Beth-Zur, Type SJ 2b jars were most typical in the second half of the second century BCE (Lapp and Lapp 1968b, fig. 22:1–3, 6). At Gezer, Type SJ 2b jars predominated in the mid-second century BCE (Gittin 1990, plate 34:14–16).

Type SJ 3 (Fig. 7.1:5–8)

Type SJ 3 included two basic jar types: short-collar rims (SJ 3a) and long-collar rims (SJ 3b). The jars were relatively thin and made of well-fired ware. Both types had a bag or cylindrical shape and were relatively smaller than Type SJ 2. These jars usually had only two handles and a tall neck which could have been straight or sometimes slightly everted. The rim was thin and sometimes ended with a flange. The collar-rim jar type was a hallmark of the Hasmonean period. During the late second century BCE and the early first century BCE the short collar evolved into a long one (Geva 2003, 123). Type SJ 3 has two subtypes.

Type SJ 3a (fig. 7.1:5–6) had a short collar and was the main component of this group in the Late Hellenistic strata at Khirbet el-Maqatir. The rims were flat or somewhat concave on the outer side. The short collar rim was drawn downward, to a point above half of the height of the neck. According to Geva (2003, 123), the short collar jar probably came into use in the second century BCE but was particularly characteristic of second half of the second century BCE and the beginning of the first century BCE.

Several parallels came from the Jewish Quarter. One example, Area W, Stratum 4, dated to the late second and early first centuries BCE (Geva 2003, plate 5.2:3, 12, 25–26). Another example came from Area X-2, Stratum 7, and dated to the late second and early first centuries BCE (2003, plates 5.7:21–23). A third example originated from Area X-2, Strata 6–5, and dated from the late second to the early first centuries BCE (Geva 2003, plate 5.8:2). Additional parallels came from the Hasmonaean and Herodian palaces at Jericho (Bar-Nathan 2002, plate 3, Object 18, Stratum HS 2) and dated to about 85/75–31 BCE. This type was typical of the mid-second century BCE assemblage at Beth-Zur (Lapp and Lapp 1968b, fig. 22:4) and Maresha where Type 3, the most common form, dated to the second half of the second century BCE (Levin 1999, 35–36).

Subtype SJ 3b (fig. 7.1:7–8), the long-collar type, was not found in clean Late Hellenistic loci at Khirbet el-Maqatir; it was seen only in loci dated to the Late Hellenistic or Early Roman periods. It usually had a tall neck and a rim that was drawn downwards below the midpoint of the neck; it was sometimes slightly concave on the exterior. There were two variants of this type. One had a medium-length rim (fig. 7.1:7), and the other had a rim lengthened to the shoulders of the vessel and sometimes ending in a pronounced flange (fig. 7.1:8). Only the first variant was found in the Hellenistic loci in the Jewish Quarter in Jerusalem (Geva 2003, 124). At Jericho, it was the most characteristic jar in the Hasmonean deposits, but the few sherds that were found in loci from the Herodian I period (dated 31–15 BCE) indicated a continuation of this variant into the Herodian period while the tall-rimed variant appeared in both the Hasmonaean palace complex and the Herodian deposits, at least until the end of the Herodian I period (Bar-Nathan 2002, 30). In the Jewish Quarter the long-collar type jar was typical of the first century BCE pottery assemblages and was characteristic of the later part of this century (Geva 2003, 124), however it was still found in the early first century CE (ca. 1–30 CE) (Geva and Rosenthal-Heginbottom 2003, 176).

Parallels to the first variant of SJ 3b came from the Jewish Quarter. The first example came from Area W, Stratum 4 (Geva 2003, plate 5.4:18), and the second example came from Area X-2, Strata 6–5 (2003, plate 5.9:7–8). The Jewish Quarter parallels dated from the second half of the second century BCE to the beginning

of the first century BCE. Similar jars (J-SJ4A2), dated to the first century BCE, were found at Jericho (Bar-Nathan 2002, plate 3, Objects 18–19).

Parallels to the second variant were also discovered in the Jewish Quarter. One sample came from Area A, Stratum 6 (Geva 2003, plates 61:29–31; 5.9:7–8). It dated to the first century BCE. Another sample was found in Area E, Stratum 4 (Geva and Hershkovitz 2006, plate 4.3:10), and in Stratum 3 (Geva and Hershkovitz 2006, plate 4.7:1). The Jericho excavations produced similar jars (J-SJ4A3; Bar-Nathan 2002, plate 3, Objects 18–19), which dated from the second half of the first century BCE (2002, plates 4–5, Objects 25–27).

Type SJ 4 (Fig. 7.1:9)

This type of jar had an everted rim. It was characterized by a tall, straight, or out-curved neck, with a sharply everted, simple, or slightly thickened rim. This bag-shaped jar was made of fine, well-fired ware. It had already emerged in the late second century BCE but was especially typical of the early first-century BCE assemblages. It characterized the later Hellenistic strata in the Jewish Quarter, Stratum 4 in Area W and Strata 6–5 in Area X-2; it was popular alongside the type with the collar rim (Geva 2003, 124).

Parallels were uncovered in Area W, Stratum 4, in the Jewish Quarter (Geva 2003, plates 5.2:27–29; 5.4:19–20) and Area X-2, Strata 6–5 (2003, plate 5.8:4, 6–8). They dated from the second half of second century BCE to the beginning of the first century BCE. Examples from Jericho (Type J-SJ1) dated from 85/75–31 BCE (Bar-Nathan 2002, plate 1, Object 1).

Jugs

Only two types of jugs were identified in the Hellenistic loci at Khirbet el-Maqatir. Other types which continued in use in the Early Roman period and were found in mixed Late Hellenistic and Early Roman loci are presented in the typological section of the Early Roman period. Type JG 1 proved to be the most common as reflected by several examples. Only one Jug Type, JG 2, came to light.

Type JG 1 (Fig. 7.1:10)

The JG 1 jug had an upright or out-curved neck and a simple drown-out rim or slightly thickened rim. It was made of relatively thick ware of light brown clay and was medium to well-fired. This was the most characteristic jug type of the Hellenistic period. At Gezer this type was typical of the mid-second century BCE and remained common to the end of that century (Gittin 1990, Type 178, plates 34B:25–26; 37:3). Isolated examples of the JG 1 jug were found in Gezer, Qumran, and Machaerus in the early first century BCE, but the form disappeared shortly afterwards (Geva 2003, 127).

Parallels came from the Jewish Quarter in Area W, Stratum 4 (Geva 2003, plate 5.2:4, 35) and Area X-2, Strata 6–5 (2003, plate 5.8:14–15). These examples dated from the second half of second century BCE to the beginning of the first century BCE.

Type JG 2 (Fig. 7.1:11)

The JG 2 jug had a small, globular to pyriform shape with an everted rim and a wide neck. This small jug was found at Jericho in both Hasmonaean and Herodian contexts. It was more common in the first century CE but with changes in shape. An exact parallel was found in Jericho, in the Hasmonean II period which dated to approximately 85/75–31 BCE (Bar-Nathan 2002, plate 9, Object 63).

Juglets

Only one type of juglet came from Khirbet el-Maqatir. Excavations produced only a few examples of this juglet, and only two emerged from secure Late Hellenistic loci.

Type JT 1 (Fig. 7.1:12)

The JT 1 juglet had a low, straight neck and a cup-shaped rim. The body was globular, and a strap handle extended from the rim to the shoulder. It was usually made of thin, delicate, well-fired, light brown ware. In the Jewish Quarter this type first appeared in the Late Hellenistic strata: Stratum 4 in Area W and Strata 6–5 in Area X-2. In the Jewish Quarter, it appeared toward the end of the second century BCE and became popular in the first century BCE and continued to the first century CE (Geva 2003, 130).

Parallels derive from the Jewish Quarter Area W, Stratum 4 (Geva 2003, plate 5.2:41), and Area X-2, Strata 6–5 (2003, plate 5.8:23). These strata dated from the second half of second century BCE to the beginning of the first century BCE. In Jericho, a parallel to this type (cup-mouth, globular, or elongated pyriform juglet, Type J-JT1) came from Phase HS2 and dated to 85/75–35 BCE and in Phase HR1 which dated to 31–15 BCE (Bar-Nathan 2002, plate 10, Objects 85–87).

Fusiform Unguentaria

This type of small bottle was one of the hallmarks of Hellenistic assemblages. Numerous examples indicate that it was popular in the Late Hellenistic period. The large number of fusiform unguentaria found in Jerusalem and its vicinity seem to indicate that it became popular in the first century BCE. Only a few sherds from these vessels were found at Khirbet el-Maqatir, and they were all from mixed loci (Late Hellenistic and Early Roman).

Type FU 1 (Fig. 7.1:13)

The FU 1 vessel was characterized by a long cylindrical neck and a disk ring with a sharply pointed edge. It had a spindle-shaped body and a solid foot with a bottom base which was often string cut (Geva and Rosenthal-Heginbottom 2003, 185).

Local artisans manufactured this type of vessel from light brown clay containing white grits. The unguentaria from other sites in Judea were divided into three types, mostly based on the form of the lower part of the vessel and the proportions of the base and body. These differences apparently have chronological significance. During the Late Hellenistic period the unguentarium tended to become taller, mainly due to the foot being lengthened; likewise, a tendency existed for the vessel to become thinner and more delicate over time (Geva 2003, 130–31).

Numerous parallels exist, but since none of the vessels were found in a condition which allowed determination of the length of the foot or the proportions of the vessel (only part of the body is seen in the published vessels), it was impossible to find exact parallels. A plausible parallel came from Area A, Stratum 6 of the Jewish Quarter (Geva and Rosenthal-Heginbottom 2003, plate 6.2:10–11). It dated to the first century BCE, but some thicker body sherds found in mixed Late Hellenistic and Early Roman loci at Khirbet el-Maqatir could be even earlier in date.

Cooking Vessels

Some cooking pots were found in secure Late Hellenistic loci. Unlike Jerusalem in that period, all publishable cooking pots from Khirbet el-Maqatir represented the same type (CP 2), the dominant type in Jerusalem (Geva 2003, 132–35). Another Late Hellenistic type of cooking pot was found. A concave, outturned neck with simple rim (Type CP 1) characterized this vessel, but it emerged from a mixed Late Hellenistic and Early Roman locus.

Type CP 1 (Fig. 7.1:14)

A concave, outturned neck with simple rim, intended for fitting a lid, characterized the CP 1 cooking pot. It was made of thin, well fired, reddish-brown ware. This form was common in the second century BCE, but it is not attested before the mid-second century BCE at Gezer; it appeared sporadically even in the early first century BCE (Geva 2003, 133–34). So, it seems that it was found also in the beginning of the Late Hellenistic period. The vessel in figure 7.1:15 had a medium-tall, everted neck with an S-shape section. The inside of the neck had a low groove with a ridge running above it.

Parallels exist in the Jewish Quarter from Area W, Stratum 5 (Geva 2003, plate 5.1:27) and Area X-2, Strata 6–5 (2003, plate 5.8:29, 34–35). These examples dated from the second half of second century BCE to the beginning of the first century BCE.

Type CP 2 (Fig. 7.1:15)

The CP 2 cooking pots had straight, relatively tall, and everted necks. The rim was usually simple and sometimes slightly thickened. The ware was of high quality, very thin, and well fired. This cooking pot represents the hallmark of the Late Hasmonean period. It appeared as early as the end of the second century BCE and in the Jewish Quarter excavations; this type reached the height of its popularity in the first century BCE. During this period, it was the dominant type in Jerusalem as evidenced by examples found in the Armenian Garden, the Ophel, the Citadel, and Jason's tomb (Geva 2003, 131).

The Jewish Quarter excavations yielded parallels from Area W, Stratum 4 (Geva 2003, plate 5.3:7), Area X-2, Stratum 7 (2003, plate 5.6:39) and Strata 6–5 (2003, plate 5.8:36). All pertinent strata date from the second half of second century BCE to the beginning of the first century BCE.

Bowls

Excavations at Khirbet el-Maqatir produced a small number of locally made, plain, small bowls. The bowls were thin and well-fired. They included two types: bowls with incurved rim (BL 1) and bowls with folded-in rim (BL 2).

Type BL 1 (Fig. 7.1:16–17)

Bowl Type BL 1 was a deep bowl with a simple incurved rim and a curved, flaring body. These bowls were made of fine brown or red clay. They were sometimes slipped, and some bowls had traces of color and were well-fired. This type was frequently found in late-second century BCE contexts but became more common from the beginning of the first century BCE (Geva 2003, 138, Plain bowl type BL 1b). At Jericho, this type (parallel to type J-BL3 of Bar-Nathan in Jericho) appeared in the Hasmonaean I period (100 BCE–95/85 BCE), the Hasmonean II period (85/75 BCE–31 BCE), the Herodian I period (31 BCE–15 BCE) and the Herodian II period (15 BCE–6 CE) (Bar-Nathan 2002, 83–87).

Parallels came from the Jewish Quarter, Area W, Stratum 4 (Geva 2003, plate 5.3:22), Area X-2, Strata 6–5 (2003, plate 5.10:32–33). All strata dated from the second half of second century BCE to the beginning of the first century BCE. Examples from Jericho (Type J-BL3) dated to the first century BCE (Bar-Nathan 2002, plates 14–15, Objects 187–228).

Type BL 2 (Fig. 7.1:18)

The BL 2 type was shallow and sometimes defined as a plate. It had straight or slightly rounded sides and a short flat folded-in rim. The rim was sometimes thickened inside. They could have been made of thin and well-fired ware or thicker and coarser ware from light brown or light red clay. This type was typical in the late second century BCE. It was used especially from the beginning of the first century BCE and was found together with Type BL 1 in many excavations in Jerusalem such as the Jewish Quarter, Ophel, Citadel, and Jason's Tomb. Further examples came from Qumran and Gezer (Geva 2003, 138).

The Jewish Quarter excavations yielded parallels from Area W, Stratum 4 (Geva 2003, plate 5.3:23–26), Area X-2, Strata 7 (2003, plate 5.7:33) and Strata 6–5 (2003, plate 5.8:42). These strata dated from the second half of the second century BCE to the beginning of the first century BCE. Type J-PL1A1-3 at Jericho dated to the first century BCE (Bar-Nathan 2002, plates 15–16, Objects 224–63).

Oil Lamps

Only one type of oil Lamp, the Judean wheel-made folded lamp, was found among the Late Hellenistic pottery at Khirbet el-Maqatir. It came from a mixed Late Hellenistic and Early Roman locus. Since it was a typical Late Hellenistic vessel, it is included in this discussion. The wheel-made folded lamp, a regional copy of an Attic prototype which appeared in Jerusalem in Hellenistic contexts, was absent, as was the imported lamp, which was also found in Jerusalem, but less commonly (Geva 2003, 139). The local Judean radial lamp is not discussed here. At Khirbet el-Maqatir, it was only found in the mixed Late Hellenistic and Early Roman loci and was probably introduced in the first century BCE. All the lamps of this type found at Khirbet el-Maqatir were characterized by a short and broad nozzle which dated to the Herodian period (Bar-Nathan 2002, 107, Type J-LP2B).

Type LP 1 (Fig. 7.1:19–20)

The Judean wheel-made, folded lamp was basically a shallow bowl with a pinched rim. During the Hellenistic period, the folded lamps developed from large, crude examples with rounded bases into smaller, finer lamps with pinched rims and a flat base. In the final stage of its development, the sides pinch firmly together. The lamps were made of thin ware, with brown or light brown clay and white grits. They continued the earlier local lamp form from the Iron Age through the Persian periods. The thin walls indicated that the Khirbet el-Maqatir lamp belonged to the late examples (Barag and Hershkovitz 1994, 13); it was the only Late Hellenistic type excavated and the main type used in Jerusalem in that period (Geva 2003, 139). During the Hellenistic period, the folded lamps developed from large, crude examples with rounded bases into smaller, finer lamps with pinched rims and flat bases. In the final stage of the folded lamp, the sides were pinched firmly together. The lamp was much smaller than before; it was made of thin ware, and most were relatively tall with flat bases (fig. 7.1:20) while a few examples had a low disc base. In Jerusalem these later lamps were very typical of first century BCE assemblages, and they remained in use until the end of that century (Geva 2003, 140).

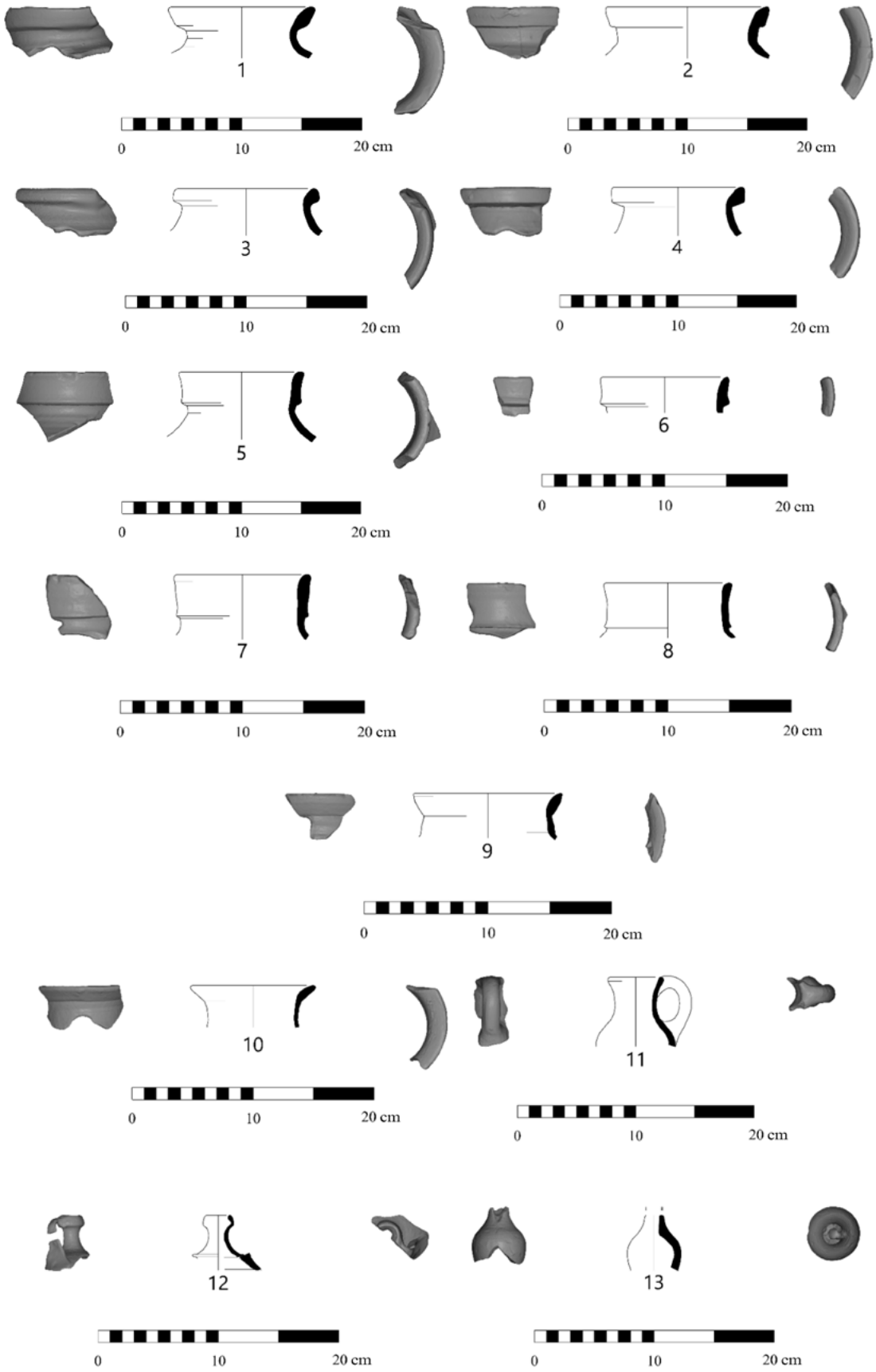
Parallels came from the Jewish Quarter in Area W, Stratum 4 (Geva 2003, plate 5.3:37–40) and Area X-2, Strata 6–5 (2003, plate 5.9:3, 34). These strata dated from the second half of second century BCE to the beginning of the first century BCE. Additional parallels came from Jericho (Type J-LP1) and dated to Stratum HS2, about 85/75–31 BCE (Bar-Nathan 2002, plate 17, Object 284) and Masada (Barag and Hershkovitz 1994, 11, fig. 1) which dated to the late Hasmonaean or early Herodian periods.

Summary and Conclusion

The Late Hellenistic pottery found at Khirbet el-Maqatir included storage jars (over 50% of the vessels), jugs, cooking pots, and bowls. This fact amplifies the importance of storage in this agricultural area in the Bethel hills region. All the Late Hellenistic pottery was locally made; no imported vessels came to light in the excavations.

The Hellenistic pottery at Khirbet el-Maqatir clearly demonstrates a "Judahite" tradition in form and quality of fabric and is similar to the finds in other Hellenistic sites in Judah, especially in Jerusalem. The typological-chronological classification is general, and the same vessel may belong to two different groups.

The pottery finds include three groups of vessels. First, a small number of vessels with forms in the ceramic tradition of the Early Hellenistic period. Most of these types disappeared from use toward the end of the second century BCE. The vessels in the early group included Types SJ 1a, SJ 1b, and SJ 2. Second, the pottery findings included primary vessel types in forms characteristic of the second century BCE. These were dominant in the Late Hellenistic period at Khirbet el-Maqatir. The typical vessels of this group included the following types: SJ 3a, SJ 4, JG 1, FU 1, CP 1, BL 1, and BL 2. And third, the pottery that first appeared at the end of the second century BCE became dominant in the repertoire of the first century BCE. The vessels in this later group included the following types: SJ 3b, JG 2, JT 1, CP 2, BL 1, BL 2, and LP 1.


1
0
10
20 cm
2
0
10
20 cm
3
0
10
20 cm
4
0
10
20 cm
5
0
10
20 cm
6
0
10
20 cm
7
0
10
20 cm
8
0
10
20 cm
9
0
10
20 cm
10
0
10
20 cm
11
0
10
20 cm
12
0
10
20 cm
13
0
10
20 cm

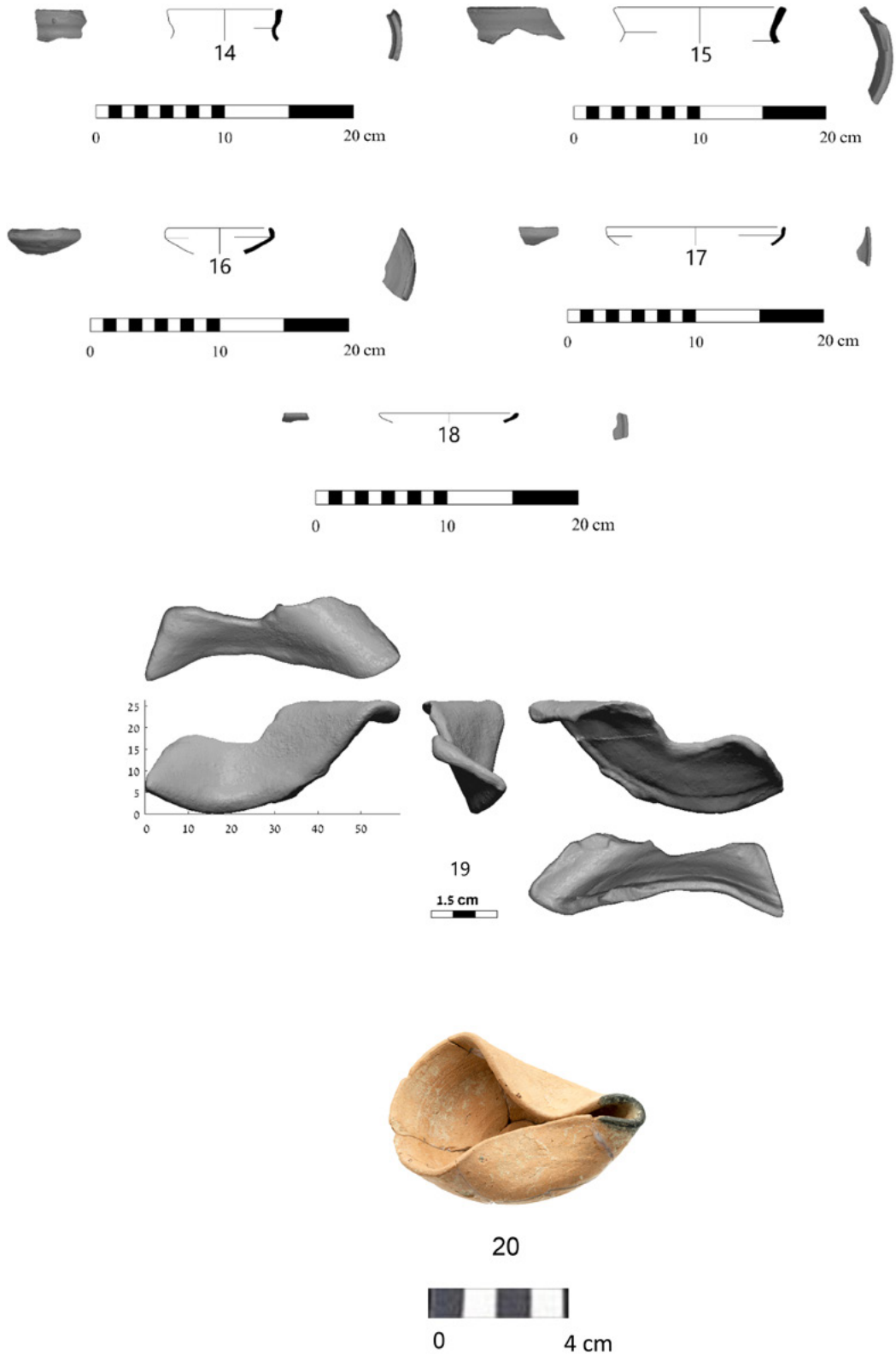


Figure 7.1. Late Hellenistic period pottery types from Khirbet el-Maqatir.

Early Roman Pottery

This section examines the typology of the ceramic vessels from Late Hellenistic and Early Roman loci in Fields A and B at Khirbet el-Maqatir. These vessels came from loci that dated from the second century BCE to the second half of the first century CE. Since all the Late Hellenistic types were discussed previously, this analysis focuses on the Early Roman repertoire of pottery from the second half of the first century BCE and first century CE. The classification system is a continuation of the Late Hellenistic types. The types that started in the Late Hellenistic period and continued to the Early Roman period will be presented briefly in the Early Roman typology but without parallels in order to avoid repetition. Like the previous section, this section follows the typology used in the Jewish Quarter publications, especially from Area A, Strata 6–4, which dated from the first century BCE to the first century CE (Geva 2003), Area E, Strata 4–3, which dated to the second half of the first century BCE, and Stratum 2, which dated from the end of the first century BCE to 70 CE (Geva 2006). Also, some of findings from Shu'fat will be discussed, during the presentation of the later types which dated from the end of the first century CE and the beginning of the second century CE (Terem 2016). Outside of Jerusalem, other excavation reports from important Early Roman sites such as Jericho (Bar-Nathan 2002) and Masada (Bar-Nathan 2006) are also relevant.

The vast majority of the vessels were made of plain ware and were produced locally, similar to the vessels in Jerusalem and its vicinity and similar to vessels from other Judean sites. The pottery was made of a light brown, grayish, or pinkish-brown fabric with a small amount of white grits. The pottery plates only describe painted or plastic surface treatment. The painted ware and the miniature vessels are treated as integral parts of the assemblage and are included within the discussion of the relevant types.

Storage Jars

There were numerous storage jars in the assemblage. The Early Roman types were generally made of thin and well-fired fabric, and their size was smaller than that of the Hellenistic jars. The color range included brown, dark brown, and sometimes even reddish-brown with a grayish or reddish core. The clay included a considerable amount of white grits of different sizes. Four main types emerged from these loci: storage jars with a thickened rim (Types ST1a–b and ST 2a–b), short and long collar-rim jars (Types SJ 3a–b), and jars with a ridge on the base of the neck (Type SJ 5). Since the first three types (SJ 1, SJ 2 and SJ 3) were already dealt with in the Late Hellenistic section and Type SJ 4 (an everted rim jar from the Late Hellenistic period) was not excavated in the Early Roman loci at Khirbet el-Maqatir, only the last type (SJ 5), which is also the latest, is discussed here.

Type SJ 5 (Fig. 7.2:1–7)

The storage jar with a ridge at the base of the neck was the latest in the typological series of the late Second Temple period. There were four subtypes, and all of them had the characteristic ridge. The ridge can be viewed as a reminder of the flange of the collar neck storage jar. The vessels were typical of the first century CE and were found in 70 CE destruction layers in the Jewish Quarter and even continued into the second century CE in other Judean sites (Geva and Rosenthal-Heginbottom 2003, 177–78). Excavations at Khirbet el-Maqatir yielded three subtypes (SJ 5a–c) from the first century CE and one (SJ 5d) from the period between the two revolts. Type SJ 5d appeared only after 70 CE.

Subtype SJ 5a (fig. 7.2:1–2) had a vertical or everted neck and a plain, rounded, or beveled lip. The body was cylindric (Geva and Rosenthal-Heginbottom 2003, 178). In Jerusalem's Jewish Quarter, parallels came from Area A, Stratum 5 (Geva and Rosenthal-Heginbottom 2003, plate 6.5:10), which dated to approximately 1–30 CE, and Stratum 4 (2003, plates 6.9:1–4; 6.10:4–5), which dated from the middle of first century CE to 70 CE. This subtype also came from Area E, Stratum 2 (Geva and Hershkovitz 2006, plate 4.13:1–3). Outside Jerusalem, Type SJ 5a comprised part of the Masada assemblage (Bar-Nathan 2006, plate 5, Objects 21–26) and dated from 28/26 BCE to 73/74 CE.

Subtype SJ 5b (fig. 7.2:3) had a vertical neck and triangular rim. The body was cylindric (Geva and Rosenthal-Heginbottom 2003, 178). Parallels dating to about 1–30 CE came from Area A, Stratum 5 of the Jewish Quarter (Geva and Rosenthal-Heginbottom 2003, plate 6.5:7–9) and Stratum 4 (2003, plate 6.10:6–8), which dated from the middle of the first century CE to 70 CE. Type SJ 5b was also found at Masada (Bar-Nathan 2006, plate 8, Objects 39–42). The excavated jars from Masada dated from approximately 66 CE to 73/74 CE, and the type's date ranged from the first century CE to first third of second century CE (Bar-Nathan 2006, 57).

Subtype SJ 5c (fig. 7.2:4–5) had a vertical neck and a shorter narrow or wide-ledge rim. The body was bell-shaped (Geva and Rosenthal-Heginbottom 2003, 178). Parallels for Type SJ 5c came from Jerusalem and Masada. The Jewish Quarter, Area A, Stratum 4 yielded narrow ledge-rim examples (Geva and Rosenthal-Heginbottom 2003, plate 6.9:5) and wide ledge-rim examples (2003, plate 6.9:6). This subtype dated from the middle of first century CE to 70 CE. Both narrow-

rim (Bar-Nathan 2006, plate 19, Object 49) and wide-rim (2006, plates 12–13, Objects 62–71) versions were excavated at Masada. The narrow-rim type dated from 37 BCE to 73/74 CE. The wide-rim type dated from 66 CE to 73/74 CE, and the type's date range spanned from the last third of first century CE to the first third of the second century CE (Bar-Nathan 2006, 62).

Subtype SJ 5d (fig. 7.2:6–7) had a folded rim with a profile that could have been triangular, round, or square from the outside. These jars had a tall or medium neck with a very fine ridge on their base and appeared in the late first century CE, only after the First Jewish Revolt (70 CE). The Shu'fat parallels (Terem 2016, plates 20–22, Objects 278–90) include Type 13a with the triangular profile (2016, plate 23, Objects 292–93) and Type 13c with the square profile. The Masada excavations also yielded Type SJ 5d jars (Bar-Nathan 2006, plate 16, Object 102–3), dating from 73/74 CE to 115 CE.

Jugs

The jugs from Khirbet el-Maqatir were either everted triangular rim jugs or ridge-necked jugs.

Type JG 3 (Fig. 7.2:8–10)

The everted triangular rim jug had a wide mouth and was characterized by an everted triangular rim with an inner ledge. It had several variants, and the rim was either pointed upwards, or more commonly, was triangular. The handle was oval in section and extended from the rim to the shoulder. The jug was made of thin, fine ware and was well-fired. In the first century BCE this type replaced the typical Hellenistic Jug (GJ 1) and became the main type of the first centuries BCE and CE (Geva and Rosenthal-Heginbottom 2003, 182; Geva and Hershkovitz 2006, 105). At Jericho it was the most popular jug (Type J-JG1A-B) of the Hasmonaean and Herodian periods (Bar-Nathan 2002, 33).

Parallels for Type JG 3 came from Jerusalem (the Jewish Quarter), Jericho, and Masada. First century BCE examples came from Area A, Stratum 6 in the Jewish Quarter (Geva and Rosenthal-Heginbottom 2003, plate 6.1:9, 38–39); early first-century CE examples (ca. 1–30 CE) came from Stratum 5 (2003, plate 6.5:13–14); mid-first century examples (middle of first century CE to 70 CE) came from Stratum 4 (2003, plate 6.9:8). There were additional parallels from the Jewish Quarter in Area E, Stratum 4 (Geva and Hershkovitz 2006, plate 4.4:5–6) and Stratum 3 (2006, plates 4.7:8; 4.9:7; 4.10:6). These all dated to the second half of the first century BCE. The examples from Jericho (Bar-Nathan 2002, plate 8, Objects 52–58) dated from the first century BCE to the first century CE, and the examples from Masada (2006, plates 18–19, Objects 6–18) dated from 28/26 BCE to 73/74 CE.

Type JG 4 (Fig. 7.2:11–12)

The ridge-necked jug, with cup-shaped rim, displayed a prominent ridge approximately in the middle of the neck. The handle extended from the ridge to the shoulder. The everted rim could have been plain or thickened. At Khirbet el-Maqatir it was made of thick ware and was light brown in color, but there were many variants in shape and ware. The jug was long-lived (Geva and Rosenthal-Heginbottom 2003, 182).

Several parallels dating to the second half of the first century BCE came from the Jewish Quarter: Area A, Stratum 6 (Geva and Rosenthal-Heginbottom 2003, plate 6.1:9, 38–39); and Area E, Stratum 4 (Geva and Hershkovitz 2006, plate 4.4:7) and Stratum 3 (2006, plate 4.7:7; 4.9:6). Additional parallels came from Jericho, Type L-JG10, Herodian III (6–48 CE) (Bar-Nathan 2002, plate 25, Object 440), and Masada (Type M-JG11); the date ranged from the first century CE to the first third of second century CE (Bar-Nathan 2006, plate 20, Object 34–36).

Type JG 5 (Fig. 7. 2:13)

A triangular rim and a narrow mouth characterized Type JG 5. The vessel was made of coarse, buff ware. It probably descended from the globular *laginos* with a triangular rim, a tall narrow neck, and a handle from the mid-neck to the shoulder. The laginos is a well-known piece of tableware from the Hellenistic period which was widely imitated in the eastern Mediterranean. The Type's globular shape in the Roman period replaced the local, carinated one from the Hasmonaean period. Parallels came from Masada and Jericho. The Masada examples (Bar-Nathan 2006, plate 20, Object 41–45) dated from 28/26 BCE to 73/74 CE, and the Jericho examples (2002, plate 9, Objects 79–80) came from the Herodian I stratum, which dated to about 31–15 BCE.

Flasks

The Khirbet el-Maqatir flasks were a basic type with slight variations in shape and material. They represent the final variation of the late Second Temple period (Geva and Rosenthal-Heginbottom 2003, 183).

Type FK 1 (Fig. 7.2:14–15)

A high and straight neck characterized Type FK 1. The rim everted and thickened, sometimes with an inner ledge. Two twisted strap handles extend from the middle of the neck to the shoulder of the globular, asymmetric, and biconical body (Geva and Rosenthal-Heginbottom 2003, 183). The flasks were relatively small and made of particularly delicate and well-fired clay which was mostly reddish brown but sometimes grayish.

Three parallels come from Area A of the Jewish Quarter: Stratum 6 (Geva and Rosenthal-Heginbottom 2003, plate 6.1:44–46) dated to the first century BCE, Stratum 5 (2003, plate 6.5:16–19) dated to approximately 1–30 CE, and Stratum 4 (2003, plate 6.10:9–10) dated from the middle of first century CE to 70 CE. Two parallels came from Area E of the Jewish Quarter: Stratum 4 (Geva and Hershkovitz 2006, plate 4.4:15) and Stratum 3 (2006, plate 4.7:20–21). The Area E examples all dated to the second half of the first century BCE. Excavations at Jericho also yielded Type FK 1 flasks which dated from 85/75 BCE to 15 BCE (Bar-Nathan 2002, plate 10, Objects 120–22).

Juglets

The Early Roman loci at Khirbet el-Maqatir yielded two types of juglets: the cup-shaped rim jug (JT 1) and a rounded or outcurved rim juglet. The typical cup-mouthed jug (JT 1) was the most common; it pervaded all Judean sites in the late Second Temple period and continued without changes from the first century BCE to the beginning of the second century CE. Although it was discussed already in the Late Hellenistic section (fig. 7.1:12), it is presented here briefly with some Early Roman parallels, without regard to the shape of the base which was missing in the Khirbet el-Maqatir vessels. Bases could have been rounded, pointed, rounded flat, or flat (Bar-Nathan 2006, 191).

Type JT 1 (Fig. 7.2:16)

Type JT 1, with a cup-shaped rim, was well represented in the Late Hellenistic and Early Roman loci at Khirbet el-Maqatir. For a discussion of its shape and characteristics, see the Hellenistic typology in this chapter (fig. 7.1:12). It was common in the first century BCE and the first century CE (Geva 2003, 183). Two parallels come from Area E of the Jewish Quarter: Stratum 3 (Geva and Hershkovitz 2006, plate 4.4:1–5), which dated from the second half of the first century BCE; and Stratum 2 (2006, plate 4.12:4), which dated from the end of the first century BCE to 70 CE. Excavations at Masada also produced a parallel which dated from 28/26 BCE to 80/87 CE (Bar-Nathan 2006, plate 33, Objects 1–14).

Type JT 2 (Fig. 7.2:17)

Type JT 2, with a rounded or outcurved rim, had a long, conical or cylindrical neck. It could have been globular or pyriform in shape, with a rounded or flattened bottom, and a strap handle from rim to shoulder. This type's date ranged from the first century CE to the first third of second century CE (Bar-Nathan 2006, 195). Three parallels corresponded to Type JT 2. The first came from Area B, Stratum 2 of the Jewish Quarter (Geva 2010, plate 4.3:5–6) and dated to the first century CE (before 70 CE). The second came from Masada (Bar-Nathan 2006, plate 33, Objects 16–19) and dated to the First Jewish Revolt (ca. 66–73/74 CE). The third came from Herodian Phase 3 (HR3) at Jericho (2006, plate 25, Object 427). It dated originally from 6 CE to 115 CE, but Bar-Nathan's revised date is 48/70–111/112 CE (2006, 195).

Unguentaria

Three types of small bottles are included under this heading: fusiform unguentaria, pyriform unguentaria, and miniature bottles. All three types were found in Late Hellenistic and Early Roman loci at Khirbet el-Maqatir. The first example was already discussed in the typology of the Late Hellenistic period. Since it remained in use only until the end of the first century BCE (see discussion above), it does not appear in the Early Roman pottery typology. All these vessels could have been used mainly, though not exclusively, for precious substances such as medical and cosmetic oils, ointments, and perfumes (Geva and Rosenthal-Heginbottom 2003, 185).

Type PU 1 (Fig. 7.2:18–21)

Type PU 1 had a narrow and long cylindrical neck and an everted, flaring, or triangular rim. The base was flat and string-cut. The subtypes were small (fig. 6.2:18–19, 21) and large (fig. 6.2:20). Some forms (not found at Khirbet el-Maqatir) were decorated with paint or slip on the neck or the body. The vessels were generally made of light brown or light red clay and were thin-walled and well-fired. Pyriform bottles were popular in the assemblage from the end of the first century BCE and the first century CE, especially in burials of the late Second Temple period (Geva and Rosenthal-Heginbottom 2003, 185).

Parallels for the small pyriform unguentaria (fig. 7.2:18–19, 21) came from Area A of the Jewish Quarter. Stratum 5 (Geva and Rosenthal-Heginbottom 2003, plate 6.5:25–27) yielded an example which dated to about 1–30 CE, and Stratum 4 (2003, plate 6.9:13–16) produced an example which dated narrowly from the middle of first century CE to 70 CE. Area B, Stratum 2 of the Jewish Quarter produced another example which dated to the first century CE but disappeared after 70 CE (Geva 2010, plate 4.4:4–10). A final example came from Masada and dated to approximately 66–73/74 CE (Bar-Nathan 2006, plate 34:3–7). As for the large piriform unguentaria (fig. 7.2:20), the best parallel came from Masada (Bar-Nathan 2006, plate 34:9) and dated to approximately 66–73/74 CE.

Type PU 2 (Fig. 7.2:22–23)

Type PU 2 was a miniature vessel, similar in shape to the pyriform bottle. It was intended to contain precious substances such as medical ointments or perfumes which were sold in small quantities (Geva

and Rosenthal-Heginbottom 2003, 185). The bottle was small, long, and tubular. It widened slightly toward base, with a simple rounded rim and a thickened bottom. In some cases, it had red or blackish-brown slip on the rim and neck (Bar-Nathan 2006, 205). Three parallels came from Area A of the Jewish Quarter and one from Area B. The Area A, Stratum 5 example (Geva and Rosenthal-Heginbottom 2003, plate 6.5:36) dated to about 1–30 CE. The Area A, Stratum 4 example (2003, plate 6.10:30–31) dated from the middle of first century CE to 70 CE. The Area B, Stratum 2 example (Geva 2010, plate 4.4:13–14) dated to the first century CE (before 70 CE). Yet another parallel was found at Masada (Bar-Nathan 2006, plate 34:20–30) and dated to about 66–73/74 CE.

Cooking Vessels

The Khirbet el-Maqatir excavations produced three groups of cooking vessels: the narrow-mouthed globular cooking pot, the wide-mouthed shouldered cooking pot (casserole), and cooking jugs. The narrow-mouthed globular cooking pot included three types; the first two were already presented in the Late Hellenistic pottery typology and are not presented here. The first was the cooking pot with the straight everted, relatively high neck and a rounded or pointed rim (Type CP 1); the second was the cooking pot with a beveled-rim (Type CP 2); and the third was the triangular-rim cooking pot (Type CP 3). This one was not discussed previously. The other new types were the wide-mouthed cooking pot/casserole (Type CE 1) and the cooking jugs (Types CJ 1–2). Neither type was presented in the publication of the Late Hellenistic strata of Areas W and X-2 in the Jewish Quarter in (Geva and Rosenthal-Heginbottom 2003, 181). Another vessel included in this category is the cooking ware lids intended for cooking pots or cooking casseroles (Type CL 1).

Type CP 3 (Fig. 7.2:24)

This type of globular cooking pot was distinguished by a triangular rim, which was often grooved. The neck could have been vertical, slightly curved to the outside, or everted. Two thin strap handles extended from the rim to the shoulders. Sometimes a ridge ran on the shoulder above where the handle attached. Several vessels had a partly ribbed body. Type CP 3 was reddish-brown in color, well-fired, and thin-walled. This type first appeared near the end of the second century BCE, and it became the most popular type toward the middle of the first century BCE; it appeared in assemblages from the Late Hasmonean period to the end of the Second Temple period (Geva and Rosenthal-Heginbottom 2003, 180).

Three parallels came from the Jewish Quarter: two from Area A and one from Area B. The first example from Area A came from Stratum 6 (Geva and Rosenthal-Heginbottom 2003, plate 6.2:26) and dated to the first century BCE. The second example came from Area A, Stratum 4 (2003, plate 6.10:12) and dated from the middle of first century CE to 70 CE. The Area B example came from Stratum 2 (Geva 2010, plate 4.5:1–8) and dated to the first century CE (before 70 CE). A final parallel came from Masada (Bar-Nathan 2006, plates 27–28, Objects 1–29) and dated from last third of first century BCE to first third of second century CE.

Type CE 1 (Fig. 7.2:25)

The wide-mouth cooking pot (casserole) was marked by a sharp carination between the shoulder and the body. The shoulder was flat or slightly down sloping, and the rim was vertical or nearly vertical, with a triangular lip. The carination marked the widest part of the pot, and from there the wall curved into a hemispherical bowl with a round bottom (Geva and Rosenthal-Heginbottom 2003, 180). It was not present in the Late Hellenistic strata of Areas W and X-2 in the Jewish Quarter and dated from the later part of the first century BCE to the first century CE (2003, 180). Three parallels came from the Jewish Quarter: Area A, Stratum 6 dated to the first century BCE (Geva and Rosenthal-Heginbottom 2003, plate 6.2:30); Area A, Stratum 4 dated from the middle of the first century CE to 70 CE (2003, plate 6.9:20); and Area B, Stratum 2, dated to the first century CE, prior to 70 CE (Geva 2010, plate 4.5:13). One parallel came from Masada (Bar-Nathan 2006, plate 30:51–56) and dated to approximately 66–73/74 CE.

Type CJ 1 (Fig. 7.2:26)

The CJ 1 type had a wide mouth, short out-turned neck, triangular rim, and one strap-handle extending from the rim to the shoulder. This was an early cooking jug typical to the first century BCE (Geva and Hershkovitz 2006, 112). The ware was fine, well-fired, and reddish brown in color. Jugs in fine cooking ware for heating liquids were a common feature at Judean sites. In the Jewish Quarter they appeared in strata from the first century BCE to first century CE but not in the Hellenistic strata (Geva and Rosenthal-Heginbottom 2003, 181).

Three parallels came from the Jewish Quarter. The first came from Area A, Stratum 6 and dated to the first century BCE (Geva and Rosenthal-Heginbottom 2003, plate 6.2:32). The second came from Area A, Stratum 5 and dated to about 1–30 CE (2003, plate 6.5:42). The third came from Area B, Stratum 2 and dated to the first century CE, prior to 70 CE (Geva 2010, plate 4.5:15). An additional parallel, likely from the Herodian period, was discovered at Masada (Bar-Nathan 2006, plate 31:85).

Type CJ 2 (Fig. 7.2:27)

The CJ 2 style had a long neck and triangular or grooved rim. The ware was fine, well-fired, and reddish brown in

color. In the kilnworks at the International Convention Center (Berlin 2005, 39, fig. 6), the production of this vessel began in Phase 2 (late first century BCE) and increased in Phases 3–4 (first century CE until 70 CE). A parallel came from Area A, Stratum 4 of the Jewish Quarter and dated from the middle of the first century CE to 70 CE (Geva and Rosenthal-Heginbottom 2003, plate 6.9:19). Another parallel came from the Tyropeon Valley, Stratum 8 (Tchekhanovets 2013, fig. 5.1:18) and dated from the first century BCE to the first century CE. A parallel at Masada (Bar-Nathan 2006, plate 31:86–8) dated to approximately 66–73/74 CE.

Type CL 1 (Fig. 7.2:28)

Type CL 1 designated lids made of common, local cooking ware. Smaller lids were used for cooking pots, and larger lids for casseroles. The lids had either a flat bottom handle or a higher sometimes well-molded knob handle, from which the wall of the lid gently sloped down in a convex or concave curve toward the rim. The knob handle could have been perforated to allow steam to release from the vessel. Parallels dating to the first century BCE and first century CE came from Area A, Stratum 6 in the Jewish Quarter (Geva and Rosenthal-Heginbottom 2003, plate 6.1:13) and Masada (Bar-Nathan 2006, plate 31:81), which dated from the first century BCE to the first century CE (ca. 66–73/74).

Kraters and Deep, Large Bowls

Kraters and deep, large bowls were open vessels for mixing and serving food or drink. They may be considered as both tableware and kitchen vessels (Berlin 1997, 133–34). Excavations at Khirbet el-Maqatir yielded two main types: the closed krater and the open krater, according to Bar-Nathan's terminology (2006, 124, 126–28), but deep large bowls according to Geva and Rosenthal-Heginbottom (2003, plates 6.2:34–35; 6.6:11–13). Magen refers to them as basins (2004, 87). The first type had two subtypes. The first subtype had a piecrust decoration (thumb-impressed) on the rim, and the second subtype was a large, deep bowl with vertical sides.

Type KR 1 (Fig. 7.2:29)

Type KR 1 was a deep, closed globular krater with a wide triangular rim with an internal groove to support a lid. The rim style was a piecrust pattern, and there was a carination at the transition from the neck to the body. The maximum width of the body measured slightly wider than the mouth of the vessel. This type was sometimes decorated with incised or plastic decoration, as seen in the example found at Khirbet el-Maqatir which has a double row of piecrust decoration on the rim. Some kraters of this type had red painted splashes on the rim. The KR 1 form was made of fine or semi-fine ware from well-fired, light brown clay, with small white grits. The vessel's date ranged from the first century BCE to the first century CE (Bar-Nathan 2006, 124).

Three parallels match Type KR 1. The first example dated to about 1–30 CE and came from Area A, Stratum 5 in the Jewish Quarter (Geva and Rosenthal-Heginbottom 2003, plate 6.6:8–9). The second example was used at Masada (Bar-Nathan 2006, plate 23:1–3) and dated to about 66–73/74 CE. The third example came from Shu'fat (Terem 2016, plate 41:391, Object 339) and dated to the end of the first century CE.

Type KR 2 (Fig. 7.2:30)

Type KR 2 comprised a deep, large bowl with vertical sides. It had a ledge rim (see fig. 7.2) or an overhanging rim. The kraters of this type were made of semi-fine ware made from well-fired, light brown clay with small white grits. Parallels came from Area A, Stratum 6 in the Jewish Quarter (Geva and Rosenthal-Heginbottom 2003, plate 6.2:34) which dated to the first century BCE; Qalandia (Magen 2004, 115, plate 2:4), which dated to the Herodian period; and Masada (Bar-Nathan 2006, plate 24:1–3), which dated to approximately 66–73/74 CE.

Bowls

The bowls were local, small common ware without handles. They were separated into two groups according to their shape: deep bowls and shallow bowls. At Khirbet el-Maqatir the deep bowls stood out because of their incurved rim (Type BL 1), while the shallow bowls (BL 2) had a rim which folded in. Both types already appeared in the Late Hellenistic pottery discussion, but since they continue in the Early Roman Period, with some new modifications, they are presented here. Only the relevant Early Roman parallels are discussed here.

Type BL 1 (Fig. 7.2:31–33)

The BL 1 form was a small, deep bowl with an incurved rim. These bowls were generally made from fine, well-fired, and hard ware, with a color range of light brown, light red, pink, and gray. The firing often produced a core. This type of bowl first appeared in the Late Hellenistic period (fig. 7.1:16–17). Several typological differences were apparent.

The first was a gentle curve of the wall close to the lip so that the lip was nearly vertical and with a shape that was close to hemispherical. The second was a sharp curving of the wall close to the lip so that the body was hemispherical but with a pronounced carination. These two groups of bowls were not different types, but all the bowls from the Early Roman period at Khirbet

el-Maqatir were from the last type (with the sharp curving and a pronounced carination in the body) which was also considered to be the later one (Bar-Nathan 2006, 130–31). The bowls with an incurved rim were sometimes decorated with a band of paint in red or gray to black colors. The paint was usually carelessly applied with drops running down the side of the vessel when it was still wet; others were decorated with carefully applied painted decorations (Geva and Rosenthal-Heginbottom 2003, 187). The bowls with an incurved rim dated to the mid-second century BCE, but the ones with the painted decoration dated to the first century CE. The last type was distinguished by its extremely thin walls and painted floral motifs (fig. 7.2:33). These bowls, also known as Jerusalem painted bowls, were manufactured in Jerusalem, and they are typical in the Jerusalem pottery assemblage of the first century CE (Geva 2003, 188–89; 2010, 127).

The Jewish Quarter produced parallels from the first century BCE, Area A, Stratum 6 (Geva and Rosenthal-Heginbottom 2003, plate 6.2:42–43, 45), and Area B, Stratum 2 (Geva 2010, plate 4.6:2). The Jewish Quarter examples dated to the first century CE, up to 70 CE. Excavations at Masada (Bar-Nathan 2006, plate 25:4–16) yielded the same form. There they dated to about 66–80/87 CE.

Parallels with painted decoration came from the Jewish Quarter, Area A, Stratum 4 (Geva and Rosenthal-Heginbottom 2003, plate 6.9:25), which dated from the middle of the first century CE to 70 CE, and Area B, Stratum 2 (Geva 2010, plate 4.6:7), which dated from the first century CE to 70 CE. Examples also came from Masada (Bar-Nathan 2006, plates 49–50:60–67), which dated to approximately 66–73/74 CE.

Type BL 2 (Fig. 7.2:34)

The shallow bowls (sometimes referred to as plates) are characterized by a splayed, unbent body with a short rim folded inside. They were generally made of fine ware in light brown color and were never painted. Shallow bowls were typical of highland sites and Jerusalem in the second and especially first centuries BCE. In Area A of the Jewish Quarter this type was well represented in the first century BCE stratum (Stratum 6) and became less common in the later stratum (Geva and Rosenthal-Heginbottom 2003, 188). Type BL 2 appeared in large quantities in Jericho (Type J-PL1A3) in the Hasmonean period, with continued use in the Herodian period (Bar-Nathan 2002, 91, 93).

The Jewish Quarter produced parallels from Area A, Stratum 6 (Geva and Rosenthal-Heginbottom 2003, plate 6.3:2, 9–10), which dated to the first century BCE; Area E, Stratum 4 (Geva and Hershkovitz 2006, plate 4.5:2–6) and Stratum 3 (2006, plate 4.9:13), which dated to the second half of the first century BCE. In Jericho, Type BL 2 dated to about 100–31 BCE (Bar-Nathan 2002, plate 16, Objects 252–56).

Oil Lamps

The Early Roman assemblage includes four types of lamps: the folded wheel-made lamp (Type LP 1), which faded out of use in the Herodian period (already discussed in the Hellenistic typology); the mold-made Judean radial lamp; the wheel made Herodian lamp; and the mold-made discus lamp.

Type LP 2 (Fig. 7.2:35–36)

Lamps with a radial shoulder decoration, termed Judean radial lamps, were descendants of the Late Hellenistic lamps (Barag and Hershkovitz 1994, 19; Rosenthal-Heginbottom 2003, 218). This type possessed a rounded body, long nozzle, and various shoulder and nozzle decorations. The shoulder was decorated with radial grooves (fig. 7.2:35–36) or concentric semicircles, and V-shaped or herring-bone pattern. The filling-hole could have been plain or with one or more ridges (three in the lamp in fig. 7.2:35), and sometimes the nose was also decorated with grooves. It came into use sometime during the first half of the first century BCE and continued through that century. The lamps were made of light, red-brown ware with a matt, red-brown slip. The walls were usually fairly thick. The firing was rather poor, and the ware in many cases was brittle (Barag and Hershkovitz 1994, 14–16, 19, 22).

Parallels dating to about 1–30 CE came from Area A, Stratum 5 in the Jewish Quarter (Geva and Rosenthal-Heginbottom 2003, plate 6.8:3); Qalandia (Magen 2004, plate 2:9), which dated from the late second to first centuries BCE; Jericho (Bar-Nathan 2002, plate 17, Objects 293–94), from the Herodian period; and Masada (Barag and Hershkovitz 1994, fig. 2, Objects 3–14), which dated from the late first century BCE to the first century CE, mostly after the Herodian period.

Type LP 3 (Fig. 7.2:37–38)

The Herodian lamp, more fully described as the wheel-made, knife-pared lamp, is characterized by a knife-pared spatulate nozzle. The body was round with curving sides and flat shoulders; a sharp ridge enclosed the filling-hole. Type LP 3 appeared in the Masada report, as Type C, subdivided into thirteen subgroups on the basis of typological variations and ware color (Barag and Hershkovitz 1994, 24–58). This type was introduced during the last years of Herod's reign, or even slightly afterward, and continued in use until the middle of the second century CE (Rosenthal-Heginbottom 2003, 219). The lamps from Khirbet el-Maqatir (fig. 7.2:37–38) include only the brown color variety; the gray variety

was missing from the assemblage. Herodian lamps were usually not decorated, but some had an incised horizontal line at the base of the nozzle or with two or more stamped concentric circles on the nozzle (as was found at Khirbet el-Maqatir; fig. 7.2:38); some were even decorated with incised branches. All of these decorated lamps likely paralleled Types 3–5 at Masada and dated from the last decades before the First Jewish Revolt (Barag and Hershkovitz 1994, 50).

Three parallels came from the Jewish Quarter. The first example came from Area A, Stratum 5 (Geva and Rosenthal-Heginbottom 2003, plate 6.8:4–5) and dated to about 1–30 CE. The second example was uncovered in Stratum 4 (2003, plate 6.9:43–44) and dated to the middle of first century CE, up to 70 CE. The third example came from Area E, Stratum 2 (Geva and Hershkovitz 2006, plate 4.13:1–3) and dated to the first century CE, up to 70 CE. Additional parallels came from Qalandia (Magen 2004, plate 2:10), dating from the late first century BCE to the first century CE; Jericho (Bar-Nathan 2002, plate 18, Object 303), dating from about 15 BCE to 6 CE; and Masada (Barag and Hershkovitz 1994, fig. 5–11, Objects 27–77), Types 1–5, dating from the end of Herod's reign to the period of the Zealots.

Type LP 4 (Fig. 7.2:39)

This mold-made, round lamp with a decorated discus had a round, flat, and rather shallow reservoir with a small, round nozzle (missing in the fig. 7.2:39). The rim was rather wide, and the discus in the middle was sunken. The rim decorations varied: apart from the volutes on the side of the nozzle—ovolo (as in the fig. 7.2:39), darts, triangles, or leaves encircled the disc. The discus, missing from the Khirbet el-Maqatir lamp, was decorated and exhibited a wide range of subjects. The clay was light brown to pink with a red, black, or brown slip, with some unslipped exceptions. This was a Roman provincial lamp and was common at sites in Israel and Syria. The date ranged from the second half of the first century CE to the third century CE (Rosental and Sivan 1978, 84). An excellent parallel for the Khirbet el-Maqatir lamp came from Area B, Stratum 2 in the Jewish Quarter (Geva 2010, plate 4.8:9); it dated to the first century CE, up to 70 CE. This lamp had the same rim decoration as the Khirbet el-Maqatir lamp.

Roof Tiles

The most common system of tiling a roof with ceramic roof tiles was to use separate pan tiles and cover tiles. Pan tiles were larger, wider, flat or slightly curving tiles placed facing upwards on the rafters. Cover tiles were narrower tiles for covering the joints between pan tiles, to create a water-tight and wind-tight roofing system. The general terms for roof tiles (following the Latin) are *tegula* for pan tile and *imbrex* for cover tile.

It is generally accepted that the current tradition of tiled roofs in the Greco-Roman world first emerged in Archaic Greece during the seventh century BCE. Roofs were identified as *systems*, which means that in their original form the roofs consisted of particular combinations of pan tiles, cover tiles, and architectural terra-cotta decoration. The systems thus recognized are (in order of emergence) as follows: the proto-Corinthian (around 675 BCE), the Laconian (mid-seventh to end of seventh century BCE), and the Corinthian (early sixth century BCE). A fourth variant was the hybrid system, combining flat Corinthian-style pan tiles with semicircular Laconian-style cover tiles. The names *Corinthian* and *Laconian* have become normative in research for denoting Corinthian-derivative flat-panned tiles with gabled cover-tiles or Laconian-derivative curved (concave) pan tiles with convex cover-tiles. The Roman tegula represents the hybrid form, with flat-panned tiles and semicircular cover tiles. The Roman period tegulae developed into quite standardized and uniform objects that shared the same overall features and production methods all across the West, and which moreover significantly differed from the tiles in the East.

The majority of Greek and Roman pan roof tiles were rectangular, or rectangular with slight tapering, narrowing towards one short end. The profile of the tile in the case of Corinthian pan tiles was flat, and in the case of Laconian pan tiles curved or concave. Tiles could usually be placed only in one direction, it was necessary to know which end was which, as the upper row had to overlap the lower tile row in order for the roof to be watertight. The correct placement also required that an upper surface and a lower surface or underside could be discerned, with the upper surface usually being smoothed to be impregnable to weather. The cover tiles of the systems were very regular in their morphology, being either semicircular or facetted (gabled) in profile, with a long, tapering shape (Hamari 2019, 19–22).

All the roof tiles found in Early Roman loci at Khirbet el-Maqatir belonged to one type (Type RT 1) and were semicircular in cross-section and semicylindrical in shape. According to their shape and cross-section they were probably used as the cover tiles, the upper tiles in the roofing system.

Type RT 1 (Fig. 7.2:40–41)

Twelve partial semicylindrical (convex) roof tiles were found at Khirbet el-Maqatir. Although ceramic roof tiles are a well-known Greek and Roman architectural element, no such tiles were published from the Early Roman strata in Jerusalem. Large flat ceramic tiles were placed above the pillars in the hypocaust in the bathhouse of Horvat 'Eleq near Ramat Hanadiv—tiles which dated to the first century CE, before the First

Jewish Revolt—but no semicylindrical roof tiles were published from there (Hirschfeld 2000, 320, figs. 202–3). In the Az Zantur house in Petra, Jordan, large flat ceramic tiles functioned as part of the heated floor, directly above the small brick pillars of the winter triclinium (Room 14) with a hypocaust. This example dated to the first century CE and possibly even earlier (Hamari 2019, 44, fig. 9). In the same site in Ez Zantur IV, where the material probably dated to the first century CE, semicircular cover tiles with wavy fingerline marking were found (Hamari 2019, 82, fig. 15). The only possible parallel from may be the ones from Building A, an Early Roman public building at Tel Ḥashash, near the Yarkon River at Tel-Aviv (Tal and Taxel 2010, 110, fig. 15). Excavators Kaplan and Ritter-Kaplan interpreted two types of objects as roof tiles. The first were interpreted as upper tiles, having an elongated convex cross-section with an opening at their narrow face which bears remains of mortar. The rest of the roof tiles were interpreted as lower tiles. They were rather flat compared to the first type but have moderate curving, and they have thickened edges. According to Tal and Texal, because both types of tiles differed from the known roof tiles of the period, the first type tiles were actually sections of a bathhouse's hypocaust wall tubes (tubuli) and the second type tiles were placed above the pillars in the hypocaust in the bathhouse, as was found in the site mentioned above, Ḥorvat ʿEleq, near Ramat Hanadiv (Tal and Taxel 2010, 110). It seems that their suggestion at least concerning the second type of tiles needs to be revised according to the finding from Khirbet el-Maqatir and Az-Zantur.

Miscellaneous

In addition to the ceramics mentioned above, a few more objects deserve attention; namely, jar stands and tubuli.

Stands (Fig. 7.2:42)

Jar stands are typically characterized by a curved wall and a simple rim (as all the stands from Khirbet el-Maqatir), but some stands have a straight, interior wall and two external ridges (Geva and Rosenthal-Heginbottom 2003, 189). With regard to width and height, the stands were of the same size (about 11 cm wide and about 5 cm high). It was not always clear which side formed the base. They were thick walled and made of well-fired, semi-fine ware. The color of the clay was light red or reddish-brown with some white grits and a gray core. Some of the stands bore inscriptions which were made before firing (Geva 2010, 128). The Khirbet el-Maqatir excavation yielded twenty stands, four of which had incised Hebrew letters or other marks. Hassler (forthcoming) and chapter 10 more fully discuss these stands and their inscriptions. Stand no. 3 (fig. 7.2:42) typifies these inscriptions. Stands had a long tradition from the Iron Age, the Hellenistic Age, and Roman Age. Stands from the south were quite uniform. It seems that they were used to support round bottom vessels such as cooking pots, cooking jugs, and storage jars. The numerous examples found in the workshop of Giva't Ram (in the Jerusalem Convention Center), suggested that these stands were used as kiln stands (Geva and Rosenthal-Heginbottom 2003, 189).

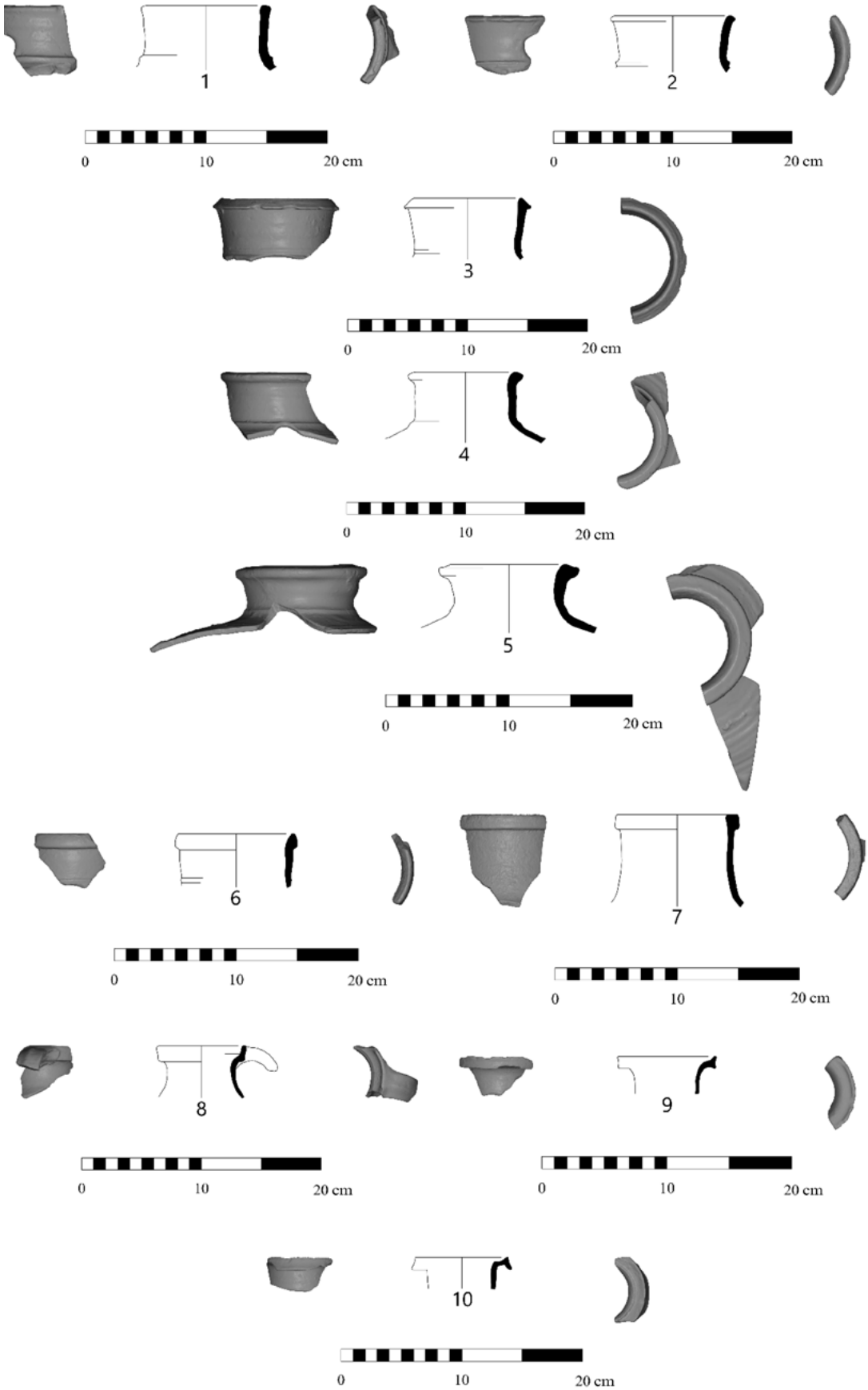
Two parallels came from the Jewish Quarter: Area A, Stratum 5 (Geva and Rosenthal-Heginbottom 2003, plate 6.6:36–37), which dated to approximately 1–30 CE; and Area B, Stratum 2 (Geva 2010, plate 4.6:12–14), which dated to the first century CE, up to 70 CE.

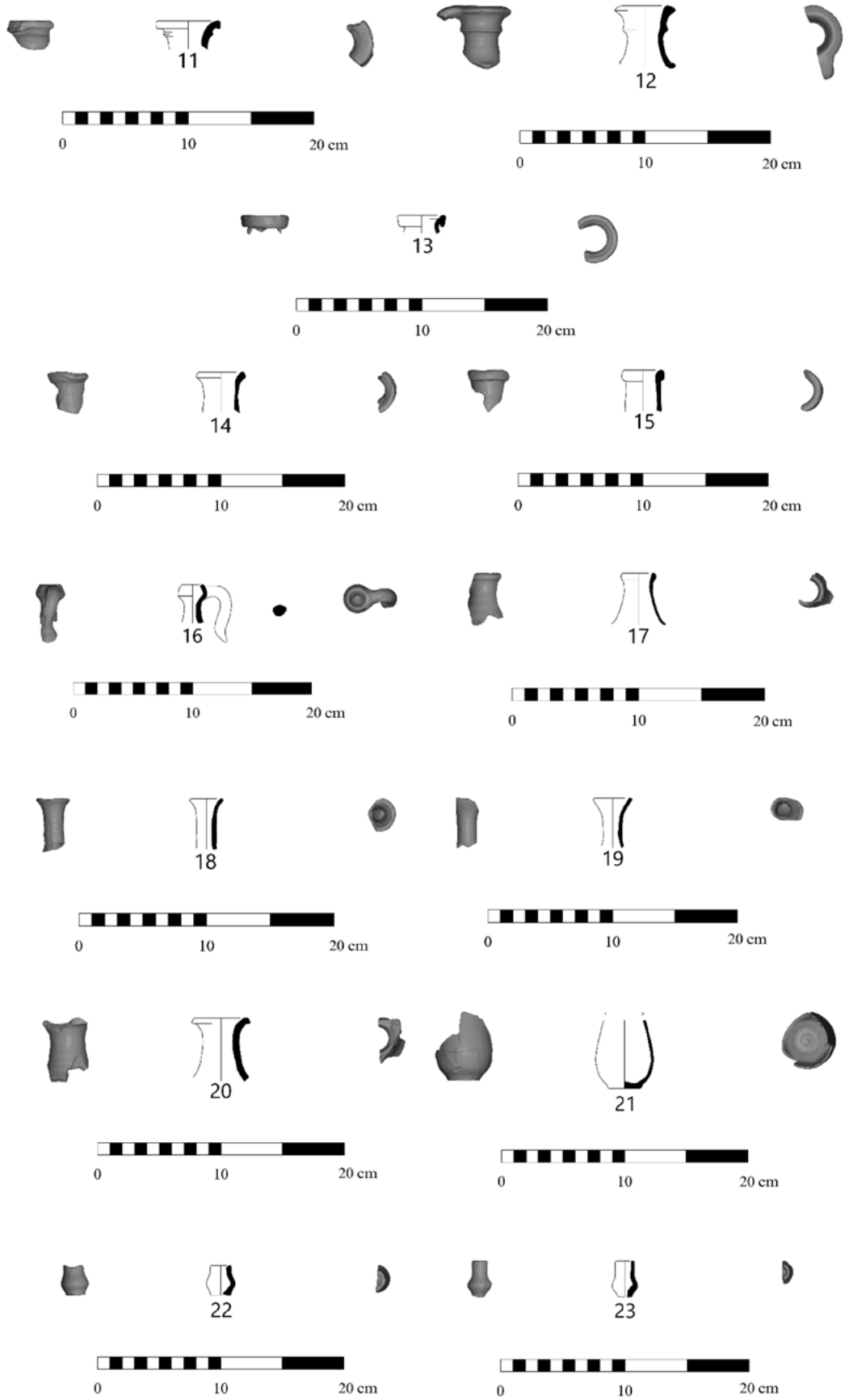
Tubuli (Fig. 7.2:43)

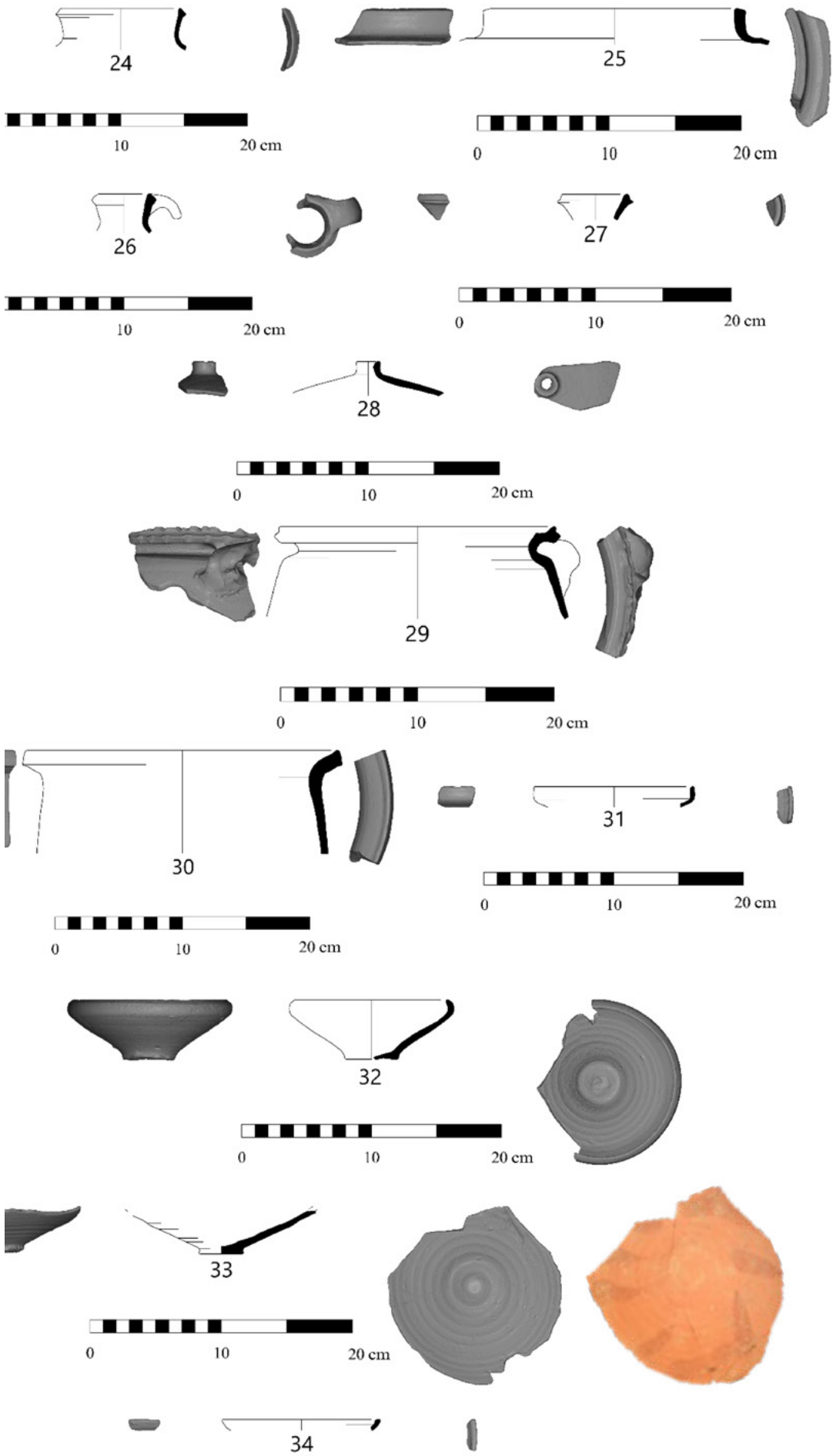
The tubuli ("flue-tiles" or "wall-tubes") from Khirbet el-Maqatir had a round shape in cross-section, with a long, cylindrical shape, with two small rectangular vents cut before firing in both sides in the middle of the vertical section. They were wheel made, and wheel marks can be seen in their inner, less smooth side. Some tubuli were found at Khirbet el-Maqatir in a secondary deposit in an Early Roman installation. Typical dimensions were as follows: lower diameter 14 cm, upper diameter 12 cm, height 20 cm, and thickness 3–4 mm. They were made of well-fired, reddish-yellow clay with white grits. The tubuli, which had small openings to allow the movement of hot air in the bathhouse not only vertically but also horizontally along the walls. Early rectangular tubuli are known from Pompeii in the baths of the house of Julia Felix (Augustan period). The rectangular tubuli found in Masada and in other Herodian baths were some of the earliest outside Italy (Forester 1995, 199–200). The thick rectangular tubuli from these Herodian sites were made in a mold, like bricks, while the thinner Khirbet el-Maqatir tubuli were made on wheels, like pipes.

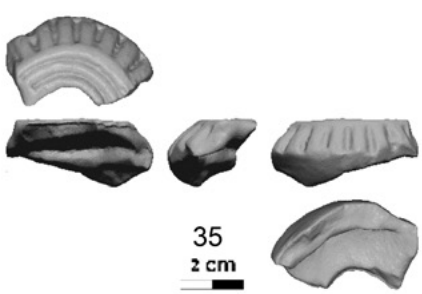
While no exact parallels have been published, three sites yielded approximate parallels. The most similar parallel to the tubuli from Khirbet el-Maqatir came from the Herodian castle at Kypros (personal knowledge). Another parallel, also wheel made but square and smaller than the Khirbet el-Maqatir tubuli, was found together with larger mold made tubuli in the excavation of the bathhouse at Shuʿafat, which dated between the two Jewish revolts (ca. 70–132 CE).[1] The third example of wheel-made tubuli came from a bathhouse which dated to the first century BCE or first century CE in the Wadi Rum in Jordan (Reeves and Harvey 2016, 453, fig. 8; 554, table 2).

[1] I would like to thank to Dr. Rachel Bar-Nathan who excavated the site and kindly allowed me to examine the tubuli that were found in the excavation.


1
0
10
20 cm
2
0
10
20 cm
3
0
10
20 cm
4
0
10
20 cm
5
0
10
20 cm
6
0
10
20 cm
7
0
10
20 cm
8
0
10
20 cm
9
0
10
20 cm
10
0
10
20 cm


11
0
10
20 cm
12
0
10
20 cm
13
0
10
20 cm
14
0
10
20 cm
15
0
10
20 cm
16
0
10
20 cm
17
0
10
20 cm
18
0
10
20 cm
19
0
10
20 cm
20
0
10
20 cm
21
0
10
20 cm
22
0
10
20 cm
23
0
10
20 cm


24
10
20 cm
25
0
10
20 cm
26
10
20 cm
27
0
10
20 cm
28
0
10
20 cm
29
0
10
20 cm
30
0
10
20 cm
31
0
10
20 cm
32
0
10
20 cm
33
0
10
20 cm
34

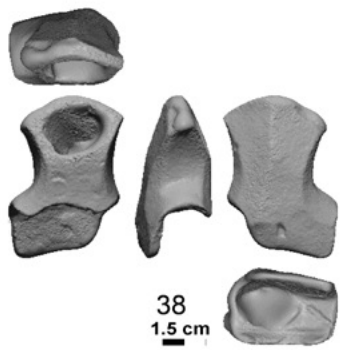


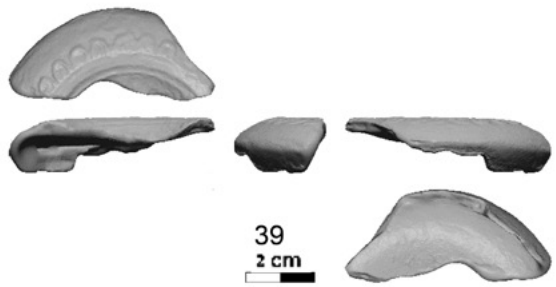




37

0 4





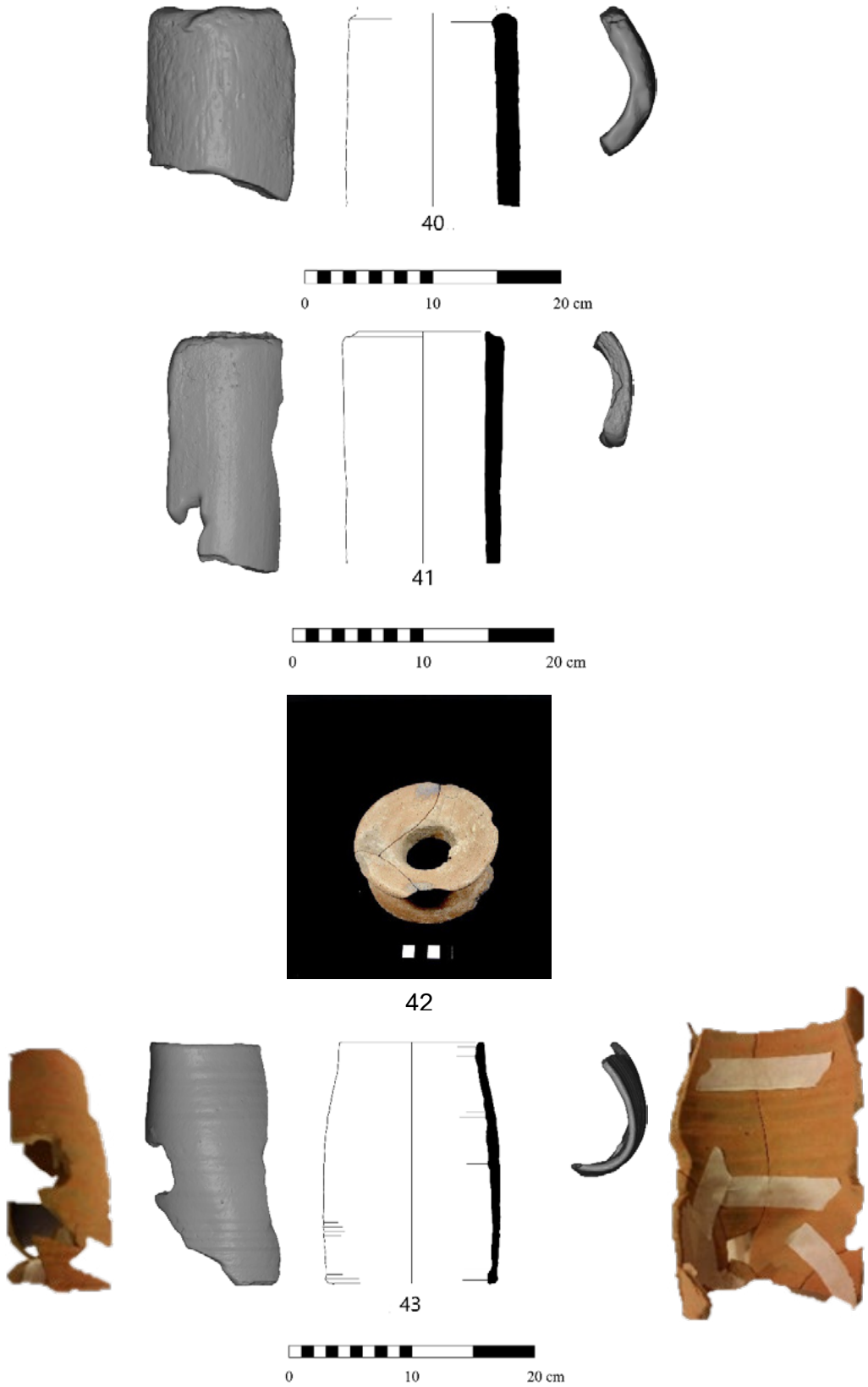


Figure 7.2. Early Roman period pottery types from Khirbet el-Maqatir.

Summary and Conclusion

The Early Roman pottery assemblage from Khirbet el-Maqatir was similar to the ceramic assemblages discovered in Jerusalem and its surrounding area. All the pottery was locally manufactured in the Jerusalem area. The pottery represents typical ceramics from the end of the first century BCE to the first century CE. The jars accounted for more than 50 percent of the pottery found. From these, most belong to the SJ 5a–b types and some to Type SJ 5c which continued after 70 CE. One type, represented only with a few sherds, was Type SJ 5d which appeared only after 70 CE. It suggests activity during the Bar Kokhba revolt and possibly between the two Jewish revolts. Chapter 4 presents the pottery from the second century CE. New types that also first appeared in the Early Roman period were the juglet with a rounded or outcurved rim (Type JT 2), the pyriform unguentarium (PU 1), the wide mouth cooking pot/casserole (Type CE 1), the Jerusalem painted bowl (included as part of Type BL 1), and the Herodian lamp (Type LP 3). The majority of the types were simple storage and serving vessels. The more elaborate types were missing, and even the Jerusalem painted bowls were found in a small number. The existence of jar stands, some bearing inscriptions, was of interest. The presence of tubuli likely indicates the existence of a small bathhouse or another type of heated installation. The existence of twelve convex roof tiles, which are rare at Judean sites in this period, is also intriguing.

Byzantine Pottery

This section examines the typology of the ceramic vessels from the Khirbet el-Maqatir Byzantine ecclesiastical complex located in Area C. The loci yielded pottery that represents typical vessel types from the fourth to the first half of the seventh centuries CE. The vessels are presented in chronological order. The classification system is based on typology and is similar to what was used in the Late Hellenistic and Early Roman sections. This section follows the typological nomenclature used in *Jerusalem Ceramic Chronology* (Magness 1993), but many additional sites from Jerusalem and its surrounding area also provide parallels.

The vast majority of the vessels were made of plain ware which was locally produced and similar to the vessels in Jerusalem, its vicinity, and other regions in Judea. The pottery had a light brown, grayish, or pinkish-brown fabric with a small amount of white grits. As in the previous sections, the description of the ware is based mainly on typology. On the plates, only surface treatment and decoration, painted or plastic, is noted. The decorated wares (incised with wavy lines or with gashes) are treated as integral parts of the assemblage and are included within the discussion of the relevant types. Other areas in the region have yielded parallels such as the black-baggy jar, also known as the Beit Shean jar. Some imported vessels came to light at Khirbet el-Maqatir, especially Late Roman C ware (LRC), and they are classified according to Hayes's typology in *Late Roman Pottery* (1972).

Storage Jars

Several types of storage jars were found. One type was brought from the north of Israel, probably from the Beit Shean area (Type SJ 6). It was made of gray ware; sometimes decorated with painted designs (not found here). The other types (SJ 7–10) probably originated from the Jerusalem area. All these types matched the well-documented types from excavations in Jerusalem and its surroundings. The first two types were bag-shaped storage jars with a ribbed body and two thick loop-handles on their shoulders and a rounded base. These included one type of storage jar with a thickening on the inside of the rim (Type SJ 7) and one type of storage jar with a low neck and a plain rim (Type SJ 8). The last two had a rounded body, a high and wide shoulder, and a short neck. From these, the first type was a hole-mouth jar with a short neck and everted rim (Type SJ 9). The second type was a hole-mouth jar with a double or triple rolled rim (Type SJ 10). The jars characteristic of the Jerusalem area were never decorated with painted designs (Magness 1993, 221).

Type SJ 6 (Fig. 7.3:1)

This type included one rim, straight in shape, with a small ridge on its lower half; it was characterized by its gray ware. The clay was fine with some white grits, and it had a very hard fired nature. Sometimes painted designs appeared on the vessels covering part or most of the body (not seen on the rim). This type was identified as Riley Caesarea Type 3 (black-baggy jar), a jar that has long been considered to have originated at Beit Shean and the surrounding area; it was common in the Galilee but rare in Jerusalem. The date range for Type SJ 6 ran from the second century CE to the Early Islamic period, at least to the eighth century CE (Johnson 2008, 91). According to the shape of this rim from Khirbet el-Maqatir, it is parallel to vessels that date from the fourth to the sixth centuries CE.

Parallels came from Ceasarea Maritima from a sealed locus dating from the fourth to the sixth centuries CE (Johnson 2008, 181, Object 1092) and from a sealed locus dating from the end of the fifth to the beginning of the sixth centuries CE (Johnson 2008, 181, Object 1093). Another parallel was found at Hippos-Sussita from the central urban area, under Floor 1337, dating from the first to the fifth centuries CE or later (Mlynarczyk 2007, fig. 4:52). And at the Roman bath of Hammat Gader, a

storage jar dated from the second to fifth centuries CE, below a floor dated by an inscription to 455 CE (Amir 1997, 352, plate 4:9).

Type SJ 7 (Fig. 7.3:2)

This type is characterized by a thickening or a fold on the inside of the rim and a ridge or collar at the base of the neck. The ware was light brown or orange brown and sometimes covered with a yellow-brown slip. Magness classifies this type as storage jar Form 4, a type that dated from the third to the seventh centuries CE and was a common form of storage jar associated with sites in Jerusalem (1993, 223–25). There was a tendency for the body to get wider and the neck shorter over time, and according the rim morphology, Magness separated the type into three variants. The first was storage jar Form 4, Variant A, which had a high neck that widened at the top and a straight or slightly incurved rim. It dated from the third to the fourth centuries CE. The second was storage jar Form 4, Variant B, which had a straight neck, a little lower than in Variant A, and a straight or incurved rim. It dated from the fifth to the sixth centuries CE. The third was storage jar Form 4, Variant 3, which had a very low neck that narrowed slightly at the top. It dated from the late sixth to the seventh centuries CE. Figure 7.3:2 corresponds to Magness Form 4, Variant B, and dated from the fifth to the sixth centuries CE.

Parallels (only to fig. 7.3:2) include the following: Jerusalem, storage jars Form 4, Variant B (Magness 1993, 225), which dated from the fifth to the sixth centuries CE; the Jewish Quarter, Area W, which dated to the Late Roman and Byzantine periods (Magness 2003, 427, plate 18.2:16); the Nea Church and Byzantine Cardo, Area T-1, pottery from beneath the Nea Church, which dated to the Late Roman and Byzantine periods (Magness 2012, 284–85, plates 9.2:19–21; 9.4:3); the Tyropoeon Valley, Strata 6–5 in Area M1, which dated from the fourth to the seventh centuries CE (Baluoka 2013, figs. 6.3:6; 6.5:4); and the Ophel excavations, Area C, from Phase 4a, which dated from the fourth to the early fifth centuries CE, and Phase 3b, which dated from the mid-fifth to the mid-sixth centuries CE (Fleitman and Mazar 2015, fig. I.5.1:55–56).

Type SJ 8 (Fig. 7.3:3)

Type SJ 8 had a low neck and a plain rim. The body was wide and ribbed. According to Magness, this type, storage jar Form 5, had a wide and ribbed body with two variants. Variant A had a straight neck, slightly narrowing at the top, and a collar or ridge at its base. It was hard-fired and light brown in color. Variant B with a neck that slightly widened toward the top, lacked the collar or ridge at the base, and was made of dark, red-brown ware that was very coarse and micaceous. Both variants dated from the late sixth to the early eighth centuries BCE (Magness 1993, 225–27). Figure 7.3:3 corresponds to Variant A. Magness provides parallels for Type SJ 7 (storage jars Form 5) (1993, 225–27). A fragment of Form 5B was reported from the drainage channel of the Cardo in Jerusalem; it dated to the Late Roman and Byzantine periods (Magness 2012, plate 9.4:20).

Type SJ 9 (Fig. 7.3:4)

Type SJ 9, with a short neck and an everted rim, is defined by Magness as hole-mouth jar Form 1. The term *hole-mouth* refers to its characteristic features: a round body, high wide shoulder, and a very short neck. Magness identifies two variants based on the shape of the rim. Variant A had a variety of rim profiles, from flattened (fig. 7.3:4) to rolled, to triangular, to grooved. Variant B had a short neck and a sharply hooked or beaked rim and a prominent ridge at the base of the neck (1993, 231–33). Both variants were made of hard-fired ware, often light red or red-brown in color, and sometimes covered with a light brown slip. Variant B had combing decoration; Variant A lacked this feature. Variant A dated from the second to the fifth centuries CE while Variant B dated more narrowly to the fifth and sixth centuries CE. Based on the Ophel excavation results, Fleitman and Mazar suggest that both types were already present in the fourth century CE or perhaps even earlier (2015, 219–20).

Magness documents Type SJ 9 (hole-mouth jars, Form 1, Variants A and B) and suggests a date from the second to the sixth centuries CE (1993, 231–33). Excavations in Jerusalem have yielded three parallels. The first example came from Areas A and W in the Jewish Quarter and dated to the Late Roman and Byzantine periods (Magness 2003, plate 18.1:23–24). The second example, from Phase 5B in Area M1 of the Tyropeon Valley excavations, dated to the fifth and sixth centuries CE (Baluoka 2013, fig. 6.6:13). The third example came from Areas C and B of the Ophel excavations: Area C, Phases 4b–a (fourth to early fifth centuries CE) and Phase 3b (mid-fifth to mid-sixth centuries CE) (Fleitman and Mazar 2015, fig. I.5.1:58, 61); Area B, Phase 2d (second half of the sixth century CE) (2015, fig. I.5.1:59, 60).

Type SJ 10 (Fig. 7.3:5)

Type SJ 10 was a neckless form with a double or triple rolled rim. It was made of hard-fired ware, sometimes with a thick gray core fired to pink-brown or gray-brown on the surface. It was sometimes slipped with lighter brown buff. Magness documents Type SJ 10 (hole-mouth jar, Form 2) and suggests a date range from the sixth to the late seventh or early eighth centuries CE (1993, 233–35). A close parallel came from Cistern L12-770 in Area B of the Ophel excavations. It

dated from the late sixth to the early seventh centuries CE (Reuven 2015, fig. I.6.1:11).

Jugs

The Khirbet el-Maqatir excavation yielded only one type of jug (JG 6, fig. 7.3:6). An incised body sherd (fig. 7.3:7) was probably from the same type. The jug, together with jars and juglets made of similar ware, relates to the fine Byzantine ware bowls (FBWB). It was made of fine, hard-fired, and often burnished fabric. While these bowls could have been decorated with incised wavy lines, the closed vessels were decorated with incised gashes (fig. 7.3:7) or nicks on the shoulder. Unlike the bowls, the closed vessels do not continue beyond the first half of the eighth century CE (Magness 1993, 236).

Type JG 6 (Fig. 7.3:6–7)

The main characteristic of Type JG 6 was the everted, triangular rim. Three variants can be distinguished on the basis of morphology and chronology. Variant A had a slight depression on the top of the rim, which suggested a connection to the Early Roman rims. Variant B (fig. 7.3:6) is the characteristic jug with a funnel-shaped neck which widened towards the everted, offset, triangular rim and an ovoid or round (fig. 7.3:7) body. The rim of Variant C resembled the rim of Variant B, but Variant C had a distinctive biconical shape and a short neck that narrowed toward the top just before the rim flared out (Magness 1993, 236–39). One sherd was decorated with incised gashes (fig. 7.3:7).

Magness documents parallels for Type JG 6 (fine Byzantine ware jars, jugs, and juglets; Form 1, Variant 2) and suggests a date range from the mid-sixth to early eighth centuries CE (1993, 236–39). Three parallels derived from the greater Jerusalem area. One of them came from Ras Abu Ma'aruf and dated to the Late Byzantine and Umayyad periods (Rapuano 1999, fig. 9:127, 129–31). Another example came from Area X-4 of the Nea Church and Byzantine Cardo excavation. Moreover, the pottery from the drainage channels of the Cardo dated to the Late Roman and Byzantine periods (Magness 2012, plate 9.4:22).

Cooking Vessels

The cooking vessels included a small selection of closed and open vessels. They were made of brittle red-brown clay. One cooking pot type (CP 4) and one cooking bowl (casserole) type (CE 2) comprised the cooking vessels.

Type CP 4 (Fig. 7.3:8)

Type CP 4 was a small cooking pot with a relatively short, straight, or flared neck and a thickened, rounded rim. The transition from the neck to the shoulder was slightly angular in the illustrated vessel (fig. 7.3:8), but it could have also been smooth. The ware was brittle, red-brown in color, and contained white and quartz grits. Magness classifies Type CP 4 as cooking pot Form 3, Variant B, and suggests a date range from the sixth to the seventh centuries CE (1993, 218). The best parallel came from the Nea Church and Byzantine Cardo, Area X-4, where the pottery from the drainage channels of the Cardo, dated to the Late Roman and Byzantine periods (Magness 2012, plate 9.4:19).

Type CE 2 (Fig. 7.3:9–10)

The Type CE 2 cooking bowls (casseroles) had a rounded base and walls, contrary to the carinated Early Roman (CE 1) type. It was made of thin, gritty, brittle, red-brown cooking ware, often with thin, narrow-spaced ribbing on the exterior walls. There were two horizontal handles, and the rim was either flat or beveled. Magness classifies Type CE 2 as a casserole (cooking bowl) Form 1 and suggests a date range from the late-third or early fourth to eighth centuries CE (1993, 211–13).

Parallels come from three Jerusalem sites. The Jewish Quarter, Area W, dated to the Late Roman and Byzantine periods (Magness 2003, plate 18.2:15). The Nea Church and Byzantine Cardo, Area X-4, pottery from the drainage channels of the Cardo, dated to the Late Roman and Byzantine periods (Magness 2012, plate 9.4: 18). Three examples came from the Ophel excavations. The first came from Area B, Phase 4 and dated to the fourth and early fifth centuries CE (Fleitman and Mazar 2015, fig. I.5.1:83). The second came from Phase 3b and dated from the mid-fifth to the mid-sixth centuries CE (2015, fig. I.5.1:86). The third example came from Area C, Phase 2 and dated to the second half of sixth century CE (2015, fig. I.5.1:82).

Bowls

Two types of large imported bowls were found. They represent two families of tableware vessels that were common in the Mediterranean and the Levant during the Roman and Byzantine periods. The first type (SLB 1) belonged to the family known as Late Roman C ware, also known as Phocaean red slip ware after the discovery of a large pottery workshop in Phocaea in Asia Minor that probably served as its exclusive production center. Late Roman C ware first appeared in Asia Minor in the fourth century CE and spread along the Mediterranean cost, especially in the Levant in the fifth and sixth centuries CE and disappeared in the seventh century (Hayes 1972, 323; Fleitman and Mazar 2015, 227–28). The second type (SLB 2) belonged to a family known as African red slip ware, a type produced in North Africa from the late first to the seventh centuries and was distributed to most of the Mediterranean provinces. The vessels were slipped in a shade slightly darker than the ware (Hayes 1972, 13, 425; Fleitman and Mazar 2015, 228).

Type SLB 1 (Fig. 7.3:11)

Type SLB 1 was mold made with orange-red ware, orange-red slip, and burnishing inside and out. Hayes identifies it as Late Roman C, Form 3, Type H (1972, 329–38, fig. 69:17–26). This large bowl had a vertical rim and an incorporated flange. Hayes identifies several varieties based on the changes in the rim shape. Figure 7.3:11 illustrates Type F with a broad overhanging rim. This vessel dated to the sixth century CE, especially the second quarter of sixth century CE. Parallels for Type SLB 1 come from Area W of the Jewish Quarter, which dated to the Roman and Byzantine periods (Magness 2003, plate 8.2:3) and the Nea Church and Byzantine Cardo, Area T-1, where the pottery from the Nea Church dated to the Late Roman and Byzantine periods (2012, plate 9.1:3).

Type SLB 2 (Fig. 7.3:12)

Type SLB 2 was a large bowl with a vertical and slightly incurved rim which was flattened on the outside to give a more or less triangular profile. The clay was fairly granular, generally fired orange-red to red, with a semi-lustrous or matt slip. Hayes identifies it as African red slip, Form 61 Type B (1972, 100–107) with a rim which tended to hang over the outside. The date range for this type was about 400–450 CE. Hayes documents SLB 2 as African red slip Form 61 Type B (ARS 61B) (1972, 104, fig. 17:33). A clear parallel comes from Area B, Phase 2 of the Ophel excavations, which dated to the second half of sixth century CE (Fleitman and Mazar 2015, fig. I.5.1:187).

Basins

Basins, sometimes called large bowls, were very common during the Byzantine period. In this chapter the term basin is used since it was the most common term for these large vessels and since Magness (1993, 205–9) uses this term for this vessel type. The Khirbet el-Maqatir Byzantine pottery assemblage only had arched-rim basins.

Arched-rim basins were the most common basin type during the Byzantine period in the region, and they continued into the Early Islamic period (Magness 1993, 204–7). Recently, the date of their first appearance has been debated with the discovery of the kilns at Binyanei Ha-'Uma in Jerusalem. Magness (2005, 105) suggests that their initial appearance was no later than 200 CE.

Arched-rim basins were deep with flaring walls and an arched rim that varied from more arched to more rounded. The basins usually had a gray core and were fired to light brown or orange-brown on the surface. Sometimes they had a light yellow-brown or light brown slip. They were produced either from thin, well-levigated and well-fired ware or of coarse, thick-walled ware. The early basins lacked decoration (Magness Form 1; 1993, 204–6), but by the sixth century CE, they tended to be decorated with combing or with finger impressions along the edge of the rim (Magness, Form 2, 1993, 206–8).

Only two types of basins were found at Khirbet el-Maqatir. Since only rims were found from the first type, and none of the sherds had combing, it was impossible to identify if Type BA 1 was parallel to arched-rim basin Form 1 that was not decorated with combing and dated from the late third or early fourth to the sixth centuries CE (Magness 1993, 204–6), or arched-rim basin Form 2, Variant A, which was decorated with combing on the body and sometimes on the rim and dated from the sixth to late-seventh or early eighth centuries CE (Magness 1993, 206).

The second type that was present at Khirbet el-Maqatir was the arched-rim basin Form 2, Variant B, a variant with a "piecrust" rim (with finger impressions along the edge of the rim) (BA 2, fig. 7.3:14).

Type BA 1 (Fig. 7.3:13)

Type BA 1 was deep with flaring walls and an arched rim. All sherds were rims, and they lacked traces of combing, a fact which prevented a certain determination if they were parallel to arched-rim basin Form 1 (Magness 1993, 204–6) or arched-rim basin Form 2, Variant A (Magness 1993, 206).

Parallels to arched-rim basins Form 1 came from three sites in the greater Jerusalem area: the Tyropeon Valley, Strata 6–5, Area M1, which dated to the fifth and sixth centuries CE (Balouka 2013, figs. 6.1:1–2; 6.4:16; 6.6:3); the Jewish Quarter, Area A, which dated to the Late Roman and Byzantine periods (Magness 2003, plate 18.1:10); and Ras Abu Ma'aruf, which dated to the Byzantine and Umayyad periods (Rapuano 1999, 177, fig. 5:66–68).

Several parallels to arched-rim basins Form 2, Variant A came from the greater Jerusalem area: the Tyropeon Valley, Strata 6–5, Area M1, which dated to the fifth and sixth centuries CE (Balouka 2013, figs. 6.1:3; 6.5:6; 6.6:3); the Jewish Quarter, Area A, which dated to the Late Roman and Byzantine periods (Magness 2003, plate 8.1:13); and Area W, which dated to the Early Roman and Byzantine periods (2003, plate 18.2:13); and Ras Abu Ma'aruf (Rapuano 1999, 177, fig. 5:69–72).

Type BA 2 (Fig. 7.3:14)

Type BA 2 had the same arched rim form as Type BA 1 (fig. 7.3:13) but with a piecrust rim created by finger impressions along the edge (fig. 7.3:14). Sometimes it was also decorated with bands of combing on the exterior walls. This type was identified by Magness as

arched-rim basins Form 2, Variant B, and dated from the sixth to late-seventh or early eighth centuries CE (Magness 1993, 206–8).

Parallels to arched-rim basins Form 2, Variant B came from the greater Jerusalem area: in the City of David from Area G, dated Byzantine (Magness 1992, fig. 12:8), and from Ramat Raḥel from the Byzantine "storehouses," Stratum 2A, dated from the mid-sixth to mid-seventh centuries CE (Aharoni 1964, fig. 22:22); and Ras Abu Ma'aruf (Rapuano 1999, 177, fig. 5:73–77).

Fine Byzantine Ware Bowls

Fine Byzantine ware refers to vessels of various forms (cups, bowls, jars, jugs, and juglets) distinguished by ware and surface treatment. Usually, they are well-levigated with hard-fired fabric with a gray core, and a smooth, burnished finish. Some of the cups and small bowls were decorated with one or two incised wavy lines on the exterior, while many of the closed vessels had incised gashes or nicks on the shoulder. Gichon (1974) introduced the term fine Byzantine ware (FBW) based on his study of vessels from southern sites. Vessels from Jerusalem of similar shape were studied by Magness, who proposed Jerusalem as a production center (1993, 165–71). The evidence from Jerusalem suggests that fine Byzantine ware appeared in Jerusalem around the middle of the sixth century CE and continued well into the Early Islamic period. Magness distinguished several forms of FBW bowls (Magness 1993, 193–201). From these bowls, Form 1A (decorated with one or two incised wavy lines on the exterior) and Form 1B (not decorated) were the most common and well-known types of local fine-ware bowls in the Jerusalem area, including Khirbet el-Maqatir, during the Byzantine period.

Type FBWB 1 (Fig. 7.3:15)

Type FBWB 1 had very thin walls and hard fired ware. The surface color was light brown or orange-brown, and the core was light gray. Burnished bands, but no wavy lines, garnished the exterior. Magness classifies this type as fine Byzantine ware bowls, Form 1, Variant B, and suggests a date range from the mid-sixth to late-seventh/early eighth centuries CE (1993, 193–95). Two parallels came from Jerusalem: the Temple Mount excavations, Area 14, Byzantine building (Adler and Peleg 2007, 77, fig. 8.5:4) and the Ophel excavations, Area C, Phase 1, which dated to the late-sixth and early seventh centuries CE (Fleitman and Mazar 2015, fig. I.5.1:156).

Lids

Lids found in Jerusalem in the Byzantine period usually took one of two shapes. One shape was basically a deep bowl. Lids in this shape could have been (a) small and related to the fine Byzantine ware—Magness's lids and stoppers Form 1 (Magness 1993, 247), or (b) large and related to Magness's rouletted bowls Form 4 (1993, 191–92; Fleitman and Mazar 2015, 216; bell-shaped bowl-lid). The second shape of lids looked like a shallow bowl with a high central knob (Magness 1993, 248). Only the deep bowl-shaped lid is presented here. All the lids found were bell-shaped bowl-lids (Type LD 1).

Type LD 1 (Fig. 7.3:16)

Type LD 1 had a small, fairly tall, central, knob handle, but when turning the vessel upside down, if it was used as a bowl as also is suggested, it could be described as a small, tall, and very narrow ring base. It was made of brown, hard fired ware. This was the handle of a lid from a type called *bell-shape bowl-lid* (Fleitman and Mazar 2015, 216–17). It had a bell shape with rounded, straight, or slightly carinated walls. The body was sometimes ribbed inside and out, and the rim might be slightly thickened with a thin slit around its outer edge. The shape of the handle was similar to examples from the late Second Temple period lids that served as covers for the genizah archive (Qumran scroll) storage jars (Bar-Nathan 2002, 23–25, 91). It was also similar to the lid handles of the Late Roman and Byzantine casseroles (Magness 1993, 215). This resemblance lends support to the idea that this type was used also as a lid. Indeed, if it were intended to be used as a bowl, the base would have been very narrow and unstable, thus making it difficult to support the vessel without help.

Several parallels exist for Type LD 1. The first example came from Area E of the Jewish Quarter (Magness 2006, plate 7.2:1–7). Magness identifies these vessels as lids and compares them to complete vessels found in a workshop in Naḥal Refa'im, which dated to the third and fourth centuries CE (2006, 186). The second example came from the fill beneath the Jewish Quarter and dated from the fourth to mid-sixth centuries CE (2012, 282, 286, plate 9.5:5). The third example came from the Tyropeon Valley excavations, in a phase which dated to the fifth and sixth centuries CE (Baluka 2013, 155, fig. 6.6:6, 14). The fourth example came from the Ophel excavations, Areas B and C, from Phase 4a, which dated from the fourth to the early fifth centuries CE, and Phase 3, which dated from the mid-fifth to mid-sixth centuries CE, and Phase 2, which dated to the second half of sixth century CE (Fleitman and Mazar 2015, fig. I.5.1:31–34).

Oil Lamps

Excavation of the ecclesiastical complex at Khirbet el-Maqatir yielded one type of oil lamp: a large candlestick lamp (fig. 7.3.17).

Type LP 5 (Fig. 7.3:17)

The large candlestick lamps were also known as *large slipper lamps*. They were made of light brown clay,

reddish-yellow clay, or light red clay. The lamp was oval in shape and had a low circular ring base. The filing hole was bounded by two ridges. The inner ridge was rounded while the outer ridge extended to the nozzle in a straight line. The raised lines on either side of the nozzle's ridge reflected a palm-branch or palm-menorah motif (fig. 7.3:17). In some cases, candlesticks on a tripod base or crosses decorated the nozzle. Several decoration patterns could have been found around the filling hole, such as radial lines (fig. 7.3:17), Greek letters or words, and others.

Most of these lamps had no handles; a raised knob, crescent, or other design takes the place of a handle. One variant though had a raised handle supported underneath by a ring. The handle came in different shapes, and its upper surface was decorated with either a relief or an impressed design. It had a low circular ring base.

Parallels in Byzantine context corresponded to Magness's oil lamp Form 3 (1993, 251–55), which she dated from the mid-sixth to the late-seventh or early eighth centuries CE. Parallels came from the Temple Mount excavations, Area 3, which dated to the Late Byzantine period (Mazar 2003, 212, plate 3.2:9; 3.5:15, 16). A second parallel came from Ras Abu Ma'aruf, which dated to the Late Byzantine and Umayyad periods (Rapuano 1999, 185, fig. 10:137–38). Additional parallels came from many Byzantine and Early Islamic sites (see Hadad 2002, 66–68, Type 28), such as Beit Shean, in Late Byzantine and Umayyad contexts (2002, 65–68, Type 28, Objects 287–98).

Roof Tiles

Excavations in the Khirbet el-Maqatir ecclesiastical complex produced flat roof tiles (singular: tegula; plural: tegulae) (fig. 7.3:18–21) and convex roof tiles (singular: imbrex; plural: imbrices) (fig. 7.3:22–25); the latter covered the joints between the former. They were plain and lacked any indicative chronological features. All the roof tiles from Byzantine loci and Byzantine and Early Islamic loci should be considered as Byzantine.

Type RT 2 (Fig. 7.3:18–21)

Type RT 2 roof tiles were flat and plain, with a ledge or shelf rim. This ledge or shelf rim varied in shape, and at least four different shapes of rims were found. The flat roof tiles were plain, and no stamped tegulae tiles were recovered, despite the fact that stamped tegulae tiles are known from contemporary sites. Type RT 2 roof tiles were made of light brown to orange ware. They were hard fired and usually contained small grits. Roof tiles of this type were common at Byzantine sites.

Jerusalem excavations produced three parallels. The first example, Ramat Raḥel, dated to the Byzantine period and was parallel to figure 7.3:18 at Khirbet el-Maqatir (1962, plate 2:1). The second example, the Tyropeon Valley, from Strata 5 in Area M1, dated from the mid-sixth to seventh centuries CE. Most of these tiles find parallels in Baluoka (Baluoka 2013, figs. 6.4:14; 6.5:7; 6.6:7; 6.7:3), and one tile (Baluoka 2013, fig. 6.6:7) is parallel to Figure 7.3:20 at Khirbet el-Maqatir. The third example, the Ophel excavations, from Cistern L12-770 in Area B, dated to the late-sixth and early seventh centuries CE and is also parallel to figure 7.3:20 at Khirbet el-Maqatir (Reuven 2015, fig. I.6.1:34).

Type RT 3 (Fig. 7.3:22–25)

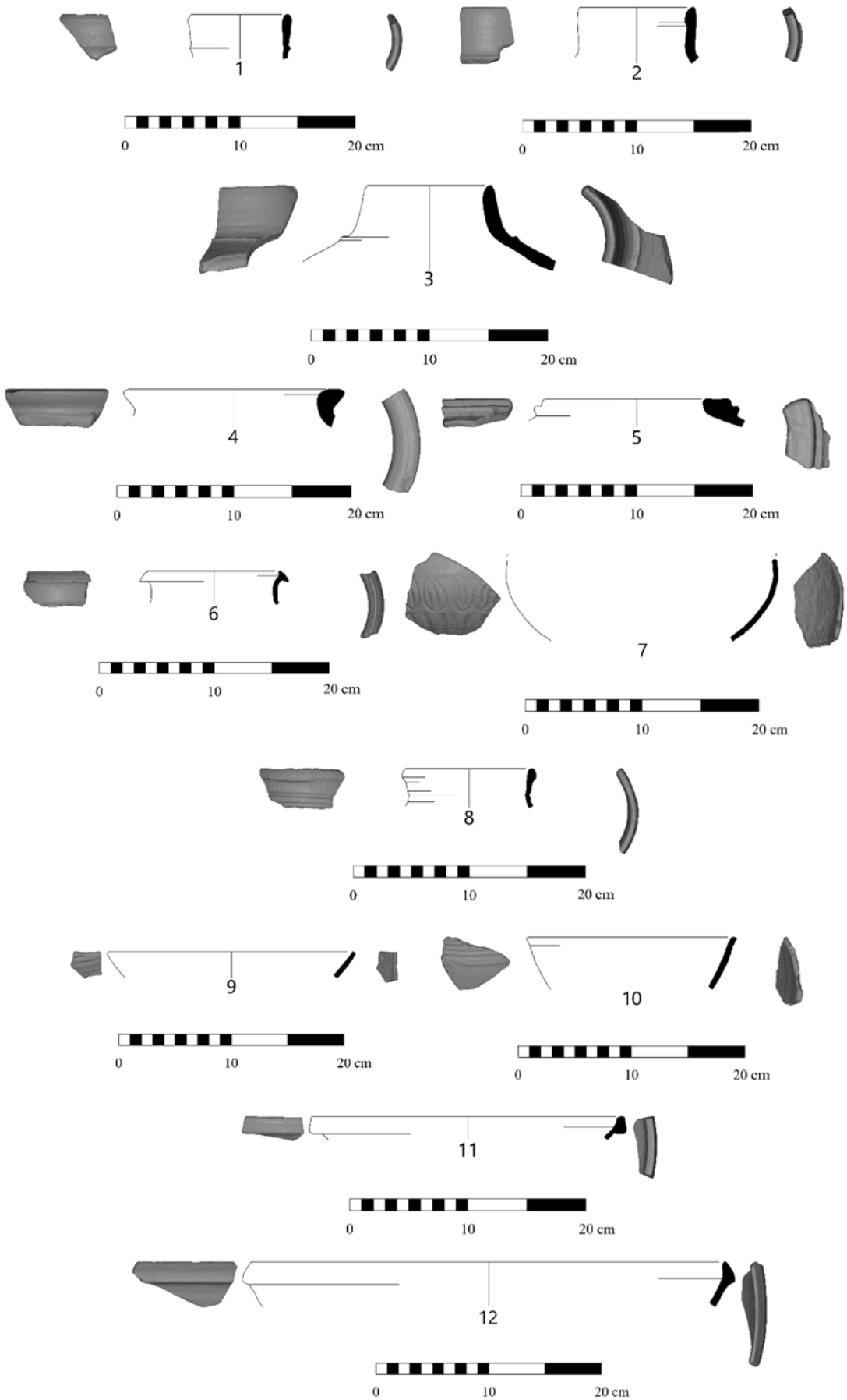
The convex tiles were semicylindrical in shape with a thickened rim. They were made of light brown to orange ware and were hard fired, usually with small grits. Some of them were stamped along the edge of the broad side, near the rim. The stamp varied and could have been in the shape of a circle, horseshoe, leaf, or four-petal flower or cross (fig. 7.3:24–25).

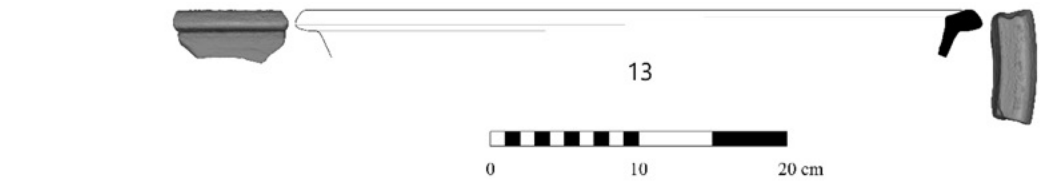
As for parallels, the Ramat Raḥel example dated to the Byzantine period and resembled the tile in figure 7.3:24–25 at Khirbet el-Maqatir (Aharoni 1962, plate 2:4–8). The Temple Mount parallel from Area 15 dated to the Byzantine period (Pele 2003, 134, plate I.20:1–9). One example (Pele 2003, 134, plate I.20:1) had a four-petal flower or cross stamp which corresponded to figure 7.3:24–25. The Tyropeon Valley parallel from Stratum 5 in Area M1 dated from the mid-sixth to the seventh centuries CE. Most of these tiles corresponded to figure 7.3:24–25 at Khirbet el-Maqatir (Baluoka 2013, fig. 6.4:15–17), but some were stamped with circles and horseshoes.

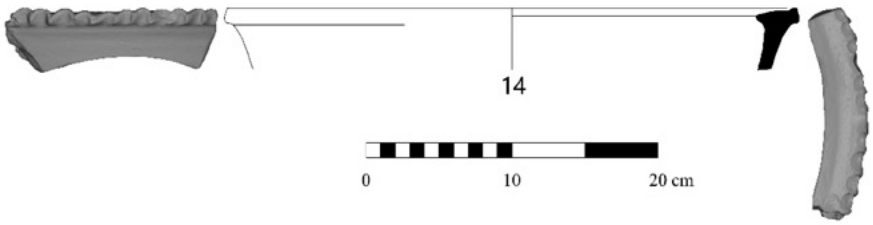
Summary and Conclusion

Most of the vessels found in the ecclesiastical complex were storage vessels such as jars and basins. This could indicate the need for storing supplies or that the site operated as a farm, thus creating the need for the storage of produce for consumption and sale. Some pottery types (SJ 6, SJ 7, SJ 9) represent an earlier phase of the site (probably originating in Phase 2B), the Early Byzantine phase, which dated to the fourth and fifth centuries CE, but most vessels belonged to later Byzantine types (SJ 8, SJ 10, FBWB 1 and LP 5), and some of these types even continued to the Early Islamic period.

The pottery types found at Khirbet el-Maqatir were the regional types that were typical of the Jerusalem area. But, not all the types from Jerusalem were present; only the most common types were found at Khirbet el-Maqatir, probably since it was a rural ecclesiastical community. A few imported Late Roman C and African red slip bowls appeared in the assemblage.

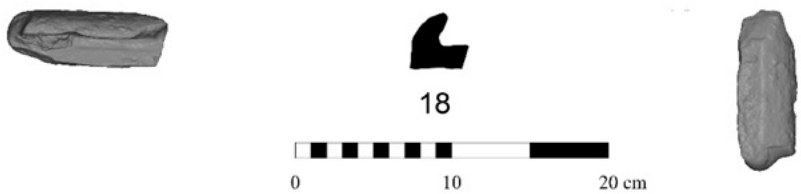

1
0 10 20 cm
2
0 10 20 cm
3
0 10 20 cm
4
0 10 20 cm
5
0 10 20 cm
6
0 10 20 cm
7
0 10 20 cm
8
0 10 20 cm
9
0 10 20 cm
10
0 10 20 cm
11
0 10 20 cm
12
0 10 20 cm

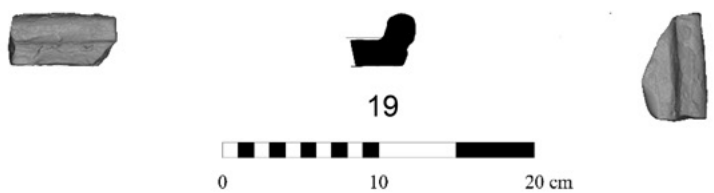

13
0
10
20 cm

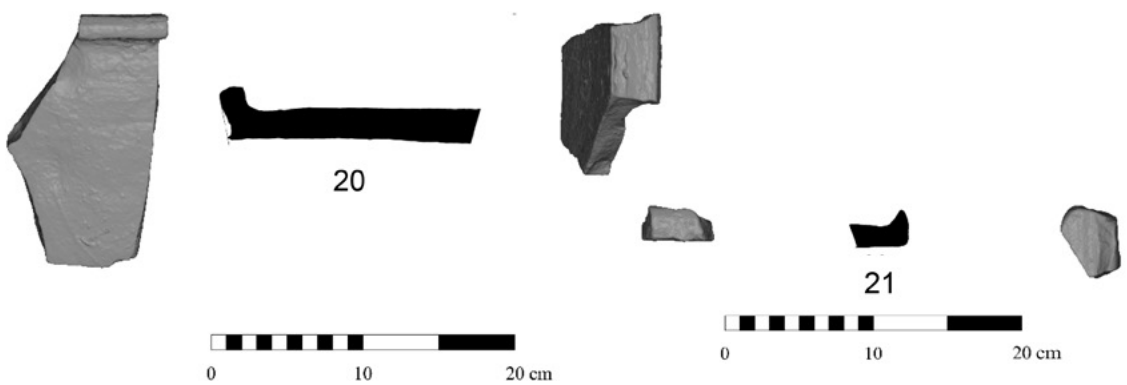

14
0
10
20 cm


15
16
0
10
20 cm
0
10
20 cm


17
0
7


18
0
10
20 cm


19
0
10
20 cm


20
21
0
10
20 cm
0
10
20 cm

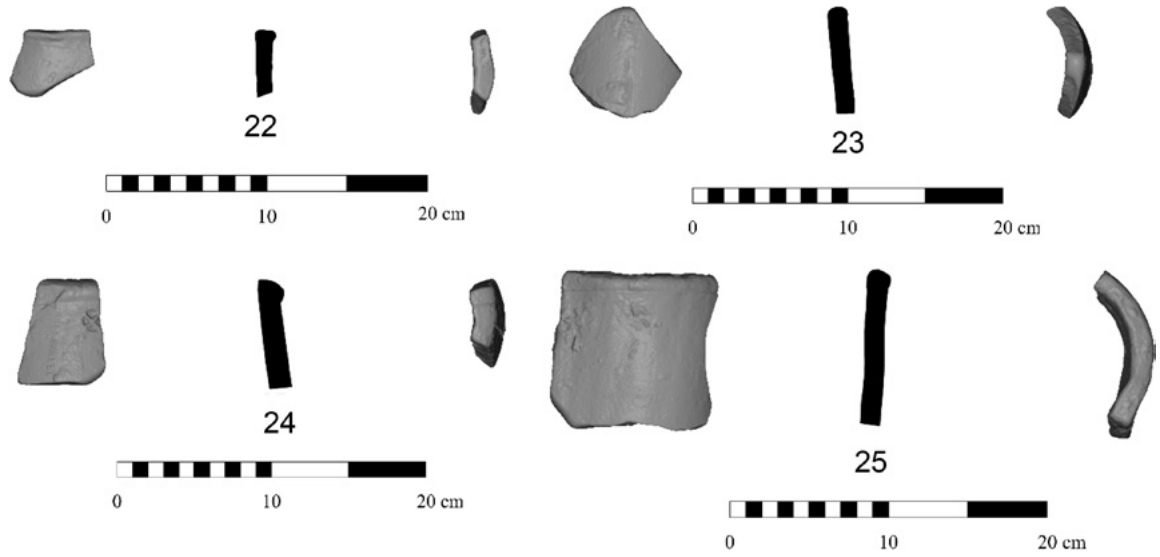


Figure 7.3. Byzantine period pottery types from Khirbet el-Maqatir.

Early Islamic Pottery

Pottery from the Early Islamic period was found mainly on the west side of Area C in Squares ZH010 and ZI010, in the vestibule of the church which was blocked off and reused in the seventh century CE. This section examines the typology of the ceramic vessels from the Late Byzantine and Early Islamic loci from Area C. These loci produced the vessel types from the sixth century CE to the seventh and eighth centuries CE. Since all the late Byzantine types were discussed previously, this section focuses on the Early Islamic repertoire of pottery from Khirbet el-Maqatir, which dated to the seventh and eighth centuries CE.

The types were classified in continuity with the Byzantine typology. Types that started in the Late Byzantine period and continued into the Early Islamic period are presented briefly in the Early Islamic typology but without parallels in order to avoid repetition. In general, this section follows Magness's typology in *Jerusalem Ceramic Chronology* (1993), but many new sites from Jerusalem and its surrounding area also provide parallels.

Storage Jars

Two types of storage Jars are presented. The first and the earliest had a long neck, straight or narrowing towards the top, with a ridge at the base of the neck (SJ 11). The second had a swollen neck (SJ 12). Only a few examples were found from these two types.

Type SJ 11 (Fig. 7.4:1)

Type SJ 11 had a high neck and a plain rim, with a ridge or a collar at the base of the neck. Magness defines this type as storage jar Form 6. It had a wide and ribbed body. The ribs could have had separate zones on the shoulder and body or bands of combing. The ware could have been light (pink-brown) to buff or bark (brown or red brown). Magness identifies two variants based on the angle of the neck. Variant A had a straight neck, and Variant B narrowed toward the top of the neck. Both variants dated from the late-sixth or seventh centuries to the eight century CE (Magness 1993, 227–30).

Parallels (Variants A and B): Magness provides parallels for Type SJ 11 (storage jars Form 6), which dated from the late-sixth or seventh centuries to the eight century CE (1993, 227–31). Three parallels came from Jerusalem. The first example came from Cistern L12–770 in Area B of the Ophel excavations and dated from the late sixth to the early seventh centuries CE (Reuven 2015, fig. I.6.1:8). The second example came from the bakery building in the Temple Mount excavations and dated from the late-sixth to the eighth centuries CE (Vincenz 2011, fig. 8.2:10). The third example came from Ras Abu Ma'aruf (near Jerusalem) and dated to the Late Byzantine and Umayyad periods (Rapuano 1999, fig. 7:107).

Type SJ 12 (Fig. 7.4:2)

Type SJ 12 had a swollen neck that sometimes had a ridge at its base. The shoulder sloped, and the body was slimmer than that of Type SJ 11 (fig. 7.4:1). The body was smooth and hard fired. The ware was light brown. It probably corresponds to Magness jars Form 7 (Magness 1993, 230–31). According to Magness, the jars of this type lacked a ridge on the base of the neck, but sometimes a ridge existed, as evidenced by a similar jar from the Tyropeon Valley in Jerusalem (see parallels). It is also possible that Type SJ 12 was a transition between Type SJ 11 (Magness storage jars Form 6) that had a

ridge and Magness storage jars Form 7 that lacked the ridge. Magness dated Type SJ 12 from the late-seventh to the ninth or tenth centuries CE.

Magness offers several parallels (1993, 231, storage jars Form 7, Objects 5–8 from the plate). An additional parallel came from the Tyropeon Valley, Area M2, which dated to the Early Islamic period (Reuven, forthcoming, fig. 13.53:1–5).

Jugs

Only one type of jug was found (Type GJ 7). It was made of buff ware and had a green glaze. The buff ware had a yellowish-to greenish-white color clay which was locally produced throughout the Islamic world. It is now generally accepted that in Greater Syria and Egypt it appeared after the Umayyad period (Cytryn-Silverman 2013, 172). This factor and the glaze gave the terminus post quem of the jug.

Type JG 7 (Fig. 7.4:3)

This was a base of a glazed jug. The jug was made of buff ware (cf. Cytryn-Silverman 2013, 172). It was a lead glazed jug in a monochrome green color (cf. 2013, 175). It had a flat base, and the ware was somehow less fine which usually indicates that it was an earlier vessel. This type dated from the late eighth to the first half of the eleventh centuries CE. Only a few small fragments were found at Khirbet el-Maqatir. This made it difficult to identify exact parallels.

Cooking Vessels

One type of cooking vessel was represented, a casserole with a deep hemispherical body with an incurved or S-shape rim (Type CE 3). This was the characteristic form in this period (Magness 1993, 214).

Type CE 3 (Fig. 7.4:4)

Type CE 3, a casserole (cooking bowl), had a deep and hemispherical body and a lightly ribbed wall. Unlike the previous casserole types, these (Type CE 3) were usually deep and hemispherical. The walls terminated in an incurved rim (fig. 7.4:4) or narrowed at the handle level and flared out at the rim, producing an S-shape profile. The ware was gritty and well fired. It had brown or gray-brown colors, as opposed to the red-brown ware which is typical of the earlier casseroles. It corresponds to Magness casserole Form 3, a type that dated from the late-seventh or early-eighth to ninth or tenth centuries CE (1993, 214).

The first parallel came from Area A of the Jewish Quarter, which dated to the Early Islamic period (Avissar 2003, plate 19.1:13). The second parallel came from the Tyropeon Valley, Area M1, Stratum 3, which dated from the end of the ninth to the early tenth centuries CE (Cytryn-Silverman 2013, fig. 7.6:11; 7.8:5). The third parallel came from the Ramla excavations, north of the White Mosque, Strata 5–4, which dated to the Umayyad-Abbasid periods (Cytryn-Silverman 2010, plate 9.6:10).

Basins

In this period the Byzantine type of arched rim basins (Type BA 2) still appeared, but a new type emerged, with a short, knob-like rim (Type BA 3). Only a few from this latter type were found at Khirbet el-Maqatir.

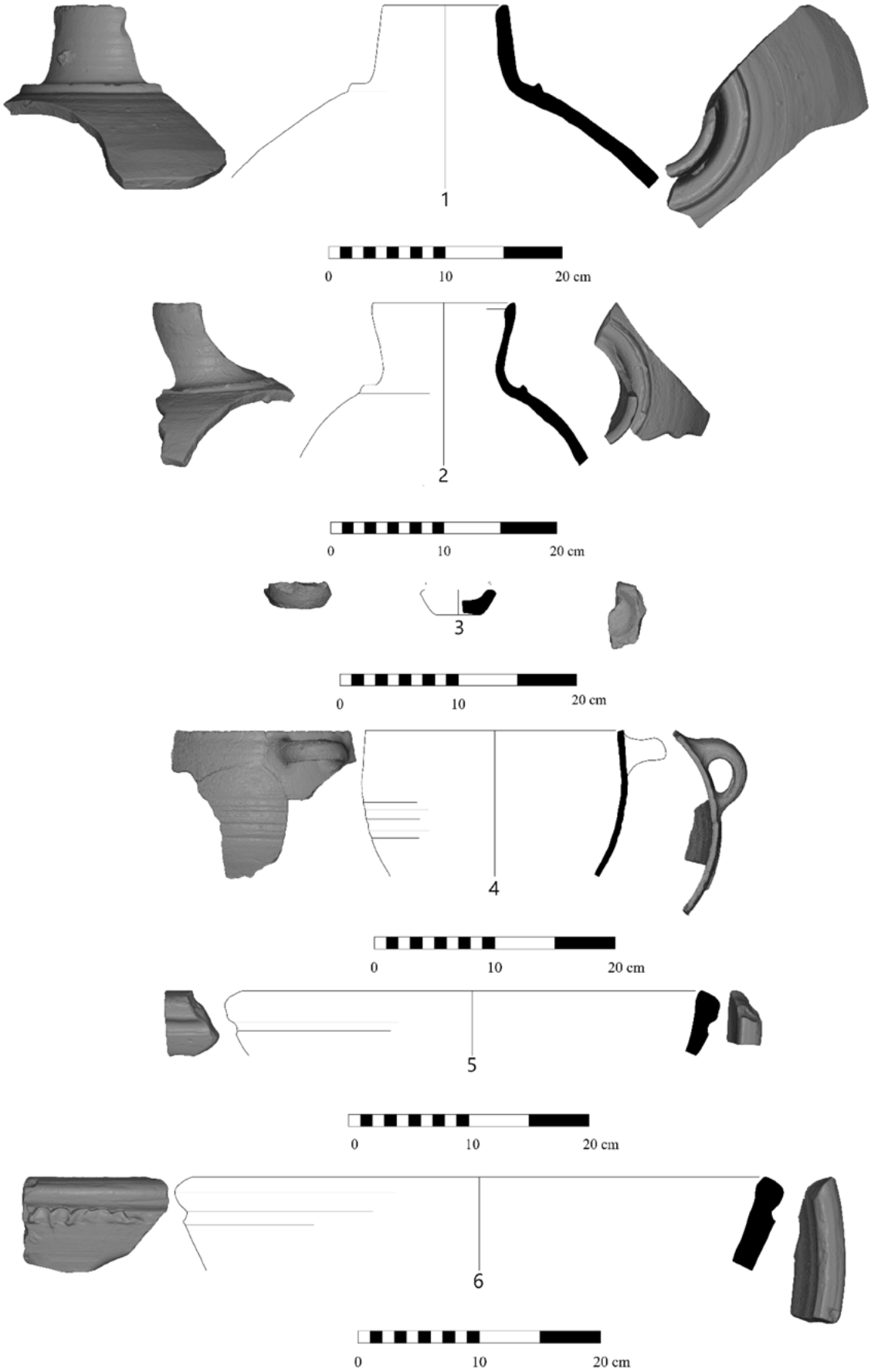
Type BA 3 (Fig. 7.4:5–6)

Type BA 3 had a short, knob-like rim and was rounded (fig. 7.4:5–6), pointed, or squared in profile. The walls were straight or slightly rounded. This type probably corresponds to Magness's basin Form 3, which dated from the sixth to the late-seventh or early eighth centuries CE (Magness 1993, 209). Notably, one of the Khirbet el-Maqatir bowls was decorated with a thumb-impressed strip of clay under the rim (fig. 7.4:6), which could indicate that this type is connected to Magness's basin Form 2, Variant B (see above), which had a different shape of rim but with similar decoration. This vessel dated from the sixth to the late-seventh or early eighth centuries CE (Magness 1993, 206–8).

Two close parallels exist. The first came from near Ras Abu Ma'aruf and dated to the Late Byzantine and Umayyad periods (Rapuano 1999, 177, fig. 5:78). The second came from Yoqne'am and dated to the Early Islamic period, unglazed bowls, Types 27 and 28 (Avissar 1996, 126–27, fig. 13.80–81).

Fine Byzantine Ware Bowls

Fine Byzantine ware continued well into the Early Islamic period (eighth to tenth centuries CE). The fine Byzantine ware that continued into the Early Islamic period can be distinguished from the earlier ware by the fabric and surface treatment. Of course, some shapes disappear, and new shapes appear. The fabric, like that of the fine Byzantine ware, was well levigated, reddish-yellow clay, light red on the surface, often with a gray or light gray core, however in some of the new types it was less metallic and its surface treatment was not as smooth (Cytryn-Silverman 2013, 168). Painting seems to have replaced incision as an occasional decoration during the first half of the eighth century CE (Magness 1993, 193). Unlike the fine Byzantine ware that includes a variety of forms, fine burnished ware consisted mainly of cups and bowls. Among these were new forms which also differed in the ware and surface treatment. Examples include Type FBWB 3 (fig. 7.4:9) and Type FBWB 5 (fig. 7.4:12–13) which were represented in the Khirbet el-Maqatir assemblage.


1
0
10
20 cm
2
0
10
20 cm
3
0
10
20 cm
4
0
10
20 cm
5
0
10
20 cm
6
0
10
20 cm

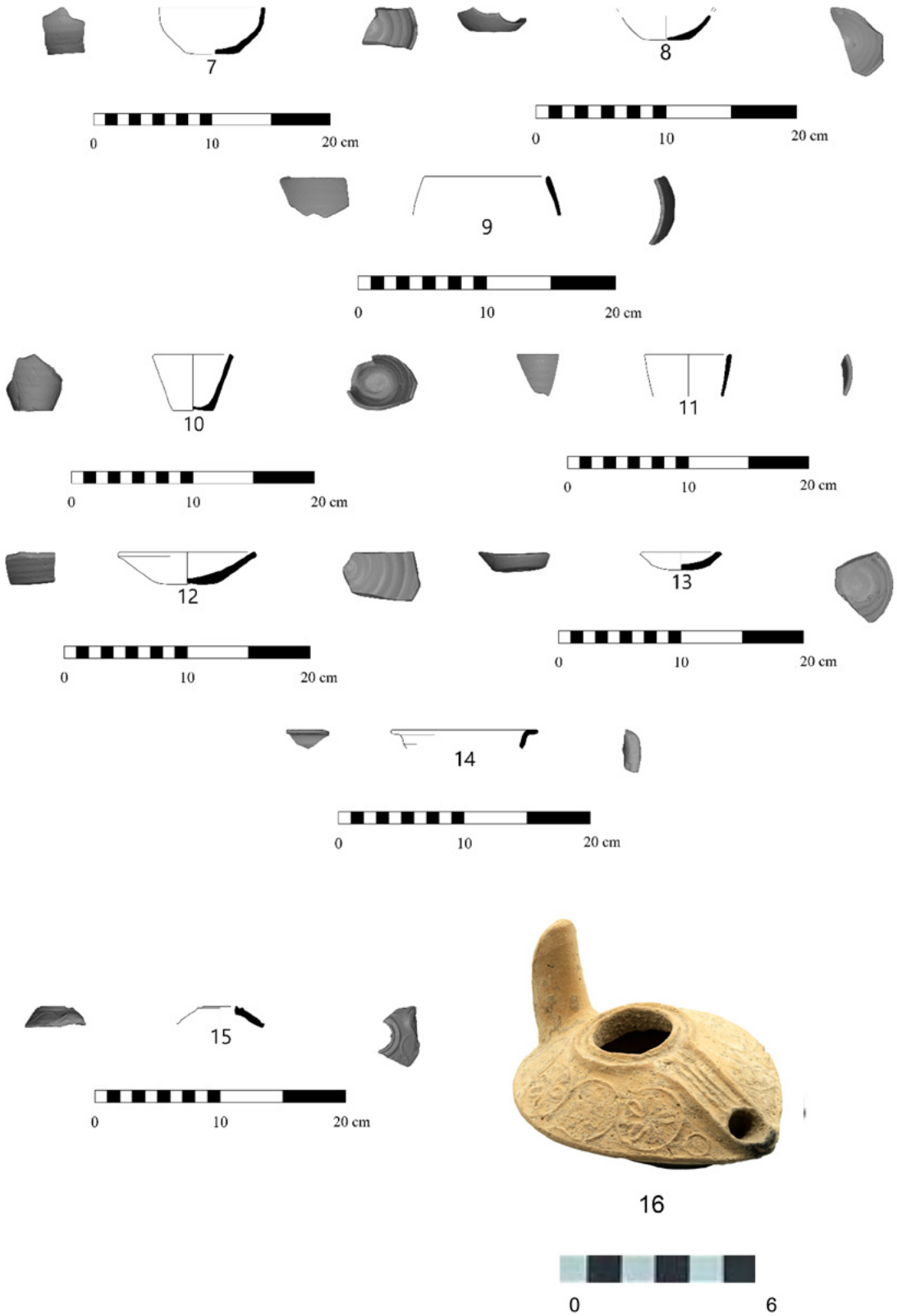


Figure 7.4. Early Islamic period pottery types from Khirbet el-Maqatir.

Type FBWB 2 (Fig. 7.4:7–8)

Type FBWB 2, fine Byzantine ware bowls, had a plain incurved rim, rounded walls, and a rounded or flat disc base. Many of these bowls bore spiral or concentric grooves (fig. 7.4:7–8) on the bottom of the base, and the exterior walls tended to show pronounced wheel-burnished bands (fig. 7.4:7). This type corresponds to Magness's fine Byzantine ware bowl Form 1, Variant D, which dated from the late-seventh to the tenth centuries CE (Magness 1993, 194, 196).

Type FBWB 2 was found in Givati Area M1, Stratum 4, which dated to the ninth century CE (Cytryn-Silverman 2013, fig. 7.2:1, 2). Close parallels were recovered in Area X-4 of the Jewish Quarter in Jerusalem which dated from the late-seventh to mid-eighth centuries CE (Magness 1993, fig. 4.15); Abu Ghosh, which dated from the ninth to tenth centuries CE (De Vaux and Stève 1950, plate B:2–3); and Caesarea in Stratum 8a, which dated from the mid-seventh to mid-eighth centuries CE (Arnon 2008, 59, Type 311b).

Type FBWB 3 (Fig. 7.4:9)

Type FBWB 3, fine Byzantine ware bowls, had a deep hemispherical form and a flat or rounded base (fig. 7.4:9). Many of these bowls tended to show pronounced wheel-burnished bands (fig. 7.4:8). The exterior walls sometimes (not at Khirbet el-Maqatir) bore white-painted designs or red-painted designs on a white slip. This type corresponds to Magness's fine Byzantine ware bowls Type 1, Variant E, which dated to the eighth and ninth centuries CE (Magness 1993, 194, 196).

Type FBWB 3 was found in Givati Area M1, Stratum 4 and dated to the ninth century CE (Cytryn-Silverman 2013, fig. 7.5:1). Close parallels came from Yoqne'am, in contexts of the Byzantine to Abbasid periods (Avissar 1996, 118, fig. 13.65, Type 2); Caesarea in Stratum 8a, which dated from the mid-seventh to the mid-eighth centuries CE; (Arnon 2008, 64, Type 311a); Ramla in Stratum 5 (Umayyad, first half of the eighth century CE) and Stratum 4 (Abbasid, second half of eighth to late tenth centuries CE) (Cytryn-Silverman 2010, plate 9.5:10); and the Early Islamic farm at Nahal Mitnan, which dated from the mid-sixth to the eighth centuries CE (Haiman 1995, fig. 8:1–7).

Type FBWB 4 (Figs. 7.4:10–11)

Type FBWB 4, fine Byzantine ware bowl or cup, had a plain rounded rim and thin, straight, V-shaped walls; its disc base, at times, was slightly concave and usually had spiral or concentric grooves (fig. 7.4:10–11). The bowls were hard-fired, usually of a reddish-yellow or light red ware with a pinkish-gray core. Burnished bands, not always continuous, adorned the vessel's exterior. Magness classifies this type as FBW bowl Form 1, Variant F (parallel to the bowl in illustration Object 3) and dates it to the seventh and eighth centuries CE (1993, 194–97).

Numerous parallels exist for Type FBWB 4: the Ophel excavations, Cistern L12–770 in Area B, which dated from the end of sixth to the early seventh centuries CE, until its destruction apparently during the Persian conquest of Jerusalem in 614 CE (Reuven 2015, figs. I.6.1:1–6); elsewhere in the Ophel excavations, this type is classified as the Ophel BW Cup, which dated, according to other parallels, to the beginning of the sixth century CE (Fleitman and Mazar 2015, fig. I.5.1:2175). Type FBWB 4 was also known from Bethany, Cave 41, where the examples dated to the Late Byzantine and Early Islamic periods (Saller 1957, 271, fig. 53, Object 3187). There were parallels in Ramat Raḥel, Stratum 2A, the third (and final) Byzantine stratum at the site (mid-sixth to mid-seventh centuries CE), and followed by Stratum 1, an Early Islamic stratum (seventh and eighth centuries CE), indicating that the parallel should probably be dated no later than the mid-seventh century CE (Aharoni 1964, figs. 7:6; 22:8–10). Ras Abu Ma'aruf (Pisgat Ze'ev, East A), situated north of Jerusalem, dated to the Late Byzantine or Umayyad periods, sixth to possibly the early eighth centuries CE (Rapuano 1999, 176, fig. 4:60). A close parallel, though with straighter walls and a narrower body, was found in the Monastery of the Virgins (Area 15), dating from the structure's last phase, the mid-sixth century CE, until its destruction apparently during the Persian conquest of Jerusalem in 614 CE (Mazar and Peleg 2003, 86, 102, plate I.14:5).

Type FBWB 5 (Fig. 7.4:12–13)

Type FBWB 5 included small, shallow bowls with disc, flat, or rounded bases. The rim form could be straight (7.4:12–13), incurved, straight-folded, or flared. These bowls were similar in surface treatment to the fine Byzantine ware bowls, with bands of burnishing on the exterior that follow the wheel marks. The type corresponded to some of Magness's FBW Form 2B bowls, which dated from the mid-seventh to the tenth centuries CE (1993, 198–200). Some of the bowls had soot inside which could indicate that they were used as oil lamps.

These bowls are parallel to unglazed bowls at Yoqne'am, which dated to the Early Islamic period (Avissar 1996, fig. 13.67, Type 4, Plain Bowls 4), and Caesarea, Stratum 7, which dated from the mid-eighth to the mid-ninth centuries CE (Arnon 2008, 83, Type 121a).

Type FBWB 6 (Fig. 7.4:14)

Type FBWB 6, fine Byzantine bowl, had an everted flaring rim. Usually, this type had a disc base with spiral or

concentric grooves. Magness classifies this type as FBW bowl Form 1, Variant F (parallel to the bowl in illustration Object 2), which dated to the seventh and eighth centuries CE (1993, 194–97). It is also related to and overlaps with Magness lid and stoppers Form 1 (1993, 247).

Three parallels exemplify Type FBWB 6. The monastery of the virgins (Area 15), which dated from the structure's last phase of use, around the mid-sixth century CE until its destruction apparently during the Persian conquest of Jerusalem in 614 CE (Mazar and Peleg 2003, 86 and 102, plates I.14:4; I.16:1). Following Magness, these bowls were interpreted as lids or jar stopers. Another parallel came from the Jewish Quarter. It dated to the Early Islamic period and was defined there as a lid (Avissar 2003, plate 19.1:19). A parallel defined as fine Byzantine ware bowls was found in Ramla, in the excavations north of the white mosque in Strata 5–4, which dated to the Umayyad and Abbasid periods (Cytryn-Silverman 2010, plate 9.13:5).

Oil Lamps

One type of oil lamp dated to the Early Islamic period (Type LP 6). This type, also known as a *channel-nozzle oil lamp*, often contained delicate relief patterns. It was common in the period from the eighth century to the tenth–eleventh centuries CE (Avissar 1996, 191).

Type LP 6 (Fig. 7.4:15–16)

Type LP 6, a mold-made lamp, was ovoid and with a pointed nozzle and a large filling hole which was surrounded by two ridges (fig. 7.4:15). The ridges extended onto the nozzle and created a channel between the filling hole and the nozzle which gave the type its name, the channel-nozzle lamp. It is characterized by an almond-shaped base, often containing an inner almond defined by a raised ridge. It had a raised conical tongue handle which was triangular in section. All the lamps (except fig. 13.88:2) were decorated on the shoulders with a variety of motifs (fig. 7.4:17).

Several parallels exist for Type LP 6. This type was common in Jerusalem and corresponds to Magness's oil lamp Form 5, which dated from the eighth to the tenth centuries CE (1993, 258–59). It appeared in Area A of the Jewish Quarter dating to the Early Islamic periods (Avissar 2003, plate 19.1:21–23). Beit Shean yielded Type LP 6, channel-nozzle lamps, which corresponded to Type 37. They appeared around the end of the eight or the beginning of the ninth centuries CE and continued in use until at least the eleventh century CE (Hadad 2002, 105, 95–106, Objects 420–63). At Yoqne'am, Type LP 6 corresponded to Type 2 (Avissar 1996, 191–94, figs. 15.17–27). According to Avissar, they first appeared in the Abbasid period and were common until the tenth–eleventh centuries CE (Avissar 1996, 191).

Summary and Conclusion

In the beginning of the Early Islamic period, as was evidenced by the finds at Khirbet el-Maqatir, the Late Byzantine types such as SJ 8 and some types of the fine Byzantine ware bowls such as FBWB 2 were still in use, but new types appeared which continued in use for centuries into the Early Islamic period, a long time after the site was no longer in use. Among these was a new type of jar (SJ 11), a new type of casserole (CE 3), new types of fine Byzantine ware bowls (FBWB 3 and FBWB 5), and a new type of oil lamp (LP 6). Interestingly, this lamp probably appeared only at the end of the eighth century CE.

Nevertheless, the pottery assemblage from Khirbet el-Maqatir was typical for the beginning of the Early Islamic period and did not include "buff ware" pottery and included only a small amount of glazed pottery. This fact indicates an early date of the assemblage that probably predated the Abbasid period (mid-eighth century CE) or at least was not after the end of the eighth century CE.

Selected Loci

The following discussion examines selected, well-stratified loci, with preference to sealed loci from the Late Hellenistic, Early Roman, Byzantine and Early Islamic Strata, and when possible, from different phases in each stratum. The pertinent strata are as follows:

Stratum 5:	Early Hellenistic period, ca. 290–100 BCE
Stratum 4:	Late Hellenistic and Early Roman periods, ca. 100–31 BCE
Stratum 3c:	Earthquake to Herod Archelaus, ca. 31 BCE–10 CE
Stratum 3b:	Early Roman period, ca. 10–69 CE
Stratum 3a:	Intra-revolt and Bar Kokhba period, ca. 71–135 CE
Abandonment phase, ca. 135–370 CE	
Stratum 2b:	Early Byzantine period, ca. 370–485 CE
Stratum 2a:	Late Byzantine period, ca. 485–636 CE
Stratum 1:	Early Islamic period, ca. 636–749 CE

Loci from the Late Hellenistic Period (Stratum 4)

Stratum 4, the latter part of the Late Hellenistic period and the early part of the Early Roman period, contained the first clearly identifiable buildings at Khirbet el-Maqatir since the Iron Age. Stratum 4 contained an abundance of pottery. The large residential structure from Stratum 3 sealed several loci from Stratum 4. Only one sealed locus (Square P22, Locus 22) that included clean Hellenistic pottery was found, and it is presented in this part. This locus represents the Late Hellenistic, or earlier, phase of Stratum 4.

The Courtyard House in Field B (Plate 7.1)

Square P22, Locus 22 (plate 7.1) lay within a large complex-courtyard house, beneath Locus 10, and was sealed by Locus 10. Locus 22 had an average top elevation of 873.48 meters and an average bottom elevation of 873.25 meters. It was likely a floor that was continuously used from the Iron Age I period to the Hellenistic period. The Hellenistic pottery dated the locus from the second half of the second century BCE to the second half of the first century BCE (probably Hasmonaean). It belonged to Stratum 4.

Loci from the Late Hellenistic and Early Roman Periods (Stratum 3)

As previously stated, Stratum 4 represents an occupational period that encompassed the latter part of the Late Hellenistic period and the early part of the Early Roman period. This section presents loci from Stratum 3 that show a mixture of pottery from the Late Hellenistic and Early Roman periods. These loci were arranged according the architectural structures to which they belonged: The complex-courtyard house (the first two [Square P21, Locus 12, and Square P22, Locus 15] probably represent the early stage in Stratum 3, Phase 3c), the fortified tower, the city wall (Square X17, Locus 2 probably represents the early stage in Stratum 3, Phase 3c), and the public building. In each square the loci are presented according the stratigraphy and chronology if possible, from the lower and earlier to the upper and later ones.

The Courtyard House and Surrounding Buildings in Field B (Plates 7.2–9)

Square P21, Locus 12 (plate 7.2) lay within the complex-courtyard house. The square was located in the middle of the southern part of the first century CE house in Room 4. This locus was a leveling fill that ran 6–31 cm deep, over bedrock on the east side of square. The pottery in the lowest elevation (below the floor level) was entirely Late Hellenistic, indicating a Late Hellenistic date for the founding of the domicile. The pottery from a higher elevation dated from the end of the first century BCE through the mid-first century CE. It included a Type LP 3 oil lamp which dated to the end of the Herodian period. This date was strengthened by the fact that Locus 19, a foundation trench on the inner side of Wall 102 that sealed against Locus 12 from west, included a pinched Type LP 3 oil Lamp and a Type SJ 5a storage jar. The storage jar dates to the first century CE and served to date the wall and provide a terminus post quem for Locus 12. According to the pottery, the date for the lower part of the locus (Pail 52) spanned from the second half of the second century BCE to the beginning of the first century BCE, but the upper section (Pails 40 and 43) dated no earlier than the beginning of first Century BCE and could be even later. Therefore, the locus dated to the end of the first century BCE or the first century CE (probably Phase 3c).

Square P21, Locus 10 (plate 7.3) lay within the complex-courtyard house. The square was located in the middle of the southern part of the house. This locus filled a sealed bedrock-cut chamber (Pit 10) that was located in Room 4, which is defined by Walls 104, 107, and 139. Locus 10 was beneath Wall 107, with the covered entrance on the south side of Wall 107. Early Roman pottery types that are most common in the mid-first century CE and are also found in the early second century CE populated this locus, which dated from the mid-first century CE to the First Jewish Revolt and belonged to Phase 3b.

Square P21, Locus 3 (plate 7.4) lay within the middle of the southern part of the complex-courtyard house in Room 4. Locus 3 occupied a room defined by Walls 104, 107, and 139. It was under Locus 1, surface debris and tumble, and above Locus 10, a bedrock-cut chamber. The pottery was similar to the pottery in Locus 10. It dated from the mid-first century CE to the First Jewish Revolt and belonged to Phase 3b.

Square P22, Locus 15 (plate 7.5) lay within the complex-courtyard house in Room 5. It was a sealed locus rich with Late Hellenistic and Early Roman pottery. The Locus included many Late Hellenistic types (SJ 3a and SJ 3b) but also pottery types that appeared only at the beginning of the first century CE (SJ 5a and CE 1). Therefore, it dated to the beginning of the first century CE, either Phase 3c or 3b.

Square P22, Locus 3 (plate 7.6) lay within the complex-courtyard house. Several clean loci have been published from Square P22, a central area of the house. They include Locus 3, all the area east and west of Wall 111. It was suggested to be a later construction that was built on earlier destruction (see the 2015 excavation report, p. 55). According to the complex-courtyard house's plan, it was the western part of Room 5 located to the east of the central courtyard and encompassing part of the eastern courtyard. Locus 3 was divided into Locus 3a and Locus 3b. Locus 3a consisted of the cobble fill placed around the remainder of the earlier Hellenistic walls and destruction debris after the 31 BCE earthquake when this portion of Square P22 was rebuilt in approximately 11 CE. It was suggested that Locus 3a, the final phase of the town, was not built until the first decade CE (ca. 6–10 CE), and Locus 3b designated the leveled-out earthquake debris and floor line (ca. 874.30 m) after the 64 BCE earthquake. Thus, the floor line of Locus 3b would have been used from 64–31 BCE when the Jordan Valley suffered another severe earthquake.

After final examination of the pottery, all the pails reveal both Late Hellenistic and Early Roman pottery, so it is difficult to justify the division of Locus 3a and Locus 3b or to accurately date each of them precisely within the Late Hellenistic and Early Roman periods. According to the mixed Late Hellenistic and Early Roman pottery, this locus dated to the first century CE, until the First Jewish Revolt and belonged to Phase 3b.

Square O24, Locus 9 (plate 7.7) lay within the complex-courtyard house. This was a sealed locus designated at and below the threshold level of the northwest section of the square at floor level. The pottery was from the Late Hellenistic and Early Roman periods, and the locus probably dated to Phase 3b.

Square O24, Locus 5 (plate 7.8) lay within the complex-courtyard house. This was a sealed locus containing tumble with large cobbles in the northeast section of the square which included part of Room 9. The locus included pottery from the first century BCE to the end of the first century CE. According to the pottery, this locus was in use at least until the First Jewish Revolt CE and possibly even later. It belonged to Phase 3b.

Square O22, Locus 7 (plate 7.9) lay within the complex-courtyard house. It comprised the bottom level of fill dirt to the bedrock floor of Locus 5 in a subterranean installation located in the open courtyard. This was a sealed locus. The pottery types were Late Hellenistic and Early Roman, and they reflected occupation up to the First Jewish Revolt. Locus 7 belonged to Phase 3b.

The Tower in Field B (Plates 7.10–12)

A fortified tower on the northwest of the site juts out from the city wall. It abutted the wall from the north but did not interlock with it, indicating that it was a later addition in the first century CE. Loci from several squares within the tower were published here: Square X23, Locus 9 was the possible gate complex, and Square W22, Locus 11 (a floor) and 15 (a fill under the floor to the bedrock).

Square X23, Locus 9 (plate 7.10) encompassed the possible gate complex along the western wall of the fortified tower. This locus isolated a rock layer below the topsoil (Locus 1). It occupied the north room of the square, just inside the tower entrance. The pottery was mainly Early Roman with a small amount of Late Hellenistic as well. The pottery indicated that the tower was in use at the time of the First Jewish Revolt and therefore dated to Phase 3b.

Square X23, Locus 7 (plate 7.11) lay within the entrance of the fortified tower (described above). It occupied the southwest portion of the square. Locus 3 covered Locus 7, which overlayed the bedrock. Excavation of Locus 7 yielded a pinched Late Hellenistic oil lamp (Object 2472). The pottery was mainly from the Early Roman period, but some Late Hellenistic pottery was also present. The pottery indicated that the tower was in use at the time of the First Jewish Revolt and therefore dated to Phase 3b.

Square W22, Loci 11 and 15 (plate 7.12) lay within the fortified tower. The square was located near the nexus of the tower and the city wall. Locus 11 was a floor, and Locus 15 lay beneath this floor and above the bedrock. Locus 11 included Late Hellenistic and Early Roman pottery, with the majority dating to the Early Roman period. The existence of numerous Type SJ 5a storage jars and the existence of an SJ 5b storage jar dated it to the first century CE, probably between the mid-first century CE and the First Jewish Revolt. The lower locus, Locus 15, yielded the same pottery forms as Locus 11 (without SJ 5b), and therefore, dated also to the first century CE. This indicated that the floor above it dates to the early or mid-first century CE. The lower locus, Locus 15, dated to Phase 3b the same as the upper locus, Locus 11.

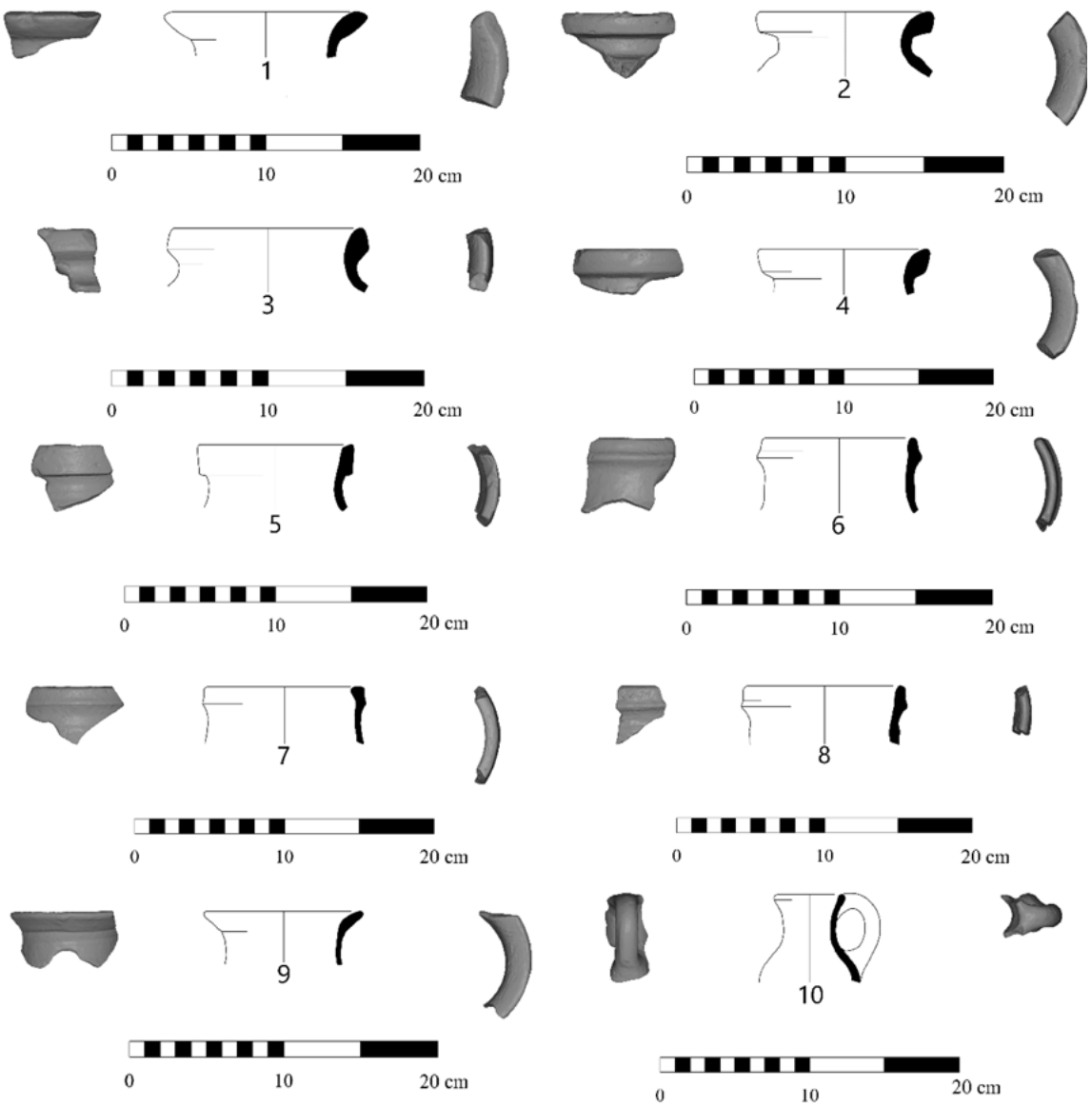
The City Wall in Fields B and G (Plates 7.13–14)

Square X17 in Field G (plate 7.13) was the northwest corner of the city wall (Wall 131). Wall 122, the Early Roman city wall, passed through Square X17. Locus 2c is the core of Wall 122. The earliest possible date for the pottery from Locus 2 in Square X17 is the second half of the first century CE (from the Late Hellenistic period) and the latest possible date is 70 CE (the Jewish Revolt). It likely belonged to Phase 3c.

Square S29 in Field B (plate 7.14) covered the northeast corner of the town wall (Wall 122). Locus 2 equaled Wall 119, the town wall where it jogged to form the smaller tower to the east of the larger tower. The pottery was mainly Early Roman with one very late sherd (Type SJ 3b) from the Late Hellenistic period. The pottery indicated that it dated to the first century CE, through the First Jewish Revolt and therefore belonged to Phase 3b.

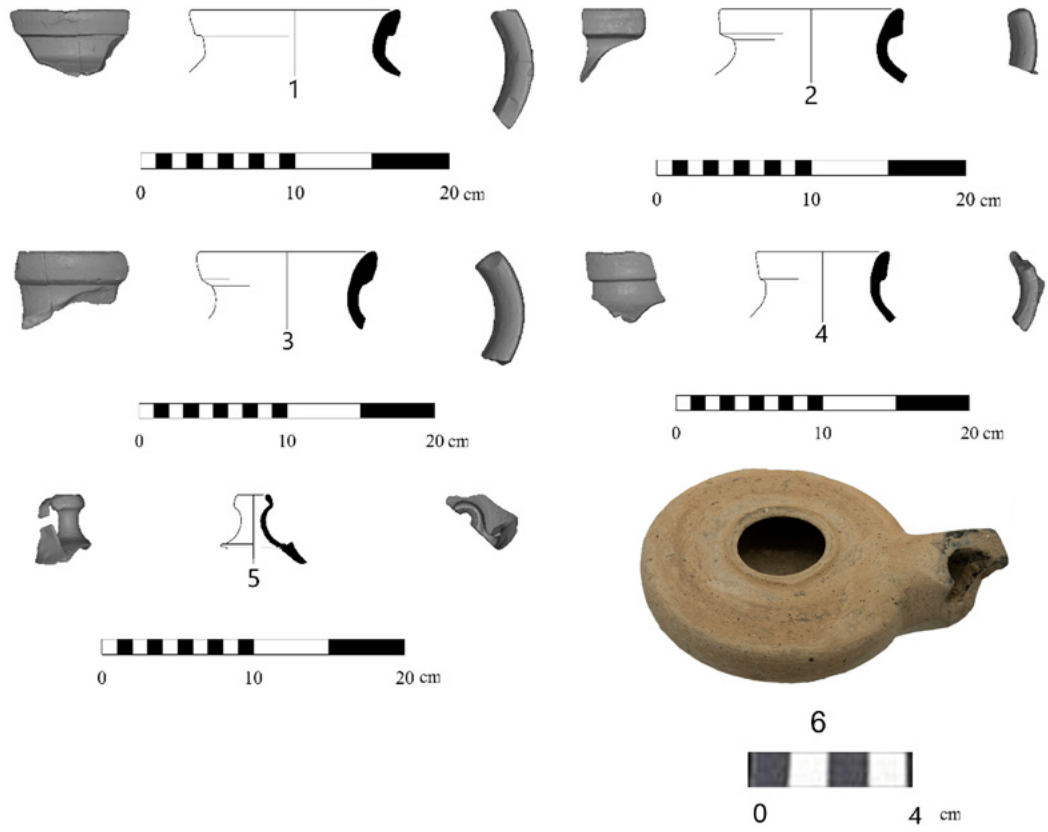
The "Public" Building in Field B (Plate 7.15)

Square R24, Locus 2 (plate 7.15) lay within a large building that could have been a public building, which spanned Squares R24, R25, S24, and S25 with three subterranean installations within it. Wall 143 was the southern wall in the building. Locus 2 in Square R24 lay to the north of Wall 143, under Locus 1, and reached to bedrock. The pottery was entirely Early Roman, from the first century CE. The pottery indicated that the building dated to the first century CE, through the First Jewish Revolt and belonged to Phase 3b.



No.	Vessel	Type	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 1a	90/5	Rim	2nd to early 1st c. BCE
2	Storage jar	SJ 1b	90/2	Rim	Second half of the 2nd c. BCE to the beginning of the 1st c. BCE
3	Storage jar	SJ 2b	90/4	Rim	Second half of the 2nd c. BCE to the beginning of the 1st c. BCE
4	Storage jar	SJ 2b	83/5	Rim	Second half of the 2nd c. BCE to the beginning of the 1st c. BCE
5	Storage jar	SJ 3a	83/4	Rim	Late 2nd to early 1st c. BCE
6	Storage jar	SJ 3a	83/2	Rim	Late 2nd to early 1st c. BCE
7	Storage jar	SJ 3a	90/1	Rim	Late 2nd to early 1st c. BCE
8	Storage jar	SJ 3a	90/3	Rim	Late 2nd to early 1st c. BCE
9	Jug	JG 1	83/3	Rim	Second half of 2nd c. BCE to the beginning of the 1st c. BCE
10	Jug	JG 2	79/2	Rim	1st c. BCE and CE

Plate 7.1. Late Hellenistic pottery from Field B, Square P22, Locus 22.



No.	Vessel	Type	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 1b	52/3	Rim	Second half of the 2nd c. BCE to the beginning of the 1st c. BCE
2	Storage jar	SJ 1b	40/3	Rim	Second half of the 2nd c. BCE to the beginning of the 1st c. BCE
3	Storage jar	SJ 2a	52/1	Rim	Mid-2nd c. BCE to the beginning of the 1st c. BCEa
4	Storage jar	SJ 3a	52/2	Rim	Late 2nd to early 1st c. BCE
5	Juglet	JT 2	40/1	Rim	1st c. CE to the first third of 2nd c. CE
6	Oil lamp	LP 3	43/1b	Body sherd	Introduced during the last years of Herod's reign or even slightly later and continues to the mid-2nd c. CE

[a] In the Jewish Quarter, it is most typical in the second half of the second century BCE.
[b] Object 0970.

Plate 7.2. Early Roman pottery from Field B, Square P21, Locus 12.

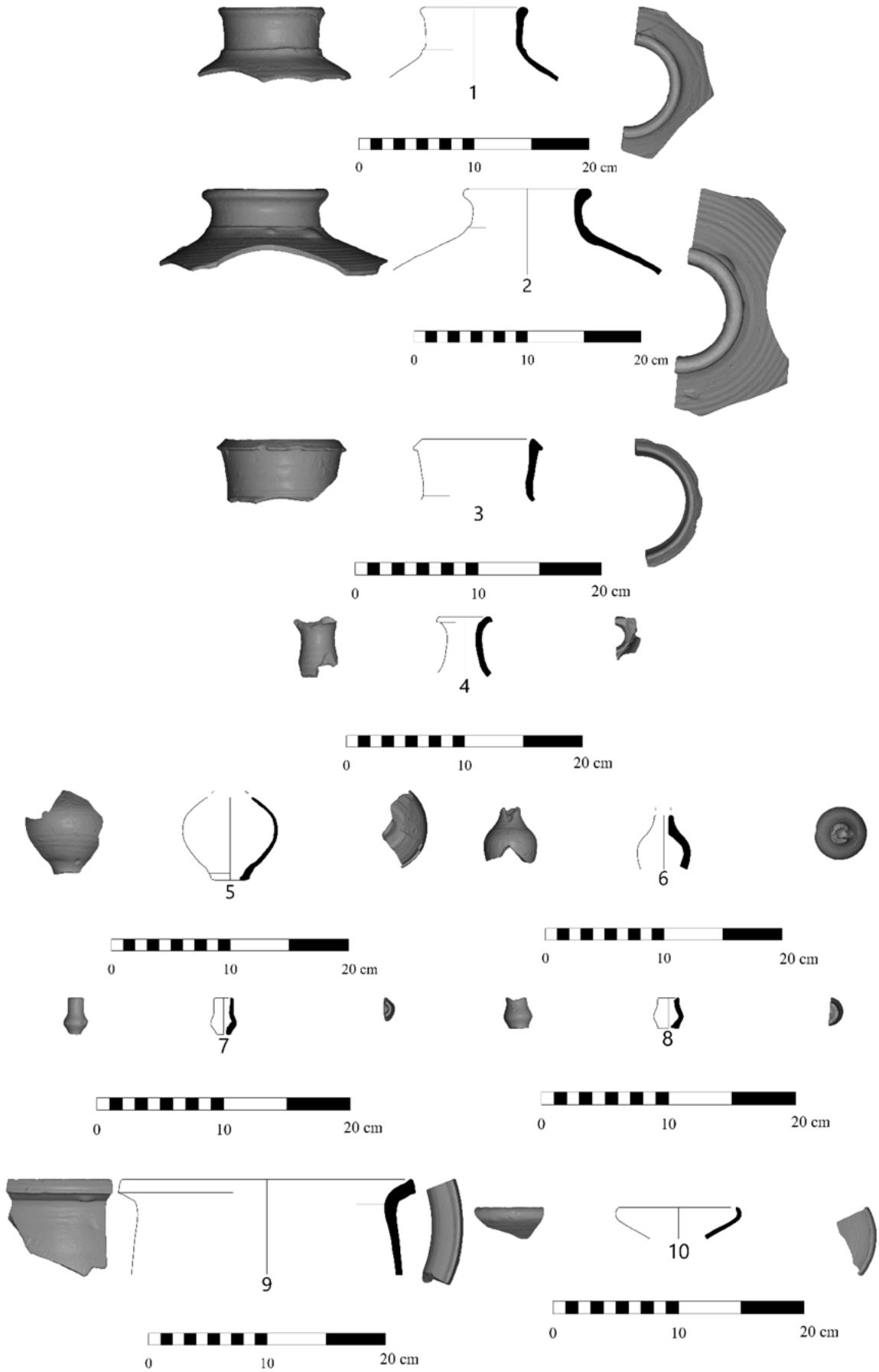


Plate 7.3. Early Roman pottery from Field B, Square P21, Locus 10.

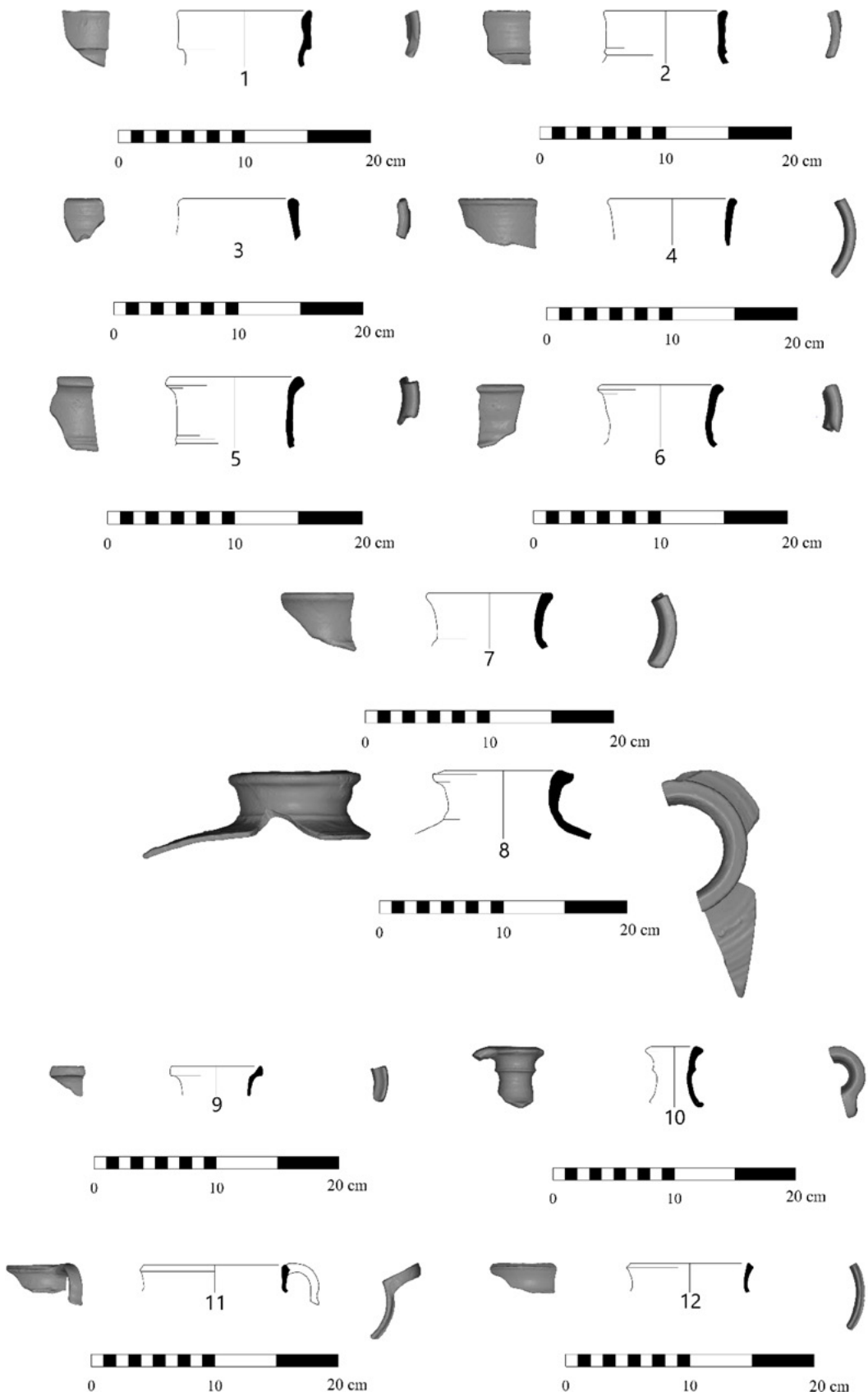


Plate 7.4. Early Roman pottery from Field B, Square P21, Locus 3.

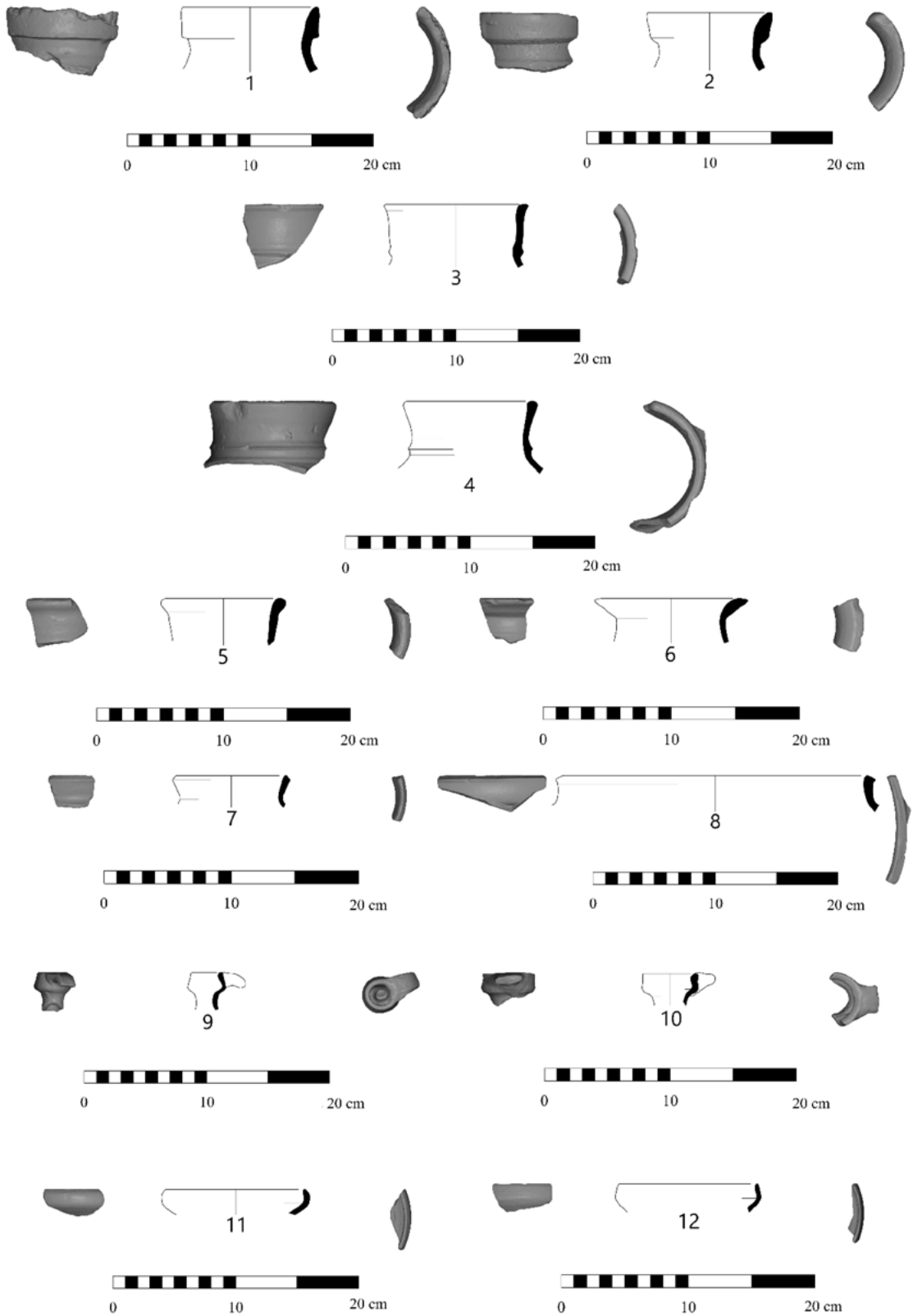


Plate 7.5. Early Roman pottery from Field B, Square 22, Locus 15.

No.	Vessel	Type	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 5a	22/1	Rim	1st c. CE and into the 2nd c. CE
2	Storage jar	SJ 5c	22/2	Rim	1st c. to first third of 2nd c. CE
3	Storage jar	SJ 5b	22/4	Rim	1st c. CE to first third of 2nd c. CE
4	Juglet	JT 1	23/2	Lower body and base	1st c. BCE and continues into the 1st c. CE
5	Fusiform unguentarium	FU 1	23/1	Neck and upper body	2nd to 1st c. BCE
6	Piriform bottle	PU 1	24/3	Rim	End of the 1st c. BCE and the 1st c. CE
7	Miniature bottle	PU 2	24/5	Intact	1st c. CE
8	Miniature bottle	PU 2	24/6	Intact	1st c. CE
9	Krater	KR 2	22/3	Rim	1st c. BCE and 1st c. CE
10	Bowl	BL 1	23/4	Rim	Mid-2nd c. BCE to 1st c. CE

Plate 7.3. Early Roman pottery from Field B, Square P21, Locus 10.

No.	Vessel	Type	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 3b	28/3	Rim	Second half of the 1st c. BCE and early 1st c. CE
2	Storage jar	SJ 3b	26/3	Rim	Second half of the 1st c. BCE and early 1st c. CE
3	Storage jar	SJ 5a	16/3	Rim	1st c. CE and continues into the 2nd c. CE
4	Storage jar	SJ 5a	19/1	Rim	1st c. CE and continues into the 2nd c. CE
5	Storage jar	SJ 5a	9/3	Rim	1st c. CE and continues into the 2nd c. CE
6	Storage jar	SJ 5a	4/3	Rim	1st c. CE and continues into the 2nd c. CE
7	Storage jar	SJ 5a	9/1	Rim	1st c. CE and continues into the 2nd c. CE
8	Storage jar	SJ 5c	26/1	Rim	Mid-1st c. CE to first third of second c. CE
9	Jug	JG 3	19/3	Rim	1st centuries BCE and CE
10	Jug	JG 4	9/1	Rim	Second half of 1st c. BCE to the early 2nd c. CE
11	Cooking pot	CP 3	3/2	Rim	End of the 2nd c. BCE to 70 CE
12	Cooking pot	CP 3	19/2	Rim	End of the 2nd c. BCE to 70 CE

Plate 7.4. Early Roman pottery from Field B, Square P21, Locus 3.

No.	Vessel	Type	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 3a	47/5	Rim	Late 2nd to early 1st c. BCE
2	Storage jar	SJ 3a	55/1	Rim	Late 2nd to early 1st c. BCE
3	Storage jar	SJ 3b	55/2	Rim	Second half of the 1st c. BCE and early 1st c. CE
4	Storage jar	SJ 3b	47/1	Rim	Second half of the 1st c. BCE and early 1st c. CE
5	Storage jar	SJ 5a	51/2	Rim	1st c. CE and continues into the 2nd c. CE
6	Jug	JG 1	51/6	Rim	Second half of the 2nd c. BCE to the beginning of the 1st c. BCE
7	Cooking pot	CP 2	51/4	Rim	End of the 2nd c. BCE through the 1st c. BCE
8	Casserole	CE 1	47/6	Rim	Later part of the 1st c. BCE and continues to the 1st c. CE
9	Juglet	JT 1	55/1	Rim	1st c. BCE and continues to the 1st c. CE
10	Juglet	JT 1	47/4	Rim	1st c. BCE and the 1st c. CE
11	Bowl	BL 1	47/7	Rim	Mid-2nd c. BCE and 1st c. CE
12	Bowl	BL 1	55/3	Rim	Mid-2nd c. BCE and 1st c. CE

Plate 7.5. Early Roman pottery from Field B, Square 22, Locus 15.

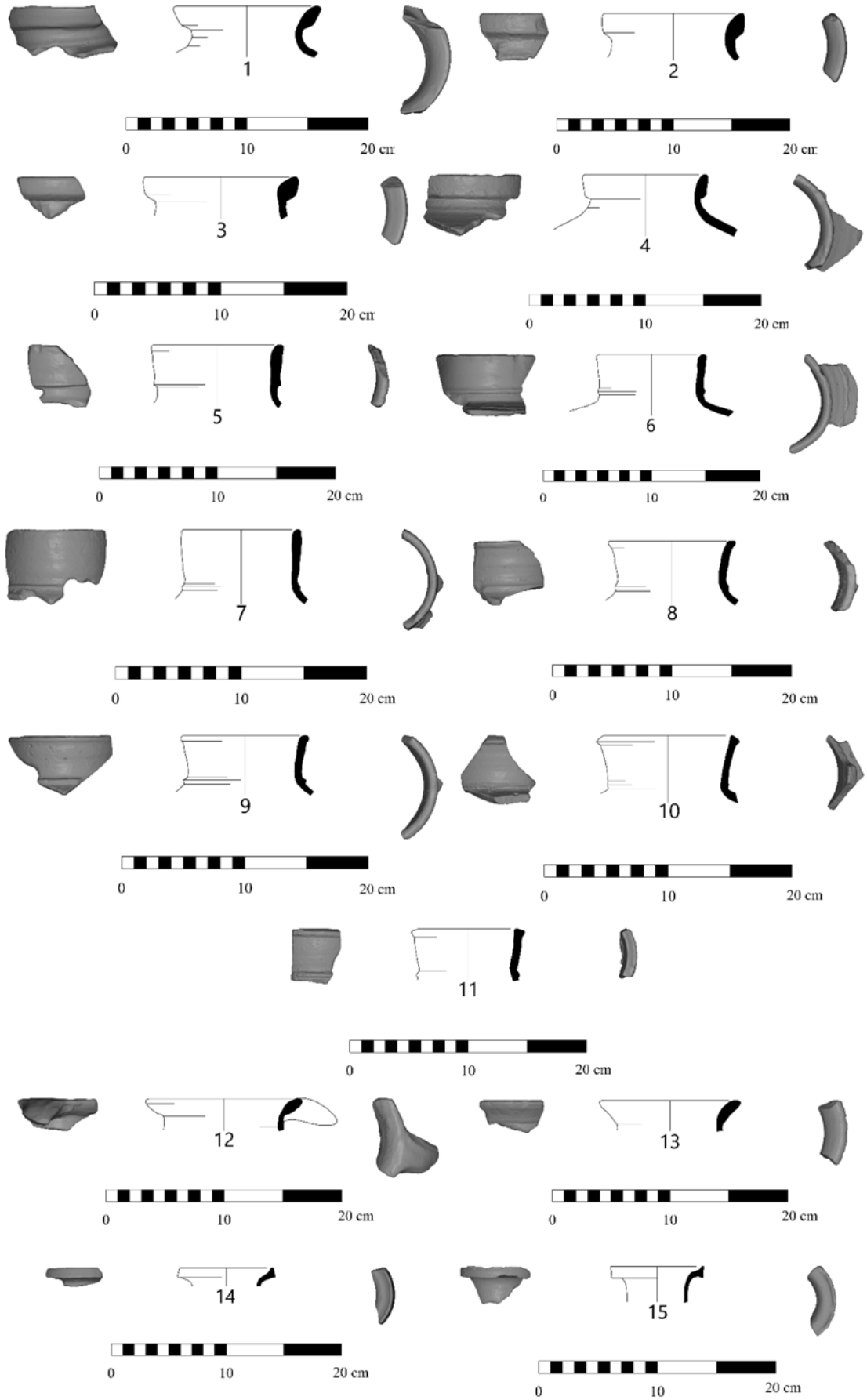


Plate 7.6 Late Hellenistic to Early Roman pottery from Field B, Square P22, Locus 3.

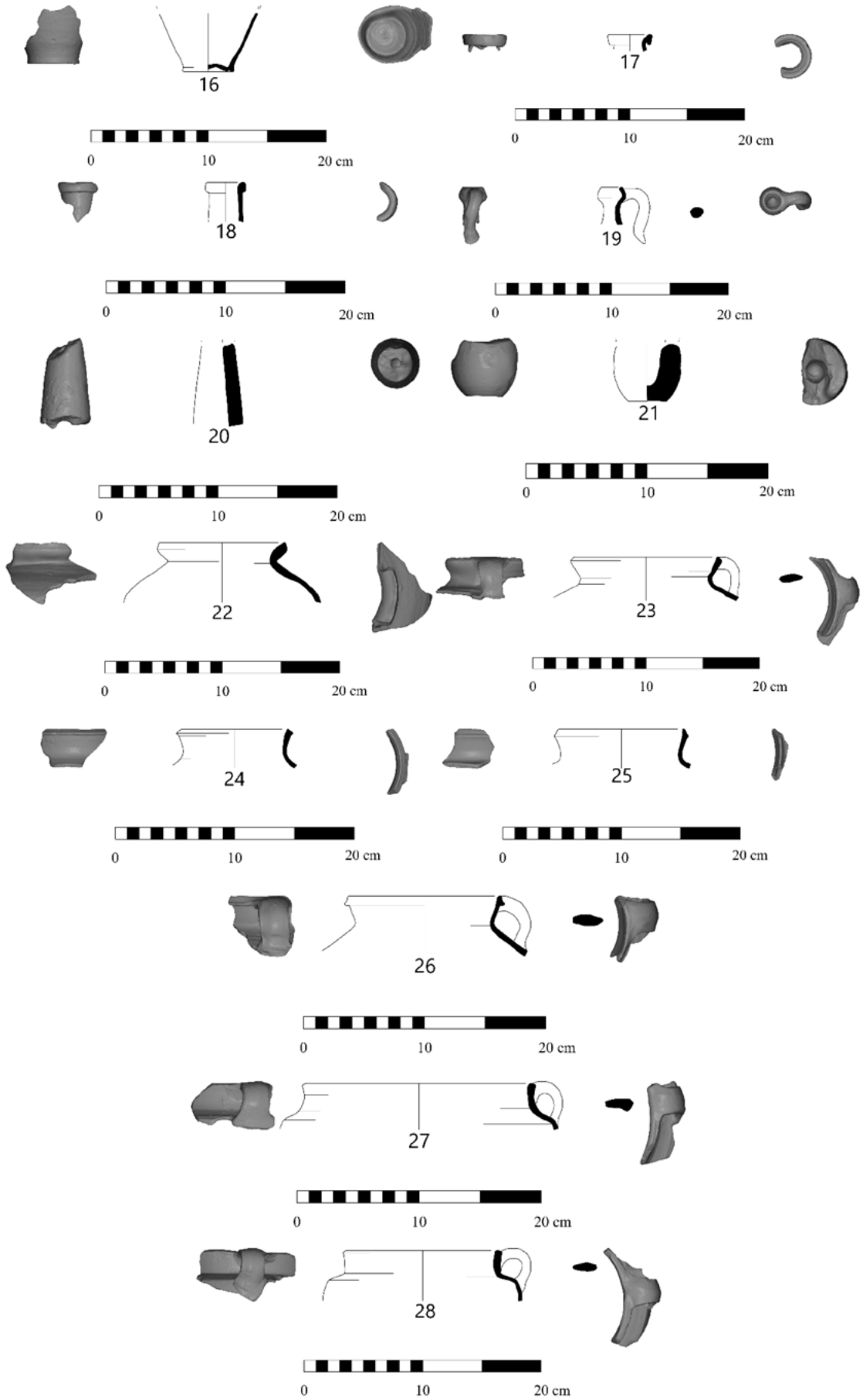
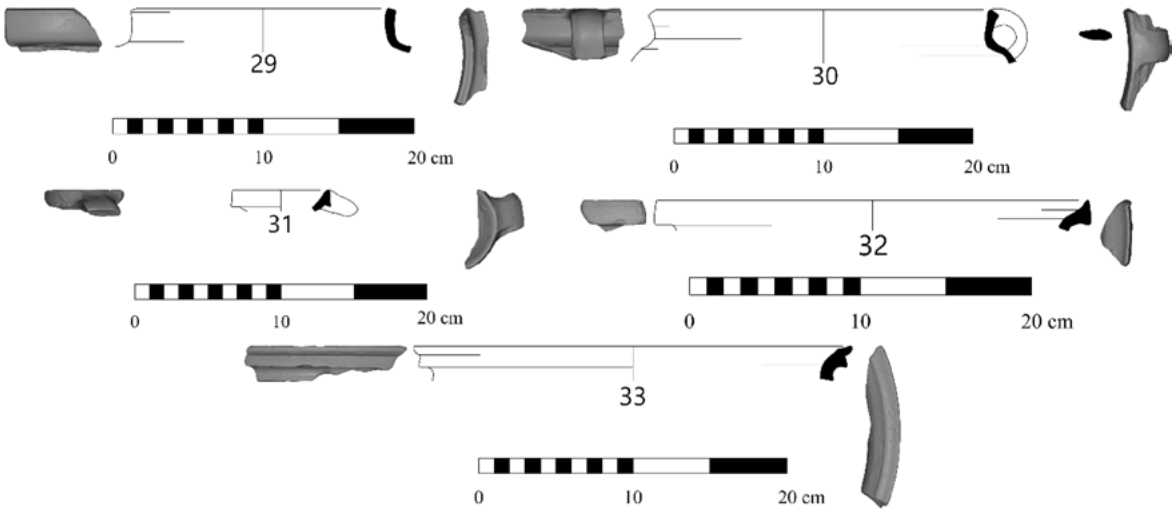
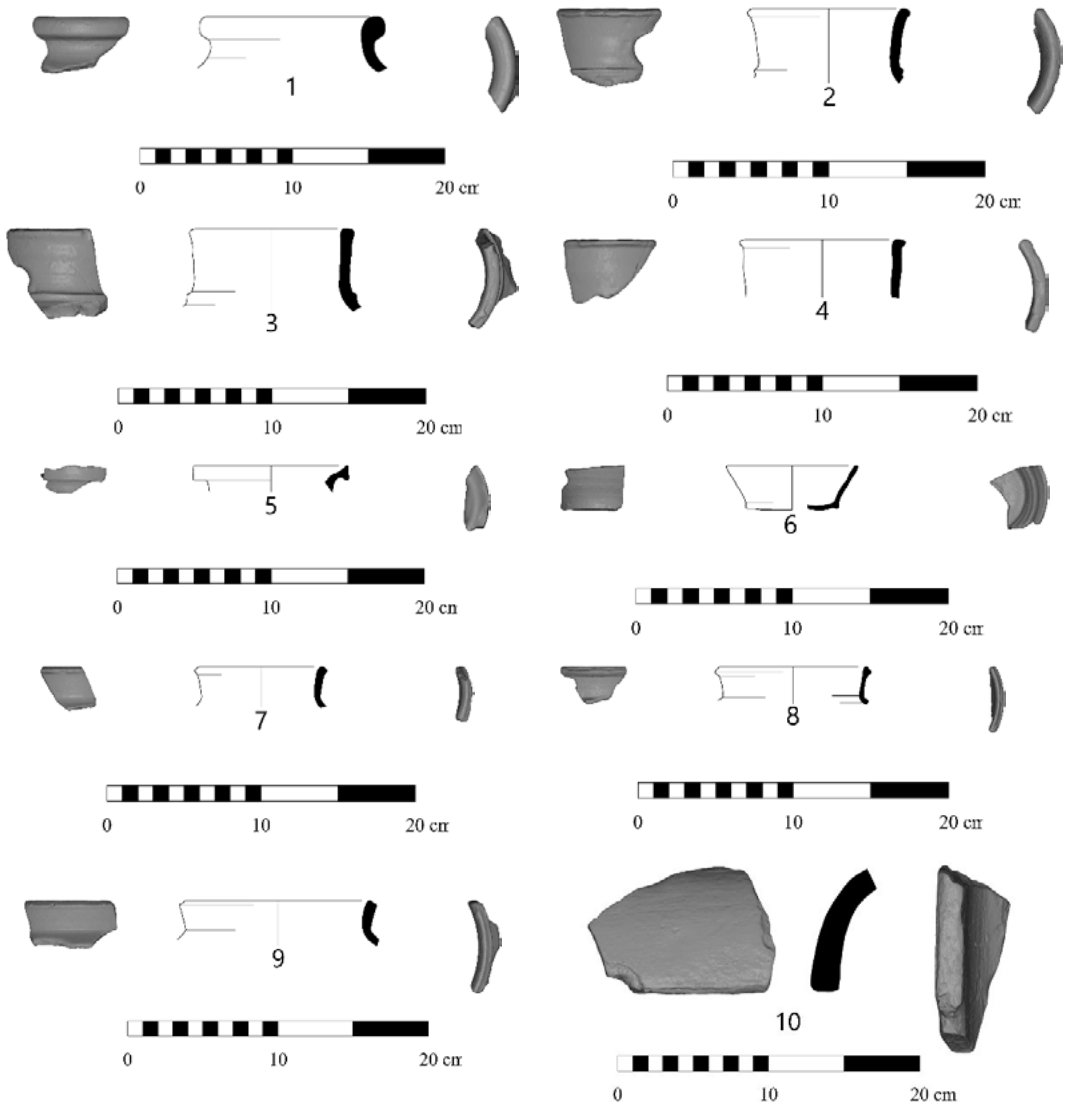


Plate 7.6 Late Hellenistic to Early Roman pottery from Field B, Square P22, Locus 3.



No.	Vessel	Type	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 1a	31/11	Rim	2nd to early 1st c. BCE
2	Storage jar	SJ 2b	7/4	Rim	Second half of the 2nd c. BCE to the beginning of the 1st c. BCE
3	Storage jar	SJ 2b	25/8	Rim	Second half of the 2nd c. BCE to the beginning of the 1st c. BCE
4	Storage jar	SJ 3a	33/1	Rim	Late 2nd to early 1st c. BCE
5	Storage jar	SJ 3b	31/8	Rim	Second half of the 1st c. BCE and early 1st c. CE
6	Storage jar	SJ 3b	27/7	Rim	Second half of the 1st c. BCE and early 1st c. CE
7	Storage jar	SJ 5a	27/2	Rim	1st c. CE and continues into the 2nd c. CE
8	Storage jar	SJ 5a	31/12	Rim	1st c. CE and continues into the 2nd c. CE
9	Storage jar	SJ 5a	31/3	Rim	1st c. CE
10	Storage jar	SJ 5b	33/5	Rim	1st c. CE to the first third of 2nd c. CE
11	Storage jar	SJ 5b	33/15	Rim	1st c. CE to the first third of 2nd c. CE
12	Jug	JG 1	31/6	Rim	Mid-2nd c. BCE to the early 1st c. BCE
13	Jug	JG 1	27/8	Rim	Mid-2nd c. BCE to the early 1st c. BCE
14	Jug	JG 3	27/9	Rim	1st c. BCE and CE
15	Jug	JG 3	33/14	Rim	1st c. BCE and CE
16	Jug	JG 3	11/1	Base	1st c. BCE and CE
17	Jug	JG 5	33/10	Rim	Mid-1st c. BCE to the 1st c. CE
18	Flask	FK 1	25/4	Rim	Second half of the 1st c. BCE to the 1st c. CE
19	Juglet	JT 1	27/2	Rim	1st c. BCE and the 1st c. CE
20	Fusiform unguentarium	FU 1	63	Neck	Probably 2nd to 1st c. BCE
21	Fusiform unguentarium	FU 1	33/12	Body	Probably 2nd to 1st c. BCE
22	Cooking pot	CP 2	27/1	Rim	End of the 2nd c. BCE and the 1st c. BCE
23	Cooking pot	CP 2	31/2	Rim	End of the 2nd c. BCE and the 1st c. BCE
24	Cooking pot	CP 3	25/2	Rim	End of the 2nd c. BCE to 70 CE
25	Cooking pot	CP 3	33/4	Rim	End of the 2nd c. BCE to 70 CE
26	Cooking pot	CP 3	33/7	Rim	End of the 2nd c. BCE to 70 CE
27	Casserole	CE 1	31/1	Rim	Later part of the 1st c. BCE and to the 1st c. CE
28	Casserole	CE 1	27/1	Rim	Later part of the 1st c. BCE and to the 1st c. CE
29	Casserole	CE 1	33/11	Rim	Later part of the 1st c. BCE and to the 1st c. CE
30	Casserole	CE 1	33/2	Rim	Later part of the 1st c. BCE and to the 1st c. CE
31	Cooking jug	CJ 1	27/6	Rim	Later part of the 1st c. BCE and to the 1st c. CE
32	Krater	KR 1	37/7	Rim	1st c. BCE to the 1st c. CE
33	Krater	KR 1	31/5	Rim	1st c. BCE to the 1st c. CE

Plate 7.6 Late Hellenistic to Early Roman pottery from Field B, Square P22, Locus 3.



No.	Vessel	Type	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 2a	14/4	Rim	Mid-2nd c. BCE to the beginning of the 1st c. BCE[a]
2	Storage jar	SJ 5a	12/5	Rim	1st c. CE and continues into the 2nd c. CE
3	Storage jar	SJ 5a	9/14	Rim	1st c. CE and continues into the 2nd c. CE
4	Storage jar	SJ 5a	13/3	Rim	1st c. CE and continues into the 2nd c. CE
5	Jug	JG 3	13/4	Rim	1st c. BCE and CE
6	Cooking pot	CP 2	20/2	Rim	End of the 2nd c. BCE and the 1st c. BCE
7	Cooking pot	CP 3	19/7	Rim	End of the 2nd c. BCE to 70 CE
8	Cooking pot	CP 3	14/3	Rim	End of the 2nd c. BCE to 70 CE
9	Casserole	CE 1	14/2	Rim	Later part of the 1st c. BCE and to the 1st c. CE
10	Roof tile	RT 1	13/1	Rim	1st c. CE

[a] In the Jewish Quarter, it is most typical in the second half of the 2nd c. BCE.

Plate 7.7. Late Hellenistic and Early Roman pottery from Field B, Square O24, Locus 9.

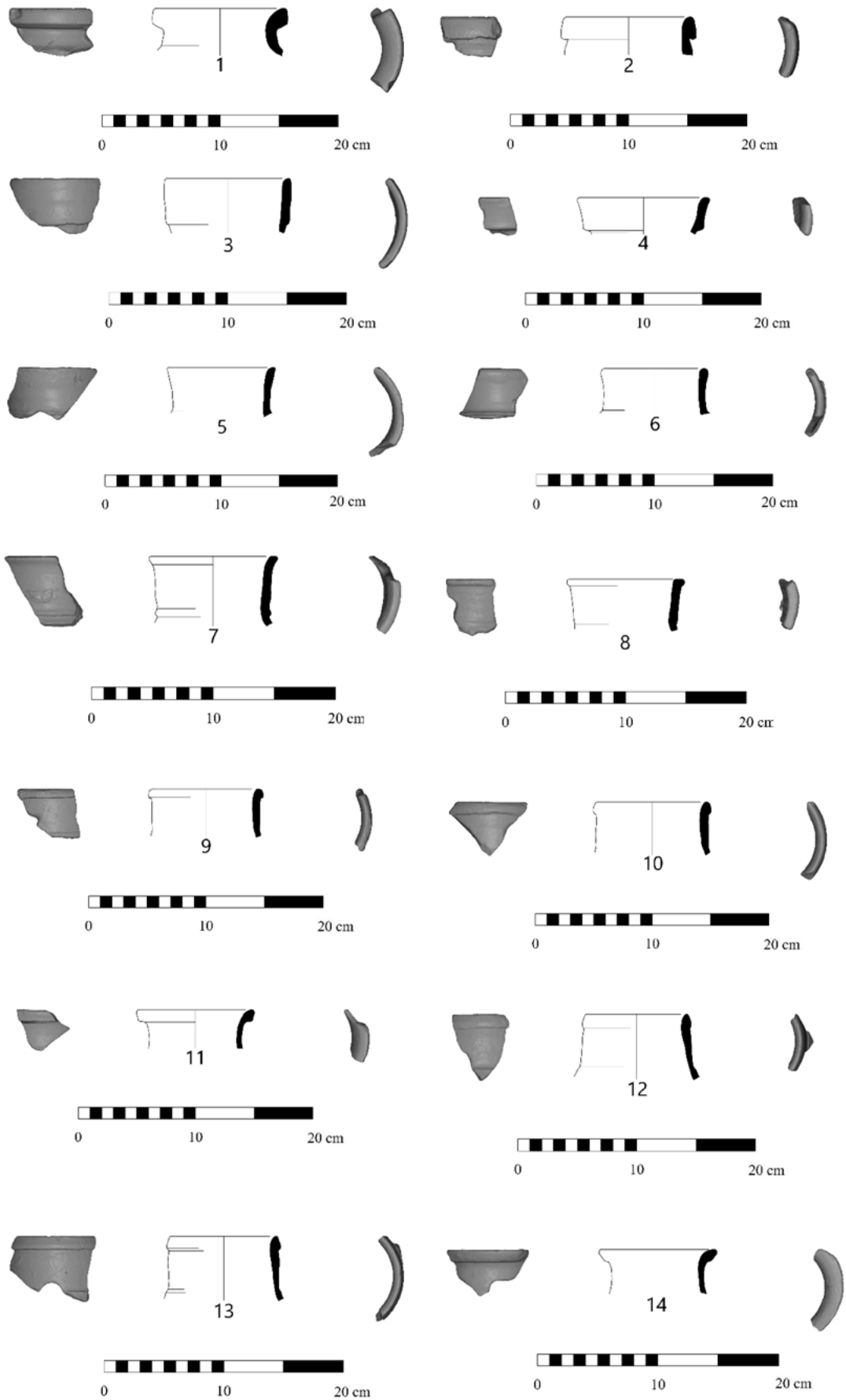
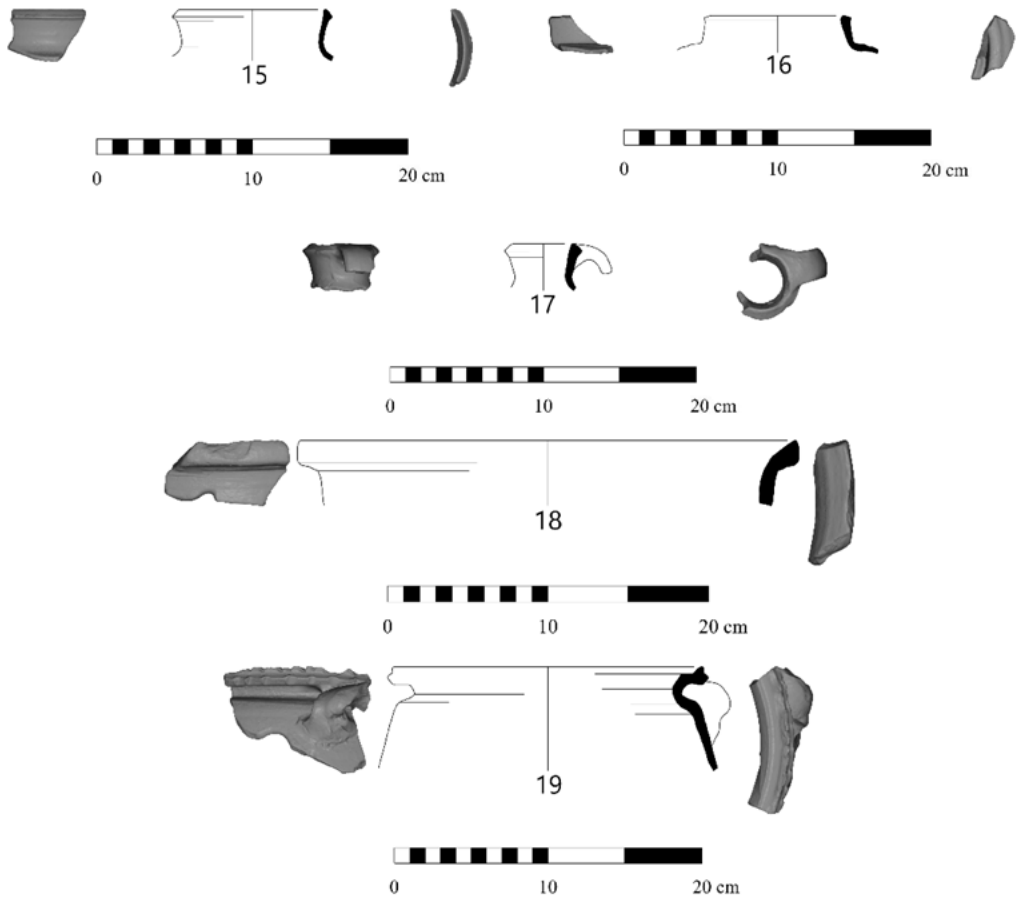


Plate 7.8. Late Hellenistic to Early Roman pottery from Field B, Square O24, Locus 5.



No.	Vessel	Type	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 1b	20/8	Rim	Second half of the 2nd c. BCE to the beginning of the 1st c. BCE
2	Storage jar	SJ 3a	23/10	Rim	Late 2nd to early 1st centuries BCE
3	Storage jar	SJ 3a	20/6	Rim	Late 2nd to early 1st centuries BCE
4	Storage jar	SJ 3b	20/3	Rim	Second half of the 1st c. BCE and early 1st c. CE
5	Storage jar	SJ 3b	27/1	Rim	Second half of the 1st c. BCE and early 1st c. CE
6	Storage jar	SJ 3b	23/7	Rim	Second half of the 1st c. BCE and early 1st c. CE
7	Storage jar	SJ 5a	20/1	Rim	1st c. CE and continues into the 2nd c. CE
8	Storage jar	SJ 5a	27/2	Rim	1st c. CE and continues into the 2nd c. CE
9	Storage jar	SJ 5a	23/8	Rim	1st c. CE and continues into the 2nd c. CE
10	Storage jar	SJ 5a	20/2	Rim	1st c. CE and continues into the 2nd c. CE
11	Storage jar	SJ 5a	20/5	Rim	1st c. CE and continues into the 2nd c. CE
12	Storage jar	SJ 5d	23/9	Rim	Appears only after the First Jewish Revolt (after 70 CE)
13	Storage jar	SJ 5d	24/1	Rim	Appears only after the First Jewish Revolt (after 70 CE)
14	Jug	GJ 1	23/6	Rim	Second half of 2nd c. BCE to the beginning of the 1st c. BCE
15	Cooking pot	CP 3	23/6	Rim	End of the 2nd c. BCE but became the most popular type towards the mid-1st c. BCE[a]
16	Casserole	CE 1	20/7	Rim	Later part of the 1st c. BCE and to the 1st c. CE
17	Cooking jug	CJ 1	23/3	Rim	Second half of the 1st c. BCE to 1st c. CE
18	Large bowl	CK 2	20/4	Rim	1st c. BCE to 1st c. CE
19	Krater	CK 1	23/1	Rim	1st c. BCE to the 1st c. CE

[a] Found in assemblages from the late Hasmonean period to 70 CE.

Plate 7.8. Late Hellenistic to Early Roman pottery from Field B, Square O24, Locus 5.

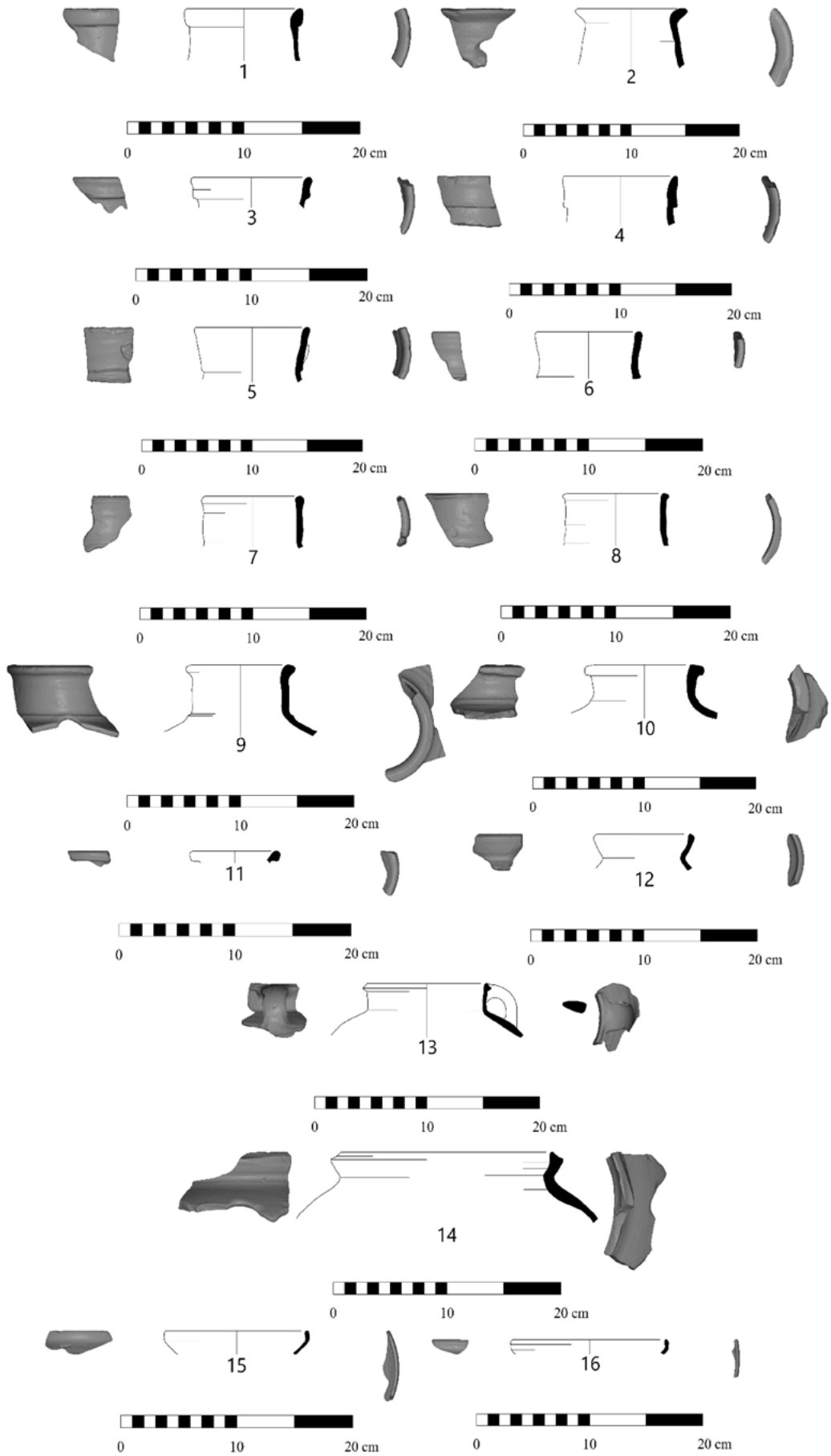
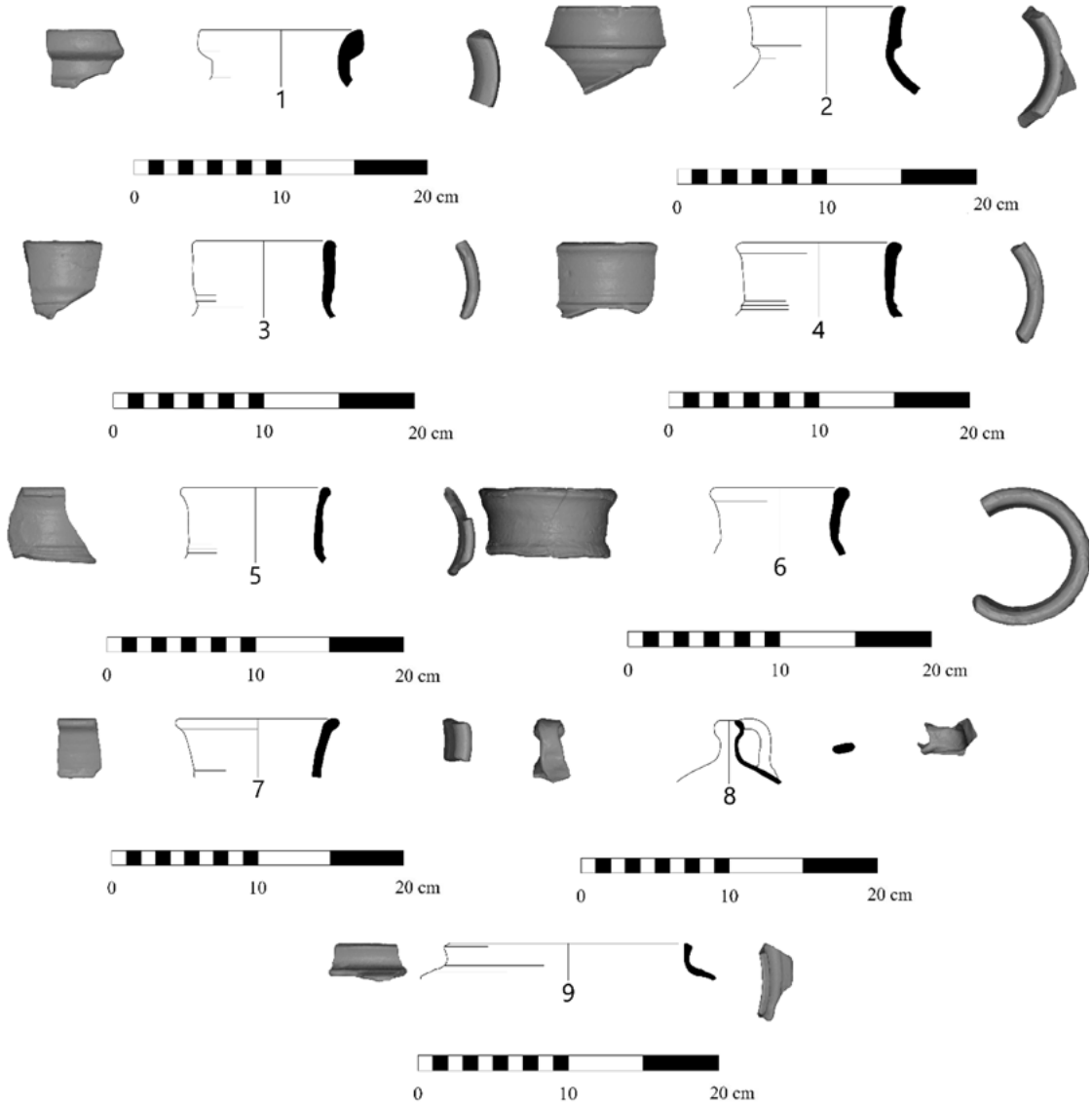


Plate 7.9. Late Hellenistic to Early Roman pottery from Field B, Square O22, Locus 7.

No.	Vessel	Type	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 2b	19/5	Rim	Second half of the 2nd c. BCE to the beginning of the 1st c. BCE
2	Storage jar	SJ 1a	19/2	Rim	2nd to early 1st c. BCE
3	Storage jar	SJ 3a	19/3	Rim	Late 2nd to early 1st centuries BCE
4	Storage jar	SJ 3a	17/1	Rim	Late 2nd to early 1st centuries BCE
5	Storage jar	SJ 3b	55/2	Rim	Second half of the 1st c. BCE and early 1st c. CE
6	Storage jar	SJ 3b	19/10	Rim	Second half of the 1st c. BCE and early 1st c. CE
7	Storage jar	SJ 5a	21/11	Rim	1st c. CE and continues into the 2nd c. CE
8	Storage jar	SJ 5a	21/5	Rim	1st c. CE and continues into the 2nd c. CE
9	Storage jar	SJ 5c	21/1	Rim	Mid-1st c. to first third of the second c. CE
10	Storage jar	SJ 5c	21/7	Rim	Mid-1st c. CE to the first third of second c. CE
11	Jug	JG 3	21/4	Rim	1st centuries BCE and CE
12	Cooking pot	CP1	19/6	Rim	Second half of 2nd c. BCE to the early of the 1st c. BCE
13	Cooking pot	CP 3	21/9	Rim	Late 2nd c. BCE to 70 CE
14	Casserole	CE 1	47/6	Rim	Late 1st c. BCE and 1st c. CE
15	Bowl	BL 1	19/9	Rim	Mid-2nd c. BCE to the 1st c. CE
16	Bowl	BL 1	19/4	Rim	Mid-2nd c. BCE to the 1st c. CE

Plate 7.9. Late Hellenistic to Early Roman pottery from Field B, Square O22, Locus 7.



No.	Vessel	Type	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 1b	28	Rim	Second half of the 2nd c. BCE to the beginning of the 1st c. BCE
2	Storage jar	SJ 3a	27/2	Rim	Late 2nd to early 1st centuries BCE
3	Storage jar	SJ 3b	20/2	Rim	Second half of the 1st c. BCE and early 1st c. CE
4	Storage jar	SJ 5a	20/1	Rim	1st c. CE and continues into the 2nd c. CE
5	Storage jar	SJ 5a	25/1	Rim	1st c. CE and continues into the 2nd c. CE
6	Storage jar	SJ 5a	25/2	Rim	1st c. CE and continues into the 2nd c. CE
7	Storage jar	SJ 5a	27/1	Rim	1st c. CE and continues into the 2nd c. CE
8	Juglet	JT 1	22/2	Rim	1st c. BCE and CE
9	Casserole	CE 1	47/6	Rim	Later part of the 1st c. BCE and the 1st c. CE

Plate 7.10. Late Hellenistic to Early Roman pottery from Field B, Square X23, Locus 9.

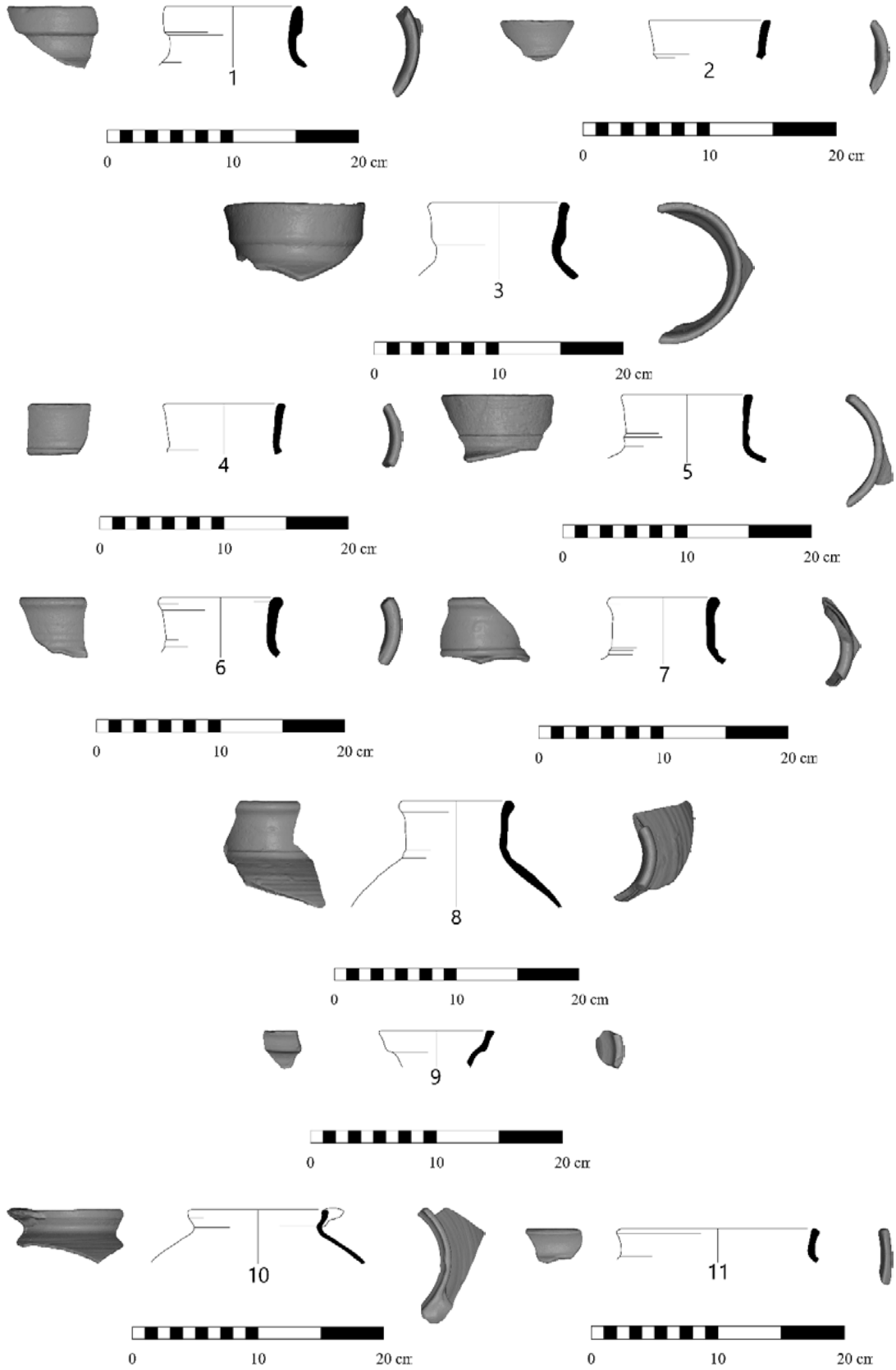


Plate 7.11. Late Hellenistic to Early Roman Pottery from Field B, Square X23, Locus 7.

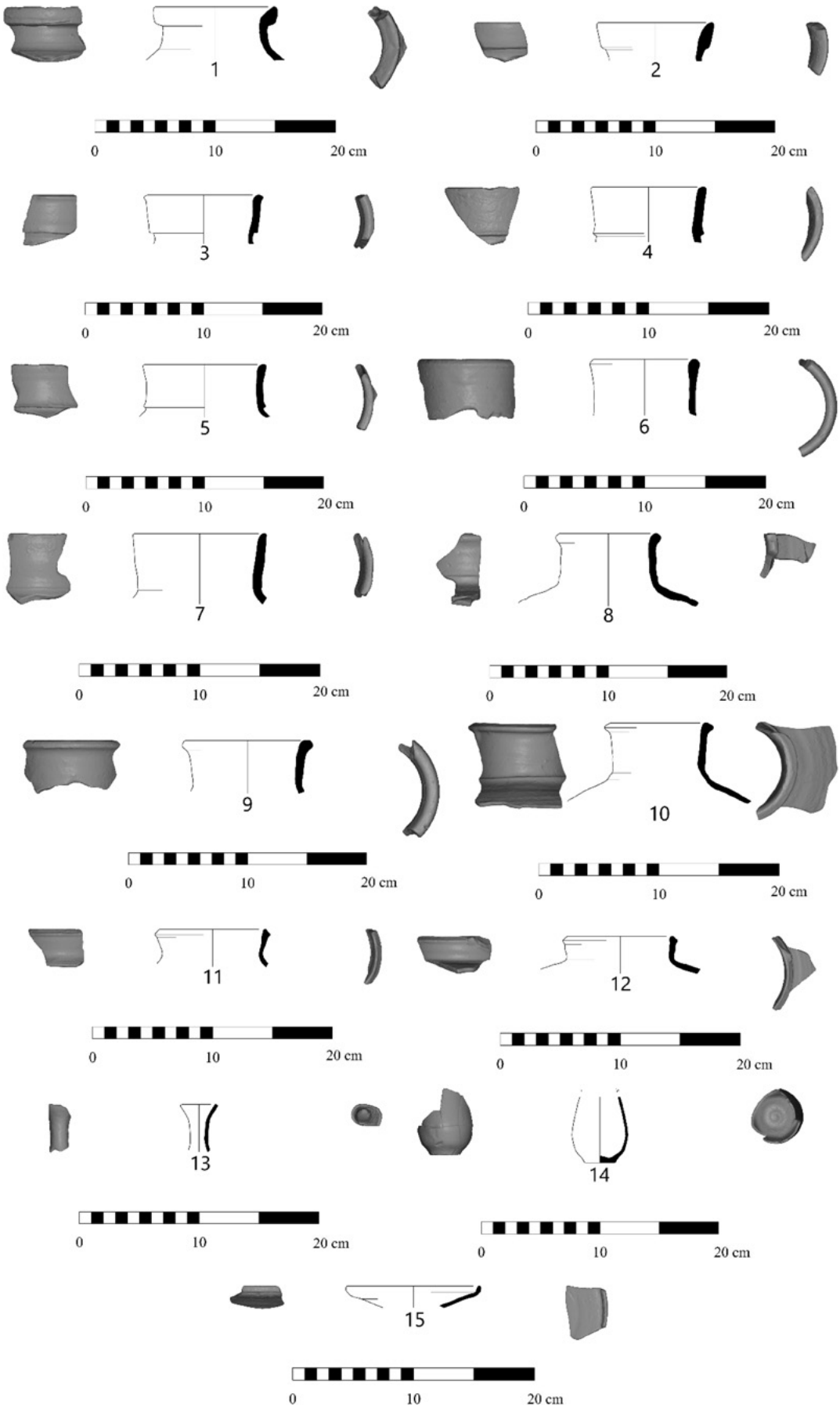


Plate 7.12. Late Hellenistic to Early Roman Pottery from Field B, Square W22, Loci 11 and 15.

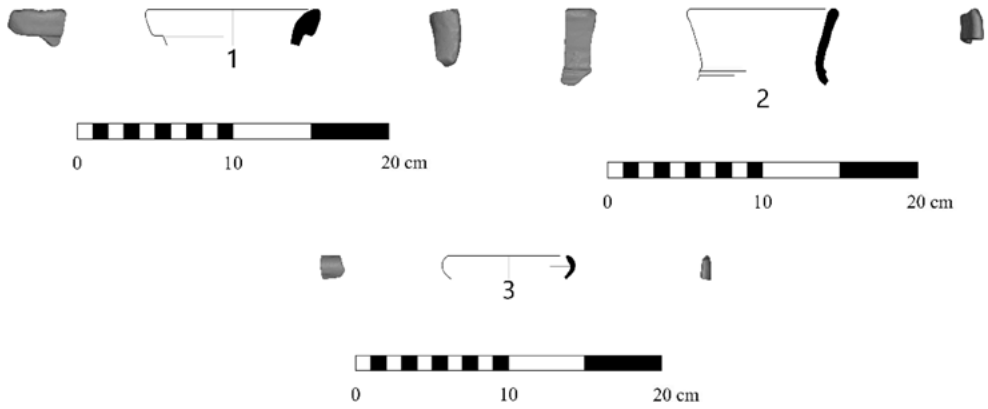
No.	Vessel	Type	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 3a	17/3	Rim	Late 2nd to early 1st c. BCE
2	Storage jar	SJ 3a	10/3	Rim	Late 2nd to early 1st c. BCE
3	Storage jar	SJ 3a	9/2	Rim	Late 2nd to early 1st c. BCE
4	Storage jar	SJ 3b	17/2	Rim	Second half of the 1st c. BCE and early 1st century CE
5	Storage jar	SJ 3b	17/1	Rim	Second half of the 1st c. BCE and early 1st c. CE
6	Storage jar	SJ 5a	10/2	Rim	1st c. CE and continues into the 2nd c. CE
7	Storage jar	SJ 5a	9/3	Rim	1st c. CE and continues into the 2nd c. CE
8	Storage jar	SJ 5a	9/6	Rim	1st c. CE and continues into the 2nd c. CE
9	Jug	JG 3	9/5	Rim	1st c. BCE and CE
10	Cooking pot	CP 1	9/1	Rim	Second half of 2nd c. BCE to the beginning of the 1st c. BCE
11	Casserole	CE 1	10/4	Rim	Later part of the 1st c. BCE and the 1st c. CE

Plate 7.11. Late Hellenistic to Early Roman Pottery from Field B, Square X23, Locus 7.

No.	Vessel	Type	Locus	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 1b	11	88/1	Rim	Second half of the 2nd c. BCE to the beginning of the 1st c. BCE
2	Storage jar	SJ 3a	15	40/4	Rim	Late 2nd to early 1st c. BCE
3	Storage jar	SJ 3b	11	88/3	Rim	Second half of the 1st c. BCE and early 1st c. CE
4	Storage jar	SJ 3b	11	27/2	Rim	Second half of the 1st c. BCE and early 1st c. CE
5	Storage jar	SJ 3b	11	31/5	Rim	Second half of the 1st c. BCE and early 1st c. CE
6	Storage jar	SJ 5a	11	31/2	Rim	1st c. CE and continues into the 2nd c. CE
7	Storage jar	SJ 5a	11	31/1	Rim	1st c. CE and continues into the 2nd c. CE
8	Storage jar	SJ 5a	15	40/3	Rim	1st c. CE and continues into the 2nd c. CE
9	Storage jar	SJ 5a	15	40/1	Rim	1st c. CE and continues into the 2nd c. CE
10	Storage jar	SJ 5b	11	27/1	Rim	1st c. to first third of second c. CE
11	Cooking pot	CP 3	11	27/4	Rim	End of the 2nd c. BCE; the most popular type in the mid-1st c. BCE[a]
12	Cooking pot	CP 3	11	37/2	Rim	End of the 2nd c. BCE; the most popular type in the mid-1st c. BCE[a]
13	Piriform bottle	PU 1	11	27/3	Rim	End of the 1st c. BCE and the 1st c. CE
14	Piriform bottle	PU 1	11	27/5	Lower body and base	End of the 1st c. BCE and the 1st c. CE
15	Bowl	BL 1	11	37/8	Rim	Mid-2nd c. BCE to 1st c. CE

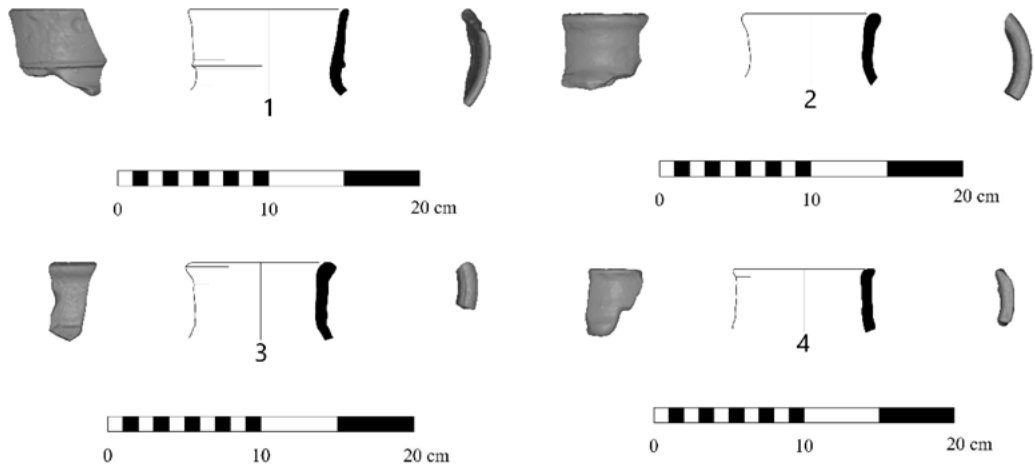
[a] Found in late Hasmonean assemblages and up to 70 CE.

Plate 7.12. Late Hellenistic to Early Roman Pottery from Field B, Square W22, Loci 11 and 15.



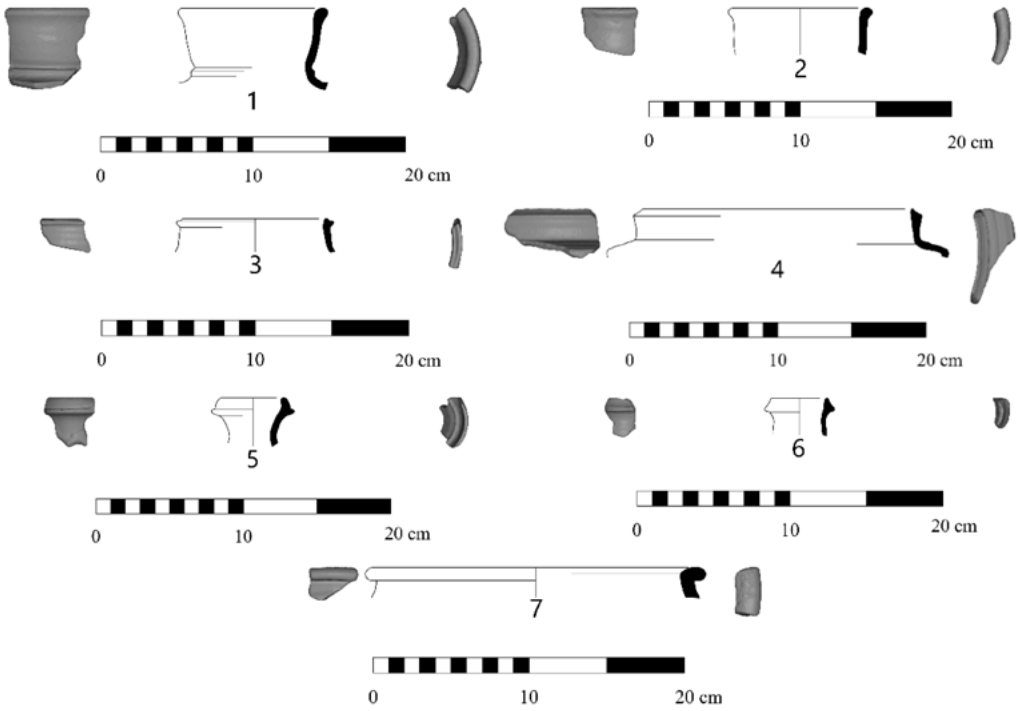
No.	Vessel	Type	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 1b	22/1	Rim	Second half of the 2nd c. BCE to the beginning of the 1st c. BCE
2	Storage jar	SJ 3b	22/2	Rim	Second half of the 1st c. BCE and early 1st c. CE
3	Bowl	BL 1	22/3	Rim	Mid-2nd c. BCE to the 1st c. CE

Plate 7.13. Late Hellenistic to Early Roman pottery from Field B, Square X22, Locus 2.



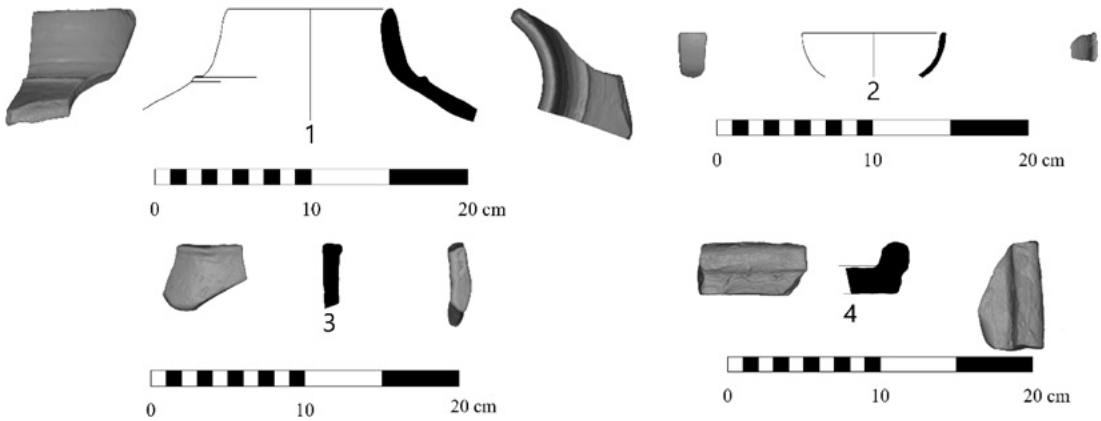
No.	Vessel	Type	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 3b	7/1	Rim	Second half of the 1st c. BCE and early 1st c. CE
2	Storage jar	SJ 5a	9	Rim	1st c. CE and continues into the 2nd c. CE
3	Storage jar	SJ 5a	7/2	Rim	1st c. CE and continues into the 2nd c. CE
4	Storage jar	SJ 5a	7/3	Rim	1st c. CE and continues into the 2nd c. CE

Plate 7.14. Early Roman pottery from Field B, Square S29, Locus 2.



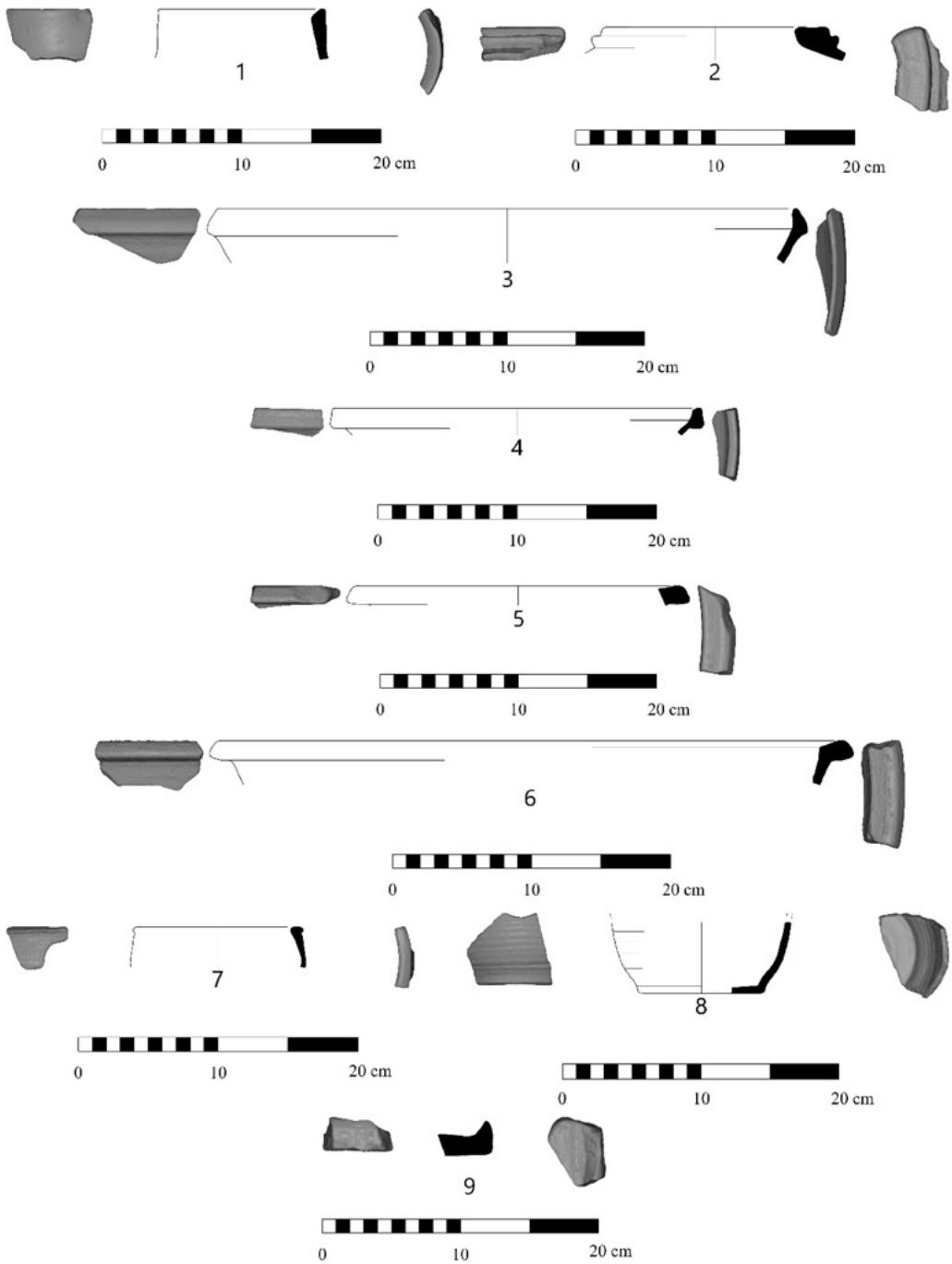
No.	Vessel	Type	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 5a	6/1	Rim	1st c. CE and continues into the 2nd c. CE
2	Storage jar	SJ 5a	6/3	Rim	1st c. CE and continues into the 2nd c. CE
3	Cooking pot	CP 3	6/5	Rim	End of the 2nd c. BCE to 70 CE
4	Casserole	CE 1	6/2	Rim	Late 1st c. BCE and the 1st c. CE
5	Cooking jug	CJ 2	6/6	Rim	Late 1st c. BCE; increases in Phases 3–4 (first c. CE until 70 CE)
6	Cooking jug	CJ 2	11/1	Rim	Late 1st c. BCE; increases in Phases 3–4 (first c. CE until 70 CE)
7	Krater	KR 2	6/8	Rim	1st c. BCE and 1st c. CE

Plate 7.15. Early Roman pottery from Field B, Square R24, Locus 2.



No.	Vessel	Type	Locus	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 8	24	19/1	Rim	Late 6th to early 8th c. CE
2	Bowl	FBWB 1	4	4	Rim	Mid-6th to early 7th c. CE
3	Roof tile	RT 3	23	24/3	Rim	Byzantine
4	Roof tile	RT 2	24	25/1	Rim	Byzantine

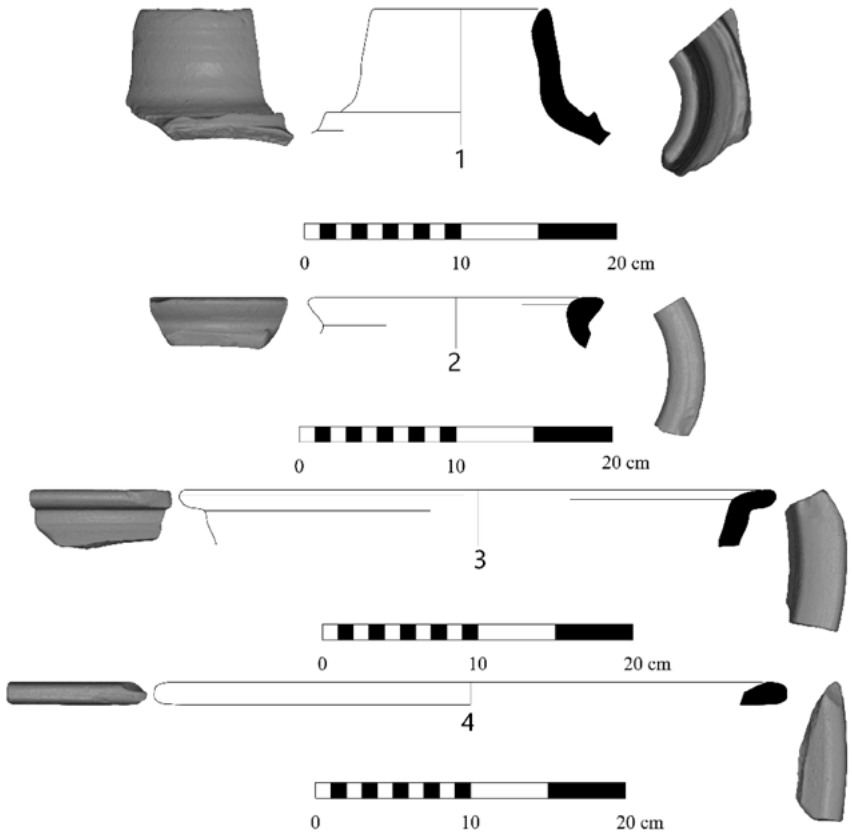
Plate. 7.16. Byzantine pottery from Field C, Square ZG04, Loci 4, 23, and 24.



No.	Vessel	Type	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 8	101/3	Rim	Late 6th to early 8th c. CE
2	Hole-mouth jar	SJ 10	101/8	Rim	6th to late 7th or early 8th c. CE
3	Bowl	SLB 2	101/7	Rim, red slipped and burnished	ca. 400–450 CE
4	Bowl	SLB 1	101/5	Rim, red slipped and burnished	6th c. CE, especially the second quarter
5	Arched-rim basin	BA 1	101/9	Rim	Late 3rd or early 4th to 6th c. CE[a] or 6th to late 7th or early 8th c. CE[b]
6	Arched-rim basin	BA 1	101/2	Rim	Late 3rd or early 4th to 6th c. CE[a] or 6th to late 7th or early 8th c. CE[b]
7	Bowl	FBWB 1	100/4	Rim	Mid-6th to early 7th c. CE
8	Bowl	FBWB 1	100/6	Base	Mid-6th to early 7th c. CE
9	Roof tile	RT 2	101/10	Rim	Byzantine

[a] Magness 1993, 204–6.
[b] Magness, 206.

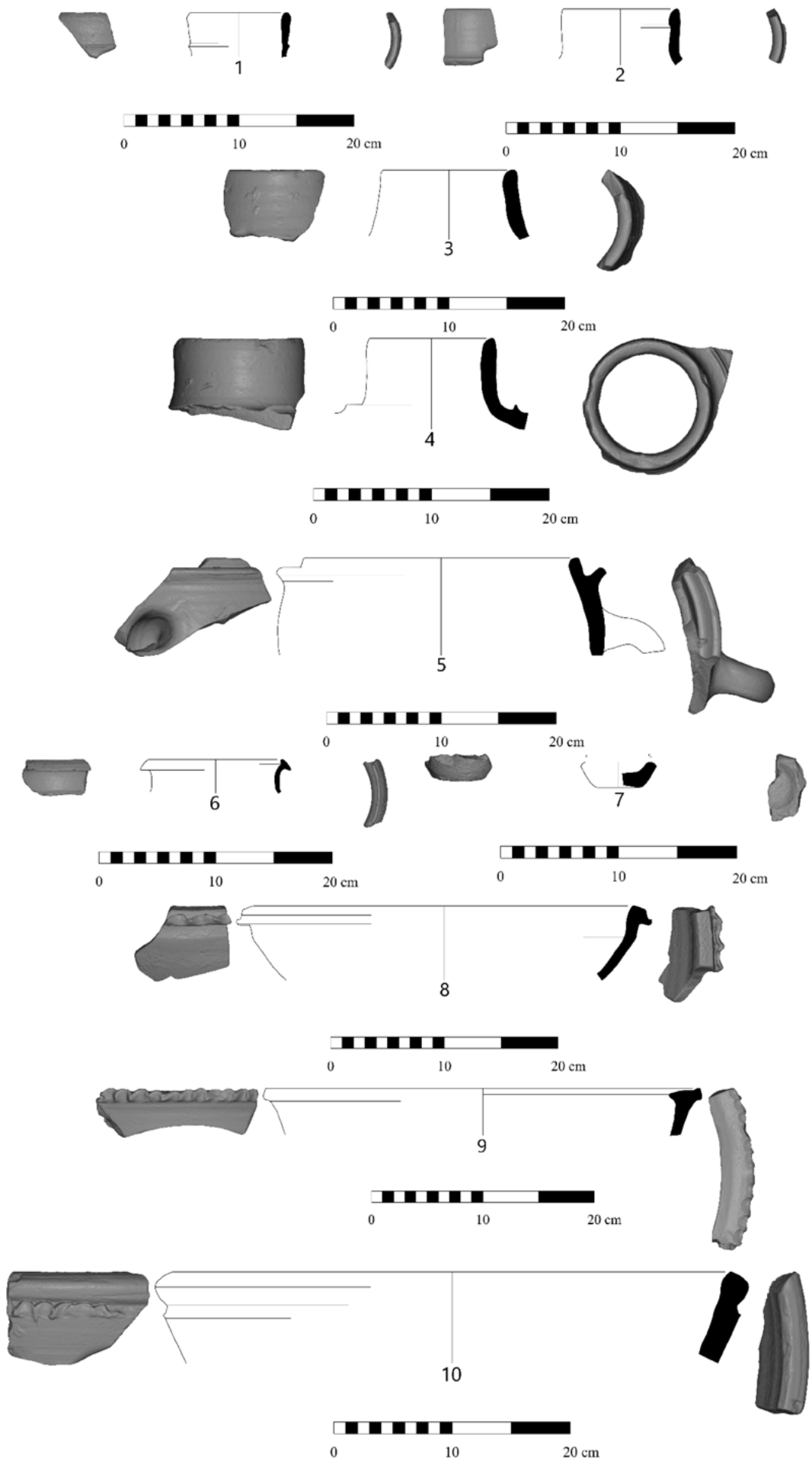
Plate 7.17. Byzantine pottery from Field C, Square ZF05, Locus 101.



No.	Vessel	Type	Locus	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 11	5	4/2	Rim	Late 7th to the 9th and 10th c. CE
2	Hole-mouth jar	SJ 9	6	4/1	Rim	2nd to 6th c. CE
3	Arched-rim basin	BA 1	6	4/2	Rim	Late 3rd or early 4th to 6th c. CE[a] or 6th to late 7th or early 8th c. CE[b]
4	Arched-rim basin	BA 1	5	4/1	Rim	Late 3rd or early 4th to 6th c. CE[a] or 6th to late 7th or early 8th c. CE[b]

[a] Magness 1993, 204–6, ARB, Form 1.
[b] Magness, 206, ARB Form 2A.

Plate 7.18. Byzantine pottery from Field C, Square ZH05, Loci 5 and 6.


1
2
0 10 20 cm
0 10 20 cm
3
0 10 20 cm
4
0 10 20 cm
5
0 10 20 cm
6
7
0 10 20 cm
0 10 20 cm
8
0 10 20 cm
9
0 10 20 cm
10
0 10 20 cm

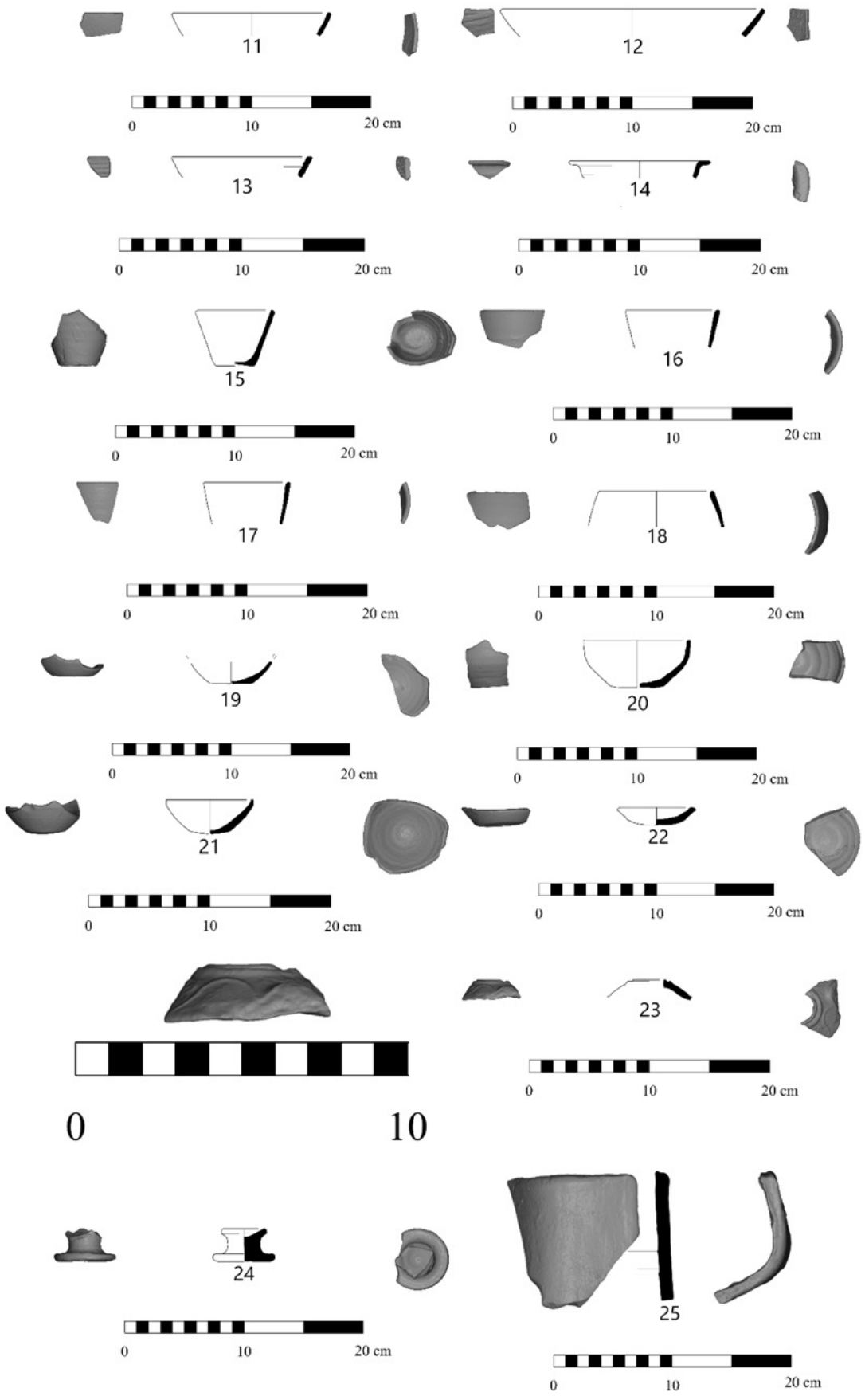


Plate 7.19. Byzantine and Early Islamic pottery from Field C, Square ZH010, Loci 5, 8, 9, 11, 12, 17, 31, and 35.

No.	Vessel	Type	Locus	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 6	31	30/2	Rim	4th to 6th c. CE
2	Storage jar	SJ 7	8	4	Rim	5th to 6th c. CE[a]
3	Storage jar	SJ 8 or 11	8	5	Rim	Late 6th to early 8th c. CE (SJ 8) or late 7th to the 9th or 10th c. CE (SJ 11)
4	Storage jar	SJ 11	5	2/3	Rim	Late 7th to 9th or 10th c. CE
5	Hole-mouth Jar	SJ 10	9	9	Rim	6th to late 7th or early 8th c. CE
6	Jug	JG 6	17	14/2	Rim	Mid-6th to early 8th c. CE[b]
7	Jug	JG 7	11	6/1	Base, green glazed outside	Mid-8th to first half of the 11th c. CE
8	Basin	BA 2	8	5/2	Rim	6th to late 7th or early 8th c. CE[c]
9	Basin	BA 2	31	30/1	Rim	6th to late 7th or early 8th c. CE[c]
10	Basin	BA 3	9	7/1	Rim	6th to late 7th or early 8th c. CE
11	Cooking casserole	CE 2	9	7/3	Rim	3rd or early 4th to 8th c. CE[d]
12	Cooking casserole	CE 2	35	33/1	Rim	3rd or early 4th to 8th c. CE[d]
13	Cooking casserole	CE 2	35	33/2	Rim	3rd or early 4th to 8th c. CE[d]
14	Bowl	FBWB 6	8	5/4	Rim	7th and 8th c. CE
15	Bowl	FBWB 4	12	13/1	Full profile	7th and 8th c. CE
16	Bowl	FBWB 4	12	13/2	Rim	7th and 8th c. CE
17	Bowl	FBWB 4	12	15	Rim	7th and 8th c. CE
18	Bowl	FBWB 3	8	4/2	Rim	8th to 9th c. CE
19	Bowl	FBWB 2	11	6/3	Base	Late 7th to 10th c. CE
20	Bowl	FBWB 2	11	6/2	Full profile	Late 7th to 10th c. CE
21	Bowl	FBWB 2	8	4/1	Full profile	Late 7th to 10th c. CE
22	Bowl	EBWB 5	8	4/1	Full profile	Mid-7th to 10th c. CE
23	Oil lamp	LP 6	11	6/4	Upper part	8th to 10th c. CE[e]
24	Lid	LP 1	17	14/1	Handle	3rd to 6th c. CE
25	Roof tile	RT 3	9	7	Rim	Byzantine

[a] Magness 1993, 223–26, Form 4, Variant B.
[b] Magness, 236–39, fine Byzantine ware jars, jugs, and juglets; Form 1, Variant 2.
[c] Magness, 206–8, arched-rim basins, Form 2, Variant B.
[d] Magness, 211–13, casseroles (cooking bowls), Form 1.
[e] Magness, 258–59.

Plate 7.19. Byzantine and Early Islamic pottery from Field C, Square ZH010, Loci 5, 8, 9, 11, 12, 17, 31, and 35.

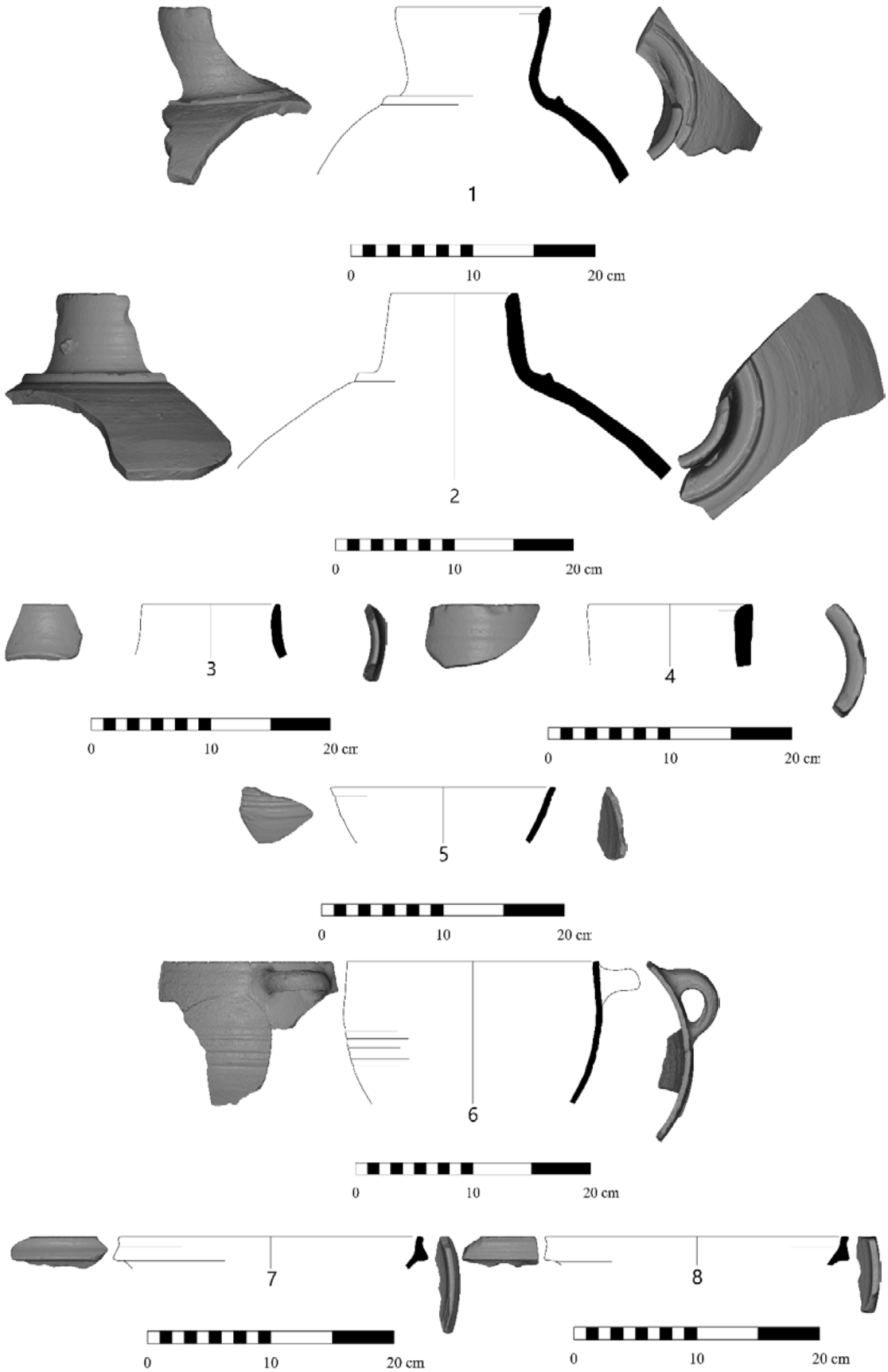
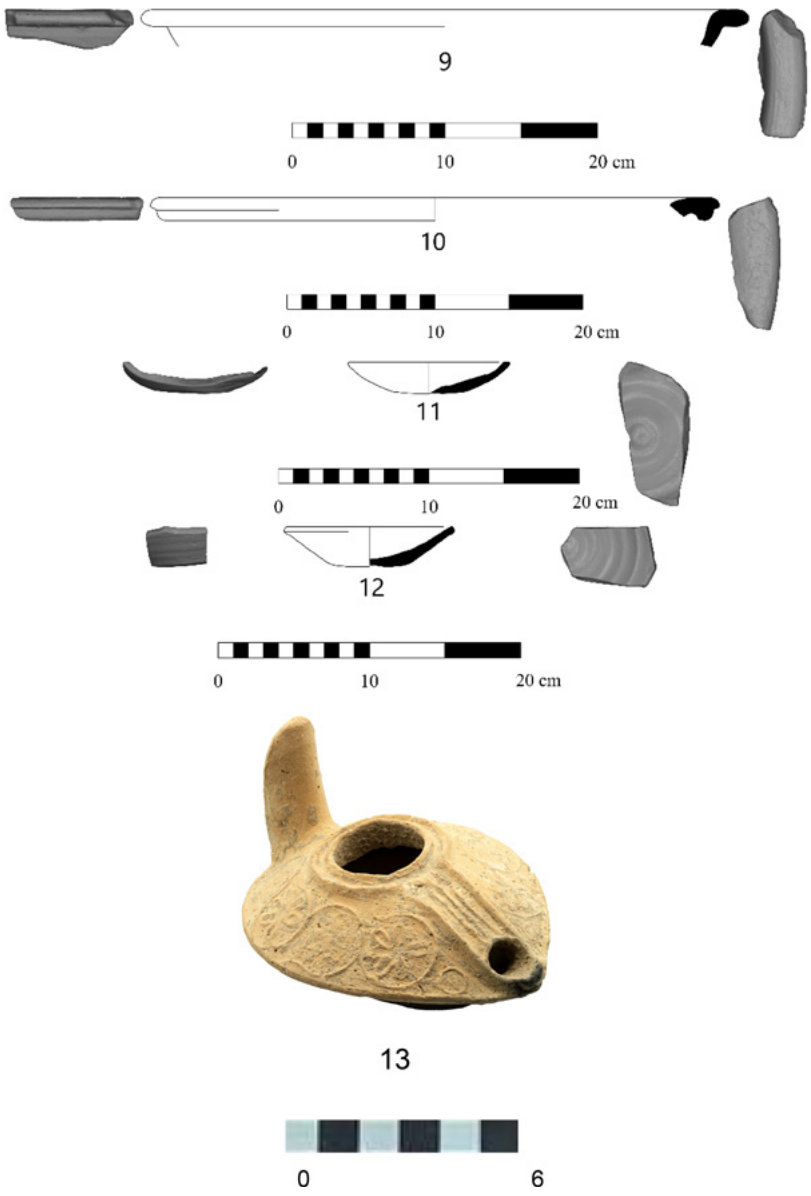


Plate 7.20. Byzantine and Early Islamic pottery from Field C, Square ZI010, Loci 7, 15, 21, 22, 23, and 25.



No.	Vessel	Type	Locus	Pail & reg. no.	Remarks	Suggested date
1	Storage jar	SJ 12	15	8/1	Rim	Late 7th to the 9th and 10th c. CE
2	Storage jar	SJ 11	23	14	Rim	Late 7th to the 9th or 10th c. CE
3	Storage jar	SJ 8 or 11	23	23/1	Rim	Late 6th to early 8th c. CE (SJ 8) or late 7th to the 9th or 10th c. CE (SJ 11)
4	Storage jar	SJ 8 or 11	21	18/1	Rim	Late 6th to early 8th c. CE (SJ 8) or late 7th to the 9th or 10th c. CE (SJ 11)
5	Cooking casserole	CE 2	7	6/2	Rim	3rd or early 4th to the 8th c. CE[a]
6	Cooking casserole	CE 3	7	6/1	Rim	Late 7th or early 8th to the 9th or 10th c. CE
7	Bowl	SLEB 1	22	24	Rim, slipped	6th c. CE, especially the second quarter
8	Bowl	SLEB 1	23	23/2	Rim, slipped	6th c. CE, especially the second quarter
9	Arched-rim basin	BA 1	7	3/2	Rim	Late 3rd or early 4th to 6th c. CE[b] or 6th to late 7th or early 8th c. CE[c]
10	Basin	BA 2	25	22	Rim	6th to late 7th or early 8th c. CE[d]
11	Bowl	FBWB 2	15	8/2	Full profile	Late 7th to 10th c. CE
12	Bowl	FBWB 2	7	3/1	Full profile	Late 7th to 10th c. CE
13	Oil lamp	LA 6	11	66	Upper part	8th to 10th c. CE[e]

[a] Magness 1993, 211–13, casseroles (cooking bowls), Form 1.
[b] Magness, 204–6, ARB, Form 1.
[c] Magness, 206, ARB, Form 2A.
[d] Magness, 206–8, arched-rim basins, Form 2, Variant B.
[e] Magness, 258–59.

Plate 7.20. Byzantine and Early Islamic pottery from Field C, Square ZI010, Loci 7, 15, 21, 22, 23, and 25.

Loci from the Byzantine and Early Islamic Periods (Strata 2–1)

This section presents loci from Strata 2 and 1 that are represented only in the ecclesiastical complex located in Field C. Stratum 2 pottery is represented by some clean loci with an assemblage of pottery from the Byzantine period, and Stratum 1 pottery is represented by some clean loci with assemblage of pottery from the Early Islamic period. These loci are arranged according the architectural parts in the ecclesiastical complex to which they belonged.

The Ecclesiastical Complex in Field C (Plates 7.16–20)

Excavations at Khirbet el-Maqatir in Field C exposed a Byzantine ecclesiastical complex consisting of an east-facing triapsal church, flanked on at least one side by an annex, and an atrium to the west. Selected loci from the ecclesiastic complex are presented here; plates 7.16 and 7.17 represent the Byzantine dated pottery, and plates 7.18–19 represent loci dated from the Byzantine to the Early Islamic period. In both cases the first plate is from the church in the center of the ecclesiastical complex (plates 7.16 and 7.18) and the second is from the annex to the south and the entrance to the west (plates 7.17 and 7.19–20).

Pottery from the Byzantine Loci

Square ZGO4 (plate 7.16) included the south portion of the central apse of the church on the north and the remains of a secondary apse on the south. A plastered structure, probably an arched crypt, occupied the northwest corner of the square (Locus 25). Three in situ stones from the east spring of the arch came to light during excavation. The arch supported the church's bema. Vessels from three loci are presented: Locus 4 which was a collapse from Wall 5, an east–west wall that served as part of the primary apse; Locus 23, an area under Locus 20 (three large, plastered-fused stones that form the east arch spring) and over Locus 25 (plastered crypt); and Locus 24, an area under tumble and above bedrock east of the exterior monastery wall. The pottery suggested a terminus post quem of mid-sixth century CE for all of these loci. The loci belonged to Phase 2a (Late Byzantine).

Square ZF05 (plate 7.17) lay within the monastery annex to the south of the church. It occupied the eastern part of the annex, just west of Square ZF04, the most eastern square of the annex. An in-situ floor (Locus 102) sealed Locus 101. The pottery suggested a terminus post quem of the mid-sixth century CE for this locus and also for the floor above it. These loci belonged to Phase 2a (Late Byzantine).

Pottery from the Byzantine and Early Islamic Loci

The Byzantine to Early Islamic loci mainly occupied the entrance to the ecclesiastical complex in the west, but excavation of Square ZH05, from the eastern side of the church, above the vault to the west of the central apse, also yielded an Early Islamic storage jar (Type SJ 11). Clean loci from Squares ZH010 and ZI010 produced publishable pottery. The entrance to the ecclesiastical complex lay in Square ZH010, which connected contiguously to ZI010 to the north.

Square ZH05 (plate 7.18) included the matching arch spring to the one previously mentioned in Square ZG04 and the rest of the plastered crypt beneath it. Vessels from two selected and sealed loci are presented: Locus 5, east of the arch, and Locus 6, west of the arch. The pottery suggested a terminus post quem of the late seventh century CE for Locus 5. This indicated that this part of the ecclesiastical complex was likely in use at least until the late seventh century CE. Locus 6 seemed similar, but since there was no evidence for types that started in the Early Islamic period, it dated to Strata 2a or 1 (Late Byzantine or Early Islamic).

Square ZH010 (plate 7.19) incorporated the entrance to the ecclesiastical complex. It consisted of the threshold (Locus 13) and in-situ flagstone pavement (top elevation 887.72 meters, Locus 17), as well as three steps leading up to the atrium's threshold. A hard-packed matrix containing thousands of large tesserae from a later floor covered the pavement. In the western end of the square, two sections of a lower floor were excavated (top elevation 888.2 meters, Loci 32 and 34). The pottery from several loci from ZH010 are presented here: Locus 5, a north–south wall in the northeast corner of square beneath Locus 3 and above the threshold (Locus 13), probably from a later occupation (Wall 8); Locus 8, a north–south wall running from the threshold (Locus 13) to the south balk (Wall 12); Locus 9, soil beneath Locus 3 and contiguous to Locus 7, sealing against the north balk and the threshold (Locus 13); Locus 11, soil above the cobblestone floor (Locus 24) in the southeast corner of square; Locus 12, a north–south wall in the southwest corner of the square (Wall 15); Locus 17, the flagstone pavement east of the threshold (Locus 13); Locus 31, a sealed locus under seven in-situ flagstones (Locus 32) and just above bedrock; and Locus 35, a sealed locus under the in-situ floor (Locus 34) and just above bedrock. The pottery from these loci was Early Islamic, as evidenced by a Type SJ 11 storage jar in Locus 5, bowl Types FBWB 2, 3, 4, and 6, a glazed jug, and a Type LP 6 oil lamp. The loci discussed above dated to Phase 1 (Early Islamic), except for Locus 31 which yielded a storage jar which dates to the early fifth to sixth centuries CE and Locus 35. Loci 31 and 35 belong to Phase 2b or 2a (Early Byzantine and Late Byzantine periods).

Square ZI010 (plate 7.20) lay just north of the entrance to the ecclesiastical complex. Excavation revealed a plastered feature which probably functioned as a baptistery for ritual immersion in water. The square included one complete room and portions of at least three more. The pottery from several loci is presented here: Locus 7, a north–south wall on the west side of the square (= Wall 13); Locus 11, soil under Locus 8, and east of Wall 3 and south of Wall 10 (= Wall 9); Locus 15, five courses of large worked stones forming part of the east wall of the baptistery, matched by Locus 14 on the west side of the room; Locus 21 east–west courses of stones in the north balk; Locus 22, the baptistery, with traces of plaster on the stones; and Locus 23, the bedrock floor of the baptistery. The pottery from these loci is primarily Early Islamic, and the loci date to Stratum 1 (Early Islamic).

References

Aharoni, Yohanan. 1962. *Excavations at Ramat Raḥel: Seasons 1959 and 1960*. Rome: Centro di studi semitici.

Aharoni, Yohanan. 1964. *Excavations at Ramat Raḥel: Seasons 1961 and 1962*. Rome: Centro di studi semitici.

Arnon, Ya'el D. 2008. *Caesarea Maritima, the Late Periods (700–1291 CE)*. BAR International Series 1771. Oxford: B.A.R.

Avissar, Miriam. 1996. "The Medieval Pottery." In *Yoqne'am I: The Late Periods*, by A. Ben-Tor, M. Avissar, and Y. Portugali, 75–172. Qedem Reports 3. Jerusalem: Hebrew University of Jerusalem.

Avissar, Miriam. 2003. "Early Islamic through Mamluk Pottery." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*. Vol. 2, *The Finds from Areas A, W and X-2*, by Hillel Geva, 433–46. Jerusalem: Israel Exploration Society.

Balouka, Marva. 2013. "The Late Roman and Byzantine Pottery." In *Jerusalem: Excavations in the Tyropoeon Valley (Giv'ati Parking Lot)*. Vol. 1, by Doron Ben-Ami, 151–66. IAA Reports 52. Jerusalem: Israel Antiquities Authority.

Barag, Dan, and Malka Hershkovitz. 1994. "Lamps from Masada." In *Masada IV: The Yigael Yadin Excavations, 1963–1965; Final Reports; Lamps, Textiles, Basketry, Cordage and Related Artifacts, Wood Remains, Ballista Balls*, by Dan Barag et al., 7–147. Masada Reports. Jerusalem: Israel Exploration Society.

Bar-Nathan, Rachel. 2002. *Hasmonean and Herodian Palaces at Jericho: Final Reports of the 1973–1987 Excavations*. Vol. 3, *The Pottery*. Jerusalem: Israel Exploration Society.

Bar-Nathan, Rachel. 2006. *Masada VII: The Yigael Yadin Excavations, 1963–1965; Final Reports; The Pottery of Masada*. Masada Reports. Jerusalem: Israel Exploration Society.

Berlin, Andrea. 1997. *The Plain Wares*. In *Tel Anafa II*. Pt. 1, *Hellenistic and Roman Pottery*, edited by Sharon C. Herbert. Journal of Roman Archaeology Supplementary Series 10. Ann Arbor: University of Michigan Press.

Berlin, Andrea. 2005. "Pottery and Pottery Production in the Second Temple Period." In *Excavations on the Site of the Jerusalem International Convention Center (Binyanei Ha'Uma): A Settlement of the Late First to Second Temple Period, The Tenth Legion's Kilnworks, and a Byzantine Monastic Complex; The Pottery and Other Small Finds*, edited by Benny Arubas and Haim Goldfus, 29–60. Journal of Roman Archaeology Supplementary Series 60. Ann Arbor: Cushing-Malloy.

Cytryn-Silverman, Katia. 2010. "The Ceramic Evidence." In *Ramla: Final Report on the Excavations North of the White Mosque*, by Oren Gutfeld, 97–211. Qedem 51. Jerusalem: Hebrew University of Jerusalem.

Cytryn-Silverman, Katia. 2013. "The Islamic-Period Pottery." In *Jerusalem: Excavations in the Tyropoeon Valley (Giv'ati Parking Lot)*. Vol. 1, by Doron Ben-Ami, 167–204. IAA Reports 52. Jerusalem: Israel Antiquities Authority.

De Vaux, R., and A. M. Steve. 1950. *Fouilles à Qaryet el-'Enab Abū-Ġôsh, Palestine*. Études Archéologiques. Paris: Gabalda.

Fischer, Moshe, and Oren Tal. 1999. "The Hellenistic Period." In *Apollonia-Arsuf: Final Report of the Excavations*. Vol. 1, *The Persian and Hellenistic Periods*, edited by Israel Roll and Oren Tal, 223–61. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 16. Tel Aviv: Tel Aviv University.

Fleitman, Yodan H., and Eilat Mazar. 2015. "The Late Roman and Byzantine Pottery from the 2012–2013 Excavation Seasons: Areas Upper A, B, and C." In *The Ophel Excavations to the South of the Temple Mount, 2009–2013: Final Reports*, by Eilat Mazar, 1:211–91. Jerusalem: Shoham.

Geva, Hillel. 2003. "Hellenistic Pottery from Areas W and X-2." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*. Vol. 2, *The Finds from Areas A, W and X-2*, by Hillel Geva, 113–75. Jerusalem: Israel Exploration Society.

Geva, Hillel. 2010. "Early Roman Pottery." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*. Vol. 4, *The Burnt House of Area B and Other Studies*, by Hillel Geva, 118–53. Jerusalem: Israel Exploration Society.

Geva, Hillel, and Malka Hershkovitz. 2006. "Local Pottery of the Hellenistic and Early Roman Periods." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*. Vol. 3, *Area E and Other Studies*, by Hillel Geva, 94–143. Jerusalem: Israel Exploration Society.

Geva, Hillel, and Renate Rosenthal-Heginbottom. 2003. "Local Pottery from Area A." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by*

Nahman Avigad, 1969–1982; Final Report. Vol. 2, *The Finds from Areas A, W and X-2*, by Hillel Geva, 176–91. Jerusalem: Israel Exploration Society.

Gichon, Mordechai. 1974. "Fine Byzantine Wares from the South of Israel." *Palestine Exploration Quarterly* 106, no. 2 (July): 119–39.

Gitin, Seymour. 1990. *Gezer III: A Ceramic Typology of the Late Iron II, Persian and Hellenistic Periods at Tell Gezer*. Annual of the Nelson Glueck School of Biblical Archaeology 3. Jerusalem: Hebrew Union College.

Hadad, Shulamit. 2002. *The Oil Lamps from the Hebrew University Excavations at Bet Shean*. Qedem 4. Jerusalem: The Hebrew University of Jerusalem.

Haiman, Moti. 1995. "An Early Islamic Period Farm at Naḥal Mitna in the Negev Highlands." *'Atiqot* 26:1–13.

Hamari, Pirjo. 2019. *Roman-Period Roof Tiles in the Eastern Mediterranean towards Regional Typologies*. PhD diss., University of Helsinki.

Hassler, Mark A. Forthcoming. "Inscriptions on Ceramic Ring Stands: Discoveries from the Early Roman Period at Khirbet el-Maqatir, Israel." *Judea and Samaria Research Studies*.

Hayes, J. W. 1972. *Late Roman Pottery*. London: British School at Rome.

Hirschfeld, Yizhar. 2000. *Ramat Hanadiv Excavations: Final Report of the 1984–1988 Seasons*. Jerusalem: Israel Exploration Society.

Johnson, Barbara. 2008. "The Pottery." In *Archaeological Excavations at Caesarea Maritima, Areas CC, KK and NN: Final Report*. Vol. 1, *The Objects*, by Joseph Patrich, 13–206. Jerusalem: Israel Exploration Society.

Lapp, Paul W. 1968a. "Bethel Pottery of the Late Hellenistic and the Early Roman Periods." In *The Excavations of Bethel (1934–1960)*, by James L. Kelso, 77–80. Annual of the American Schools of Oriental Research 39. Cambridge: American Schools of Oriental Research.

Lapp, Paul, and Nancy Lapp. 1968b. "Iron II–Hellenistic Pottery Groups." In *The 1957 Excavations at Beth-Zur*, by Ovid R. Sellers, Robert W. Funk, John I. Mckenzie, Paul Lapp, and Nancy Lapp, 54–79. Annual of the American Schools of Oriental Research 38. Cambridge: American School of Oriental Research.

Levine, Tikva. 1999. *Pottery Assemblages of the Third and Second Centuries BCE from Upper Area 61 at Maresha*. [In Hebrew.] MA thesis, Bar-Ilan University.

Magen, Yitzhak. 2004. "Qalandiya: A Second Temple-Period Viticulture and Wine-Manufacturing Agricultural Settlement." In *The Land of Benjamin*, edited by Noga Haimovich-Carmin, 29–144. Judea and Samaria Publications 3. Jerusalem: Israel Antiquities Authority.

Magness, Jodi. 1992. "The Byzantine and Medieval Pottery from Areas A2 and G." In *Excavations at the City of David: Directed by Yigal Shiloh*. Vol. 3, *Stratigraphical, Environmental, and Other Reports*, edited by Alon De Groot and Donald T. Ariel, 164–86. Qedem 33. Jerusalem: Hebrew University of Jerusalem.

Magness, Jodi. 1993. *Jerusalem Ceramic Chronology, Circa 200–800 CE*. Sheffield: Sheffield Academic Press.

Magness, Jodi. 2003. "Late Roman and Byzantine Pottery." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*. Vol. 2, *The Finds from Area A, W and X-2*, by Hillel Geva, 423–32. Jerusalem: Israel Exploration Society.

Magness, Jodi. 2005. "The Roman Legionary Pottery." In *Excavations on the Site of the Jerusalem International Convention Center (Binyanei Ha'Uma): A Settlement of the Late First to Second Temple Period, The Tenth Legion's Kilnworks, and a Byzantine Monastic Complex; The Pottery and Other Small Finds*, edited by Benny Arubas and Haim Goldfus, 69–191. Journal of Roman Archaeology Supplementary Series 60. Ann Arbor: Cushing-Malloy.

Magness, Jodi. 2006. "Late Roman and Byzantine Pottery." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*. Vol. 3, *Area E and other Studies*, by Hillel Geva, 184–91. Jerusalem: Israel Exploration Society.

Magness, Jodi. 2012. "Late Roman and Byzantine Pottery from the Cardo and the Nea Church." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*. Vol. 5, *The Cardo (Area X) and the Nea Church (Areas D and T)*, by Hillel Geva, 282–300. Jerusalem: Israel Exploration Society.

Mlynarczyk, Jolanta. 2007. "Pottery Report." In *Hippos-Sussita: Eight Season of Excavations*, by Arthur Segal, Jolanta Mlynarczyk, Mariusz Burdajewicz, Mark Schuler, and Michael Eisenberg, 105–54. Haifa: Zinman Institute of Archaeology, University of Haifa.

Mazar, Eilat. 2003. "The Southern House." In *The Temple Mount Excavations in Jerusalem, 1968–1978: Directed by Benjamin Mazar; Final Reports*. Vol. 2, *The Byzantine and Early Islamic Periods*, by Eilat Mazar, 209–34. Qedem 43. Jerusalem: Hebrew University of Jerusalem.

Mazar, Eilat, and Oved Peleg. 2003. "The Pottery Assemblage from the Large Byzantine Structure in Area XV." In *The Temple Mount Excavations in Jerusalem, 1968–1978: Directed by Benjamin Mazar; Final Reports*. Vol. 2, *The Byzantine and Early Islamic Periods*, by Eilat Mazar, 86–103. Qedem 43. Jerusalem: Hebrew University of Jerusalem.

Mazar, Eilat, and Ben Gordon. 2007. "The Pottery from the Peristyle and Southern Houses." In *The Temple Mount Excavations in Jerusalem, 1968–1978: Directed by Benjamin Mazar; Final Reports*. Vol. 3, *The Byzantine Period*, by Eilat Mazar, 149–55. Qedem 46. Jerusalem: Hebrew University of Jerusalem.

Pele, Oved. 2003. "Roof Tiles of the Byzantine Period from Area XV." In *The Temple Mount Excavations in Jerusalem, 1968–1978: Directed by Benjamin Mazar; Final Reports*. Vol. 2, *The Byzantine and Early Islamic Periods*, by Eilat Mazar, 133–34. Qedem 43. Jerusalem: Hebrew University of Jerusalem.

Peleg, Orit, and Noam Adler. 2007. "The Pottery Assemblage from the Byzantine Building in Area XIV." In *The Temple Mount Excavations in Jerusalem, 1968–1978: Directed by Benjamin Mazar; Final Reports*. Vol. 3, *The Byzantine Period*, by Eilat Mazar, 71–80. Qedem 46. Jerusalem: Hebrew University of Jerusalem.

Rapuano, Yehudah. 1999. "The Hellenistic through Early Islamic Pottery from Ras Abu Ma'aruf (Pisgat Ze'ev East A)." *'Atiqot* 38:171–204. Jerusalem: Israel Antiquities Authority.

Reeves, M. Barbara, and Craig A. Harvey. 2016. "A Typological Assessment of the Nabataean, Roman and Byzantine Ceramic Building Materials at al-Hıumayma and Wādī Ramm." In *Studies in the History and Archaeology of Jordan*, 12:443–75. Amman: Department of Antiquities of Jordan. http://publication.doa.gov.jo/Publications/ViewChapterPublic/355

Reuven, Peretz. 2015. "The Pottery from Cistern L-12-770 in Area B." In *The Ophel Excavations to the South of the Temple Mount, 2009–2013: Final Reports*, by Eilat Mazar, 1:293–311. Jerusalem: Shoham.

Reuven, Peretz. 2020. "The Early Islamic Pottery." In *Jerusalem: Excavations in the Tyropoeon Valley (Giv'ati Parking Lot)*. Vol. 2, *The Byzantine and Early Islamic Periods*, by Doron Ben-Ami and Yana Tchekhanovets, 375–521. IAA Reports 66. Jerusalem: Israel Antiquities Authority.

Rosenthal, Renate, and Renée Sivan. 1978. *Ancient Lamps in the Schloessinger Collection*. Qedem 8. Jerusalem: Hebrew University of Jerusalem.

Saller, Sylvester J. 1957. *Excavations at Bethany (1949–1953)*. Studium Biblicum Franciscanum, Collectio major 12. Jerusalem: Franciscan Printing Press.

Tal, Oren, and Itamar Taxel. 2010. "A Re-appraisal of the Archaeological Findings at Tel Ḥashash: On the Archaeology of the Yarkon Estuary from Classical Times to Late Antiquity." *Palestine Exploration Quarterly* 142, no. 2 (July): 95–126.

Tchekhanovetz, Yana. 2013. "The Early Roman Pottery." In *Jerusalem: Excavations in the Tyropoeon Valley (Giv'ati Parking Lot)*. Vol. 1, by Doron Ben-Ami, 109–49. IAA Reports 52. Jerusalem: Israel Antiquities Authority.

Terem, Shulamit Viki. 2016. *Jerusalem and Judaea in the First Early Second Century CE: Continuity and Change in the Ceramic Culture*. [In Hebrew.] PhD diss., Bar-Ilan University.

Tushingham, A. D. 1985. *Excavations in Jerusalem, 1961–1967*. Vol. 1. Toronto: Royal Ontario Museum.

Vincenz, Anna de. 2011. "The Pottery Assemblage from the Bakery." In *The Temple Mount Excavations in Jerusalem, 1968–1978: Directed by Benjamin Mazar; Final Reports*. Vol. 4, *The Tenth Legion in Aelia Capitolina*, by Eilat Mazar, 185–94. Qedem 52. Jerusalem: Hebrew University of Jerusalem.

8. Early Roman Limestone Vessels

Shimon Gibson

This study deals with an assemblage of 129 soft limestone vessel fragments of late Second Temple period date recovered from excavations at Khirbet el-Maqatir. Most of the vessels (113 diagnostics) were hand-carved: 67 mugs, 1 possible core, 1 cup, 1 stopper, 9 bowls, 27 large basins, 2 small basins, and 5 basin lids. A much smaller quantity of vessels in this assemblage (16) were lathe-turned: 13 bowls, 1 cup, 1 core, and 1 drilled fragment. Many of the stone artifacts were examined and cataloged by the author in 2019, and others were classified based on photographs; the identification of five additional items remains unverified.[1]

Parallels for the soft limestone vessel fragments at Khirbet el-Maqatir come primarily from various excavated locations in Jerusalem: the City of David (Cahill 1992; Zilberstein and Ben Efraim 2013; Gadot and Adler 2016), the Temple Mount (Magen 2002, 63–115), Mount Zion (Gibson 1983) and the Jewish Quarter (Reich 2003; Geva 2006b; 2010; 2014), and small villages in Judea (Zissu 2001). Excavations at sites not far from Khirbet el-Maqatir yielded stone vessels. Notably among these are el-Jib (Gibeon) (Pritchard 1964, figs. 34:15, 48:11), Khirbet Kafr Mur (Aharonovich 2016, 97, plate 4), and Jaba'.[2] Magen lists sites in the southern Benjamin hills that possess stone vessels (2002, 151–53, map 2). An important assemblage of stone vessels dating between the revolts (i.e., 70–132 CE) came to light at Shu'fat, north of Jerusalem (Adler 2017, 114–17, figs. 2–5; 2019, photo of the assemblage on p. 14). One might assume that the inhabitants of the Khirbet el-Maqatir hamlet would have acquired their stone vessels directly from the closest manufacturing sources, such as those located at Hizma (fig. 8.1) and Tel el-Ful, rather than buying them indirectly from shops in a large city such as Jerusalem (Gibson 1983; 2003; Magen 2002). Petrographic evidence however indicates otherwise (see below). At Khirbet el-Maqatir, the discovery of two stone cores (Objects 1905 and 2119), which are manufacturing waste, indicates the probable existence of a small intramural workshop at the site (for the significance of such finds, see Gibson 2003, 291; 2016, 76).

While numerous scholars, notably Cahill (1992) and Magen (2002), have suggested classification methods for identifying the types of stone vessels, the cataloging system adopted in the present study uses terminology and a classification system established for the Early Roman period soft stone vessel assemblage uncovered at Gamla (Gibson 2016). The Khirbet el-Maqatir stone vessels were made of various grades of white to light-yellow limestone, ranging from the soft chalky to semi hard varieties,[3] with a smaller number of vessels (six in total) made of the distinctive grey bituminous Neby Musa type of limestone, obtained in the Judean Desert east of Jerusalem. The *ka'akule* variant of chalky limestone which appears in the Jerusalem district has a soft porosity; it can easily be cut into blocks and lends itself to carving. The Neby Musa type is harder but allows for a better polish. The following items from Khirbet el-Maqatir underwent petrographic analysis: Objects 906, 907, 942, 1039, 1050, 1051, and 2985 (A045309) (see Stanley Klassen and Gregory Braun, chap. 20).[4] Importantly, the foraminifera taxonomic comparisons made by Klassen and Braun has shown that a number of the vessels came from quarries in Paleogene outcrops rather than from the Senonian outcrops in the immediate vicinity of Jerusalem, where one would likely assume a provenance based on the discovery there of numerous quarry-caves for the production of stone vessels in the Early Roman period. Hence, a search should now be made to find the places where the stone was extracted in Paleogene outcrops.

Hand-Carved Vessels

Hand-carved vessels at Khirbet el-Maqatir consist of mugs, cups, stoppers, bowls, basins, and basin lids.

Type 1: Mugs

Typical of the hand-carved assemblage are cylindrical mug-shaped vessels (plate 8.1:1–10).[5] This type of mug

[1] These items include stone vessel body fragments mixed in with pottery pails, or recorded in the excavator's charts of objects, or ones that were unclear from the photographic renderings provided.

[2] Shimon Gibson and Jamal Bargouth surveyed Jaba' in 1999, revealing part of a Bar Kokhba period underground hiding system with Early Roman finds including pottery and a knife-pared stone vessel fragment.

[3] The variability of the different types of soft to medium-hard limestone used in the manufacturing of these vessels precludes them from being described simply as *chalkstone* vessels as many scholars do (see Gibson 2003, 289n22; 2016, 79n4).

[4] Recent petrographic studies made on stone vessels include a provenance study using isotope analysis to determine the provenance of stone vessels from Sepphoris in the Galilee (Sherman et al. 2020). A much more encompassing research project was made using a wider range of geochemical analyses on samples derived not only from settlement sites but also from stone vessel production sites in both the Galilee and the Judean Hills (Adler et al. 2020).

[5] Cf. Cahill 1992, 210; Magen 2002, 97; Gibson 1983, 184; 2003, 292–93;



Figure 8.1. The quarry-cave at Hizma. Photograph by Shimon Gibson.



Figure 8.2. Mug, Object 1039. Photograph by Shimon Gibson.

has one or two handles with drilled holes, a smoothed interior, vertical knife-pared exterior walls, and a flat base. The distinctive knife paring (Cahill's "chisel-marking") on the exterior walls evidently served a decorative purpose. Rim edges, handles, interior walls, and bases were smoothed intentionally with an abrasive material. Two complete mugs have been restored from fragments (nos. 1849 and 2985 [A045309]; plate 8.1:1–2). There are signs of burning on three additional fragments (Objects 1636, 1942, and 2417).

The following is the classification made for the 67 mugs (and one possible mug core) from Khirbet el-Maqatir:

Type 1a: mug body fragment (Objects 174, 844, 996, and 2962). These four mug body fragments are too small to allow for further identification, though knife-paring is evident on Objects 174, 996, and 2962.

Type 1b: medium mug with base.[6] One mug (Object 1051) has a particularly thick base (2 cm), but most examples are only 1 cm thick. Thick-based examples are known from Jerusalem and from caves in the Judean Desert (cf. Yadin 1963, fig. 43:59.10). In general, Khirbet el-Maqatir mug bases have diameters ranging between 7 cm and 11 cm. The external edges of the bases are slightly rounded, or chamfered; thereby providing a band of separation between the knife-pared exterior

2016, 49–55; Adler 2017, fig. 2:3.

[6] Objects 297, 632, 651, 780, 781, 951, 1051 (plate 8.1:10), 1151, 1277, 1320, 1404 (plate 8.1:9), 1810, 1839, 1951, 2356, 2486, 2516, 2703, 2962, 3034, and 3170.

walls and the flat underside. Two mugs were made of grey Neby Musa stone (Objects 632 and 651).

Type 1c: medium mug with cylindrical profile (Objects 1942, 3169, 3179, 3213, and 3215). Most of these mugs have barrel-shaped or cylindrical profiles, and this also applies to the profile of the mugs with handles (see Type 1e below).

Type 1d: medium mug with everted profile (Objects 763a, 1039 [plate 8.1:5; fig. 8.22], 1217 [fig. 8.3], 1315, 1726, 1945, 2019, 2417, 2924, and 3071). It is conceivable that these mugs were intentionally made without handles, which allowed for more everted profiles. However, mugs with everted profiles (and handles) have been found in late first century BCE contexts in the Jewish Quarter in Jerusalem (Geva 2006a), but the Khirbet el-Maqatir examples are not from that early. One Khirbet el-Maqatir mug (Object 1039) is almost a hybrid between a mug and a small bowl: 10 cm in height, 12.2 cm diameter at rim, knife-pared, and with a smooth base (8 cm in diameter) (cf. Gibson 1983, fig. 1:19). Another mug (Object 763a) has a curved painted reddish mark on the exterior below the rim (fig. 8.44).[7]

Type 1e: medium mug with handles.[8] Two complete mugs are double-handled (Objects 1849 and 2985 [A045309]), with a cylindrical body, 13.5–14 cm in height, 10–11 cm diameter at rim, knife-pared exterior walls (1.0–1.2 cm wide), and a flat base (8 cm diameter). Most of the mug handles are squared, but a few have rounded shoulders (Objects 210 and 968). A hole (usually 1.6 cm in diameter) was drilled close to the center of the handle, but one mug handle (no. 907) is unusual in that it has a perforation 2 cm in diameter. Another handle (no. 2920) was made out of grey Neby Musa stone.

Type 1f: small mug with open spout and handle (Objects 942a–c [plate 8.1:6, fig. 8], 1147 [plate 8.1:7], 1949, 2082, 2540, and 3067). Six small mugs belong to this group. Parallels come from Jerusalem (Cahill 1992, fig. 20:1, Type 2.a.i; Magen 2002, 97, fig. 3.60:3–4, Type II.A), Shu'fat (Adler 2017, fig. 2:1), and Khirbet Kafr Mur (Aharonovich 2016, 97, plate 8.4:8). There are two almost complete small mugs at Khirbet el-Maqatir (Objects 942a–c, 1147) with a height of 7 cm and a diameter of 5.5 cm at the rim. Three other examples include a spout (Object 2082) and two bases with diameters of 4.5 to 6 cm (Objects 2540 and 3067). The open spout extending from the lip of the vessel, indicates its function for pouring liquids. Owing to the fact that these specific vessels are so small, one might suggest they were used for holding limited quantities of perfumed oil. They were made out of chalky, white limestone, with delicate knife-paring (facets here are 0.8 cm wide) on their exterior walls, and with smoothed interiors and bases. Mug no. 924a–c is the best preserved of this group; it has a spout and a handle positioned at an oblique angle. The handle has a drilled hole (1.6 cm), and it is decorated at the top with an incised line.

Type 1g: mug with visible manufacturing signs and core (Objects 779, 1252, 1636, 1949, and 2119). Two mugs (Objects 779 and 1252) show signs of circular chiseling within the interior perimeter of the base of the vessel (figs. 8.9–10), and therefore they differ from the usual cut-and-smoothed appearance seen within the interior bases of mugs (e.g., mug no. 1277, fig. 8.11). Mug no. 1636 has a small circular depression (0.5 cm in diameter and depth) cut at the center of the interior of the base; this item also has red paint on it and shows signs of burning (fig. 8.12). Similarly, another mug (Object 1949) has a small hole (1.3 cm in diameter) at the center of the interior base (fig. 8.13). The significance of such holes is uncertain; they may have served to accommodate a fixed and vertical centrifuge to assist the craftsman while the interior of the mug was being chipped out using a chisel and scalpel.

Previous publications have dealt with the method used for the production of mugs, but this subject is worthy of reconsideration in the light of new evidence that has emerged from the excavation of the quarry caves at Hizma (Gibson 1983; Magen 2002) and Tell el-Ful (Gibson 1996). Following immersion in water to soften the stone, truncated cone-shaped blocks of stone were roughly cut into shape using a single-bladed or double-bladed chisel (1.0–2.5 cm wide) and occasionally with a dentate-edged hammer or chisel, while leaving rectangular protrusions for handles and spouts. The next step was the removal of the interior of the vessels, by chipping the stone out in stages with the flat side and sharp edge of a chisel, with the remainder then extracted with a scalpel, which gave the interior of the vessel walls a smoother finish.[9] The interior of the mug could also be removed using a vertical rotational drill, a technique used in traditional stone-vessel workshops in Egypt (fig. 8.14), or with a gouge (scalprum) with a semicircular (2 cm) blade head, as is evident from one unfinished mug from a site near Jerusalem (for Roman chisels and gouges, see Ulrich 2007, 26–30) (fig. 8.15).[10]

[7] For stone vessels with signs of paint on them, see Gibson 2003, 307n44; 2016, 54. A mug base (Object 1636) from Khirbet el-Maqatir had red paint on its interior base. See also the red-painted large stone krater rim from an underground hiding complex at Horvat Midras (Rogovski et al. 2018, 109, illustration 4, and compare this to a painted krater from Hizma: Gibson 1983, fig. 2:7). I discovered a lump of reddish-orange coloring material during excavations in a quarry-cave for manufacturing stone vessels at Tell el-Ful.

[8] Objects 210, 904, 907, 968, 1038, 1120, 1278 (plate 8.1:4), 1280 (plate 8.1:3; fig. 8.5), 1327, 1849 (plate 8.1:1; fig. 8.6), 1868, 1926, 1941, 1943, 2727, 2920, and 2985 (A045309) (plate 8.1:2; fig. 8.7).

[9] A fragment of such a scalpel made of iron was recovered from the Hizma quarry cave (Magen 2002, 61, fig. 2.63:4).

[10] This unfinished stone mug is in the private collection of Jim Joyner in Spartanburg, North Carolina (United States). It was acquired from an antiquities dealer in Jerusalem who reported that it came from



Figure 8.3. Mug, Object 1217. Photograph by Shimon Gibson.

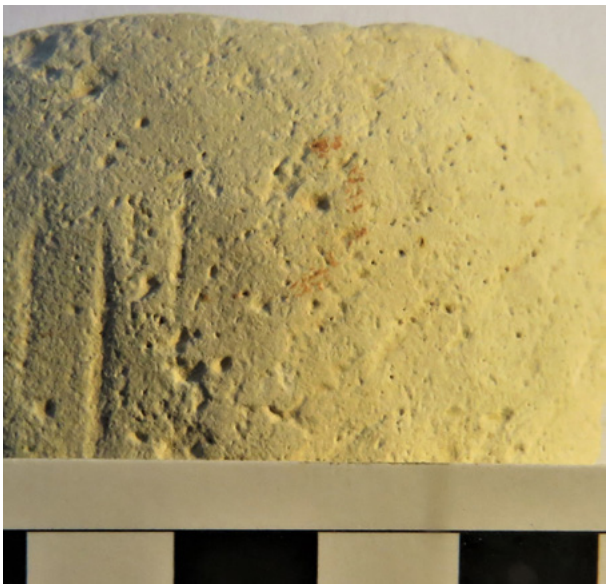


Figure 8.4. Mug, Object 763a with red marking. Photograph by Shimon Gibson.

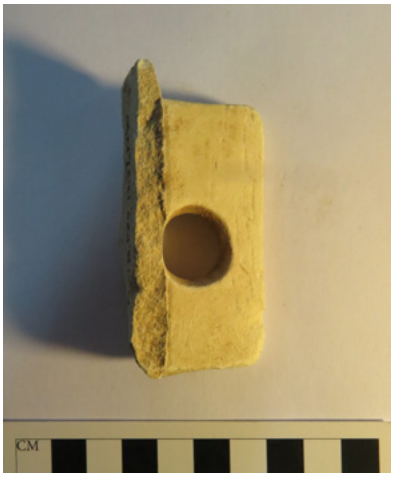


Figure 8.5. Mug, handle, Object 1280. Photograph by Shimon Gibson.



Figure 8.6. Mug, Object 1849. Photograph by Michael C. Luddeni.



Figure 8.7. Mug, Object 2985. Photograph by Michael C. Luddeni.



Figure 8.8. Mug, Object 942a–c. Photograph by Michael C. Luddeni.

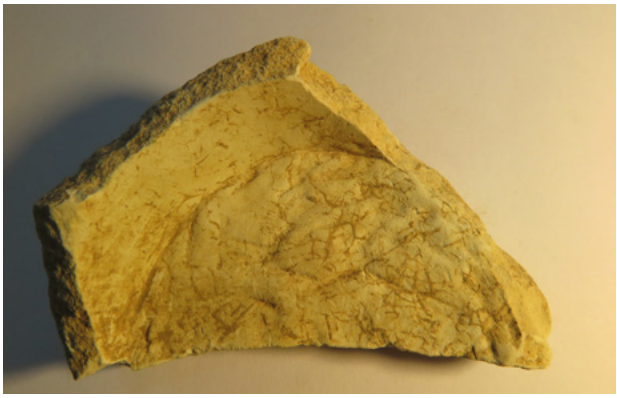


Figure 8.9. Mug, Object 779. Note the incisions.
Photograph by Shimon Gibson.



Figure 8.10. Mug, Object 1252. Note the incisions.
Photograph by Shimon Gibson.



Figure 8.11. Mug, Object 1277. Note the lack of incisions.
Photograph by Shimon Gibson.

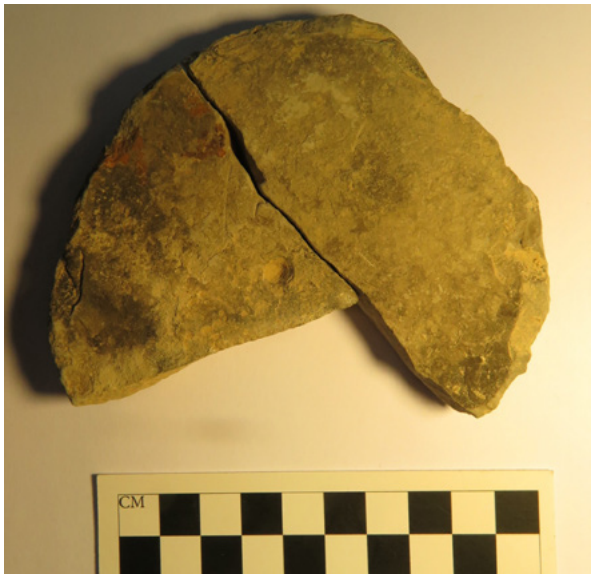


Figure 8.12. Mug, Object 1636. Note the drilled hole, red paint, and burning. Photograph by Shimon Gibson.



Figure 8.13. Mug, Object 1949.
Note the central hole.
Photograph by Shimon Gibson.

Finally, the exterior of the vessel was knife-pared into vertical bands (usually 1.0–1.2 cm wide), with distinctive perpendicular "rilling" occurring occasionally along the length of the bands. This was a decorative feature, though some vessels have smoothed and polished exteriors as well. The round holes drilled into the sides of the handles presumably facilitated hand gripping; the perforations could easily have been made using a bow-powered drill (fig. 8.16). The lips, spouts, handles, and bases of these vessels were polished using an abrasive.

I assume that Object 2119 is a core extracted from the interior of a mug (plate 8.1:8), and it would differ from the Galilee parallels. The top end has a round hole (1.0 ×

"near Jerusalem," most likely from the Hizma quarry cave, which had been heavily ransacked by illegal excavators in the 1980s (Gibson 1983, 185n50; Magen 2002, ix). I am grateful to Joyner for allowing me to examine and photograph this interesting vessel.



Figure 8.14. Working stone vessels at Luxor, Egypt. Photograph courtesy of Gibson Picture Archive.





Figure 8.15. Interior of a half-finished stone mug (from Hizma?). Photograph and drawing by Shimon Gibson.



Figure 8.16. Bow-powered drill in use in Jerusalem in the late nineteenth century. Photograph courtesy of Gibson Picture Archive.

1.2 cm) which could have received the iron tip of an axle-head, which in turn would have been operated using a bow.[11] Excavations at Horvat Tabaq close to Tel Goded in the foothills produced a similar core (Sagiv and Zissu 1997, plate 6:10). The phenomenon of extracting cores from mugs with the use of a lathe was first noticed at Jebel Mukabbar and Khirbet el-Muraq (see Gibson 2003, 295), but it is undoubtedly a rare phenomenon in Judea. It was not a feature of the half-finished mugs from Hizma, Tell el-Ful, or Mount Scopus. However, at er-Reina and ʻEinot Amitai in the Galilee this hybrid hand-carving and lathe-turning method for making mugs was clearly commonplace (Gal 1991; Amit 2010; Adler 2019, 9–12), and additional finds of this kind are also known from Nabratein and Sepphoris (Reed 2009, 298–300; 2018, 754). However, there were definitely differences in execution practices, as perhaps is exemplified by Object 2119 at Khirbet el-Maqatir. The Galilee cores, still attached to their incomplete mugs, resemble cores extracted from small lathe-turned vessels such as bowls and cups (see Object 1905 below and plate 8.7:10), but usually they possess more elongated profiles (Amit 2010, 52, illustration 7). The method of production may be reconstructed as follows: first, the exterior of a block was roughly cut by hand into the shape of a mug and then, fixed to the axle-head of the lathe and

[11] Interestingly, Pliny (*Nat. Hist.* 44.159) refers to stone vessels from the Greek island of Siphnos that were turned (*cavatur tornaturque*) during their manufacturing process (Blagg 1976, 165 n49).

rotated with a bow. The interior was then carved using a scalpel and the core was subsequently disengaged and removed.

Type 2: Cups

The Khirbet el-Maqatir assemblage includes only one example of a hand-carved cup (Object 3035; plate 8.1:11). It has well-polished interior and exterior walls and a small lug (2.5 × 1.2 cm) at the level of the rim (8 cm diameter). It is paralleled at the Temple Mount excavations, where it was identified as a small bowl (Magen 2002, 100, fig. 3.60:5, Type II.B, Form 1).

Type 3: Stoppers

The assemblage from Khirbet el-Maqatir includes one hand-carved stone stopper, with a narrow marking "N" purposefully incised into its side (Object 1619 [A044513]; plate 8.1:12). It has a height of 5 cm and a diameter of 4.5 cm at the base. Stone stoppers of this kind are commonplace in first century CE levels in Jerusalem, but unlike the Khirbet el-Maqatir example they are usually made with a lathe (Magen 2002, 77, fig. 3.25, 3.28, Type I.1.G, Form 2). Interestingly, stoppers are absent from the Shu'fat assemblage dating from 70 CE to 132 CE (Adler 2017, 114). These stoppers functioned like plugs, but it is unlikely that the knobs were positioned downwards as many scholars assume (Gibson 2016, 71). They may have been used to cover the mouths of narrow-necked ceramic vessels (Cahill 1992, fig.17:1–6; Magen 2002, figs. 3.25, 3.28). It is also possible that the smaller variety of stoppers were used to cover the openings of the small spouted stone mugs (see Type 1f above), The *N* marking on the Khirbet el-Maqatir example (fig. 8.17) may be paralleled with a stopper found at the Temple Mount excavations engraved with the first four letters of the Roman alphabet (Magen 2002, 77n74).[12]



Figure 8.17. Stopper, Object 1619. Note the *N* incision. Photograph by Michael C. Luddeni.



Figure 8.18. Bowl, Object 1865. Note the knife-paring and incisions. Photograph by Shimon Gibson.

Type 4: Bowls

The assemblage of hand-carved vessels from Khirbet el-Maqatir also includes nine round or oval bowls (plate 8.2:1–8). They have rounded or squared rims, frequently with lug extensions, horizontal knife-pared exteriors, smoothed interiors, and flat bases. The following subdivisions were made for this group.

Type 4a: bowl with thick walls (Objects 763b [plate 8.2:2], 2415 [plate 8.2:4], and 2488 [plate8.2:6]). These three vessels have thickened walls, with the base of Object 763b worn away or reduced intentionally. Bowls nos. 2415 and 2488 have horizontal knife-pared exteriors, with additional vertical marks evident on the interior wall of bowl no. 2488. The oblong lug of bowl no. 763b has a length of 5 cm and a height of 2 cm. There are signs of burning on the lower exterior of bowl no. 763b.

Type 4b: bowl with squared rim (Objects 1865 [plate 8.2:5], 1613 [plate 8.2:1], and 1927 [plate 8.2:3]. The knife paring on the exterior of bowl no. 1865 evidently was deemed decorative because the paring was carefully enhanced or highlighted with added horizontally scratched lines (fig. 8.18). For bowl parallels, see Amit et al. (2008, 20.16:1, 3–4) and Adler (2017, fig. 2:4).

Type 4c: bowl with rounded or everted rim (Objects 1814, 2829 [plate 8.2:7], and 3216 [plate 8.2:8]). Bowl no. 1814 is not very well preserved; it was made out of grey Neby Musa stone. Bowl no. 2829 had an everted rim and was highly polished. Bowl no. 3216 has a thickened rim and a delicate knife-pared exterior.

[12] Note also the Greek letters *ON* and *IN* that were inscribed on the side of a pillar inside the quarry-cave for the production of stone vessels at Mount Scopus (Amit et al. 2000, 356–57).

Type 5: Basins

The stone vessel assemblage at Khirbet el-Maqatir has a large collection of hand-carved oval to rectangular basins and smaller tubs with rounded shoulders (plates 8.3:1–11, 8.5:1a–c; 8.6:1a–b). These have everted walls (2 cm thick) and rounded corners, with roughly chiseled or knife-pared exteriors and smoothed interiors and bases. They have two elongated lugs at the short ends. The flat top of the rims allowed them to be used together with lids (see Type 6 below). Two complete basins were recovered at Khirbet el-Maqatir and restored: Objects 1850 (plate 8.6:1a–b; figs. 8.19–20) and 3304 (plate 8.5:1a–c; fig. 8.21).

Basins have turned up previously in Early Roman–period strata but rarely are found complete.[13] Numerous basins were recently uncovered at Shu'fat (Adler 2017, fig. 3:1–4; 2019, 14); Adler reports these as having a length of 50 cm, a width of 40 cm, and a depth of 15 cm. An unusually large basin with lugs was restored from Fr. V. Corbo's excavations at Herodium; it has a length of 77.4 cm, a width of 53 cm, a height of 25 cm, and a depth of 23 cm (fig. 8.22).[14] They have also been found in various stages of manufacture at the quarry caves at Hizma (Magen 2002, 50–51, fig. 2.50; 178, Type II.C) and Mount Scopus (Amit, Seligman, and Zilberbod 2000, 356–57).

The Khirbet el-Maqatir assemblage has 29 hand-carved basins: 27 of them are large and 2 are small.[15] The two small basins comprise the following: Objects 1180 (plate 8.3:7) and 1207 (plate 8.3:1).[16] The following are comments on the characteristics of these Khirbet el-Maqatir basins. The largest of the two complete restored basins (Object 1850) has a length of 59.8 cm (not including the lugs), a width of 40 cm, with an exterior height of 23 cm, and an interior depth of 20 cm. It has two oblong lugs at the short ends at the level of the rim. The exterior wall has horizontal knife paring, and the interior has been chiseled and smoothed. The second



Figure 8.19. Basin, Object 1850.
Photograph by Michael C. Luddeni.



Figure 8.20. Basin, Object 1850.
Photograph by Michael C. Luddeni.



Figure 8.21. Basin, Object 3304.
Photograph by Shimon Gibson.



Figure 8.22. Basin from Herodium.
Photograph by Shimon Gibson.

[13] Cahill 1992, fig. 20:15–16, Type 2.a.iv, photograph 200; Zilberstein and Ben Efraim 2013, 214, fig. 9.1:8–10; Bar-Nathan and Gärtner 2013, 228–29, figs. 9.2:30, 9.3:31–34; Geva 2014, 279, plate 10.4:7; Gibson 2016, Type 2E; Reed 2018, 762, nos. 50–52.

[14] This basin from Corbo's excavations at Herodium (Inv. no. CTS-SB-12387) is on exhibition at the Terra Sancta Museum of the Studium Biblicum Franciscanum (SBF) in Jerusalem, and I am very grateful to Daniela Massara, curator of the SBF Archaeological Collections, and to Fr. Eugene Alliata, for providing information and giving their permission to publish a picture of the basin. The basin and other stone vessels in their collections are to be published by Massara.

[15] Large basins: Objects 778 (plate 8.3:4), 906 (plate 8.3:9), 909 (plate 8.3:2), 1050 (plate 8.6:1a–b), 1154 (plate 8.3:5), 1185, 1399, 1768, 1771, 1772 (plate 8.3:3), 1777, 1781, 1788, 1800 (plate 8.3:10), 1804, 1811, 1825, 1826, 1835, 1850, 1936 (plate 8.3:11), 2155 (plate 8.3:8), 2702, 3036 (plate 8.3:6), 3126, 3217, and 3304 (plate 8.5:1a–c).

[16] In terms of the count of these vessels, one should point out that some of the basin fragments, notably those with a provenance in loci in Cavern 1 (see appendix), may belong to the reconstructed vessels (nos. 1850 and 3304), but since no obvious joins were detected they have been counted separately.

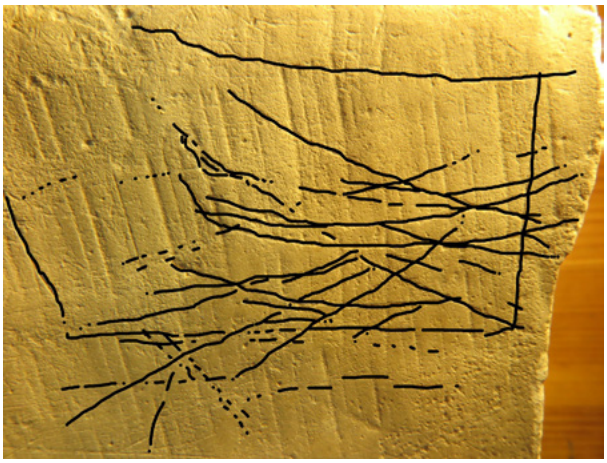


Figure 8.23. Incised drawing on wall of basin, Object 3304. Photograph and drawing by Shimon Gibson.

restored basin (Object 3304) is smaller, with a length of 55 cm, a width of 32 cm, with an exterior height of 15 cm, and an interior depth of 13 cm. Basin no. 778 is unusual in that the interior of this vessel has vertical knife paring, while the exterior is roughly chiseled and smoothed. Bases have thicknesses of 2–3 cm. The lugs are rectangular and well-cut: the lug of no. 909, for example, has a length of 7.5 cm and a height of 2.5 cm, protruding for 1.2 cm. One basin base fragment (Object 1399) and a basin rim (Object 3036) were made out of grey Neby Musa stone. An incised drawing of unclear significance is visible on the exterior surface of one of the fragments of basin no. 3304 (fig. 8.23).[17] Signs of burning exist on some of the vessels (Objects 909, 1154, and some fragments of the complete basin no. 1850).

Objects 1180 (plate 8.3:7) and 1207 (plate 8.3:1) comprise a small basin or tub. These small basins are much more oval than the larger basins and have thinner walls (1.2–1.4 cm). They have an estimated length of 30 cm, a width of 20 cm, and an exterior height of 10 cm. Otherwise, the vessels possess the same overall characteristics as the larger basins, including having lugs (Object 1207). A parallel is known from Jaffa (Amit and Adler 2018, fig. 14.4:72).[18]

Type 6: Basin Lids

Five examples of lids were found: 1010 (plate 8.4:1), 1953 (plate 8.4:2), 2189 (plate 8.3:3), 2241 (plate 8.3:4), and 2378. Basin lids are a unique feature of the Khirbet el-Maqatir stone vessel assemblage. It is possible they had previously existed in excavated stone vessel assemblages (e.g., Amit et al. 2008, 339) but were incorrectly identified as ossuary fragments (for ossuary lids see Rahmani 1994, 5). The lids were clearly cut to measure and were flat or had shallow-rounded ("vaulted") profiles. Craftsmen



Figure 8.24. Lid fragment of basin, Object 2189. Photograph by Shimon Gibson.



Figure 8.25. Lid fragment of basin, Object 2241. Photograph by Michael C. Luddeni.

shaped the lids to rest on top of the basins, not to be slotted into position as with ossuaries. Lid no. 1010 has a rounded profile (22.5 cm wide, and a height of 5.5. cm), with broad chisel marks on its top exterior, and with a smoothed underside. Lid no. 1953 is the corner of a flat lid, with a protruding segment which might have been used as a hand grip. Lid no. 2189 is a flat lid with a chamfered edge to its rim (fig. 8.24). Lid no. 2241 has a shallow rounded profile and a drilled perforation at the top (1.5 cm in diameter, 2 cm deep) (cf. Rahmani 1994, 9). Next to this hole was a purposefully incised line (length: 5 cm) (fig. 8.25). Lid no. 2378 is a flat body fragment with signs of burning. Four of these lid fragments came from loci associated with the central building at the site, but none were found in Cavern 1 where a great many basins were uncovered.

Lathe-Turned Vessels

The Khirbet el-Maqatir assemblage has a limited range of 14 lathe-turned vessels, mainly bowls and one cup (plate

[17] It may be a very schematic rendering of ships, see for comparison the schematic drawings at Herodium, and additional references (Zissu 2015).
[18] Two small basins were uncovered by Gideon Hadas at the Second Temple village in En Gedi (Anna de Vincenz, personal communication).



Figure 8.26. Lid lathe-turned bowl, Object 1786. Photograph by Michael C. Luddeni.

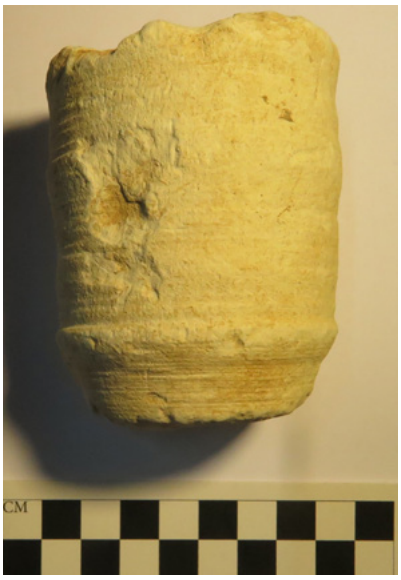


Figure 8.27. Lathe-turned core, Object 1905. Photograph by Shimon Gibson.

8.7:1–10).[19] In addition, it includes a core from the lathe-turning process, and a fragment with a drilled perforation.

Type 7: Bowls

Type 7a: bowls with incised lines (Objects 486 [plate 8.7:3], 655 [plate 8.7:4], and 1786 [fig. 8.26). This type of bowl has an everted profile, thin walls (0.6 cm), and a triangular rim. It has a diameter of 12.5 cm at the mouth. External incised lines mark the rim and shoulder, and the interior is polished. It resembles a type of vessel known as a shallow goblet.[20]

Type 7b: shallow bowl with carinated shoulder (Objects 1208 [plate 8.7:5], 1767, 1769, and 1770. A shallow bowl or saucer (10 cm diameter) with a triangular rim and carinated shoulder. There is no exact parallel.[21]

Type 7c: hemispherical bowl (Objects 2984 [plate 8.7:1], 3218 [plate 8.7:2]). This type of bowl comes in different sizes: small (Object 2984) or large (Object 3218). It has a rounded body, a pointed rim, and a single or double incised groove on the exterior, just below the rim. This kind of bowl is ubiquitous at Second Temple period sites.[22]

Type 7d: bowl with disk base Objects 1559 [plate 8.7:8], 2630 [plate 8.7:7], and 3040). These flat disk bases (8 cm in diameter) have a slightly chamfered external edge, and their interiors and exteriors are polished (Kloner 1987, plate 4:1; Gibson 2016, fig. 9.10:138, Type 7E; Reed 2018, 759, no. 6).

Type 7e: bowl with flat base (Object 2541; plate 8.7:9). Artisans left this vessel unfinished during the manufacturing process, resulting in prominent ridging around the exterior base (7.5 cm diameter) and a lack of polishing of its interior. It can be paralleled with a small lathe-turned bowl at Jaffa (Amit and Adler 2018, fig. 14.3:49).

Type 8: Cups

The collection includes a fragment of a small cup (Object 905; plate 8.7:60. The cup (ca. 8 cm in diameter) has a ridged decoration on the exterior shoulder and a polished interior (cf. Cahill 1992, plate 16:10–11, Type 1.a.i.J; Gibson 2016, fig. 9.12:141, Type 8A).

Type 9: Cores

One stone core (diameter: 6 cm, height: 8 cm) was extracted from a vessel using a bow-powered or a wheel-powered lathe (Object 1905; plate 8.7:10; fig. 8.27). The depression at the top (diameter: 4.5 cm, depth: 2 cm) may have accommodated the axle-head of a lathe. It suggests that a small local workshop for the manufacturing of lathe-turned stone vessels existed at Khirbet el-Maqatir.[23]

Type 10: Flat Stone with Drilled Perforation

Object 864 (fig. 8.28) is a flat, stone fragment with a drilled perforation at the center of its upper surface

[19] Among the lathe-turned vessels found in the City of David excavations, Gadot and Adler (2016, 213) have noted that the frequency of bowls was very high (46%).
[20] For a larger version with a similar profile, see Cahill 1992, fig. 15:6, Type 1.a.i.D; Amit et al. 2008, 333, fig. 20.13:13–14.
[21] But see Cahill 1992, fig. 16:1, Type 1.a.i.H; Amit et al. 2008, table 20.1:6, fig. 20.12:6; Gibson 2016, fig. 9.12:149, Type 9B; Adler 2017, fig. 4:8; Reed 2018, 759, nos. 7–8.
[22] Kloner 1987, plate 4:1; Cahill 1992, fig, 16:3–6, Type 1.a.i.I; Reich 2003, 282–83, plate 8.3:1; Amit et al. 2008, 332, fig. 20.12:13; Gibson 2016, 66, Type 6; Reed 2018, 759, nos. 1–4.
[23] Adler's contention (2019, 12) that the discovery of cores in settlements does not signify local workshops, but that these objects were brought into settlements to serve some other secondary function (e.g., as plugs), is not very convincing. See my comments about workshops (Gibson 2003, 291; 2016, 49).

(diameter: 3.5 cm), but the perforation does not extend completely through the stone suggesting that it served as a socket. There is also a circular flattened area around the hole (2 cm wide) with marks indicating it was used for the purpose of rotation, and it may have served as part of the operation of a lathe.

The bowls at Khirbet el-Maqatir were evidently made with the use of a bow-powered lathe or a wheel-powered lathe (fig. 8.29; cf. Gibson 2003, 295–99; 2016, 60–61, figs. 9.4–9.6).



Figure 8.28. Fragment associated with drilling or lathe? Object 864. Photograph by Michael C. Luddeni.

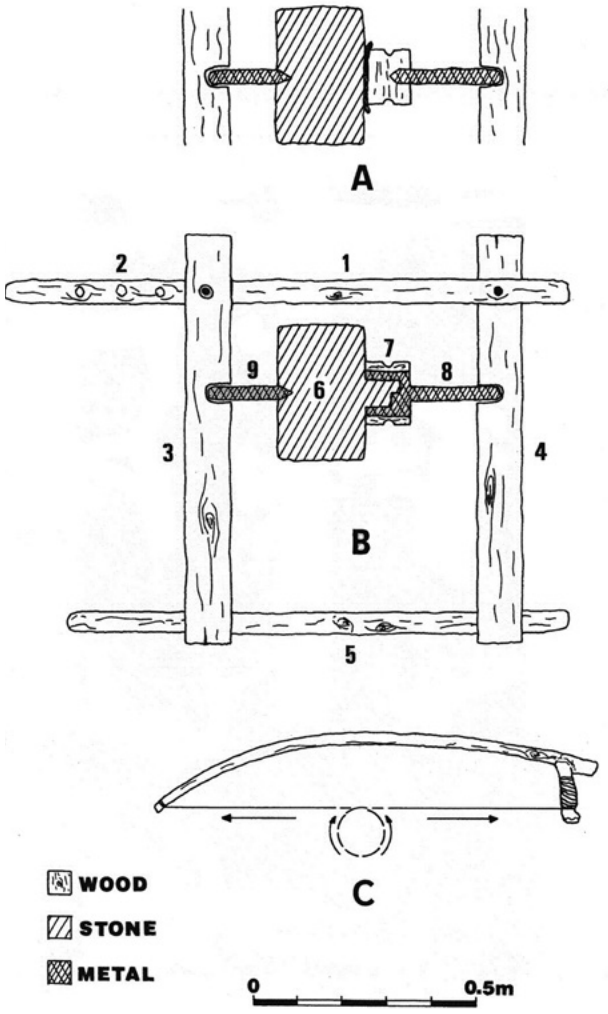


Figure 8.29. Reconstruction of bow-powered lathe: *a*, the stone mass fixed to the axle by cementing with bitumen according to the Iranian method (see Gibson 2003); *b*, possible bow-powered lathe used in the first-century CE southern Levant: (1) main beam, (2) holes for pegs, (3) adjustable traverse beam, (4) stationary traverse beam, (5) wooden beam, (6) stone mass, (7) axle-head, (8) metal connection of axle to traverse beam, (9) metal center point in the adjustable beam; *c*, bow. Drawing by F. Amirah.

Much may be learned about this technology from ethnography, and more specifically from photographic representations of bow-powered lathes traditionally used in the Middle and Far East (figs. 8.30–31; cf. Mutz 1978; Magen 2002, 121–27).[24] The discovery at Khirbet el-Maqatir of a core (Object 1905; plate 8.7:10), which had been removed during the manufacture of a bowl, as well as part of an unfinished bowl (Object 2541; plate 8.7:9), help to confirm that an intramural workshop with a lathe, probably of the bow-powered variety, existed at the site, since it is unlikely that stone-vessel wasters would have been imported into the village from outside.

Discussion

The Khirbet el-Maqatir assemblage is characterized by a much larger percentage of hand-carved vessels (87.6%), primarily mugs and basins, by comparison to the paltry quantity of lathe-turned vessels (12.4%), which in any case consisted of only a very limited range of bowls. It is notable that large jars/kraters (cf. John 2:6) were completely non-existent.[25] These quantities differ significantly from the percentages of vessels derived from the village of Shu'fat, with 65% hand-carved vessels, 25% lathe-turned, and 10% large kraters.[26]

[24] The assumption by Reed (2018, 751n3) that only a large lathe could have given the craftsman "the force necessary to shape these vessels" is probably incorrect based on ethnographic evidence. Indeed, Roman stonemasons are known to have used the bow-driven drill for dressing very large stone items (Blagg 1976, 164–65).

[25] I now concur with Adler (2011, 201–12; 2019, 5) that one should be wary of identifying the large stone jar/krater (of which no examples were found at Khirbet el-Maqatir) emphatically with the *Qalal* of the rabbinic sources (m. Parah 3:3), as had once been suggested by Avigad (1983, 183).

[26] This is in contrast to the percentages of stone vessels derived from excavations of city dumps at the City of David in Jerusalem: 41% hand-carved vessels, 49% lathe-turned items, and 6% large jars/kraters (Gadot and Adler 2016).



Figure 8.30. Bow-powered lathe in use in the Far East. Photograph courtesy of Gibson Picture Archive.



Figure 8.31. Bow-powered lathe in use in the Far East. Photograph courtesy of Gibson Picture Archive.

The hand-carved vessels from Khirbet el-Maqatir fall into the following subgroups according to prevalence: mugs (59.3%), basins and lids (30.0%), bowls (7.9%), and other types/miscellaneous (2.6%). The prominent number of mugs and basins appearing at Khirbet el-Maqatir may reflect the rural character of the site. Similar collections of stone vessels, mainly hard-carved, have been found at various other hamlets and villages throughout southern Benjamin and Judea dating from the first century CE to early second century CE.[27]

In terms of the distribution of the stone vessel fragments across the site,[28] the greater quantity of vessels (79) came from the central building (in the general area of Squares O21–22, P20–24, and Q20–24), and of these: 38 items came from the west wing, 23 from the north wing, 5 from the south wing, and 13 from its central area (fig. 8.32). Altogether, this building yielded mostly hand-carved items: 44 mugs (55.7%), 9 bowls (11.4%), 8 basins (10.1%), 5 basin lids (6.3%), and rarer items such as the 2 small mugs with spouts, 1 cup, 1 stopper, 1 possible mug core, and 1 unknown. The lathe-turned items consisted of 6 bowls and 1 core. One assumes that this central building included a small workshop possessing a lathe, but excavations failed to reveal any structural evidence confirming this assumption.

The second largest quantity of stone vessels at Khirbet el-Maqatir (32) came from the oil press cave (Cavern 1 in Square M28). Altogether, the strata in this cave produced the following hand-carved items: 19 basins (59.3%), 4 mugs, one of which was restorable (Object 1849) (12.5%), and rarer items such as 1 bowl, 1 small mug with spout, and 2 unknown vessels. The prominent number of basins (including two restorable vessels: nos. 1850 and 3304) in a cave serving as an oil press, strongly suggest their use specifically for ritual purification practices linked to the production of olive oil. This contrasts to the central building where the dominant vessel was the mug with handles which was probably used for ritual hand washing. The lathe-turned items from Cavern 1 consist of 5 bowls belonging to two types. We assume by the small percentage at Khirbet el-Maqatir that lathe-turned vessels were more of a luxury item in the first century CE by comparison to hand-carved items. Indeed, larger quantities of lathe-turned vessels appear in cities rather than in villages. They are also less prevalent at Bar Kokhba–period hideaways in Judea (Kloner 1987, 360, plate 4) and at caves in the Judean Desert, unless brought there by refugees as heirlooms.

Of chronological significance is the fact that the oil press cave (Cavern 1) at Khirbet el-Maqatir, which was likely first put in use in the first century CE, was linked to a later hiding complex, consisting of a tunnel and chamber, connecting to a water cistern, which was undoubtedly in use between 132–136 CE (see chap. 4, "Subterranean Features"). Conceivably, all the stone vessels from the oil press location might be consigned to this second chronological phase, since they are typologically similar to the Shu'fat vessels that continued to be used until the

[27] Khirbet el-Maqatir had a very large assemblage of stone vessels, in contrast to other villages that had considerably fewer vessels or none at all. On matters relating to the significance of the sporadic distribution of stone vessels in southern Benjamin and Judea, see Gibson, 2022.

[28] An additional 19 vessel fragments came from other parts of Khirbet el-Maqatir: 3 mugs from the area of enclosure walls and a path on the east (Square P26); 1 mug and 1 basin from the rectangular "public" building (Square S24); 1 lathe-turned bowl from a mikvah (Square L26); 1 lathe-turned bowl from Cavern 4; 5 mugs, a basin, and 1 unknown vessel from the west side of the site (Square Q20); 1 mug and 1 lathe-turned bowl from the north side of the site (Square W23); 2 mugs from the east side of the site (Square N34), and 1 mug from the south side of the site (Square C14).

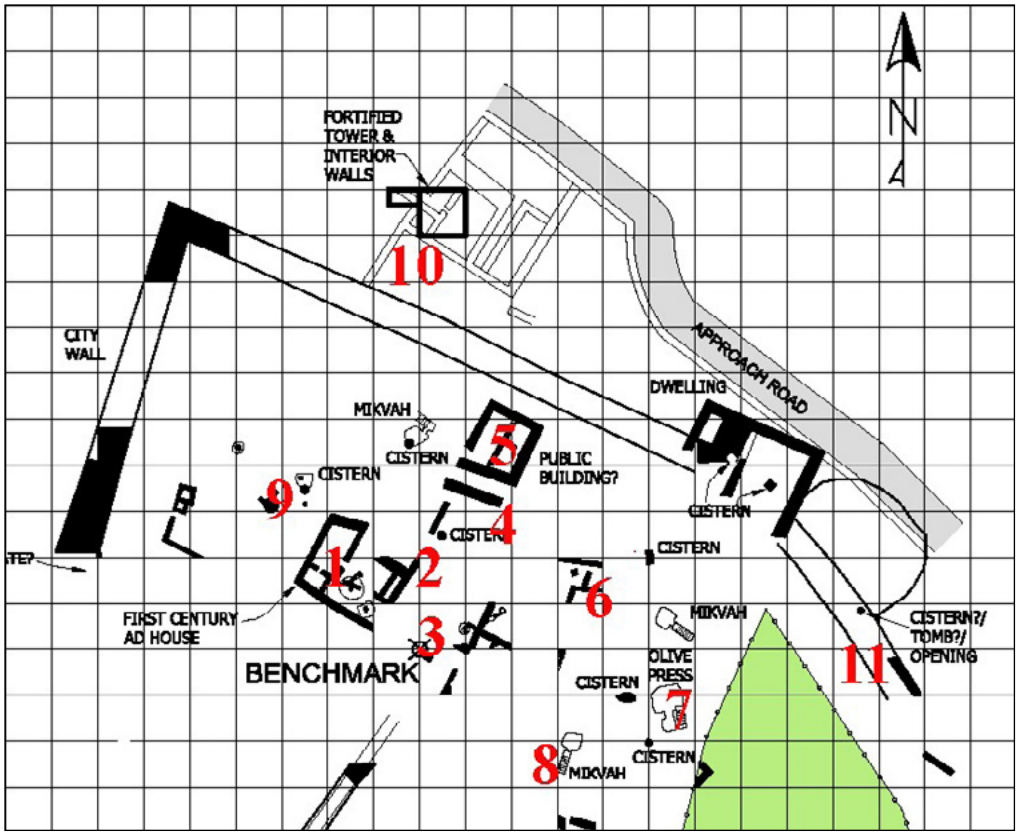


Figure 8.32. Map of Khirbet el-Maqatir showing in red the main find spots with stone vessels from the Early Roman period: (1–4) the main central building, with locations west, central, south and north; (5) the north squared (public?) building; (6) path and enclosure walls; (7) oil press—Cavern 1; (8) mikvah; (9) area on west with cistern; (10) area on north; (11) area on east. Drawing by Jerry Taylor; notations by Shimon Gibson.

first quarter of the early second century CE (Sklar-Parnes, Rapuano, and Bar-Nathan 2004, 39; cf. Adler 2017; 2019, 14). However, we must also consider the stratigraphic evidence from Khirbet el-Maqatir itself. The settlement was defended by a stone defensive fortification wall.[29] and it suffered a considerable conflagration in the third year of the First Revolt, leaving ashy deposits (with coins of 68/69 CE) scattered throughout the large central area of the site.

Three vessels originating from this area (Objects 763b, 909, and 2417) showed signs of burning. Two other vessels (some restorable) with signs of burning were found in the oil press cave (Objects 1154 and 1850), and three more came from other locations at the site (Objects 1636, 1942, and 2378). Importantly, one of the basin body fragments used for mending Basin no. 1850 from Cavern 1 was found outside the cave and on the southeast edge of the main central building (Square O24), indicating that this basin must date to the destruction of 68 CE. The Bar Kokhba–period presence at the site would therefore seem to have been confined specifically to the hiding complex, with refugees taking shelter and hiding from the Romans. Indeed, there does not seem to have been a renewal of the settlement at any point between 68 CE and the outbreak of the Bar Kokhba revolt in 132 CE (for regional considerations, Shahar 2003, 109–12).

It would appear that the stone vessel assemblage from Khirbet el-Maqatir largely belongs to the cultural material of the settlement destroyed during Vespasian's military campaign to this region, which took place in June of 68 CE, since as Josephus states this district at that time had still not been reduced by the Romans (*War* 4.550–51). It is conceivable that the settlement at the site may have been resumed in 69 CE for a brief spell, but if so, it was on a largely diminished scale and by squatters. The oil press (Cavern 1) may have been first adapted at this time as a hiding complex, and there is evidence of human skeletons from this time period.[30] There can be no doubt that eventually people did seek refuge at the site with the preparation of hiding systems, and that these lasted until the end of the Bar Kokhba revolt (136 CE).[31]

[29] It appears that additional fortification walls–some more makeshift than others–were built at a number of hamlets and villages in this region in the first century CE or at the outbreak of the First Revolt in 66 CE. For example, Khirbet Kafr Mur, situated approximately 2 km to the northeast of Khirbet el-Maqatir, was also defended by a stone defensive wall (2.0–2.8 m thick) (Aharonovich 2019, 31–32).

[30] For a comparison between the principal differences in the character of the hiding complexes of the two revolts, the first "adaptive" and the second "purposeful," see Gibson and Lewis 2019, 52*–54*.

[31] For hiding systems and refuge-caves from this period in the area close to Khirbet el-Maqatir, see Eshel and Amit 1998, 15, map 1.

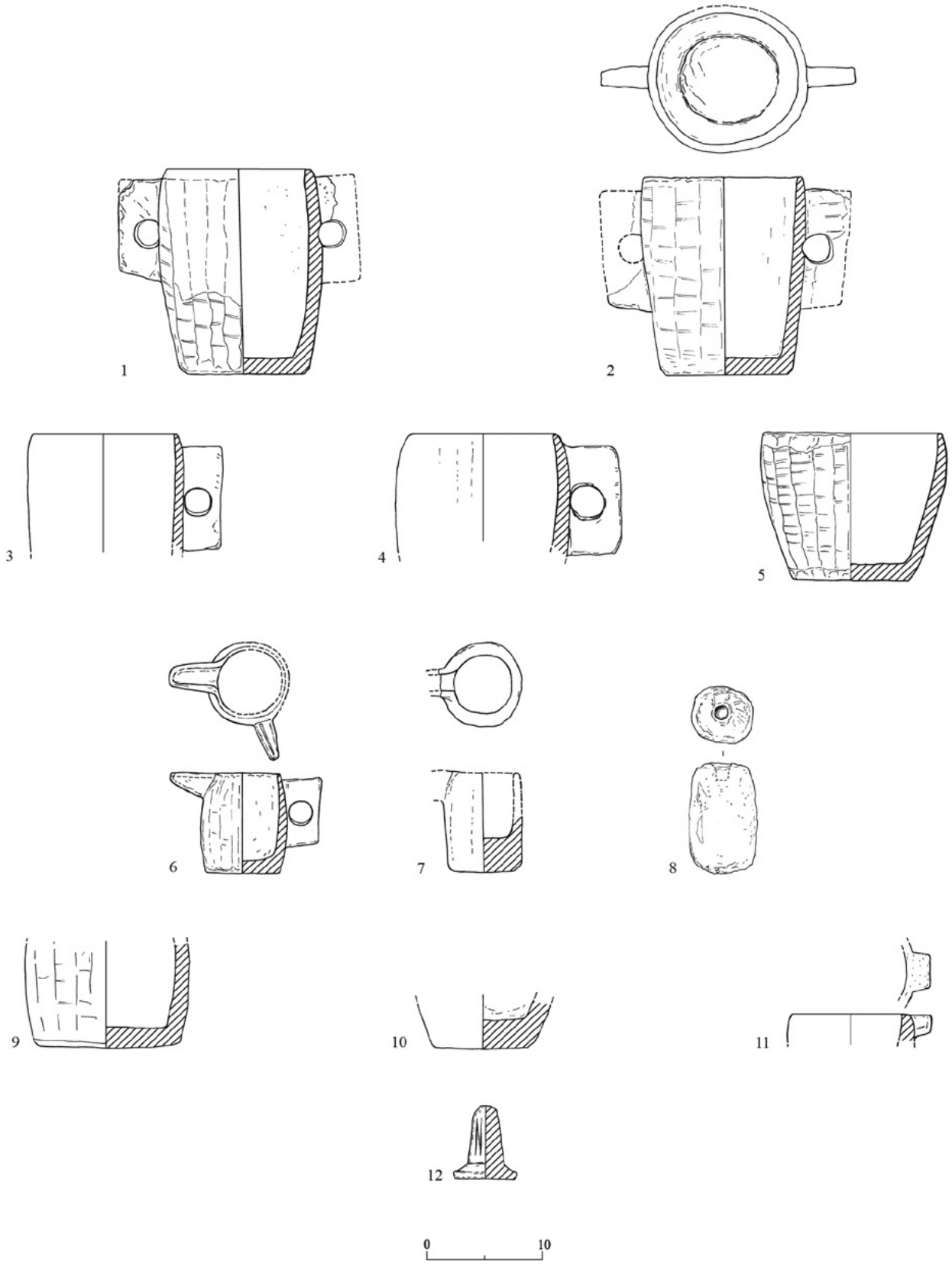


Plate 8.1. Handmade mugs, mug core, cup, and stopper.

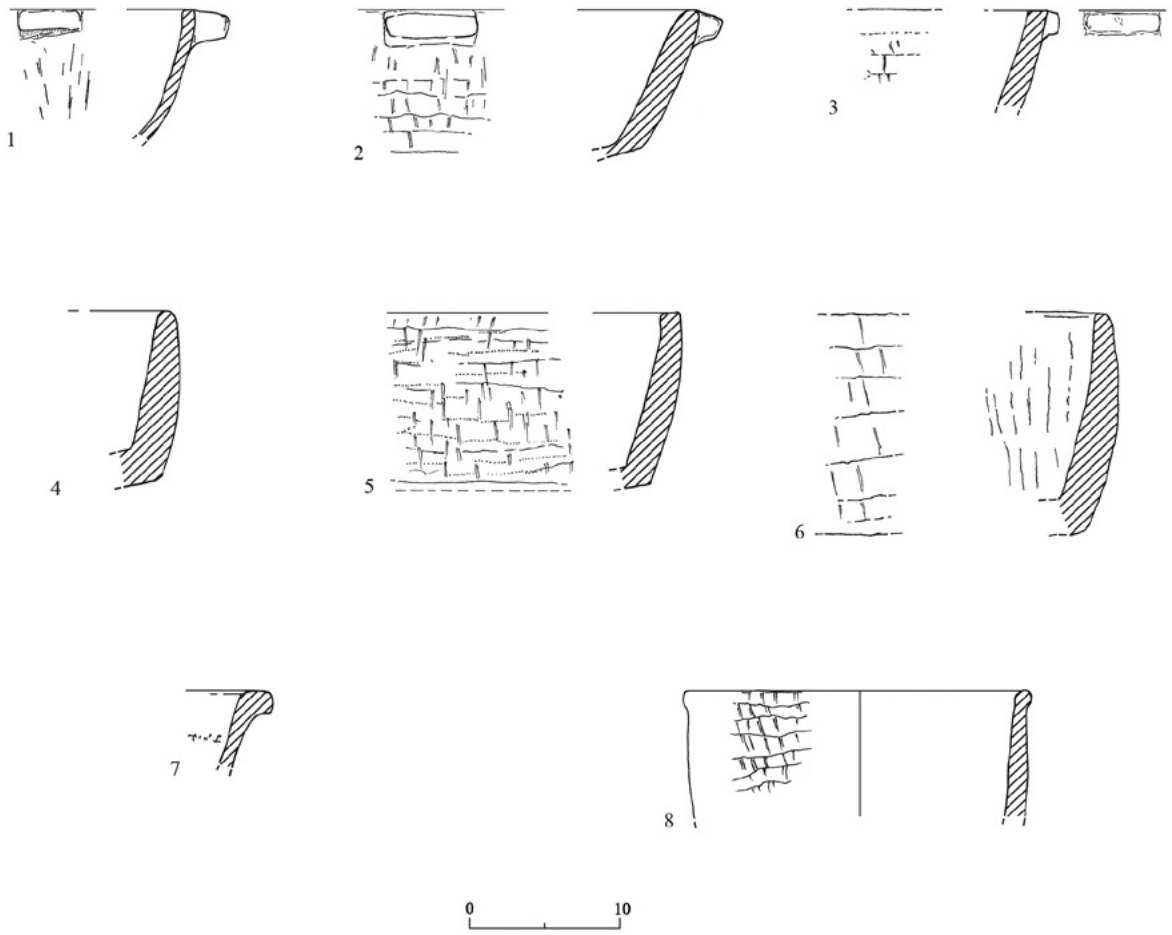


Plate 8.2. Handmade bowls.

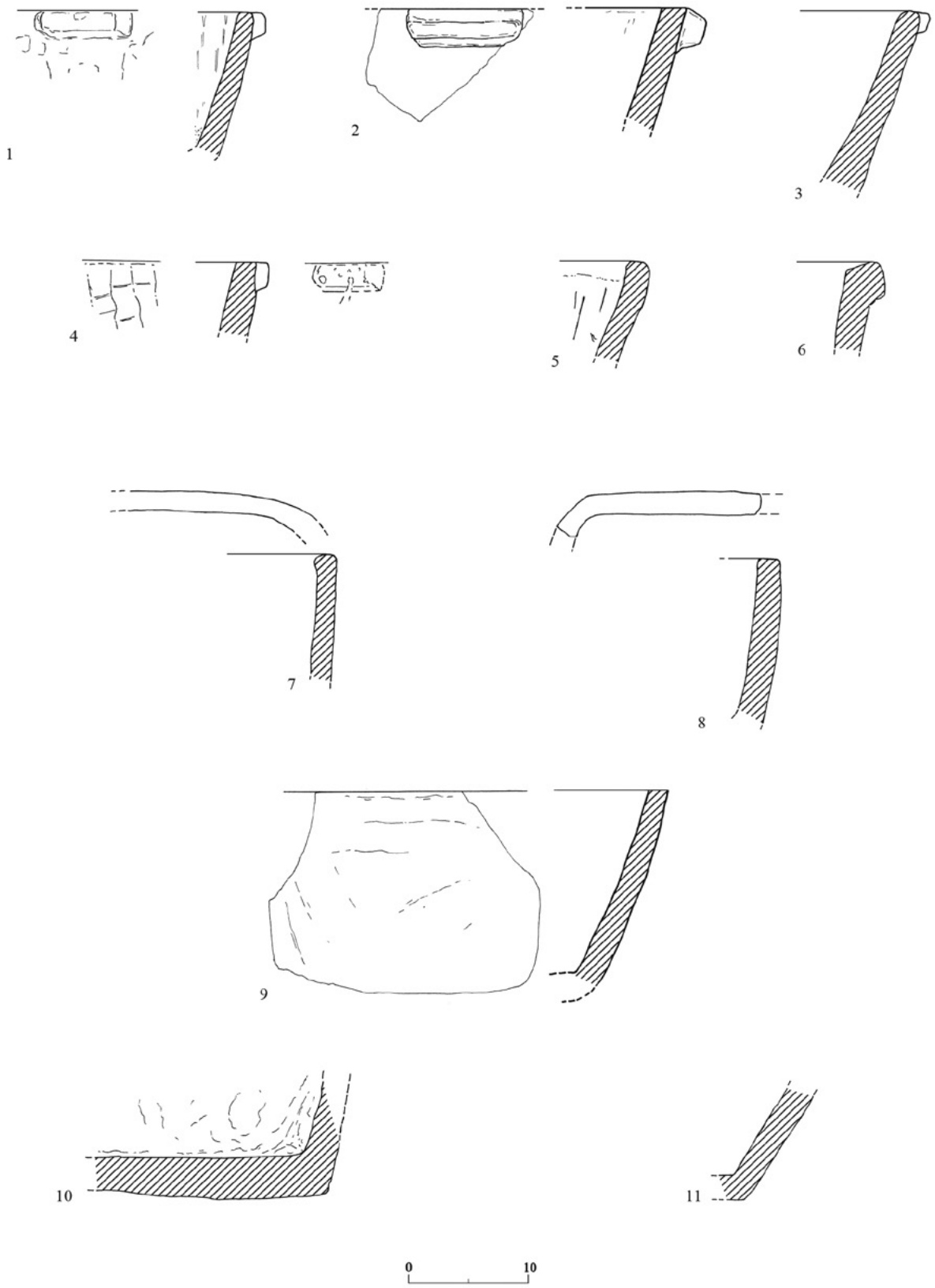


Plate 8.3. Handmade basins.

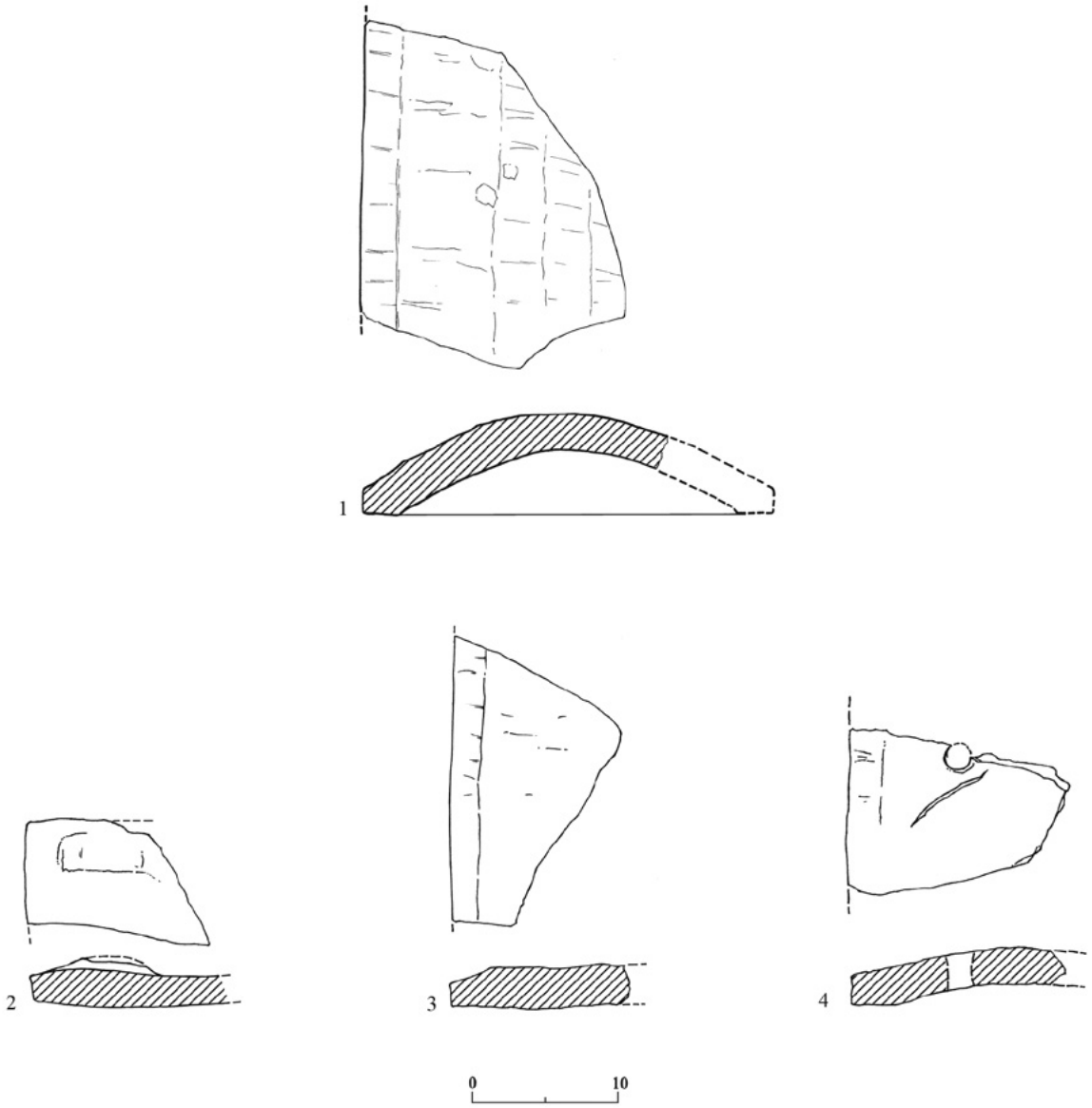


Plate 8.4. Handmade basin lids.

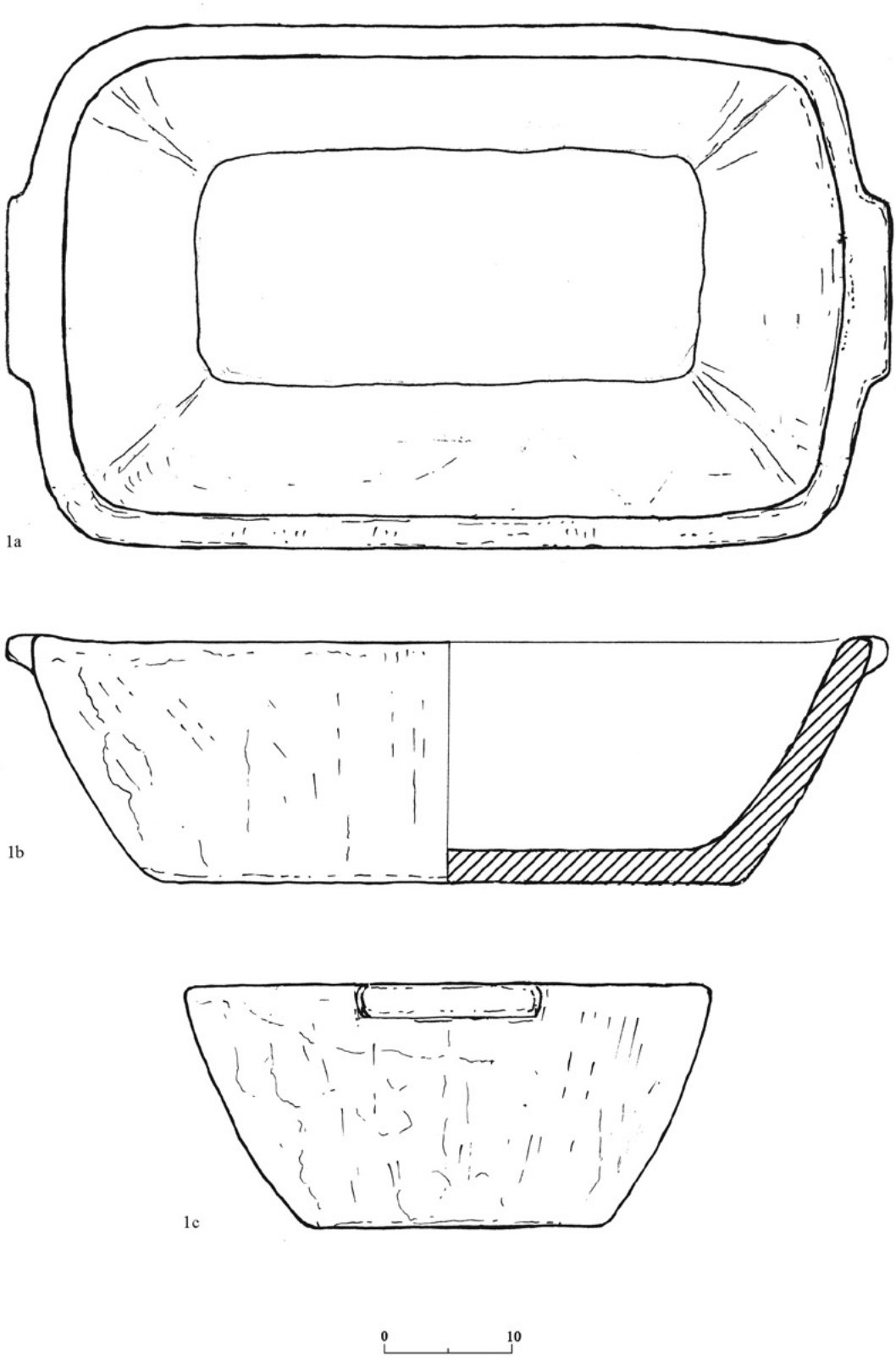


Plate 8.5. Complete handmade basin.

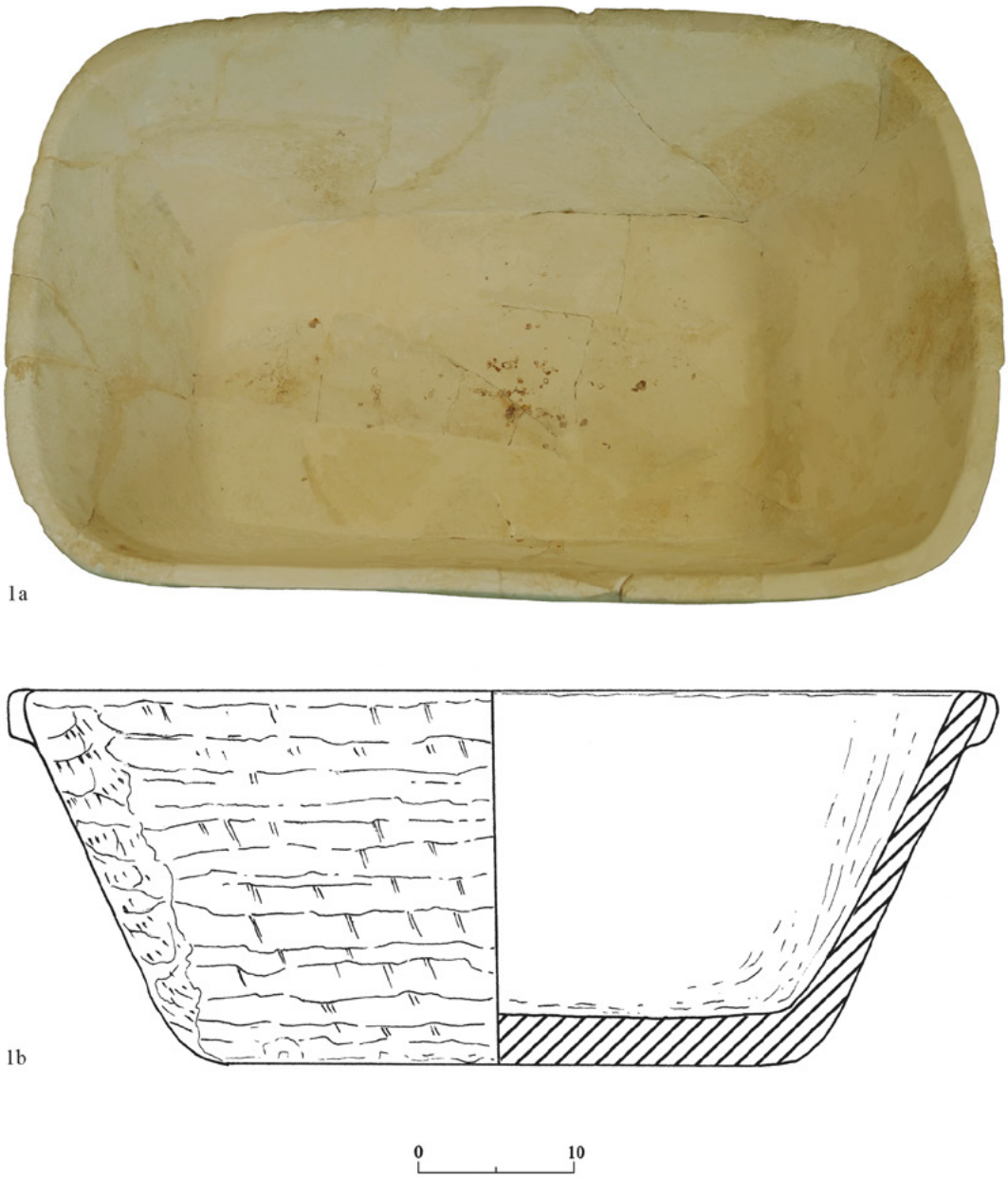


Plate 8.6. Complete handmade basin.

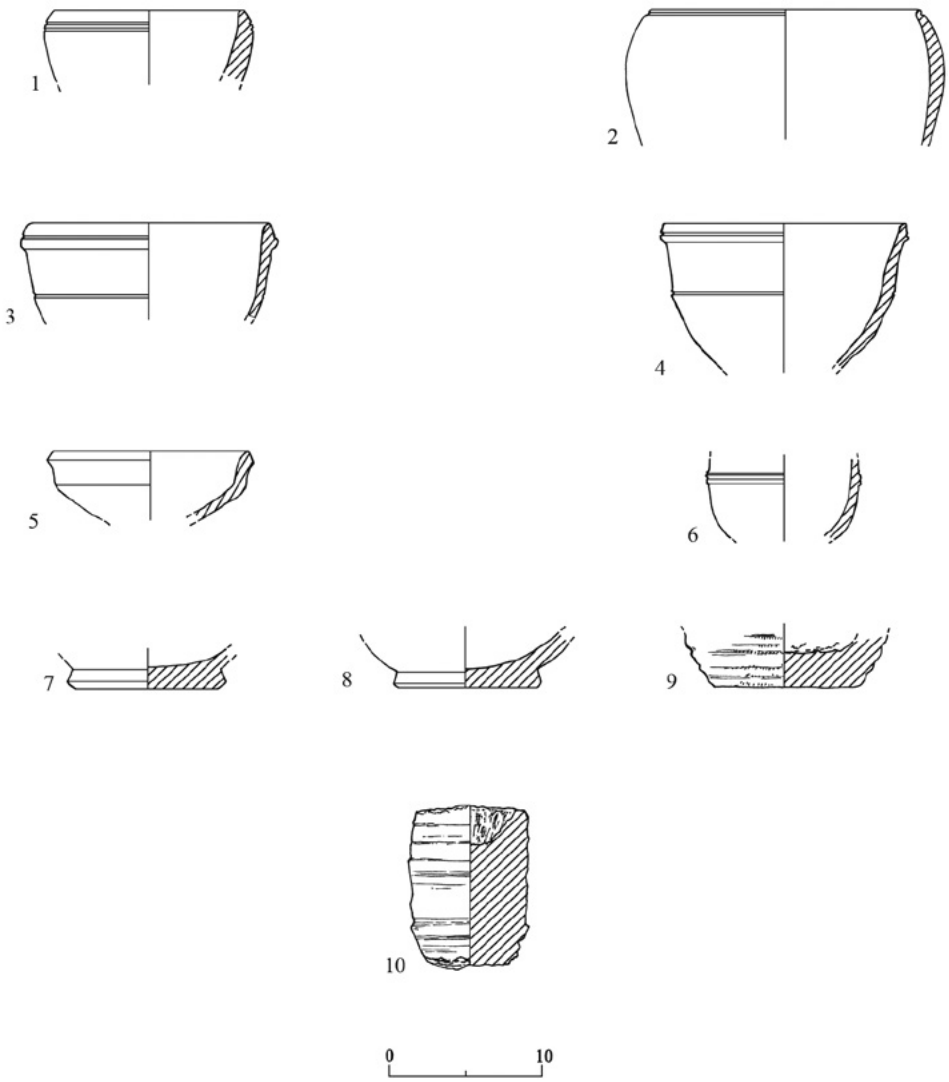


Plate 8.7. Lathe-turned vessels and core.

Acknowledgements

I am grateful to Scott Stripling for inviting me to prepare the stone vessels from the Khirbet al-Maqatir excavations for publication, and to the help of the staff members: Frankie Snyder, for facilitating my cataloging in Jerusalem, and Abigail Leavitt for dealing with my stratigraphic enquiries at every stage of the work. My thanks to Tommy Chamberlin for photographs and measurements of one of the vessels I could not examine myself, to Mark Laskus for photographs of many of the other complete items, and to Stanley Klassen and Gregory Braun for letting me see their petrography report. My thanks also go to the following: Gretchen Cotter for help with the identification and cataloging procedure; Orna Cohen for her brilliant work in conserving basin no. 3304, in addition to having previously conserved vessels nos. 1849, 1850, and 2985 (A045309); and to Melody Bogle who drew basin no. 3304. I did the rest of the drawings of the vessels. Finally, my thanks go to Anna de Vincenz for diligently preparing the plates. I am also grateful to Mark Hassler for his editing skills.

Appendix

Table. Catalog of stone vessels from Khirbet el-Maqatir

No.	Vessel type	Field, square, locus, pail	Description
174	Mug	B.N33.3.10	Body fragment (4 × 3 cm), knife-pared exterior, white stone, handmade
210	Mug	B.N33.3.18	Handle, rounded shoulder, drilled hole, white stone, smoothed exterior, handmade
297	Mug	H.C14.1.10	Base ø 7 cm, white stone, smoothed, handmade
486	Bowl	B.L26.12.18	Triangular rim, everted profile, external incised lines on rim and shoulder, white stone, smoothed interior, lathe turned
632	Mug	B.Q21.1.14	Base ø 7 cm, knife-pared exterior, grey Neby Musa stone, handmade
651	Mug	B.P21.3.3	Base ø 9 cm, soft grey Neby Musa chalky stone, worn exterior and interior, handmade
655	Bowl	B.P21.2.6	Triangular rim, everted profile, external incised lines on rim and shoulder, white, three pieces for restoration, lathe turned
763a	Mug	B.P21.10.22	Rim and profile, ø ca. 10 cm, chalky white, rough faceting on exterior, smoothed interior, curved reddish mark on exterior below rim, handmade
763b	Bowl	B.P21.10.23	Horizontal knife-pared exterior, lug (5 × 2 cm), white, signs of burning on lower exterior, smoothed interior, reduced base, handmade
778	Basin	B.S24–25.6.9	Rim break at lug, white, vertical paring on interior, weathered, handmade
779	Mug	B.P26.6.5	Base ø ca. 9 cm, knife-pared exterior, white, circular incision from extraction of core (?), within interior base, handmade
780	Mug	B.P26.3.2	Base ø 9 cm, knife-pared exterior, white, smoothed base and interior, handmade
781	Mug	B.P26.4.5	Base ø 7 cm, knife-pared exterior, white, smoothed base and interior, handmade
844	Mug	E.S24–25.3.2	Handmade
845	. . .	B.ZI10.6.9	. . .
864	Drilled item	C.ZH10.9.9	Object with drilled hole (3.5 cm) in upper surface of irregular flat stone, the perforation does not extend through the stone, 2 cm wide flattened area around the drilled hole
904	Mug	B.P21.1.32	Handle, squared shoulder, drilled hole, white, smoothed exterior, handmade
905	Cup	B.P21.1.32	Body fragment, ridge on exterior, ø ca. 8 cm, white, smoothed, lathe turned
906	Basin	B.P21.1.32	Rim to base, depth of interior of vessel 12.5 cm, white, rough chiseling on exterior, smoothed interior, handmade, petrographic sampling
907	Mug	B.Q21.1.31	ø 8 cm, handle, drilled hole (ø 1.6 cm), white, handmade, petrographic sampling
909	Basin	B.P21.1.32	Rim and lug (length 7.5 cm, height 2.5 cm, protrudes 1.2 cm), white, signs of burning on exterior, handmade

No.	Vessel type	Field, square, locus, pail	Description
942a–c	Small mug	B.P21.12.40	Restored with spout, handle at angle, incised mark on top, drilled hole (ø 1.6 cm), chalky white, handmade, petrographic sampling
951	Mug	B.P21.1.35	Base, ø unclear, white, smoothed, handmade
968	Mug	B.P21.1.42	Rim (ø 10 cm) and handle, rounded shoulder, drilled hole (1.6 cm), white, handmade
996	Mug	B.P21.1.44	Body fragment, white, knife-pared exterior, smoothed interior, handmade
1010	Basin lid	A.O21.3.4	Rim of basin, rounded, width 22 cm, white, chisel marks visible on top, smoothed underside, handmade
1038	Mug	B.P21.1.49	Handle, drilled hole, white, smoothed exterior, handmade
1039	Mug	G.S19.4.16	Rim to base, everted profile, knife-pared exterior, white, smoothed interior and base, handmade, petrographic sampling
1050	Basin	G.R19.8.1.6	Square corner body fragment, length 9.4 cm, width 8.2 cm, thickness 2.2 cm, handmade, petrographic sampling
1051	Mug	G.S19.4.16	Base ø 7 cm, thickness 2 cm, white, handmade
1057	. . .	G.S19.4.16	Body fragment of unknown vessel, petrographic sampling
1120	Mug	B.P21.12.54	Handle, squared shoulder, drilled hole, white, smoothed exterior, handmade
1147	Small mug	A.CAV1.6.13	Base ø 5 cm, height 7 cm, spout, chalky white, blurred knife-paring, smoothed exterior and interior, handmade
1151	Mug	. . .	Base, smoothed exterior, handmade
1154	Basin	A.CAV1.6.13	Rim, white, signs of burning, smoothed exterior and interior, handmade
1180	Small basin	A.CAV1.7.19	Rim, length ca. 30 cm, white, random chisel-cut exterior and smoothed interior, handmade
1185	Basin	A.CAV1.7.19	Base, white, random chisel-cut exterior and smoothed interior, handmade; perhaps part of the base of basin no. 1850, but no matches found for restoration
1207	Small basin	A.CAV1.4.23	Rim and lug, random chisel-cut exterior, smoothed interior and exterior, white, handmade
1208	Bowl	A.CAV1.4.23	Triangular rim, carinated shoulder, ø ca. 10 cm, weathered chalky white, lathe turned
1217	Mug	A.CAV1.4.25	Rim, white, vertical knife-pared exterior, smoothed interior, handmade
1252	Mug	B.P23.1.1	Base ø 9 cm, white, knife-pared exterior, circular incision from extraction of core (?) within interior base, smoothed interior and base, handmade
1277	Mug	B.P21.1.57	Base ø 7.7 cm, white, knife paring on exterior, smoothed interior and exterior, handmade
1278	Mug	B.P21.1.57	Rim ca. 10 cm, handle with squared shoulder, drilled hole, white, knife pared exterior, smoothed interior, handmade
1280	Mug	B.P20.13.37	Rim ca. 10 cm, handle with squared shoulder, drilled hole, white, smoothed interior, handmade
1315	Mug	G.R20.12.30	Body fragment, white, knife-pared exterior, smoothed interior, handmade
1320	Mug	G.R20.8.36	Base ø 8.5 cm, white, smoothed interior and exterior, handmade
1327	Mug	A.O22.2.5	Handle? white, handmade
1399	Basin	A.O22.2.5	Base, grey Neby Musa stone, handmade
1404	Mug	B.P21.1.62	Base ø 10.5 cm, white, knife-pared exterior, smoothed interior and base, handmade
1559	Bowl	B.CAV4.1.2	Base ø 7.5 cm, white, smoothed interior and exterior, lathe turned
1613	Bowl	B.P22.1.6	Lug at rim, white, chisel-scored exterior, smoothed interior, handmade
1619 A044513	Stopper	B.P22.3.7	White, 2 cm long incision of *N* on side, handmade, height 5 cm, base ø 4.2–4.5 cm, ø 2.8 cm at incised line where stopper narrows, ø at top 1.5–1.6 cm
1636	Mug	A.O22.7.18	Base ø 10 cm, white with signs of red paint and burning, hole in center of interior of base 0.5 cm ø and depth, two fragments and break, handmade
1726	Mug	A.O22.4.14	Body fragment, white, knife-pared exterior, smoothed interior, handmade
1763	Mortar	A.CAV1.24.34	. . .

No.	Vessel type	Field, square, locus, pail	Description
1767	Bowl	A.CAV1.20.36	Two fragments, triangular rim, carinated shoulder, white, lathe turned, possibly the same bowl type as no. 1208, recorded as four vessel fragments
1768	Basin	A.CAV1.20.36	Body or base fragment, white
1769	Bowl	A.CAV1.24.35	Triangular brim, carinated shoulder, white, lathe turned
1770	Bowl	A.CAV1.24.35	Two joined fragments, triangular brim, carinated shoulder, white, lathe-turned, perhaps similar to objects 1208, 1767 and 1769
1771	Basin	A.CAV1.21.37	Body fragment, white, chiseling on lower edge, handmade
1772	Basin	A.CAV1.21.27	Lug at rim, white, rough chiseled exterior, smoothed interior and exterior, handmade; because of the provenance (CAV1, Locus 21), this fragment may have been part of the reconstructed 3304 basin, but no join was found
1777	Basin	A.CAV1.26.40	Body fragment, white, handmade, not seen by Shimon Gibson
1779	. . .	A.CAV1.26.42	Fragment of vessel, white; recorded as “missing”; not seen by Shimon Gibson
1781	Basin	A.CAV1.28.45	Body fragment, white, smoothed interior and chiseled exterior, handmade
1786	Bowl	A.CAV1.21.48	Rim with incised line, two incised lines on exterior, white, probably same category as lathe-turned bowl, nos. 486 and 655
1787	Basin	A.CAV1.27.44	Body or base fragment, white, handmade, perhaps used in restoration of basin no. 1850
1788	Basin	A.CAV1.28.46	Unclear fragment, white, handmade, possible basin
1798	. . .	A.CAV1.19.50	Unclear, white
1800	Basin	A.CAV1.19.50	Base at rounded corner of vessel, white, rough chiseling of exterior, smoothed base and interior, handmade
1804	Basin	A.CAV1.19.50	White, handmade
1810	Mug	A.CAV1.19.58	Base ø ca 8 cm, white, handmade
1811	Basin	A.CAV1.29.57	Body fragment, white, handmade
1814	Bowl?	A.CAV1.19.58	Rim, grey Neby Musa stone, chiseled exterior, smoothed interior, handmade
1825	Basin	A.CAV1.29.62	Curved corner fragment, white, smoothed exterior and interior, handmade
1826	Basin	A.CAV1.29.62	Body fragment, white, handmade
1835	Basin	A.CAV1.33.68	Body fragment, white, handmade
1836	. . .	A.CAV1.28.67	Fragment of vessel, white
1839	Mug	A.CAV1.19.68	Base, white, handmade
1849	Mug	A.CAV1	Complete, two handles with drilled holes, vertical knife-pared exterior, white, handmade, restored with nos. 1163, 1783, 1785, 1810, and 1839
1850	Basin	A.CAV1	Complete, two lugs, horizontal knife-pared exterior, white, handmade, signs of burning on a few fragments, restored with nos. 1181, 1183, 1186, 1187, 1188, 1189, 1200, 1224, 1227, 1228, 1229, 1762, 1773, 1776, 1787, 1790, 1802, 1803, 1815, 1822, 1823, 1824, 1827, 1832, 1833, 1834, 1837, and 1838
1851	Mug	. . .	Base, smoothed exterior, handmade
1865	Bowl	B.P22.1.14	Profile, horizontal exterior knife-pared with added incised separation lines (see dotted lines on drawing), smoothed in, handmade
1868	Mug	B.P22.1.14	Handle, drilled hole, white, smoothed exterior, handmade
1905	Core	A.N23.101.101	Core from lathe-turned vessel, white, ø 6 cm, height 8 cm
1926	Mug	B.P22.1.21	Rim and handle, drilled hole, white, smoothed exterior, handmade
1927	Bowl	B.P22.1.21	Lug at rim, horizontal knife-pared exterior, smoothed interior, white, handmade
1936	Basin	A.O24.4.6	Base fragment, rough chiseling on exterior, smoothed interior, white, handmade
1941	Mug	B.Q24.1.1	Handle, drilled hole, white, knife-pared exterior, smoothed interior, handmade
1942	Mug	B.Q24.1.1	Body fragment, white with signs of burning, vertical knife-pared exterior, smoothed interior, handmade
1943	Mug	B.Q24.1.1	Handle drilled hole, white, smoothed exterior, handmade

No.	Vessel type	Field, square, locus, pail	Description
1945	Mug	B.P22.3.25	Rim, everted, white, knife-pared exterior, smoothed interior, handmade
1949	Mug	B.Q24.3.4	Base ø 7 cm, white, smoothed, small hole ø 1.3 cm in interior base, handmade
1951	Mug	B.P22.1.23	Base ø 7 cm, white, knife-pared exterior, smooth interior, handmade
1953	Lid	A.O24.1.9	Corner of lid perhaps of basin, protruding hand-grip white, brown patina, handmade
2019	Mug	A.O24.8.12	Body fragment, white, knife-pared exterior, smooth interior, handmade
2082	Small mug	B.P22.1.30	Spout, chalky white, length 3 cm, height 2 cm, handmade
2119	Mug core	B.P22.11.35	White
2155	Basin	A.O24.12.16	Corner rim, white, rough chiseled exterior and smoothed interior, handmade
2189	Lid	A.O24.12.18	Fragment perhaps of basin, white, handmade
2241	Lid	A.O24.5.23	Fragment perhaps of basin, drilled hole at top ø 1.5 cm, 2 cm deep, white, tooling on underside smoothed top, incised groove cut into top: length 5 cm, width 20 mm, handmade
2356	Mug	A.O24.16.29	Base, white, knife-pared exterior, smoothed interior and base, handmade
2378	Lid	A.O24.15.28	Fragment perhaps of basin, white with some signs of burning, some chiseling, handmade
2415	Basin	B.Q22.3.6	Rim to base, white smoothed, handmade
2417	Mug	B.P22.10.49	Body fragment, white with signs of burning, faceting on exterior, smooth interior, handmade
2486	Mug	B.Q22.7.18	Base ø 7 cm, white, knife-pared exterior, smoothed interior and base, handmade
2488	Bowl	B.P24.1.2	Rim to base, white, horizontal knife-pared exterior, incised tooling on interior, handmade
2516	Mug	B.W22.3.3	Base ø 9.5 cm, white, knife-pared exterior, smoothed interior and base, handmade
2540	Mug	B.Q22.7.20	Base ø 6 cm, white, smoothed exterior and interior, handmade
2541	Bowl	B.W22.5.7	Base ø 8 cm, prominent ridging near exterior base (unfinished vessel?), white, lathe turned
2630	Bowl	B.Q22.1.27	Base ø 8 cm, worn, white, lathe turned
2702	Basin?	B.Q25.3.6	Base, white, worn, handmade
2703	Mug	B.Q25.1.4	Base ø 7 cm, white, worn knife-pared exterior, smoothed exterior and interior, handmade
2727	Mug	B.Q25.4.11	Handle, drilled hole, white, smoothed exterior, handmade
2829	Bowl	B.Q25.7.16	Rim, white, smoothed interior and exterior, handmade
2920	Mug	B.S21.2.2	Handle, drilled hole, grey Neby Musa, worn, handmade
2924	Mug	B.Q25.2.20	Body fragment, white, knife-pared exterior, smooth interior, handmade
2962	Mug	B.R26.surface find	Body fragment and base, knife-pared exterior, smoothed interior, white, handmade
2984	Bowl	B.P24.22.44	Rim, 2 incised lines below rim, white, smoothed, lathe turned
2985 A045309	Mug	B.P24.21.17	Restored, complete, two handles with drilled holes, vertical knife-pared exterior, white, handmade, rim ø 11 cm, rim thickness 0.4 cm, handle opening ø 1.9 cm, height from base to bottom on handle 4.4 cm, base ø 9 cm, interior depth of vessel 12.3 cm, height of vessel 13.5 cm, petrographic sampling
3034	Mug	B.R24.3.7	Base ø 7 cm, knife-pared wall exterior, smoothed base and interior, handmade
3035	Cup	B.R24.1.5	Small cup, small lug, white, smoothed, handmade
3036	Basin	B.R24.1.5	Rim, break at lug, grey Neby Musa chalk, rough chiseled exterior, smoothed interior, handmade
3040	Bowl	B.R24.2.6	Base, white, smoothed, lathe turned
3067	Mug	B.P22.2.103	Base ø 4.5 cm, white, handmade
3071	Mug	B.P22.2.103	Rim, knife-pared exterior, smoothed interior, white, handmade

No.	Vessel type	Field, square, locus, pail	Description
3088	. . .	B.R25.3.1	Body fragment of vessel, extremely battered, white, probably handmade
3126	Basin	B.Q25.surface find	Base, white, smoothed interior, handmade
3169	Mug	B.R25.5.8	Rim, knife-pared exterior, white, handmade
3170	Mug	B.R25.5.8	Base, white, knife-pared exterior, smoothed interior, handmade
3179	Mug	B.R25.7.11	Rim, knife-pared exterior, white, handmade
3213	Mug	B.R25.7.14	Rim, knife-pared exterior, white, smoothed interior, handmade
3215	Mug	B.R25.7.14	Body fragment, knife-pared exterior, white, handmade
3216	Bowl	B.R25.7.14	Rim, horizontal knife-pared exterior, white, smoothed interior, handmade
3217	Basin	B.R25.7.14	Body fragment, white, chiseled exterior, handmade
3218	Bowl	B.R25.7.14	Rim, one incised line below rim, white, lathe turned, handmade
3304	Basin	A.CAV1.7.15 (no. 1162) A.CAV1.19.56 (nos. 1812, 1813, 1847, 1848) A.CAV1.29.53 (no. 1799a–c) A.CAV1.21.37 (nos. 1774, 1775) A.CAV1.24.34 (nos. 1761, 1765) A.O24.1.2 (no. 1875)	Complete (restored from six loci in CAV1 and Square O24), measurements at upper rim: length 58 cm, width 31 cm, height 18 cm, white, random chisel-cut and smoothed exterior, chiseling on interior, smoothed base, lugs at height of rim at short ends of vessel, handmade, incised marks (drawing?) on body fragment 1765, signs of burning on fragments 1812, 1813, 1847, and 1848; basin restored from fragments 1162, 1761, 1765, 1774, 1775, 1799a–c, 1812, 1813, 1847, 1848, and 1875

References

Adler, Yonatan. 2011. "The Archaeology of Purity: Archaeological Evidence for the Observance of Ritual Purity in the Land of Israel from the Hasmonean Period until the End of the Talmudic Era (164 BCE–400 CE)." [In Hebrew.] PhD diss., Bar-Ilan University.

Adler, Yonatan. 2016. "Between Priestly Cult and Common Culture: The Material Evidence of Ritual Purity Observance in Early Roman Jerusalem Reassessed." *Journal of Ancient Judaism* 7, no. 2 (May): 228–48.

Adler, Yonatan. 2017. "Purity without a Temple: Chalkstone Vessel Production and Use in the Period between the Revolts as Seen through the Assemblage from Shu'fat." In *New Studies in the Archaeology of Jerusalem and Its Region* [in Hebrew], edited by Yuval Gadot, Yehiel Zelinger, Katia Cytryn-Silverman, and Joe Uziel, 111–23. Collected Papers 11. Jerusalem: Israel Antiquities Authority.

Adler, Yonatan. 2019. "New Insights in the Study of Roman Period Jewish Chalk Vessels." [In Hebrew.] *Qadmoniot* 52 (157): 2–17.

Adler, Y., A. Ayalon, M. Bar-Matthews, R. Flesher, G. Yasur, and T. Zilberman. 2020. "Geochemical Analyses of Jewish Chalk Vessel Remains from Roman-Era Production and Settlement Sites in the Southern Levant." *Archaeometry* 63:266–83.

Aharonovich, Evgeny. 2016. "Khirbet Kefar Mur: A Jewish Settlement from the Second Temple Period on Mount Bethel and a Wall from the Time of the Great Revolt." [In Hebrew.] *In the Highland's Depth* 6:85–106.

Aharonovich, Evgeny. 2019. "Khirbet Kafr Mur, a Settlement in the Bethel Hills: An Intermediate Summary of Six Excavation Seasons." [In Hebrew.] *Qadmoniot* 52 (157): 28–38.

Amit, David. 2010. "The Manufacture of Stone Vessels in Jerusalem and the Galilee: Technological, Chronological, and Typological Aspects." [In Hebrew.] *Michmanim* 22:49–66 [English abstract, 35*–36*].

Amit, David, and Yonatan Adler. 2018. "The Stone Vessels." In *Ancient Jaffa from the Persian Period to the Byzantine Period: Kaplan Excavations (1955–1981)*, edited by Orit Tsuf, 538–60. Jaffa Cultural Heritage Project Series 3. Münster: Zaphon.

Amit, David, Jon Seligman, and Irina Zilberbod. 2000. "Stone Vessel Workshops of the Second Temple Period East of Jerusalem." In *Ancient Jerusalem Revealed*, edited by Hillel Geva, 353–58. Expanded ed. Jerusalem: Biblical Archaeology Society.

Amit David, Jon Seligman, and Irina Zilberbod. 2008. "Stone Vessel Production Caves on the Eastern Slope of Mount Scopus, Jerusalem." In *New Approaches to Old Stones: Recent Studies of Ground Stone Artifacts*, edited by Yorke M. Rowan and Jennie R. Ebeling, 320–42. Approaches to Anthropological Archaeology. London: Routledge.

Avigad, Nahman. 1983. *Discovering Jerusalem*. Nashville: Nelson.

Bar-Nathan, Rachel, and Judit Gärtner. 2013. "The Stone Artifacts from the Hasmonean and Herodian Palaces at Jericho and Cypros." In *Hasmonean and Herodian Palaces at Jericho: Final Report of the 1973–1987 Excavations*. Vol. 5, *The Finds from Jericho and Cypros*, edited by Rachel Bar-Nathan and Judit Gärtner, 205–34. Jerusalem: Israel Exploration Society.

Blagg, T. F. C. 1976. "Tools and Techniques of the Roman Stonemason in Britain." *Britannia* 7:152–72.

Cahill, Jane M. 1992. "Chalk Vessel Assemblages of the Persian/Hellenistic and Early Roman Periods." In *Excavations at the City of David 1978–1985: Directed by Yigal Shiloh*. Vol. 3, *Stratigraphical, Environmental, and Other Reports*, by Donald T. Ariel, Miriam Avissar, Uri Baruch, Arza Caspi, Jane M. Cahill, David Cohen, Alon De Groot et al., edited by Alon De Groot and Donald T. Ariel, 190–274. Qedem 33. Jerusalem: Hebrew University.

Gadot, Yuval, and Yonatan Adler. 2016. "A Quantitative Analysis of Jewish Chalk Vessel Frequencies in Early Roman Jerusalem: A View from the City's Garbage Dump." *Israel Exploration Journal* 66 (2): 202–19.

Gal, Zvi. 1991. "A Stone Vessel Manufacturing Site in the Lower Galilee." [In Hebrew.] *'Atiqot* 20:25*–26* [English abstract, 179–80].

Geva, Hillel. 2006a. "A Proposal for Jerusalemite Stone Vessel Typology of the Second Temple Period." [In Hebrew.] In *New Studies on Jerusalem*. Vol. 11, edited by Eyal Baruch, Zvi Greenhut, and Avraham Faust, 193–200. Ramat Gan: Bar-Ilan University.

Geva, Hillel. 2006b. "Stone Artifacts." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*, by Hillel Geva. Vol. 3, *Area E and Other Studies*, 218–38. Jerusalem: Israel Exploration Society.

Geva, Hillel. 2010. "Stone Artifacts." *In Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*, edited by Hillel Geva. Vol. 4, *The Burnt House of Area B and Other Studies*, 154–212. Jerusalem: Israel Exploration Society.

Geva, Hillel. 2014. "Stone Artifacts from Areas J and N." In Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report, edited by Hillel Geva. Vol. 6, Areas J, N, Z and Other Studies, 272–87. Jerusalem: Israel Exploration Society.

Gibson, Shimon. 1983. "The Stone Vessel Industry at Ḥizma." *Israel Exploration Journal* 33 (3/4): 176–88.

Gibson, Shimon. 1996. "Tell el Ful and the Results of the North-East Jerusalem Survey." In *New Studies on Jerusalem: Proceedings of the Second Conference*, edited by Avraham Faust, 9*–23*. Ramat Gan: Bar-Ilan University.

Gibson, Shimon. 2003. "Stone Vessels of the Early Roman Period from Jerusalem and Palestine: A Reassessment." In *One Land, Many Cultures: Archaeological Studies in Honour of Stanislao Lofredda, OFM*, edited by G. Claudio Bottini, Leah Di Segni, and L. Daniel Chrupcała, 287–308. Studium Biblicum Franciscanum, Collectio major 41. Jerusalem: Franciscan Printing Press.

Gibson, Shimon. 2016. "Soft Limestone Vessels." In *Gamla III: The Shmarya Gutmann Excavations, 1976–1989; Finds and Studies*, by Danny Syon, 49–81. Pt. 2. IAA Reports 59. Jerusalem: Israel Antiquities Authority.

Gibson, Shimon. 2022. "Common and Uncommon Jewish Purity Concerns in City and Village in Early Roman Palestine and the Flourishing of the Stone Vessel Industry: A Summary and Discussion." *Journal for the Study of Judaism* 53: 1–41.

Gibson, Shimon, and Rafael Y. Lewis. 2019. "The Subterranean Tunnel System beneath Christ Church near Jaffa Gate: Evidence of Guerilla Warfare and a Refugee Hideaway from the Time of Titus' Siege of Jerusalem." In *New Studies in the Archaeology of Jerusalem and Its Region*, edited by Orit Peleg-Barkat, Yehiel Zelinger, Joe Uziel, and Yuval Gadot, 18*–56*. Collected Papers 13. Jerusalem: Israel Antiquities Authority.

Kloner, Amos. 1987. "Pottery and Miscellaneous Finds in the Hiding Complexes." In *The Hiding Complexes in the Judean Shephelah* [in Hebrew], edited by Amos Kloner and Yotam Tepper, 338–60. Tel Aviv: Hakibbutz Hameuchad.

Magen, Yitzhak. 2002. *The Stone Vessel Industry in the Second Temple Period: Excavations at Ḥizma and the Jerusalem Temple Mount*. Judea and Samaria Publications 1. Jerusalem: Israel Exploration Society.

Mutz, Alfred. 1978. "Die Jüdische Steindreherei in Herodianischer Zeit: Ein technologische Untersuchung." *Technikgeschichte* 45 (4): 291–320.

Pritchard, James B. 1964. *Winery, Defenses, and Soundings at Gibeon*. Museum Monographs. Philadelphia: University of Pennsylvania Press.

Rahmani, L. Y. 1994. *A Catalogue of Jewish Ossuaries: In the Collections of the State of Israel*. Jerusalem: Israel Antiquates Authority.

Reich, Ronny. 2003. "Stone Vessels, Weights and Architectural Fragments." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Reports*. Vol. 2, *The Finds from Area A, W and X-2*, by Hillel Geva, 263–91. Jerusalem: Israel Exploration Society.

Reed, Jonathan L. 2009. "Chalkstone Vessels." In *Excavations at Ancient Nabratein: Synagogue and Environs*, by Eric M. Meyers and Carol L. Meyers, 296–305. Meiron Excavation Project Reports 4. Winona Lake, IN: Eisenbrauns.

Reed, Jonathan L. 2018. "Stone-Vessel Assemblage." In *Sepphoris III: The Architecture, Stratigraphy, and Artifacts of the Western Summit of Sepphoris*, edited by Eric M. Meyers, Carol L. Meyers, and Benjamin D. Gordon, 2:749–67. University Park, PA: Eisenbrauns.

Rogovski, Tal, Orit Peleg-Barkat, Terem Shulamit, and Boaz Zissu. 2018. "Back to Horvat Midras: Preliminary Report on the Archaeological Survey and Documentation of Underground Cavities (2015–2016)." [In Hebrew.] *In the Highland's Depth* 8:103–22.

Sagiv, Nachum, and Boaz Zissu 1997. "Khorvat Tabaq at Tel Goded: A Jewish Site Which Was Destroyed after the Bar Kokhba Revolt." [In Hebrew.] *Judea and Samaria Research Studies* 7:115–39.

Shahar Yuval. 2003. "The Consequences of the Jewish War in Jerusalem and Its Vicinity: The Archaeological Testimony." [In Hebrew.] In *New Studies on Jerusalem*. Vol. 9, edited by Eyal Baruch, Uzi Leibner, and Avraham Faust, 105–21 [English abstract, 33*]. Ramat Gan: Bar-Ilan University.

Sherman, Maya, Zeev Weiss, Tami Zilberman, and Gal Yasur. 2020. "Chalkstone Vessels from Sepphoris: Galilean Production in Roman Times." *Bulletin of the American Schools of Oriental Research*, no. 383 (May): 79–95.

Sklar-Parnes, Deborah A., Yehudah Rapuano, and Rachel Bar-Nathan. 2004. "Excavations in North-East Jerusalem: A Jewish Site in between the Revolts." In *New Studies on Jerusalem*. Vol. 10, edited by Eyal Baruch and Avraham Faust, 35*–41*. Ramat Gan: Bar-Ilan University.

Ulrich, Roger B. 2007. *Roman Woodworking*. New Haven: Yale University Press.

Yadin, Yigael. 1963. *The Finds from the Bar Kokhba Period in the Cave of Letters*. Judean Desert Studies. Jerusalem: Israel Exploration Society.

Zilberstein Ayala, and Noga Nissim Ben Efraim. 2013. "The Stone Vessels and Furniture of the Early Roman Period." In *Jerusalem: Excavations in the Tyropoeon Valley (Giv'ati Parking Lot)*, by Doron Ben-Ami, 1:213–36. IAA Reports 52. Jerusalem: Israel Antiquities Authority.

Zissu, Boaz. 2001. "Rural Settlement in the Judean Hills and Foothills: From the Late Second Temple Period to the Bar Kokhba Revolt." [In Hebrew with English abstract.] PhD diss., Hebrew University of Jerusalem.

Zissu, Boaz. 2015. "Grafitto of a Ship and a Boat." In *Herodium: Final Report of the 1972–2010 Excavations Directed by Ehud Netzer*. Vol. 1, *Herod's Tomb Precinct*, edited by Roi Porat, Rachel Chachy, and Yakov Kalman, 511–14. Jerusalem: Israel Exploration Society.

9. Glass Vessels

Abigail Leavitt and Scott Stripling

Excavations at Khirbet el-Maqatir yielded 175 glass fragments dating from the Hellenistic period to the Islamic period. The typology and time period of 102 pieces are identifiable. The bulk of the glass dates to the Early Roman period and the Byzantine period. The glass is organized chronologically and sorted typologically. Yael Gorin-Rosen assisted in classification.

Hellenistic and Early Roman Vessels

Cast Bowls

The technique of mold-casting glass vessels began in the Hellenistic period. Most glass vessels from this period were open bowls, as these were the most easily molded (Israeli 2003, 73). Many mold-cast glass bowls from this period featured two or three decorative grooves around the edge (fig. 9.1). Cast bowls went out of style with the invention of glass blowing, but some colorless cast bowls seem to date to the Early Roman period, contemporaneous with blown vessels.

Excavations at Khirbet el-Maqatir produced five cast-bowl rim fragments (fig 9.2; table 9.1). Two are yellowish-green, one is brownish, and two are colorless (fig. 9.3). Of these fragments, four feature double interior-cut grooves. The fifth displays one interior groove, but it is possible that a second groove may have existed below the break in the glass. Sites such as Magdala (Zapata-Meza et al. 2018, 110), Akko (Gorin-Rosen 2016, 115–16), Jerusalem (Gorin-Rosen 2006a, 240), and Gamla (Jackson-Tal 2016a, 12, 14) yielded similar bowls. The colored cast bowls date to the Hellenistic period, while the colorless cast bowls likely date to the Early Roman period. Similar glass pieces from Jerusalem date to the Early Roman period (Gorin-Rosin 2006a, 240).

Early Roman Vessels

Bowls and Beakers

Early Roman bowls and beakers exhibit similar characteristics. Both tend to feature thin-blown glass (usually greenish) and have comparable bases. Thus, it can be difficult to distinguish bowls from beakers—unless the fragments are highly diagnostic—because normally they vary only in shape. Excavations at Khirbet el-Maqatir yielded 22 bowl and beaker fragments (figs. 9.4–5; table 9.2).

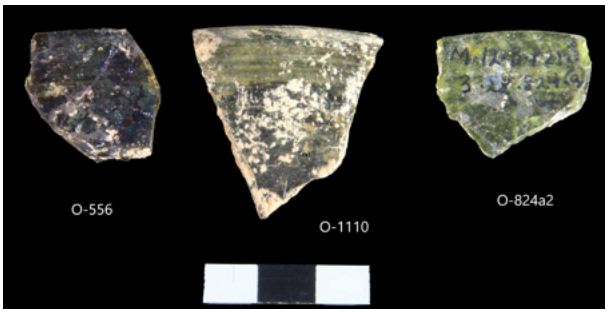


Figure 9.1. Hellenistic cast bowls.
Photograph by Michael C. Luddeni.

Fragments of eight beakers came from the excavation (fig. 9.6). One included both the rim and the base. It is of a type common to the first century CE and featured an everting rim, bag-shaped body, and pushed-up ring base. Parallels exist from Gamla, Ras Abu Ma'Aruf, and Khirbet Nisya (Jackson-Tal 2016a, 107; Gorin-Rosen 1999a, 208, Livingston 2003, 175). Of the remaining fragments, five were rims: two everted, two upright, and one with a narrow, everting neck leading to a bag-shaped body. The everted beaker fragments are similar to one from Alon Shevut (Gorin-Rosen 1999b, 87), while parallels to the upright and the bag-shaped pieces appeared at Gamla (Jackson-Tal 2016a, 107). Two additional bases complete the collection of beakers. Both are ring-bases with pushed-up centers. Similar beaker bases from Ras Abu Ma'Aruf date to the Early Roman period (Gorin-Rosen 1999a, 208).

Eight glass sherds from Khirbet el-Maqatir are identifiable as bowl fragments. They include one pushed-up ring base, similar to an example from Alon Shevut (Gorin-Rosen 1999b, 89), two shallow bowl rims (one is mendable and includes a base fragment), and three crimped-trail pieces. The shallow bowls are similar to pieces from Shu'fat (Katsnelson 2006, 164). The crimped-trail bowl fragments represent a popular form from the first century CE. Crimped-trail bowls appeared at almost every Judean site occupied in the late first and second centuries CE (Katsnelson 2006, 164). One fragment (Object 2542), however, is a rare type of crimped-trail bowl featuring a decorative bowed handle on the rim (fig. 9.7). The remaining two bowl fragments feature double-folded tubular rings. Katznelson, speaking of a similar vessel from Shu'fat, notes that this form is rare in Judea (2006, 164).

In addition to the sherds which are identifiable as either beakers or bowls, the Khirbet el-Maqatir collection

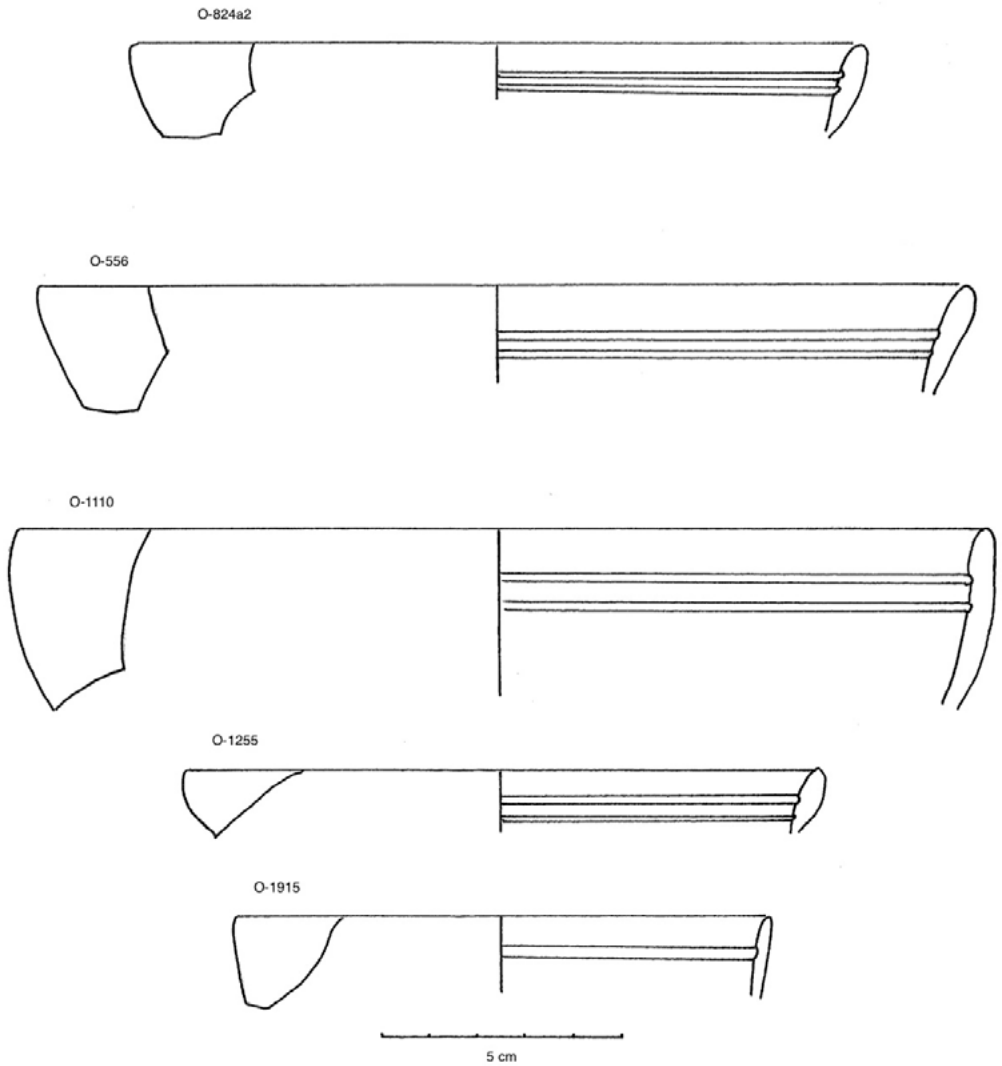


Figure 9.2. Hellenistic and Early Roman cast bowls. Drawing by Abigail Leavitt.

Table 9.1. Hellenistic and Early Roman cast bowls

No.	Description	Color	Dimensions	Diameter	Elevation
556	Rim, two internal grooves	Brownish	2.6 × 2.5 × 0.5	19	874.29
824(a2)	Rim, two internal grooves	Yellow-green	2.2 × 2.4	15	874.82
1110[a]	Rim, two internal grooves	Yellow-green	4.0 × 3.7 × 0.4	20	871.89
1255	Rim, two internal grooves	Colorless	3.6 × 4.0 × 1.6	13	. . .
1915	Rim, one internal groove	Colorless	1.7 × 1.6 × 0.3	11	875.29

Note: All sherds are only partially preserved unless indicated otherwise.
[a] ADCA no. 041223.



Figure 9.3. Colorless cast bowls. Photograph by Michael C. Luddeni.

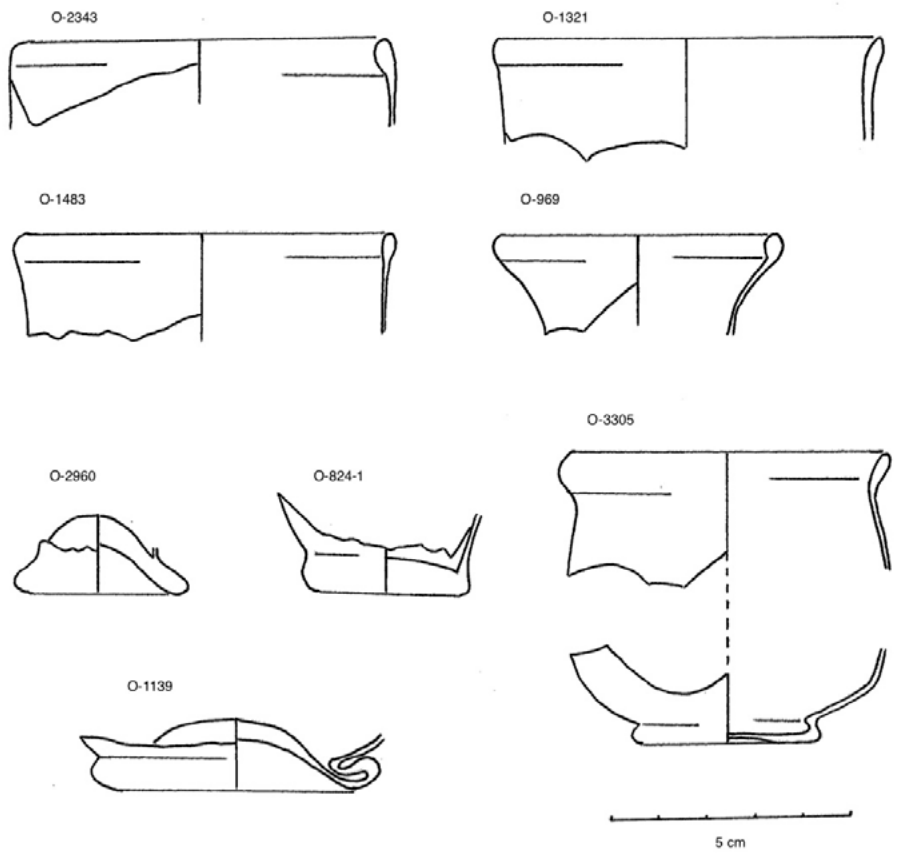


Figure 9.4 Early Roman bowls and beakers (1 of 2). Drawing by Abigail Leavitt.

Table 9.2. Early Roman bowls and beakers

No.	Description	Color	Dimensions	Diameter	Elevation
144	Bowl or beaker rim	Blue-green	3.4 × 1.6 × 0.2	. . .	870.88
660	Bowl rim and base[a]	Bluish	41.0 × 3.0	. . .	875.00
824-1	Beaker base[b]	Blue-green	3.8 × 2.5	3.7	874.82
824(b)3	Pushed-up ring base[b]	Blue	5.9 × 1.7	4.5	874.82
969	Narrow-neck beaker rim	Blue-green	4.4 × 2.4	6.0	. . .
1139	Pushed-up bowl, ring base[b]	Green	6.5 × 1.4	5.9	867.72
1321	Upright beaker rim	Yellow-brown	4.8 × 2.2 × 0.2	8.0	875.42
1415	Bowl rim	Green	6.4 × 2.1 × 0.5	39.0	. . .
1483	Everted beaker rim	Blue	2.5 × 3.1	8.0	872.09
1584	Flat bowl or beaker base	Yellow-green	2.2 × 2.2	4.0	. . .
1586	Flat bowl or beaker base	Blue-green	2.6 × 1.9 × 0.2	4.0	. . .
2245	Bowl or beaker rim	Green	2.7 × 2.5 × 0.5	0.7	874.65
2343	Everted beaker rim	Blue	3.9 × 1.9 × 0.2	8.0	. . .
2542	Crimped-trail bowl rim	Blue-green	9.5 × 1.6 × 1.6	14.0	874.31
2776	Crimped-trail bowl rim	Bluish	2.0 × 1.0 × 0.7	. . .	. . .
2896	Crimped-trail bowl rim	Blue-green	2.6 × 1.0 × 0.3	15.0	874.18
2958	Double-fold bowl base	Blue-green	6.0 × 2.8 × 0.5	16.0	874.12
2960	Pushed-up ring base[b]	Brownish	3.7 × 1.5	3.7	. . .
2964	Rim with white trail	Bluish	1.6 × 0.7 × 0.3	16.0	872.37
2965	Flat bowl or beaker base	Yellow-green	3.1 × 1.6 × 0.6	4.0	875.09
2967	Double-fold bowl base	Blue-green	8.8 × 2.3 × 0.5	20.0	872.78
3305	Beaker rim and base[c]	Green	2.5 x 0.3; 2.3 x 0.1	6.5; 3.8	. . .

[a] Five fragments.
[b] Entire base preserved.
[c] Two pieces: partial narrow-neck rim and entire pushed-up ring base.

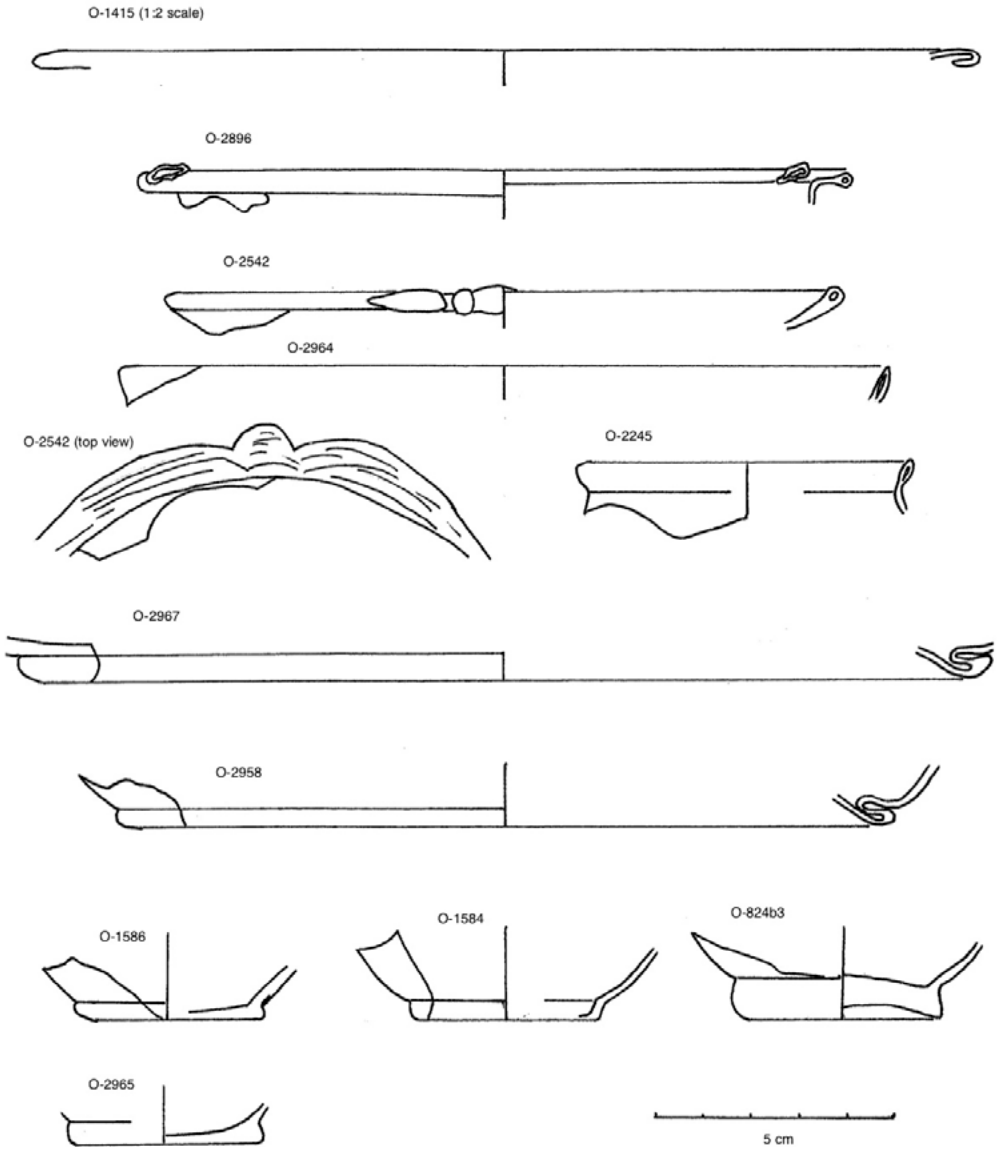


Figure 9.5 Early Roman bowls and beakers (2 of 2). Drawing by Abigail Leavitt.

includes six fragments which are recognizable only as beaker or bowl sherds (fig. 9.8). Four of these pieces are bases, while two are rims. Of the bases, three feature flat, solid bottoms similar to vessels from Binyanei Ha'Uma (Gorin-Rosen 2005, 199). The remaining base is a pushed-up ring base comparable to ones from Alon Shevut (Gorin-Rosen 1999b, 89) and Khirbet Nisya (Livingston 2003, 175). Of the rims, one is unremarkable, while the other features a white trail. They resemble pieces from Gamla (Jackson-Tal 2016a, 20) and Ras Abu Ma'Aruf (Gorin-Rosen 1999a, 207).

Perfume Flasks

The Early Roman glass assemblage at Khirbet el-Maqatir includes eight fragments of piriform or candlestick bottles (figs. 9.9–9.10; table 9.3). Two are rims, and six are base fragments. One is a ledge rim, in-folded and flattened. Parallels exist from Paneas (Gorin-Rosen and Jackson-Tal 2008, 143) and Magdala (Zapata-Meza et al. 2018, 114). The second rim-piece is in-folded and flattened like pieces from Shu'fat dating to the late first to second centuries CE (Katsnelson 2006, 166). Five of the base fragments feature pushed-up bottoms. The sixth has a flat bottom. Parallels exist from Gamla (Jackson-Tal 2016a, 27).

Jugs

In the Early Roman period, large jugs formed by mold-blowing were common. They were often polygonal with varying numbers of sides. Excavation in the large, northwest tower and the olive-press cave at Khirbet el-Maqatir yielded five jug fragments (figs. 9.11–12; table 9.4). One rim sherd, two handle sherds, one shoulder sherd (consisting of two fragments), and one base sherd

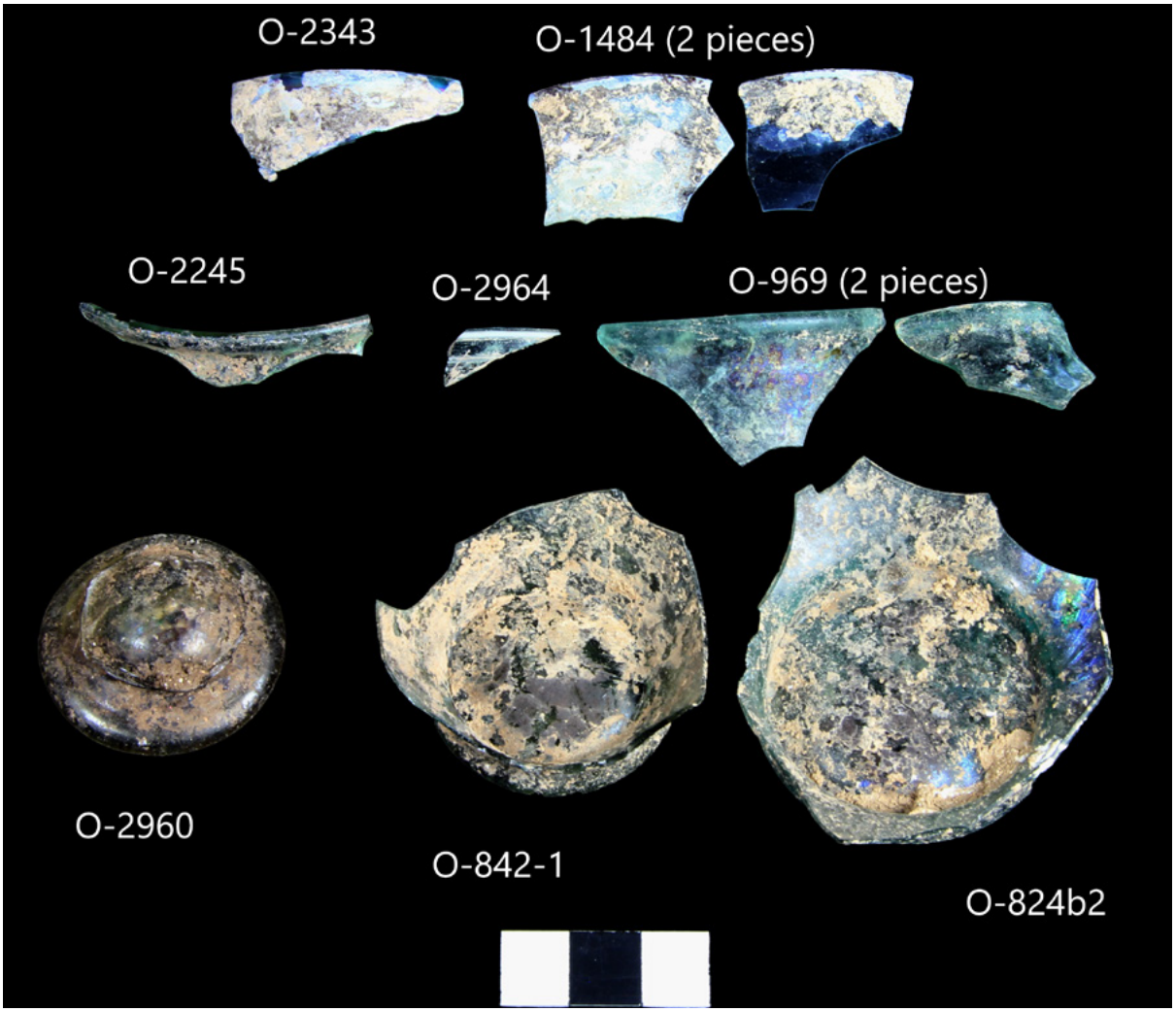


Figure 9.6 Early Roman bowls and beakers. Photograph by Michael C. Luddeni.



Figure 9.7. Decorative bowed handle, Object 2542. Photograph by Michael C. Luddeni.

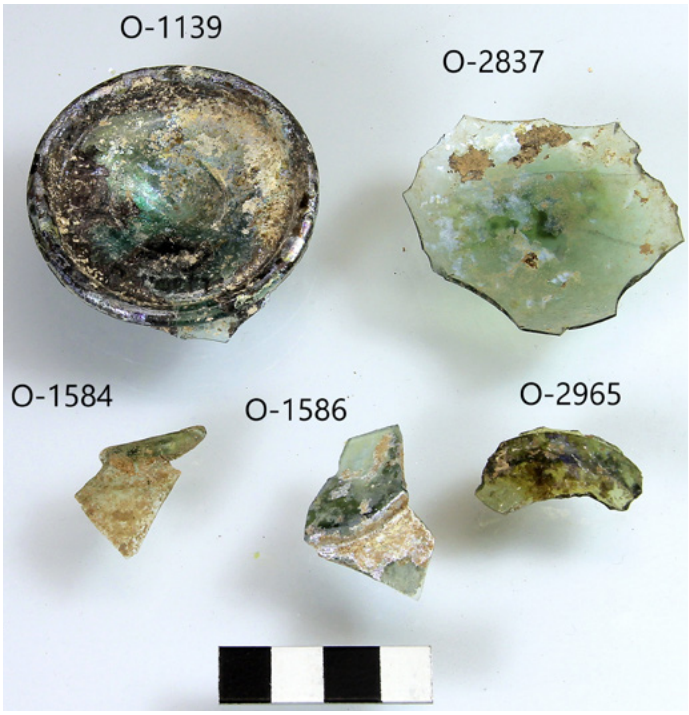


Figure 9.8. Bowl and beaker bases. Five of six vessels shown. Photograph by Michael C. Luddeni.

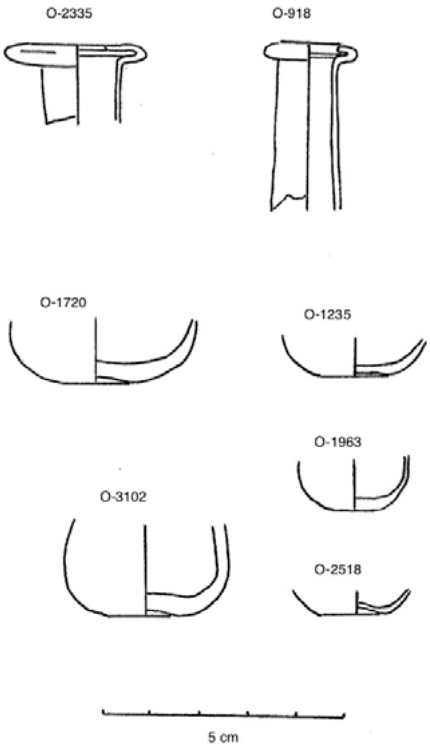


Figure 9.9. Early Roman perfume flasks. Seven of eight vessels shown. Drawing by Abigail Leavitt.



Figure 9.10. Bottle fragments. Seven of eight vessels shown. Photograph by Michael C. Luddeni.

Table 9.3. Early Roman perfume flasks

No.	Description	Color	Dimensions	Diameter	Elevation
918	Rim	Yellow-green	3.6 × 3.6 × 1.8	1.8	. . .
1235	Pushed-up base	Blue	2.85 × 2.78 × 0.1	3.5	875.13
1720	Pushed-up base	Blue	4.0 × 2.6 × 0.2	3.6	873.62
1963	Flat base	Greenish	2.0 × 1.4 × 0.6	2.0	875.11
2335	Rim	Purple-blue	3.0 × 1.6	3.0	873.68
2518	Pushed-up base	Blue-green	3.6 × 3.1 × 0.1	3.0	874.42
3102	Pushed-up base	Bluish	2.0 × 1.8 × 2.6	6.0	. . .
2837	Pushed-up base	Blue-green	5.2 × 5.0 × 0.2	. . .	871.63

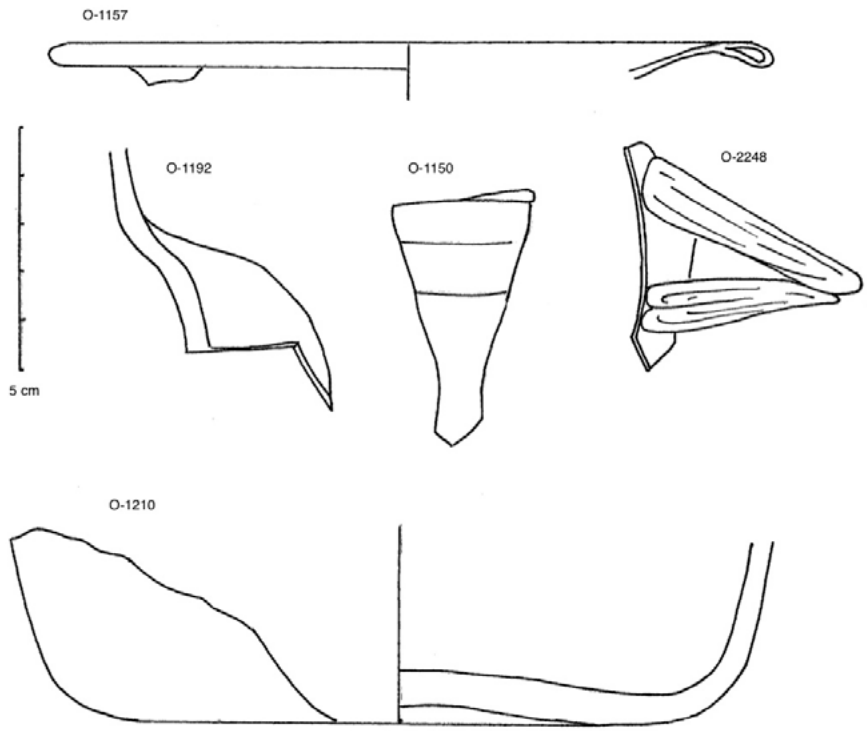


Figure 9.11. Early Roman jugs. Drawing by Abigail Leavitt.

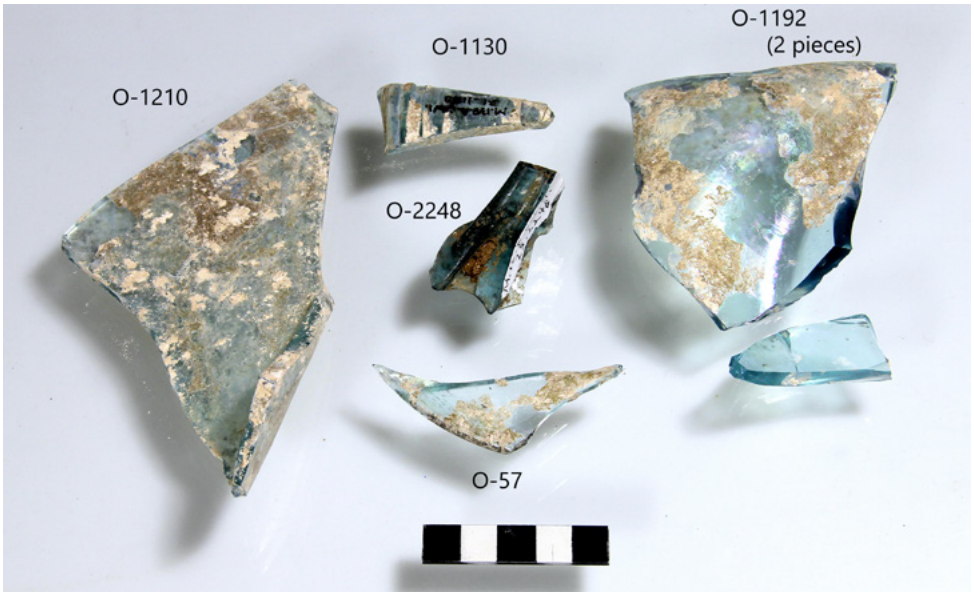


Figure 9.12. Jug fragments. Photograph by Michael C. Luddeni.

Table 9.4. Early Roman jugs

No.	Description	Color	Dimensions	Diameter	Elevation
1150	Upper handle	Blue	5.2 × 2.9 × 0.9		869.25
1157	Rim	Blue	5.0 × 4.2 × 0.5	15	869.25
1192	Shoulder	Blue	11.3 × 9.9 × 0.5	24	868.65
1210	Base	Blue	14.4 × 0.5	. . .	. . .
2248	Handle	Blue	4.8 × 0.9 × 0.2		869.17

complete the collection. Similar jugs were among the Early Roman findings at Gamla (Jackson-Tal 2016a, 23), Magdala (Zapata-Meza et al. 2018, 115), and Shu'fat (Katsnelson 2006, 166).

Assemblage from Square P21

This collection of sherds from Square P21 offers a fascinating look at the variety of glass vessels in a first-century home (figs. 9.13–14; table 9.6). It represents only a portion of the glass sherds found in Square P21. Being found closely grouped, these sherds were collected and labeled together in hopes of recovering a mendable vessel. Upon further examination, however, they include a wide variety of vessels, providing a glimpse into a first-century CE "kitchen cupboard."

The Square P21 assemblage clearly dates to the Early Roman period and consists of both cast and blown vessels. The three cast-bowls are linear-cut bowls featuring grooves on the inside. In publishing similar bowls from Gamla, Jackson-Tall notes that linear-cut bowls are very similar to Hellenistic cast-bowls but differ in size and shape (2016a, 10).

Also included in the Square P21 collection is a mold-blown ribbed bowl. It is similar to examples from Gamla (Jackson-Tal 2016a, 16).

Bowls and beakers include flat-bottomed bowls, a pushed-up ring base, a double-fold ring base, and several rim fragments. The sections on bowls and beakers and candlestick bottles present parallels for the Square P21 assemblage.

Other Forms

In addition to the previously mentioned Early Roman glass vessels, excavations produced several other Early Roman forms (table 9.5). These forms are distinct but do not fit into the above categories.

One fragment represents a typical cast ribbed bowl (Object 409). According to Jackson-Tal, these bowls date to the first century CE but no later than 70 CE. She documents several examples found at Gamla (2016a, 13–14). Parallels also exist from Magdala (Zapata-Meza et al. 2018, 112).

The Khirbet el-Maqatir collection includes one aryballos fragment (Object 3130). Although aryballoi typically date to the second century CE, some date to the second half of the first century (Gorin-Rosen 2005, 200). Based on the context of this piece, it probably dates to the late first century, shortly before 70 CE. The form compares to an aryballos from Shu'fat (Katsnelson 2006, 165) and one at Magdala (Zapaa-Meza et al. 2018, 114).

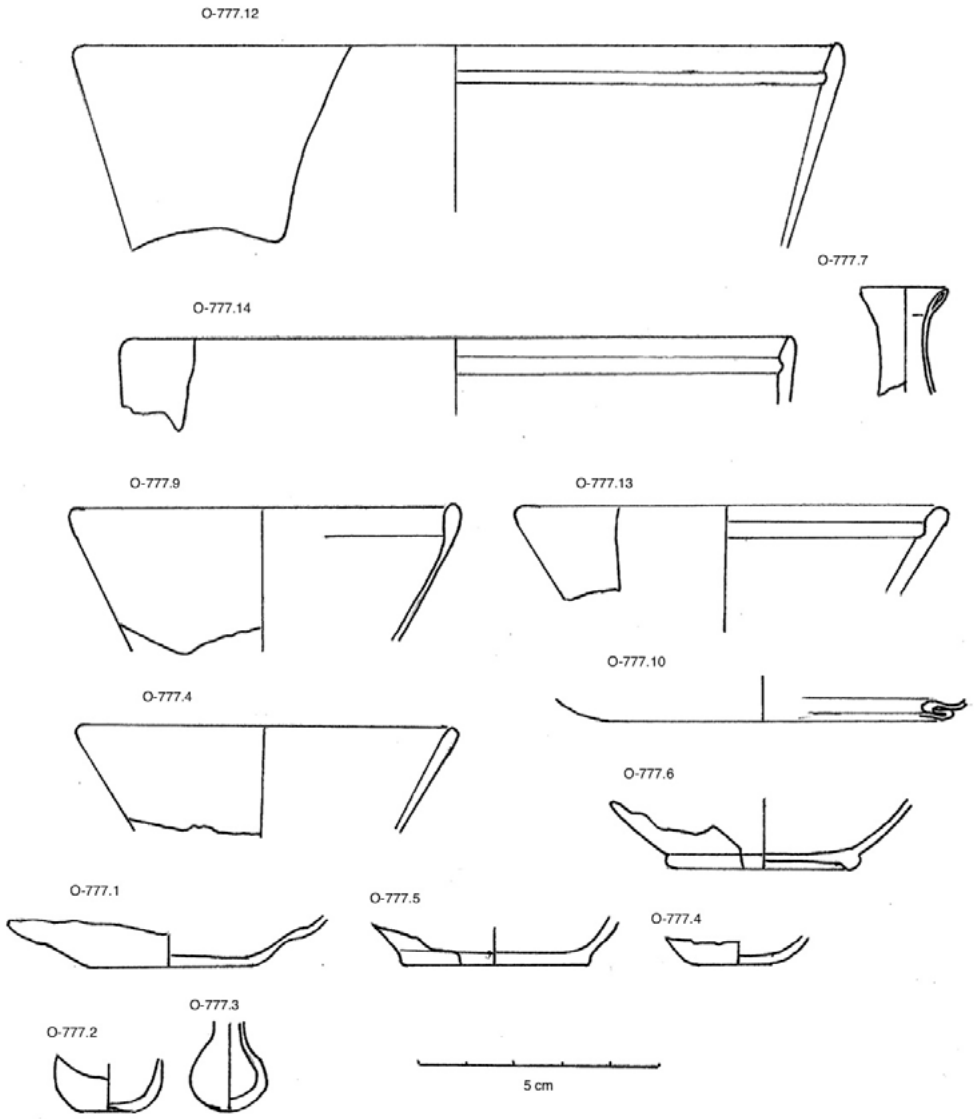


Figure 9.13. Early Roman assemblage from Square P21. Drawing by Abigail Leavitt.

Table 9.5. Other Early Roman forms

No.	Description	Color	Dimensions	Diameter	Elevation
409	Cast ribbed bowl	Clear-green	4.1 × 1.1 × 0.3	. . .	873.55
1257	Out-folded ridge	Blue	5.2 × 1.9 × 0.1	8.0	. . .
1880	Amber flat base	Amber or brown	4.8 × 1.7 × 2.1	5.0	875.80
2629	Rod	Cobalt	2.5	0.5	. . .
3130	Aryballos handle	Yellow-green	2.5 × 1.9 × 2.1	6.0	. . .



Figure 9.14. Square P21 glass assemblage. Photograph by Michael C. Luddeni.

Table 9.6. Early Roman assemblage from Square P21

No.	Description	Color	Diameter
777-1	Flat bowl base	Yellow-green	4
777-2	Candlestick bottle base	Blue	2.4
777-3	Candlestick bottle base	Blue-green	. . .
777-4	Candlestick bottle base	Purple-blue	. . .
777-5	Flat bowl base	Yellow-green	4.0
777-6	Flat bowl base	Blue-green	4.0
777-7	Candlestick bottle rim[a]	Blue	1.7
777-8	Bowl rim	Blue-green	8.0
777-9	Beaker rim	Blue	8.0
777-10	Double-folded base	Blue	8.0
777-11	Out-folded ridge	Blue	14.0
777-12	Cast-bowl rim with interior ridge	Clear-green	16.0
777-13	Cast-bowl rim with interior groove	Blue	9.0
777-14	Cast-bowl rim with interior ridge	Blue	14.0
777-15	Ribbed bowl sherd	Blue	9.0

[a] Entire rim preserved.

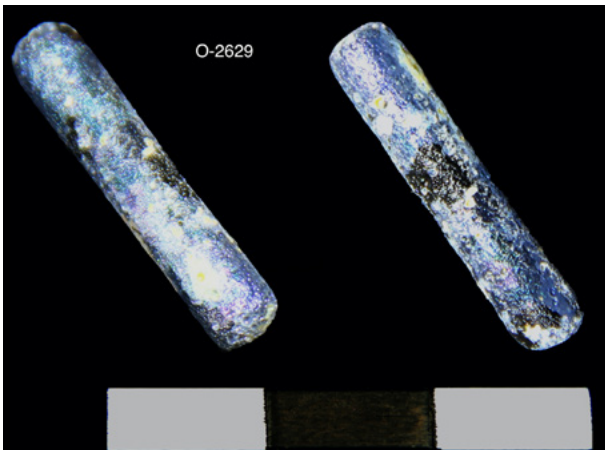


Figure 9.15. Glass rod, Object 2629.
Photograph by Michael C. Luddeni.

A partial glass rod (Object 2629) is part of this collection (fig. 9.15). According to Jackson-Tal (2016b, 200), glass rods functioned in multiple ways, serving as applicators, hair ornaments, or stirrers. She records several from Gamla.

One fragment in the collection (Object 1257) features an out-folded horizontal ridge across the body of the vessel. It may be part of a beaker or bowl, but the sherd is not large enough to read with certainty.

The final sherd in this collection is a flat base, probably belonging to a bowl or beaker (Object 1880). It is noteworthy for its deep amber color which, according to Gorin-Rosen (2018), indicates that it is an imported ware.

Second-Century CE Vessels

While most Early Roman glass at Khirbet el-Maqatir dates to the first century CE, three sherds, all from Cavern 1 (an olive-press cave that was repurposed as a hiding system), date to the second century, probably from the Bar Kokhba revolt (fig. 9.16; table 9.7). All three pieces are rim sherds (fig. 9.17). Two of them are bowls, while the third is a plate or a very shallow bowl. Of the

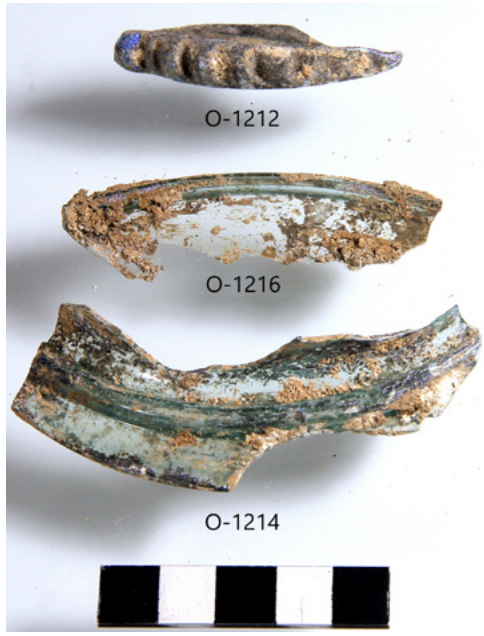


Figure 9.17. Second-century CE vessels.
Photograph by Michael C. Luddeni.

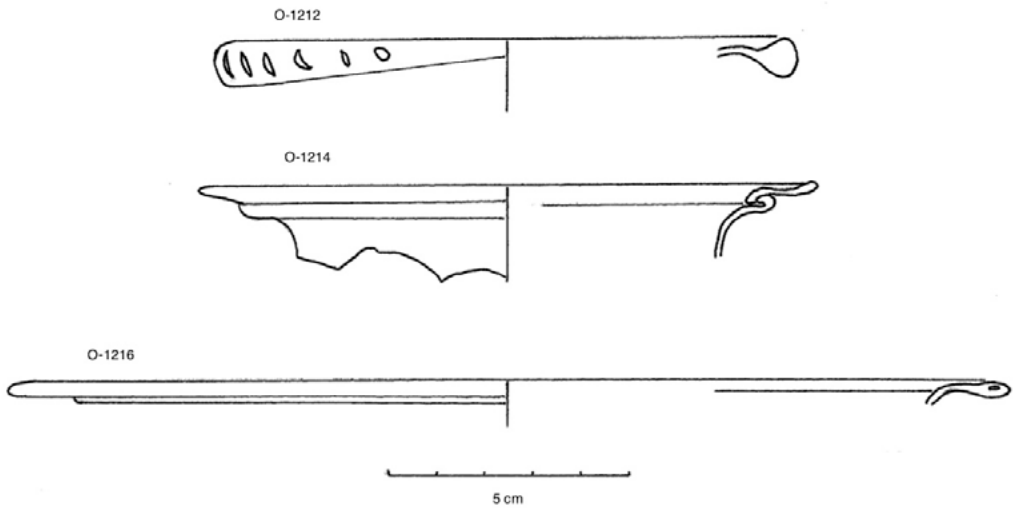


Figure 9.16. Second-century CE vessels. Drawing by Abigail Leavitt.

Table 9.7. Second-century CE vessels

No.	Description	Color	Dimensions	Diameter
1212	Crimped-trail bowl rim	Blue-green	5.2 × 1.6 × 1.0	12
1214	Double-fold bowl rim	Blue-green	8.7 × 2.5 × 0.5	13
1216	Plate rim	Blue	6.8 × 2.0 × 0.3	21

two bowls, one features a crimped-trail decoration, while the other has a double-folded ledge below the rim. The second-century glass at Khirbet el-Maqatir finds close parallels in pieces from Binyanei Ha'Uma (Gorin-Rosen 2005, 199) and Khirbet Nisya (Livingston 2003, 175).

Byzantine Vessels

Oil Lamps

Byzantine monasteries typically yield many fragments of glass oil lamps. The collection of glass oil lamp sherds from the ecclesiastical complex at Khirbet el-Maqatir demonstrates two distinctive styles of lamps. The first type, three-handled lamps, are typically beaker-shaped with a pushed-in base and an out-folded rim. They sometimes feature a wick tube in the center. Three evenly-spaced handles around the rim provide a means of hanging the lamp. The second oil lamp type is bowl-shaped with a hollow stem. The ecclesiastical complex at Khirbet el-Maqatir yielded seventeen oil lamp fragments: six handles, four rim fragments, three wick tubes, and four conical stem bases (fig. 9.18, table 9.8). Thirteen of these fragments were selected for drawing (fig. 9.19).

Four handle fragments are ear-shaped and feature the lower connection to the wall of the vessel. The upper connection point, which attaches to the rim of the vessel, is present only on one of the four examples. The other two handle fragments are rounded with a pinched thumb-rest.

Three rim fragments feature out-folded rims typical of three-handled lamps. A broken-off fragment of a handle clings to one of the rim fragments. The fourth rim fragment is very delicate and features a flaring rim.

The three wick tubes, belonging to the three-handled type lamp, include small portions of the pushed-in bases of the vessels. Two wick tubes are partial, while the third offers a full profile from rim to base.

The stem bases are hollow. They taper toward their lower ends, which then round into flat pontil scars. These pieces belong to bowl-shaped oil lamps.

Excavations which have yielded similar oil lamps include Shiloh (Andersen 1985, 97), Khirbet Nisya (Livingston 2003,175), Horbat 'Uza (Gorin-Rosen 2009, 98), Tiberias (Amitai-Preiss 2004, 182–83), the Jewish Quarter (Gorin-Rosen 2003, 384), Horbab Rozez (Winter 2010, 153), and Ras Abu Ma'Aruf (Gorin-Rosen 1999a, 212).



Figure 9.18. Byzantine glass oil-lamp fragments. Ten of seventeen vessels shown. Photograph by Michael C. Luddeni.

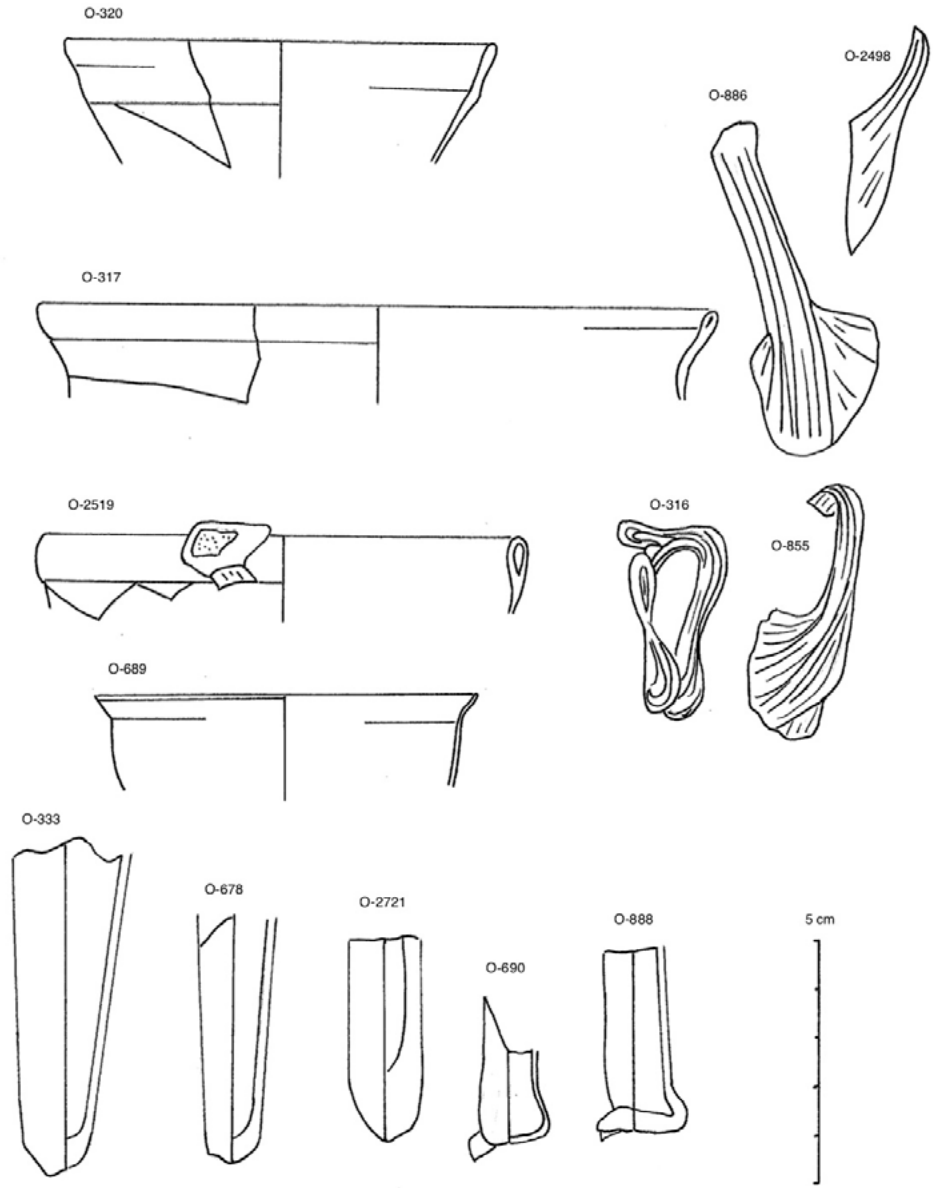


Figure 9.19. Byzantine glass oil lamps. Drawing by Abigail Leavitt.

Table 9.8. Byzantine oil lamps

No.	Description	Color	Dimensions	Diameter	Elevation
316a	Handle[a]	Blue-green	4.3 × 2.2		888.07
317	Out-folded Rim	Transparent blue	4.6 × 2.1 × 0.2	14.0	888.77
320	Out-folded Rim	Green	2.7 × 2.3 × 0.1	9.0	999.96
333	Hollow stem base	Blue-green	6.8 × 1.9	2.0	889.15
678	Hollow stem base	Dark yellow-green	5.3 × 1.3	1.5	887.77
689	Delicate rim	Yellow-green	4.5 × 2.0 × 0.05	8.0	887.97
690	Wick tube[b]	Green	2.5 × 0.7	1.3	887.97
885	Handle	Yellow-green	5.3 × 2.3	8.0	887.15
886	Handle	Green	7.3 × 2.5		887.03
888	Wick tube[c]	Blue-green	4.0 × 1.7	1.0	887.07
2498	Handle	Green	4.6 × 1.9		872.02
2519	Out-folded rim	Yellow-green	6.0 × 1.0 × 0.4	10.0	888.88
2721	Hollow stem base	Blue	4.0 × 1.4 × 1.5	1.6	887.50

[a] Handle completely preserved.
[b] Tube half preserved.
[c] Full profile of tube preserved.

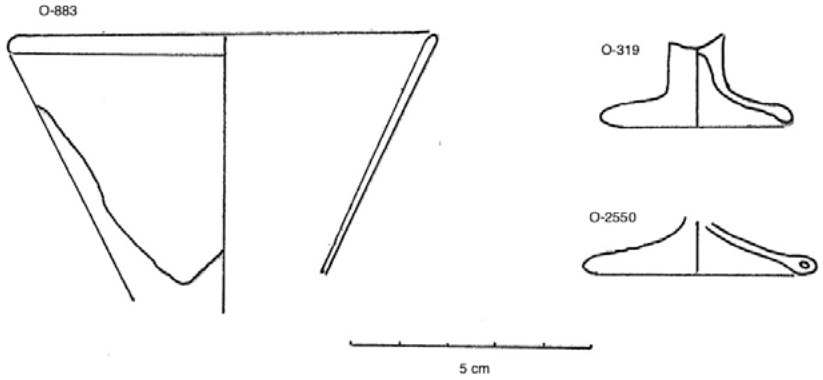


Figure 9.20. Byzantine wineglasses. Three of six vessels shown. Drawing by Abigail Leavitt.

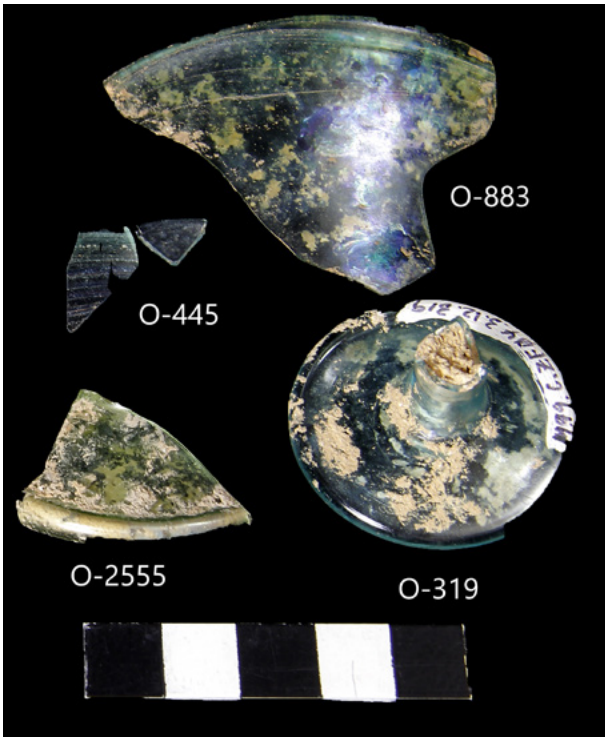


Figure 9.21. Wineglass fragments. Four of six vessels shown. Photograph by Michael C. Luddeni.

Wineglasses

Excavations in the Byzantine monastery at Khirbet el-Maqatir yielded six wineglass fragments (fig. 9.20–21; table 9.9). The design of Byzantine wineglasses closely resembles goblets still in use today. Of the six pieces, three are bases and three are rims.

The bases are four to five centimeters in diameter. One of them, Object 319, is a complete base and includes part of a hollow stem 1.1 cm in diameter. A second piece, Object 222, includes the center of the base and part of the stem. Although the edges are too chipped to identify, it is probably of the same style. Excavations at Shiloh (Andersen 1985, 96), Shiqmona (Gorin-Rosen 2010, 213), and Horbet Rozez (Winter 2010, 148) produced similar pieces from the late Byzantine period. The nearby site of Khirbet Nisya yielded a nearly identical piece (Livingston 2003, 175).

Of the three rim fragments, one is flared (Object 883), suggesting that the wineglass featured a conical-shaped bowl. It is nine centimeters in diameter. Excavations at Khirbet el-Batiya yielded similar vessels. There, they dated to the late Byzantine period (Gorin-Rosen 2006b, 31). The remaining two pieces feature decorations of four (Object 445) and six (Object 218) blue trails of varying widths running around the rim. This decoration is highly indicative of local glassware from Jerusalem and the surrounding region (Gorin-Rosen and Winter 2010, 167). Excavations at Ras Abu Ma'Aruf yielded a similar piece (Gorin-Rosen 1999a, 210).

Table 9.9. Byzantine wineglasses

No.	Description	Color	Dimensions	Diameter	Elevation
218	Rim with blue trails[a]	Blue-green	4.5 × 4.0 × 0.2	. . .	889.30
222	Base with partial stem[b]	Blue	3.4 × 2.7 × 1.1	. . .	888.70
319	Tubular ring base[c]	Blue	. . .	3.9	888.70
445	Rim with blue trails	Blue-green	0.8 × 1.3	. . .	. . .
883	Flared rim[a]	Blue-green	6.2 × 5.1	9.0	887.46
2550	Simple wineglass base[b]	Yellow-green	3.2 × 2.5 × 0.4	5.0	869.14

[a] Rim partially preserved.
[b] Base partially preserved.
[c] Entire base preserved.

Windowpanes

Two types of glass windowpanes typify the Byzantine period: rectangular and round. The construction of rectangular panes involved blowing cylinders, cutting them, and flattening them. Because of this, they usually display a rounded edge, two cut-edges, and a broken edge (Magen 2015, 341). Round panes typically feature an in-folded rim and a thickened center. Gorin-Rosen refers to them as "the bull's-eye type" (2005, 207). Both types of windowpanes were present in the Khirbet el-Maqatir ecclesiastical complex (table 9.10).

Two glass fragments from Khirbet el-Maqatir represent the rectangular windowpanes (fig. 9.22). One is thick and features a large bubble in the glass. A similar piece from Paneas dated to the late fourth to early fifth centuries CE (Gorin-Rosen and Jackson-Tal 2008, 152). The other piece is thinner and consists of four fragments. It came from a surface locus in an Early Roman area of the site (Field B) but belongs with the Byzantine finds because its form dates to the Byzantine period. It likely washed down the hill from the Byzantine area (Field C).

Excavations also produced six round glass window fragments (fig. 9.23), including one mendable pane (fig. 9.24). Three of the fragments are rim pieces, displaying the in-folded rim typical to Byzantine round windows. A similar piece from Jerusalem dated to the late Byzantine era (Gorin-Rosen 2005, 207). The final fragments encompass the thickened "bull's-eye" center of the windowpane.

Table 9.10. Byzantine windowpanes

No.	Description	Color	Dimensions	Diameter	Elevation
225	Round rim	Blue-green	6.45 × 2.15 × 0.5	22.0	888.70
334	Rectangular fragment	Greenish	7.4 × 2.9		887.27
652	Round center fragment	Yellow-green	11.0 × 10.5 × 0.4		888.87
659[a]	Round pane[b]	Green	. . .	22.5	887.97
829	Rectangular fragments[c]	Green-yellow	4.0 × 3.2 × 0.2		875.03
832	Round rim	Yellow-green	14.3 × 0.4 × 3.5	24.0	887.93
944	Round center fragment[d]	Green-blue	9.7 × 8.5 × 0.3		875.12
2606	Round rim	Green	6.8 × 4.0 × 0.5	25.0	888.07

[a] ADCA no. 044348.
[b] Mended object.
[c] Four fragments preserved.
[d] Three fragments preserved.

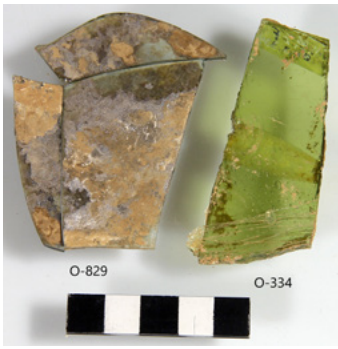


Figure 9.22. Rectangular windowpane fragments. Photograph by Michael C. Luddeni.

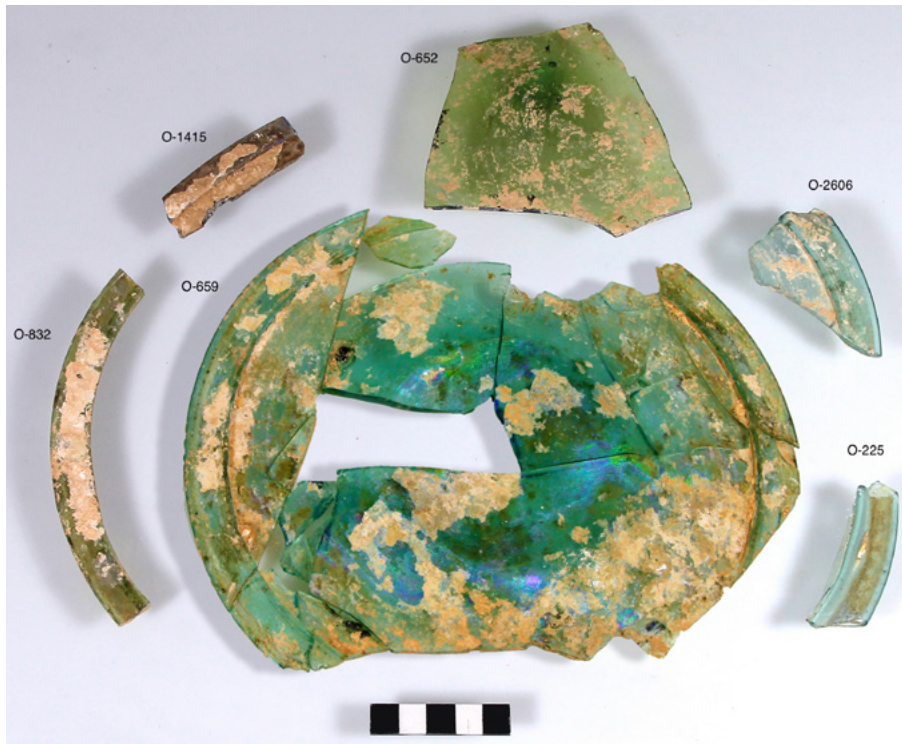


Figure 9.23. Round windowpane fragments. Photograph by Michael C. Luddeni.

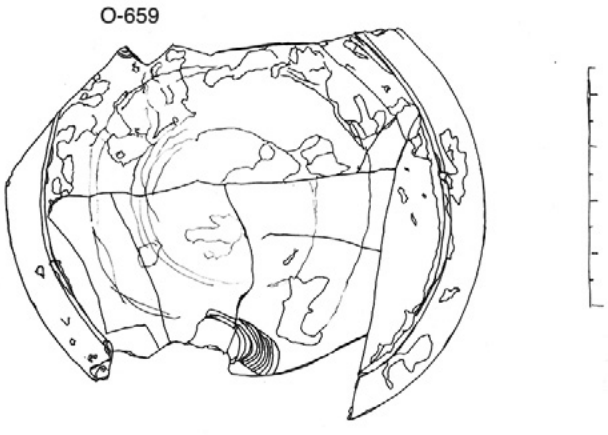


Figure 9.24. Round windowpane, Object 659.
Drawing by Melody Bogle.

Other Forms

In addition to the previously mentioned Byzantine glass vessels, excavations in the Khirbet el-Maqatir ecclesiastical complex yielded several other Byzantine forms. They include jugs, bottles, beakers, bowls, and pitchers (fig. 9.25; table 9.11).

Three fragments are identifiable as jugs. One (Object 857), a rim with a handle attached, probably dates to the fourth century CE and parallels one currently housed in the Israel Museum (Israeli 2003, 179). Another (Object 878), a ribbed handle, may have belonged to a ceremonial pitcher. It is similar to a fourth-century example in the Israel Museum (Israeli 2003, 175). This derives from the earliest phase of the ecclesiastical complex. The third piece (Object 2966) represents the neck of a jug. It is recognizable due to thirteen wound trails decorating the glass fragment. This type of decoration emerged around the fourth century CE (Winter 2010, 152). Parallels exist from the Monastery of Martyrius (Magen 2015, 339–40) and Horbat Rozez (Winter 2010, 152).

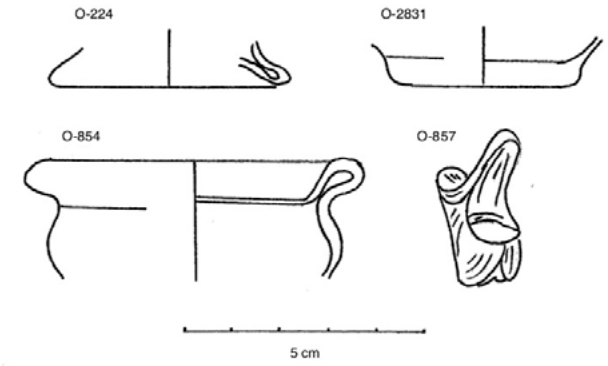


Figure 9.25. Other Byzantine forms.
Drawing by Abigail Leavitt.

One sherd is an in-folded bottle rim (Object 854). It is similar to one from the Monastery of Martyrius (Magen 2015, 339) and dates to fifth to seventh centuries CE.

Two beaker fragments are part of this collection. Both are bases; one solid (Object 2831) and one a pushed-up ring base (Object 224). The solid base is comparable to examples from the Giv'ati Parking Lot (Gutreich 2013, 278). The pushed-up ring base parallels several pieces from Jerash (Meyer 1988, 189).

One sherd is a bowl fragment (Object 226). It appears to be from a bowl with a high tubular base similar to one currently in the Israel Museum (Israeli 2003, 158). This bowl likely dates to the third to fourth centuries CE.

The final sherd in this collection is a cobalt blue piece (Object 280). Although it is too fragmentary to identify, it is noteworthy because its distinctive color identifies it as an imported vessel (Gorin-Rosen 2018).

Islamic Vessels

A small percentage of the glass from the Khirbet el-Maqatir ecclesiastical complex dates to the Islamic era, specifically the Umayyad and Abbasid periods (fig. 9.26; table 9.12). Five sherds fall into this category, including two worm-mouth bottles (Objects 855 and 882), one oil lamp (Object 673), one double-folded tooled-out base (Object 870), and one pinched decoration (Object 325). The worm-mouth bottle is a common Umayyad form and continued into the Abbasid period. Parallels appear at Ras Abu Ma'Aruf (Gorin-Rosen 1999a, 210) and Bet She'an (Winter 2011, 354). The oil lamp fragment is very similar to pieces found at Tiberias (Amitai-Preiss

Table 9.11. Other Byzantine forms

No.	Description	Color	Dimensions	Diameter	Elevation
224	Pushed-in beaker-base	Green	4.4 × 2.0 × 1.0	5	888.70
226	Bowl with tubular base	Blue-green	4.5 × 1.6 × 0.6	15	888.70
280	Cobalt sherd	Cobalt	3.0 × 2.5	9	888.39
854	In-folded bottle-rim	Blue-green	4.4 × 2.8	7	887.82
857	Jug rim with handle	Blue-green	2.9 × 1.6	. . .	887.63
878	Ribbed-jug handle	Blue-green	4.3 × 2.0		886.23
2831	Solid beaker base	Blue	2.8 × 2.1 × 0.9	4	870.84
2966	Jug neck, wound trails	Bluish	2.5 × 0.9 × 0.1	. . .	. . .

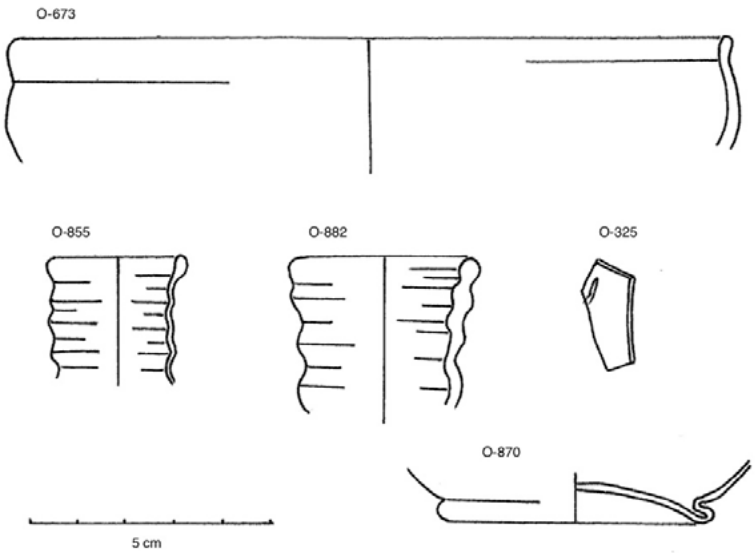


Figure 9.26. Islamic vessels. Drawing by Abigail Leavitt.

Table 9.12. Islamic vessels

No.	Description	Color	Dimensions	Diameter	Elevation
325	Pinched decoration	Blue-green	2.6 × 2.1 × 0.9	5.0	887.95
673	Oil lamp rim	Blue	5.5 × 2.5	15.0	888.34
855	Worm-mouth rim[a]	Blue	3.0 × 0.4	3.0	887.74
870	Double-fold ring base[b]	Yellow-green	5.7	5.7	887.88
882	Worm-mouth rim	Blue-green	4.0	4.0	887.46

[a] Entire rim preserved.
[b] Entire base preserved.

2004, 181) and probably dates to the seventh or eighth century CE. The pinched decoration probably came from the side of a beaker or bottle. It closely resembles pieces from Tiberias (Lester 2004, 205). It dates to the eighth or ninth centuries CE. The ring base, while challenging to identify, probably belongs to a rounded beaker such as the ones from Ras Abu Ma'aruf (Gorin-Rosen 1999a, 208).

Concluding Remarks

The corpus of glass from Khirbet el-Maqatir primarily comprises typical vessels from the Early Roman and Byzantine periods. Forms dating to the Hellenistic, Late Roman, and Islamic periods complete the collection.

The glass from the Early Roman period includes many common forms that represent daily household life and highlight the residential nature of the Early Roman town. The Byzantine glass, on the other hand, includes forms typical of ceremonial use in churches. These forms are copacetic with their location of origin in the Byzantine ecclesiastical complex.

No evidence came to light of glass production at Khirbet el-Maqatir. It is therefore likely that the residents of the site acquired vessels made elsewhere. Gorin-Rosen and Katsnelson (2007, 75) document the existence of glass factories throughout the region. Only two sherds were of colors associated with imported glass. The majority of the sherds represented colors typical of locally made glass.

Appendix: Unidentifiable Fragments

The remaining glass objects are too fragmentary for identification. They are listed below in table 9.13.

Table 9.13. Unidentifiable fragments

No.	Square	Description	Dimensions	Elevation
154	ZM0	Rim	1.4 × 1.4 × 0.2	. . .
155	ZM0	Two rims	1.9 × 1.0 × 0.2	. . .
184	L34	Rim	2.9 × 2.8 × 0.3	. . .
219	ZF07	Rim (of a window?)	3.3 × 1.3 × 0.4	889.60
220	ZF07	Body sherd	2.9 × 1.6 × 0.5	889.60
221	ZF07	Body sherd	2.3 × 1.4 × 0.5	889.60
223	ZG07	Folded rim	2.5 × 2.3 × 0.5	888.70
227	ZF010	Body sherd	6.5 × 2.6 × 0.4	888.70
228	ZF010	Body sherd	3.6 × 2.3 × 0.3	888.70
229	ZF010	Body sherd	3.0 × 2.3 × 0.3	888.70
230	ZF010	Body sherd	1.6 × 1.1 × 0.1	888.70
231	ZF010	Body sherd	2.0 × 0.9 × 0.1	888.70
232	ZF010	Body sherd	1.5 × 0.6 × 0.1	888.70
240	ZF04	Body sherd	3.9 × 2.9 × 0.2	889.81
244	ZG04	Body sherd	2.5 × 1.4 × 1.2	889.78
245	ZG04	Body sherd	2.8 × 2.2 × 0.5	889.78
246	ZG04	Body sherd	1.9 × 1.2 × 0.2	889.78
313	ZF04	Body sherd	4.6 × 3.5	888.35
314	ZF04	Body sherd	4.4 × 3.3	888.31
315	ZF04	Body sherd	6.9 × 5.4	888.59
318	ZF04	Rim	4.3 × 1.5	888.49
321	ZF04	Body sherd	2.6 × 1.5	888.53
322	ZF04	Body sherd	2.7 × 1.5	888.50
323	ZF04	Seven body sherds	. . .	888.92
361	ZG07	Rim	2.7 × 1.3 × 0.4	. . .
374	T1	Body sherd	1.8 × 1.1 × 0.9	. . .
434	Q11	Rim	1.7 × 1.5 × 0.3	877.17
444	T1	Five body sherds	. . .	. . .
447	T1	Seven body sherds	. . .	. . .
460	. . .	Two body sherds	. . .	. . .
587	Q20	Body sherd	4.8 × 3.1 × 0.3	874.52
615	ZF04	Eight sherds[a]	. . .	. . .
630	ZG04	Tear-drop shaped tube	5.5 × 1.7	888.44
692	ZH05	Tube (oil lamp?)	3.3 × 1.2 ø	887.90
705	O20	Body sherd	2.5 × 1.6 × 0.4	875.06
872	ZH10	Two rims	6.5 × 2.8 × 1.4	886.76
1211	Cavern 1	Body sherd	3.2 × 1.4 × 0.04	. . .
1220	Cavern 1	Base	. . .	869.32
1681	P23	Body sherd	3.0 × 2.2 × 0.4	. . .
1690	Cavern 4	Body sherd	3.6 × 1.8 × 1.0	872.23
1721	O22	Body sherd	2.8 × 1.2 × 0.4	. . .
1722	O22	Body sherd	3.2 × 0.9 × 0.4	. . .
1723	O22	Rim (beaker?)	7.6 × 1.0 × 0.4	. . .
1746	Cavern 1	Body sherd	4.1 × 2.0 × 0.2	868.99
1749	Cavern 1	Body sherd	8.1 × 3.2 × 0.4	. . .
1751	Cavern 1	Rim	10.4 × 0.6 × 0.3	869.85
1753	Cavern 1	Body sherd	3.9 × 3.2 × 0.2	869.70
1755	Cavern 1	Body sherd	3.7 × 1.5 × 0.1	869.09

No.	Square	Description	Dimensions	Elevation
1756	Cavern 1	Rim (crimped-trail bowl?)	3.1 × 2.5 × 0.7	868.94
1759	Cavern 1	Body sherd	6.3 × 3.2 × 0.2	869.09
1778	Cavern 1	Body sherd	8.9 × 6.5 × 0.4	869.77
1780	Cavern 1	Body sherd	2.9 × 2.4 × 0.5	869.58
1796	Cavern 1	Two rims (shallow bowl?)	20.5 × 2.0 × 0.4	869.60
1805	Cavern 1	Body sherd	7.0 × 3.5 × 0.2	869.62
1807	Cavern 1	Body sherd	3.9 × 1.3 × 0.1	869.63
1831	Cavern 1	Rim	18.1 × 2.1 × 0.5	869.56
1852	O24	Rim	4.3 × 2.9 × 1.2	875.32
2159	O24	Body sherd	2.7 × 2.5 × 0.5	. . .
2299	O24	Fine rim	4.0 × 1.2 × 0.8	874.22
2376	O24	Base	1.7 × 0.9 × 0.7	. . .
2496	Q22	Folded rim	3.1 × 1.0 × 0.6	. . .
2549	ZF05	Handle	3.5 × 1.7 × 0.8	888.68
2551	ZH010	Rim and body (oil lamp?)	4.9 × 3.9 × 0.2	887.59
2640	P24	Body sherd	2.8 × 2.2 × 0.5	874.18
2667	Q25	Rim (beaker?)	3.5 × 1.2 × 0.4	873.50
2729	P24	Rim or base	3.4 × 1.2 × 0.6	. . .
2736	P24	Rim	1.4 × 1.1 × 0.5	874.05
2739	P24	Rim (beaker?)	2.0 × 1.4 × 0.3	. . .
2740	P24	Sherd, spiraling trail (bracelet?)	1.0 × 0.7	. . .
2816	ZH010	Handle (oil lamp?)	1.0 × 1.5	887.45
2968	Q25	Ring base	3.0 × 1.1 × 0.2	. . .
3091	R25	Body sherd	3.0 × 0.5 × 0.4	. . .
3178	Cavern 5	Body sherd (beaker?)	2.2 × 1.8 × 0.1	. . .

[a] Including a round windowpane and an oil lamp.

References

Amitai-Preiss, Nitzan 2004. "Glass and Metal Finds." In *Excavations at Tiberias, 1989–1994*, by Yizhar Hirchfeld, with contributions by Roni Amir, Nitzan Amitai-Preiss, Donald T. Ariel, Gabriela Bijovsky, Raphael Greenberg, Lihi Habas, Ayala Lester et. al., 177–90. Israel Antiquites Authority Reports 22. Jerusalem: Israel Antiquities Authority.

Andersen, Flemming Gorm. 1985. *Shiloh: The Danish Excavations at Tall Sailūn, Palestine, in 1926, 1929, 1932, and 1963*. Vol. 2, *The Remains from the Hellenistic to the Mamlūk Periods*. Publications of the National Museum, Archeological-Historical Series 23. Copenhagen: National Museum of Denmark.

Gorin-Rosen, Yael. 1999a. "Glass Vessels from Ras Abu Ma'aruf (Pisgat Ze'ev East A)." *'Atiqot* 38:205–14.

Gorin-Rosen, Yael. 1999b. "The Glass Vessels from the *Miqveh* near Alon Shevut." *'Atiqot* 38:85–90.

Gorin-Rosen, Yael. 2003. "Glass Vessels from Area A." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*, by Hillel Geva. Vol. 2, *The Finds from Areas A, W, and X-2*, 364–400. Jerusalem: Israel Exploration Society.

Gorin-Rosen, Yael. 2005. "The Glass." In *Excavations on the Site of the Jerusalem International Convention Center (Binyanei Ha'Uma): A Settlement of the Late First to Second Temple Period, the Tenth Legion's Kilnworks, and a Byzantine Monastic Complex*, edited by Benny Arubas and Haim Goldfus, 195–209. Journal of Roman Archaeology Supplementary Series 60. Ann Arbor: Cushing-Malloy.

Gorin-Rosen, Yael. 2006a. "Glass Vessels." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*, by Hillel Geva. Vol. 3, *Area E and Other Studies*, 239–65. Jerusalem: Israel Exporation Society.

Gorin-Rosen, Yael. 2006b. "The Glass Finds from Khirbat el-Batiya (Triangulation Spot 819)." *'Atiqot* 53:29–36.

Gorin-Rosen, Yael. 2009. "The Glass Vessels from Strata 9–6." In *Ḥorbat 'Uẓa: The 1991 Excavations*. Vol. 2, *The Late Periods*, by Nimrod Gerzov, Dina Avshalom-Gorni, Yael Gorin-Rosen, Edna J. Stern, Danny Syon, and Ayelet Tatcher, 78–98. Israel Antiquites Authority Reports 42. Jerusalem: Israel Antiquities Authority.

Gorin-Rosen, Yael. 2010. "Glass from the Late Byzantine Remains near Shiqmona." *'Atiqot* 63:209–18.

Gorin-Rosen, Yael. 2016. "The Hospitaller Compound: Hellenistic and Early Roman Glass Vessels." In *'Akko II: The 1991–1988 Excavations; The Early Periods*, by Moshe Hartal, Danny Syon, Eliezer Stern, and Ayelet Tatcher, with contributions by Andrea M. Berlin, Yael Gorin-Rosen, Nadav Kashtan, Natalya Katsnelson, Natalie Messika, Orit Shamir, and Peter J. Stone, 115–19. Israel Antiquites Authority Reports 60. Jerusalem: Israel Antiquites Authority.

Gorin-Rosen, Yael, and Ruth E. Jackson-Tal. 2008. "Area F: The Glass Finds." In *Paneas*, by Vasillios Tzaferis and Shoshana Israeli. Vol. 1, *The Roman to Early Islamic Periods: Excavations in Areas A, B, E, F, G and H*, with contributions by Miriam Avissar, Yael Gorin-Rosen, Ruth E. Jackson-Tal, and John F. Wilson, 141–54. Israel Antiquites Authority Reports 37. Jerusalem: Israel Antiquites Authority.

Gorin-Rosen, Yael, and Natalya Katsnelson. 2007. "Local Glass Projection in the Late Roman–Early Byzantine Periods in Light of the Glass Finds from Khirbat el-Ni'ana." *'Atiqot* 57:73–154.

Gorin-Rosen, Yael, and Tamar Winter. 2010. "Selected Insights into Byzantine Glass in the Holy Land." In *Glass in Byzantium: Production, Usage, Analyses; International Workshop Organized by the Byzantine Archaeology Mainz, 17th–18th of January 2008; Römisch-Germanisches Zentralmuseum*, edited by Jörg Drauschke and Daniel Keller, 165–81. Römisch-Germanisches Zentralmuseum Forschungsinstitut für Vor- und Frühgeschichte. Tagungen 8. Mainz: Verlag des Römisch-Germanischen Zentralmuseums.

Gutreich, Dorit. 2013. "The Glass Finds." In *Jerusalem: Excavations in the Tyropoeon Valley (Giv'ati Parking Lot)*, by Doron Ben-Ami. Vol. 1, with contributions by Donald T. Ariel, Marva Balouka, Guy Bar-Oz, Stella Behar, Katia Cytryn-Silverman, Dorit Gutreich, Masha Krakovsky et al., 265–89. Israel Antiquites Authority Reports 52. Jerusalem: Israel Antiquities Authority.

Israeli, Yael 2003. *Ancient Glass in the Israel Museum: The Eliahu Dobkin Collection and Other Gifts*. With contributions by Dan Barag and Na'ama Brosh. Jerusalem: Israel Museum.

Jackson-Tal, Ruth E. 2016a. "Glass Vessels." In *Gamla III: The Shmarya Gutmann Excavations, 1976–1989; Finds and Studies*, by Danny Syon, with contributions by Shua Amorai-Stark, Yoav Arbel, Chaim Ben-David, Baruch Brandl, Deborah Cassuto, Carol Cope, Yoav Farhi et al., pt. 2, 1–47. Israel Antiquites Authority Reports 59. Jerusalem: Israel Antiquites Authority.

Jackson-Tal, Ruth E. 2016b. "Miscellaneous Small Finds: Metal and Glass." In *Gamla III: The Shmerya Gutmann Excavations, 1976–1989; Finds and Studies*, by Danny Syon, with contributions by Shua Amorai-Stark, Yoav Arbel, Chaim Ben-David, Baruch Brandl, Deborah Cassuto, Carol Cope, Yoav Farhi et al., pt. 2, 191–212. Israel Antiquites Authority Reports 59. Jerusalem: Israel Antiquites Authority.

Katsnelson, Natalya 2006. "Early Roman Glass Vessels from Judea: Locally Produced Glass? A Preliminary Report." In *Annales of the 17th Congress of the International Association for the History of Glass*, edited by K. Janssens, P. Degryse, P. Cosyns, J. Caen, and L. Van't dack, 163–69. Antwerp: University Press Antwerp.

Lester, Ayala. 2004. "The Glass." In *Excavations at Tiberias, 1973–1974: The Early Islamic Periods*, by David Stacey, with contributions by Ariel Berman and Ayala Lester, 167–220. Israel Antiquites Authority Reports 21. Jersualem: Israel Antiquities Authority.

Livingston, David. 2003. *Khirbet Nisya: The Search for Biblical Ai, 1979-2002; Excavation of the Site with Related Studies in Biblical Archaeology*. Manheim, PA: Associates for Biblical Research.

Magen, Yitzhak. 2015. *Christians and Christianity*. Vol. 5, *Monastery of Martyrius*. Judea and Samaria Publications 17. Jerusalem: Israel Antiquities Authority.

Meyer, Carol. 1988. "Glass from the North Theater Byzantine Church, and Soundings at Jerash, Jordan, 1982–1983." In *Preliminary Reports of ASOR-Sponsored Excavations, 1982–85*, edited by Walter E. Rast, 175–222. Bulletin of the American Schools of Oriental Research Supplements 25. Winona Lake, IN: Eisenbrauns.

Winter, Tamar. 2010. "The Byzantine-Period Glass Vessels from Ḥorbat Roẓeẓ." *'Atiqot* 62:145–55.

Winter, Tamar. 2011. "The Glass Finds." In *Baysān: The Theater Pottery Workshop*, by Rachel Bar-Nathan and Walid Atrash, with contributions by Ariel Berman, Israel Carmi, Anat Cohen-Weinberger, Yuval Goren, Arfan Najjar, Dror Segal, and Tamar Winter, 345–62. Israel Antiquities Authority Reports 48. Bet She'an Archaeological Project, 1986–2002. Bet She'an 2. Jerusalem: Israel Antiquites Authority.

Zapata-Meza, Marcela, Andrea Garza, Diaz Barriga, and Rosaura Sanz-Rincón. 2018. "The Magdala Archaeological Project (2010–2012): A Preliminary Report of the Excacvations at Migal." *'Atiqot* 90:83–125.

10. Inscriptions

Matthew D. Glassman

Excavations at Khirbet el-Maqatir yielded a small amount of glyptic material, attesting the use of writing and imagery in the Late Hellenistic, Early Roman, and Byzantine periods. In general, the glyptic finds are sparse, and the pieces bearing writing are terse, consisting in most cases of no more than one character. All the exemplars were incised, and none of them used ink. Most of the objects display written characters typical of Hebrew script from the second and first centuries BCE, but there are also Greek and possibly Latin letters.

Jar Stands

Four jar stands bearing short epithets were found at Khirbet el-Maqatir. They likely originated in the Early Roman period. The stands ranged from 11 to 13 cm in diameter and seem to have been made to support piriform amphorae. Inscriptions on jar stands most often denote ownership, as indicated by analogous stands from other sites containing full names (Eshel 2006, 399–400; Hassler, forthcoming). The inscriptions. from Khirbet el-Maqatir are far simpler, with three of the four containing only a single Hebrew character. Similarly, a jar stand bearing only a single character was found in the Jewish Quarter excavations in the Old City of Jerusalem alongside a name. Thus, it is likely that the isolated character must denote some sort of designation, possibly identifying the commodity of the associated jar or its quantity.

Object 1832

This jar stand was found in Cavern 1, an underground cave hewn from bedrock (elevation 869.6–869.42 m; fig. 10.1). The cavern was created as an industrial area for the production of olive oil, then later used as a hiding area to conceal the first-century villagers from the approaching Roman army on its way to Jerusalem. The diagnostic pottery primarily dated to three time periods: Late Hellenistic (155 sherds), Early Roman (158 sherds), and Middle Roman (128 sherds). A very small amount, probably contamination, dated to the Early Hellenistic and Iron Ages. The remains of an olive press were found within the cavern as well.

The trace of a marking can be seen at the very bottom of the stand. The mark is an intentional incision, and not a crack or other damage; however, it appears to be only a single character. Presuming this jar stand is analogous to the similar stands found at Khirbet el-Maqatir, one can assume a Hebrew character of the first-century



Figure 10.1. Early Roman jar stand with a broken inscription. Photograph by Michael C. Luddeni.

BCE block script. Further, and on analogy with other jar stands from the period, what is preserved under the break is the bottom of the character. Unfortunately, the marking is too badly preserved to make a positive reading, and several possibilities for the character must be proposed instead: כ, ט, ס, or פ. Given the context, the stand likely supported a piriform oil jar.

Object 1855

Square O23 contained an entrance to what seemed to have been a first-century BCE common area between residential buildings that featured a silo. The stand, found at an elevation of 869.98–869.58 m, was situated in a context that included numerous coins and Late Hellenistic and Early Roman pottery (fig. 10.2). The inscription on it consists of a clear ח and at least one other character, possibly two. A break obscures the reading of the second and third characters, but the ח is fairly clear. The ח displays elongated vertical strokes that extend above the cross-stroke. This is similar to the style of ח used in 1QIsa^{b} from the Dead Sea Scrolls (Ulrich and Flint 2010, 199), with the two verticals clearly extending beyond the horizontal crossbar. The second character is a straight vertical, consistent with the writing of ו in the period. The third character is more difficult to identify, as some of it is lost to a chip in the clay but could be שׁ based on other first-century jar



Figure 10.2. Early Roman jar stand with a Hebrew inscription. Photograph by Michael C. Luddeni.

stands that were found in Jerusalem (Eshel 2006, 399–400). If accurate, these letters would read ḥ-w(?)-š(?), the meaning of which is unclear.

Object 1884

The jar stand (elevation 872.12–871.06 m) came from an earth locus in Cavern 4, along with abundant Early Roman pottery and sparse Late Hellenistic pottery (fig. 10.3). Cavern 4 also yielded numerous coins, and it was a part of the larger underground cavern system dug out of bedrock below the first-century BCE village. The stand bears a single character partially obscured by chipping but very likely the remnants of a ל. Other singular individual characters on jar stands were found in the Jewish Quarter excavations, but the meaning of the inscriptions is uncertain when they do not clearly indicate a name (Eshel 2006, 399). On a similar jar inscription from the Roman period, Lemaire has identified ל as an abbreviation for the Hebrew word *log*, a measure of liquid capacity (Lemaire 2002, 191). The term and its meaning are well known in Official Aramaic (Hoftijzer and Jongeling 1995, 566). Cavern 4 designated a complex mikvah, so it is likely that this jar stand entered this subterranean cavity as contamination. It is possible, but less likely, that Cavern 4 was a basement for storage. In this scenario the ל more likely denoted a measure of olive oil.

Object 3283

This jar stand was found in Square O22, a large courtyard area featuring an entrance to the underground industrial cavern system (fig. 10.4). The stand originated in the dirt fill just above bedrock and was found near a storage silo. As is the case with the other jar stands, the pottery from the locus was predominantly Early Roman. The stand features a single character, an incised ח executed in only two strokes and in a fashion similar to what could be expected from ostraca using ink. The ח is dissimilar to the one found on Object 1855, which was made with three strokes, two verticals and a crossbar.



Figure 10.3. Early Roman jar stand bearing a single Hebrew character. Photograph by Michael C. Luddeni.

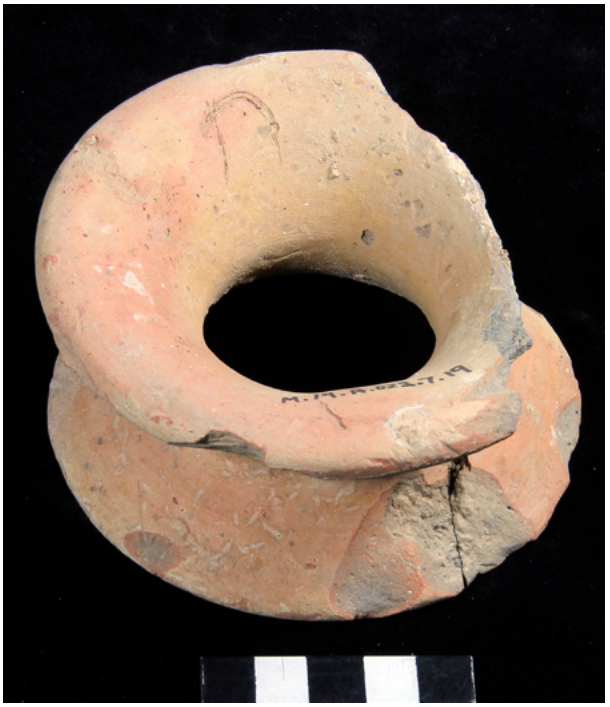


Figure 10.4. Early Roman jar stand bearing a single Hebrew character. Photograph by Michael C. Luddeni.

Ostraca

The site's glyptic sherds from the Late Hellenistic through the Early Roman periods feature the typical first-century BCE Hebrew script and are similar in appearance to the characters found on the jar stands. The markings are all incised or scratched on the pieces and as such are dissimilar from other contemporary or near contemporary Levantine Aramaic ostraca, which made use of ink written on broken sherds. The brevity of writing on the Khirbet el-Maqatir glyptic sherds suggests abbreviation and makes the exact discernment of its meaning difficult.

Object 0001

This 3.8 × 3.3 cm sherd bearing a Byzantine cross was found in a probe trench on the western side of the northern mound of Khirbet el-Maqatir that features the ruins of a Byzantine religious complex (fig. 10.5). The design is relatively simple and similar examples can be found elsewhere in Byzantine iconography, such as on a door jamb from a burial crypt in the nearby church at Khirbet ed-Deir (Hirschfeld 1993, 256). Given the design and context, it is possible that the sherd came from a vessel used in the liturgy of the monastery.



Figure 10.5. Sherd bearing a Byzantine cross. Photograph by Michael C. Luddeni.

Objects 0002 and 0003

Two inscribed Byzantine sherds, measuring 2–4 cm in width and length, come from a trench dug on the hill west of the monastery (figs. 10.6–7). Though fragmentary, they display markings that, based on context, likely preserve Greek letters. The characters on the sherds appear to be λ or ν on Object 2, and χ on Object 3.



Figure 10.6. Byzantine sherd with a fragmentary inscription. Photograph by Michael C. Luddeni.



Figure 10.7. Byzantine sherd with a fragmentary inscription. Photograph by Michael C. Luddeni.

Object 0106

Excavations produced a Late Hellenistic sherd found in a layer of dark-brown packed earth directly under the surface soil in Square R30, near a square cistern entrance (fig. 10.8). Though small (4.6 × 3.4 cm), it bears a clear Hebrew ע of the first-century BCE script. There does appear to be space enough to the right of the ע to have included other characters, but the sherd is too small to know if the character on it formed part of a larger inscription. As it stands, it is one of several single-character ceramic pieces found at Khirbet el-Maqatir. If the character on the vessel is parallel to those found on stands, it could denote some quantity or commodity held within the vessel of which the sherd was once a part.



Figure 10.8. Late Hellenistic sherd with a single Hebrew character. Photograph by Michael C. Luddeni.

Objects 0107

This Late Hellenistic (?) sherd, measuring 5 × 5 cm, was found in a layer of dark-brown packed earth directly under the surface soil of Square R30 (fig. 10.9). The mark on the sherd is a straight line appearing to be intentionally made, but lack of greater context prevents a positive reading of the character.

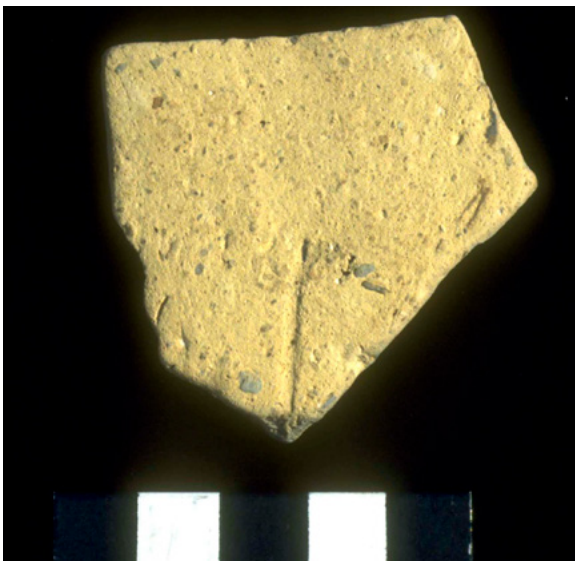


Figure 10.9. Late Hellenistic sherd with a fragmentary inscription. Photograph by Michael C. Luddeni.

Object 0657

This Late Hellenistic or Early Roman sherd was found in surface debris in Square P21 south of a doorway in a first-century BCE house (fig. 10.10). Three clear strokes were intentionally made on the vessel, indicating either one or two isolated Hebrew characters. Due to the poor quality of execution the reading is ambiguous. The letter א appears at first glance, but such a reading leaves an additional unexplained vertical stroke. Thus, the best reading is a poorly made ל made perhaps hastily with one horizontal and two vertical strokes. Such an interpretation is made more likely if Lemaire is correct in his view that a lone ל was an abbreviation for a capacity measure associated with liquid-bearing vessels.



Figure 10.10. Late Hellenistic or Early Roman sherd with a Hebrew inscription. Photograph by Michael C. Luddeni.

Object 1482

This Late Hellenistic or Early Roman ostracon, measuring 7.6 × 5.4 cm, came from Square O22 and was found in the dark bottom-level of fill dirt just above bedrock (fig. 10.11). This inscription is unique among the other ostraca from Khirbet el-Maqatir in that the markings appear to be secondarily scratched onto the piece after



Figure 10.11. Late Hellenistic or Early Roman sherd with a Hebrew inscription. Photograph by Michael C. Luddeni.

firing. This makes clear identification of the markings difficult. The Hebrew consonant ת seems certain, but other scratches on the sherd indicate possibly a second or third character, and Object 1482 comes from the same square as Object 3283, a jar stand bearing a single ת. The letter א is possible to the right of ת and space exists for another character between the two.

Varia

Object 0427

This is a piece of a small brass band, possibly a bracelet, found in Square P18 (fig. 10.12). The earth layer whence it came and the surrounding squares were heavy in Late Hellenistic and Early Roman pottery. The band measures 3.0 × 1.2 cm and is 0.2 cm thick. It is incised with a simple coiled design and likely dates to the Islamic period. The snake-like design resembles Ottoman glass bracelets found elsewhere in the Levant. Spaer provides parallels to its pattern on glass bracelets (1992, 53, fig. 17; fig. 25.19).



Figure 10.12. Bronze decorative band. Photograph by Michael C. Luddeni.

Object 0860

An altar-post capital was found in the atrium of the Byzantine ecclesiastical complex (fig. 10.13). It is a marble fragment measuring 13.5 cm long. It bears a Greek inscription typical of its era and type: A-P-ω(?). The last character is obscured but is almost certainly the left half of the lowercase letter omega. The piece would have come from an altar similar to the one found at the cave church at Khirbet ed-Deir (Hirschfeld 1993, 252). If the Khirbet el-Maqatir monastery can be compared to that of Khirbet ed-Deir, the altar or altar table of which the capital was a component can be reconstructed in the middle of the sanctuary (Hirschfeld 1992, 124).



Figure 10.13. Byzantine altar-post capital. Photograph by Michael C. Luddeni.

The inscription seems tersely carved since the majuscule X is not superimposed upon the P as expected. The traces of a lowercase ω are present but poorly executed. The clearly visible portion of the inscription, A-P, is part of a programmatic arrangement of symbolic Greek letters: A-X+P-ω/Ω. The chi-rho is a superimposed ligature made from the combination of the first two letters of the Greek word ΧΡΙΣΤΟΣ (*Christos*, "Anointed"), an appellation for Jesus. The symbol is often flanked by the first letter of the Greek alphabet (alpha, A) on its left and the last letter (ω/Ω, omega) on its right. Such is the case on the capital from Khirbet el-Maqatir. This symbolized Christ as the beginning and the end of all things.

Object 1619

A limestone jar stopper, found at 874.58–875.56 m elevation, bore intentional incisions that appear to form the Latin letter *N*. While Hebrew and Aramaic letters normally adorn stone vessels from the late Second Temple period, Magen (2002, 77n74) identified four Latin letters on a similar stopper from the Temple Mount excavations. For details on this possible inscription, see Gibson's full description in chapter 8 of this volume.

References

Eshel, Esther. 2006. "Hebrew and Aramaic Inscriptions." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*, by Hillel Geva. Vol. 3, *Area E and Other Studies*, with contributions by D. Adan-Bayewitz, D. T. Ariel, F. Asaro, E. Eshel, G. Finkielsztejn, R. D. Giauque, Y. Gorin-Rosen et al., 389–407. Jerusalem: Israel Exploration Society.

Hassler, Mark A. Forthcoming. "Inscriptions on Ceramic Ring Stands: Discoveries from the Early Roman Period at Khirbet el-Maqatir, Israel." *Judea and Samaria Research Studies*.

Hirschfeld, Yizhar. 1992. *The Judean Desert Monasteries in the Byzantine Period*. New Haven: Yale University Press.

Hirschfeld, Yizhar. 1993. "The Cave-Church at Khirbet ed-Deir." In *Ancient Churches Revealed*, edited by Yoram Tsafrir, 244–58. Jerusalem: Israel Exploration Society.

Hoftijzer, J., and K. Jongeling. 1995. *Dictionary of North-West Semitic Inscriptions*, with appendices by R. C. Steiner, A. Mosak Moshavi, and B. Porten. Pt. 1. Leiden: Brill.

Lemaire, André. 2002. *Nouvelles inscriptions araméennes d'Idumée au Musée d'Israël*. Vol. 2. Paris: Gabalda.

Magen, Yitzhak. 2002. *The Stone Vessel Industry in the Second Temple Period: Excavations at Hizma and the Jerusalem Temple Mount*. Edited by Levana Tsfania. Judea and Samaria Publications 1. Jerusalem: Israel Exploration Society.

Spaer, Maud. 1992. "The Islamic Glass Bracelets of Palestine: Preliminary Findings." *Journal of Glass Studies* 34:44–62.

Ulrich, Eugene, and Peter W. Flint. 2010. *Qumran Cave 1*. Vol. 2, *The Isaiah Scrolls*. Pt. 2, *Introductions, Commentary and Textual Variants*, with a contribution by Martin G. Abegg Jr. Discoveries in the Judaean Desert 32. Oxford: Clarendon.

Yardeni, Ada. 2013. "Twelve Published and Unpublished Jewish Aramaic Ostraca Written in the 'Jewish Cursive' Script." In *In the Shadow of Bezalel: Aramaic, Biblical, and Ancient Near Eastern Studies in Honor of Bezalel Porten*, edited by Alejandro F. Botta, 209–43. Culture and History of the Ancient Near East 60. Leiden: Brill.

11. Jewelry and Personal Accessories

Frankie Snyder, Suzanne Lattimer, and Scott Stripling

This chapter covers 63 items of everyday personal use such as jewelry and small metal accessories that date primarily to the Late Hellenistic and Early Roman periods. The few Byzantine artifacts indicate that the monks from the Khirbet el-Maqatir monastery terraced the southern sector of the site for agricultural purposes. They apparently lost personal items while they labored. Likewise, excavations yielded several bracelets and beads from the Mamluk and Ottoman periods, indicating occasional or squatter occupation in those times. The jewelry includes beads, pendants, bracelets, cabochons, bells, finger rings, and earrings. Other personal accessories include belt buckles, fibulae, pins, cosmetic spoons and spatulas, tweezers, and mirrors.[1]

Beads

Beads, one of the world's oldest forms of adornment, come in an astonishingly wide range of decorative and polychromatic materials. Beads are usually the most common jewelry item found in excavations and are discovered in tombs and occupation levels. Although the stringing materials rarely survive, their placement on bones in tombs indicates they were worn on the neck, the upper and lower arms, and the ankles, and were used as hair ornaments and clothing accessories (Spaer 2001, 43). Besides being used for personal adornment, beads also served as talismans, status symbols, religious articles, ritual offerings, and a medium of barter (Dubin 2009, 15).

Using the terminology proposed by Horace Beck in *Classification and Nomenclature of Beads and Pendants*, beads are those "perforated along the axis" and pendants are those "perforated at one end" (Beck 1928, 11). He defines a spacing bead as "a bead with two or more perforations through which strings carrying other beads can be placed, so that the strings are kept at the correct distance apart" (Beck 1928, 4). This report uses Beck's descriptions and typology. The colors of natural beads correspond to the *Munsell Soil-Color Charts* (2010).

Stone Beads

Some of the oldest stone beads in the Levant were found at Gilal II, a late Natufian site, which excavators dated to 9000–8500 BCE. By the Chalcolithic period, stones were turned into beads by flaking or rough grinding the stones on abrasive blocks, then polishing them with abrasives made of flint chips, sand, or clay slurry. The most difficult step in bead production was the drilling of the hole, which was done with flint drills and a powered quartz abrasive paste. To reduce the stress of fracturing a bead, stone beads would often be double-drilled by piercing the bead from both ends enabling the holes to meet in the middle of the bead (e.g., Objects 2260 and 2483; Dubin 2009, 24–31, figs. 6–7, 9).

The natural stone beads in the Khirbet el-Maqatir collection include ones of carnelian and banded agate as well as local limestone and chalk. Carnelian is a form of chalcedony, and, since it could be found naturally in Egypt, was used in Egyptian bead-making dating back five thousand years. This stone continued in popularity throughout the ancient Near East due to its attractive red-orange color, its hardness, and the fact that it can be worked to obtain many forms. In the region surrounding Khirbet el-Maqatir, rare occurrences of carnelian have been reported from the Lower Cretaceous basel conglomerate in the Negev in Machtesh Gadol and Machtesh Ramon (Zuckerman 1996, 277).

Carnelian bead (fig. 11.1). Object 1169, A044379. Field A, Cavern 1, Locus 7, Pail 15. Preservation: complete. Beck type I.B.1.b, "short barrel." Munsell 2.5YR 5/8, red. Length: 4 mm; diameter: 10 mm; hole diameter: 2 mm. The outer surface is well smoothed with small irregularities. The two flat ends are roughly chipped and poorly smoothed but would likely not have been seen once strung with other beads. The maker bored a rather large hole from both ends forming a double-cone perforation. Parallels: Lamon and Shipton 1939, plate 90:3 (Persian period); Barkay 1986, 1, 31 (Iron II); Swersky 1996, fig. 42:1; Zuckerman 1996, fig. 42:1 (Iron II).

Carnelian bead (fig. 11.2). Object 1348, A044368. Field B, Square P20, Locus 20, Pail 45. Preservation: complete. Beck type I.B.1.f, "short truncated convex bi-cone." Munsell 5YR 5/8, yellowish red. Length: 5 mm; diameter 8 mm. The outer surfaces are well polished, and the two cones are equally sized. The small hole is centered and nicely drilled. Parallels: Crowfoot 1957, fig. 92:69 (Iron IIB–Roman); Swersky 1996, fig. 42:1; Zuckerman 1996, fig. 42:2–3, 5 (Iron II); Porat 1997, plate 3:11א (Late Roman); Gera 2007, plate 13.7:7 (Iron IIB).

[1] Ellen Jackson, the excavation-staff metal detectorist, located many of the metal objects in situ. Abigail Leavitt, objects registrar, processed the finds. Orna Cohen, staff conservator, cleaned and conserved the jewelry and accessories.

All photographs in this chapter are by Michael C. Luddeni.



Figure 11.1. No. 1169. Carnelian bead.

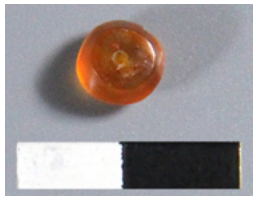


Figure 11.2. No. 1348. Carnelian bead.

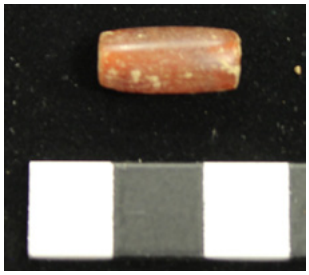


Figure 11.3. No. 2260. Carnelian bead.

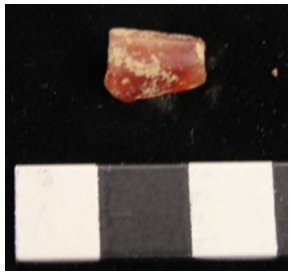


Figure 11.4. No. 2261. Carnelian bead.



Figure 11.5. No. 173. Limestone bead.

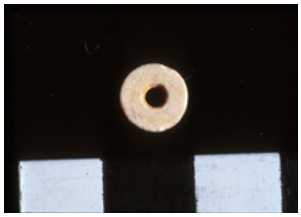


Figure 11.6. No. 511. Limestone bead.



Figure 11.7. No. 1350. Limestone bead.

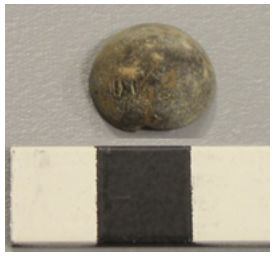


Figure 11.8. No. 2259. Black stone bead.

Carnelian bead (fig. 11.3). Object 2260. Field B, Square P22, Locus 14, Pail 42. Preservation: complete. Beck type 1.D.1.b, "long barrel." Munsell 10YR 4/8, red. Length: 16 mm; diameter: 8 mm. The outer surface is very smooth but with a few small irregularities. The maker double-drilled the narrow hole from both ends and nearly missed meeting. Parallels: Macalister 1912, plate 102, Tomb 144:19 (Iron II–Persian); Crowfoot 1957, fig. 92:67 (Iron IIB–Roman); Barag 1978, Tomb XV, no. 131 (Late Roman).

Carnelian bead (fig. 11.4). Object 2261. Field B, Square P22, Locus 14, Pail 42. Preservation: fragmentary. Beck type I.D.2f, "long truncated bi-cone." Munsell 2.5YR 4/8, red. Length: 20 mm (estimate); diameter: 8 mm. The outer surface of this broken bead is well smoothed. The length of the bead was estimated by assuming the two cones are equally sized. Parallels: Lamon and Shipton 1939, plate 90:12 (Persian); Crowfoot 1957, fig. 92:72 (Iron IIB–Roman); Sagiv, Zissu and Avni 1998, plate 13:14 (Second Temple period); Winter 2013, plate 3:8 (Late Roman).

Limestone bead (fig. 11.5). Object 173, A044296. Field B, Square N33, Locus 3, Pail 17. Preservation: complete. Beck type I.A.1.b, "barrel disc." Munsell 10YR 8/4, very pale brown. Length: 8 mm; diameter 17 mm; hole diameter 4 mm. This bead was crudely made from local limestone with a rough outer surface and a rather large hole. It may have served as a spindle whorl or loom weight. Parallels: Mazar 2015, appendix IA.1:6 (date of bead uncertain); Gera 2007, plate 13.7:37 (Iron Age); Gorin-Rosen 2009, fig. 2:23 (Late Roman).

Limestone bead (fig. 11.6). Object 511, A044507. Field G, Square P19, Locus 3, Pail 31. Preservation: complete. Beck type I.A.2.b, "cylindrical disc." Munsell 10YR 8/3, very pale brown. Length: 1.5 mm; diameter: 8 mm. The outer surfaces are well smoothed with a rather small hole. Parallels: Jackson-Tal 2007, fig. 3:10d (Second Temple period).

Limestone bead (fig. 11.7). Object 1350, A044369. Field A, Square O21, Locus 17, Pail 25. Preservation: fragmentary. Beck type I.A.1.b, "barrel disc." Munsell 10YR 8/4, very pale brown. Length: 7 mm; diameter: 17 mm; hole diameter: 3 mm. This bead was crudely made from local limestone with a rough outer surface and a rather large hole. It may have served as a spindle whorl or loom weight. Parallels: see Object 173.

Black limestone bead (fig. 11.8). Object 2259. Field B, Square P22, Loc 14, Pail 42. Preservation: fragmentary. Beck type I.B.1.a, "oblate." Munsell 10 YR 2/1, black. Length: 12 mm; diameter: 15 mm. The outer surface is well-polished but not shiny, with a few tiny pockmarks. The hole is small and well-drilled. Parallels: Crowfoot 1957, fig. 92:51 (Iron IIB–Roman); Sass 2000, fig. 12.30:19 (Iron Age).



Figure 11.9. No. 3039. Bituminous chalk (bitumen) bead.

Bituminous chalk (bitumen) bead (fig. 11.9). Object 3039, A045302. Field B, Square B24, Locus 1, Pail 5. Preservation: complete. Beck type I.D.1.b, "long barrel." Munsell 5YR 4/1, dark gray. Length: 12 mm; diameter: 6 mm. The outer surface is well-smoothed with a rather small hole. The bitumen likely originated in the quarries near the Dead Sea in the Nebi Musa area. Over time, a white patina developed on the bead's surface, typical of bitumen once it is exposed to air. Reports frequently list these beads simply as "black stone" and not a specific material such as jet, obsidian, limestone, or bitumen.[2] Parallels: Baramki 1931, plate 12:2 (Roman–Byzantine); Harding 1950, plate 30:402 (Roman).

Glass Beads

Glass beads in the Near East appear to originate from western Asia, possibly Sumer, and some of the earliest were found in Mesopotamia and Egypt in the third millennium BC. Some of the oldest glass beads date to the Middle Bronze Age at Dan, Jericho, and Megiddo. During the Hellenistic and Roman periods, both local and imported glass beads were popular. The Islamic influence brought beads of strong colors and with trail decorations, and Hebron became the principal local glass-manufacturing site in the Middle and Late Islamic periods (Spaer 2001, 23–32). In the case of dark glass beads, shining a high-intensity LED light through the glass determined glass color and transparency.

Black glass bead (fig. 11.10). Object 42, A044278. Field G, Square R17, Locus 1, Pail 30. Preservation: complete. Beck type I.B.1.a, "oblate." Length: 11 mm; diameter: 15 mm; hole diameter: 5 mm. This wound, opaque black glass bead was made by winding hot glass around a rod. It has a very smooth outer surface and a large hole. Parallels: Bagatti and Milik 1958, photo 127:25 (Roman); Porat 1997, fig. 12א (third–fourth centuries CE); Stern 1997, fig. 14:64 (fourth–sixth centuries CE); Gorin-Rosen and Katsnelson 2007, fig. 23:1–5, 7 (Late Roman–Early Byzantine).

Black glass bead (fig. 11.11). Object 894, A044359. Field D, Square J19, Locus 1, Pail 1. Preservation: fragmentary.



Figure 11.10. No. 42. Black glass bead.

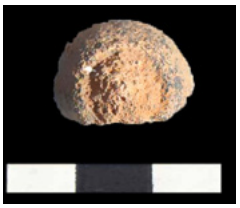


Figure 11.11. No. 894. Black glass bead.



Figure 11.12. No. 2725. Black glass bead.

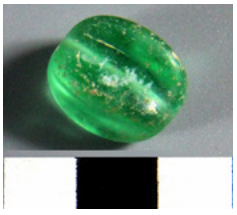


Figure 11.13. No. 1248. Green glass bead.



Figure 11.14. No. 1476. Blue glass die-bead with yellow dots.

Beck type I.C.1.a, "circular." Length: 20 mm; diameter 20 mm. This opaque, black glass bead has a 10-mm-diameter circular design impressed into one side, centered top-to-bottom. The center of the design rises above the surrounding bead surface. Glass beads with impressed designs dating to the fourth century are common in Eastern Europe, and some pieces have been found in the Eastern Mediterranean as well (Spaer 2001, 66, 76). Parallels: Spaer 2001, plate 5:58–62 (Roman).

Black glass bead (fig. 11.12). Object 2725. Field B, Square P22, Locus 14, Pail 22. Preservation: complete. Beck type I.B.1.b, "short barrel." Length: 5 mm; diameter: 7 mm; hole diameter: 3 mm. This wound, opaque black glass bead was made by winding hot glass around a rod. It has an irregularly shaped outer surface and a large hole. Parallels: Harding 1950, plate 30:392 (Roman); Porat 1997, fig. 12ב (third–fourth centuries CE); Jackson-Tal 2013, fig. 5:9 (Roman).

Green glass bead (fig. 11.13). Object 1248, A044364. Field A, Square O22, Locus 2, Pail 2. Preservation: complete. Beck type IX.D.1.a, "long square ellipsoid" with four concave sides. Length: 17 mm; diameter: 13 mm. This translucent, light green glass bead has a slight iridescent patina in spots. Parallels: Spaer 2001, plate. 22:270 (15th–20th centuries CE).

Blue glass die-bead with yellow dots (fig. 11.14). Object 1476, A044358. Field B, Square P22, Locus 1, Pail 3. Preservation: complete. Beck type XLVI.A.7.a.1, "stratified eye bead with flush eyes, well-separated, small perforation." Length: 11 mm; width: 13 × 14 mm. This bead resembles a gaming die. The "cube" is translucent blue glass, and the "spots" are opaque

[2] One coauthor of this chapter (Snyder) is preparing approximately twelve hundred beads for publication from the Temple Mount Sifting Project in Jerusalem, of which 12 are made from bitumen. The quality of the bitumen and the craftsmanship involved suggest these beads are from the Roman period and later. All have developed a white patina on the outer surface. See Barkay and Dvira 2012, fig. 8.

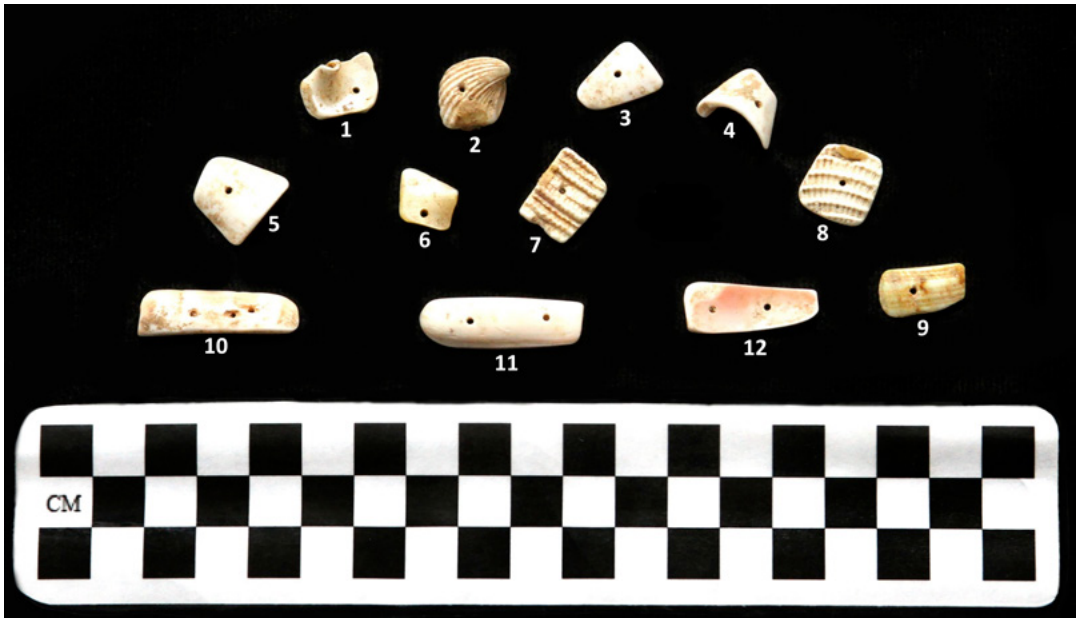


Figure 11.15. No. 614. Seashell used as beads and spacing beads.

yellow with a smaller dark blue dot in the center. Some "spots" are partially or completely missing. The design is according to the standard dating back to the time of the Romans: the 1 is opposite the 6, the 2 is opposite the 5, and the 3 is opposite the 4 so that the opposite sides add up to 7. The hole of the bead is through the 1- and 6-spot sides, with the hole on the 1-side replacing the 1-spot, and the hole on the 6-side replaces the center spot in one of the rows of three spots. Parallels: Although no satisfactory parallels exist for gaming dice pierced as beads, similar glass dice without perforations were found. Spaer 2001, plate 41:543 (Roman); Royal Museum of Antiquities, Leiden, Netherlands, no. F1934/10.89a (first–third centuries CE; Roman); Israel Museum, Jerusalem, "Glass through the Ages: Gaming Pieces" Exhibit.

Seashell Beads

Seashells were one of the first objects used as beads, originally with ready-to-use natural perforations and later, intentionally perforated. Shells used as beads were found in the Skhul Cave slopes of Mount Carmel and in the nearby Qafzeh Cave. The small size of the shells indicates that they were specifically chosen for adornments rather than as a source of food (Dubin 2009, 19–20, fig. 1).

Set of nine broken pieces of seashells used as beads (fig. 11.15.1–9). Object 614/1–9. Field C, Square ZF04, Locus 18, Pail 19. Preservation: each complete. Beck type XLIX, "irregular beads made of natural material." Munsell colors vary from 10YR 8/1, white, and 2.5YR 8/6, yellow, to 10YR 7/4, very pale brown. Sizes vary from 10 × 12 mm to 16 × 18 mm. They are naturally broken and water-worn pieces of seashell each with one drilled perforation. Excavation under the floor-stones of the Byzantine church yielded these shells, so they should date to the late-fourth century CE. Parallels: none found.

Set of three broken pieces of seashell used as spacing beads (fig. 11.15.10–12). Object 614/10–12. Field C, Square ZF04, Locus 18, Pail 19. Preservation: each complete. Beck type XVII.A.3.a.3, "rectangular disc spacing beads." Munsell colors vary from 10YR 8/1, white, to 2.5YR 8/4, pink. Sizes vary from 10 × 27 mm to 10 × 33 mm. They are naturally broken and water-worn pieces of seashell each with two drilled perforations for use as spacing beads. These spacing beads would hold two strings of beads the correct distance apart on a necklace or bracelet. They were found under the floor-stones of the Byzantine church and should date to the late-fourth century CE. Parallels: none found.

Pendants

Basalt pendant (fig. 11.16). Object 2306. Field A, Square O24, Locus 15, Pail 25. Preservation: fragmentary. Beck type XXII.B.3, "faceted drop pendant," a long, truncated cone, pierced front-to-back. Munsell 5YR 3/1, very dark gray. Length: 12 mm (broken); diameter: 23 × 9 mm. The outer surface is well-polished but the pendant is broken-off below the suspension hole. Pendants like this sometimes had a polished bottom, while others were carved with a design or image to be used as a seal.



Figure 11.16. No. 2306. Basalt pendant.

Parallels: Terra Santa Museum, "Greco-Roman Culture" Display, Group 3 (Greco-Roman); Harding 1950, plate 30:401a (Roman); Abu 'Uqsa 2007, fig. 9:4 (second and third centuries CE).

Banded agate pendant (fig. 11.17). Object 2483, A045297. Field B, Square P22, Locus 1, Pail 57. Preservation: complete but chipped on one corner. Beck type XLIX.B.2, "irregular triangular pendant." Primary Munsell colors: 10YR 5/3, brown, 10YR 3/6, dark yellowish brown, and 10YR 8/1, white. The pendant measures approximately 15 × 25 × 5 mm and is roughly triangular and beautifully smoothed and polished on the front and back surfaces. The maker double-drilled the top of the pendant from left and right. Parallels: Tufnell 1953, plate 67:115 (Iron Age); Dubin 2009, 364, nos. 339–41 (249 BCE–300 CE).

Bivalve seashell pendant (fig. 11.18), bittersweet clam, *Glycymeris nummaria* (Violet Bittersweet). Object 2929, Field B, Square P22, Locus 24, Pail 99. Preservation: complete; Beck Type XXVII.B.1, "pendant made of a complete shell"; Munsell 10YR 8/2, very pale brown; 33 × 33 × 11 mm. Natural perforation would enable the shell to be easily used as jewelry or clothing decoration. This shell is the dominant bivalve found on Mediterranean Sea beaches (Mienis 1992, 126). Parallels: Mazar and Mazar 1989, plate 9:17 (Iron II); Mienis 2017, plate 21.1:2.



Figure 11.17. No. 2483. Banded agate pendant.

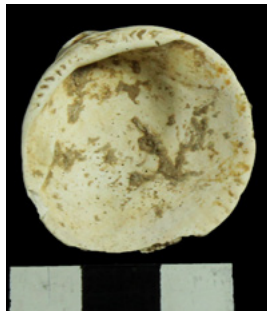


Figure 11.18. No. 2929. Bivalve seashell pendant.

Bracelets

Glass bangle bracelets first appeared in Egypt in the second millennium BCE but did not become common in the Levant until the third century CE. They were popular in the region from the Late Roman period to the present, and these inexpensive bracelets were the most prevalent type of glass jewelry in the Near East in antiquity (Spaer 1988, 51). During the Islamic periods, brightly colored bracelets replaced the earlier mostly dark-colored Roman and Byzantine ones. Tyre, Aleppo, Akko, Sidon, Cairo, Alexandria, Antioch, Beirut, and Damascus were famous glass production centers, and Hebron was especially famous for its glass bracelets and rings from the sixteenth through the twentieth centuries (Meyer 1992, 104; Steiner 1997–1998, 149; 2008, 232; Shindo 2001, 73–74, 93).

The range of bracelet diameters indicates that these inexpensive ornaments were popular among children as well as adults. Some of the largest bangles may also have been used as anklets. Complete bracelets have been found intact almost exclusively in burial sites and are rarely found in occupation levels. Glass finger-rings, some matching the glass bracelet styles, were not as varied or as popular as the bracelets (Spaer 2001, 206–7). The rarity of glass rings, in contrast to glass bracelets, suggests most rings were usually made of other materials, such as bronze, silver, and gold (Hadad 2005, 29).

We use the descriptions and typology suggested by Maud Spaer of the Israel Museum in her articles "The Pre-Islamic Glass Bracelets of Palestine" (1988) and "The Islamic Glass Bracelets of Palestine: Preliminary Findings" (1992). In the case of dark glass bracelets, glass color and transparency were determined by shining a high-intensity LED light through the glass.

Glass bracelet (fig. 11.19). Object 134. Field B, Square S29, Locus 1, Pail 2. Spaer type C2, "spirally twisted, circular section, single trails." The glass is translucent light blue and decorated with one single white trail. Width: 7 mm; height: 7 mm. This surface fragment was too small to estimate diameter. Parallels: Meyers 1992, plate 20:564 (Mamluk); Taxel 2007, fig. 4.3:10 (Mamluk); Alexandre 2012, fig. 4.10:5 (Mamluk).

Glass bracelet (fig. 11.20). Object 185, A044298. Field D, Square K15, Locus 1, Pail 2. Spaer type A2, "monochrome, semicircular section." The glass is translucent dark red but appears opaque black. Width: 8–9 mm, height: 5–6 mm, diameter: approximately 60 mm. The outer surface is smooth with longitudinal indentations from the shaping of the glass. It appears to be from the same bracelet as Object 196, but the fragments do not connect. It was found in a surface stratum.

Glass bracelet (fig. 11.21). Object 196, A044300. Field D, Square K15, Locus 2, Pail 4. Spaer type A2, "monochrome, semicircular section." The glass is translucent dark red but appears opaque black. Width: 9 mm; height: 6–7 mm; diameter: approximately 60 mm. The outer surface is smooth with longitudinal indentations from the shaping of the glass. It appears to be from the same bracelet as Object 185, but the fragments do not connect. It was found in a surface stratum. Parallels: Vessberg 1956, fig. 51:24 (Hellenistic–Roman); Jackson-Tal 2007, fig. 3:11 (Second Temple period); Gorin-Rosen 2007, fig. 8:9 (Late Roman).

Glass bracelet (fig. 11.22). Object 571, A044343. Field D, Square O18, Locus 1, Pail 1. Spaer type C2, "spirally twisted, circular section, single trails." The glass is opaque black and decorated with five single trails (two white, two red, one yellow). Width: 7 mm; height: 7 mm; diameter: approximately 50 mm. This bracelet has

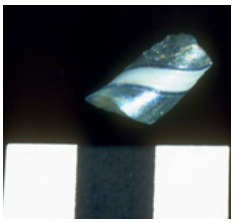


Figure 11.19. No. 134. Glass bracelet.



Figure 11.20. No. 185. Glass bracelet.



Figure 11.21. No. 196. Glass bracelet.



Figure 11.22. No. 571. Glass bracelet.



Figure 11.23. No. 769. Glass bracelet.



Figure 11.24. No. 1033. Glass bracelet



Figure 11.25. No. 1654. Glass bracelet.



Figure 11.26. No. 1878. Glass bracelet.



Figure 11.27. No. 2078. Glass bracelet.

a slight iridescent patina on its outer surface. It was found in surface stratum. Parallels: Hadad 2005, plate 55:1114–1116 (Ayyubid–Mamluk); Taxel 2007, fig. 4.3:3–7, 9 (Mamluk); Alexandre 2012, fig. 4.10:5 (Mamluk); Katsnelson 2013, fig. 17:5 (14th–15th centuries CE).

Glass bracelet (fig. 11.23). Object 769, A044340. Field B, Square Q21, Locus 1, Pail 25. Spaer type C3, "spirally twisted, circular section, symmetrically fused trail." The glass is transparent light blue and decorated with a symmetrically fused dark-blue-white-dark-blue trail. Width: 6 mm; height: 6 mm; diameter: approximately 70 mm. This bracelet has a slight iridescent patina on its outer surface. It was found in surface stratum. Parallels: Spaer 1992, fig. 24:3 (eighth century); Alexandre 2012, fig. 4.10:4 (Mamluk); Kogan-Zahavi 2013, fig. 7:37 (13th–15th centuries); Katsnelson 2014, fig. 1:12 (Mamluk–Ottoman).

Glass bracelet (fig. 11.24). Object 1033, A044360. Field B, Square P21, Locus 1, Pail 49. Spaer type D1d, "multicolor, semi-circular section, color patches." The glass is transparent light blue and decorated with striped color patches of orange-yellow-black-white-black-white-black-yellow-orange. Width: 6 mm; height: 4 mm; diameter: approximately 50 mm. Pastel transparent bracelets with this specific color patch stripe sequence are typically from the Mamluk and Ottoman periods. It was found in surface stratum. Parallels: Spaer 1992, fig. 11 (Ottoman); Shindo 2001, fig. 3:C3 (16th–20th centuries); Barkan and Jakoel 2012, fig. 9:1, 3–4 (Ottoman).

Glass bracelet (fig. 11.25). Object 1654, A044514. Field B, Square P22, Locus 4, Pail 12. Spaer type C1, "spirally twisted, circular section, monochrome." The glass is opaque black and loosely twisted. Width: 7–8 mm; height: 7–8 mm; diameter: approximately 80 mm. There is an iridescent patina on the outer surface. Parallels: Iliffe 1934, plate 24:1 (fourth century); Lamm 1935, plate 18:D (sixth–ninth centuries); Gorin-Rosen and Katsnelson 2007, fig. 24:2 (Late Roman–Early Byzantine); Vitto 2011, fig. 12:1–2 (late-fourth century).

Glass bracelet (fig. 11.26). Object 1878, A044524. Field F, Square C17, Locus 1, Pail 12. Spaer type C1, "spirally twisted, circular section, monochrome." The glass is opaque black and very tightly twisted, more typical of pre-Islamic bracelets. Width: 4 mm; height: 4 mm; diameter: approximately 50 mm. It was found in a surface stratum. Parallels: Lamm 1935, plate 18:E (sixth–ninth centuries CE); Bagatti and Milik 1958, fig. 37:34 (Roman); Delongaz and Haines 1960, plate 46:11 (Byzantine); Vitto 2011, fig. 12:3 (late-fourth century CE); Gutreich 2013, fig. 12.6:103 (Byzantine–Umayyad).

Glass bracelet (fig. 11.27). Object 2078, A044500. Field B, Square P22, Locus 1, Pail 26. Spaer type C2, "spirally twisted, circular section, single trails." The glass is dark red but appears opaque black and decorated with three single trails (two red and one light green). Width: 6 mm; height: 6 mm; diameter: approximately 50 cm. It was found in a surface stratum. Parallels: see Object 571.

Cabochons

Carnelian gemstone (cabochon; fig. 11.28)). Object 2778. Field B, Square P24, Locus 16, Pail 26. Preservation: fragmentary; carnelian cut and polished into a convex ellipse. Length: 16 mm (broken); width: 13 mm, thickness: 2 mm at end, widening to 3 mm at center. Munsell 2.5YR 5/8, red. In antiquity, jewelry makers often carved carnelian for ring settings (intaglio), but this full-size stone would have been too large for a ring, so it may have been for a bracelet. The curvature of the underside of the stone indicates that it could fit on a bracelet with a diameter of approximately 60 mm. Seven blank gemstone cabochons, none carnelian, were found at Masada (Hershkovitz and Amorai-Stark 2007, 223–24). Parallels for carved carnelian gemstones (intaglio) are as follows: Hershkovitz 2003, photo 10.3 (first century CE); Hershkovitz and Amorai-Stark 2007, figs. 1–3, 6–9, 11, plates 1:1–3, 6–7, and 2:8–9, 11 (37 BCE–115 CE); 2013, fig. 4.1 (first century CE); 2015, illustrations 15.1–2 (first centuries BCE and CE).



Figure 11.28. No. 2778. Cabochon (carnelian gemstone).

Bells

Copper-alloy dome-shaped bell (fig. 11.29). Object 2026, A044503. Field B, Square Q24, Locus 3, Pail 6. Preservation: bell partially flattened; suspension-loop and bell clapper missing. Diameter: 1.0 cm; height: 0.7 mm. The outer surface is smooth with no decorations. Small bronze bells are frequently found in tombs from the Late Roman period. Bells in antiquity were considered to have the power to avert evil influences or bad luck, and small bells were often attached to pieces of jewelry such as bracelets and necklaces (Vitto 2011, 122–23). Parallels: Macalister 1912, plate 78:13, 42 (Early Christian Tomb); Winter 1996, figs. 7.2:3–4 (second–fourth centuries, Late Roman); Stern and Getzov 2006, fig. 7:21 (Late Roman); Vitto 2011, fig. 14:10 (fourth century, Early Byzantine).



Figure 11.29. No. 2026. Copper-alloy dome-shaped bell.

Finger Rings

Glass finger-ring (fig. 11.30). Object 683. Field C, Square ZH05, Locus 14, Pail 8. Glass flattened into rectangular bezel (ca. 8 × 10 mm) on top. The glass is an opaque, indeterminate color. Band width: 7 mm near bezel, 5 mm elsewhere; band thickness: 4 mm. The ring is approximately US size 4. The glass is corroded with heavy patina. Relatively few glass rings have been published in the southern Levant.[3] Parallels: Crowfoot 1957, 420 (ring not dated); Spaer 2001, plate 37:493–95 (Late Hebron); Hadad 2005, plate 47:982 (Abbasid–Fatimid); Zelinger 2005, fig. 3:8 (Mamluk).

Copper-alloy finger-ring with raised setting with glass "gem" (fig. 11.31). Object 136, Field G, Square W18, Locus 8, Pail 23. Diameter: 1.9 cm; band width: 0.3 cm; band height: 0.2 cm; semicircular cross-section; stone setting diameter: 0.6 cm, stone setting height: 0.2 cm. Parallels: Davidson 1952, fig. 41, no. 1821 (sixth–seventh centuries CE), plate 102:1822 (11th–12th centuries CE); Patrich and Rafael 2008, 428, fig. 12 (fourth century–late Medieval).

Copper-alloy finger-ring with slightly flattened bezel (fig. 11.32). Object 1709, A044517. Field A, Square O23, Locus 2, Pail 21. Diameter: 2.2 cm; band width: 0.4 cm; band height: 0.4 cm. The ring has a semicircular cross-section; a small hole in band indicates a setting for a stone may have been attached. Parallels: see Object 136.

Iron finger-ring with flattened bezel (fig. 11.33). Object 1303, A044366. Field A, Square O21, Locus 15, Pail 20. Preservation: fragmentary. Diameter: approximately 1.8 cm; band width: 0.3 cm; band height: 0.15 cm; elliptical bezel (ca. 0.9 × 0.8 × 0.2 cm). This ring has a rectangular cross-section. Parallels: Davidson 1952, plates 102:1864 (seventh century CE) and 103:1847 (third century CE); Muhly and Muhly 1989, 284 (Persian); Gutfeld and Nenner-Soriano 2006, plate 12.1:14–15 (Late Roman–Medieval); Patrich and Rafael 2008, 428, figs. 14–15 (fourth century–Late Medieval); Nenner-Soriano 2015, plate 11.1:6 (66–71 CE or later).

Iron finger-ring with flattened bezel (fig. 11.34). Object 1328. Field A, Square O23, L. 1, Pail 8. Preservation: fragmentary. Diameter: 1.9 cm; band width: 0.3 cm; band height: 0.1 cm; elliptical bezel (ca. 1.1 × 0.5 × 0.1 cm). This ring has a rectangular cross-section. Parallels: see Object 1303.

Iron finger-ring with flattened bezel (fig. 11.35). Object 3094, A045304. Field B, Square R25, Locus 1, Pail 2.

[3] Snyder is preparing approximately 250 glass ring-fragments for publication from the Temple Mount Sifting Project in Jerusalem, of which 38 have a flattened bezel area. The colors and quality of the glass and the craftsmanship involved suggest these rings are from the Mamluk period and later, probably from Hebron. See Barkay and Dvira 2012, fig. 10. Also see glass rings discussed in Alexandre 2012, 106.



Figure 11.30. No. 683. Glass finger-ring.

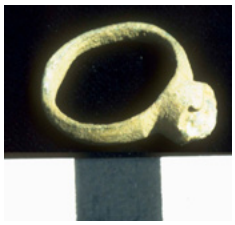


Figure 11.31. No. 136. Copper-alloy finger-ring; raised setting with glass "gem."



Figure 11.32. No. 1709. Copper-alloy finger-ring with slightly flattened bezel.



Figure 11.33. No. 1303. Iron finger-ring with flattened bezel.



Figure 11.34. No. 1328. Iron finger-ring with flattened bezel.



Figure 11.35. No. 3094. Iron finger-ring with flattened bezel.



Figure 11.36. No. 902. Iron finger-ring.



Figure 11.37. No. 1324. Iron adjustable ring.

Preservation: complete. Diameter: 2.5 cm; band width: 0.4 cm; band height: 0.3 cm; elliptical bezel (ca. 2.0 × 1.2 × 0.2 cm). This ring has an oval cross-section. Parallels: see Object 1303.

Iron finger-ring (fig. 11.36). Object 902, A044353. Field B, Square P21, Locus 1, Pail 32. Preservation: complete. Diameter: 2.3 cm; band width: 0.8–1.2 cm; band height: 0.2–0.3 cm. This ring has a semicircular cross-section. The two ends of band meet but do not connect. Parallels: Zitronblat and Geva 2003, plate 14.2:M26 (ring not dated); Nenner-Soriano 2015, plate 11.1:7 (third–second decades BCE).

Iron adjustable ring (fig. 11.37). Object 1324. Field B, Square P23, Locus 6, Pail 5. Preservation: complete. The ends of the band overlap. Diameter: 1.3 cm; band width: 0.1 cm; band height: 0.1 cm; rectangular cross-section. Parallels: Myers, Kraabel and Strange 1976, plate 8.3:7 (Roman).

Earrings

Silver earring (fig. 11.38). Object 2205, A044863. Field B, Square P22, Locus 12, Pail 40. Preservation: complete. Length: 2.6 cm; width: 2.2 cm; thickness: 0.3 cm. This open earring has a crescent-shape, and the band is thicker in the middle. A small band around the earring near one end acts as the earring's back. Parallels: No satisfactory parallels found.

Copper-alloy earring (fig. 11.39). Object 1589, A044511. Field A, Square O22, Locus 6, Pail 17. Preservation: complete. Length: 1.3 cm; width: 1.0 cm; thickness: 0.3 cm. This open earring has a crescent-shape, and the band is slightly thicker in the middle. This design was evidently fashionable during the Roman period and has been found at numerous sites. Parallels: Tushingham 1985, fig. 69:27; Muhly and Muhly 1989, fig. 25.10:179 (Persian); Patrich and Rafael 2008, 428, fig. 33 (Roman–Byzantine); Mazar 2015, figs. 1.3:1, 1.11:46–49, 1.16:12–13 (Persian); Nenner-Soriano 2010, plate 8.2:M16 (first century CE).

Copper-alloy earring (fig. 11.40). Object 2963, A045301. Field B, Square P24, Locus 19, Pail 41. Preservation: complete. Length: 1.3 cm; width: 1.0 cm; thickness: 0.3 cm. This hooped earring has a zoomorphic shape, possibly a horned animal. The band narrows from head to tail. Parallels: None made of bronze but similar zoomorphic-shaped earrings made of gold: Dothan 1971, plate 21:2 (Persian); Kloner, Regev, and Rappaport 1992,



Figure 11.38. No. 2205. Silver earring.



Figure 11.39. No. 1589. Copper-alloy earring.



Figure 11.40. No. 2963. Copper-alloy earring.



Figure 11.41. No. 3196. Copper-alloy earring.

fig. 21 (Hellenistic); Erlich 2009, fig. 106 (Hellenistic); Shalev, Polokoff, and Gadot 2018, fig. 3 (Hellenistic).

Copper-alloy earring (fig. 11.41). Object 3196, A045307. Field A. Square Q27, surface find. Preservation: complete. Length: 0.9 cm; width: 0.9 cm; thickness: 0.3 cm. This open earring has a crescent-shape with the band thicker in the middle. Parallels: see Object 1589.

Belt Buckles

Copper-alloy belt buckle (fig. 11.42). Object 922, A044354. Field G, Square R19, Locus 3, Pail 8. Preservation: complete. Diameter: 2.7 cm; frame width: 0.6 cm; frame height: 0.4 cm. This buckle has a triangular cross-section. The frame narrows where the prong was once attached. The frame has a small triangular design where the prong point would have rested. Parallels: Davidson 1952, plates 113:2174 (seventh century CE) and 113:2175 (fourth–eighth centuries CE); Yadin (1966) 1978, 150 (first century CE); Patrich and Rafael 2008, 428, figs. 1–11 (fourth century–late Medieval); Nenner-Soriano 2015, plate 11.1:8–9 (66–71 CE or later).



Figure 11.42. No. 922. Copper-alloy belt buckle.

Fibulae

A fibula (or toga pin) is a pin or brooch used for fastening garments. Prior to fibulae, straight pins were used as clothing fasteners, and fibulae were later replaced by buttons in the Middle Ages. They are the precursor of today's safety pin. Fibulae from the late first century BCE and the first century CE can be divided into two main groups: (1) those made of a single strip of metal with a needle having a round cross-section curled-in to create a spring between the needle and the bow, and (2) those with a hinge that connects between the needle and the bow. Both types are represented the Khirbet el-Maqatir collection.

Copper-alloy fibula (fig. 11.43). Object 1036, A041356. Field G, Square S19, Locus 4, Pail 14. Preservation: complete. Length: 5.9 cm; width: 2.4 cm; bow thickness: 0.9 cm; pin thickness: 0.2. The fibula is made of a single strip that curls in, creating a spring between the needle and the bow. Parallels: Crowfoot 1957, fig. 103:3 (Hellenistic); Gutfeld and Nenner-Soriano 2006, plate 12.1:M9 (Late Roman–Medieval); Nenner-Soriano 2013, plate 11.1:11 (Hasmonean) and 11.1:12–13, 16–17 (Herodian).

Copper-alloy fibula (fig. 11.45). Object 1961, A044526. Field B, Square Q24, Locus 3, Pail 4. Preservation: almost complete. Length: 5.2 cm; width: 2.0 cm; thickness: 0.2 cm. The needle of the fibula (now missing) would have been connected with a hinge. This fibula type is well-known, and some of them bear the name of an eminent craftsman who worked in the Roman period in Gallia. His are inscribed in Greek: ‘ΠΑUCISSA. Parallels: Davidson 1952, plate 113:2167–68 (first century CE); Yadin (1966) 1978, 150 (first century CE); Tushingham 1985, fig. 71:16; Vitto 2000, fig. 50:3 (first centuries BCE and CE); Gutfeld and Nenner-Soriano 2006, plate 12.1:M8 (Herodian); Stiebel 2013, plate 13.2:15 (Herodian).

Copper-alloy fibula (fig. 11.46). Object 2076, A044501. Field A, Square O24, Locus 9, Pail 13. Preservation: complete. Length: 3.0 cm; width: 2.0 cm; thickness: 0.5 cm. The bow is decorated with two rectangular ornamentations that are incised with fine horizontal and vertical lines. The needle is created from a circular cross-section strip that curls in, creating a spring between the needle and the bow. Parallels: None found with rectangular ornamentation but similar fibulae with circular ornamentation: Briend and Humbert 1980, plate 100:1–10 (Persian); Muhly and Muhly 1989, fig. 25:288–91 (Persian); Shalev and Sari 2006, fig. 10:1–3, 7–9 (Persian); Mazar 2015, fig. 1.11:52 (Persian).

Copper-alloy fibula needle (fig. 11.44). Object 1029. Field G, Square S19, Locus 4, Pail 14. Preservation: complete.



Figure 11.43. No. 1036. Copper-alloy fibula.



Figure 11.44. No. 1029. Copper-alloy fibula needle.



Figure 11.45. No. 1961. Copper-alloy fibula.



Figure 11.46. No. 2076. Copper-alloy fibula.



Figure 11.47. No. 746. Copper-alloy pin.



Figure 11.48. No. 2598. Copper-alloy pin.



Figure 11.49. No. 2774. Copper-alloy pin.

Length: 4.8 cm; width: 0.5 cm; thickness: 0.2 cm. The needle widens from the point to the rounded end where the small hole would have connected to the hinge of the fibula with a small pin. Parallels: Yadin (1966) 1978, 150 (first century CE); Tushingham 1985, fig. 71:16; Vitto 2000, fig. 50:3 (first centuries BCE and CE).

Pins

Simple, straight copper-alloy pins had everyday personal uses and medical uses. They could have a circular or rectangular cross-section, pointed at one end and thickening toward the other end.

Copper-alloy pin (fig. 11.49). Object 2774, A044878. Field B, Square Q25, Locus 2, Pail 12. Preservation: complete but bent. Unbent length: 10.2 cm; maximum diameter: 0.25 cm. This is a straight, simple pin, pointed at one end and thickening toward the other. Parallels: Bagatti and Milik 1958, photo 126:12–14 (Roman); Zitronblat and Geva 2003, plate 14.2:M21 (Herodian) and 14.2:M22 (Late Roman–Medieval); Nenner-Soriano 2013, plate 11.1:22 (Hasmonean–Herodian); 2015, plate 11.1:1 (71–132 CE), 11.1:2 (66–71 CE or later).

Copper-alloy pin (fig. 11.47). Object 746. Field B, Square Q21, Locus 13, Pail 24. Preservation: fragmentary; broken and bent. Length: 10.4 cm. This is a straight, simple, circular cross-section pin; the pointed tip is broken off but thickens to 0.4 cm toward the other end. Parallels: see Object 2774.

Copper-alloy pin (fig. 11.48). Object 2598. Field B, Square P24, Locus 8, Pail 11. Preservation: fragmentary. Length: 10.1 cm; maximum diameter: 0.2 cm. This straight, simple pin is pointed at one end and thickens toward the other end; the thick end is broken off. Parallels: see Object 2774.

Cosmetic Spoons and Spatulas

These long-handled copper-alloy tools could be used for medical purposes (Bliquez 1994, 46) but were also used daily for preparing and applying cosmetics and ointments.

Copper-alloy kohl stick (fig. 11.51). Object 1223, A044363. Field A, Cavern 2, Locus 3, Pail 8. Preservation: complete. Length: 17.2 cm, a straight rod with a circular cross-section; diameter: 0.3 cm, widening to a flat oval blade (ca. 5.5 × 0.7 × 0.1 cm) at one end and thickening to 0.5 cm at the other end. In the middle of the stick is a 0.9 cm wide decorative band with two protruding rings on each side. Parallels: Yadin (1966) 1978, 149 (first

century CE); Gutfeld and Nenner-Soriano 2006: plate 12.3:39 (Herodian); Billig 2006, fig. 11.6 (Second Temple period); Rafael 2008, 458, fig. 204 (Roman–Byzantine); Nenner-Soriano 2010, plate 8.2:M42 (first century CE); 2013, plate 11.1:20 (Herodian); Hurvitz 2014, 49 (first century CE); Feig and Hadad 2015, fig. 21 (first–fourth centuries CE).

Copper-alloy kohl stick (fig. 11.50). Object 708. Field B, Square Q21, Locus 13, Pail 20. Preservation: complete but broken in the middle. Length: 11.5 cm, a straight rod with a circular cross-section; diameter: 0.3 cm, widening to a flat oval blade (broken, ca. 1.0 × 0.7 × 0.1 cm) at one end and thickening to 0.5 cm at the other end. Parallels: see Object 1223.

Copper-alloy rod (fig. 11.52). Object 2684. Field B, Square P24, Locus 14, Pail 21. Preservation: fragmentary. Length: 5.2 cm, circular cross-section rod; diameter: 0.3 cm. This rod is rounded at one end and broken at the other and was probably used as a kohl stick. Parallels: Nenner-Soriano 2010, plate 8.2:M43 (first century CE); Nenner-Soriano 2012, plate 16.2:M27 (Byzantine); 2014, plate 14.1:M8 (Late Roman–Medieval).

Copper-alloy rod (fig. 11.53). Object 2839. Field B, Square Q25, Locus 2, Pail 15. Preservation: fragmentary. Length: 6.0 cm, circular cross-section rod; diameter: 0.3 cm. This rod is rounded at one end and broken and hollow at the other end. It was probably used as a kohl stick. Parallels: Zitronblat and Geva 2003, plate 14.2:M23 (Late Roman–Medieval); Nenner-Soriano 2012, plate 16.2:M26 (Medieval).

Copper-alloy cosmetic or medical spoon (fig. 11.59). Object 3274, A045308. Field F, Square G25, surface find. Preservation: complete but bent. Unbent length: 6.1 cm, rod has a circular cross-section; diameter: 0.2–0.3 cm, spoon (ca. 2.5 × 0.9 × 0.2 cm) is long and concave. Parallels: Baramki 1931, plate 11:11 (Roman); Davidson 1952, plate 81:1320 (Roman), 81:1331 (second century CE); Tushingham 1985, fig. 70:11; Bliquez 1994, fig. 5:36–37 (Roman); Rafael 2008, 466, figs. 195–96 (Roman–Byzantine).

Copper-alloy spatula (fig. 11.54). Object 2243, A044867. Field I, Square X23, Locus 9, Pail 2. Preservation: complete. Length: 11.1 cm, circular cross-section rod; diameter: 0.3 cm. One end has a flat triangular spatula (ca. 1.6 × 0.7 × 0.1 cm), and the other end has



Figure 11.50. No. 708. Copper-alloy kohl stick.



Figure 11.51. No. 1223. Copper-alloy kohl stick.



Figure 11.52. No. 2684. Copper-alloy rod.



Figure 11.53. No. 2839. Copper-alloy rod.



Figure 11.54. No. 2243. Copper-alloy spatula.

a rounded tip. Parallels: Rafael 2008, 466, fig. 185 (Roman–Byzantine); Nenner-Soriano 2013, plate 11.1:18 (Hasmonean); Hurvitz 2014, 49 (first century CE); Ganor and Ganor 2016, fig. 8:2 (second–first centuries BCE).

Copper-alloy spatula (fig. 11.55). Object 2366, A044873. Field I, Square X23, Locus 16, Pail 35. Preservation: complete. Length: 11.9 cm, circular cross-section rod; diameter: 0.3 cm. One end has a flat triangular spatula (ca. 1.5 × 0.9 × 0.1 cm), and the other end has a blunt finish. Parallels: see Object 2243.

Copper-alloy spatula (fig. 11.57). Object 2894. Field B, Square P24, Locus 17, Pail 38. Preservation: complete but bent. Unbent length: 14.4 cm, circular cross-section rod; diameter: 0.3 cm. One end has a flat triangular spatula (ca. 1.5 × 0.9 × 0.1 cm), and the other end has a rounded tip. Parallels: see Object 2243.

Copper-alloy spatula (fig. 11.56). Object 2682. Field B, Square Q25, Locus 3, Pail 6. Preservation: fragmentary. Length: 7.2 cm, circular cross-section rod; diameter: 0.2 cm. One end has a tiny flat triangular spatula (ca. 0.4 × 0.3 × 0.1 cm), and the other end is broken off. Parallels: see Object 2243.

Copper-alloy spatula (fig. 11.58). Object 2989, A045298. Field B, Square Q25, Locus 10, Pail 28. Preservation: complete but bent in two places. Unbent length: 12.2 cm, circular cross-section rod; diameter: 0.3 cm. One end has nine fine lines encircling the rod, then terminating with a flat triangular spatula (ca. 1.5 × 0.6 × 0.1 cm), and the other end has a rounded tip. Parallels: see Object 2243.

Tweezers

Copper-alloy tweezers (fig. 11.60). Object 1558, A044510. Field B, Square P23, Locus 8, Pail 23. Preservation: complete. Length: 14.2 cm, handle has circular cross-section (length: 2.2 cm, diameter: 0.3 cm). There is a decoration at end of handle with three circular cross-section bands (length: 0.5 cm, diameter: 0.6 cm). Pincers begin as a single square cross-section rod (length: 1.8 cm, width: 0.4 cm, height: 0.4 cm) then splits into two rectangular cross-section rods (each length: 9.7 cm,



Figure 11.55. No. 2366. Copper-alloy spatula.



Figure 11.56. No. 2682. Copper-alloy spatula.



Figure 11.57. No. 2894. Copper-alloy spatula.



Figure 11.58. No. 2989. Copper-alloy spatula.



Figure 11.59. No. 3274. Copper-alloy cosmetic or medical spoon.



Figure 11.60. No. 1558. Copper-alloy tweezers.

width: 0.2 tapering to 0.1 cm, height: 0.4 cm), curving inward at the tips. There is a small rectangular grip-clutch (0.7 × 0.6 × 0.1 cm) with a rectangular hole that slides for easy grasping with tips. Parallels: Petrie 1917, plate 62:Y8, Y13 (Roman); Bergama (Pergamum) Archaeological Museum, "Yortanli Salvage Excavation Finds" exhibit, Medical Instruments, no. 1 (Roman).

Copper-alloy tweezers (fig. 11.61). Object 2258, A044868. Field B, Square P22, Locus 14, Pail 42. Preservation: complete. Length: 5.8 cm; width: 1.1 cm; thickness: 0.15 cm. These tweezers have a single circular cross-section rod bent in three locations to create tension at the tips for grasping small objects. Parallels: Crowfoot 1957, fig. 104:1–2 (Roman); Bliquez 1994, figs. 2:14, 7:61 (Roman); Rafael 2008, 458, fig. 199 (Roman–Byzantine).

Copper-alloy tweezers (fig. 11.62). Object 11. Field G, Square Q17, Locus 1, Pail 4. Preservation: fragmentary; only the closed end of tweezers is extant. Length: 2.2 cm; width: 0.8 cm; thickness: 0.15 cm. The tweezers are made from a single cross-section rod bent to create tension at the tips for grasping small objects. Parallels: see Object 2258.



Figure 11.61. No. 2258. Copper-alloy tweezers.



Figure 11.62. No. 11. Copper-alloy tweezers.

Mirrors

Copper-alloy mirror (fig. 11.63). Object 618. Field C, Square Q21, Locus 1, Pail 15. Preservation: fragmentary. Length: 6.5 cm; width: 3.7 cm; diameter: approximately 24 cm; thickness: 0.15 cm. This object is highly smoothed and polished on one side. The rounded edge suggests this may be a fragment of a mirror. Parallels: Yadin (1966) 1978, 149 (first century CE); Nenner-Soriano 2010, plate 8.3:M58 (first century CE); 2015, plate 11.1:4 (first century BCE), 11.1:5 (66–71 CE or later); Hurvitz 2014, 48, fig. 2 (first century CE).

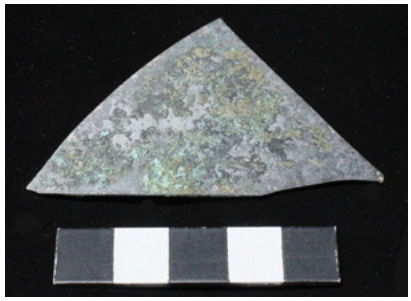


Figure 11.63. No. 618. Copper-alloy mirror.

Discussion

The objects from the Late Hellenistic and Early Roman periods reflect life in a typical Jewish town from the late Second Temple period, within the Gophna toparchy. We cite parallels for each of the objects. The jewelry and cosmetic accoutrements indicate that rural women adorned themselves very much like urban women. Square P22 (Locus 1, Pail 3) yielded the only unique object (fig. 11.14, Object 1476, A044358), a blue glass bead with yellow dots in the shape of a gaming die. No exact parallel exists.

The objects from the Byzantine period came from the ecclesiastical complex in Area C on the hill northwest of the village. Since the monastery was of the coenobium type, not all of the objects should be interpreted as property of the monks. Guests and visitors may have lost some of them, such as the seashell bracelet (Object 614/1–9; fig. 11.15.1–9) from Square ZF04. The few Byzantine objects from Area B were probably lost by the monks while cultivating the agricultural terraces.

The Islamic objects recovered in the excavation came primarily from the vestibule of the ecclesiastical complex, which was repurposed in the seventh century CE. Apart from this, a few broken bracelets and rings around the ruins of the town indicate the presence of squatters or passersby.

References

Abu ʻUqsa, Hanaa. 2007. "A Burial Cave at Horbat ʻEitayim." [In Hebrew.] *ʻAtiqot* 56:65–79.

Alexandre, Yardenna. 2012. *Mary's Well, Nazareth: The Late Hellenistic to the Ottoman Periods*. IAA Reports 49. Jerusalem: Israel Antiquities Authority.

Bagatti, P. B., and J. T. Milik. 1958. *Gli Scavi del "Dominus Flevit" (Monte Oliveto—Gerusalemme)*. Pt. 1, *La necropoli del periodo romano*. Studium Biblicum Franciscanum, Collectio major 13. Jerusalem: Franciscan Printing Press.

Barag, Dan. 1978. *Ḥanita, Tomb XV: A Tomb of the Third and Early Fourth Century CE*. ʻAtiqot, English Series 13. Jerusalem: Department of Antiquities and Museums.

Baramki, Dimitri C. 1931. "Note on a Cemetery at Karm al-Shaikh, Jerusalem." *Quarterly of the Department of Antiquities in Palestine* 1 (1): 3–9.

Barkan, Diego, and Eriola Jakoel. 2012. "Tel Aviv, Ramat Aviv." *Hadashot Arkheologiyot: Excavations and Surveys in Israel* 124. http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=2127&mag_id=119.

Barkay, Gabriel. 1986. *Ketef Hinnom: A Treasure Facing Jerusalem's Walls*. Jerusalem: Israel Museum.

Barkay, Gabriel, and Yitzhak Shimon Dvira. 2012. "The Temple Mount Sifting Project: Preliminary Report 3." In *City of David Studies of Ancient Jerusalem: The 13th Annual Conference*, edited by Eyal Meiron, 47–95. [In Hebrew.] Jerusalem: Megalim.

Beck, Horace C. 1928. *Classification and Nomenclature of Beads and Pendants*. Oxford: Society of Antiquities of London.

Billig, Yaʻakov. 2006. "A Burial Cave of the Second Temple Period in the Arnona Quarter." *ʻAtiqot* 54:15*–29* [in Hebrew], 154–56 [English summary].

Bliquez, Lawrence J. 1994. *Roman Surgical Instruments and Other Minor Objects in the National Archaeological Museum of Naples*. Mainz: von Zabern.

Briend, Jacques, and Jean-Baptiste Humbert. 1980. *Tell Keisan (1971–1976): Une Cité Phénicienne en Galilée*. Orbis Biblicus et Orientalis, Series Archaeologica 1. Fribourg: Presses Universitaires.

Crowfoot, Grace M. 1957. "Faience, Amulets and Beads." In *The Objects from Samaria*, edited by John W. Crowfoot, Grace M. Crowfoot, and Kathleen M. Kenyon, 389–420. Samaria-Sebaste 3. London: Palestine Exploration Fund.

Davidson, Gladys R. 1952. *Corinth: Results of Excavations Conducted by the American School of Classical Studies at Athens*. Vol. 12, *The Minor Objects*. Princeton: American School of Classical Studies at Athens.

Delongaz, Pinhas, and Richard C. Haines. 1960. *A Byzantine Church at Khirbat al-Karak*. Oriental Institute Publications 85. Chicago: University of Chicago Press.

Dothan, Moshe. 1971. *Ashdod II–III: The Second and Third Seasons of Excavations 1963, 1965*. ʻAtiqot, English

Series 9–10. Jerusalem: Department of Antiquates and Museums.

Dubin, Lois Sherr. 2009. *The History of Beads: From 100,000 B.C. to the Present*. Rev. ed. New York: Abrams.

Erlich, Adi. 2009. *The Art of Hellenistic Palestine*. BAR International Series. Oxford: Archaeopress.

Feig, Nurit, and Shulamit Hadad. 2015. "Roman Burial Caves at I'billin." *'Atiqot* 83:93–123.

Ganor, Amir, and Sa'ar Ganor. 2016. "A Burial Cave from the Second–First Centuries BCE near 'En Gedi." *'Atiqot* 84:65*–78* [in Hebrew], 126–27 [English summary].

Gera, Avivit. 2007. "The Small Finds." In *Excavations at Kadesh Barnea (Tell el-Qudeirat), 1976–1982*, by Rudolph Cohen and Hannah Bernick-Greenberg, pt. 2, 211–37. IAA Reports 34. Jerusalem: Israel Antiquities Authority.

Gorin-Rosen, Yael. 2007. "The Glass Finds." In "Ar'ara," by Abdallah Massarwa, *Hadashot Arkheologiyot: Excavations and Surveys in Israel* 119. http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=684&mag_id=112.

Gorin-Rosen, Yael. 2009. "Glass Artifacts from Tomb 7 at Fardisya (East)." [In Hebrew.] *'Atiqot* 61:75*–82*.

Gorin-Rosen, Yael, and Natalya Katsnelson. 2007. "Local Glass Production in the Late Roman–Early Byzantine Periods in Light of the Finds from Khirbet el-Ni'ana." *'Atiqot* 57:73–154.

Gutfeld, Oren, and Ravit Nenner-Soriano. 2006. "Metal Artifacts." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*, by Hillel Geva. Vol. 3, *Area E and Other Studies*, 272–82. Jerusalem: Israel Exploration Society.

Gutreich, Dorit. 2013. "The Glass Finds." In *Jerusalem: Excavations in the Tyropoeon Valley (Giv'ati Parking Lot)*, by Doron Ben-Ami, 1:265–89. IAA Reports 52. Jerusalem: Israel Antiquities Authority.

Hadad, Shulamit. 2005. *Islamic Glass Vessels from the Hebrew University Excavations at Bet Shean*. Qedem 8. Jerusalem: Hebrew University of Jerusalem.

Harding, Gerald L. 1950. "A Roman Family Vault on Jebel Jofeh, Amman." *Quarterly of the Department of Antiquities in Palestine* 14:81–94.

Hershkovitz, Malka. 2003. "Gemstones." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*. Vol. 2, *The Finds from Areas A, W and X-2*, by Hillel Geva, 296–301. Jerusalem: Israel Exploration Society.

Hershkovitz, Malka, and Shua Amorai-Stark. 2007. "The Gems from Masada." In *Masada VIII: The Yigael Yadin Excavations, 1963–1965; Final Reports*, edited by Joseph Aviram, Gideon Foerster, Ehud Netzer, and Guy Stiebel, 217–27, plates 1–4. Jerusalem: Israel Exploration Society.

Hershkovitz, Malka, and Shua Amorai-Stark. 2013. "A Carnelian Gemstone from the Herodian Palaces at Jericho." In *Hasmonean and Herodian Palaces at Jericho: Final Reports of the 1973–1987 Excavations*. Vol. 5, *The Finds from Jericho and Cypros*, edited by Rachel Bar-Nathan and Judit Gärtner, 130. Jerusalem: Israel Exploration Society.

Hershkovitz, Malka, and Shua Amorai-Stark. 2015. "Gem and Ring from Herodium." In *Herodium: Final Reports of the 1972–2010 Excavations Directed by Ehud Netzer*. Vol. 1, *Herod's Tomb Precinct*, edited by Roi Porat, Rachel Chachy, and Yakov Kalman, 474–75. Jerusalem: Israel Exploration Society.

Hurvitz, Gila. 2014. *The Story of Masada*. Jerusalem: Israel Exploration Society.

Iliffe, J. H. 1934. "A Tomb at el Bassa of *c.* A.D. 396." *Quarterly of the Department of Antiquities in Palestine* 3:81–91.

Jackson-Tal, Ruth E. 2007. "The Glass Vessels." In "A Tomb from the Second Temple Period at Shoham," by Alla Nagorski. *'Atiqot* 55:43*–49*.

Jackson-Tal, Ruth E. 2013. "The Glass and Small Finds from a Roman Tomb at 'Ein el-Sha'ara." *'Atiqot* 73:53–65.

Katsnelson, Natalya. 2013. "The Glass Finds." In "Zerahya: Final Report," by Svetlana Talis. *Hadashot Arkheologiyot: Excavations and Surveys in Israel* 125. http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=5463&mag_id=120.

Katsnelson, Natalya. 2014. "Glass Finds from the al-Waṭa Quarter, Safed (Ẓefat)." *'Atiqot* 78:153–57.

Kloner, Amos, Dalit Regev, and Uriel Rappaport. 1992. "A Hellenistic Burial Cave in the Judean Shephelah." *'Atiqot* 21:27*–50* [in Hebrew], 175–77 [English summary].

Kogan-Zahavi, Elena. 2013. "Khirbat 'Amra: Final Report." *Hadashot Arkheologiyot: Excavations and Surveys in Israel* 125. http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=4363&mag_id=120.

Lamm, Carl J. 1935. *Glass from Iran in the National Museum, Stockholm*. Stockholm: Fritze.

Lamon, Robert S., and Geoffrey M. Shipton. 1939. *Megiddo*. Vol. 1, *Seasons of 1925–34: Strata I–IV*. Oriental Institute Publications 42. Chicago: University of Chicago Press.

Macalister, R. A. Stewart. 1912. *The Excavation of Gezer, 1902–1905 and 1907–1909*. Vol. 3, *Two Hundred and Twenty-Six Plates with Index*. London: Murray.

Mazar, Eilat. 2015. *The Ophel Excavations to the South of the Temple Mount, 2009–2013: Final Reports*. Vol. 1. Jerusalem: Shoham.

Mazar, Eilat, and Benjamin Mazar. 1989. *Excavations in the South of the Temple Mount: The Ophel of Biblical Jerusalem*. Qedem 29. Jerusalem: Hebrew University of Jerusalem.

Meyer, Carol. 1992. *Glass from Qaseir al-Qudim and the Indian Ocean Trade*. Studies in Ancient Oriental Civilizations 53. Chicago: University of Chicago Press.

Mienis, Henk K. 1992. "Molluscs." In *Excavations at the City of David, 1978–1985: Directed by Yigal Shiloh*. Vol. 3, *Stratigraphical, Environmental, and Other Reports*, edited by Alon De Groot and Donald T. Ariel, 122–30. Qedem 33. Jerusalem: Hebrew University of Jerusalem.

Mienis, Henk K. 2017. "Shells from Areas H and Q." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*. Vol. 7, *Areas Q, H, O-2 and Other Studies, Final Report*, by Hillel Geva, 269–71. Jerusalem: Israel Exploration Society.

Munsell Soil-Color Charts: With Genuine Munsell Color Chips. 2010. Grand Rapids: Munsell Color.

Muhly, James D., and Polymnia Muhly. 1989. "Metal Artifacts." In *Excavations at Tel Michal, Israel*, edited by Ze'ev Herzog, George Rapp Jr., and Ora Negbi, 267–95. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 8. Tel Aviv: Tel Aviv University.

Myers, Eric, A. Thomas Kraabel, and James F. Strange. 1976. *Ancient Synagogue Excavations at Khirbet Shema', Upper Galilee, Israel, 1970–1972*. Annual of the American Schools of Oriental Research 42. Durham: Duke University Press.

Nenner-Soriano, Ravit. 2010. "Metal Artifacts." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*. Vol. 4, *The Burnt House of Area B and Other Studies*, by Hillel Geva, 248–60. Jerusalem: Israel Exploration Society.

Nenner-Soriano, Ravit. 2012. "Metal Artifacts from the Cardo and the Nea Church." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*. Vol. 5, *The Cardo (Area X) and the Nea Church (Areas D and T)*, by Oren Gutfeld, 248–60. Jerusalem: Israel Exploration Society.

Nenner-Soriano, Ravit. 2013. "Metal Artifacts from Jericho and Cypros." In *Hasmonean and Herodian Palaces at Jericho: Final Reports of the 1973–1987 Excavations*. Vol. 5, *The Finds from Jericho and Cypros*, edited by Rachel Bar-Nathan and Judit Gärtner, 270–84. Jerusalem: Israel Exploration Society.

Nenner-Soriano, Ravit. 2014. "Metal Artifacts from Areas J and N." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*. Vol. 6, *Areas J, N, Z and Other Studies*, by Hillel Geva, 311–17. Jerusalem: Israel Exploration Society.

Nenner-Soriano, Ravit. 2015. "The Metal Artifacts." In *Herodium: Final Reports of the 1972–2010 Excavations Directed by Ehud Netzer*. Vol. 1, *Herod's Tomb Precinct*, edited by Roi Porat, Rachel Chachy, and Yakov Kalman, 426–31. Jerusalem: Israel Exploration Society.

Patrich, Joseph, and Kate Rafael. 2008. "The Jewelry." In *Archaeological Excavations at Caesarea Maritima: Areas CC, KK and NN; Final Report*. Vol. 1, *The Objects*, by Joseph Patrich, 421–31. Jerusalem: Israel Exploration Society.

Petrie, W. M. Flinders. 1917. *Tools and Weapons: Illustrated by the Egyptian Collection in University College, London*. British School of Archaeology in Egypt and Egyptian Research Account. London: British School of Archaeology in Egypt.

Porat, Leea. 1997. "Quarry and Burial Caves at Ḥ. Kenes (Karmiel)." [In Hebrew.] *'Atiqot* 33:81–88.

Rafael, Kate. 2008. "The Metal Objects." In *Archaeological Excavations at Caesarea Maritima: Areas CC, KK and NN; Final Report*. Vol. 1, *The Objects*, by Joseph Patrich, 437–69. Jerusalem: Israel Exploration Society.

Sagiv, Nachum, Boaz Zissu, and Gideon Avni. 1998. "Tombs of the Second Temple Period at Tel Goded, Judean Foothills." [In Hebrew.] *'Atiqot* 35:7*–21*.

Sass, Benjamin. 2000. "The Small Finds." In *Megiddo III: The 1992–1996 Seasons*, edited by Israel Finkelstein, David Ussishkin, and Baruch Halpern, 2:349–423. Tel Aviv University Sonia and Marco Nadler Institute of Archaeology Monograph Series 18. Tel Aviv: Tel Aviv University.

Shalev, Sariel, and Kamil Sari. 2006. "Persian-Period Metal Finds from Tel Mikhal (Tel Michal)." *'Atiqot* 52:93–107.

Shalev, Yiftah, Ariel Polokoff, and Yuval Gadot. 2018. "Gold Jewelry from the Early Hellenistic Period in Jerusalem." In *City of David Studies of Ancient Jerusalem: The 18th Annual Conference*, edited by Eyal Meiron, 41–50. [In Hebrew.] Jerusalem: Megalim.

Shindo, Yoko. 2001. "The Classification and Chronology of the Islamic Glass Bracelets from al-Ṭūr, Sinai." In *Cultural Change in the Arab World*, edited by T. Nishio, 73–100. Senri Ethnological Studies 55. Osaka: National Museum of Ethnology.

Spaer, Maud. 1988. "The Pre-Islamic Glass Bracelets of Palestine." *Journal of Glass Studies* 30:51–61.

Spaer, Maud. 1992. "The Islamic Glass Bracelets of Palestine: Preliminary Findings." *Journal of Glass Studies* 34:44–62.

Spaer, Maud. 2001. *Ancient Glass in the Israel Museum: Beads and Other Small Objects*. Jerusalem: Israel Museum.

Steiner, Margaret L. 1997–1998. "The Excavations at Tell Abu Sarbut: A Mamluk Village in the Jordan Valley." *ARAM* 9–10:145–51.

Stern, Edna J. 1997. "Burial Caves at Kisra." *'Atiqot* 33:103–35.

Stern, Edna J., and Nimrod Getzov. 2006. "Phoenician Burial Customs in Light of an Excavation near el-Kabri." *'Atiqot* 51:91–123.

Stiebel, Guy. 2013. "The Military Equipment from the Hasmonean and Herodian Palaces at Jericho and Cypros." In *Hasmonean and Herodian Palaces at Jericho: Final Reports of the 1973–1987 Excavations*. Vol. 5, *The Finds from Jericho and Cypros*, edited by Rachel Bar-Nathan and Judit Gärtner, 290–98. Jerusalem: Israel Exploration Society.

Swersky, Ann. 1996. "Gemstones." In *Excavations at the City of David, 1978–1985: Directed by Yigal Shiloh*. Vol. 4, *Various Reports*, edited by Donald T. Ariel and Alon De Groot, 268–75, figs. 42–45, plate 17. Qedem 35. Jerusalem: Hebrew University of Jerusalem.

Taxel, Itamar. 2007. "Glass Objects." In *Kfar 'Ana: A Rural Settlement in the Lod Valley*, by Ram Gophna, Itamar Taxel, and Amir Feldstein, 66–76. Salvage Excavation Reports 4. Tel Aviv: Emery and Claire Yass Publications in Archaeology.

Tufnell, Olga. 1953. *Lachish III: The Iron Age*. Pt. 2, *Plates*. Wellcome-Marston Archaeological Research Expedition to the Near East 3. London: Oxford University Press.

Tushingham, A. D. 1985. *Excavations in Jerusalem, 1961–1967*. Vol. 1. Toronto: Royal Ontario Museum.

Vessberg, Olof, and Alfred Westholm. 1956. *The Swedish Cyprus Expedition*. Vol. 4, pt. 3, *The Hellenistic and Roman Periods in Cyprus*. Stockholm: Swedish Cyprus Expedition.

Vitto, Fanny. 2000. "Burial Caves from the Second Temple Period in Jerusalem (Mount Scopus, Giv'at Hamivtar, Neveh Ya'aqov)." *'Atiqot* 40:65–121.

Vitto, Fanny. 2011. "An Early Byzantine-Period Burial Cave at Kabul." *'Atiqot* 66:107–36.

Winter, Tamar. 1996. "Jewelry and Miscellaneous Objects." In *The Akeldama Tombs: Three Burial Caves in the Kidron Valley, Jerusalem*, by Gideon Avni and Zvi Greenhut, 109–16. IAA Reports 1. Jerusalem: Israel Antiquities Authority.

Winter, Tamar. 2013. "The Glass Vessels, Beads and Metal Artifacts from the Burial Cave at 'En Ya'al, Jerusalem." [In Hebrew.] *'Atiqot* 76:15*–22*.

Yadin, Yigael. (1966) 1978. *Masada: Herod's Fortress and the Zealot's Last Stand*. Reprint, London: Abacus.

Zelinger, Yehiel. 2005. "Kafr Jinnis." *Hadashot Arkheologiyot: Excavations and Surveys in Israel* 117. http://www.hadashot-esi.org.il/report_detail_eng.aspx?id=233&mag_id=110.

Zitronblat, Avital, and Hillel Geva. 2003. "Metal Artifacts." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*. Vol. 2, *The Finds from Areas A, W and X-2*, by Hillel Geva, 353–63. Jerusalem: Israel Exploration Society.

Zuckerman, Sharon. 1996. "Beads and Pendants." In *Excavations at the City of David, 1978–1985: Directed by Yigal Shiloh*. Vol. 4, *Various Reports*, edited by Donald T. Ariel and Alon De Groot, 276–81, figs. 42–45, plate 17. Qedem 35. Jerusalem: Hebrew University of Jerusalem.

12. Militaria

Katherine A. Streckert and Boyd V. Seevers

The Late Hellenistic and Early Roman military artifacts at Khirbet el-Maqatir fit into seven groups: hobnails, slingstones and ballista balls, sling pellets, arrowheads, javelin heads, blades, and equestrian fittings. Though most of these artifacts came from Early Roman contexts (Stratum 3b), the dating of the whole collection may extend from the Late Hellenistic period to the mid-third century CE. Overall, the Early Roman militaria found at Khirbet el-Maqatir seems to support the excavators' assertion that the Late Hellenistic and Early Roman settlement was founded in the second century BCE, destroyed by the Romans in 69 CE, and subsequently occupied by Roman soldiers until sometime before the Second Jewish Revolt (132–135 CE) when a Jewish population resettled the site.

Hobnails

Similar to many sites displaying an Early Roman presence, Khirbet el-Maqatir produced many hobnails, also called sandal tacks or shoe tacks (fig. 12.1; see table). The excavators recorded 55 hobnails with head diameters of 3–20 mm and total lengths up to 19 mm. Nearly 50 additional hobnails were uncovered but not retained due to poor preservation. Throughout the Roman era, civilians and soldiers both wore hobnailed shoes. Though nailed footwear was strongly associated with the Roman military, the use of hobnailed shoes spread to the general population of Palestine. Jewish civilians wore hobnails until their prohibition, most likely during the Second Jewish Revolt (Roussin 1994, 188, 190; Mishnah Shabbat 6.2 and explanation in Babylonian Talmud 60a–b). The findings from the Qumran area, for example, suggest that Jewish civilians used hobnails at least into the Early Roman period (Stiebel 2003, 223).

Swiss archaeologist Marquita Volken has undertaken foundational research on the dating of hobnails based upon widespread consistency in nail measurements from the strata of a Roman road (Volken, Paccalot, and Volken, 2011). Few excavation reports note the exact dimensions of hobnails, and the research required to support Volken's theories in a Near Eastern context would exceed the scope of this chapter, but it is useful to mention the application of Volken's typology to the hobnails from Khirbet el-Maqatir. With nail heads ranging in diameter from 3 to 20 mm (not accounting for possible mass loss from wear or corrosion), Khirbet el-Maqatir may have displayed nails dating from 60 BCE (Volken, Paccalot, and Volken 2011, 365, Group A) to 285 CE (pp. 377, 385, Groups H–O).[1] However, the smaller and possibly later examples were very flat, suggesting significant wear. In contrast, the best-preserved and slightly worn examples were of medium head diameter (11–12 mm originally) and may date to 20–180 CE (Groups D–K). Their date range could even narrow to 40–80 CE, when 11–12 mm diameter heads seemed to be used exclusively (Groups E–F, pp. 360–61, 364–65, 369, 373).[2] Three of the four hobnails reported from Gamla which dated securely to the Roman attack in 67 CE also had head diameters of 11 mm with worn head heights of 5–6 cm (Stiebel 2014, 80–81; Volken, Paccalot, and Volken 2011, 336). Thus, the best-preserved nails from Khirbet el-Maqatir could imply Roman activity at the time of both Jewish Revolts, possibly with special emphasis on the First Revolt. The excavators propose that the Romans attacked the settlement in 69 CE and that a small detachment of soldiers could have stayed there until sometime before the Bar Kokhba revolt, when a group of Jewish rebels appear to have reinhabited parts of the site (Peterson and Stripling 2017, 80*; Raviv, Stripling, and Farhi, 2021). Along with the numismatic and ceramic evidence, our interpretation of the site's hobnails supports this historical reconstruction.

The rocky terrain of Judea lead to the advanced wear and loss of hobnails from Roman footwear (Stiebel 2015, 432), and thus, many sites yielded parallels. Notable sites from the First Jewish Revolt which record hobnails include Masada (Stiebel 2007, 1:372) and the Roman Camp A below Masada (Stiebel 2007, 2:3.20a/D), Gamla (Stiebel 2014, 80–81), Herodium (Stiebel 2003, 223; 2015, 432–34), and Jotapata (Stiebel 2007, 2:3.2/D.1). Many other sites in Palestine also exhibited hobnails from both before and after this time period. Given the apparently broad time span of Khirbet el-Maqatir's collection of hobnails, the examples from Khirbet el-Maqatir added most significantly to this corpus of First Revolt finds.

[1] The typology is divided into chronological groups based on weight and measurements, Group A being the earliest and Group P the latest (Volken, Paccalot, and Volken 2011, 336). Group designations in citations refer to the diagram in Volken, Paccalot, and Volken (336) and typology catalog detailed in Volken Paccalot, and Volken (356–87). Additional page numbers reference specific examples within the catalog.

[2] As with the group delineations, this time span is based on the typology in Volken, Paccalot, and Volken 2011 (diagram on p. 336, catalog on pp. 356–87). The advanced wear of many of the hobnails from Khirbet el-Maqatir makes the proposed original masses and head diameters somewhat subjective. Thus, the resulting dates are inconclusive.

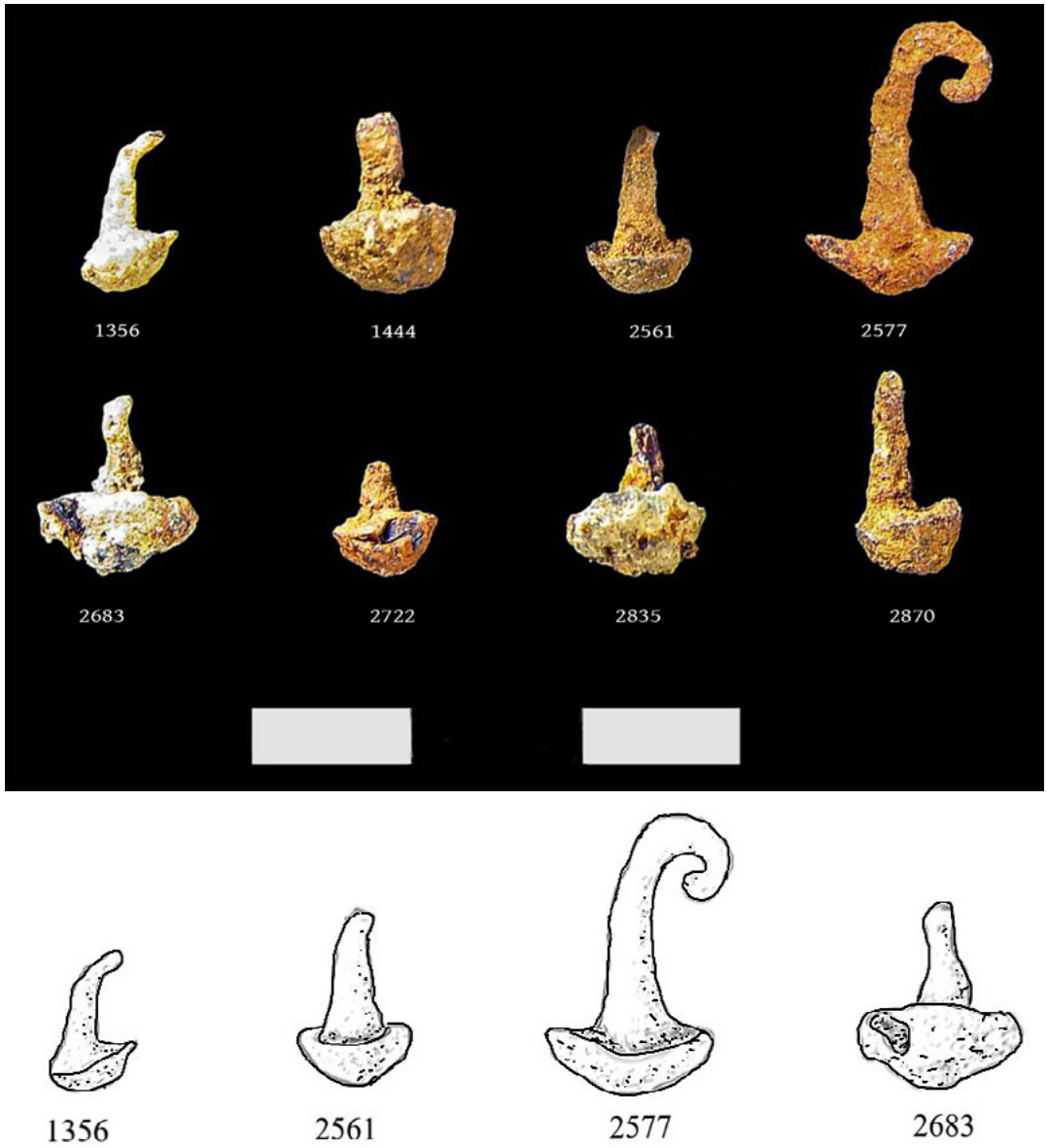


Figure. 12.1. Hobnails from Khirbet el-Maqatir, ca. 60 BCE to 260 CE.
Photograph by Michael C. Luddeni; drawing by Katherine A. Streckert.

Khirbet el-Maqatir's hobnails contributed additional detail to the site's history. Three excavation areas revealed a concentration of hobnails (fig. 12.2). The area in and around a large first century CE dwelling at the center of town produced the largest concentration (26 hobnails). Added to the quantity of hobnails, a lapis lazuli die (see chap. 11, "Jewelry and Personal Accessories," regarding Object 1476) was also discovered in this mansion. This suggests that the Romans may have occupied the building as a barracks or headquarters following the siege (Peterson and Stripling 2017, 80*). The northern fortified tower (see chap. 3, "Monumental Tower and Fortification System") and a modified natural cave, designated Cavern 1 (CAV1), both yielded four hobnails. The findings of Cavern 1 were perhaps the most compelling (see chap. 4, "Subterranean Features"). Khirbet el-Maqatir's inhabitants used this cave in the first century CE as an olive-oil processing installation, and when excavated, it was found to contain the remains of five or six human skeletons, along with a hiding tunnel in one wall.[3]

[3] Cavern 1 contained the skeletons of an adolescent male and female, a woman of 20–30 years, a child, and an elderly adult. Unidentifiable remains of a sixth person, likely female, were also present. The connecting cave, Cavern 3, contained the remains of two more women—one 16–20 years old and one elderly (Wood 2018, 32).

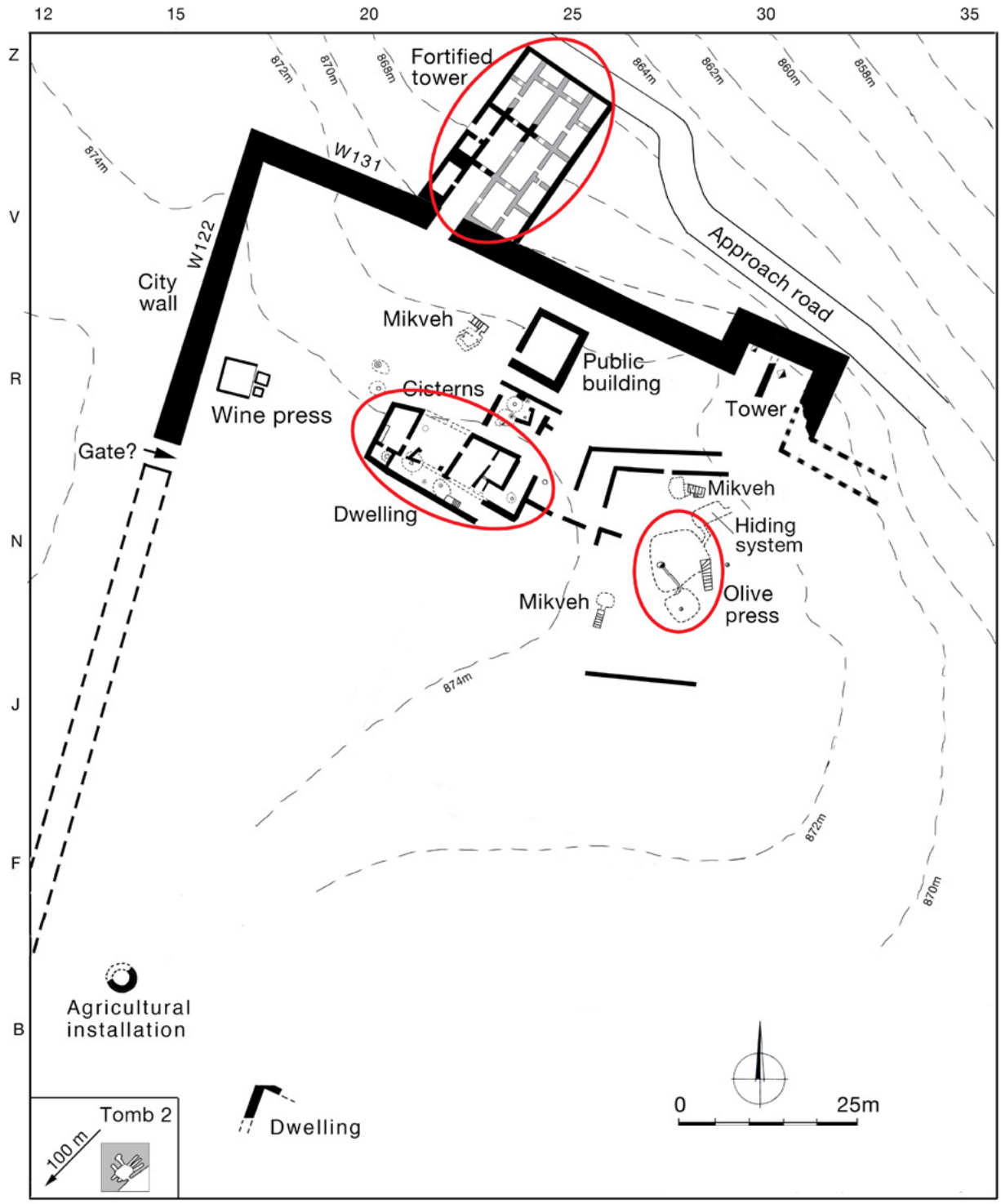


Figure. 12.2. Map of the Early Roman town with hobnail concentrations circled in red. Drawing by Leen Ritmeyer; concentrations added by authors.

Khirbet el-Maqatir was likely in the path of the Roman army as it marched south to Jerusalem in 69 CE. In fact, some researchers have proposed that Khirbet el-Maqatir was the town of Ephraim mentioned by Josephus in his account of Vespasian's conquest of the Judaean highlands (Peterson and Stripling 2017, 82*–83*). If this identification is accurate, then according to Josephus, Vespasian's army would have come from Caesarea into the hill country, decimating the districts of Gophna and Acrabata before taking Bethel and Ephraim (i.e., Khirbet el-Maqatir). Josephus records that Vespasian left garrisons in these towns before continuing to Jerusalem, supporting the idea that Roman soldiers were placed at Khirbet el-Maqatir after

its fall (*Jewish War* 4.550–51). Evidently, some women, children, and elderly citizens of Khirbet el-Maqatir retreated to the underground olive-press-turned-hiding complex during the attack, where the Roman garrison eventually found and killed them. The hobnails found in the cave argue for Roman involvement in the fates of these civilians and their hometown, though the Jewish population may have also worn hobnails at this time. It is plausible that the Roman soldiers occupied Khirbet el-Maqatir until the close of the First Revolt or at least until the fall of Jerusalem in 70 CE when they may have been recalled to Jerusalem. As presented in chapter 4, the subterranean hiding system was also used by rebels in the Bar Kokhba revolt.



Figure. 12.3. 6-libra ballista ball. Photograph by Michael C. Luddeni; drawing by Katherine A. Streckert.

Slingstones and Ballista Balls

Three hundred rounded stone balls came to light in the Khirbet el-Maqatir excavations, distributed throughout Bronze Age, Iron Age, Late Hellenistic, and Early Roman strata. While the largest was 1.96 kg, most balls weighed 250–350 grams. The majority were flint, though some were made of limestone, including the largest stone. They all exhibit a pecked finish, the result of chipping the stone into shape with a hard implement, such as another stone. Khirbet el-Maqatir's long history complicates the dating of the stones, as the majority of the slingstones were found in mixed contexts. Due to evidence of a Late Bronze Age battle at the site and the fact that many balls came to light in a Bronze Age stratum (Stratum 7), excavators originally assumed that the majority were slingstones from this era, reused as projectiles or pounders in subsequent periods. However, some of the balls under 655 grams could have also been slingstones from the Roman attack. Likewise, stones weighing over 655 grams could have been Early Roman ballista balls (Seevers, forthcoming; Stiebel 2013a, 299–300). Two stones from Khirbet el-Maqatir weighed-in above this 655-gram cutoff (see table).

The largest rounded stone from Khirbet el-Maqatir, which weighed 1.96 kg and had an 11 cm diameter, was very likely a Roman ballista ball (fig. 12.3). It was recovered along with four slingstones and a hobnail just outside the apparent Late Hellenistic and Early Roman perimeter wall on the western side of the site, at the high point of the wall in that area. The pottery found with this artifact was mostly Middle and Late Bronze, though two Early Roman sherds were present. At 1.96 kg, the ball weighed exactly 6 libra, one of the smaller calibers listed by the Roman military engineer Vitruvius (*Ten Books on Architecture* 10.11.3, in Marsden 1971, 191), suggesting that the Romans may have made it for the attack on Khirbet el-Maqatir in 69 CE. The other ballista ball, ca. 90 percent complete, weighed 0.92 kg, suggesting an original weight of approximately 1.012 kg, just over 3 libra (0.987 kg). Holley (2014: table 3.5–6) lists 3 libra as a common caliber. Since both ballista balls fit libra calibers, this suggests that one of the two legions used in the revolt that had come from the west—*V Macedonia* and *XV Apollinaris* (Holley 2014, 46) likely attacked Khirbet el-Maqatir. This smaller stone came to light at the peak of the hill where the Byzantine monastery was later situated, some 120 meters to the northwest. It was discovered with a slingstone and mostly Byzantine pottery. Though this ballista ball may have been out of context, it is quite logical that the Romans camped on this high point and made sling and ballista balls there before attacking the western wall where the larger ballista ball was found. Perhaps the Roman soldiers attacked the city wall on the west and the tower on the north and then converged at the mansion at the center of town.

When besieging small settlements and large fortresses alike, the Romans were known to use war machines, such as ballistae (Stiebel 2005, 100). Khirbet el-Maqatir, with its towers and walls, could well have been such a target. Though the evidence of the few ballista balls and the artifacts found with them was too meager to confirm the plan of attack used by the Romans in the siege of Khirbet el-Maqatir, the corpus does at least suggest that this reconstruction is possible. Other sites reporting 6-libra ballista balls include Gamla (Holley 2014, 39) and Masada (1994, 357), while Herodium (Stiebel 2003, 217), Jotapata (2007, 2:3.2/M), and the fortified settlement of Meroth (2005, 100; 2007, 2:3.1/M.1) yielded ballista balls of other small calibers.

Sling Pellets

In addition to slingstones, the excavators discovered one lead sling pellet at Khirbet el-Maqatir (fig. 12.4; table). The majority of the pellets of this kind found in Palestine are Hellenistic, though Early Roman examples are also documented, dating at least to the late first century CE. Elsewhere, the Romans used lead sling pellets into the second century CE (Stiebel 2013a, 299; Bishop and Coulston 2006, 135). Because of Khirbet el-Maqatir's extended occupation and the mixed Late Hellenistic and Early Roman context in which the



Figure. 12.4. Lead sling pellet; hammer marks and apparent break from mold sprue on upper left. Photograph by Michael C. Luddeni; drawing by Katherine A. Streckert.

artifact came to light, this pellet could have been either Hellenistic or Roman. While words and symbols were often molded on Greek and Republican Roman sling pellets, the practice ended by the mid-first century CE (Stiebel 1997, 302; Bishop and Coulston 2006, 58; Feugère 2002, 160). No clear sign of inscription appeared on this pellet, perhaps suggesting an Early Roman date (Stiebel 2007, 2:3.14).[4]

Sling pellets were typically made in a two-part mold with biconical cavities connected by sprues, which formed a tree-like product (fig. 12.5). Lead was poured into the mold and cooled, and then the pellets would be broken off the "branches" for use (Stiebel 1997, 301). Such a telltale scar is present on one end of Khirbet el-Maqatir's sling pellet. Additionally, its surface was rough, suggesting it was hammered after molding to perfect its biconical shape.

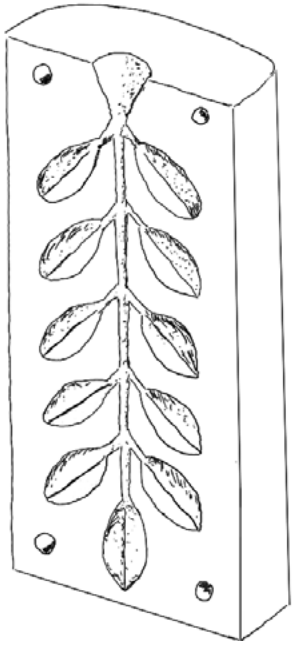


Figure. 12.5. Reconstructed sling pellet mold (after Stiebel 1997, fig. 2). Drawing by Katherine A. Streckert.

[4] The authors are grateful to Roman military scholar Raffaele D'Amato for his help in the dating and identification of several artifacts discussed in this chapter, including the sling pellet, *sica* and socketed blades, and possible harness phalerae.

Lead sling pellets have been found at many sites in Palestine, including at Gamla (Stiebel 2014, 98), Jerusalem (2007, 2:3.14/K.1–2; Sivan and Solar, 1994, 173), Jotapata (Stiebel 2007, 2:3.2/K), and Jericho (2013b, 293). The pellet from Jericho is the closest parallel for the one from Khirbet el-Maqatir, with its hammered surface and very similar dimensions (3.6 × 2.3 × 1.9 cm).

Arrowheads

Khirbet el-Maqatir produced five arrowheads from the Late Hellenistic or Early Roman periods, four of which (Objects 1230, 2425, 2429, and 3037) appeared to be of the Roman bodkin-tanged variety—square or triangular in cross section and approximately 4 cm long (Coulston 1985, 265) (fig. 12.6; table). Khirbet el-Maqatir's most well-preserved examples (Objects 2425 and 2429) measured 4.8 cm and 4.4 cm in length and exhibited a clear square cross-section. Object 2429 appears to have been bent upon impact. Both arrowheads were found in or near the northern Roman tower entrance, with Object 2425 wedged between the stones of the entryway. Object 1230 measured 3.9 cm long and is another clear example of a square bodkin arrowhead, though it is quite corroded and cracked, likely due to differing alloy concentrations within the metal. It was discovered in Cavern 3, a small auxiliary chamber of the Cavern 1 hiding complex, directly across from the exit of the tunnel connecting the two caves. Cavern 3's context was plainly Early Roman, and the arrow appeared in the same location as a collection of human bones. Its placement suggests that the arrow may have been fired



Figure. 12.6. Roman arrowheads: *1*, Object 3037 (possible bodkin tanged); *2*, Object 2425 (bodkin tanged); *3*, Object 2429 (bodkin tanged); *4*, Object 1018 (possible flat-bladed); *5*, Object 1230 (bodkin tanged). Photograph by Michael C. Luddeni; drawing by Katherine A. Streckert.

into Cavern 3 by an entering Roman soldier, possibly aimed at one of the individuals whose remains were uncovered there. Parallels of square bodkin arrowheads similar to those from Khirbet el-Maqatir come from Gamla (Magness 2014, 28–30; Stiebel 2005, 100), Magdala (Stiebel 2007, 2:3.4/I.1), Meroth (2:3.1/I.4–6), and the City of David (2013a, 297). Another possible bodkin arrowhead from Khirbet el-Maqatir (Object 3037) was half the size of the others at 2 cm, and its square cross-section was not as clear. Though smaller, the head bore a striking resemblance to a bodkin arrowhead found at Ein Feshkha (Stiebel 2007, 2:5.5/1). Both Objects 2425 and 3037 appeared in clearly Early Roman contexts. Though Object 2429 came to light in a combined Late Hellenistic and Early Roman context, its characteristic bodkin form dictates a Roman dating. Object 1018 may be a bent flat-bladed arrowhead, but not enough information was available to say conclusively (Coulston 1985, 265). The artifact measured 4.7 cm but was likely longer originally, as it seemed to be missing a tang or socket. Its context was mixed Late Hellenistic and Early Roman. Similar flat-bladed arrowheads came from a Hasmonean or Herodian fortress at Ein Rachel (Stiebel 2007, 2:4.6/1), Gamla in a First Revolt context ("Type B," in Magness 2014, 24–25), and Cave 1 of the Second Revolt site Wadi Murabba'at (Stiebel 2007, 2:5.16/1.6).

The types of arrowheads recovered at Khirbet el-Maqatir are intriguing. As the trilobate-tanged arrowhead was the most common in the Roman Empire and was especially associated with the Jewish Revolts, being used by both the Romans and Jews, it was surprising that none appeared at Khirbet el-Maqatir (Stiebel 2003, 216; Coulston 1985, 264). Even more surprising was that bodkin arrowheads were the primary type uncovered at the site. While trilobate-tanged arrowheads were best for unarmored targets, bodkin arrowheads are thought to have been used as armor piercers. This opens the discussion of who shot the bodkin arrowheads at Khirbet el-Maqatir. Though it is possible that the Jewish people of Khirbet el-Maqatir possessed some sort of armor and that the bodkin arrows were aimed at them for this reason, it is not probable. The Jewish rebels during the revolts were generally unarmored (Coulston 1985, 268; Stiebel 2007, 1:219, 2005, 100). On the other hand, while the Jews were skilled in archery, they typically used trilobate, flat bladed, bone, or recycled Persian heads (Magness 2014, 24; Stiebel 2007, 1:219–20). It is possible, though perhaps not probable, that the bodkin arrows from Khirbet el-Maqatir were used by the Jews against the armored Romans after they had taken possession of the tower, though the arrows must have come from a Roman source. Whether either of these two explanations is correct, it seems that, unless arrowheads were collected after the siege of Khirbet el-Maqatir, archery was not a main feature of the attack, taking into account the relatively few clearly Roman arrowheads which were found.

Javelin Heads

One possible Roman javelin head was uncovered in the floor of the northwest Early Roman tower (fig. 12.7; table). It measured 7 cm long and 1.3 cm wide at its center, weighing 11.54 grams. It lacked a socket or tang. Though the terms *javelin* and *spear* are similar, javelins were light and meant for throwing, while spears were most often used for close combat (Stiebel 2007, 1:138). Javelin and spearheads could range from 6–8 cm to 40 cm, and the example from Khirbet el-Maqatir falls on the lower end of this spectrum, even if one adds a presumed tang or socket (Feugère 2002, 132). However, in the Gamla excavation reports, Magness classifies projectile heads over 12 grams as spearheads, increasing the weight by 20 percent to account for corrosion. At an adjusted 13.85 grams, the Khirbet el-Maqatir projectile just fit within this category (Magness 2014, 30). It was found within the northern tower, contending for an identification as a javelin or small spearhead rather than a civilian implement.



Figure. 12.7. Broken javelin-head. Photograph by Michael C. Luddeni; drawing by Katherine A. Streckert.

Parallel javelin heads of comparable size from the First Revolt came from Cave FQ37 near Khirbet Qumran (Stiebel 2007, 2:3.18/H.1) and Masada (2:3.19/H.2). Inter-revolt and Second Revolt examples of similar dimensions are known from Kurnub (2:4.3), Ein Rachel (2:4.6/H.1–2), and Tel Shalem (2:5.2/H.1–11), though these later artifacts seem to be Nabatean.

Blades

Khirbet el-Maqatir yielded an impressive number of poorly preserved apparent blade fragments from Late Hellenistic and Early Roman contexts. Lengths ranged from a tip piece 1.1 cm long to a large middle section measuring 16.8 cm (table). Most came out of mixed Late Hellenistic and Early Roman contexts, though four (nos. 1128, 1219, 2841, and 3097) exhibited primarily Early Roman pottery. Especially intriguing pieces included a partial blade with socket (Object 1048) and two partial blades with tangs (Objects 2559 [two pieces] and 2926)



Figure. 12.8. Blade fragments (Objects 1048, 2559, and 2926). Photograph by Michael C. Luddeni; drawing by Katherine A. Streckert.

(fig. 12.8). Though Object 1048 could have conceivably been a knife blade or spearhead, its opened socket was reminiscent of a catapult bolt. It resembled bolts from Gamla (Magness 2014, 26) and Jericho (Stiebel 2007, 2:1.4/M.1b). However, only a piece of Object 1048 was preserved, making it difficult to determine whether its head had the typical square cross-section of a catapult bolt.

The second of the latter blades was straight-backed, while the other was somewhat curved. Jews in the revolts used straight-backed daggers, though perhaps with longer blades than these (Stiebel 2007, 1:110, 112). Interestingly, both knives from Khirbet el-Maqatir were found in or around the first-century CE mansion. Perhaps they were Jewish weapons, though they could have also been domestic tools, or even tools employed as weapons during the Roman siege. It is also possible that these blades could have been brought and used by Roman soldiers after the attack, especially if they later occupied the mansion.

Object 1049 may be a rare fragment of a *sica* sword, a short, curved sword especially associated with the Jewish rebel group, the sicarii, in the First Jewish Revolt (Stiebel 2007, 1:112–13) (fig. 12.9). Only two other sica blades have been discovered in Palestine, one from Khirbet Qumran (Stiebel 2007, 2:3.17/F) and another from Nahal David, Cave 2 (2:1.8/F). The latter is a close



Figure. 12.9. Possible sica blade fragment (Object 1049). Photograph by Michael C. Luddeni; drawing by Katherine A. Streckert.



Figure. 12.10. Possible harness phalerae. *Left*, top view of Object 1590; *right*, bottom view of Object 1588. Photograph by Michael C. Luddeni.

parallel to Khirbet el-Maqatir's sica fragment, with the same intact pin (which would have originally attached the handle) as well as remnants of a central rib and a similar, somewhat curved shape. Whether the sica blade from Khirbet el-Maqatir signals the presence of sicarii at the site is not clear, though this would have further motivated the Romans to attack the town.

This artifact and the socketed Object 1048 were found with three other iron fragments. It is possible that this was a collection of weapons, as several seemed to be corroded blades. However, due to the proximity of where the group was found (Square S19) to the ruins of the Late Bronze gate, which apparently functioned as a wine press and industrial installation during the Late Hellenistic and Early Roman periods, it may be that the artifacts in this cache were simply tools or were scrap metal consolidated for melting.

Equestrian Fittings

Two small metal objects came from Khirbet el-Maqatir, bearing a distinctive eight-petaled flower motif (fig. 12.10; table). The identical pair of artifacts came to light in a silo inside the first-century CE mansion. Both were domed on top and nearly flat on the bottom, with a hole in the center. Though nearly half the size of the usual Roman equestrian phalerae and lacking the typical surrounding flange (Bishop 1988, 95), they may be a type of non-standard phalera, perhaps attached with a rivet to decorate the narrow reins or muzzle. A small harness phalera (3.2 × 1.0 × 1.2 cm) from Samaria had a similar flower pattern (Kenyon 1957, fig. 108:6; Stiebel 2007, 2:1.6/Q.1–2). Roman harness phalerae were generally made of copper alloys, some bearing a white silver coating (Bishop 1988, 94). Taking into account the artifacts' coloration, the possible phalerae from Khirbet el-Maqatir may be lead or perhaps bronze or brass with remnants of silver.[5]

[5] Much of the above information was adapted or excerpted from Hassler, Streckert, and Seevers 2020.



Figure. 12.11. Likely a girth buckle, Object 866. Photograph by Michael C. Luddeni; drawing by Katherine A. Streckert.

A large iron buckle found at the site appeared to be another fitting from equestrian gear, a girth buckle (fig. 12.11; table). Girth buckles tightened the saddle around the horse's middle, fastening the saddle's strap under the belly. Unlike harness fittings, which were almost always made of copper alloy, other horse equipment, including the girth buckle, were generally iron (Stiebel 2007, 1:373, 375). The buckle from Khirbet el-Maqatir was the correct width (6.7 cm wide) and general shape to be a Roman girth buckle (Bishop 1988, fig. 36:4 and table 2), though perhaps slightly taller than usual. A D-shaped girth buckle from Khirbet Qumran was remarkably close in size to the Khirbet el-Maqatir example, measuring 6.6 × 5.8 cm (Stiebel 2007, 2:3.16/Q1).

Table. Selected inventory of militaria from Khirbet el-Maqatir

Artifact & no.	Size (cm)	Weight (g)	Field	Square	Locus	Pail
Hobnails						
1356	ø 1.2 × 0.6	. . .	A	O22	2	9
1444	ø 1.3 × 1.1	1.73	A	O21	17	29
2561	ø 1.4 × 1.0	1.01	B	W22	6	8
2577	ø 2.2 × 1.4	2.35	F	A24	Surface	Surface
2683	ø 1.1 × 1.2	0.94	B	Q25	3	6
2722	ø 0.9 × 0.8	0.73	F	AB23	2	10
2835	ø 1.6 × 1.2	1.68	B	P22	10	75
2870	ø 1.6 × 0.7	2.97	F	F25	2	8
Ballista balls						
443	ø 11.0	1,960.00	E	Q8	4	11
698	ø 8.0	920.00	C	ZH05	6	4
Sling pellets						
553[a]	3.9 × 2.1 × 1.7	72.60	G	P18	2	25
Arrowheads						
1018	4.7 × ? × 0.8	. . .	G	R19	8	15
1230	3.9 × 0.5 × 0.5	. . .	A	CAV3	2	2
2425	4.8 × 0.6 × 0.6	2.13	I	X23	4	39
2429	4.4 × 0.7 × 0.7	2.24	I	X22	4	5
3037[b]	2.0 × 0.5 × 0.3	1.06	B	Q25	12	30
Javelin heads						
2342	7.0 × 1.3 × 0.6	11.54	I	X23	14	31
Knife blades						
776	4.4 × 1.1 × 0.4	3.60	B	P21	3	25
916	6.5 × 3.1 × 0.1	16.40	G	R19	3	7
1046	10.0 × 3.0 × ?	. . .	G	S19	4	16
1047	4.4 × 3.2 × ?	. . .	G	S19	4	16
1048	10.0 × 2.0 × ?	. . .	G	S19	4	16
1049	10.1 × 3.0 × ?	. . .	G	S19	4	16
1128	2.7 × 1.0 × 0.3	1.61	A	M28	4	4
1219	6.0 × 2.1 × 0.6	5.28	A	CAV1	7	19
1703	5.4 × 1.5 × 0.3	8.16	A	O23	17	22
1828[c]	16.8 × 3.2 × 0.9	118.72	A	CAV1	33	68
2157	3.0 × 3.8 × 0.9	10.85	A	O24	11	15
2158	7.5 × 2.7 × 1.0	29.58	A	O24	12	16
2559	6.0 × 1.7 × 0.7	4.48	B	P24	4	7
2705	6.0 × 2.2 × 0.3	6.29	B	Q22	16	29
2841	7.1 × 2.1 × 0.5	10.16	B	W22	11	37
2926	3.5 × 1.5 × 0.5	13.36	B	P22	8	100
2945	1.1 × 0.6 × ?	0.28	B	R24	1	1
3097	4.0 × 1.9 × 0.2	6.53	B	Q25	2	24
Equestrian fittings						
866	6.7 × 6.2 × ?	84.50	C	ZI10	7	7
1548	1.8 × 1.8 × 0.8	12.06	A	O22	6	16
1550	1.8 × 1.8 × 0.8	12.61	A	O22	6	16

[a] A040880.
[b] A045303.
[c] Perhaps too thick for a blade.

Appendix: History and Manufacture of Early Roman Militaria

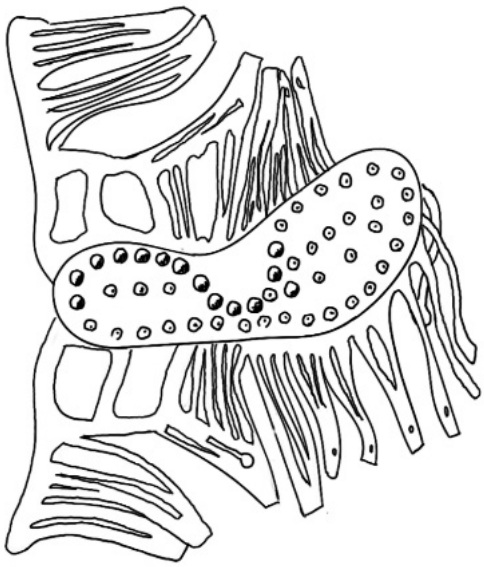
Hobnails

Caligae, perhaps the most well-known type of Roman military footwear, were in fact boots with heavily hobnailed soles, though they featured an intricately latticed, sandal-like upper. Though when exactly caligae were first worn is unknown, they were common at least by the Germanic campaigns of Augustus and Tiberius. Gaius, Tiberius's adopted son and successor, was given the nickname Caligula or Little Boot when he accompanied his father on campaign dressed in miniature military attire (Sumner 2009, 193). These distinctive military boots were synonymous with the Roman military from the early empire until the beginning of the second century CE (Goldman 1994, 122; Driel Murray 1987, 33). Caligae were made of three leather parts: the inner sole, the middle sole with latticed upper, and the outer sole—clenched together with hobnails (fig. 12.12). While a perimeter of nails held all three pieces of the shoe together, additional tacks were driven through the outer soles for durability and traction.

Hammered through the desired layers on an anvil, the tip of the nail curled back into the leather, fastening itself in place and giving the shoe nail its identifiable hooked end (Driel Murray 1995, 6; Sumner 2009, 194; Volken, Paccalot, and Volken, 2011, 316). The non-structural nails of the outer soles were arranged in patterns, the frequency of which in specific time periods suggests something akin to fashion trends (swastikas, circles, and S-shapes seemed to have been popular). Patterns which supported the ball and heel of the foot often appear on soldiers' caligae and presumably made the shoes more comfortable for walking long distances. In addition to being fashionable and promoting comfort, hobnail patterns could identify the wearer by his print, and some may have been meant to offer cosmic protection, as seen in the use of arrow symbols, perhaps linked with the god Mercury, and Neptune's tridents (fig. 12.13) (Driel Murray 1999, 132–34; Bishop and Coulston, 2006, 112; Burandt 2016, 14).

Thus, the outer sole was studded with nails, and the inner sole provided a barrier between them and the foot. The shoe was replaced when the sole wore down enough for the bumpy nails to become uncomfortable or when the nails themselves had worn down to the point of uselessness (Goldman 1994, 122; Sumner 2009, 198–99; Bishop and Coulston. 2006, 113). A document found in Egypt records two soldiers receiving three pairs of shoes each per year (Sumner 2009, 197) and a pay record from Masada notes the deduction of five denarii from a soldier's wage for caligae (Stiebel 2003, 223). Though caligae were often discarded rather than repaired, soldiers also replaced hobnails which fell out while marching (Volken, Paccalot, and Volken 2011, 316–17; Sumner 2009, 197; Driel Murray 1999, 137). According to Tacitus, soldiers may have received an allowance to buy replacement nails, called a *clavarium* (*Histories* 3.50). The volume and prevalent loss of hobnails explains why they are such a ubiquitous Early Roman small find.

Much like that of caligae, the manufacturing process of hobnails was highly uniform. Nails sold by piece, though a set number were made per unit of weight (based either on the Roman ounce or a variant of the Greek obal, depending on where in the empire the nail was made). Hammering a predetermined weight of raw iron into a square rod, the end of the rod was sharpened into the nail shaft. Then the piece, weighing a specific fraction of the entire rod, was detached. The shaft was then inserted into a nail header, a circular tool with a square hole which held the nail while the head was fashioned. The surface of the nail header was curved, and the examples of early nails suggest that some nail headers had incised patterns of dots and lines on their faces, which molded the underside of the nail head. These markings may have been the trademarks



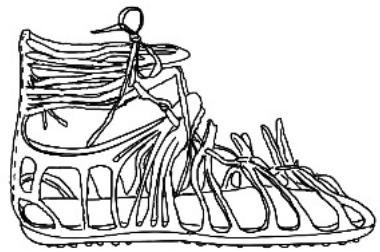


Figure. 12.12. Cutout of Roman caliga with hobnail pattern (after Bishop and Coulston, 2006, fig. 64); Assembled caliga. Based on: https://sutor.jimdo.com/1st-century-ad/mainz-caliga-no-9/. With kind permission from Martin Moser.

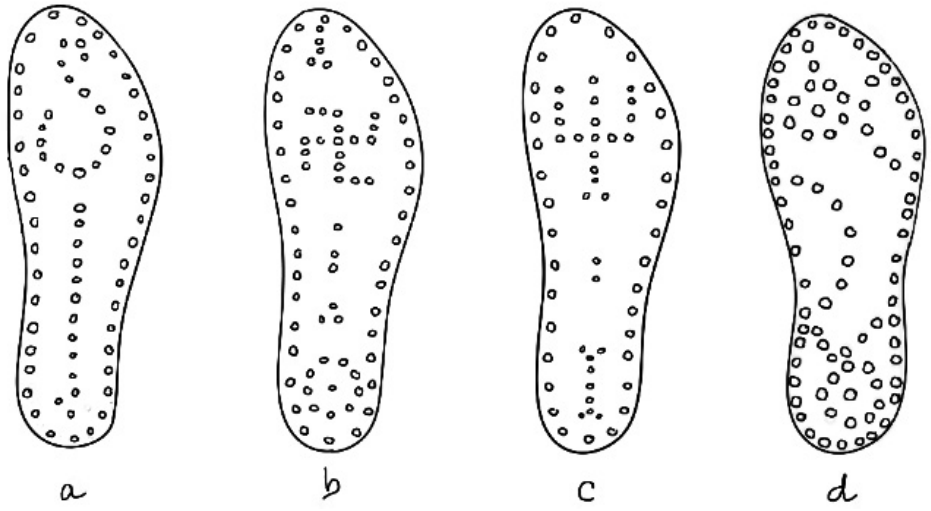


Figure. 12.13. *a*, "S"; *b*, swastika; *c*, trident (after Driel Murray 1999, fig. 1); *d*, pattern for support (after Burandt 2016, fig. 2.1).

of the manufacturing network (Volken, Paccalot, and Volken 2011, 324). After inserted into the header, the head was then formed into a cone or a pyramid, either by hammering it into shape or by using a mold (Volken, Paccalot, and Volken 2011, 322–23, 332–33).

As the price of iron went up, so did the number of nails fabricated per unit (Volken, Paccalot, and Volken 2011, 337). Thus, the earliest nails were made six per Roman ounce (weighing 4.54 grams, with heads no less than 25 mm in diameter) and the latest were 60 per ounce (weighing as little as 0.41 grams, with head diameters as small as 5 mm) (Volken 2014, 182; Volken, Paccalot, and Volken 2011, 333). Signature of Roman imperial footwear, the nailing of shoes continued to the end of the fourth century CE. After this, one-piece, sewn shoes became the variety of choice until hobnailed shoes were reintroduced to the West in the late seventeenth and early eighteenth centuries (Driel Murray 1987, 39–40; Volken, Paccalot, and Volken 2011, 319–20).

For hobnail parallels, see Volkin, Paccalot, and Volken (2011, 336, 356–87). Objects 1356 (see Groups I–O, 120–285 CE), 1444 (Groups D–K, 20–180 CE), 2561 (Groups D–O, 20–285 CE), 2577 (Groups C–I, 25 BCE–140 CE), 2683 (Groups D–K, 20–180 CE), 2722 (Groups G–M, 80–235 CE), 2835 (Groups C–L, 25 BCE–215 CE), and 2870 (Groups I–O, 120–285 CE). The date ranges for Groups I–O and C–L are expanded, taking into account possible mass loss.

Ballista Balls

Vegetius, though writing in the fourth century CE, suggests that each Roman legion had 10 stone-throwing siege machines (Holley 2014, 46; Bishop and Coulston, 2006, 88). The ballistae hurled stones with such force that no armor could withstand them, the stones penetrating helmets, body armor, and shields (Feugère 2002, 85). Considering this, it seems that most ballista balls were employed for anti-personal uses, while the largest ones could break through battlements and towers (Holley 2014, 52; Stiebel 2003, 217; Bishop and Coulston, 2006, 89). The use of ballista balls for primarily anti-personal purposes is seen at both Herodium and Masada (Stiebel 2003, 217). Josephus (*Jewish War* 5.271–72) records that the Romans learned to blacken the ballista balls so that their targets would not see them coming (Stiebel 2003, 221–23; Stiebel 2005, 100; Feugère 2002, 169).

Soldiers made ballista balls with a chisel and hammer at the site of the siege (Stiebel 2003, 220; 2005, 100; Holley 2014, 37). Ballistae were built based on the weight of the stones they were meant to throw. This weight could be based on Roman libra or Attic-Euboic mina, depending on which system of measurement the soldiers were most comfortable with (Holley 2014, 25; Feugère 2002, 169). While slingstones were a maximum of 655 grams, ballista balls likely weighed from 655 grams to 26 kg (Stiebel 2003, 218; 2013a, 299–300). Vitruvius (*Ten Books on Architecture* 10.11.3, in Marsden 1971, 191) recorded a list of possible ballistae calibers which range from 2 librae (0.655 kg) to 360 librae (117.900 kg) (Holley 2014, 45). Philon (*On Making Missiles* 51.21, in Marsden 1971, 109) also developed a list of ballistae calibers in Greek mina, though his only spans from 10 mina (4.366 kg) to 3 talents (78.588 kg) (Holley 2014, 45).

Ballista balls are common finds at sites exhibiting conflict in the Hellenistic and Roman eras. While soldiers likely collected metal arrowheads and catapult bolts for reuse after battle, ballista balls and slingstones were often left, as their large size and weight made them difficult to transport (Holley 2014, 37–38; Stiebel 2005, 101).

References

Bishop, Mike C. 1988. "Cavalry Equipment of the Roman Army in the First Century A.D." In *Military Equipment and the Identity of Roman Soldiers: Proceedings of the Fourth Roman Military Equipment Conference*, edited by Jonathan C. N. Coulston, 67–196. BAR International Series 394. Oxford: B.A.R.

Bishop, M. C., and J. C. N. Coulston, 2006. *Roman Military Equipment: From the Punic Wars to the Fall of Rome*. 2nd ed. Oxford: Oxbow.

Coulston, J. C. N. 1985. "Roman Archery Equipment." In *The Production and Distribution of Roman Military Equipment: Proceedings of the Second Roman Military Equipment Research Seminar*, edited by M. C. Bishop, 220–336. BAR International Series 275. Oxford: B.A.R.

Feugère, Michel. 2002. *Weapons of the Romans*. Translated by David G. Smith. Charleston, SC: Tempus.

Goldman, Norma. 1994. "Roman Footwear." In *The World of Roman Costume*, edited by Judith Lynn Sebasta and Larissa Bonfante, 101–32. Madison, WI: University of Wisconsin Press.

Hassler, Mark A., Katherine A. Streckert, and Boyd V. Seevers. 2020. "A Monumental Fortification Tower and Militaria: Late Hellenistic and Early Roman Military Architecture and Equipment Discovered at Khirbet el-Maqatir, Israel." *In the Highland's Depth Depth* 10, no. 1 (Spring): 37*–69*.

Holley, Andrew E. 1994. "The Ballista Balls from Masada." In *Masada IV: The Yigael Yadin Excavations, 1963–1965; Final Reports*, edited by Joseph Aviram, Gideon Foerster, and Ehud Netzer, 349–65. Jerusalem: Israel Exploration Society.

Holley, Andrew E. 2014. "Stone Projectiles and the Use of Artillery in the Siege of Gamla." In *Gamla III: The Shmarya Gutmann Excavations, 1976–1989; Finds and Studies*, edited by Danny Syon, pt. 1, 35–55. IAA Reports 56. Jerusalem: Israel Antiquities Authority.

Kenyon, Kathleen M. 1957. "Miscellaneous Objects in Metal, Bone, and Stone." In *The Objects from Samaria*, edited by John W. Crowfoot, Grace M. Crowfoot, and Kathleen M. Kenyon, 439–77. Samaria-Sebaste 3. London: Palestine Exploration Fund.

Magness, Jodi, 2014. "Arrowheads and Projectile Points." In *Gamla III: The Shmarya Gutmann Excavations, 1976–1989; Finds and Studies*, edited by Danny Syon, pt. 1, 21–33. IAA Reports 56. Jerusalem: Israel Antiquates Authority.

Marsden, E. W. 1971. *Greek and Roman Artillery: Technical Treatises*. Oxford: University of Oxford Press.

Peterson, Brian, and Scott Stripling. 2017. "Kh. el-Maqatir: A Fortified Settlement of the Late Second Temple Period on the Benjamin Plateau." *In the Highland's Depth* 7:61*–91*.

Raviv, Dvir, Scott Stripling, and Yoav Farhi. 2020. "A Hiding Complex from the two Jewish Revolts against the Romans at Khirbet el-Maqatir in the Eastern Bethel Hills." *Near East Archaeological Society Bulletin* 65, 1–23.

Roussin, Lucille, 1994. "Costume in Roman Palestine: Archaeological Remains and the Evidence from the Mishnah." In *The World of Roman Costume*, edited by Judith Lynn Sebasta and Larissa Bonfante, 182–90, Madison, WI: University of Wisconsin Press.

Seevers, Boyd. Forthcoming. "Small Finds." In *Excavations at Khirbet el-Maqatir, 1995–2001 and 2009–2016*. Vol. 1, *The Bronze and Iron Ages*, by Bryant Wood and Boyd V. Seevers. Oxford: Archaeopress.

Sivan, Renée, and Giora Solar. 1994. "Excavations in the Jerusalem Citadel, 1980–1988." In *Ancient Jerusalem Revealed*, edited by Hillel Geva, 168–76. Jerusalem: Israel Exploration Society.

Stiebel, Guy D. 1997. "'. . . You Were the Word of War': A Sling Shot Testimony from Israel." In *L'équipement militaire et l'armement de la république (IVe-Ier s. avant J.-C.): Proceedings of the Tenth International Roman Military Equipment Conference, Held at Montpellier, France, 26th–28th September, 1996*, edited by M. Feugère, 301–7. Journal of Roman Military Equipment Studies 8. Oxford: Oxbow.

Stiebel, Guy D. 2003. "The *Militaria* from Herodium." In *One Land, Many Cultures: Archaeological Studies in Honour of Stanislao Loffreda, OFM*, edited by G. Claudio Bottini, Leah Di Segni, and L. Daniel Chrupeala, 215–43. Studium Biblicum Franciscanum, Collectio major 41. Jerusalem: Franciscan Printing Press.

Stiebel, Guy D. 2005. " 'Dust to Dust, Ashes to Ashes . . .': Military Equipment from Destruction Layers in Roman Palestine." In *Archäologie der Schlachtfelder: Militaria aus Zerstörungshorizonten; Akten der 14. Internationalen Roman Military Equipment Conference (RoMEC); Wien, 27–31 August 2003*, edited by Werner Jobst, 99–108. Carnuntum Jahrbuch 2005. Vienna: Österreichischen Akademie der Wissenchaften.

Stiebel, Guy D. 2007. *Armis et litteris: The Military Equipment of Early Roman Palestine, in Light of the Archaeological and Historical Sources*. 3 vols. PhD diss., University of London.

Stiebel, Guy D. 2013a. "The Military Equipment." In *Excavations in the Tyropoeon Valley (Givʿati Parking Lot): Final Report*, edited by Doron Ben-Ami, 1:297–304. IAA Reports 52. Jerusalem: Israel Antiquities Authority.

Stiebel, Guy D. 2013b. "The Military Equipment from the Hasmonean and Herodian Palaces at Jericho and Cypros." In *Hasmonean and Herodian Palaces at Jericho: Final Reports of the 1973–1987 Excavations*. Vol. 5, *The Finds from Jericho and Cypros*, by Rachel Bar-Nathan and Judit Gärtner, 290–98 Jerusalem: Israel Exploration Society.

Stiebel, Guy D. 2014. "Military Equipment." In *Gamla III: The Shmarya Gutmann Excavations, 1976–1989; Finds and Studies*, edited by Danny Syon, pt. 1, 57–107. IAA Reports 56. Jerusalem: Israel Antiquates Authority.

Stiebel, Guy D. 2015. "Military Equipment from the Area of the Mausoleum and the Theater at Herodium." In *Herodium: Final Reports of the 1972–2010 Excavations Directed by Ehud Netzer*. Vol. 1, *Herod's Tomb Precinct*, by Roi Porat, Rachel Chachy, and Yakov Kalman, 432–53. Jerusalem: Israel Exploration Society.

Sumner, Graham, 2009. *Roman Military Dress*. Gloucestershire: History Press.

Van Driel Murray, Carol. 1987. "Roman Footwear: A Mirror of Fashion and Society." In *Recent Research in Archaeological Footwear*, edited by D. E. Friendship-Taylor, J. M. Swann, and S. Thomas, 32–42. Technical Paper 8. Association of Archaeological Illustrators & Surveyors.

Van Driel Murray, Carol. 1995. "Nailing Roman Shoes." *Archaeological Leather Group Newsletter* 1 (February): 6–7.

Van Driel Murray, Carol. 1999. "And Did Those Feet in Ancient Time . . . Feet and Shoes as a Material Projection of the Self." In *TRAC 98: Proceedings of the Eighth Annual Theoretical Roman Archaeology Conference, Leicester 1998*, edited by Patricia Baker, Colin Forcey, Sophia Jundi, and Robert Witcher, 131–40. Oxford: Oxbow.

Volken, Marquita, 2014. *Archaeological Footwear: Development of Shoe Patterns and Styles from Prehistory till the 1600's*. Zwolle: SPA Uitgevers.

Volken, Marquita, Olivier Paccalot, and Serge Volken, 2011. "Les clous de chaussures du site de Pfyngut: Les bases d'une typo-chronologie." In *Pfyn/Finges: Évolution d'un Terroir de la Plaine du Rhône; Le Site Archéologique de "Pfyngut" (Valais, Suisse)*, edited by Olivier Paccalot, 315–87. Cahiers D'Archéologie Romande de la Bibliothèque historique vaudoise 121, Archologia Vallesiana 4. Lausanne: Cahiers D'Archéologie Romande.

Wood, Bryant. 2018. "The March to Jerusalem: Roman Brutality at Khirbet el-Maqatir." *Bible and Spade*, Spring, 29–34.

13. General Objects

Abigail Leavitt and Scott Stripling, with Frankie Snyder

This chapter presents an array of small finds from Khirbet el-Maqatir, many of which are not treated elsewhere in this volume. The objects are categorized by material: metal, stone, ceramic, bone, and ivory.[1]

Metal Objects

Weights

Excavation in the monastery yielded three metal weights (table 13.1). One of these is an Islamic copper-alloy barrel weight (Object 823, A041434) (fig. 13.1). It is biconical and multifaceted. The dirham measurement system came into use at the end of the seventh century CE (Krakovsky 2013, 292). One dirham equals 2.93–2.95 grams (Balog 1970, 238). Therefore, the weight of the Khirbet el-Maqatir weight, at 5.80 grams, is slightly under two dirhams. This may imply a merchant's attempt at cheating, or it may simply be due to wear over time. Parallels exist from the Giv'ati Parking Lot (Krakovsky 2013, 292) and Paneas (Khamis 2008, 166).

The second metal weight is square with rounded corners (Object 721, A044336) (fig. 13.2). This style of weight was common in the Hellenistic and Roman periods. Some lead weights bore inscriptions while others did not (Korzakova 2010, 159). The example from Khirbet el-Maqatir is not inscribed. This type of weight was based on the libra, which equals 327.45 grams (Seligman 2010, 210). At 89.2 grams, the Khirbet el-Maqatir weight weighs a little over one-third of a libra. Parallels exist from Nahal Haggit (Seligman 2010, 210), Maresha (Korzakova 2010, 171), and Gamla (Nagar-Hillman 2016, 214). The possibility exists that this object is actually a defixio.

Another object (Object 2367) from Khirbet el-Maqatir may also be a weight. It is conical and round with a hole through the center, and its composition is lead. Although it is similar to known weights, it does not appear to have any exact parallels (fig. 13.3).

Table 13.1. Weights

No.	ADCA no.	Stratum	Square	Material	Size	Weight	Elevation
721	A044336	3	P21	Lead	3.6 × 3.5 × 0.9	89.20	874.80
823	A041434	1	ZG05	Copper alloy	0.8 × 0.8ø	5.80	. . .
2367		3	P22	Lead	1.3 × 1.5ø	14.74	873.82



Figure 13.1. Barrel weight, Object 823, A041434.

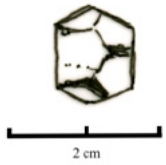






Figure 13.2. Square lead weight, Object 721, A044336.

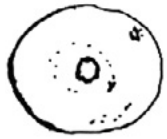




Figure 13.3. Conical lead weight, Object 2367.

Drawings by Melody Bogle.

Tablets

Excavations yielded four metal tablets (fig. 13.4; table 13.2). One tablet is folded (Object 2734), one is rolled (Object 2495, A045291), and the other two are open (Objects 670 and 1349). Their creases indicate that they were originally rolled. Three of them, one copper-alloy and two lead, came from Stratum 3, while one copper-alloy tablet came from Stratum 2. Metal tablets appear frequently in the archaeological record in the Roman and Byzantine periods. Most of them represent *defixiones*, or curse tablets, but some contain prayers and Scriptures, such as the Iron Age silver scrolls from Ketef Hinnom (Barkay et al. 2004, 44, 68). None of the tablets from Khirbet el-Maqatir contain discernable inscriptions, so it is impossible to determine which type they represent. The three tablets

[1] Frankie Snyder assisted with researching many of the objects.

Table 13.2. Tablets

No.	Stratum	Square	Material	Preservation	Size	Weight	Elevation
670	4	S24	Copper alloy	Unrolled	6.5 x 2.5	. . .	. . .
1349	4	O22	Lead	Unrolled	5.2 x 2.0	7.52	874.86
2495[a]	2	ZF04	Copper alloy	Rolled	1.5 x 0.6	1.31	888.74
2734	4	F25	Lead	Folded	2.7 x 2.2 x 0.8	17.31	871.80

[a] A045291.

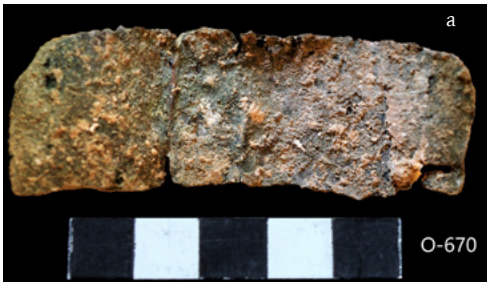








Figure 13.4. Metal tablets: *a*, 670; *b*, 1349; *c*, 2495, A045291; *d*, 2734. Photographs by Titus Kennedy (*a*), Michael C. Luddeni (*b* and *d*), and Steven Rudd (*c*).

from Stratum 3 may represent Jewish blessing or prayer tablets. Parallels exist from Ma'on (Rahmani 1960, 15). The tablet from Stratum 2 lay between paving stones near the front of the Byzantine church. It appears to have been carefully tucked beneath the floor during construction. Perhaps the builders placed it there as a blessing upon the newly constructed place of worship.

Chains



Figure 13.5. Copper-alloy chain, Object 324. Photograph by Michael C. Luddeni.

Excavations in the monastery (Square ZF04) produced a portion of a copper-alloy chain (Object 324; fig. 13.5). Each of its three links is figure-eight shaped (length: 6 cm; width: 1.2 cm; weight: 9 cm). According to Aviam (1993, 61), who published a church at Horvat Hesheq, this type of chain was used to suspend glass oil lamps from the ceiling, usually in triads. A similar chain exists from the Monastery of Saint Martyrius with a cross suspended between two lengths of chain (Magen 1993, 193). Parallels also exist at Shiloh (Andersen 1985, 99), Gamla (Jackson-Tal 2016, 193–94), and in the Israel Museum, where there is an example of this type of chain being used to suspend a metal plate with holes to accommodate multiple glass oil lamps (Dayagi-Mendals and Rozenberg 2010, 176–77).

Pots

The copper pot (Object 57, A044281) is in a state of almost complete preservation and includes a square-shafted iron handle (Square T17; 13.6 × 8.2 cm; fig. 13.6). No parallels have come to light. Although this pot may represent modern contamination, its construction seems ancient, and it derived from a Late Hellenistic or Early Roman context (Stratum 4).



Figure 13.6. Copper pot, Object 57, A044281. Photograph by Michael C. Luddeni.

Handles

The curved metal handle (Object 2558) may have belonged to a box or a vessel (Square P24; 4.9 × 2.3 × 0.5 cm). It is similar to a handle from the Jewish Quarter (Nenner-Soriano 2010, 252).

Clasps

The copper-alloy clasp likely served as a latch for a box or chest (Object 1209, A044362). The clasp derived from Field A, Cavern 1, Locus 4, Pail 23. The preservation was complete, and the measurements of the clasp were as follows: length 4.8 cm; width 0.8 cm; thickness 1.1 cm. A circular hole allowed for a pin to attach to the hinge, and a square loop enabled insertion of closing hook. The latch narrows near the square loop and turns outward slightly at tip. Metal objects like this are often unique in appearance, thus it is difficult to present an exact parallel, but similar objects exist (Davidson 1952, plate 67.910 [Byzantine or later]; Zitronblat and Geva 2003, plates 14.3.M34–35 [Herodian]).

Utilitarian Rings

Thirteen metal rings of varying sizes were among the finds from Khirbet el-Maqatir (fig. 13.7; table 13.3). Six rings are copper alloy; seven are iron. They may have had a variety of utilitarian functions. Similar rings exist from a number of other sites including the Jewish Quarter (Zitronblast and Geva 2003, 356; Gutfeld and Nenner-Soriano 2006, 276; Nenner-Soriano 2010, 254), the Giv'ati Parking Lot (Krakovsky 2013, 292), Paneas (Khamis 2008, 178), and Qumran (Yuzefovsky 2018, 289). Further parallels exist as follows: Patrich and Rafael (2008, 428, figs. 1–7 [Late Roman–Medieval]); Nenner-Soriano (2013, plate 11.1.5 [Hasmonean]); Nenner-Soriano (2014, plate 14.4.12–15 [Herodian]); Nenner-Soriano (2015, plates 11.I.8 [71–132 CE], 11.I.9 [71–135/136 CE]). According to Krakovsky (2013, 292), metal rings did not evolve over time. Thus, only context determines date. The rings from Khirbet el-Maqatir originate from Late Hellenistic, Early Roman, and Byzantine contexts (Strata 4–2).

Table 13.3. Utilitarian rings

No.	Stratum	Square	Material	Size	Weight	Elevation
199	3	W17	Copper alloy	3.0 × 2.8 × 0.3	5.3	842.42
865	2	ZH10	Iron	. . .	5.9	888.02
873	2	ZH10	Iron	6.0 × 5.5	33.6	887.08
884	2	ZH10	Iron	. . .	39.8	887.19
887	2	ZH10	Iron	. . .	2.5	887.28
955	3	R19	Iron	. . .	. . .	874.00
1182[a]	3	CAV2	Copper alloy	2.3ø	0.3	869.15
1816[b]	3	CAV1	Copper alloy	3.4ø	12.8	869.42
2305	3	O24	Iron	2.6ø × 1.1	6.0	. . .
2346	3	O24	Copper alloy	1.8ø	. . .	874.51
2548	2	ZF05	Copper alloy	1.2ø	0.7	888.68
2554[c]	3	P22	Copper alloy	2.1ø	1.3	. . .
3135	3	P26	Iron	4.3ø × 0.6	13.2	. . .

[a] A041732.
[b] A044522.
[c] A045294.



Figure 13.7. Utilitarian ring, Object 1816, A044522. Photograph by Michael C. Luddeni.

Chisels

Excavations produced eight possible chisels (fig. 13.8, table 13.4). Most are fragmentary, but all are similar in form, with square shafts and flattened heads. Magen (2002, 117–19) documents chisels such as these functioning in the manufacture of chalkstone vessels.

Table 13.4. Chisels (Stratum 3)

No.	Square	Size	Weight	Elevation
1178	F26	3.6 × 0.8 × 0.5	3.4	. . .
1758	P25	10.4 × 0.5	8.9	. . .
2484	Q22	2.5 × 2.0 × 0.8	4.1	. . .
2643	W22	6.4 × 1.2 × 0.5	17.1	871.36
2777	P24	3.4 × 1.3 × 0.6	3.9	874.43
3132	S25	3.2 × 1.1 × 0.3	2.2	. . .
3133	S25	3.3 × 0.9 × 0.5	2.1	. . .
3184	R25	3.4 × 0.6 × 0.3	0.3	. . .

Note: All chisels are iron, but the metal type of no. 3184 is undetermined.



Figure 13.8. Chisel, Object 1178. Photograph by Michael C. Luddeni.

Keys

Three partial iron keys are part of the Khirbet el-Maqatir collection (fig. 13.9; table 13.5). All the keys were in late Hellenistic or early Roman contexts (Stratum 4). Two of them are large and probably functioned as door keys. One of these (Object 899) features a ring by which to hang the key, and the other (Object 995) appears to have had a ring which is now missing. Similar keys exist from the Giv'ati Parking Lot (Krakovsky 2013, 294) and the Jewish Quarter (Nenner-Soriano 2014, 313). The third key (Object 2372) is smaller and may belong to a lock on a box. A similar key exists from Nahal Haggit (Seligman 2010, 195). Yuzefovsky reports finding six iron keys at Qumran but does not describe them.



Figure 13.9. Iron keys: *a*, 899; *b*, 995; *c*, 2372. Photographs by Michael C. Luddeni.

Table 13.5. Iron keys (Stratum 4)

No.	Square	Size	Elevation
899	P21	11.7 × 3.0 × 1.1	. . .
995	P21	11.0 × 4.5 × 1.6	. . .
2372	X23	5.3 × 1.9 × 0.5	. . .

Nails

Among the metal objects are 109 nails, some complete and others partial (fig. 13.10; table 13.6). Of these, 20 were from a Byzantine context (Stratum 2), and 89 were from an Early Roman context (Strata 4 and 3). All the nails are iron, and most are heavily corroded. Most of the nails are long with square heads and shafts, and there is no discernable difference between the Byzantine nails and the Early Roman nails. Therefore, they are dated solely by context. They vary in length. Similar nails exist from Nahal Haggit (Seligman 2010, 194–95), Qumran (Yuzefovsky 2018, 390), and the Giv'ati Parking Lot (Krakovsky 2013, 291–92).



Figure 13.10. Nail, Object 1014. Photograph by Michael C. Luddeni.

Table 13.6. Iron nails

Stratum & no.	Square	Preservation	Length	Weight	Elevation
Stratum 2					
282	ZG07	Complete	6.9	4.0	888.80
621	ZG04	Complete	7.0	16.7	888.45
625	ZG04	Complete; 2 nails	9.9, 5.8	42.8	888.45
648	ZH05	Complete	. . .	. . .	. . .
662	ZG04	Complete	7.8	52.5	888.21
674	ZH05	Complete; bent	6.0	20.0	887.05
675	ZH06	Complete	7.5	20.0	888.46
679	ZH06	Complete	12.8	40.0	888.11
680	ZH06	Complete	13.3	30.0	888.07
697	ZH05	Complete	3.7	8.0	888.21
712	ZH07	Complete	9.6	17.7	888.36
760	ZI04	Complete; bent	17.5	60.6	888.11
876	ZH10	Complete; bent	16.5	78.0	887.59
877	ZH10	Complete	6.5	18.0	887.55
879	ZH10	Mendable	9.0	41.7	887.20
2546	ZH06	Partial	7.5	20.7	888.30
2547	ZF05	Partial	8.7	26.7	888.99
2556	ZH06	Complete	8.5	25.1	888.30
2641	ZH06	Partial; bent	6.2	22.0	888.30
3280	ZH06	Complete	18.2	60.0	. . .
Strata 4–3					
117	S16	Complete	9.4	18.4	874.50
143	W28	Complete	10.3	19.2	873.00
175	W18	Partial	5.5	7.4	872.46

Stratum & no.	Square	Preservation	Length	Weight	Elevation
177	W18	Partial	3.7	5.8	872.40
203	T14	Partial	14.0	29.3	...
423	N26	Partial	3.8	7.9	874.62
485	P18	Complete	8.2	17.8	874.70
552	P18	5 nails	7.1, 9.2, 6.5, 5.2, 9.8	...	874.34
598	O19	Partial	4.71	2.8	874.47
623	P20	Partial	3.75	2.6	...
663	P26	Complete	7.8	9.2	...
669	S24	Partial; bent	7.2	14.0	...
709	Q21	Partial	6.0	17.7	874.52
827	P21	Partial	6.3	6.1	869.85
828	P21	Partial; bent	8.4	11.2	874.68
830	P21	Partial	6.0	...	...
903	P21	Partial; bent	7.0	26.8	...
917	R19	Complete	8.3	...	874.24
961	R20	Partial	3.1	7.6	974.39
964	J19	Partial	3.2	...	873.80
1014	S18	Complete	3.8	...	874.16
1045	S19	Complete	10.6	...	872.46
1144	CAV3	Partial	5.5	17.9	...
1249	O22	Partial	3.3	1.27	875.77
1261	P20	Partial	4.7	23.9	874.19
1263	O22	Complete	5.2	7.1	875.52
1312	Q23	Complete	2.2	0.8	874.85
1330	P10	Partial; bent	6.0	10.7	...
1335	P20	Partial	1.2	0.8	...
1353	R20	Complete	8.7	27.5	873.28
1358	O23	Complete	3.6	4.6	875.38
1359	O22	Complete	4.4	4.8	874.93
1376	P23	Complete	1.1	0.2	875.02
1445	O21	Complete	5.7	8.1	874.37
1479	Y22	Complete	3.2	9.2	...
1510	O21	Partial	4.3	3.5	874.27
1550	P20	Complete; bent	2.3	1.0	...
1635	O22	Partial	11.5	43.0	...
1702	O23	Complete	7.2	18.8	875.77
1718	O22	Partial	16.6	59.2	...
1724	O22	Partial	5.6	6.3	...
1757	CAV1	Complete	3.5	1.0	868.93
1764	CAV1	Complete	3.5	30.4	869.77
1782	CAV1	Partial	6.8	15.9	869.58
1808	CAV1	Complete; bent	13.2	41.0	869.39
1858	O23	Partial	3.1	8.5	874.85
1873	O24	Complete	4.9	25.5	...
1904	N23	Complete	16.5	36.0	875.90
1925	P22	Partial	6.3	18.2	...
2156	O24	Complete	1.0	2.9	874.45
2301	C17	Complete	2.8	2.0	869.82
2427	A17	Complete	2.3	1.9	869.33
2467	P22	Partial	4.8	10.8	...
2468	P22	Partial; bent	9.2	13.7	...
2469	P22	Partial	7.4	4.6	...
2478	CAV1	Complete	7.6	20.1	...
2493	AB23	Complete	2.3	2.3	867.78
2517	P24	Partial	3.0	10.1	...
2557	P24	Partial	1.0	1.0	874.49
2577	A24	Complete	2.2	2.4	...
2642	W22	Partial	2.6	1.4	...
2675	W22	Partial	3.2	4.2	870.96
2679	Q25	Complete	5.0	1.1	874.00
2730	W22	Partial	2.7	1.0	...
2732	W22	Partial	4.2	4.4	871.28
2742	Q25	Complete	4.5	3.1	874.50
2743	Q25	Partial	4.2	6.4	...
2744	Q25	Partial	3.4	5.2	...
2781	W22	Partial	5.2	8.9	...
2838	W22	Partial	7.8	36.5	870.47
2863	W22	Complete	6.8	11.9	870.59
2864	W22	Partial	8.5	21.2	870.59
2865	W22	Complete	9.5	23.7	870.59
2870	F25	Complete	1.7	1.6	874.62
2872	F25	Partial	2.6	3.0	871.64
2878	AA23	Complete	2.2	2.6	...
2880	Q25	Partial	2.5	3.5	...
2890	Q25	Partial	6.4	4.2	...
2946	P24	Partial	4.0	19.5	872.52
2990	V22	Partial	2.2	2.1	873.46
2999	AB24	Complete	2.3	2.8	...
3038	P24	Partial	1.5	0.3	872.50
3069	R24	Partial	4.2	5.3	873.95
3092	R25	Partial	8.0	23.9	...
3096	R25	Complete	5.5	5.9	...
3101	Q25	Complete	8.1	21.0	...
3129	T25	Partial	11.3	57.2	...
3166	Q23	Partial	3.1	6.3	...
3214	Surface	Partial	4.1	2.6	...

Miscellaneous Tools

Excavations revealed a variety of metal tools. These include pliers, a pick, three hooks, an axe-head, and a stylus (fig. 13.11; table 13.7).

The well-preserved pliers (Object 896) features a copper-alloy washer at the fulcrum. It derived from a disturbed context, but most likely belongs to Stratum 4.

The pick (Object 898) is broken, and only the flat end remains of a tool which would have had a sharp end and a flat end separated by a circular opening to accommodate a wooden handle. It is very similar in form to modern picks. The complete pick would have been approximately 25 cm long. Two parallels, labelled as pickaxes, exist from the Jewish Quarter (Nenner-Soriano 2012, 431), and two similar but smaller examples exist from Nahal Haggit (Seligman 2010, 192). Seligman (2010, 192) notes that pickaxes served a utilitarian role in land preparation for farming.

An iron hook (Object 2840) probably served a utilitarian purpose. Although its generic nature renders it difficult to date, context places it in the Late Hellenistic or Early Roman periods (Stratum 4).



Figure 13.11. Metal tools: *a*, 896; *b*, 898; *c*. 1329, A044367; *d*, 1513; *e*, 1478, A044509; *f*, 2075; *g*, 2840. Photographs by Michael C. Luddeni.

Table 13.7. Miscellaneous metal tools

No.	Description	Stratum	Square	Material	Size	Weight	Elevation
896	Pliers	3	P21	Iron	19.0 × 2.1 × 1.0	...	...
898	Pickaxe	3	P21	Iron	9.5 × 3.2 × 1.6	...	...
1329	Stylus	3	O23	Copper alloy	4.6 × 0.3 ø	...	875.26
1478[a]	Pruning hook	3	P20	Iron or wood	22.5 × 2.8 × 2.3	260.0	872.15
1513	Fishhook	3	O23	Metal	5.9 × 3.7 × 0.6	11.3	...
2075	Hook	3	O24	Iron	8.8 × 1.1 × 1.0	23.2	874.52
2840	Hook	3	W22	Iron	7.8 × 2.2 × 0.5	12.2	870.47

[a] A044509.

The Khirbet el-Maqatir collection includes one pruning hook (Object 1478, A044509). It features an iron hook attached to a wood handle, which is still partially intact. The pruning hook is a common Roman period tool (Stratum 3). According to Khamis (2008, 180), who published two pruning hooks from Paneas, the primary function of pruning hooks was the pruning of grape vines. In addition to the parallels at Paneas, other parallels exist from Nahal Haggit (Seligman 2010, 193) and the Jewish Quarter (Gutfeld and Nenner-Soriano 2006, 276).

Another hook (Object 275) from Khirbet el-Maqatir has an unusual form. A solid, rounded, iron hook opens into a widening tube at the base which would have held the end of a wooden rod. Although the form of attachment is common is the Roman period, it is the hooked end

which is uncommon. An iron oxgoad of similar form exists from the Jewish Quarter, as well as three similar broken pieces which may represent spear butts. They could, however, represent other implements as well (Gutfeld and Nenner-Soriano 2006, 276). Another similar broken piece, identified as a staff point, exists from Nahal Haggit (Seligman 2010, 195).

A small metal hook with a sharpened point likely functioned as a fishhook (Object 1513). According to the typology presented by Galili, Rosen, and Sharvit (2010, 82), this hook classifies as a barbless hook with a marked shank. Similar hooks exist from the Jewish Quarter (Nenner-Soriano 2014, 314) and the Carmel Coast (Galili, Rosen and Sharvit 2010, 80–85).

Excavation in Field A (Square O23, Locus 1, Pail 8) produced a copper-alloy stylus (Object 1329, A044367) in a state of complete preservation. One end is pointed, and the other is flattened into a triangular shape (ca. 1.3 × 0.8 × 0.1 cm). The stylus indicates literacy, at least among some of the site's inhabitants. The pointed end of the stylus marked the wax surface of a tablet, while the flat end erased such writing. Wood tablets with shallow recesses filled with wax formed a writing surface. Roman period parallels exist (Bliquez 1994 fig. 3:20, 23; Israel Museum, Jerusalem, Collection, accession nos. 99.25/1 and 99.25/2). A second stylus, made of ivory, provides further evidence of literacy at Khirbet el-Maqatir. The Bone and Ivory Objects section documents this second stylus.

Stone Objects

Bitumen Tabletops (By Frankie Snyder)

Before Nahman Avigad's excavations in the Jewish Quarter of the Old City of Jerusalem (1969–1983), archaeologists knew very little about furniture used in in the region two thousand years ago. Since virtually nothing that could be firmly identified as furniture had been discovered, it was assumed that most furniture had been made from wood which had long since biodegraded. Avigad's discovery of stone tables in the Jewish Quarter excavations shed new light on the flourishing and varied stoneworking industry that had developed in Jerusalem in the late Second Temple period (50 BCE–70 CE), employing many artisans and craftsmen (Avigad 1983, 165–83). Extensive studies of this industry's stone vessels and other stone objects revealed that two major categories of stone tables were being manufactured: tall, rectangular, pedestal tables (monopodia) and short, circular, tripod tables (delphica) (Magen 2002, 96–97, 101–12; Cahill 1992, 215–17). These tables were made of local white chalk, various-colored limestone, and black bituminous chalk (bitumen), and were sometimes decorated with carvings or inlays of colorful local and imported stones. Miners quarried white chalk and limestone at several locations around Jerusalem, and bitumen came from the Campanian-Maestrichtian Ghareb Formation on the margins of the Dead Sea graben in the area around Nebi Musa (Spiro et al. 1983, 1163).

This slab of black bitumen originated in a room within the first-century CE complex-courtyard house at Khirbet el-Maqatir (Object 658, A044498; Square P21, Locus 3, Pail 4; ca. 25.2 × 19.3 × 4.5 cm). It originally formed part of a rectangular monopodia table, Magen type II.C.i, based on its well-polished upper surface (fig. 13.12), slab thickness, and chiseling patterns on its lower surface (fig. 13.13). No edges of the tabletop survived. The chiseling pattern indicates that the lower surface was finely dressed with a multipronged chisel toward the outside edges, and more coarsely dressed with both a multipronged chisel and a single-pointed tool toward the center. This chiseling pattern is comparable to those found on the lower surface of rectangular bitumen tabletops from excavations at the Stepped Street in the City of David (Snyder, Hagbi, and Szanton 2019), the Ophel (Mazar and Nagtegaal 2015, fig. I.4.1.3) and Masada.[2] Based on rectangular white chalk tables found in the Jewish Quarter excavations, the tabletop would have been approximately 75–85 × 40–50 cm, and the table would have stood about 70–80 cm high (Magan 2002, 103; Geva 2010, 181, plate 5.16–17).

This rectangular tabletop would have rested on a central support in the form of a rounded or octagonal column or a rectangular pillar set onto a base (fig. 13.14). Unfortunately, excavators failed to recover this table's central support. Typically, the table would have stood against a wall or in a corner for added stability (Magen 2002, 103).

Bitumen stone table fragments have been found in several excavations around Jerusalem: the Jewish Quarter, the Ophel, the area south and west of the Temple Mount, the Golden Gate area, the City of David, the Giv'ati area, the Stepped Street, and the Davidson Center.[3] Bitumen table fragments have also been found in Herodian palaces at Masada (Hurvitz 2014, 24–25) and Herodium (Snyder, forthcoming). A beautifully reconstructed rectangular black bitumen table is on exhibit in the Yigael Yadin Masada Museum in the Masada National Park. These high-quality pieces of furniture were decorative in nature and were probably quite expensive. The distance of the bitumen quarries from Jerusalem as compared to those for white chalk, and the fact that the bitumen was

[2] Guy Stiebel, Department of Archaeology and Ancient Near Eastern Cultures at Tel Aviv University, graciously facilitated the examination of the bitumen *opus sectile* tiles and tabletop fragments from Masada.
[3] The Jewish Quarter: Avigad (1983, fig. 110), Geva (2014, plate 10.5; 2017, plates 17.1.9, 17.3.6); the Ophel: Mazar and Nagtegaal (2015, fig. I.4.1.3); the area south and west of the Temple Mount: Magen (2002, fig. 3.58–59, 69–74); the Golden Gate area: Reich and Shukron (1998, 87); the City of David: Cahill (1992, 211–13); the Giv'ati area: Zilberstein and Ben Efraim (2013b, fig. 9.8). My thanks to Moran Hagbi of the Israel Antiquities Authority for allowing me to examine the bitumen tabletop fragment from the Davidson Center excavations.

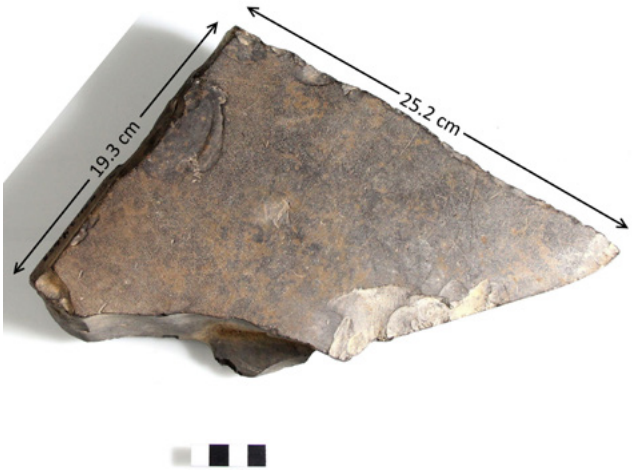


Figure 13.12. Upper surface of a rectangular bitumen tabletop, Object 658, A044498. Photograph by Michael C. Luddeni.



Figure 13.13. Lower surface of a rectangular bitumen tabletop with chisel marks. Photograph by Michael C. Luddeni.

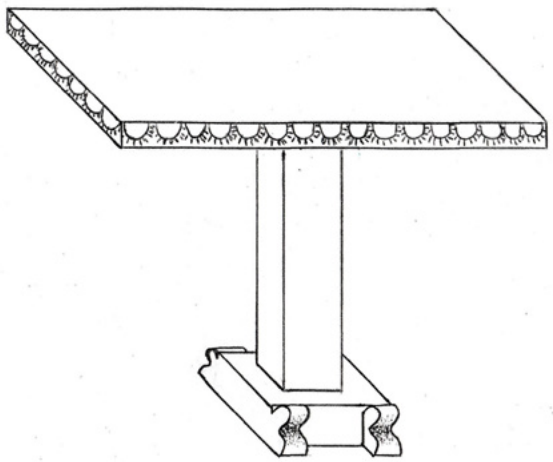


Figure 13.14. Rectangular black bitumen table with a rectangular pillar support; reconstruction based on table fragments recovered in excavations in Jerusalem. Drawing by Cecky Ropelewski.

more difficult to carve, would have resulted in a higher price for black bitumen tables than for white chalk ones. To find such a fine piece of stone furniture in a small town so far outside Jerusalem demonstrates the extent of the influence of Jerusalem's stone-working industry in the late Second Temple period and the affluence of the site's residents.

Avigad's (1983, 183) study of stone tables concludes: "With the destruction of Jerusalem in 70 [CE], the flourishing production of stone vessels and tables came to an end, and the tradition of their manufacture was never revived in subsequent generations."

Mills, Querns, and Grinders

Excavations yielded an abundance of mill, quern, and grinder fragments. Since the styles remained largely constant throughout the eras of occupation at Khirbet el-Maqatir, they are divided based on their context rather than another distinguishing factor. The collection from Strata 3 and 2 offers a representation of five main styles: grinding bowls, saddle querns, Olynthus mills, donkey mills, and mortars and pestles (table 13.8).

Twenty-two of the millstones are identifiable as Olynthus mills, also known as hopper-rubbers (fig. 13.15). Of these fragments, nine are upper stones and thirteen are lower stones.[4] Lower Olynthus millstones are large basalt slabs with grooves carved into them. According to Seligman (2010, 199), they rested on a raised table or a platform. The upper millstones resemble square blocks of basalt. A hole in the center, with sloping sides, acts as a hopper. A groove carved in opposite sides of the hopper accommodates a rod which would be used to move the upper stone across the lower stone, thus grinding the grain. Parallels were discovered at the Giv'ati Parking Lot (Zilberstein and Nissim Ben Efraim 2013a, 312) and Gamla (Frankel and Syon 2016, 87).

One mill fragment from Khirbet el-Maqatir may belong to the upper millstone of a donkey mill. According to Zilberstein and Nissin Ben Efraim (2013a, 314), who published similar millstones from the Giv'ati Parking Lot, the use of donkey mills in the region began in the Hellenistic period. Donkey mills consist of conical lower millstones and hourglass-shaped upper millstones. Donkeys harnessed to the upper millstones would have turned the mills.

Eighteen of the quern fragments are identifiable as saddle querns. Thirteen of the saddle querns were

[4] Upper stones: Objects 256, 661, 841 (A044347), 1226, 1938, 2233, 2877, 2954, and 3064. Lower stones: Objects 261, 840, 853, 925, 1008, 1131, 1156, 1161, 1225, 1406, 2635, 2663, and 3128.

Table 13.8. Mills, querns, and grinders

Type & no.	Square	Material	Preservation	Size	Weight	Elevation
Olynthus mills						
256	L8	Basalt	Fragmentary	23.5 × 13.5 × 7.0	. . .	879.24
261	M9	Basalt	Fragmentary	9.3 × 5.4 × 4.3	234	879.19
661	P20	Basalt	Fragmentary	. . .	2800	. . .
840	P21	Stone	Fragments (3)	. . .	. . .	874.68
841[a]	P21	Basalt	Partial	19.2 × 14 × 9.3	6130	874.83
853	ZI10	Basalt	Fragmentary	8.6 × 5.7 × 2.3	296	887.63
925	O21	Basalt	Partial	26.0 × 5.5 × 22.2	5410	872.94
1008	P21	Basalt	Partial	20.4 × 9.4 × 17.6	5980	. . .
1131	CAV1	Basalt	Partial	9.9 × 9.3 × 3.1	520	867.28
1156	CAV2	Basalt	Partial	18.2 × 18.9 × 4.3	2280	869.10
1161	CAV1	Basalt	Partial	10.8 × 8.0 × 3.3	450	871.15
1225	CAV1	Basalt	Partial	13.4 × 14.2 × 2.9	1060	872.33
1226	CAV2	Basalt	Partial	14.9 × 8.4 × 10.0	2610	. . .
1406	P20	Basalt	Fragmentary	21.0 × 20.4 × 7.8	6470	873.50
1938	X23	Basalt	Fragmentary	13.3 × 13.8 × 7.0	2070	869.86
2233	Q22	Basalt	Fragmentary	19.3 × 16.0 × 5.8	4490	874.63
2635	P24	Basalt	Partial	28.0 × 18.9 × 6.7	4640	874.24
2663	Q25	Basalt	Partial	17.5 × 11.8 × 3.4	960	. . .
2877	Q25	Basalt	Partial	20.5 × 14.9 × 15.0	4520	874.09
2954	Q25	Basalt	Partial	20.4 × 18.5 × 8.4	4260	872.53
3064	Q25	Basalt	Partial	12.0 × 14.6 × 8.2	3030	. . .
3128	P26	Basalt	Partial	28.0 × 20.5 × 5.6	5990	. . .
Donkey mills						
1748	CAV1	Stone	Partial	76.0 × 36.0 × 16.0	. . .	871.34
Saddle querns						
32	Q18	Limestone	Complete	11.4 × 10.8 × 5.7	936	874.15
53	Q18	Limestone	Complete	9.4 × 7.1 × 5.6	581	873.79
162[b]	S29	Limestone	Fragmentary	35.0 × 27.0 × 16.0	. . .	871.54
546	R13	Basalt	Partial	14.0 × 10.7 × 6.1	1405	875.77
585	O19	Stone	Partial	11.8 × 8.7 × 5.2	998	874.70
650	Q21	Limestone	Complete	. . .	523	874.65
1009	P21	Stone	Partial	15.8 × 8.5 × 11.0	2850	. . .
1442[c]	P22	Basalt	Partial	15.1 × 11.9 × 6.7	1360	. . .
1711	P22	Stone	Complete	35.7 × 15.7 × 13.6	8000	874.30
1715	P10	Stone	Complete	28.0 × 16.5 × 11.2	5870	. . .
1882	O24	Basalt	Complete	9.6 × 7.4 × 5.4	620	875.43
1890	P22	Basalt	Partial	19.3 × 16.8 × 5.3	3400	. . .
1981[d]	O24	Stone	Complete	35.0 × 24.0 × 11.0	1624	874.23
2111	Q24	Stone	Complete	36.5 × 23 × 6.0	8250	. . .
2513	P24	Basalt	Partial	16.4 × 11.8 × 5.0	1400	874.40
2716	P24	Basalt	Partial	18.6 × 14.0 × 8.8	2890	874.00
2881	W22	Basalt	Complete	15.5 × 11.3 × 3.9	1310	870.48
2952	Q25	Basalt	Complete	28.5 × 17.0 × 7.5	5140	873.16
Grinding bowls						
859	ZI10	Basalt	Leg fragment	15.0 × 11.6 × 7.7	. . .	887.57
112	S16	Basalt	Leg fragment	11.0 × 10.6 × 7.0	769	. . .
296	W18	Limestone	Fragmentary	23.5 × 2.1	575	872.3
1206	CAV1	Basalt	Partial	21.0 × 14.6 × 6.9	. . .	. . .
1218	CAV1	Stone	Complete, mendable	40.0 × 35.0 × 14.0	. . .	. . .
1405	O22	Basalt	Partial	24.6 × 18.4 × 3.4	2140	874.84

Type & no.	Square	Material	Preservation	Size	Weight	Elevation
1716	O23	Basalt	Partial, one leg	24.9 × 19.7 × 12.2	3670	875.50
2110	Q24	Limestone	Mostly complete	29.0 × 52.0 × 10.0	13930	. . .
2282	Q22	Basalt	Leg fragment	11.9 × 10.2 × 9.9	1180	874.34
2634	P24	Basalt	Partial, two legs	19.5 × 11 × 3.9	1890	874.41
2665	P24	Basalt	Partial, one leg	20.0 × 14.0 × 8.8	2150	874.02
2715	P22	Stone	Partial	17.2 × 12.4 × 5.3	2520	873.28
2751	Q22	Basalt	Partial, two legs	35.0 × 49.0	. . .	873.21
2947	P24	Stone	Mostly complete	. . .	. . .	872.49
2995	P24	Stone	Complete	20.0 × 45.0	. . .	872.19
3084	R25	Limestone	Mostly complete	19.0 × 16.5 × 9.0	. . .	. . .
3085	R25	Basalt	Partial, one leg	14.5 × 11.0 × 8.9	1270	. . .
3127	V22	Basalt	Partial, one leg	18.0 × 14.8 × 3.2	1850	. . .
Pestles, mortars						
118	S16	Basalt	Complete	7.0 × 4.5	228	874.48
336[e]	P7	Basalt	Complete	5.3 × 4.0	126	880.04
441	O8	Flint	Complete	8.3 × 5.6 × 5.2	406	879.83
719[f]	Q21	Stone	Partial	10.8	295	874.30
825	Q21	Stone	Partial	6.7	180	874.56
945	O21	Stone	Complete	70.0 × 70.0 × 28.0	. . .	874.34
1130[g]	CAV1	Limestone	Complete, broken	57.0 × 57.0 × 42.0	. . .	. . .
1519	O22	Basalt	Complete	9.8 × 7.4 × 5.5	870	874.41
1612	O22	Stone	Partial	4.9 × 2.5 × 2.1	45	874.37
Undetermined						
684	ZH06	Basalt	Fragmentary	10.5 × 8.5	410	888.29
81	P17	Basalt	Fragmentary	8.5 × 6.8 × 3.6	243	874.50
90	S18	Basalt	Fragmentary	1.8 × 7.2 × 2.5	216	. . .
104	R16	Basalt	Fragmentary	13.0 × 7.0 × 3.4	402	. . .
164	Q15	Basalt	Fragmentary	14.6 × 9.4 × 3.0	520	. . .
255	L8	Basalt	Fragmentary	13.9 × 13.5 × 7.0	1936	879.22
270	J17	Flint	Fragmentary	6.0 × 5.7 × 5.0	190	. . .
273[h]	G24	Basalt	Fragmentary	8.2 × 4.3 × 2.5	164	871.86
326	B17	Basalt	Fragmentary	9.5 × 8.2	611	870.87
419	L13	Flint[i]	Fragmentary	17.9 × 15.5 × 8.8	3750	. . .
435	R14	Sandstone	Fragmentary	5.7 × 3.2 × 3.0	91	875.50
442	O8	Basalt	Fragmentary	25.5 × 18.9 × 9.0	4800	879.83
588	O19	Limestone	Fragmentary	8.2 × 8.1 × 7.3	739	874.62
628	O20	Basalt	Fragmentary	. . .	232	874.56
1012	P21	Basalt	Fragmentary	12.7 × 4.2 × 11.2	. . .	. . .
1019	R19	Limestone	Fragmentary	25.0 × 15.7 × 6.0	3280	. . .
1121	O26	Basalt	Fragmentary	19.3 × 9.5 × 12.3	3970	. . .
1184	CAV2	Basalt	Fragmentary	12.8 × 12.0 × 7.8	1430	868.92
1201	CAV1	Basalt	Fragmentary	14.2 × 10.7 × 4.9	60	. . .
1250	P20	Basalt	Fragmentary	11.5 × 11.0 × 4.0	780	. . .
1319	O23	Basalt	Fragmentary	7.8 × 7.5 × 4.0	350	875.32
1468	O23	Basalt	Fragmentary	17.9 × 13.1 × 4.5	1460	875.02
1508	P23	Stone	Partial	. . .	. . .	874.76
1620	O23	Basalt	Fragmentary	21.4 × 10.6 × 3.9	1490	874.40
1862	O23	Basalt	Fragmentary	21.0 × 18.9 × 2.6	2410	874.36
1863	O23	Basalt	Fragmentary	12.2 × 16.1 × 5.0	2350	874.36
1946	O23	Basalt	Fragmentary	14.0 × 7.6 × 3.5	480	874.24
1947	O23	Basalt	Fragmentary	20.2 × 13.5 × 2.6	1420	874.24
2083	P22	Basalt	Fragmentary	14.8 × 12.5 × 4.4	920	. . .
2120	O24	Stone	Fragmentary	4.1 × 9.2	640	874.55

Type & no.	Square	Material	Preservation	Size	Weight	Elevation
2280	O24	Basalt	Fragmentary	28.7 × 21.8 × 6.3	4770	874.75
2283	P22	Basalt	Fragmentary	11.8 × 6.2 × 3.8	380	873.32
2285	Q22	Basalt	Fragmentary	8.0 × 7.2 × 3.5	320	874.68
2330	Q22	Basalt	Fragmentary	7.7 × 5.6 × 3.2	280	874.61
2357	Q22	Basalt	Fragmentary	4.6 × 3.9 × 4.0	111	874.38
2487	P24	Stone	Fragmentary	10.4 × 5.4	430	. . .
2821	P22	Flint	Fragmentary	24.8 × 14.4 × 5.0	32	873.00
2882	W22	Basalt	Fragmentary	17.3 × 12.9 × 5.8	1450	870.52
2955	AA23	Stone	Fragmentary	6.7 × 7.2 × 4.7	410	. . .
3089	Q25	Stone	Partial	31.0 × 27.0 × 13.0	. . .	. . .
3123	V22	Basalt	Fragment	13.5 × 12.3 × 7.0	1280	. . .
3125	O25	Basalt	Fragment	28.3 × 19 × 4.6	4870	. . .
3171	R24	Basalt	Partial	22.2 × 20.8 × 8.8	6310	. . .

[a] A044347. [b] A044293. [c] A041966. [d] A044529. [e] A044308. [f] A044335.
[g] A045314; with 27ø hole. [h] A044303. [i] Or limestone breccia.



Figure 13.15. Olythus mill fragment, Object 841, A044347. Photograph by Michael C. Luddeni.

upper stones and five were lower stones.[5] Saddle querns were the only grain grinders in use until the Persian period. The use of saddle querns continued into later periods alongside other, newer methods of grinding grain (Frankel and Syon 2016, 85). Similar querns also exist from Nahal Haggit (Seligman 2010, 202–3) and the Giv'ati Parking Lot (Zilberstein and Nissim Ben Efraim 2013a, 312).

Of the 18 grinding bowl fragments, 11 are made of basalt and comprise the three-legged type (fig. 13.16), whereas 7 are made of limestone and represent the flat-bottomed type. Parallels of the three-legged type came to light at Nahal Haggit. According to Seligman (2010, 205), these bowls were likely used to grind herbs, cosmetics, and medicines. Similar pieces, as well as parallels for the limestone flat-bottomed bowls, also exist from the Giv'ati Parking Lot (Zilberstein and Nissim Ben Efraim 2013a, 309).



Figure 13.16. Three-legged grinding bowl fragment, Object 2634. Photograph by Michael C. Luddeni.

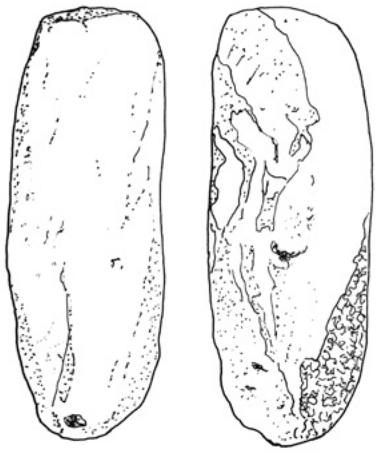


Figure 13.17. Pestle, Object 719, A044335. Drawing by Melody Bogle.

Seven pestles and two identifiable mortars round out the Khirbet el-Maqatir collection (fig. 13.17).[6] Some

[5] Upper stones: Objects 32, 53, 546, 585, 650, 1009, 1442 (A041966), 1711, 1715, 1882, 2716, 2881, and 2952. Lower stones: Objects 162 (A044293), 1890, 1981 (A044529), 2111, and 2513.

[6] Pestles: Objects 118, 336 (A044308), 441, 719 (A044335), 825, 1519, and 1612. Mortars: Objects 945 and 1130 (A045314).

unidentifiable fragments may also be mortars. Parallels were uncovered at the Giv'ati Parking Lot (Zilberstein and Nissim Ben Efraim 2013a, 311), Khirbet Nisya (Livingston 2003, 168), and Nahal Haggit (Seligman 2010, 205).

The remainder of the mill and quern fragments are too small to identify. There are 44 unidentifiable fragments.

Olive Press Stones

The excavations produced nine olive press stones of varying types (fig. 13.18; table 13.9). Six of them originated in Cavern 1, while three emerged in excavations of the late Second Temple period town (Stratum 4).

Table 13.9. Olive press stones

No.	Description	Square	Size	Elevation
1232	Megalith	CAV1	147 × 74 × 37	869.53
1233	Megalith	CAV1	124 × 74 × 37	869.53
1623	Stone	P23	. . .	874.41
1650	Lower stone with groove	O21	. . .	875.02
1747	Beam weight	CAV1	75 × 75 × 45	869.53
1842	Beam weight	CAV1	80 × 50 × 40	869.52
1843	Beam weight	CAV1	80 × 50 × 45	869.65
1844	Beam weight	CAV1	90 × 59 × 58	869.53
3254	Lower stone	S17	85 × 49 × 18	. . .

Two stones, Objects 1232 and 1233, are slotted piers, designed for stabilizing either a screw press or a beam press. They remained in situ within Cavern 1, situated on either side of a carved pit. Since this style of pier continued unchanged throughout multiple eras, the date of the piers depends on context. The surrounding materials locate the piers in Stratum 4. Frankel (1992, 63) references slotted piers from 50 sites, mostly in the Galilee, dating to the Roman and Byzantine periods.

Two stones are lower olive press stones with carved channels for drainage. Khirbet Nisya furnished a parallel (Livingston 2003, 170).

The finds from Cavern 1 included four weights designed for use with a beam press. They are trapezoidal in shape with T-shaped bored holes for suspending the weights from the beam. These weights represent a form common from the Hellenistic period forward (Syon 2004, 161–62). Similar weights exist from Khirbet Nisya (Livingston 2003, 139), Kefar Barukh (Syon 2004, 161), and Maresha (Kloner and Sagiv 2003, 60).

Pounders

Excavations produced 40 objects which likely served as pounders (fig. 13.19; table 13.10). Five of them are flint (Objects 253, 337, 339, 446, 890) and the remainder are limestone. These stones show signs of purposeful



Figure 13.18. Olive press stones: *a*, 1232 and 1233; *b*, 1650; *c*, 1747, 1842, 1843 and 1844. Photographs by Michael C. Luddeni.



Figure 13.19. Pounder, Object 205. Photograph by Michael C. Luddeni.

Table 13.10. Pounders

No.	Square	Size	Weight	Elevation
62	R17	9.5 × 9.1 × 5.7	735	...
63	R17	9.9 × 9.2 × 8.5	110	...
109	S30	9.6 × 8.4 × 6.9	749	870.93
141	S29	9.8 × 4.4	143	871.39
142	S29	12.5 × 10.1 × 7.3	1341	871.54
163	Q15	12.0 × 9.8 × 3.6	755	876.10
205	J17	7.5 × 5.9 × 5.6	105	874.00
253	L8	7.5 × 7 × 5.8	462	879.25
337	O10	10.0 × 9.7	1492	...
339	B17	6.9 × 6.6	451	870.70
400	Q19	8.6 × 8.2 × 6.3	555	874.27
439	Q20	5.1 × 6.9	306	874.92
466	P19	9.1 × 8.5 × 5.1	612	...
477	P19	9.7 × 9.1 × 8.5	1130	874.63
548	O23	5.5 × 5.3 × 3.2	110	875.05
624	P20	8.2 × 7.5 × 6.9	533	...
851	ZI10	9.5 × 8 × 7.3	849	887.62
867	ZH10	9.5 × 4.9	473	888.26
890	O21	8.0ø	520	875.44
959	S19	8.6ø	570	873.02
966	R20	9.6ø	1030	874.41
967	R20	8.6ø	660	874.09
1044	S19	7.6 × 4.5 × 4.0	350	...
1052	S19	9.0 × 7.8 × 4.4	230	872.42
1247	O22	7.5ø	50	875.61
1275	P21	8.0 × 6.0 × 5.0	340	874.21
1397	N23	9.2ø	970	...
1477	P20	8.0 × 6.5	320	...
1535	O22	9.6 × 5.7 × 4.5	460	874.53
1536	O22	7.0ø	460	874.59
1618	O23	9.7 × 9.5 × 3.4	720	874.50
1649	P22	7.0 × 8.0	620	874.35
1789	CAV1	8.5ø	790	869.18
2413	P22	6.8 × 6.6 × 5.2	460	873.57
2485	W22	8.3ø	600	872.50
2543	Q22	8.2 × 5.6 × 5.1	410	874.62
2595	P22	12.7 × 11.2 × 6.8	1600	874.00
2986	P24	2.0 × 7.8 × 4.7	520	872.05
3086	R25	8.0 × 7.2 × 6.5	570	...
3087	Q25	6.5 × 7.4 × 4.6	410	...

formation, yet they are too large or too irregular to classify as slingstones. Some of them may be mortars, while others may have functioned as crude hammers. Similar stone objects exist from the Giv'ati Parking Lot, labeled as mortars (Zilberstein and Nissim Ben Efraim 2013a, 311) and from Shiloh, labeled as quern stones (Andersen 1985, 102).

Polishing Stones

Thirteen stone objects classify as polishing stones (fig. 13.20; table 13.11). These are various types of stones which show signs of having been rubbed smooth. They may have functioned as polishers or burnishers.



Figure 13.20. Polishing stone, Object 656. Photograph by Michael C. Luddeni.

Table 13.11. Polishing stones

No.	Square	Material	Size	Weight	Elevation
55	Q18	Flint	7.0 × 5.6 × 4.5	253	874.33
110	R16	Flint	4.6 × 4.4 × 3.4	100	...
276	X18	Limestone	7.6 × 5.7	190	872.10
343	Q19	Flint	8.0 × 7.3	491	874.50
594	O19	Flint	8.0 × 5.4 × 4.2	278	874.60
613	O17	Basalt	6.3 × 9.2 × 4.2	251	874.28
653	P21	Stone	6.9 × 5.0 × 4.3	223	874.90
656	P21	Stone	5.6 × 5.5 × 3.6	145	875.60
756	L29	Stone	3.8 × 1.8 × 2.1	21	873.83
773	P21	Stone	9.6 × 6.3 × 7.1	553	...
1934	O24	Stone	4.5 × 6.9	470	875.20
2953	P24	Stone	3.2 × 8.4	310	874.27
3124	P22	Stone	9.9 × 9.4 × 4.9	810	...

Roof Rollers

Two roof rollers from the Khirbet el-Maqatir collection derive from Late Hellenistic or Early Roman contexts (fig. 13.21). Object 1146 (A045316), discovered in Cavern 1, is 23 × 22 cm with a 6 × 6 cm hole. Object 2898 (A045312)



Figure 13.21. Roof roller, Object 2808, A045312. Photograph by Michael C. Luddeni.

came from Square Q25. The Good Samaritan Museum contains 10 roof rollers from Mount Gerizim. Magen (2010, 230) notes that these tools functioned in a process known as corbelling. A roof roller aided in levelling and packing a layer of plaster over roof beams. The use of roof rollers began as early as the Late Bronze Age (Yadin et al. 1961, plate 335.6). Roof rollers from the Iron Age appear in *Khirbet el-Maqatir*, volume 1 (Seevers, forthcoming). Roof rollers reached their peak of popularity in the Hellenistic period, and although they continued in usage after that time, their popularity quickly declined (Magen 2010, 230). However, according to Seligman (2010, 208), who published a parallel from Nahal Haggit, roof rollers continued in use until the modern period.

Alabaster Bowls

The Khirbet el-Maqatir discoveries include one bowl fragment of Egyptian alabaster (Object 948; fig. 13.22). It is from a Late Hellenistic or Early Roman context in Square P21. This fragment appears to include the rim and side of a cosmetic bowl: a shallow bowl with an out-turned lip. It measures 3.6 × 2.0 × 0.6 cm and weighs 7.33 grams. The bowl resembles an example from the Jewish Quarter (Reich 2003, 289).



Figure 13.22. Alabaster bowl, Object 948. Photograph by Michael C. Luddeni.

Town Map

Object 2572 is unique (fig. 13.23). It is an etching on a massive flat stone which appears to be a map, probably of the late Second Temple period town. An image of this map adorns the cover of this volume.

The etching, found in Square P14, measures 13.5 × 11.2 cm. Apart from the Arad fortress seal (Schniedewind 2019, 40), no parallels currently exist in the southern Levant. However, excavations at Çatalhöyük in Anatolia revealed a map (ca. 3 × 1 m.) of the Neolithic settlement painted on the north and east walls of a building (Yazar 2008). Also, a stone-etched map (ca. 2.2 × 1.53 m) of a small Intermediate Bronze Age kingdom in the European region of ancient Gaul serves as the only other known parallel (Nicolas et al. 2021, 118).



Figure 13.23. Town map, Object 2572. Photograph by Michael C. Luddeni.

Pavers

Excavations yielded 18 limestone pavers (fig. 13.24; table 13.12). Of these, six emerged from Byzantine contexts, and the remainder came from Late Hellenistic or Early Roman contexts. Although flat and geometric,



Figure 13.24. Paver, Object 631. Photograph by Steven Rudd.

Table 13.12. Limestone pavers

No.	Stratum	Square	Shape	Size	Elevation
480	3	Q20	Rectangular	9.5 × 6.8 × 3.9	874.93
631	2	ZH05	Triangular	. . .	. . .
685	2	ZH06	Triangular	21.0 × 17.5	888.41
686	2	ZH05	Triangular	13.0 × 6.5	888.13
737	2	ZG06	Triangular	21.0 × 12.0 × 3.6	888.45
850	2	ZI10	Triangular	28.8 × 23.3 × 17.0	887.71
852	2	ZI10	Triangular	9.3 × 9.3	887.74
1234	3	Q23	Triangular	12.7 × 10.3 × 2.1	874.56
1246	3	Q23	Triangular	10.9 × 9.3 × 2.2	874.96
1396	3	O23	Triangular	16.3 × 7.6 × 2.1	875.22
1403[a]	3	R20	Trapezoidal	15.3 × 11.5 × 3.3	. . .
1534[b]	3	P22	Trapezoidal	13.0 × 9.5 × 4.0	874.60
1777	3	CAV1	Triangular	10.5 × 4.0 × 3.0	869.12
1791	3	CAV1	Triangular	12.4 × 7.6 × 4.0	. . .
1864	3	P22	Triangular	21.0 × 11.4 × 2.1	. . .
2948	3	P24	Triangular	11.2 × 8.9 × 2.5	872.51
2949	3	P24	Triangular	27.5 × 14.5 × 4.2	872.66
2987	3	P24	Triangular	30.0 × 30.0 × 10.0	872.29

[a] A041859.
[b] A044568.

these pavers feature rough edges, indicating that they most likely functioned as sub-pavers.

Architectural Fragments

Late Hellenistic and Early Roman Fragments

Several architectural fragments emerged in the excavation of Stratum 3 at Khirbet el-Maqatir (fig. 13.25; table 13.13). These include socket stones, piers, thresholds, windows, and colonettes. All of them are limestone.

Byzantine Fragments

Excavations of the Byzantine ecclesiastical complex yielded numerous architectural fragments from Stratum 2 (fig. 13.26; table 13.14). These include the remains of columns, capitals, chancel screen, cornices, moldings, lintels, and sockets.













Figure 13.25. Late Hellenistic and Early Roman architectural fragments: *a*, 1138; *b*, 1145; *c*, 1215; *d*, 1562; *e*, 1710; *f*, 1845; *g*, 1846; *h*, 1851; *i*, 1916; *j*, 2750; *k*, 2828; *l*, 1979; *m*, 2200; *n*, 2232; *o*, 2473; *p*, 2474; *q*, 2925; *r*, 3255. Photographs by Michael C. Luddeni.

Table 13.13. Late Hellenistic and Early Roman architectural fragments (limestone)

No.	Description	Square	Size	Elevation
1138	Architectural stone	CAV3	11.3 × 4.7 × 3.7	. . .
1145[a]	Architectural stone	CAV1	. . .	. . .
1215	Doorway ceil	CAV3	51 × 51[b]	. . .
1562	Socket stone	O23	42 × 35 × 24	874.57
1710	Socket stone	O23	92 × 47 × 38	875.70
1845	Slotted pier	CAV1	89 × 45 × 33	. . .
1846	Notched stone	CAV1	74 × 36 × 36	. . .
1851[c]	Column	O24	25 × 40 × 17	. . .
1916	Threshold stone	O24	98 × 39 × 16	875.52
1979	Architectural stone	N23	40 × 34 × 22	874.97
2200	Angled window stone	O24	55 × 50 × 22	874.29
2232	Silo capstone	N23	54 × 45 × 7	874.23
2311	Angled stone	O24	57 × 50 × 20	874.52
2473	Lower gate-socket	X23	50 × 50 × 22	869.02
2474	Upper gate-socket	X23	37 × 35 × 18	868.71
2475	Architectural niche	X23	. . .	869.49
2750	Stone manger	W22	66 × 60 × 15	870.77
2828	Socket stone	Q25	36 × 29 × 27	. . .
2925	Corner stone	Q25	35 × 35 × 23	873.77
2951	Cornerstone	Q25	18 × 15 × 10.5	873.16
2988	Colonette	P24	30 × 25	872.18
3065	Architectural stone	P24	. . .	. . .
3066	Architectural niche	P24	. . .	. . .
3173	Socket stone	S25	40 × 40 × 28	. . .
3174	Door jam	O25	46 × 44 × 20	. . .
3255	Colonette	R23	50 × 33 × 18	. . .

[a] A045315.
[b] With 10 × 10 cm hole.
[c] A044538.

The Khirbet el-Maqatir findings include one complete Corinthian capital (Object 699) and one Corinthian capital fragment (Object 831). Another partial capital from the site is in the hands of nearby Deir Dibwan residents, who showed it to Bryant Wood and Gary Byers in 1995 (Bolen 1999, 94). It is stylistically identical to Object 699. Additional Byzantine thresholds, capitals, and columns are located in a traffic circle in Deir Dibwan. Corinthian capitals were popular in the Byzantine period and parallels exist from ‘Anab el-Kabir (Magen, Peleg, and Sharukh 2012a, 364) and the Monastery of Martyrius (Magen 2015, 231).

The Byzantine era experienced greater diversity in capital styles than any earlier period. A basket-weave capital fragment from Khirbet el-Maqatir represents this broadening of stylistic options (Object 846, A045314). Basket-weave capitals are known from both Oriental and Italian origins (Avi-Yonah 1950, 57). Object 846 seems to best match the Italian-style of capitals. A similar capital exists from the Monastery of Martyrius (Magen 2015, 224).

Excavations at the Khirbet el-Maqatir Byzantine church yielded one complete column (Object 735). Its form is simple, and parallels exist at numerous sites, including ‘Anab el-Kabir (Magen, Peleg, and Sharukh 2012a, 364), Khirbet Deir Sam’an (Magen 2012, 64), Khirbet Umm Deimine (Magen, Batz, and Sharukh 2012, 457–58), and the Monastery of Martyrius (Magen 2015, 233). As noted, several additional columns and capitals from the Khirbet el-Maqatir church are now situated in the Dier Dibwan traffic circle.





Figure 13.26. Byzantine architectural fragments: *a*, 671; *b*, 672; *c*, 699; *d*, 734, A044337; *e*, 735; *f*, 736; *g*, 738; *h*, 739; *i*, 831; *j*, 846, A045314; *k*, 847; *l*, 863; *m*, 864, A044346; *n*, 868, A044345; *o*, 871; *p*, 874; *q*, 875; *r*, 940; *s*, 2537, A044875; *t*, 2571. Photographs by Michael C. Luddeni.

Table 13.14. Byzantine architectural fragments

No.	Description	Square	Material	Size	Elevation
671	Chancel Screen	ZH06	Limestone	9.5 × 6.0	888.32
672	Chancel screen	ZH05	Marble	2.5 × 1.5	888.36
699	Corinthian capital	ZH05	Limestone	50.0 × 48.5 × 20.5	888.29
734[a]	Laurel wreath chancel screen	ZG05	Limestone	47.0 × 16.5 × 7.3	888.61
735	Column	ZG05	Limestone	253.0 × 52.0	888.61
736	Cornice	ZG05	Limestone	32.0 × 23.9 × 7.0	888.58
738	Lintel	ZG05	Limestone	32.0 × 27.0 × 28.0	888.70
739	Cornice	ZG05	Limestone	22.0 × 14.5 × 7.0	888.44
831	Corinthian capital	ZG05	Limestone	9.5 × 9.0 × 7.2	888.32
846[b]	Basket-weave capital	ZH10	Limestone	20.3 × 11.0 × 6.1	888.03
847	Chancel screen	ZI10	Marble	11.3 × 9.0 × 8.3	888.03
863	Chancel screen	ZI10	Marble	7.8 × 7.5 × 3.6	887.56
864[c]	Socket stone	ZH10	Limestone	29.7 × 26.3 × 6.2	887.18
868[d]	Chancel screen	ZH10	Limestone	28.0 × 17.9 × 6.5	888.65
871	Chancel screen	ZH10	Marble	10.5 × 8.2 × 1.4	887.35
874	Lintel	ZH10	Limestone	35.2 × 2.8 × 14.3	886.69
875	Molding	ZH10	Limestone	14.7 × 14.5 × 5.4	887.64
940	Cornice	O21	Limestone	16.0 × 14.2 × 9.0	875.01
2537[e]	Chancel screen	ZH010	Marble	10.0 × 8.6 × 2.8	887.59
2571	Socket stone	ZF04	Limestone	102.0 × 50.0 × 26.0	889.05

[a] A044337. [b] A045314. [c] A044346. [d] A044345. [e] A044875.

The finds from the Khirbet el-Maqatir church include eight chancel screen fragments. Of these, five are marble (Objects 672, 847, 863, 871, and 2537 [A044875]), and three are limestone (Objects 671, 734 [A044337], and 868 [A044345]). The marble fragments show little adornment. Two edge fragments feature a grove running parallel to the border. Similar chancel screens exist from ʻAnab el-Kabir (Magen, Peleg, and Sharukh 2012a, 365), Khirbet Beit Sila (Batz 2012, 383), and Khirbet Istabul (Peleg and Batz 2012, 317). Two of the limestone fragments display a laural wreath pattern. Chancel screens with laurel wreath motifs exist from Khirbet ʻein Dab (Peleg 2012, 45), Jericho (Baramki 1936, 85), and the Monastery of Martyrius (Magen 2015, 244). The final fragment (Object 868, A044345) bears a rosette decoration, and while it is likely a chancel screen fragment, the possibility exists that it may be a sarcophagus fragment.

The ecclesiastical complex produced two decorated architectural fragments (Objects 738 and 874) which likely represent decorated lintels. Decorated lintels are common finds in Byzantine churches, and similar but not exact pieces were unearthed at Khirbet el-Latatin (Peleg and Batz 2012, 307), Khirbet ed-Duweir (Batz and Sharukh 2012, 75), Khirbet Deir Sam'an (Magen 2012, 64), and Khirbet Umm Deimine (Magen, Batz, and Sharukh 2012, 456–57).

Objects 736, 739, 875, and 940 are smoothly polished architectural fragments (fig. 13.27). They are likely cornice or molding fragments.

Two socket stones complete the collection. Object 864 (A044346) is flat and roughly hewn with a small socket hole in the center. Object 2571 is a substantial, well-hewn architectural stone with a small socket hole in the center. It may represent an upper socket stone.

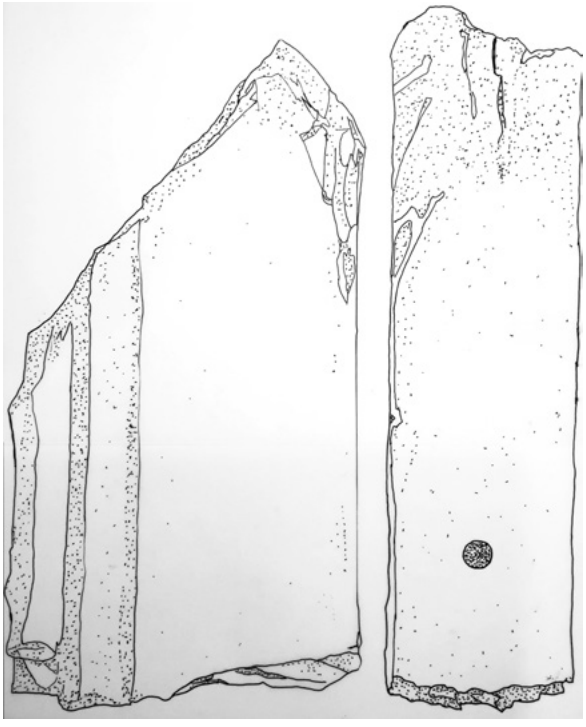


Figure 13.27. Cornice, Object 739. Drawing by Melody Bogle.

Loom Weights

Loom weights are common archaeological finds. Since they only changed slightly throughout history, it can be difficult to ascertain the dating based on form. Six loom

weights from Khirbet el-Maqatir emerged from an early Roman context (Stratum 3) (fig. 13.28; table 13.15). They are all doughnut-shaped stone weights and range in diameter from 2.6 to 9.5 cm. Similar Early Roman stone weights exist from Gamla (Cassuto 2016, 270) and Khirbet Nisya (Livingston 2003, 171). Stone weights from a Bronze Age context exist from Mochlos (Carter 2014, 56). Ceramic weights of the same form exist from Tel Moza in an Iron Age context (Shamir 2016, 158). According to Cassuto, doughnut-shaped loom weights were most popular before the Persian period. By the Roman period, pyramidal-shaped loom weights were more common, and doughnut-shaped loom weights were more rare (Cassuto 2016, 265, 270). It is possible that the loom weights from Khirbet el-Maqatir date to an earlier period since many loci were disturbed, and it is also possible that the loom weights were in secondary use in the Early Roman period. However, the presence of doughnut-shaped loom weights throughout the Early Roman stratum (Stratum 3) and the complete absence of pyramidal loom weights may indicate a preference for doughnut-shaped weights.

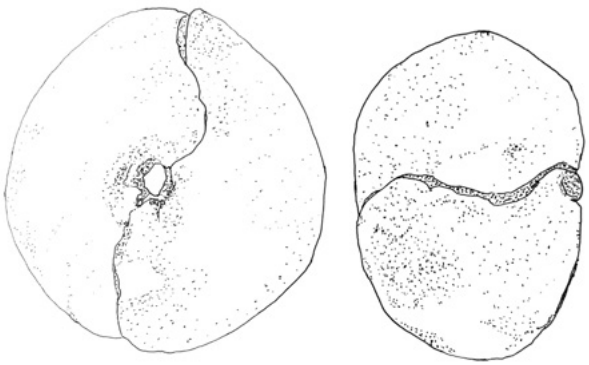


Figure 13.28. Loom weight, Object 1281. Drawing by Melody Bogle.

Table 13.15. Loom weights (stone and doughnut-shaped)

No.	ADCA no.	Square	Diameter	Height	Weight	Elevation
745	A044339	Q21	2.6	1.3	12.9	874.39
952	A044357	S19	3.0	2.0	. . .	873.55
1281	A044375	Q23	9.5	6.1	. . .	. . .
1867		P22	6.5	1.7	50.0	. . .
1889	A044502	P22	3.2	0.9	10.7	874.86
2497	A045295	W22	4.5	1.1	24.0	871.99

Spindle Whorls

Spindle whorls are a common find in ancient households. Typically, archaeologists find only the whorl, not the shaft of the spindle. Various weights and diameters of whorls produced threads of varying thickness and compactness (Cassuto 2016, 275). Common materials for spindle whorls are stone, ceramic, and glass. Excavations at Khirbet el-Maqatir yielded three Late Hellenistic or Early Roman domed spindle whorls (fig. 13.29; table 13.16). They are round, with a flat bottom and a rounded top, forming the shape of half of a sphere. A hole in the center would have housed the spindle shaft.



Figure 13.29. Domed spindle whorl, Object 2491, A045296. Photograph by Michael C. Luddeni.

Domed whorls are a common form, and their composition can be of a variety of materials including stone, bitumen, and bone. Of the three domed whorls from Khirbet el-Maqatir, two are stone (Objects 954 [A044356], 2491 [A045296]), and one is bitumen (Object 1784). Parallels exist from Akko (Shamir 2016, 94), Khirbet Nisya (Livingston 2003, 171), Yoqne'am (Avissar 2005, 97), Gamla (Cassuto 2016, 271), Binyanei Ha'uma (Arubus and Goldfus 2005a, 66), Qiryat Tiv'on (Vitto 2011, 54*), and Nahal Haggit (Seligman 2010, 209).

Jar Stoppers

Among the finds in Strata 4–2 are 8 worked round stone objects which classify as jar stoppers (fig. 13.30; table 13.17). They are generally flattened on both sides, and the edges are either straight or sloped. These likely functioned as seals for ceramic jars.

Table 13.16. Spindle whorls (Stratum 3)

No.	ADCA no.	Square	Material	Shape	Diameter	Height	Weight	Elevation
15	A044271	Q18	Ceramic	Flat	5.3	1.2	39.2	874.60
954	A044356	O21	Serpentine	Domed	3.1	1.5	. . .	873.24
1784		CAV1	Bitumen	Domed	2.2	0.4	5.4	869.65
2152		Q24	Ceramic	Flat	5.6	1.0	23.9	. . .
2491	A045296	P22	Serpentine	Domed	2.7	1.3	14.2	. . .

Table 13.17. Jar stoppers

Material & no.	Square	Size	Weight	Elevation
Stone				
291	W18	6.3 × 5.9 × ?	93.9	871.84
388	O8	7.4 × 6.2 × ?	126.9	879.52
437	Q20	5.2 × 5.1 × ?	79.7	874.93
573	O18	10.3 × ? × ?	804.7	874.60
665	S24	4.0 × ? × ?	50.0	873.36
849	ZI10	. . .	304.9	887.89
2375	O24	. . .	13.5	. . .
3172	CAV5	13.2 × 5.6 × ?	320.0	. . .
Ceramic				
8[a]	R17	3.3 × 2.6 × 1.2	11.5	875.00
13[b]	Q17	3.2 × 2.5 × 1.8	10.2	874.52
14[c]	R17	1.5 × ? × 0.9	1.9	. . .
35[d]	Q17	3.8 × 3.1 × 1.1	14.0	874.50
79[e]	S17	3.8 × 3.5 × 0.6	6.4	873.97
83[f]	R16	3.9 × 3.2 × 1.0	14.1	. . .
103[g]	R16	3.0 × 2.8 × 1.0	9.0	. . .
149[h]	S29	6.3 × 5.9 × 1.3	67.6	870.81
157	W17	2.3 × 2.1 × 0.7	3.4	872.94
161	Q16	3.7 × 3.5 × 0.8	14.2	. . .
165	R15	4.3 × 4.0 × 1.0	23.0	875.80
189	W17	4.4 × 8.9 × 1.2	17.7	872.40
247	D14	4.7 × 4.5 × 1.1	28.9	872.40
262	M9	3.2 × 3.0 × 0.7	7.0	879.27
264	D14	3.6 × 3.4 × 1.5	21.2	872.42
309	X18	4.5 × 4.0 × ?	30.0	870.40
359	Q19	4.2 × 4.1 × 0.9	16.2	874.36
373	R14	5.3 × 4.8 × 1.3	42.4	875.80
421	O8	5.0 × 4.5 × 1.3	32.7	879.07
509	P19	4.4 × 4.3 × 1.2	25.4	874.75
764	P21	8.0 × ? × 0.6	50.7	. . .
1213	CAV1	. . .	8.2	. . .
1251	P21	5.2 × ? × 0.8	15.2	. . .
1318	O23	7.0 × ? × 2.6	310.0	875.40
1352	P20	4.2 × ? × 0.5	15.7	. . .
1504	CAV4	8.0 × ? × 2.9	320.0	873.18
1507	CAV4	3.6 × ? × ?	8.7	873.01
3032	Q25	5.7 × ? × 0.7	31.7	. . .

Note: All stoppers from Stratum 3 except no. 849 (Stratum 2).
[a] A044267. [b] A044269. [c] A044270. [d] A044277. [e] A044283.
[f] A044284. [g] A044288. [h] A044292.



Figure 13.30. Ceramic spindle whorl, Object 15, A044271. Drawing by Melody Bogle.

Ceramic Objects

Spindle Whorls

Two flat spindle whorls (Objects 15 [A044271] and 2152) are repurposed ceramic sherds with drilled holes in the center (fig. 13.31; table 13.16). This form is difficult to date since it appears from the Bronze Age through the Islamic Periods, but context dictates an early Roman date for these examples. Similar whorls exist from Yoqne'am (Avissar 2005, 97) and Binyanei Ha'uma (Arubus and Goldfus 2005a, 65).



Figure 13.31. Stone jar stoppers, Object 573. Photograph by Michael C. Luddeni.

Jar Stoppers

Twenty-eight round sherds classify as jar stoppers (fig. 13.32; table 13.17). They bear marks of purposeful shaping on the edges. It is likely that their purpose was to seal ceramic jars. Similar pieces exist from el-Qabu (Rapuano 2012, 53*), Khirbet Nisya (Livingston 2003, 171), and Kadesh Barnea (Gera 2007, 214).



Figure 13.32. Ceramic jar stopper, Object 764. Photograph by Michael C. Luddeni.



Figure 13.33. Bone and ivory objects: *a*, 622; *b*, 1958; *c*, 2680, A045292; *d*, 2470; *e*, 2021, A044527; *f*, 2555. Photographs by Michael C. Luddeni.

Table 13.18. Bone and ivory objects (Stratum 3)

Material & no.	Description	Square	Size	Weight	Elevation
Bone					
1958	Handle	Q24	2.9 × 1.9 × 0.6	2.7	874.68
2021[a]	Spatula	O23	5.0 × 1.6 × 0.2	1.8	874.08
2470	Spatula	P22	4.1 × 1.3 × 0.1	1.8	. . .
2555	Spatula[c]	Q22	1.8 × 0.7 × 0.2	0.4	874.62
2680[b]	Handle	Q25	4.7 × 0.8 × ?	2.7	874.54
Ivory					
622	Stylus	P21	10.5	. . .	876.13

[a] A044527.
[b] A045292.
[c] This could also be part of a musical instrument.

Bone and Ivory Objects

Among the objects from Stratum 3 are six bone and ivory objects. They include one stylus, two handles, and three spatulas (fig. 13.33; table 13.18).

Object 622 is an ivory stylus. It is long and cylindrical and tapers to a smaller round point on one end. The opposite end is broken. Farhi (2016, 236) notes in his discussion of similar bone rods from Gamla that they may have functioned in various capacities, including as styli. A copper-alloy stylus, discussed in the Miscellaneous Tools section, provides another parallel.

Object 1958 is a broken piece of a decorated hollow bone handle. Knives and similar tools would have featured bone handles such as this (Geva 2003, 346). Parallels exist from Gamla (Farhi 2016, 247), Binyanai Ha'uma (Arubus and Goldfus 2005b, 227), and the Jewish Quarter (Geva 2003, 346).

Object 2680 (A045292) is part of a broken bone rod featuring two decorative grooves. Rods such as this would have functioned as hairpins, garment pins, or kohl sticks (Geva 2003, 347). Parallels exist from Gamla (Farhi 2016, 237), Binyanai Ha'uma (Arubus and Goldfus 2005b, 227–28), and the Jewish Quarter (Geva 2003, 247).

Objects 2470 and 2555 are fragments of bone spatulas. Such objects occur frequently in the archaeological record. Similar objects exist from Khirbet Nisya (Livingston 2003, 172), the Jewish Quarter (Geva 2006, 267), Gamla (Farhi 2016, 245), and Kadesh Barnea (Gera 2007, 226).

Object 2021 (A044527) may be a bone spatula as well, but it more likely functioned as a "sword-beater" or spacer in loom weaving. Similar pieces exist from the Jewish Quarter (Geva 2003, 344; 2006, 267) and the City of David (Ariel 1990, 129).

Appendix: Unidentifiable Objects

Many objects from Khirbet el-Maqatir are too worn or fragmentary to be identifiable. Table 13.19 lists these objects.

Table 13.19. Unidentifiable objects

No.	Square	Material	Description	Dimensions
6	Q14	Metal	Elongated clasp-like object	4.5 × 2.4 × 1.6
82	P17	Copper	Flat, round fragment	5.7 × 5.2 × 0.2
98	S17	Mother-of-pearl	Fragment	3.0 × 2.3 × 0.4
108	R16	Onyx	Fragment	2.1 × 1.0 × 0.7
119	R16	Bone	Shark's tooth	5.1 × 3.6 × 1.9
151	W18	Porphyry?	Smooth, rounded purple stone; shoulder of a jar?	1.9 × 1.0 × 0.5
156	W17	Limestone	Clamshell fossil	6.8 × 6.0 × 3.4
166[a]	R15	Ceramic	Rectangular potsherd; game piece?	4.3 × 3.4 × 1.0
167	R15	Limestone	Flat stone-chip with sharp edge; scraper?	6.6 × 5.2 × 1.2
190	W18	Limestone	Egg-shaped stone	4.4 × 3.6 × 3.0; 61.4 g
202[b]	O7	Limestone	Smooth, round stone; weight?	2.8ø; 27 g
330	R11	Limestone	Sea urchin fossil	3.7 × 3.4
348	R11	Limestone	Smoothed stone	15.1 × 7.2 × 7.1
383	P9	Limestone	Polished red stone	1.8 × 1.7 × 0.6
401	Q19	Chalkstone	Smooth stone, incised lines	7.5 × 6.8 × 3.7
438	Q20	Glass?	Blue bead; modern?	1.0ø
453	T2	Aluminum	Bent wire	3.4 × 2.3 × 1.5
454	T2	Wax	Two candle fragments	4.5 × 1.2; 1.6 × 1.1
456	T2	Wax	Two candle fragments	1.5 × 1.4
521[c]	Q19	Limestone	Smooth, round stone; game piece?	2.5ø
525	T4	Bone	Fragment, worked?	2.2 × 1.0 × 0.3
526	T4	Wax	Two candle fragments	1.2 × 0.9 × 0.5; 1.4 × 0.5 × 0.5
561	P19	Limestone	Smooth, round stone; game piece?	1.4ø
619	Q20	Limestone	Polished stone	8.8 × 5.5 × 5.0
620	Q20	Limestone	Polished stone	5.4 × 4.5 × 3.2
681	ZH06	Copper alloy	Rod	8.3
858	ZI10	Stone	Donut-shaped stone; loom weight?	2.5 × 1.3
727	Q21	Bone	Animal knuckle	3.9 × 1.5 × 1.7
754	P21	Bone	Animal bone, worked?	15.0 × 2.2 × 2.9
814	Q21	Lead	. . .	. . .
815	P21	Iron	. . .	. . .
848	ZI10	Lead	. . .	3.2 × 1.2
858	ZI10	Stone	Donut-shaped stone; loom weight?	2.5 × 1.3
880	ZH10	Iron	. . .	1.9 × 1.7 × 0.7
881	ZH10	Stone	Smooth hourglass-shaped stone; grinder or pounder?	11.0
897	P21	Iron	Symmetrical bent piece; handle?	7.1 × 2.3 × 0.9
900	J19	Stone	Flat stone	3.3 × 2.5 × 1.0
915	R19	Metal	Bent rod; handle?	5.0 × 5.0 × 0.1
962	S19	Stone	Smooth, soft stone	9.5 × 9.5 × 9.5
999	S18	Lead	Shot	1.0ø
1002	R20	Metal	. . .	. . .
1003[d]	T20	Copper alloy	Casting channel fragment?	. . .
1028	S19	Iron	Hook	. . .
1056	R19	Iron	Bent rod; nail or hook?	. . .
1058	R20	Lead	Slag	2.3 × 1.7 × 0.6
1081	S19	Copper alloy	Fragment	. . .
1088	S19	Iron	Square shaft; nail?	. . .
1107	CAV1	Iron	Two square fragments; nails?	. . .
1111	P21	Copper alloy	Circular domed item, incised line	. . .
1117	P21	Metal	Object with hole; bead?	. . .

No.	Square	Material	Description	Dimensions
1118	P21	Iron	Curved object; ring?	. . .
1122	R19	Metal	Fragment	. . .
1142	CAV2	Iron	Fragment	5.0 × 1.6 × 1.2
1143	CAV2	Lead	Shot	. . .
1151[e]	CAV1	Limestone	Flat circular stone, central hole; loom weight or spindle whorl?	4.3 × 0.8
1168	F26	Iron	Bent fragment; arrowhead?	1.2
1245	O21	Copper alloy	Thin, folded, rectangular sheet	1.2 × 1.1 × 0.1
1256	P20	Metal	Ring	1.9 × 1.5
1258	P20	Iron	. . .	4.3 × 1.3 × 0.5
1259	P20	Iron	Rectangular cube, hole in center	2.2 × 0.8 × 0.7
1262	O22	Iron	. . .	6.6 × 1.2 × 0.6
1279	P21	Limestone	Round limestone with narrowed center; loom weight?	6.1 × 4.4 × 3.9
1283	Q11	Iron	Object; modern?	13.5 × 2.7
1296	Q10	Metal	Needle; modern?	14.8 × 0.2
1298	R20	Iron	Rectangular cube	. . .
1306	O21	Copper alloy	Partial pin with eye; fibula pin?	2.4 × 0.4 × 0.2
1326	O23	Iron	Hook	3.0 × 2.9 × 0.8
1351[f]	O21	Copper alloy	Rod, one end sharpened, other end broken; needle?	4.2
1354	O21	Metal	Slag	3.0 × 2.6 × 1.7
1357	O22	Flint	Core	8.3
1360	P23	Metal	Flat, round object, hole in center	0.9ø
1407[g]	Q23	Limestone	Cylindrical object pointed at ends	2.9 × 0.9
1412[h]	Q23	Stone	Smooth, round stone; weight?	2.4
1460	O22	Copper alloy	Mirror fragment?	1.9 × 0.8
1461	O23	Iron	. . .	2.1
1509	O21	Copper alloy	Rod; cosmetic applicator?	5.0 × 0.5
1517	O23	Limestone	Architectural piece?	5.3 × 5.7 × 4.3
1531	P20	Iron	Long object, multiple points	11.0 × 3.3
1553	O22	Copper alloy	Slag	2.0 × 2.4 × 0.8
1564	O23	Lead	Round object	0.9ø
1573	CAV4	Metal	. . .	2.1 × 1.2 × 0.8
1576	O21	Metal	Semicircular object	1.1ø
1622	P23	Copper alloy	Bend rectangular sheet	3.6 × 2.6 × 0.1
1633	S22	Copper alloy	Flat, bent scrap	4.4 × 2.4 × 0.1
1672	P23	Stone	Smooth, round stone; weight?	3.2 × 2.7 × 2.0
1675	O21	Iron	Fragment	8.9 × 0.8
1750	CAV1	Metal	Wire bent into square shape, both ends twisted together	1.6 × 1.5 × 0.4
1754	CAV1	Iron	Bent rod; nail?	3.0 × 2.8 × 0.5
1760	CAV1	Copper alloy	Mirror?	1.6 × 0.1
1763	CAV1	Stone	Flat stone	17.3 × 7.9 × 2.4
1766	CAV1	Limestone	Rectangular stone	3.1 × 1.7 × 1.0
1794	CAV1	Copper alloy	Flat strip; inlay?	6.4 × 0.5 × 0.2
1797	CAV1	Mother-of-pearl	Fragment	3.6 × 1.4 × 0.2
1807	CAV1	Metal	. . .	10.2 × 5.5 × 0.5
1809	CAV1	Stone	Smooth, round stone; weight?	5.5 × 5.5 × 4.2
1829	CAV1	Metal	. . .	3.2 × 0.3
1836	CAV1	Stone	Flat stone	9.0 × 4.5 × 1.7
1841	CAV1	Limestone	Flat, worked stone	12.5 × 8.5 × 2.5
1857	O23	Iron	Knife?	2.5 × 0.9 × 0.4
1874	C17	Lead	Shot	1.3ø
1895	X23	Iron	Square-shafted rod; nail?	9.0 × 0.6
1903	N21	Lead	Slag	2.0 × 0.7 × 0.3
1927	Q24	Stone	Smooth, round stone; weight?	3.5ø
1935	O24	Stone	Flat stone	8.0 × 4.5 × 2.6
1939	Q24	Stone	Smooth, round stone; weight?	6.3ø
1960	Q24	Lead	Shot	1.3ø
1980	O23	Iron	Round plate, raised edges, center hole	4.4ø
2022	Q24	Stone	Smooth, round stone; weight?	6.3 × 4.7 × 3.0

No.	Square	Material	Description	Dimensions
2048	X23	Iron	. . .	4.2 × 3.9 × 0.5
2049	S20	Lead	Slag	2.7 × 2.6 × 0.4
2107	K19	Lead	Decorated fragment; magical mirror?	1.6ø
2108	X23	Iron	. . .	7.4 × 4.3 × 0.7
2114	C17	Stone	Semicircular stone, center hole; bead?	0.8 × 1.3
2144[i]	Q24	Copper alloy	Flat object	1.2 × 0.8 × 0.2
2234	Q22	Stone	Smooth, round stone; weight?	3.8
2242	O24	Stone	Smooth, round stone; weight?	4.2 × 3.3 × 2.2
2287	P22	Stone	Smooth, egg-shaped stone	6.5 × 5.0 × 3.0
2288	X23	Stone	. . .	9.5 × 8.2 × 6.0
2308	P22	Bone	Rounded bone; bead?	2.0 × 1.3 × 0.4
2329	P22	Limestone	Rounded object; natural?	3.0 × 2.8 × 2.3
2333	O23	Stone	Smooth, round stone; weight?	3.3ø
2345	Q22	Limestone	Flat, round stone with hole in center; spindle whorl?	4.2 × 1.8 × 1.2
2368	P22	Iron	. . .	6.7 × 0.7
2369	Q22	Metal	Rod, one end sharpened, other end broken; needle?	4.4 × 0.3
2406	P19	Copper alloy	Round object, beveled decoration	0.7 × 0.6
2416	Q22	Stone	Smooth, egg-shaped stone	5.5 × 4.5 × 2.8
2422	P22	Iron	. . .	6.1 × 0.9 × 0.8
2492	P22	Iron	Curved fragment; ring?	2.2 × 1.8 × 0.7
2494	P22	Chert	Chert	2.9 × 1.9 × 1.4
2520	AB23	Lead	Folded fragment	1.0 × 0.9 × 0.2
2536	P24	Lead	Triangular object	7.3 × 5.5 × 1.9
2576	A22	Copper alloy	Bent rod; pot handle or bracelet?	4.3 × 2.1 × 0.1
2605	ZH06	Iron	Tool?	4.1 × 0.9 × 0.6
2627	P22	Limestone	Curved stone, hole in center; spindle whorl?	4.3 × 3.3 × 1.0
2628[j]	P22	Copper alloy	Rectangular cube	2.6 × 0.9 × 0.9
2631	Q22	Limestone	Stone with incisions	2.3 × 1.6 × 1.1
2644	W22	Copper alloy	Cube	1.1 × 0.6 × 0.5
2667	P22	Limestone	Smooth, round stone; weight?	8.8 × 5.7 × 5.6
2668	P22	Limestone	Smooth, round stone; weight?	6.4 × 5.2 × 4.3
2676	Q25	Iron	Fragment	8.1 × 0.2
2678	Q25	Lead	Shot	1.5ø
2681	AB23	Obsidian	Obsidian flake	2.4 × 1.4 × 0.5
2706	ZH010	Iron	Square fragment; tool?	5.8 × 1.0 × 0.8
2713	P22	Stone	Cylindrical black stone, rounded end; pendant?	2.5 × 1.0
2717	P24	Limestone	Snail fossil	10.6 × 8.4 × 5.2
2720	Q25	Metal	Tube	2.4 × 1.0 × 0.6
2724	F25	Iron	Fragment; arrowhead?	2.3 × 1.3 × 0.8
2728	Q25	Shell	Fragment	4.4 × 2.9 × 1.1
2779	Q25	Limestone	Worked stone, chiseled incisions	5.5 × 2.6 × 2.1
2784	P22	Limestone	Smooth, round stone; weight?	4.7 × 4.6 × 2.7
2818	P22	Limestone	Smooth, round stone; weight?	2.3 × 2.2 × 1.7
2819	P22	Limestone	Smooth, round stone; weight?	4.3 × 4.3 × 2.7
2832	Q25	Copper alloy	Fragment	2.8 × 0.3 × 0.2
2833	Q25	Copper alloy	Fragment	2.6 × 2.1 × 0.1
2834	P24	Lead	Slag	1.6 × 1.1 × 0.7
2862	P22	Stone	Polished stone; flint?	3.1 × 1.5 × 0.8
2871	F25	Metal	Bent item; hook?	1.4 × 1.3 × 0.6
2888	P22	Iron	Arrowhead?	5.6 × 1.2 × 1.1
2889	Q25	Metal	Twisted object; decorative buckle or handle?	6.4 × 0.9 × 0.7
2893	P24	Copper alloy	. . .	2.2 × 2.2 × 0.8
2895	P24	Metal	. . .	1.0 × 0.7 × 0.1
2897	P24	Stone	Circular, hole in center; spindle whorl?	2.3 × 1.4 × 0.7
2917	W22	Copper alloy	Fragment	1.1 × 0.7
2921	P22	Stone	Geode	7.2 × 6.1 × 1.6
2928	Q25	Copper alloy	Square object, circular notch	3.5 × 0.7 × 0.1
2961	Q25	Stone	Smooth, round stone; weight?	3.5 × 3.1

No.	Square	Material	Description	Dimensions
2969	AA22	Lead	Shot	1.3ø
2970	AA22	Lead	Shot	1.3ø
2991	P24	Copper alloy	Fragment	1.2 × 0.9 × 0.2
2992	P24	Stone	Smooth stone; jewelry?	2.5 × 0.7 × 0.4
2994	P24	Stone	Stalactite	2.5 × 0.6
2998	AB24	Metal	Modern buckle?	2.3 × 2.0 × 0.3
3041	A22	Iron	Bent rod; nail or hook?	7.0 × 0.5 × 0.3
3042	AA24	Metal	Broken, hole in center, spike on side; fibula or buckle?	1.4 × 0.6 × 0.3
3070	R24	Metal	Hexagonal ring	0.8ø
3073	A24	Copper alloy	Bent wire	5.2 × 3.9 × 0.2
3093	R25	Unknown	. . .	2.8 × 0.7 × 0.3
3098	Q25	Iron	. . .	2.3 × 0.7 × 0.7
3099	Q25	Metal	. . .	1.1 × 0.6 × 0.05
3100	Q25	Iron	Tip; nail or tool?	2.6 × 0.4 × 0.5
3131	Q25	Iron	Fragment	2.0 × 0.6 × 0.6
3134	S25	Iron	Flat piece bent into a rectangular shape; buckle?	2.1 × 1.2 × 0.5
3136	Q25	Metal	Round object	1.0 × 0.6
3137[k]	V22	Copper alloy	Rod with eye, one half flat, mends with Object 3138; handle or bracelet?	3.5 × 0.8 × 0.06
3138[l]	V22	Copper alloy	Rod with eye, one half flat, mends with Object 3137; handle or bracelet?	3.5 × 0.8 × 0.06
3139	V22	Metal	. . .	2.5 × 0.9 × 0.4
3140	AA24	Lead	Shot	1.3ø
3154	P22	Metal	. . .	0.6 × 0.2
3176	AC25	Metal	Ring	0.4 × 0.8 × 0.2
3177	AA24	Lead	Shot	1.3ø
3182	R25	Metal	Narrow, cylindrical object; needle?	3.3 × 0.2
3202	O21	Copper alloy	Flat tablet, hole in one end	2.3 × 0.9 × 0.03
3209	AA25	Metal	Curved piece; handle?	2.7 × 0.5 × 0.2
3210	AB26	Copper alloy	Slag	3.5 × 2.2 × 0.2
3219	O21	Lead	Shot	1.5ø
3234	Z22	Iron	Fragment	2.3 × 2.0 × 0.2
3240	Z22	Iron	Rod pointed at both ends	2.7 × 0.4 × 0.2
3262	G26	Copper alloy	Flat, curved piece	1.6 × 0.9 × 0.1
3272	G24	Iron	Partial ring	1.2 × 1.1 × 0.2
3273	G25	Metal	Ring	1.5 × 1.3 × 0.4

[a] A044294. [b] A044301. [c] A044328. [d] A041219. [e] A044361. [f] A044370. [g] A044371. [h] A044372. [i] A044745. [j] A045293. [k] A045306. [l] A045305.

References

Andersen, Flemming Gorm. 1985. *Shiloh: The Danish Excavations at Tall Sailūn, Palestine, in 1926, 1929, 1932, and 1963*. Vol. 2, *The Remains from the Hellenistic to the Mamlūk Periods*. Publications of the National Museum, Archeological-Historical Series 23. Copenhagen: National Museum of Denmark.

Ariel, Donald T. 1990. *Excavations at the City of David, 1978–1985: Directed by Yigal Shiloh*. Vol. 2, *Imported Stamped Amphora Handles, Coins, Worked Bone and Ivory, and Glass*. Qedem 30. Jerusalem: Hebrew University of Jerusalem.

Arubus, Benny, and Haim Goldfus. 2005a. "Spindle Whorls and Loom Weights." In *Excavations on the Site of the Jerusalem International Convention Center (Binyanei Ha'uma): A Settlement of the Late First to Second Temple Period, the Tenth Legion's Kilnworks, and a Byzantine Monastic Complex; The Pottery and Other Small Finds*, edited by Benny Arubus and Haim Goldfus, 63–67. Journal of Roman Archaeology Supplementary Series 60. Ann Arbor: Cushing-Malloy.

Arubus, Benny, and Haim Goldfus. 2005b. "Worked Bone Artifacts." In *Excavations on the Site of the Jerusalem International Convention Center (Binyanei Ha'uma): A Settlement of the Late First to Second Temple Period, the Tenth Legion's Kildworks, and a Byzantine Monastic Complex; The Pottery and Other Small Finds*, edited by Benny Arubus and Haim Goldfus, 227–28. Journal of Roman Archaeology Supplementary Series 60. Ann Arbor: Cushing-Malloy.

Avigad, Nahman. 1983. *Discovering Jerusalem*. Nashville: Nelson.

Avi-Yonah, Michael. 1950. *Oriental Elements in the Art of Palestine in the Roman and Byzantine Periods*. Oxford: Oxford University Press.

Aviam, Mordechai. 1993. "Ḥorvat Ḥesheq: A Church in Upper Galilee." In *Ancient Churches Revealed*, by Yoram Tsafrir, 54–65. Jerusalem: Israel Exploration Society.

Avissar, Miriam. 2005. *Tel Yoqneʿam: Excavations on the Acropolis*, by Miriam Avissar, 95–97. IAA Reports 25. Jerusalem: Israel Antiquities Authority.

Balog, Paul. 1970. "Islamic Bronze Weights from Egypt." *Journal of the Economic and Social History of the Orient* 13 (3): 223–56.

Baramki, D. C. 1936. "An Early Byzantine Basilica at Tell Hassan, Jericho." *Quarterly of the Department of Antiquities in Palestine* 5:82–89.

Barkay, Gabriel, Marilyn J. Lundberg, Andrew G. Vaughn, and Bruce Zuckerman. 2004. "The Amulets from Ketef Hinnom: A New Edition and Evaluation." *Bulletin of the American Schools of Oriental Research*, no. 334 (May): 41–71.

Batz, Sharar. 2012. "A Byzantine Church at Khirbet Beit Sila." In *Christians and Christianity*. Vol. 3, *Churches and Monasteries in Samaria and Northern Judea*, edited by Noga Carmin, 373–408. Judea and Samaria Publications 15. Jerusalem: Israel Antiquites Authority.

Batz, Shahar, and Ibrahim Sharukh. 2012. "A Roman Fortress and a Byzantine Monastery at Khirbet ed-Duweir." In Carmin 2012, 61–106.

Bliquez, Lawrence J. 1994. *Roman Surgical Instruments and Other Minor Objects in the National Archaeological Museum of Naples*. Mainz: von Zabern.

Bolen, Todd. 1999. "The Byzantine Church of Khirbet el-Maqatir." *Bible and Spade*, Summer, 91–94.

Cahill, Jane M. 1992. "Chalk Vessel Assemblages of the Persian/Hellenistic and Early Roman Periods." In *Excavations at the City of David 1978–1985: Directed by Yigal Shiloh*. Vol. 3, *Stratigraphical, Environmental, and Other Reports*, by Donald T. Ariel, Miriam Avissar, Uri Baruch, Arza Caspi, Jane M. Cahill, David Cohen, Alon De Groot et al., edited by Alon De Groot and Donald T. Ariel, 190–278. Qedem 33. Jerusalem: Hebrew University.

Carmin, Noga, ed. 2012. *Christians and Christianity*. Vol. 4, *Churches and Monasteries in Judea*. Judea and Samaria Publications 16. Jerusalem: Israel Antiquites Authority.

Carter, Tristan. 2014. "Stone Implements." In *Mochlos III: The Late Hellenistic Settlement; The Beam-Press Complex*, by Natalia Vogeikoff-Brogan, edited by Jeffrey S. Soles and Costis Davaras, 49–60. Prehistory Monographs 48. Philadelphia: INSTAP Academic Press.

Cassuto, Deborah. 2016. "Textile Production Implements." In Syon 2016, 261–82.

Corvello-Paran, Karen. 2011. "A Rock-Cut Burial Cave from the Early, Intermediate, and Late Bronze Ages near Ḥorbat Zelef." *ʿAtiqot* 68:1–46.

Davidson, G. 1952. *Corinth: Results of Excavations Conducted by the American School of Classical Studies at Athens*. Vol. 12, *The Minor Objects*. Princeton: American School of Classical Studies at Athens.

Dayagi-Mendels, Michal, and Silvia Rozenberg. 2010. *Chronicles of the Land: Archaeology in the Israel Museum, Jerusalem*. Jerusalem: Israel Museum.

Farhi, Yoav. 2016. "Worked Bone Artifacts." In Syon 2016, 229–60.

Frankel, Rafael. 1992. "Some Oil Presses from Western Galilee." *Bulletin of the American Schools of Oriental Research*, no. 286 (May): 39–71.

Frankel, Rafael, and Danny Syon. 2016. "Mills and Querns." In Syon 2016, 85–95.

Galili, Ehud, Baruch Rosen, and Jacob Sharvit. 2010. "Artifact Assemblages from Two Roman Shipwrecks off the Carmel Coast." *ʿAtiqot* 63:61–110.

Gera, Avivit. 2007. "The Small Finds." In *Excavations at Kadesh Barnea (Tell el-Qudeirat), 1976–1982*, by Rudolph Cohen and Hannah Bernick-Greenberg. Pt. 1, *Text*, 211–35. IAA Reports 34. Jerusalem: Israel Antiquities Authority.

Geva, Hillel. 2003. "Bone and Ivory Artifacts." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*. Vol. 2, *The Finds from Areas A, W and X-2*, by Hillel Geva, 343–50. Jerusalem: Israel Exploration Society.

Geva, Hillel. 2006. "Bone Artifacts." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*, by Hillel Geva. Vol. 3, *Area E and Other Studies*, 266–71. Jerusalem: Israel Exploration Society.

Geva, Hillel. 2010. "Stone Artifacts." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*, edited by Hillel Geva. Vol. 4, *The Burnt House of Area B and Other Studies*, 154–212. Jerusalem: Hebrew University.

Geva, Hillel. 2014. "Stone Artifacts from Areas J and N." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*, edited by Hillel Geva. Vol. 6, *Areas J, N, Z and Other Studies*, 272–89. Jerusalem: Hebrew University.

Geva, Hillel. 2017. "Stone Artifacts from Areas Q, H and O-2." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*, edited by Hillel Geva. Vol. 7, *Areas Q, H, O-2 and Other Studies*, 232–42. Jerusalem: Hebrew University.

Gutfelt, Oren, and Ravit Nenner-Soriano. 2006. "Metal Artifacts." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*. Vol. 3, *Area E and Other Studies*, by Hillel Geva, 272–82. Jerusalem: Israel Exploration Society.

Hurvitz, Gila. 2014. *The Story of Masada*. Jerusalem: Israel Exploration Society.

Jackson-Tal, Ruth E. 2016. "Miscellaneous Small Finds: Metal and Glass." In Syon 2016, 191–212.

Khamis, Elias. 2008. "The Metal Artifacts." In *Paneas*, by Vassilios Tzaferis and Shoshana Israeli. Vol. 2, *Small Finds and Other Studies*, 165–88. IAA Reports 38. Jerusalem: Israel Antiquites Authority.

Kloner, Amos, and Nahum Sagiv. 2003. "Suberranean Complexes 44 and 45." In *Maresha Excavations Final Report I: Subterranean Complexes 21, 44, 70*, by Amos Kloner, 51–72. IAA Reports 17. Jerusalem: Israel Antiquites Authirty.

Korzakova, Hava B. 2010. "Lead Weights." In *Maresha Excavations Final Report III: Epigraphic Finds from the 1989–2000 Seasons*, by Amos Kloner, Esther Eshel, Hava B. Korzakova, and Gerald Finkielsztejn, 159–73. IAA Reports 45. Jerusaelm: Israel Antiquites Authority.

Krakovsky, Masha. 2013. "The Metal Objects." In *Jerusalem: Excavations in the Tyropoeon Valley (Giv'ati Parking Lot)*, by Doron Ben-Ami, 1:291–96. IAA Reports 52. Jerusalem: Israel Antiquites Authority.

Livingston, David. 2003. *Khirbet Nisya: The Search for Biblical Ai, 1979–2002; Excavation of the Site with Related Studies in Biblical Archaeology*. Manheim, PA: Associates for Biblical Research.

Magen, Yitzhak. 1993. "The Monastery of St. Martyrius at Maʿale Adummim." In *Ancient Churches Revealed*, by Yoram Tsafrir, 170–96. Jerusalem: Israel Exploration Society.

Magen, Yitzhak. 2002. *The Stone Vessel Industry in the Second Temple Period: Excavations at Hizma and the Jerusalem Temple Mount*. Edited by Levana Tsfania. Judea and Samaria Publications 1. Jerusalem: Israel Exploration Society.

Magen, Yitzhak. 2010. *The Good Samaritan Museum*. Judea and Samaria Publications 23. Jerusalem: Israel Antiquities Authority.

Magen, Yitzhak. 2012. "A Roman Fortress and Byzantine Monastery at Khirbet Deir Sam'an." In *Christians and Christianity*. Vol. 3, *Churches and Monasteries in Samaria and Northern Judea*, edited by Noga Carmin, 9–106. Judea and Samaria Publications 15. Jerusalem: Israel Antiquites Authority.

Magen, Yitzhak. 2015. "Architectural Elements and Stone Objects." In *Christians and Christianity*. Vol. 5, *Monastery of Martyrius*, by Yitzhak Magen, 223–59. Jerusalem: Israel Antiquities Authority.

Magen, Yitzhak, Shamar Batz, and Ibrahim Sharukh. 2012. "A Roman Military Compound and a Byzantine Monastery at Khirbet Umm Deimine." In Carmin 2012, 435–82.

Magen, Yitzhak, Yuval Peleg, and Ibrahim Sharukh. 2012a. "A Byzantine Church at ʿAnab el-Kabir." In Carmin 2012, 331–84.

Magen, Yitzhak, Yuval Peleg, and Ibrahim Sharukh. 2012b. "A Roman Tower and a Byzantine Monastery at Rujm Jureida." In Carmin 2012, 397–434.

Mazar, Eilat, and Brent Nagtegaal. 2015. "Area B: Architecture and Stratigraphy (2012–2013)." In *The Ophel Excavations to the South of the Temple Mount, 2009–2013: Final Reports*, by Eilat Mazar, 1:167–209. Jerusalem: Shoham.

Miron, Eli. 1992. *Axes and Adzes from Canaan*. Prähistotrische Bronzefunde 9. Stuttgart: Steiner.

Nagar-Hillman, Orna. 2016. "Metal Weights and Similar Artifacts." In Syon 2016, 213–23.

Nenner-Soriano, Ravit. 2010. "Metal Artifacts." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*. Vol. 4, *The Burnt House of Area B and Other Studies*, by Hillel Geva, 248–60. Jerusalem: Israel Exploration Society.

Nenner-Soriano, Ravit. 2012. "Metal Artifacts from the Cardo and the Nea Church." *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*. Vol. 5, *The Cardo (Area X) and the Nea Church (Areas D and T)*, by Oren Gutfeld, 426–36. Jerusalem: Israel Exploration Society.

Nenner-Soriano, Ravit. 2013. "Metal Artifacts from Jericho and Cypros." In *Hasmonean and Herodian Palaces at Jericho, Final Reports of the 1973–1987 Excavations,* Vol. 5, *The Finds from Jericho and Cypros*, edited by Rachel Bar-Nathan and Judit Gärtner, 270–84. Jerusalem: Israel Exploration Society.

Nenner-Soriano, Ravit. 2014. "Metal Artifacts from Areas J and N." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982; Final Report*. Vol. 6, *Areas J, N, Z and Other Studies*, by Hillel Geva, 311–17. Jerusalem: Israel Exploration Society.

Nenner-Soriano, Ravit. 2015. "The Metal Artifacts." In *Herodium, Final Reports of the 1972–2010 Excavations Directed by Ehud Netzer*. Vol. 1, *Herod's Tomb Precinct*, edited by Roi Porat, Rachel Chachy, and Yakov Kalman, 426–31. Jerusalem: Israel Exploration Society.

Nicolas, C., Y. Pailler, P. Stéphan, J. Pierson, L. Aubry, B. Le Gall, V. Lacombe, and J. Rolet. 2021. "La carte et le territoire: La dalle gravée du Bronze ancien de Saint-Bélec (Leuhan, Finistère)." *Bulletin de la Société préhistorique françanse* 118, no. 1 (March): 99–146.

Patrich, Joseph and Kate Rafael. 2008. "The Jewelry." In *Archaeological Excavations at Caesarea Maritima, Areas CC, KK and NN, Final Report*. Vol. 1, *The Objects*, edited by Joseph Patrich, 421–31. Jerusalem: Israel Exploration Society.

Peleg, Yuval. 2012. "A Byzantine Church at Khirbet ʿein Dab." In Carmin 2012, 37–60.

Peleg, Yuval, and Shahar Batz. 2012. "A Byzantine Church at Khirbet Istabul (Aristobulias)." In Carmin 2012, 303–26.

Rahmani, Levi Ytzhak. 1960. "The Ancient Synagogue of Ma'on (Nirim): The Small Finds and Coins." *Louis M. Rabinowitz Fund for the Exploration of Ancient Synagogues* 3:14–18.

Rapuano, Yehudah. 2012. "The Pottery and Stone Objects from a Roman-Period Farmstead at El-Qabu, South of Ashqelon." *ʿAtiqot* 71:21*–28*.

Reich, Ronny. 2003. "Stone Vessels and Architectural Elements." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–1982*. Vol. 2, *The Finds from Areas A, W and X-2*, by Hillel Geva, 263–91. Jerusalem: Israel Exploration Society.

Reich, Ronny, and Eli Shukron. 1998. "Jerusalem, the Golden Gate." *Hadashot Arkhe'ologiyot: Excavations and Surveys in Israel* 18:87.

Schniedewind, William M. 2019. "Commander of the Fortress? Understanding an Ancient Israelite Military Title." *Biblical Archaeology Review*, January–February, 39–44.

Seevers, Boyd V. Forthcoming. *The Iron Age*. In *The Excavations at Khirbet el-Maqatir, 1995–2001 and 2009–2016*. Vol. 1, *The Bronze and Iron Ages*, by Bryant G. Wood and Boyd V. Seevers. University Park, PA: Eisenbrauns.

Seligman, Jon. 2010. "The Small Finds." In *Naḥal Ḥaggit: A Roman and Mamluk Farmstead in the Southern Carmel*, by Jon Seligman, 191–211. IAA Reports 43. Jerusalem: Israel Antiquites Authority.

Shamir, Orit. 2016. "The Courthouse Site: Loomweights and Whorls." In *ʿAkko II: The 1991–1998 Excavations; The Early Periods*, by Moshe Hartal, Danny Syon, Eliezer Stern, and Ayelet Tatcher, 91–95. IAA Reports 60. Jerusalem: Israel Antiquities Authority.

Snyder, Frankie. Forthcoming. "Bituminous Chalk Tables from the Herodian Period in Greater Herodium." In *Herodium: Final Reports of the 1972–2010 Excavations Directed by Ehud Netzer*, by Roi Porat, Rachel Chachy, and Yakov Kalman. Vol. 2, *Lower Herodium*. Jerusalem: Israel Exploration Society.

Snyder, Frankie, Moran Hagbi, and Nahshon Szanton. 2019. "An Assemblage of Bituminous Chalk Tables from the Stepped-Street Excavations in the City of David." Unpublished manuscript.

Spiro, Baruch, D. G. Whelte, Jürgen Rullkötter, and R. G. Schaefer. 1983. "Asphalts, Oils and Bituminous Rocks from the Dead Sea Area: A Geochemical Correlation Study." *American Association of Petroleum Geologists Bulletin* 67:1163–75.

Syon, Danny. 2004. "A Late Byzantine Oil Press at Kefar Barukh." *ʿAtiqot* 47:155–68.

Syon, Danny. 2016. *Gamla III: The Shmarya Gutmann Excavations, 1976–1989; Finds and Studies*. IAA Reports 59. Jerusalem: Israel Antiquities Authority.

Vitto, Fanny. 2011. "A Roman-Period Burial Cave on Ha-Horesh Street, Qiryat Tiv'on." *ʿAtiqot* 65:27*–61*.

Yadin, Yigael, Yohanan Aharoni, Ruth Amiran, Trude Dothan, Moshe Dothan, Immanuel Dunayevsky, and Jean Perrot. 1961. *Hazor III–IV: An Account of the Third and Fourth Seasons of Excavations, 1957–1958; Plates*. Jerusalem: Magnes.

Yazar, Müjde. 2008. "Anadolu'da Neolitik Dönem Sanatı ve Merkezleri." Master's thesis, Gazi University.

Yuzefovsky, Baruch. 2018. "The Metal Finds." *Back to Qumran: Final Report (1993–2004)*, by Yitzhak Magen and Yuval Peleg, 387–401. Judea and Samaria Publications 18. Jersualem: Israel Antiquites Authority.

Zilberstein, Ayala, and Noga Nissim Ben Efraim. 2013a. "The Stone Objects." In *Jerusalem: Excavations in the Tyropoeon Valley (Giv'ati Parking Lot)*, by Doron Ben-Ami, 1:309–20. IAA Reports 52. Jerusalem: Israel Antiquites Authority.

Zilberstein, Ayala, and Noga Nissim Ben Efraim. 2013b. "The Stone Vessels and Furniture of the Early Roman Period." In *Jerusalem: Excavations in the Tyropoeon Valley (Giv'ati Parking Lot)*, by Doron Ben-Ami, 1:213–36. IAA Reports 52. Jerusalem: Israel Antiquities Authority.

Zitronblast, Avital, and Hillel Geva. 2003. "Metal Artifacts." In *Jewish Quarter Excavations in the Old City of Jerusalem: Conducted by Nahman Avigad, 1969–198; Final Report*. Vol. 2, *The Finds from Areas A, W and X-2*, by Hillel Geva, 353–63. Jerusalem: Israel Exploration Society.

14. Fauna

Abra Spiciarich, Scott Stripling, and Lidar Sapir-Hen

Zooarchaeological research aims to understand the relationship between humans and animals (Reitz and Wing 2008, 4). Humans today, as well as in the past, use animals to meet a variety of needs, including leather, tools, food, and dairy products. Evidence of the exploitation of animals survives in the archaeological record in the form of bones, teeth, and horns. Our goal in studying the remains from Khirbet el-Maqatir was to understand the animal economy and subsistence habits of the site throughout its history.

Methodology

Systematic collection of the faunal remains from Khirbet el-Maqatir only occurred in 2016. The excavation team collected the bones by hand and grouped them according to square, locus, and stratum. The fauna from the second century BCE to the sixth century CE originate from three periods of occupation:

Strata 4–3: The Late Hellenistic and Early Roman fauna derived from floors, architectural installations, and subterranean storage installations in Squares N23, O21–23, P22, P24, Q22, Q24–25, W22, X23, and Cavern 1.

Stratum 3: The Early Roman fauna originated from walls, a mikveh, and fills in Squares P24, Q25, R25, and W22. The fills, for example, came from a tiled cistern in Square P24 and a silo in Square Q25.

Stratum 2: The Byzantine faunal assemblage derived from beneath the in-situ flooring in the ecclesiastical complex in Field C (Squares ZF05, ZG10, and ZH10).

We studied and recorded the epiphyses and diaphysis of the bones and coded the long bones according to five element zones: proximal epiphysis, proximal shaft, shaft, distal shaft, and distal epiphysis. Other bones were coded according to completeness percentages.

The bone collections at the Steinhardt Museum of Natural History and the Zooarchaeology Laboratory at Tel Aviv University helped us identify the bone elements to the lowest possible taxonomic level. Likewise, the private collection of Omri Lernau, MD, provided parallels for the study of fish bones.

We separated the sheep bones (*Ovis aries*) from the goat bones (*Capra hircus*) following Zeder and Lapham's morphological criteria (2010, 2,287–905). If we could not distinguish them, we categorized the bone as a caprine, which encompasses both sheep and goat. When bones could only be identified to species, body size became the default classification. Large mammals are considered cattle or donkey size, whereas medium mammals are caprine or pig size. The large-mammal group in the assemblages included mainly cattle. We followed von den Driesch's (1976, 1–11) protocols when measuring the fully fused epiphyses.

The relative abundance of different taxa (Grayson 1984, 16–90; Lyman 2008, 27–38) was determined by the *number of identified specimens* and the *minimum number of individuals*. The *minimum number of elements* formed the basis for the values of the minimum number of individuals. We used the minimum number of elements per locus to determine the relative abundance of skeletal elements, employing the assumptions described in Klein and Cruz-Uribe (1983, 76–77) and Lyman (1994, 223–93), while considering the element side and fusion stage.

The determination of *minimum animal units* enabled calculation of the frequency of skeletal elements within the assemblages. The minimum number of elements served as the basis for the calculation of the minimum animal units (Lyman 1994, 104).

We inspected and recorded the elements for various macroscopic bone-surface modifications that relate to treatment from the time of preparation for consumption to the time of discard. Modifications include butchery marks (Binford 1984, 235–57), signs of animal activity, and stage of weathering (Behrensmeyer 1978, 151–53). These factors indicate time of exposure and evidence of burning, based on a visible change in bone calcification. The percentage of element completeness (the minimum number of elements divided by the number of identified specimens) determined the degree of fragmentation.

We analyzed the epiphyseal closure of culled species to better understand how the residents exploited livestock, whether cattle (Silver, 1969, 250–54) or caprine (Zeder 2006, 95–97). The sample size of measurable bones did not allow estimation of sex profiles.

Results

The large sample-size of the Strata 4 and 3 assemblages enabled us to analyze the modifying factors and the animal economy trends in the Hellenistic and Early

Roman periods. The small sample-size of the Byzantine faunal assemblage (Stratum 2) warrants only a short description.

Species Represented in the Assemblage

We identified 789 specimens in the collection (Late Hellenistic to Byzantine). Most specimens (632) came from Strata 4–3, while 136 derived from Stratum 3 and 21 from Stratum 2.

Domestic livestock—sheep (*Ovis aries*), goat (*Capra hircus*), cattle (*Bos Taurus*), and donkey (*Equus asinus*)—dominated the disaggregated assemblages. They represented 60.6 percent of the Strata 4–3 assemblage, 87 percent of the Stratum 3 assemblage, and 71 percent of the Stratum 2 assemblage (table 14.1). Wild species were less than 1.5 percent of the Stratum 2 assemblage, whereas, they represent about 30 percent of the Strata 4–3 assemblage and 5 percent of the Stratum 3 assemblage.

Table 14.1. Bones at Khirbet el-Maqatir by type and chronological period

	MB III–LB I			Iron I–II			LH–ER			Early Roman			Byzantine		
	(S)	(I)	(%)	(S)	(I)	(%)	(S)	(I)	(%)	(S)	(I)	(%)	(S)	(I)	(%)
Domesticated mammals															
Capra hircus, goat	2	1	4	4	1	2	11	2	2	2	1	1	1	1	5
Ovis aries, sheep				3	1	1	14	2	2	1	1	1			
Caprine size, sheep or goat	39	2	80	154	3	71	272	9	43	89	3	65	14	2	67
Bos taurus, cow	3	1	6	25	1	12	69	3	11	27	2	20			
A-size, large mammal	1	1	2	5	1	2	14	1	2						
Canis familiaris, domestic dog	1	1	2	7	1	3				1	1	1			
Sus scrofa, domestic pig	1	1	2	2	1	1				1	1	1			
Equus asinus, donkey				3	1	1	3	1							
Felis, cat							9	1	1						
Wild mammals															
Gazella gazella, gazelle				1	1		4	1	1	1	1	1	1	1	5
Lepus capensis, hare							1	1							
Dama mesopotamica, fallow deer				2	1	1	3	1		1	1	1			
Aves															
Small aves, small birds				2	1	1				2	1	1			
Medium aves, medium birds				3	1	1	10	3	2	1	1	1	1	1	5
Gallus gallus, chicken	1	1	2	5	2	2	44	4	7	5	2	4	1	1	5
Alectoris chucker, partridge				1	1		4	2	1	1	1	1	1	1	5
Rodents															
G-size, rodent size							60	10	9						
Mus, mouse							20	5	3						
Rattus, rat							20	4	3						
Reptilia															
Serpentes, snake							55	1	9						
Testudo graeca, turtle							8	1	1						
Amphibia															
Anura, frog							10	3	2	4	1	3			
Pisces															
Pisces size, fish	1	1	2												
Sparidae sp., porgies							1	1							
Clariidae Clarias gariepinus, African sharptooth catfish													2	1	10
Total	49	9	100	217	17	100	632	56	100	136	17	100	21	8	100

Note: Column heads are as follows: (S) number of identified specimens; (I) minimum number of individuals; and (%) percentage of identified specimens.

Strata 4–3 had the greatest richness of species (table 14.1). Caprine represented 47 percent of the assemblage with a 14:11 ratio between sheep and goat bones. Cattle followed caprine representing 14 percent of the assemblage. Rats (*Rattus rattus*, 20 specimens) and mice (*Mus sp.*, 20 specimens) represented approximately 13 percent of the assemblage. There were at least 9 individual rodents (table 14.1). Rodent bones present in the assemblage most likely derived from later bioturbation. The Strata 4–3 assemblage also included donkey (3 specimens), mountain gazelles (*Gazella gazella*, 4), fallow deer (*Dama mesopotamica*, 3), hare (*Lepus capensis*, 1), and cat (*Felis sp.*, 9). Two species of birds were identified: chicken (*Gallus gallus*, 44 specimens, 7%) and partridge (*Alectoris chuckar*, 4 specimens), along with a number of reptiles and amphibian species such as snake (*Reptillia sp.,* 55 specimens; minimum number of individuals: 1), tortoise (*Testudo graeca*, 8 specimens), and an unidentified amphibian (*Anura*, 10 specimens, minimum number of individuals: 3). Only one species of fish, porgies, came to light (*Sparidae sp.*, 1 specimen).

Domesticated livestock also dominated the Stratum 3 assemblage. Caprine comprised 65 percent of the livestock in the Early Roman assemblage, and cattle 20 percent. The remaining species included pig (*Sus scrofa*, 1 specimen) domestic dog (*Canis familiaris*, 1), mountain gazelle (1), fallow deer (1), chicken (5), partridge (1), and an amphibian (4 specimens) (table 14.1).

Taphonomic Analysis

Weathering. The weathering stages of the bones from all periods fall primarily between Stages 0–2 of Behrensmeyer's scale (1978, 157) (table 14.2). This suggested that most bones were buried within three years of disposal. Conversely, approximately a quarter of the bones lay exposed for longer than three years (Stages 3–6).

Table 14.2. Bones by weathering stage and chronological period

	0	1	2	3	4	5	6	Total
MB III–LB I	8	17	7	11	2	3	1	49
Iron Age	47	79	40	27	6	9	9	217
LH–ER	218	192	74	56	30	42	19	631
Early Roman	31	38	22	22		10	4	117
Byzantine	3	8	5	2	1			19
Total	307	334	148	118	39	64	33	1033

Notes: Weathering stages according to Behrensmeyer (1978, 151–53). The counts convey the number of identified specimens.

Burning. Less than 1 percent of the entire assemblage showed evidence of burning (table 14.3). This analysis includes all fragments, including the unidentifiable skeletal elements. Caprine bones were the most commonly burned bones in all periods. In addition, the Strata 4–3 assemblage included a cat showing evidence of burning. The cat remains derived from Cavern 1 (Locus 19), an olive press cave that was repurposed as a hiding system. The color of the cat's burned bones was a light to dark purple, indicating their exposure fire at a high temperature. The overall scarcity of burned remains prevents a conclusion regarding a pattern.

Table 14.3. Burned bones by species, chronological period, and degree of burn

	MB III–LB I			Iron I–II			LH–ER				Early Roman			Byzantine		
	B–	B	B+	B–	B	B+	B–	B	B+	BP	B–	B	B+	B–	B	B+
Caprine	1		1	2		1	1	2			1			1	1	1
Sheep					1											
Goat									1							
Cat										6						

Notes: Column heads are as follows: (B–) slightly burned; (B) burned; (B+) fully calcified; and (BP) burned purple. The counts convey the number of identified specimens.

Animal activity and root etching. Scavenging by carnivores and rodents (table 14.4) left marks on 8.5 percent of the entire assemblage. The majority of the marks in the Strata 4–3 assemblage showed evidence of gnawing by carnivores (N: 77), suggesting that the bones remained exposed, as is also evidenced from the weathering signs discussed above. Evidence of destructive root etching was only present in the Strata 4–3 assemblage and represents less than 1 percent of the total (N: 4; tables 14.4). The sample size in the other strata are too small to analyze with confidence.

Table 14.4. Bones with gnawing and etching marks by chronological period

	Rodent gnawing	Carnivore gnawing	Root etching
MB III–LB I			
Iron I–II		13	
LH–ER	9	52	4
Early Roman	3	3	
Byzantine	1	9	
Total	13	77	4

Pathologies. Unlike other strata, the caprine and cattle in the Stratum 4 assemblage (table 14.5) showed evidence of pathologies. One cow had a boney outgrowth on a third phalanx, which probably resulted from traction work. Caprine pathologies included osteoporosis of the sacrum, boney outgrowth on a metatarsal, and possibly cancer of the neck vertebrae's atlas.

Table 14.5. Bones with pathologies in the Late Hellenistic and Early Roman periods

Species	Element	Boney outgrowth	Osteoporosis	Cancer
Cattle	Phalanx III	1		
Caprine	Atlas			1
Caprine	Metatarsal	1		
Caprine	Sacrum		1	

Table 14.6. Bones with cut marks by species and chronological period

	MB III–LB I	Iron Age			Late Hellenistic–Early Roman				Early Roman			Byzantine	
	(D)	(D)	(F)	(S)	(D)	(F)	(S)	(H)	(D)	(F)	(S)	(D)	Total
Cattle	1	1			2	2			2		2		10
Caprine		3	4	1	9	5	2	1	2	2		1	30
Chicken									1				1
Gazelle										1			1
Total	1	4	4	1	11	7	2	1	5	3	2	1	42

Notes: Column heads are as follows: (D) dismembering; (F) filleting; (S) skinning; and (H) hole. Cut marks based on the typology of Binford (1984, 235–57). The counts convey the number of identified specimens.

Butchery and cut marks. A small amount of bones showed evidence of butchering. Butchering primarily involved skinning and dismemberment and secondarily filleting. Table 14.6 documents a total of 42 cut marks (about 4 percent of the total assemblage). Of these, 71 percent occurred on caprine bones, the dominant species in every assemblage. The frequency of both primary butchery and secondary butchery present in the Strata 4–3 assemblage suggests that full processing of carcasses took place on-site, but 70 percent primary dismemberment appears to have occurred elsewhere.

Fragmentation. Fragmentation measures the completeness of animal bones in order to assess the taphonomic impact of humans, animals, and environment on a faunal assemblage. Zooarchaeologists calculate fragmentation by comparing the percentage of complete sheep, goat, and cattle—calculated as the minimum number of elements divided by the number of identified specimens, then multiplied by one hundred. Analysis of the Strata 4–3 assemblage suggested that it was moderately fragmented (fig. 14.1).

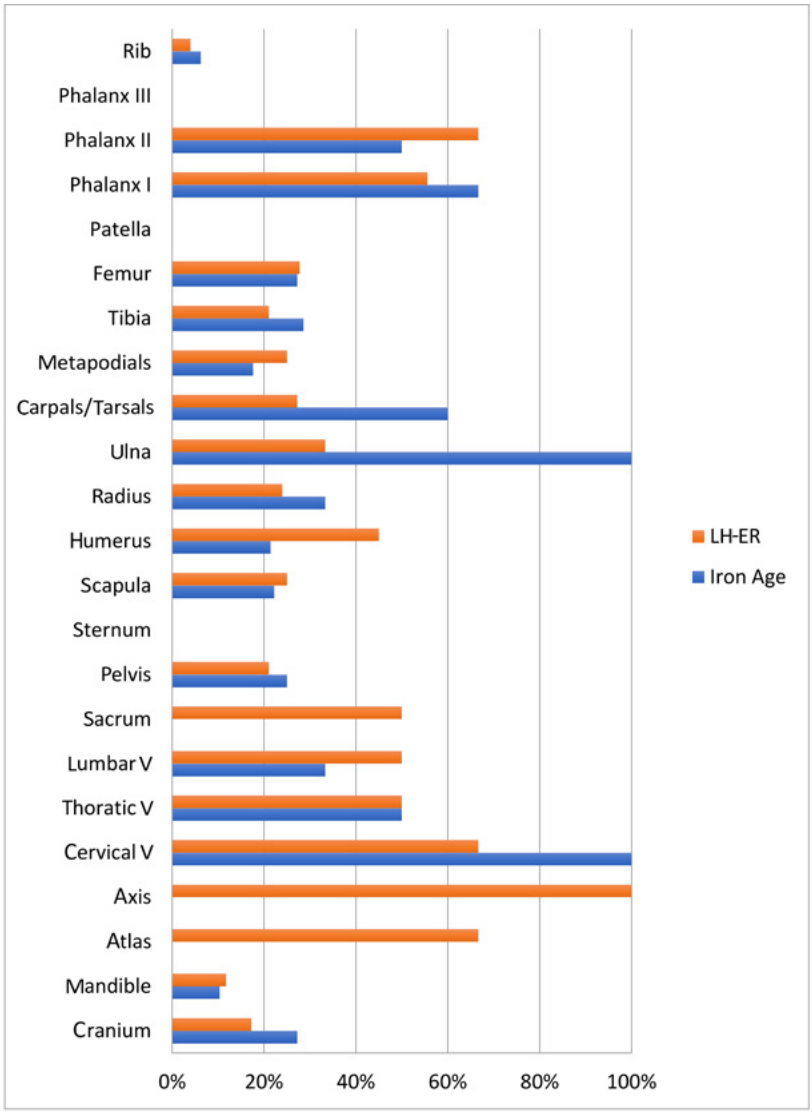


Figure 14.1. Completeness of caprine elements from the Iron Age and the Late Hellenistic and Early Roman periods. Completeness was calculated as the minimum number of elements divided by the number of identified specimens.

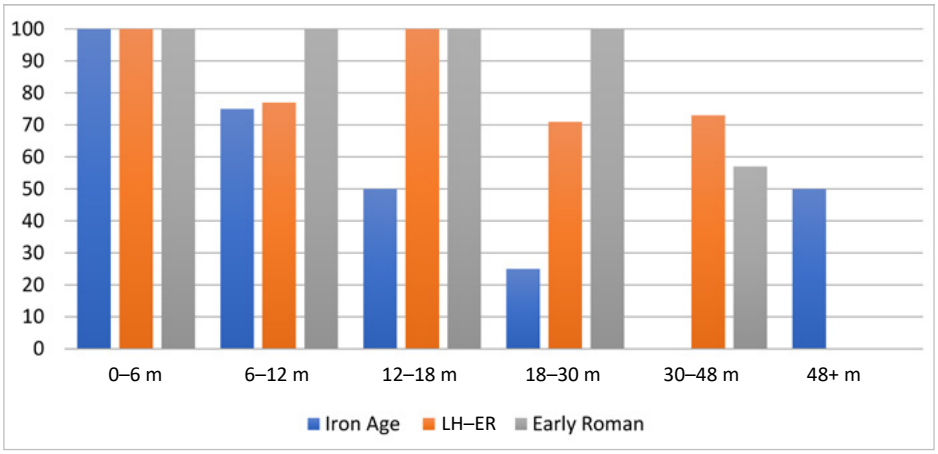


Figure 14.2. Survivorship of caprine by chronological period. Survivorship was calculated as the percentage of fused bones of total per age group.

Table 14.7. Unfused and fused bones of caprine by fusion age and chronological period

			Iron Age			Late Hellenistic–Early Roman			Early Roman		
Fusion age (in months)	Bone name	Portion	Total	Unfused	% fused	Total	Unfused	% fused	Total	Unfused	% fused
0–6	Radius	Proximal	3		100	5		100	2		100
12–18	Humerus	Distal	6	2	67	6	2	67	2		100
12–18	Pelvis		1	1		6		100			
12–18	Scapula					2		100			
12–18	Phalanx II		2		100	2		100	1		100
12–18	Phalanx I		1	1		6		100	1		100
18–30	Tibia	Distal	1		100	5	2	60	2		100
18–30	Metapodials	Distal	8	6	25	7	1	86			
30–48	Calcaneus		4	4		3	2	33	2		100
30–48	Femur	Proximal	1	1		3	2	33	2	1	50
30–48	Femur	Distal				2	2		2		100
30–48	Ulna	Proximal							2	2	
30–48	Radius	Distal	1	1		4	1	75	1		100
30–48	Tibia	Proximal									
48+	Humerus	Proximal	2	1	50	2	2				

Notes: The counts convey the number of identified specimens. The aging is presented in months and based on Zeder (2006, 93–97).

Domestic livestock exploitation. The demographic profile of the animal population can illustrate the subsistence goals of the settlement. Subsistence strategies employed by a population can reveal the importance of secondary products (e.g., wool and milk) or meat consumption, which in turn, can be used to understand socioeconomic patterns within a given assemblage (deFrance 2009, 122). The inhabitants at Khirbet el-Maqatir made conscious decisions regarding the age at which they culled domestic livestock. Animals kept to older ages were exploited for secondary products as opposed to those culled at younger ages for meat (Payne 1973, 281–300).

Age Profiles of Cattle and Caprine

Cattle. The sample size of cattle bones was small in every assemblage, limiting analysis of aging profiles. Table 14.8 presents the data.

Caprine. Epiphyseal fusion served as the basis for determining the age of the caprine assemblages from the Strata 4–3, and 3 (fig. 14.2; table 14.7). The Strata 4–3 and Stratum 3 survivorship percentages suggested that caprine were primarily kept for secondary products, as most survived at least to 30–48 months (Strata 4–3 at 42% and Stratum 3 at 57%; fig. 14.2). The sample size for caprine in the Stratum 2 assemblage was too small to allow for an estimation of aging profiles.

Body-Part Frequencies of Cattle and Caprine

Cattle. The low number of cattle remnants in the Stratum 3 assemblage hindered a full understanding of body part frequencies (tables 14.9 and 14.11). The meat-bearing limbs predominated. The presence of cranial remains and phalanxes of the cattle remains in Strata 4–3 suggested utilization of the entire carcass. The

Table 14.8. Unfused and fused bones of cattle by fusion age and chronological period

			Iron Age			Late Hellenistic–Early Roman			Early Roman		
Fusion age (in years)	Bone name	Portion	Total	Unfused	% fused	Total	Unfused	% fused	Total	Unfused	% fused
0.6–0.8	Pelvis								1		100
0.6–0.8	Scapula										
1–1.5	Radius	Proximal				1		100			
1–1.5	Humerus	Distal									
1.5	Phalanx II					2		100			
1.5	Phalanx I		3	2	33	3		100	1		100
2–2.5	Tibia	Distal				2	1	50			
2–2.5	Metacarpal	Distal							2		100
2.25–3	Metatarsal	Distal									
3.5	Femur	Proximal	1	1		1		100			
3.5–4	Calcaneous		1	1		1		100			
3.5–4	Femur	Distal				1	1				
3.5–4	Ulna	Proximal									
3.5–4	Radius	Distal				1	1				
3.5–4	Tibia	Proximal							1	1	0
3.5–4	Humerus	Proximal									

Notes: The counts convey the number of identified specimens. The aging is presented in years and based on Silver (1969, 250–54).

Table 14.9. Bones of cattle and caprine from the Iron Age

	Cattle				Caprine			
Element	(S)	(E)	(U)	(%)	(S)	(E)	(U)	(%)
Cranium	6	1	0.03	3	11	3	0.09	6
Mandible	2	1	0.08	8	29	3	0.25	17
Atlas	2	1	1	100				
Axis	1	1	1	100				
Cervical V	1	1	0.2	20	1	1	0.2	13
Thoracic V					2	1	0.07	5
Lumbar V					3	1	0.14	10
Sacrum								
Pelvis	1	1	0.16	17	4	1	0.16	11
Sternum								
Scapula	4	1	0.5	50	9	2	1	67
Humerus					14	3	1.5	100
Radius	1	1	0.5	50	9	3	1.5	100
Ulna					1	1	0.5	33
Carpals/tarsals	1	1	0.04	5	5	3	0.13	9
Metapodials	3	1	0.25	25	17	3	0.75	50
Tibia					7	2	1	67
Femur	2	1	0.5	50	11	3	1.5	100
Patella								
Phalanx I	3	1	0.125	13	3	2	0.25	17
Phalanx II					2	1	0.125	8
Phalanx III	1	1	0.125	13				
Ribs	2	1	0.07	8	32	2	0.15	10

Note: The column heads are as follows: (S) number of identified specimens; (E) minimum number of elements; (U) minimum animal units; and (%) percentage of minimum animal units.

limbs were the most prevalent cattle bones in Strata 4–3, followed by the meat bearing scapula and ribs.

Caprine. In the Strata 4–3 assemblage, the most common caprine elements were the humerus, radius, and femur, followed by the scapula and tibia (table 14.10). The hind limbs (tibia and femur) dominated the Stratum 3 assemblage, followed by the forelimbs (humerus and radius), ribs, and cervical vertebrae (table 14.11). The caprine consumption pattern for all periods was similar and suggests utilization of the entire carcass, but the focus was on the utilization of the fore and hind limbs, which are the most meat-bearing parts.

Discussion

At Khirbet el-Maqatir, domestic livestock dominate the faunal profile in all time periods (see Iron Age in volume 1). Exploitation of domestic livestock is typical of southern Levant faunal assemblages (Sapir-Hen, Gadot, and Finkelstein 2014, 714–35).

Pig bones at Khirbet el-Maqatir comprised less than 1 percent in all assemblages. Pigs bones were notably absent in Strata 4–3. A similar absence of pig remains occurs in nearby Jerusalem during this period (Horwitz 1996, 302–37; Bar-Oz and Raban-Gerstel 2013, 349–80).

Caprine ranked as the most prevalent species in Strata 4–3, but residents exploited a wide variety of other species, including birds and wild game. Unlike the Iron Age inhabitants at Khirbet el-Maqatir, the kill-off pattern in the Strata 4–3 and Stratum 3 assemblages suggested a focus on secondary products, with few animals being culled at an early age.[1] The body-part frequencies suggested on-site husbandry and slaughter.

[1] The Bronze Age and Iron Age faunal remains are presented in *The Excavations at Khirbet el-Maqatir 1995–2001 and 2009–2016*, vol. 1, *The Bronze Age and Iron Ages.*

Table 14.10. Bones of cattle and caprine from the Late Hellenistic and Early Roman periods

Element	Cattle				Caprine			
	(S)	(E)	(U)	(%)	(S)	(E)	(U)	(%)
Cranium	10	3	0.09	9	29	5	0.15	3
Mandible	10	2	0.16	17	34	4	0.33	7
Atlas	1	1	1	100	3	2	2	44
Axis					1	1	1	22
Cervical V					3	2	0.4	9
Thoracic V	2	1	0.07	8	4	2	0.15	3
Lumbar V					8	4	0.57	13
Sacrum					2	1	1	22
Pelvis	1	1	0.16	17	19	4	0.66	15
Sternum								
Scapula	1	1	0.5	50	12	3	1.5	33
Humerus	3	2	1	100	20	9	4.5	100
Radius	9	2	1	100	25	6	3	67
Ulna					3	1	0.5	11
Carpals/tarsals	8	2	0.09	9	11	3	0.13	3
Metapodials	4	1	0.25	25	24	6	1.5	33
Tibia	2	2	1	100	19	4	2	44
Femur	5	1	0.5	50	18	5	2.5	56
Patella								
Phalanx I	4	3	0.37	38	9	5	0.625	14
Phalanx II	2	1	0.12	13	3	2	0.25	6
Phalanx III	1	1	0.12	13				
Ribs	19	6	0.46	46	50	2	0.15	3

Note: The column heads are as follows: (S) number of identified specimens; (E) minimum number of elements; (U) minimum animal units; and (%) percentage of minimum animal units.

Table 14.11. Bones of cattle and caprine from the Early Roman period

Element	Cattle				Caprine			
	(S)	(E)	(U)	(%)	(S)	(E)	(U)	(%)
Cranium	6	1	0.03	6	3	1	0.03	2
Mandible	1	1	0.08	17	18	2	0.16	11
Atlas					2	1	1	67
Axis								
Cervical V					1	1	0.2	13
Thoratic V					1	1	0.07	5
Lumbar V					1	1	0.14	10
Sacrum								
Pelvis	2	2	0.33	67	4	2	0.33	22
Sternum								
Scapula					8	1	0.5	33
Humerus	1	1	0.5	100	5	2	1	67
Radius			0	0	10	3	1.5	100
Ulna	1	1	0.5	100	2	1	0.5	33
Carpals/tarsals					3	1	0.04	3
Metapodials	6	2	0.5	100	4	1	0.25	17
Tibia					6	3	1.5	100
Femur					8	3	1.5	100
Patella								
Phalanx I	1	1	0.12	25	1	1	0.12	8
Phalanx II					1	1	0.12	8
Phalanx III								
Ribs	9	1	0.07	15	14	4	0.30	21

Note: The column heads are as follows: (S) number of identified specimens; (E) minimum number of elements; (U) minimum animal units; and (%) percentage of minimum animal units.

Cattle bones comprised nearly 20 percent of the Strata 4–3 and Stratum 3 assemblages. This increase in cattle frequency from earlier periods was also evident in Jerusalem during the Late Hellenistic and Early Roman periods.[2] The increase in Jerusalem likely resulted from an apogee of cultic activity (Reich et al. 2015, 26). An additional reason for the increase in cattle frequencies could be the growing dependence of the inhabitants on agriculture as a means of sustenance. Most cattle remnants in Strata 4–3 and Stratum 3 from Khirbet el-Maqatir were fused, suggesting that residents valued the increased agricultural production of large plow animals.

* * *

In summary, the faunal remains of Khirbet el-Maqatir depicted a diachronic change in the animal economy of the site. While the animal economy of Iron Age Khirbet el-Maqatir focused on raising domestic livestock for meat consumption, by the Late Hellenistic and Early Roman periods, residents had diversified the animal economy to produce secondary products and plow the fields. This shift in animal economy may relate to the historical, political, cultural, and religious changes that occurred in the southern Levant during these periods.

References

Bar-Oz, Guy, Ram Bouchnik, Ehud Weiss, Lior Weissbrod, Daniella E. Bar-Yosef Mayer, and Ronny Reich. 2007. "'Holy Garbage': A Quantitative Study of the City-Dump of Early Roman Jerusalem." *Levant* 39:1–12.

Bar-Oz, Guy, and Noa Raban-Gerstel. 2013. "The Faunal Remains." In: *Jerusalem: Excavations in the Tyropoeon Valley (Giv'ati Parking Lot)*, by Doron Ben-Ami, 1:349–80. IAA Reports 52. Jerusalem: Israel Antiquities Authority.

Behrensmeyer, Anna K. 1978. "Taphonomic and Ecological Information from Bone Weathering." *Paleobiology* 4, no. 2 (Spring): 50–62.

Binford, Lewis R. 1984. "Butchering, Sharing, and the Archaeological Record." *Journal of Anthropological Archaeology* 3, no. 3 (September): 35–37.

DeFrance, Susan D. 2009. "Zooarchaeology in Complex Societies: Political Economy, Status, and Ideology." *Journal of Archaeological Research* 17:105–68.

[2] Horwitz 1996, 303–27; Bar-Oz et al. 2007, 10; Bar-Oz and Raban-Gerstel 2013, 350; Reich et al. 2015, 26.

Grayson, Donald K. 1984. *Quantitative Zooarchaeology: Topics in the Analysis of Archaeological Faunas*. Studies in Archaeological Science. New York: Academic Press.

Horwitz, Liora K. 1996. "Faunal Remains from Areas A, B, D, H, and K." In *Excavations at the City of David, 1978–1985*. Vol. 4, *Various Reports*, edited by Donald T. Ariel and Alon De Groot, 302–37. Qedem 35. Jerusalem: Hebrew University.

Klein, Richard G., and Kathryn Cruz-Uribe. 1983. "The Computation of Ungulate Age (Mortality) Profiles from Dental Crown Heights." *Paleobiology* 9, no. 1 (Winter): 0–78. no.

Lyman, R. Lee. 1994. *Vertebrate Taphonomy*. Cambridge Manuals in Archaeology. Cambridge: Cambridge University Press.

Lyman, R. Lee. 2008. *Quantitative Paleozoology*. Cambridge Manuals in Archaeology. Cambridge: Cambridge University Press.

Payne, Sebastian. 1973. "Kill-Off Patterns in Sheep and Goats: The Mandibles from Aşvan Kale." *Anatolian Studies* 23:281–304.

Reich, Ronny, Ya'akov Billig, Dalia Hakker-Orion, and Omri Lernau. 2015. "Faunal Remains from the 1994–1996 Excavation at the Temple Mount, Jerusalem." *'Atiqot* 80:19–34.

Reitz, Elizabeth J., and Elizabeth S. Wing. 2008. *Zooarchaeology*. 2nd ed. Cambridge Manuals in Archaeology. Cambridge: Cambridge University Press.

Sapir-Hen, Lidar, Yuval Gadot, and Israel Finkelstein. 2014. "Environmental and Historical Impacts on Long Term Animal Economy: The Southern Levant in the Late Bronze and Iron Ages." *Journal of Economic and Social History of the Orient* 57, no. 5 (November): 703–44.

Silver, I. A. 1969. "The Ageing of Domestic Animals." In *Science in Archaeology: A Comprehensive Survey of Progress and Research*, edited by Don Brothwell and Eric Higgs, 250–68. New York: Basic Books.

Von den Driesch, Angela. 1976. *A Guide to the Measurement of Animal Bones from Archaeological Sites*. Peabody Museum Bulletins 1. Cambridge: Peabody Museum of Archaeology and Ethnology.

Zeder, Melinda A. 2006. "Reconciling Rates of Long Bone Fusion and Tooth Eruption and Wear in Sheep (Ovis) and Goat (Capra)." In *Recent Advances in Ageing and Sexing Animal Bones: Proceedings of the 9th Conference of the International Council of Archaeozoology, Durham, August 2002*, edited by Deborah Ruscillo, 87–118. International Council for Archaeozoology. Oxford: Oxbow.

Zeder, Melinda A., and Heather Lapham. 2010. "Assessing the Reliability of Criteria Used to Postcranial Bones in Sheep, Ovis, and Goats, Capra." *Journal of Archaeological Science* 37:2,887–905.

Appendix: Measurements of Identified Bones from Khirbet el-Maqatir

Table 14.A.1. Measurements of goat bones (*Capra hircus*)

			Measurement									
Element & no.	Square	Locus	BFd	BFp	Bd	Bp	D1	Dd	GL	GL1	GLm	Glpe	Sd
Metapodial													
184	P22	3			27.79	...			...				
Phalanx I													
281	P22	1			13.49	13.05						36.65	10.72
341	P20	14			13.40	13.09						35.23	11.25
1177	R24				12.79	14.62						40.62	11.13
Astragalus													
450	R10	6			17.78		14.24			26.31	24.88		
1380	Q10	32			18.06		14.03			27.34	26.33		
Radius													
784	W22	3	29.28	...	24.85	...		21.42					

Note: All bones Late Hellenistic or Early Roman except nos. 450 (MB III or Iron Age) and 1380 (MB III). Number 1177 was Early Roman.

Table 14.A.2. Measurements of sheep bones (*Ovis aries*)

			Measurement										
Element & no.	Square	Locus	BFd	BFp	Bd	Bp	D1	Dd	GL	GL1	GLm	Glpe	Sd
Metatarsal													
215	P22	9			25.83	...			...				
1338	N23	102			25.41	...			...				
Metacarpal													
1146	CAV5	4			26.63	...			...				
Phalanx I													
275	P22	10			12.77	14.51						41.13	11.13
1274	O24	15			11.55	13.52						37.18	11.27
Phalanx II													
969	CAV1	...			10.69	13.61						24.13	12.7
1200	Q22	2			10.15	12.39						22.11	10.56
1273	O24	15			9.73	12.93						24.50	9.91
Astralagus													
511	O22	...			21.51		31.26			34.47	31.26		
1257	O24	11			19.69		28.89			30.74	28.89		
1272	O24	15			21.89		30.94			33.08	30.94		
Radius													
484	Q10	...	...	30.2	...	30.02		...					
1168	R24	...	26.86	...	31.06	...		21.02					
1368	Q22	2	...	30.05	...	32.70		...					

Note: All bones Late Hellenistic or Early Roman except no. 484 (Iron Age). Number 1168 was Early Roman.

Table 14.A.3. Measurements of cattle bones (*Bos taurus*)

			Measurement				
Element & no.	Square	Locus	Glpe	Bp	Sd	Bd	Dd
Phalanx I							
971	CAV1	...	58.10	28.52	25.71	27.09	
973	CAV1	...	57.38	27.92	23.32	27.51	
1057	W22	11	56.63	...	23.73	24.85	
Phalanx II							
586	Q23	...	36.75	24.62	21.44	20.46	
Tibia							
406	P22	3				53.25	40.73
1346	O23	15				53.22	41.37

Note: All bones Late Hellenistic or Early Roman. Number 1057 was Early Roman.

Table 14.A.4. Measurements of dog bones (*Canis familiaris*)

						Measurement		
Name	Element	No.	Square	Locus	Period	Bp	Bd	GL
Dog	Metapodial	611	CAV4	...	LH–ER	8.53	5	44.52

Table 14.A.5. Measurements of gazelle bones (*Gazella gazella*)

						Measurement	
Name	Element	No.	Square	Locus	Period	Bd	Dd
Gazelle	Tibia	168	ZH10	...	Byzantine	27.63	21.54

Conclusion

While the excavation of Khirbet el-Maqatir began as an exploration of the site as a candidate for the Late Bronze Age fortress of Ai mentioned in Joshua 7–8, in time it became clear that later residents built a significant town, which thrived in the Late Hellenistic and Early Roman ages and covered the eastern half of the earlier fortress. After the two Jewish revolts against Rome, the ruins lay dormant. Since nothing was built on top of them, this enabled the Associates for Biblical Research to explore an unencumbered town. Unfortunately, we battled agricultural encroachment and vandalism through the two plus decades of the salvage excavation. If the unlawful destruction continues, nothing will remain of the site by the middle of this century. For this reason, I am especially grateful that we were able to excavate and publish what occurred at Khirbet el-Maqatir in antiquity.

From the mass of data recorded at Khirbet el-Maqatir, five finds from the later periods stand out.

- A monumental fortification tower. The northwest tower was unparalleled in size in ancient Palestine in the late Second Temple period (chap. 3).

- An underground hiding system. The interconnected, subterranean hiding system clarified the extent of settlement and resistance in the Bethel hills amid Jewish revolts against Rome (chap. 4).

- An ecclesiastical complex. The earliest phase of the church and monastery dated to the fourth century CE and thus formed one of the earliest ecclesiastical complexes in Palestine (chap. 5).

- The site's ancient name. The identification of Khirbet el-Maqatir as the likely location of Ephraim potentially illuminates Josephus (*J.W.* 4.550–51), 1 Maccabees 11:34, 2 Samuel 13:23, and John 11:54 (see Introduction to vol. 2).

- A stone map. The stone map (Object 2572) of the late Second Temple period town which adorns the cover of this volume is truly unique.

Several important coins filled gaps in the regional numismatic sequence. For example, a Ptolemaic coin revealed a previously unknown line of Tyrian coinage that resulted from the monetary reforms of Ptolemy II sometime after the year 265 BC (chap. 6). Likewise, we recovered two chalkstone basins of a type known from the antiquities market but never found in situ at a controlled excavation until now (chap. 8).

Very little from the central hill country has been published in recent generations compared to sites in the Shephelah and the coastal plan, so this volume will be a welcome addition to research in this region. It is my hope that other archaeologists will build on the knowledge gained through the excavation of Khirbet el-Maqatir to further clarify the history of the Bethel Hills region in antiquity.

Appendix: Lists of Walls and Loci

Excavations at Khirbet el-Maqatir exposed 138 walls from all time periods. We designated numbers 1–49 for Byzantine walls, but we only clarified 18 walls from the Byzantine period. Therefore, numbers 19–49 were not assigned. With two exceptions (Walls 94 and 95), Walls 50–100 date to the Bronze and Iron Ages. Most of the remaining walls, Wall 101 and above, mostly date to the Late Hellenistic and Early Roman periods. Gaps in the wall sequence indicate a wall's reassignment or that it was never assigned.

Table A.1. Walls at Khirbet el-Maqatir

No.	Period	Square	Elevation	Description
1	Byz	ZI04–ZF04	888.41	East wall of church and annex, 1.5 m wide; hewn limestone with mixed-matrix fill, founded on bedrock
2	Byz	ZF04–7	890.18	South wall of annex, 70 cm wide; hewn limestone with mixed-matrix fill, remnants of plaster coating
3	Byz	ZG04–7	888.67	South wall of church
4	Byz	ZI04–7	888.02	North wall of church
5	Byz	ZF07	889.93	South wall of atrium
6	Byz	ZI07–ZF07	888.02	West wall of church
7	Byz	ZH04	888.29	Attached to east wall of church
8	Byz	ZI010	887.60	West wall of atrium north of entryway
9	Byz	ZI010	888.03	Dividing wall between northern rooms in entryway; abuts Wall 8
10	Byz	ZH010	888.03	North wall of entry passage abuts Wall 8
11	Byz	ZH010	887.97	South wall of entry passage
12	Byz	ZH010	887.87	West wall of atrium south of entryway
13	Byz	ZI010	888.06	West wall of room north of entryway
14	Byz	ZH010	888.21	Western wall blocking off entryway
15	Byz	ZH010	887.93	West wall of room south of entryway
16	Byz	ZI010	887.57	South wall of room north of entryway between Walls 8 and 13
17	Byz	ZH010	887.97	Wall of entry room south of entryway between Walls 12 and 15
18	Byz	ZH04	888.28	Finely built wall; abuts east wall of church
50	BA	Q16–17, R16–17	874.79	South wall of gate
51	BA	R17–S17	874.56	Middle wall of gate
52	BA	T18	873.86	North wall of gate
53	BA	R16–S16	874.96	West wall of gate
54	Iron	P22	874.86	Southwest–northeast, 0.6 m wide, 1–3 courses, abutted Wall 64
55	BA	Q18	874.47	Foundation of south wall of gate
56	BA	B17, M7–8, N7–8, O8, Q20–21, S14	874.68–878.51	Fortress wall, 4–5 m wide, 1–7 courses, comprised of 56a (outer 1.1–1.2 m structural support wall), 56b (inner 0.3–0.7 m structural support wall), 56c (fill 2.6–3.1 m between 56a and 56b)

No.	Period	Square	Elevation	Description
56a	BA	Q8–10, R10–11	879.61–879.82	Outer structural support wall, 1.1–1.2 m wide, reused as rear wall in Iron I dwelling, Locus 27, north side (back) of silos in Q10
56b	BA	P9, P22, Q10, Q20–21, R11	878.53–878.73	Inner structural support wall, 0.3–0.7 m wide, in Q10 and R11 reused as interior wall within Iron I dwelling (Q10, Locus 3, continuation from Q11, 1 boulder wide, 4 courses)
56c	BA	. . .	. . .	Fill between 56a and 56b, 2.6–3.1 m wide
57	BA	Q20	874.00	Southeast–northwest in northeast section of square
58	BA	Q20	874.33	South-southwest–north-northeast in southeast corner of square
59	BA	Q20	874.79	Parallel to Wall 57 in southwest section of square
60	Iron	Q10	877.17	North–south across west side of square, 0.65 m wide, 1–3 courses
61	Iron	Q10	877.18	North–south, 0.65 m wide, 1–2 courses, abutted Locus 26 and Wall 56a
62	Iron	Q10	877.7	East–west, 3 m long, 1–2 courses, connected Walls 60–61
63	Iron	Q10	875.75	Poorly built east–west boulders
64	Iron	P22	874.88	Southeast–northwest, 0.8 m wide, 3–4 courses, abutted by Wall 54 and possibly bedrock
65	Iron	Q10	878.08	Date uncertain, Loci 7 and 19, east–west, 0.4 m wide, 1 course, abutted Wall 56b, extended across square
66	. . .	R10	878.80	Southwest corner curving to northeast corner, formed a Y; Locus 3
67	Iron	P22	873.40–873.80	Southwest–northeast in southeast corner of square
68	BA	C17, J20, L21	871.88–875.54	Northeast–southwest, estimated width 2.5 m
69	BA	P19	874.90	. . .
70	BA	P19	874.71	Northwest–southeast, 1 m wide, possibly part of Wall 54b
71	BA	P19	874.57	. . .
72	Iron	Q9	878.29	Northwest–southeast, 0.5 m wide, 1 m long, abutted 56a. Forms northeast wall of Home 1, Phase 2.
73	Iron	Q9	878.92–878.43	Northwest-southeast, one stone wide, forms southwest wall of Home 1, Phase 2. Intersected with Wall 74 and abutted Wall 56a, 2 m long
74	Iron	Q9	878.78–878.39	Southwest–northeast, intersected Wall 73, 2.5 m long
75	BA	C14, D14	872.28–872.80	Remnants of round tower
76	Iron	R11	874.24–877.43	Locus 17, southeast-northwest, 1 cobble wide, abutted fragmentary Wall 56a, 2 m long, East wall of Iron Age Home 2, Phase 1
77	Iron	R11	877.73	Locus 16, almost north–south, 1 boulder wide, 2.5 m long, abutted Locus 7 and fragmentary Wall 56a. East wall of Iron Age Home 2, Phase 2
78	BA	P19	874.57	Domestic architecture
79	Iron	R11	877.55	West wall of easternmost Iron I home built along Wall 56 west of BA gate, abutted Wall 56a on north and Wall 127 on south, one stone wide, 2.1 m long, one course

No.	Period	Square	Elevation	Description
80	BA	P19	874.90	Domestic architecture
81	BA	P18	874.75	Domestic architecture
82	BA	P18	875.00	Domestic architecture
83	BA	P18	874.92	Domestic architecture; ran west-northwest–east-southeast
84	BA	P18	874.79	Domestic architecture; 1 m wide wall running west-northwest–east-southeast
85	BA	P17	874.86–874.69	Domestic architecture; poorly defined wall running northeast–southwest on east side of square
86	BA	P17	874.76–874.48	Domestic architecture; ran northwest–southeast on north side of square
87	BA	O21	874.74	Wall on the southwest side of Wall 104 cut by the foundation trench for Wall 102 running northeast-southwest; one course high, one stone wide, and founded on bedrock
88	BA	O21	. . .	. . .
89	BA	O21	. . .	. . .
90	BA/Iron	Q11	. . .	. . .
91	BA/Iron	P9	877.57–877.93	. . .
94	LH/ER	AA17	861.12	North wall of a room; the wall ran perpendicular to Wall 95
95	LH/ER	AA17	862.62	West wall of a room; the wall ran perpendicular to Wall 94
96	Iron	Q10–11, R10	878.4	Southeast-northwest, 2.5 m long, intersected Wall 56b, abutted Wall 56a, 1 cobble wide, 12 courses high
98	BA	O10, N10	. . .	North–south wall, 1.0–1.5 m wide
99	BA	R11, M7	. . .	Fortress wall west of gate
100	Iron	R11, S11	878.05	North wall of easternmost Iron I home; 1.15 m wide (1 boulder wide with cobbles; 0.8–1.15 m high (4 courses), 2.4 m long; abutted Wall 79 on west
101	LH/ER	Q21	875.86	Doorway present
102	LH/ER	P20–Q20	875.56	West closing wall of structure; 1 m wide south-southwest–north-northeast wall founded on bedrock; hard-packed fill
103	LH/ER	P20	876.28	Fenestrated with door
104	LH/ER	P20, O21–22	875.69, 875.9	South closing wall of structure; ran west-northwest–east-southeast, founded on bedrock, 0.74 m high
105	LH/ER	Q21	875.57	. . .
106	LH/ER	Q21	875.12	Bench?
107	LH/ER	P21	875.16	Doorway abutting Wall 101
108	LH/ER	P21	875.69	Southwest–northeast wall on southeast side of food preparation area; abutted Wall 107
109	LH/ER	O21–22	875.90	Southwest–northeast, 1 m wide, 5–6 courses, joined W104
110	LH/ER	P22, Q21	874.86	Southwest–northeast, 0.6 m wide, 1–3 courses, parallel to Wall 111

No.	Period	Square	Elevation	Description
111	LH/ER	P22	875.16	Doorway present
112	LH/ER	Q23	874.68	Wall running northeast-southwest through center of square
113	LH/ER	P23	875.38	North closing wall
114	LH/ER	O23–P23	875.42	. . .
115	LH/ER	O23–24, P23–24	875.63	East closing wall?
116	LH/ER	O23	875.50	Doorway abutting Wall 114
117	LH/ER	O23	875.51	. . .
118	LH/ER	N23	. . .	. . .
119	LH/ER	S29	872.89	. . .
120	LH/ER	S30	. . .	. . .
121	LH/ER	R30	. . .	. . .
122	LH/ER	Q15, X17	877.22	Western town-wall
123	LH/ER	R15	876.33	Foundation for Wall 122?
124	LH/ER	L34	. . .	. . .
125	LH/ER	L34	. . .	. . .
126	LH/ER	N33	. . .	. . .
127	Iron	R11, S11	877.44	South wall of easternmost Iron I home, 0.5 m wide (one boulder), 2.45 m long, 0.4–0.9 m high (1–3 courses), abutted Wall 79 on west, under Wall 134, called Wall 96 in 2016 report, also interpreted as Wall 56b
128	Iron	R12	877.45	East–west line of cobbles in east end of the square that supported northern side of triangular courtyard extending east from easternmost Iron I home, 3.2 m long, 0.7 m wide, joins Wall 129 on east, also interpreted as remains of Wall 56c
129	Iron	R12	876.95	Southwest–northeast line of cobbles supporting southeast side of triangular courtyard extending east from easternmost Iron I home, 2.4 m long, 0.4 m wide, joins Wall 128 on northeast, also interpreted as remains of Wall 56c
130	LH/ER	G24	872.65	Southern town-wall?
131	LH/ER	X17–18	873.02	Northern town-wall?
132	LH/ER	J14	874.15	. . .
133	LH/ER	D14–E14	873.50	Southern town-wall?
134	Iron	R12	877.50	West-southwest–east-northeast, wall one small boulder wide (0.2 m), 3.6 m long, atop Wall 127
136	LH/ER	L29	874.39	Southwest–northeast wall in south end of trench
137	LH/ER	L29	874.45	West-northwest–east-southeast wall ca. 1 m wide
138	LH/ER	C14	872.38	Circular wall with doorway
139	LH/ER	P21	876.02	Wall dividing Room 3 from Room 4 of mansion
140	BA	D14	872.53	Three large stones
141	. . .	Q25	874.44	Northeast–southwest, unhewn small and medium boulders, 1 course remaining. 0.6–0.7 m wide, 3.7 m long. Bonds to Walls 153 and 162

No.	Period	Square	Elevation	Description
143	LH/ER	R24–R25	875.16	Southwest wall of large structure. Comes to a corner with Wall 144
144	LH/ER	R24	. . .	Northwest wall of large structure
147	LH/ER	Q24, R25	. . .	North-northeast–south-southwest wall.
151	LH/ER	O24	875.98	Locus 2, east–west, Locations 21 and 22
152	LH/ER	O24	875.25–876.03	Locus 3, north–south, Locations 8 and 14
153	LH/ER	Q24–R24	875.47	Southwest–northeast, 0.5 m wide, 3 courses
154	LH/ER	Q24	874.55	Northeast–southeast, 0.75 m wide, 1 course, abutted wall 155
155	LH/ER	Q24	874.53	Northeast–southwest, 0.5 m wide, 1 course, abutted by wall 154
156	LH	P22	. . .	. . .
157	LH	J17	874.06	Northwest–southeast, 0.5 m wide
160	LH/ER	Q22	874.08	0.5 m long, 0.45 m wide, 0.43 m high, 3 courses
161	LH/ER	Q24	874.48	Northeast–southwest, 1 m wide, 2 courses, abutted by wall 162
162	LH/ER	Q24	874.32	Northwest–southeast, 0.6 m wide, 2 courses, abutted wall 161
163	LH/ER	N23	. . .	1 m wide, 4 m long, 4 courses
164	LH/ER	M7–8, N8–M9, O8–9, P9	879.61–880.43	5 m eastward extension of Wall 166
165	LH/ER	C17, J20, L21	875.34	LH/ER rebuild of 2.5 m wide BA Wall 68
166	LH/ER	M7, N8, O8	880.00	LH/ER rebuild of 4 m wide BA Wall 56
167	Iron	Q9		Northwest–southeast, abutted Wall 56a on north, Wall 56b on south, one stone wide (32–42 cm wide, 39–57 cm high, 2 m long), on bedrock under Wall 73 (Locus 6)
168	Iron	O21		North–south, bonded to Wall 169, one course, one stone wide, on bedrock
169	Iron	O21		East–west, bonded to Wall 168, 1 m wide, on bedrock
170	Iron	Q20		Northwest–southeast, middle of the square, founded on bedrock, 4 m long, 1–2 stones wide (40 cm), 3 courses
171	Iron	Q20		Northwest–southeast, middle of the square, founded on bedrock, 2.7 m long, 1 stone wide (40 cm), 1 course
172	Iron	Q20		West-northwest–east-southeast, northeast corner of the square, 3 courses, one stone wide (25 cm), 1.5 m long
173–200				Unassigned
201	ER	X23	871.03	Northwest–southeast, 0.8 m wide, 2–4 courses, 1 row of megaliths, doorway present, parallel to Wall 204, abutted Walls 202 and 203

No.	Period	Square	Elevation	Description
202	ER	X23	870.93	Northeast–southwest, 0.6–0.8 m wide, 2–4 courses, 1 row of megaliths, doorway present, parallel to Wall 203, abutted by Walls 201 and 204
203	ER	X22	871.03	Northeast–southwest, width undetermined, 6 courses, 1 row exposed, doorway present, parallel to Wall 202, abutted by Walls 201 and 204
204	ER	X22	871.51	Northwest–southeast, width undetermined, 11–13 courses, 1 row exposed, parallel to Wall 201, abutted Walls 202 and 203
205	ER	W22	870.60	Northwest–southeast, 2.5 m wide, 5–10 courses, 1 row exposed, abutted the town wall

Table A.2 lists the loci from the Khirbet el-Maqatir excavation. The Madaba Plains protocols, used with some adaptations in the Khirbet el-Maqatir excavation, track loci differently than other systems which run continuously, regardless of square or field. In the Madaba Plains system, each square carries its own sequence. Thus, for Khirbet el-Maqatir walls, it is always necessary to have both the square and locus numbers to correctly identify a locus.

Table A.2. Loci at Khirbet el-Maqatir

Square	Locus	Description
AA17	1	Disturbed surface debris
AA17	2	Wall 95
AA17	3	Stones in northeast corner. They appear to be part of an agricultural terrace which continues southeast to Square AB21
AA17	4	Cobblestone pavement east of Wall 95
AA17	5	Cobblestone pavement west of Wall 95
AA17	6	Wall 94
AA17	7	Material below Locus 4 east of Wall 95 to bedrock
AA17	8	Material below Locus 5 west of Wall 95 to bedrock
AA19	1	Surface soil at Location 5 to top of Locus 2
AA19	2	Soil at Location 5 below Locus 1 down to bedrock
AA19	3	Single boulder at Location 5
AA19	4	Bedrock
AA21	1	Disturbed surface debris
AA22	1	Disturbed surface soil
AA22	2	Southern wall of the fortress
AA22	3	West side of the tower base (Wall 97)
AA23	1	Disturbed surface soil
AA23	2	Cyclopean tower-base (Wall 97)
AA23	3	Cushioning material between Stones A and C
AA23	4	Hardpacked sterile clay between cyclopean stones and bedrock
AA24	1	Disturbed surface soil
AA24	2	Wall 56: eastern wall of the fortress
AA24	3	Northeast side of tower base (Wall 97)
AB21	1	Disturbed surface debris
AB21	2	Agricultural terrace wall (see AA17 Locus 3)

Square	Locus	Description
AB21	3	Hardpacked surface north of Locus 2
AB21	4	Terrace wall material south of Locus 2
AB23	1	Disturbed surface soil
AB23	2	Hardpacked soil beneath Locus 1 in a probe trench on the east side of the square
AB23	3	Hardpacked soil beneath Locus 1 in the west 4 m of the square
AB23	4	Hardpacked sterile clay layer beneath Loci 2 and 3
AB23	5	Soil from balk trimming
AB23	6	Unassigned
AB23	7	Bedrock
AB24	1	Soil from the surface to the top of tower base (Wall 97)
AB24	2	Soil between Stones A and B down to Locus 5
AB24	3	Wall 97 (tower base)
AB24	4	Soil between Stones A and F
AB24	5	Soil between Stones A and B under Locus 2
AC21	1	Disturbed surface debris
AC21	2	Agricultural terrace wall
AC21	3	Material between Loci 1 and 2
AC23	1	Mixed soil containing few stones
AC23	2	Bedrock
AC24	1	Mixed soil
AC24	2	Pocket of soil on the west side of Stone A
AC24	3	Small segment of the southwest edge of the tower base
AC24	4	Bedrock
A17	1	Surface soil
A17	2	Concentration of stones oriented southwest–northeast in center of square
A17	3	Hardpacked material below Locus 1 east of Locus 2, to bedrock
A17	4	Hardpacked material below Locus 1 west of Locus 2, to bedrock
A19	1	Surface soil at Location 11
A19	2	Soil in Location 11 below Locus 1
A19	3	Soil at Locations 29 and 25 from surface through plow zone
A19	4	Soil at Locations 29 and 25 below Locus 3 to bedrock
A19	5	Collection of boulders at Locations 17 and 23
A19	6	Bedrock
A21	1	Disturbed surface debris
B17	1	Disturbed surface debris
B17	2	Wall 56
B17	3	South-southwest–north-northeast (possible) wall on east side of square. No wall number assigned
B17	4	Wall 56
B17	5	Material northeast of Locus 7 in northeast corner
B17	6	Material in southwest end of probe trench through Wall 56
B17	7	Foundation trench on northeast side of Wall 56
B17	8	Bedrock
B17	101	Disturbed soil

Square	Locus	Description
B17	102	Large stones that may have been part of fortress wall
B17	103	Triangular area adjacent to inner face of fortress wall
B17	104	Triangular trench possibly part of outer face of fortress wall
B18	1	Disturbed topsoil
B18	2	Crumbly clay and surface stones below Locus 1 in northwest corner
B18	3	Hard clay below Locus 2
B18	4	Stone tumble on south side
B18	5	Terra-rosa soil on west side
B18	6	Crumbly clay on south side
B18	7	Burnt limestone in southeast sector
B18	8	Red hard clay on south side
B18	9	Organic material in southwest corner
C14	1	Material on surface
C14	2	Disturbed surface debris east of Wall 138
C14	3	Poorly made wall on east side of Wall 138 (no wall number assigned)
C14	4	Wall 75
C14	5	Wall 138
C14	6	Soil beneath Locus 2 east and south of Wall 138
C14	7	Reddish soil beneath Locus 2 east and south of Wall 138
C14	8	Core of Wall 75 at east end of north balk
C14	9	Top dark layer of soil inside Wall 138
C14	10	Red soil under Locus 9 inside Wall 138
C14	11	Soil in doorway on east side of Wall 138
C14	12	Soil at bedrock and between bedrock segments inside Wall 138
C14	13	Circular line of stones in southwest corner, possibly collapse from Wall 138
C14	14	Core of Wall 75 on west side
C14	15	Core of Wall 75 on west side under Locus 14
C16	1	Beaten earth and cobblestones on surface
C16	2	Large stones underneath upper earth layer
C17	1	Accumulated surface soil
C17	2	Inner face of Wall 68
C17	3	Compact soil beneath Locus 1
C17	4	Wall 68
C17	5	Layer of cobblestones under Locus 3 extending throughout square, possibly a pavement
C17	6	Wall 68 collapse below surface soil
C17	7	Wall 68 collapse below Locus 6
C17	8	Hardpacked clay and cobble layer in 1 m probe trench
C17	9	Hardpacked clay and cobble layer in 1 m probe trench
C17	10	White, decomposing surface of bedrock
C17	11	Hardpacked clay and cobbles below Locus 7 and above Locus 10
C17	12	Wall 68: MB II wall below Locus 4 in the northwest corner of the square
C17	13	Bedrock
C29	1	Disturbed surface soil
C29	2	Gray ashy soil in the northeast corner

Square	Locus	Description
C29	3	Reddish soil beneath Locus 2 in the northeast corner
C29	4	Gray-reddish soil beneath Locus 3 in the northeast corner
C29	5	White chalky soil between fragments of bedrock
CAV1	1	Main cavern
CAV1	2	Surface debris within main cavern
CAV1	3	Soil from probe trench along northeast side of cavern
CAV1	4	Surface debris within main cavern; equals Locus 2
CAV1	5	Chalky white soil ca. 2 × 3 m on the north side under Locus 4, disturbed by vandalism
CAV1	6	Dark and light soil ca. 0.5 × 0.5 m in the northwest corner under Locus 4, disturbed by vandalism
CAV1	7	Undisturbed soil directly above the Locus 18 flat floor, ca. 2 × 2 m
CAV1	8	Dark soil surrounding and between the monoliths (Locus 12)
CAV1	9	Soil within the Locus 13 oval basin between the monoliths (Locus 12)
CAV1	10	Soil within the Locus 16 collection vat
CAV1	11	Yellowish soil from a 2 × 3 m probe trench west of the entrance
CAV1	12	Two monoliths on the north side, 1.77 × 0.73 × 0.39 m and 1.56 × 0.74 × 0.37 m, 0.7 m apart, each with a 0.1 × 0.1 m notch in the center of the upper inside edge apparently for a cross bar
CAV1	13	Oval-shaped plaster-lined basin, cut into bedrock between the Locus 12 monoliths, 0.94 × 0.70 × 1 m deep
CAV1	14	Collection vat south of Locus 12. The portion of the vat assigned to this locus measures 0.88 × 0.96 × 0.32 m deep
CAV1	15	One course 0.4 m high plastered wall surrounding Locus 18 flat area, destroyed by vandals. No wall number assigned.
CAV1	16	Collection vat east of Locus 18 flat area, 1.72 × 1.55 × 0.68 m deep; north, west, and south sides carved into bedrock with a stone wall on the east
CAV1	17	Niche in the north wall, 0.88 high × 0.72 wide × 0.77 m deep, 0.45 m above the floor
CAV1	18	Flat 2.5 m square floor area in the northwest corner
CAV1	19	Surface debris within cavern; equals Loci 2 and 4
CAV1	20	Earth within installation Locus 16
CAV1	21	Probe trench within north end of installation Locus 22
CAV1	22	Large vat located in the center of the cavern
CAV1	23	Chalky white layer of earth in Quadrant 2
CAV1	24	Possible wall running north–south through the center of the cavern
CAV1	25	Earth layer directly above the floor Locus 34
CAV1	26	Hardpacked soil layer above the eastern edge of installation Locus 22
CAV1	27	Chalky-white layer north of Locus 35
CAV1	28	Burn layer within installation Locus 22
CAV1	29	Burn layer in southwest corner of Quadrant 3
CAV1	30	Layer of earth directly above the floor of installation Locus 22
CAV1	31	Chalky-white soil west of Locus 35
CAV1	32	Earth within installation Locus 14
CAV1	33	Layer of earth directly above floor level west of Locus 35
CAV1	34	Flat floor area in northeast corner of the cavern
CAV1	35	Landing in the southeast corner of the cavern
CAV1	36	Flat floor area to the west of Locus 35

Square	Locus	Description
CAV1	37	Bench-like ledge along the south wall of Cavern 1
CAV2	1	Cavern 2
CAV2	2	0.35 m of mixed debris in the eastern 1/3 of the cavern, 868.96–868.61 m
CAV2	3	0.35 m of mixed debris in the central area, 869.10–868.75 m
CAV2	4	0.35 m of mixed debris in the northwest sector, 869.24–868.94 m
CAV2	5	Unexcavated step in front of the north access hole to Cavern 1
CAV3	1	Top layer of debris extending throughout Cavern 3, ca. 0.05–0.11 m in depth
CAV3	2	0.19 m of mixed debris below Locus 1 in the southwest 0.8 m of Cavern 3, above bedrock slab Locus 8
CAV3	3	0.8 m of mixed debris in the center of Cavern 3 below Locus 1 and above Locus 4, 1.58 × 2.07 m
CAV3	4	0.21 m of mixed debris below Locus 3 in the center of the cavern, 0.9 × 0.9 m
CAV3	5	0.23 cm of mixed debris below Locus 1 in the center of the southeast side the cavern, 0.73 × 0.7 m
CAV3	6	0.19 m of mixed debris below Locus 1 and above the jagged bedrock of Locus 15 on the northeast side the cavern, 0.59 × 0.38 m
CAV3	7	0.03 m of mixed debris below Locus 1 in a cutout in the southeast corner of the northeast end of Cavern 3
CAV3	8	A 0.8 m wide semi-hewn slab of bedrock beneath Locus 2 occupying the southwest end of Cavern 3
CAV3	9	0.6 m of mixed debris below Locus 1 east of the center of the cavern, 1.47 × 0.77 m
CAV3	10	A semi-hewn slab of bedrock beneath Locus 9, 1.52 × 0.8 m
CAV3	11	0.13 m of mixed debris below Locus 9 and abutting the southeast wall, 1.5 × 0.5 m
CAV3	12	Chiseled bedrock beneath Locus 3 in the center of the cavern, ca. 1.57 m long and spanning the entire width of the cavern
CAV3	13	Rock-cut pit beneath Locus 4 in the center of the cavern, 0.55 m northwest–southeast × 0.36 m southwest–northeast
CAV3	14	Rock-cut pit beneath Locus 5 in the center of the southeast side of the cavern, 0.73 m northwest–southeast × 0.7 m southwest–northeast
CAV3	15	Jagged bedrock extending northwest–southeast across the cavern below Locus 6 and Locus 11 on the northeast side
CAV3	16	Hard clay below Locus 7 and above bedrock in a 1.26 m southwest–northeast × 1.20 northwest–southeast cutout in the southeast corner of the cavern
CAV3	17	Chiseled bedrock below Locus 16 in the southeast corner of the cavern
CAV4	1	Debris fill within installation
CAV4	2	Installation
CAV4	3	Soil fill inside Cavern 4
CAV5	1	Surface debris disturbed by vandalism
CAV5	2	Earth within Locus 3
CAV5	3	Chamber 1: possible silo
CAV5	4	Earth within Locus 5
CAV5	5	Chamber 2; equals Locus 12 in P23
CAV5	6	Chamber 3; equals Locus 12 in Q23
D14	1	Disturbed surface debris above Wall 133
D14	2	Wall 133
D14	3	Fill or occupational debris between Walls 133 and 75

Square	Locus	Description
D14	4	Wall 75
D14	5	Fill or occupational debris under Locus 3, between Walls 133 and 75
D14	6	Top of 1 m wide section through Wall 133
D14	7	Bottom of 1 m wide section through Wall 133
D14	8	1 × 1 m core of Wall 75 in southeast corner of square
D25	1	Disturbed surface soil
D25	2	Mixed soil under Locus 1 and above bedrock
D25	3	Soil between and under sections of fractured bedrock
E14	1	Disturbed surface debris
E14	2	Rebuild of north face of Wall 133, laid on soil
E14	3	Agricultural soil beneath Locus 1
E14	4	Probe into west side of Wall 133
E14	5	Soil under Locus 3 to bedrock
E14	6	Section through east side of Wall 133
E14	7	Wall 133
F25	1	Mixed surface soil
F25	2	Compact soil below Locus 1
F25	3	Wall 141: wall in southeast sector of the square oriented west-northwest–east-southeast
F25	4	Wall 142: wall oriented south-southwest–north-northeast in center of square
F25	5	Beaten-earth floor east of Locus 4 and north of Locus 3
F25	6	Hardpacked clay beneath Locus 5 and above bedrock
F25	7	Bedrock
G17	1	Disturbed topsoil to 0.08 m deep
G17	2	Hardpacked detritus below Locus 1 in the northwest 4.75 m of 1 m wide probe trench dug to a depth of ca. 0.7 m
G17	3	Small pebbles below Locus 1 extending 1.1 m southeast from the end of Locus 2, to a depth of ca. 0.75 m
G17	4	Random boulders under Locus 1 in the southeast 1.1 m of the trench, to a depth of ca. 0.8 m
G17	5	Random boulders on the northwest side of Wall 6 in the south 1.5 m of the east balk
G17	6a	Lower portion of southwest–northeast wall in the south 1.5 m of the east balk, comprised of large boulders
G17	6b	Upper portion of southwest–northeast wall in the south 1.5 m of the east balk, comprised of small boulders
G17	7	Layer of cobbles below Locus 1 in east 1.5 m of square
G17	8	Soil below Locus 7 in east 1.5 m of square
G17	9	Layer of cobbles and small boulders below Locus 8 in east 1.5 m of square
G17	10	Hardpacked clay and soil below Locus 9 in east 1.5 m of square
G18	1	Disturbed topsoil
G18	2	Cobble layer beneath Locus 1
G18	3	Southwest–northeast wall in southwest corner of square. No wall number assigned.
G18	4	Pebbles beneath Locus 2 on west side of Locus 3
G18	5	Bedrock
G24	1	Disturbed surface debris north of and on top of Wall 130
G24	2	Wall 130

Square	Locus	Description
G24	3	Disturbed material on top of Wall 130
G24	4	Disturbed surface debris south of Wall 130
G24	5	Ash layer against south face of Wall 130
I6	1	East 3.5 m of probe trench
I6	2	West 1.0 m of probe trench
I6	3	Wall consisting of 3 boulders, oriented northeast–southwest. No wall number assigned.
J7	1	Disturbed surface debris and wall fill
J13	1	Disturbed surface soil
J13	2	Soil in the vicinity of the square pit (Locus 3)
J13	3	Square pit
J13	4	Probe trench to bedrock in the southeast corner of the square
J13	5	Probe trench to bedrock on the east side of the square
J17	1	Disturbed surface debris
J17	2	Wall 157
J17	3	Hardpacked bricky material beneath Locus 1 west of Wall 157
J17	4	Hardpacked bricky material beneath Locus 1 in the probe trench east of Wall 157
J17	5	Soft soil beneath Locus 4
J17	6	Soft soil beneath Locus 3
J17	7	Hardpacked bricky material beneath Locus 1 in a 1 m peel-back north of Wall 157
J19	1	Disturbed topsoil, ca. 0.11 m deep
J19	2	0.52 m of soil containing small pebbles
J19	3	Northwest face and fill of a southwest–northeast LH wall in the southeast corner of the square. No wall number assigned.
J19	4	Rich earth layer containing much pottery, flint, chalky chunks of limestone and sandal tacks
J19	5	Hardpacked 0.07 m layer of clay directly above bedrock with few artifacts
J20	1	Disturbed topsoil to ca. 0.15 m depth
J20	2	Rubble fill between outer face and inner face of Wall 165
J20	3	Debris west of Locus 5, below Locus 1
J20	4	Outer face of Wall 165
J20	5	Inner face of Wall 165
K7	1	Disturbed surface debris
K7	2a	Row of stones oriented southwest–northeast in southwest corner of square
K7	2b	Wall face in southeast corner of square
K7	2c	Cobblestone fill between Loci 2a and 2b
K7	3	Wall collapse east of Locus 2b
K7	4	Material west of Locus 2a
K7	5	Soil east of Locus 2b
K8	1	Disturbed surface debris
K8	2	Terrace wall in northwest corner. No wall number assigned
K8	3	Cobbles and small boulders below Locus 1
K8	4	Merged with Locus 3
K8	5	Hardpacked clay over bedrock
K13	1	Disturbed surface soil

Square	Locus	Description
K13	2	Soil in the vicinity of the square pit, Locus 3
K13	3	Square pit
K13	4	Probe trench to bedrock in the southeast corner of the square
K15	1	Disturbed surface debris
K15	2	Hardpacked clay matrix lying on bedrock
K22/L22	1	Disturbed surface soil
K22/L22	2	Wall at northwest end of trench. No wall number assigned
K22/L22	3	Layer of cobbles
K22/L22	4	Retaining wall at southeast end of rampart. No wall number assigned
K22/L22	5	Pebble layer
K22/L22	6	Unused
K22/L22	7	Cobble rubble at southeast end of trench
K22/L22	8	Boulder and cobble rubble southeast of Locus 4
K22/L22	9	Boulders, cobbles, and pebbles on bedrock southeast of Locus 2
K22/L22	10	Cobbles southeast of Locus 5
K22/L22	11	Dirt fill beneath Locus 3
K22/L22	12	Possible stabilizing wall within rampart
L21	1	Disturbed surface soil
L21	2	Erosional fill
L21	3	Wall 165
L21	4	Top layer of rubble fill in Wall 165
L21	5	Cleanup of top of foundation ramp Locus 11
L21	6	Material between surface Loci 7 and 8
L21	7	Occupational surface
L21	8	Occupational surface
L21	9	Material between surface Locus 8 and bedrock Locus 12
L21	10	Material between surface Locus 8 and bedrock Locus 12 at northwest end of trench
L21	11	Rubble foundation under Wall 165
L21	12	Bedrock
L21	13	Wall 68
L21	14	Disturbed surface soil southeast of Wall 68
L21	15	Compact soil below Locus 14 southeast of Wall 68
L21	18	Foundation fill under Wall 68
L21	19	Soil on bedrock under Locus 18
L21	20	Inner rampart against Wall 68
L29	1	Disturbed topsoil to ca. 0.14 m depth
L29	2	Aligned stones in the center of the trench
L29	3	Loose soil and detritus north of Locus 2
L29	4	Loose soil and detritus south of Locus 2
L29	5	Wall 136
L34	1	Disturbed surface debris overlying Wall 136
L34	2	Disturbed debris northwest of Wall 136
L34	3	Disturbed debris northeast of Wall 136
L34	4	Disturbed debris southwest of Wall 136

Square	Locus	Description
L34	5	Wall 137
L34	6	Remnant of south–southwest continuation of Wall 136
L34	7	Bedrock cuttings to accommodate Walls 136 and 137
M6	1	Disturbed surface debris
M7	1	Disturbed surface soil
M7	2	Wall 99
M7	2a	Lower portion of Wall 99 constructed of large field stones
M7	2b	Upper portion of Wall 99 constructed of smaller field stones
M7	3	Soil from top of Wall 99
M7	4	Coring of Wall 99 to bedrock in a 1 m wide section on the north side of the square
M7	5	Soil above bedrock west of Wall 99
M8	1	Disturbed surface soil
M8	2	Rubble fill east of Wall 99
M8	3a	Lower portion of Wall 99 constructed of large field stones
M8	3b	Upper portion of Wall 99 constructed of smaller field stones
M8	4	Wall 164
M8	5	Soil from top of Wall 164
M8	6	Additional soil from Wall 164 under Locus 5
M8	7	Clay layer below Locus 8 and above bedrock
M8	8	East retaining wall for Locus 2 rubble fill
M8	9	Clay layer below Locus 8 and above bedrock
M9	1	Wall 164
M9	2	Rubble fill west of Wall 164
M9	3	Soil layer east of Wall 164
M9	4	Soil layer east of Wall 164, under Locus 3 and above bedrock
M28	1	Mixed surface debris 0.02–0.12 m deep
M28	2	Soil below Locus 1 inside the stairway
M28	3	Rock-cut stairway
M28	4	Soil below Locus 2, down to the steps
N6	1	Disturbed surface debris
N7	1	Disturbed topsoil to 0.1–0.15 m depth
N7	2	Soil under Locus 1 and above bedrock, west of Wall 166
N7	3	Wall 166
N7	4	Soil under Locus 1 and above Wall 166
N8	1	Disturbed topsoil to 0.1 m depth
N8	2	Wall 166
N8	3	Soil from east face of Wall 166
N8	4	Wall 164
N8	5	Robbed out area of Wall 164 in northeast corner of square
N9	1	Soil from east face of Wall 166
N9	2	Retaining wall and cobblestone fill of Wall164
N9	3	Soil from top of Wall 166
N10	1	Disturbed surface debris in a 1 m wide trench along the south balk
N10	2	Disturbed surface debris in a 1 m wide trench along the east balk

Square	Locus	Description
N10	3	North–south line of stones in the center of the square
N10	4–100	Unassigned
N10	101	Disturbed topsoil to 0.09–0.49 m depth
N10	102	Wall 98
N10	103	Hardpacked soil under Locus 101 on west side of Wall 98
N10	104	Hardpacked soil under Locus 101 on east side of Wall 98
N17	1	topsoil to bedrock, 0.32–0.4 m in depth
N18	1	Disturbed topsoil to 0.28–0.33 m depth
N18	2	Hardpacked clay and stone leveling fill 0.08–0.52 m deep, above bedrock
N23	4a	Top level of fill in the silo
N23	7	Surface debris
N23	8	Trench running north–south, Locations 3–4 to 33–34
N23	9	Area below Locus 1 down to bedrock
N23	10	Wall 163
N23	11	Silo in Location 16
N23	12	0.7 m diameter round fire pit below Locus 3
N23	13	Earth inside silo
N23	14–100	Unassigned
N23	101	Fill inside Locus 103
N23	102	Top level of earth in 2 × 6 m trench
N23	103	Wall 104
N23	104	Earth on the south side of Wall 104
N23	105	Earth below Locus 102 in main area of 2 m trench
N23	106	Wall 117 at Location 6
N23	107	Silo in center of square; equals Locus 4
N23	108	Earth inside silo Locus 107
N33	1	Disturbed surface debris west of line of stones
N33	2	Soil beneath Locus 1 to the east of Wall 126
N33	3	Rock-cut installation in the southwest corner
N33	4	Soil beneath Locus 1, between Locus 3 and Wall 126
N33	5	Wall 126
O6	1	Disturbed surface debris
O6	2	Cobblestones at east end of probe trench, possibly broken bedrock
O7	1	Disturbed surface debris
O7	2	Hardpacked soil on east side
O7	3	Pocket in bedrock on east side where Iron I cook pot, Object 363, was found
O7	4	Concentration of stones in southwest corner
O7–O9	1	Disturbed surface debris
O7–O9	2	Layer of cobblestones lying on bedrock
O8	1	Disturbed soil on west side of the remnants of Locus 2
O8	2	Remnants of BA wall with LH/ER rebuild
O8	3	Disturbed soil on east side of remnants of Locus 2
O9	1	ca. 0.1 m of disturbed topsoil above Locus 2
O9	2	Retaining wall and cobblestone fill of LH/ER eastern addition

Square	Locus	Description
O9	3	soil from east face of Locus 2
O9	4	Disturbed soil in robbed out area of Locus 2
O10	1	Disturbed surface debris
O10	2	Mixed material below Locus 1
O10	3	East face of Wall 98
O10	4	Cobbles and hardpacked mud brick detritus below Locus 2 and west of Locus 3
O10	5	Bedrock
O10	101	Disturbed topsoil west of Wall 103
O10	102	Disturbed topsoil east of Wall 103
O10	103	West face of Wall 98
O17	1	Disturbed topsoil
O17	2	Soil beneath Locus 1 and above bedrock in the west 3 m of the square
O17	3	Clay beneath Locus 1 and above bedrock in the east 2 m of the square
O18	1	Disturbed surface soil
O18	2	Wall 84: 1.0 m wide wall running west-northwest–east-southeast on the north side of the square
O18	3	Material northeast of Wall 84
O18	4	Northeast–southwest line of stones on the west side of the square
O18	5	Material west of Locus 4
O18	6	Material east of Locus 4
O18	7	Infant jar burial in northeast corner
O18	8	North 1.5 m of east balk, surface to bedrock
O18	9	1 m of the north balk to the west of the infant jar burial, surface to bedrock
O19	1	Disturbed topsoil
O19	2	Leveling fill composed of stones and decomposed mudbricks
O19	3	Hardpacked clay below Locus 2 and above bedrock in the east half of the square
O19	4	Wall 83
O19	5	Portion of wall in southeast corner running south-southwest–north-northeast, possibly intersecting with Wall 83 in the east balk. No wall number assigned
O20	1	Disturbed topsoil to 0.08–0.38 m depth
O20	2	Loose fill with cobbles and pottery rubble
O20	3	Cobblestone layer lying on bedrock
O20	4	Hardpacked clay below Locus 2 and Locus 3, and above bedrock
O20/P21	1a	Disturbed surface soil in Square O20
O20/P21	1b	Disturbed surface soil in Square P21
O20/P21	2	Brown soil beneath Locus 1
O20/P21	3	Rock tumble
O20/P21	4	Cobble layer
O20/P21	5	Probe trench extension
O21	1	Disturbed surface soil 0.37 m deep
O21	2	Wall 104
O21	3	Rocky mixed matrix beneath Locus 1 extending from the northeast corner of the square to the northwest edge of the Locus 4 trench along the northwest side of Wall 104
O21	4	Rocky matrix 2.4 m wide on the southwest side of Wall 104, below Locus 3, 0.20 m deep
O21	5	2.6 × 2.4 m area northeast of Wall 104, below Locus 3, 0.25 m deep

Square	Locus	Description
O21	6	An ash pocket under Locus 4 and over Locus 5, 0.7 × 0.55 m, 0.1 m deep
O21	7	Hardpacked soil in a 1.2 m wide trench beneath Locus 4 on the southwest side of Wall 104, 0.27 m deep
O21	8	North balk, 1.0 × 6.0 m, 2.08 m deep
O21	9	Pit under Locus 8 cut into bedrock, 55 cm diameter opening, square cross section ca. 1.85 × 2.05 m, depth 2.13 m
O21	10	Hardpacked soil in a 1.2 m wide trench on the southwest side of Wall 2, 0.58 m deep
O21	11	Firm soil under Locus 10, 0.54 m deep
O21	12	Hard clay below Locus 11 and above bedrock, 0.1 m deep
O21	13	One stone wide wall laid on bedrock, north to south, adjoining Locus 19 (Iron IB)
O21	14	Northwest–southeast line of wall collapse in the center of square
O21	15	Layer of earth south of Locus 12, below Locus 3, and above Locus 16
O21	16	layer of mixed debris south of Locus 12, below Locus 15
O21	17	Hardpacked layer below the top of Locus 13, south of Locus 12, and east of Locus 13
O21	18	Mixed debris from the top of Locus 13 to bedrock, south of trench 12 and west of Wall 107
O21	19	Layer of concentrated pottery below Locus 17 and above bedrock south of trench 12 and east of Wall 107
O21	20	Removal of east balk north of Locus 2
O21	21	Remnant of a 1.0 m wide wall which abuts Locus 19 at a right angle on the west, proceeding east from Locus 13
O21	22	Bedrock
O22	1	Sift from Square P21
O22	2	Original topsoil beneath sifted material
O22	3	3 courses of stone abutting Locus 8
O22	4	Mixed matrix with larger cobble
O22	5	Sealed pit under Locus 4
O22	6	Initial level of fill dirt from within silo Locus 5
O22	7	Bottom level of fill dirt to the bedrock floor of Locus 5
O22	8	Wall 104
O22	9	Dirt under the stairwell capstone
O22	10	Dirt within silo stairwell
O22	11	Stairwell attached to Locus 5
O22	12	Bedrock
O23	1	Soil beneath dump layer from Square P21
O23	2	Soil directly below Locus 1 west of Locus 11
O23	3	Wall that was misidentified in 2000
O23	4	Wall 118
O23	5	Wall 117
O23	6	Wall 116
O23	7	Wall 115
O23	8	Surface debris north of Locus 6 and Locus 7
O23	9	Soil layer below Locus 8
O23	10	Doorway in Locus 6 that was bricked up
O23	11	Two stones; likely a threshold

Square	Locus	Description
O23	12	Corresponds to Locus 2 on the east side of Locus 11
O23	13	Soil disturbed by looters
O23	14	In-situ step between the two walls, Loci 4 and 5
O23	15	Soil south of Locus 5
O23	16	Wall 114
O23	17	Soil removed from on top of stairs
O23	18	Foundation trench for Loci 6 and 7
O23	19	Earth inside installation Locus 18
O23	20	Bedrock
O23	21	Soil dumped into square from P21
O23	22	Triangular-shaped area at the northeast corner of O23
O23	23	Hardpacked earth directly above bedrock
O23	24	Set of stairs cut into bedrock at northeast corner of square
O23	25	Soil inside stairs Locus 24
O23	26	Central area to the east of square where looter's debris lay
O23	27	Soil inside Wall 117
O24	1	Disturbed topsoil with looter holes
O24	2	Wall 119: ran northwest–southeast
O24	3	Wall 120: ran southwest–northeast
O24	4	Tumble with large cobbles on west side of Wall 120 and east of Wall 120 and south of Wall 119
O24	5	Tumble in northeast section of square east of Wall 120 and north of Wall 119
O24	6	Tumble with large cobbles south of Wall 119 and east of Wall 120
O24	7	Equals Locus 5
O24	8	Windowsill of worked limestone
O24	9	Soil at and below threshold level of northwest section of the square west of Wall 120
O24	10	Window jamb made of worked limestone
O24	11	Undulating rock layer of the northwest section of the square west of Wall 120 and north of Locus 8
O24	12	Soil below the threshold level of the southwest section of square west of Wall 120 and south of Locus 8
O24	13	Silo dug into bedrock between Location 13 and 19
O24	14	Soil in Locus 13
O24	15	Cobbles with soil in Locus 13
O24	16	Soil layer below tumble in northeast section of square east of Wall 120 and north of Wall 119
O24	17	Combined mixed loci of Loci 14 and 15
O24	18	Soil filling a bedrock channel that traversed under Wall 120
O24	19	Pit chiseled into bedrock
O24	20	Soil from Locus 19
O24	21	Bedrock
O24	22	Channel cut out of bedrock
O28	1	Steps and subterranean chamber
O28	2	Topsoil and mixed surface debris for a depth of 0.95 m
O28	3	Compact soil under Locus 2, 0.68 m deep

Square	Locus	Description
O28	4	Soil beneath Locus 3 and above bedrock 0.61 m deep
P7	1	Disturbed surface debris
P7	2	Soil layer south of Wall 56
P7	3	Possible south face of Wall 56
P7	4	Soil layer north of Wall 56
P7	5	Soil layer in north balk
P7	6	Wall 56: outer face of fortification wall oriented southwest–northeast
P9	1	Soil from cleaning the square, including clarification of Wall 5 stones
P9	2	Continuation of the LH/ER retaining wall excavated in Squares M9, N9, and O9
P9	3	Removal of east balk east of Wall 56
P9	4	Cobblestones in southwest corner of square
P9	5	Wall 56: inner face of BA fortification wall
P16	1	Disturbed topsoil
P16	2	Mixed soil beneath Locus 1 and above bedrock
P16	3	Stone tumble in the northwest corner of the square, probably from the Hasmonean fortification wall immediately northwest of Square P16
P17	1	Disturbed surface debris
P17	2	Hardpacked soil on southwest side
P17	3	Hardpacked clay on northeast side
P17	4	Concentration of pottery south of Wall 5 and west of Wall 6
P17	5	Wall 86
P17	6	Wall 85
P17	7	Soil on northeast side of Wall 86
P17	8	Pit on south side
P17	9	Pit on north side
P17	10	Paving stones in northwest corner
P17	11	Bedrock
P20	1	Disturbed surface soil west of Wall 102
P20	2	Wall 102
P20	3	Disturbed surface soil east of Wall 102
P20	4	Disturbed surface soil in west portion of north balk
P20	5	Wall 104
P20	6	Disturbed surface soil south of Wall 104
P20	7	West section of fenestrated wall (Wall 103)
P20	8	Socket stone found in Locus 3, probably from the doorway in Wall 103
P20	9	East section of window wall (Wall 103)
P20	10	Soil below Locus 3
P20	11	Soil below Locus 1
P20	12	Floor of south room in complex-courtyard house
P20	13	Soil below the floor of the room defined by Walls 102, 103, 104, and Locus 15
P20	14	Bench on the east side of Wall 102
P20	15	Flagstone floor in the stable below Locus 13
P20	16	Hardpacked soil layer below Locus 14 and above bedrock
P20	17	Bench-like structure in southwest corner of main room A

Square	Locus	Description
P20	18	Silo in northeast corner of stable
P20	19	Shallow bowl-shaped pit in bedrock under Locus 17
P20	20	Material below flagstone floor Locus 15 and above undulating bedrock
P21	1	Mixed debris from vandalism
P21	2	Beaten floor surface in southeast corner of north room
P21	3	Compacted soil below Locus 1 in food preparation area south of entrance, on north side of square
P21	4	Floor between Walls 101 and 108
P21	5	Wall 101: south segment of east wall of structure
P21	6	Wall 108: southwest–northeast wall on southeast side of food preparation area
P21	7	Wall 107: northwest–southeast wall going from southwest end of Wall 6 to Wall 5
P21	8	East window in Wall 103 dividing the north room from the south room
P21	9	Debris east of Wall 108 and north of Wall 107
P21	10	Bedrock-cut chamber beneath Wall 107, with the covered entrance on the south side of Wall 107
P21	11	2.5 cm layer of ash at floor level southeast of Wall 101
P21	12	Leveling fill 6–31 cm deep over bedrock on east side of square
P21	13	Red clay layer of leveling fill a few cm thick under Locus 11 and over bedrock
P21	14	0.4–0.5 m of leveling fill below floor level and over bedrock northwest of Wall 101
P21	15	Socket stone on the northwest side of the southwest door jamb of Wall 101
P21	16	Small 0.1 m diameter × 0.31 m deep pit with cover on the south side of the square
P21	17	Soil in Locus 16
P21	18	0.1 m thick deposit of ash with flat stones at the bottom in the east-central area of the square, beneath Locus 12 and over Locus 20
P21	19	0.15 m wide × 0.3–0.4 m deep foundation trench on the northeast side of Wall 104
P21	20	5 cm layer of compacted soil beneath Locus 18 and over bedrock
P21	21	Small strip of packed-earth material running north to south in area of Amenhotep II scarab
P22	1	Surface debris and material deposited in square from previous dig
P22	2	Wall in eastern portion of square running northwest to southwest
P22	3	On east side of Locus 2
P22	4	Soil west of Locus 2 and north of Locus 5
P22	5	Wall 56B
P22	6	Hardpacked material to the east of Locus 2 in southeast corner of the square
P22	7	Small strip of soil on the southwest corner in Location 31
P22	8	Wall 156
P22	9	Soil north of Wall 156 below Locus 1
P22	11	Soil below Locus 9 between bedrock on north and Wall 127 on south
P22	12	Soil below Locus 3 east of Wall 111
P22	13	Parallel with and extended under Wall 126; no wall number assigned
P22	14	Soil under Locus 12
P22	15	Sealed earth locus beneath megalithic stone A
P22	16	One stone wide wall typical of Iron Age walls; no wall number assigned
P22	17	Soil below Locus 14; possibly Iron I floor
P22	18	Probe below floor

Square	Locus	Description
P22	19	Sealed against Locus 17b on the northeast; no wall number assigned
P22	20	Wall 110: abutted Wall 126 and ran parallel with Wall 111
P22	21	Terrace wall associated with bedrock installation Locus 10 in Square Q22
P22	22	Earth below Locus 10; likely a floor
P22	23	Rock-lined silo almost directly under Wall 111
P22	24	Earth locus; equals Locus 17B on east side of square and Locus 18
P22	25	Fill beside silo Locus 23
P23	1	Surface debris
P23	2	Wall 113
P23	3	Soil under Locus 1
P23	4	Wall 115
P23	5	Earth northwest of Locus 2
P23	6	Earth beneath same footprint as Locus 3
P23	7	Wall 114
P23	8	Soil on east side of Wall 114, south of Wall 113
P23	9	Soil on the west side of Wall 114, south of Wall 113, under Locus 6
P23	10	Circular feature found in the bedrock
P23	11	Unassigned
P23	12	Circular feature in the bedrock under Locus 5, north of Wall 113
P23	13	Material excavated from inside Locus 12
P23	14	Small section of wall in northwest corner of square; equals Locus 2 in Square P22
P23	15	Bedrock
P24	1	Surface material
P24	2	Wall 152; equals Locus 5
P24	3	Tumble under Loci 1 and 6
P24	4	Round, clay-lined tabun
P24	5	Wall 152; terminated in an east–west facing doorway
P24	6	Soil in Wall 152 doorway
P24	7	East–west wall abutting tabun Locus 4 to south. No wall number assigned.
P24	8	Soil above bedrock in eastern side of the square
P24	9	Small earthen area east of tabun Locus 4
P24	10	Wall 161: ran southeast–northwest
P24	11	Small earthen area south of Locus 22
P24	12	Soil from which in-situ tubuli derived
P24	13	Earth along north side of Locus 7
P24	14	Disturbed topsoil in the western half of the square
P24	15	Soil under Locus 14
P24	16	Soil in northwest corner of the square
P24	17	Soil below Locus 14; equals Locus 8
P24	18	Basin carved into bedrock that feeds tiled cistern
P24	19	Soil between Walls 161 and Locus 20
P24	20	Southeast–northwest wall; no wall number assigned
P24	21	Tiled cistern with circular opening
P24	22	East–west oriented wall over basin Locus 18, equals Locus 7

Square	Locus	Description
P24	23	Mosaic floor in the bottom of the cistern
P24	24	Bedrock
Q9	1a	Disturbed surface debris
Q9	1b	Soil and cobblestones below Locus 1a north of Wall 2 and south of Wall 14
Q9	2a	Outer (northwest) face of Wall 56
Q9	2b	Inner (southeast) face of Wall 56
Q9	2c	Stone core of Wall 56
Q9	3	Small cobblestones below Locus 4
Q9	4	Collapsed stones north of Wall 56
Q9	5	Soil and small stones below Locus 1A, south of Wall 56
Q9	6	Wall 73
Q9	7	Right-angle wall replacing Wall 56B in Phase 2
Q9	8	Rubble surface on which Wall 56 rests north of Wall 56
Q9	9	Soil beneath Locus 8 in northeast corner of square
Q9	10	Soil beneath Locus 5 and above surface Locus 15 south of Wall 56
Q9	11	Wall 72
Q9	12	Earth and cobble surface below Wall 56
Q9	13	Rubble stones under Wall 56B
Q9	14	Wall 74
Q9	19	ca. 0.25 m debris over bedrock (Floor 1), under Locus 12 (Floor 2)
Q9	21	Storage bin abutting Wall 56A in Phase 1
Q9	22	Northwest-southeast wall 1 stone wide, under Locus 6. Southwest wall of Home 1, Phase 1
Q10	1	Top 0.1–0.15 m of redeposited field stones
Q10	2	0.5–0.9 m of redeposited field stones below Locus 1
Q10	3	Wall 60
Q10	4	Wall 62
Q10	5	Wall 63
Q10	6	Soil and cobblestones beneath Locus 2 between Wall 56B and Wall 42
Q10	7	Wall 56B
Q10	8	Soil and cobblestones on the northwest side of Wall 56B
Q10	9	Soil in an opening (doorway?) in Wall 56B, below Locus 2
Q10	10	Soil between Walls 62 and 63 in the south half of the square
Q10	11	Soil beneath Locus 6 along the east balk
Q10	12	One large and four smaller flat stones abutting the southeast face of Wall 56B, 1 m from the east balk
Q10	13	Wall 61
Q10	14	Soil and cobbles west of Wall 61 beneath topsoil
Q10	15	Disturbed soil below Locus 8
Q10	16	Disturbed soil below disturbed Locus 15 from Locus 12 to north balk
Q10	17	Soil south of Wall 63 to the south balk below topsoil
Q10	18	Soil below Locus 14 and west of Wall 61
Q10	19	Wall 56B
Q10	20	Soil north of newly identified foundation stones of Locus 12 below Locus 16

Square	Locus	Description
Q10	21	Beaten earth in northeast former of square below Locus 20
Q10	22	Soil south of Locus 12 an along the west face of Locus 3, below Locus 15
Q10	23	Soil below Locus 15 along the north face of Locus 4
Q10	24	Wall 61
Q10	25	Silo 25 east of Locus 24 and north of Locus 12
Q10	26	Silo 26, associated with Locus 13 on the west; Locus 12 on the south
Q10	27	Single stone in northwest corner of square that connects to the line of the BA fortress wall
Q10	28	Beaten earth soil level inside Locus 26
Q10	29	Beaten earth soil level in northeast corner of the square
Q10	30	Soil below the topsoil along the west balk south of Locus 19
Q10	31	Soil inside Locus 26 beneath Locus 28
Q10	32	North–south wall connecting Locus 19 on north and Locus 4 on the south
Q10	33	Fire pit 1.09 m × 0.44 m × 1.0–2.5 m
Q10	34	Soil under Locus 32 and Locus 33 reaching bedrock
Q10	35	L-shaped earthen locus in northeast corner of square abutting Locus 36 on east and Locus 25 on west
Q10	36	North–south wall on eastern side of Q10; formed eastern wall of Iron I home; no wall number assigned
Q10	37	Wall 61: north–south wall on the western side of Q10; formed western wall of Iron I home
Q11	101	Disturbed topsoil to 0.1–0.15 m depth
Q11	102	Wall 60
Q11	103	Mixed soil below Locus 101 and above Locus 104
Q11	104	Dark red clay layer devoid of pottery
Q11	105	Soil in the small area between Wall 60 and the west balk
Q11	106	Wall 62
Q11	107	Southwest–northeast wall on the north side of the probe
Q11	108	Soil on the south side of the probe
Q11	109	Two east–west stones along the north face of Wall 62 that appear to be distinct from Wall 62 as they are deeper
Q15	1	Disturbed surface debris, mainly discarded stones from adjacent agricultural fields
Q15	2	East–west wall; no wall number assigned.
Q15	3	Unassigned
Q15	4	Outer face of Wall 122
Q16	1	Disturbed surface debris, mainly discarded stones from adjacent agricultural fields
Q16	2	Hardpacked clay between topsoil and bedrock
Q16	3	Bedrock
Q16	4	Inner (east) face of Wall 123
Q16	5	Wall 122: west end of south pier of monumental U-shaped structure
Q16	6	Rock tumble east of Wall 123
Q16	7	Rock tumble east of Locus 6
Q17	1	Disturbed surface soil and LH/ER phase
Q17	2	LH/ER pavement
Q17	3	Socket stone in center of square

Square	Locus	Description
Q17	4	South pier of gate chamber
Q17	5	LH/ER wall running northeast–southwest; no wall number assigned
Q17	6	LH/ER wall running northwest–southeast; no wall number assigned
Q17	7	Three smashed LH/ER storage jars and associated pottery on floor Locus 8
Q17	8	LH/ER beaten-earth floor east and north of Loci 5 and 6
Q17	9	Material below Locus 8 (floor)
Q17	10	Material on top of Locus 12 clay bedding
Q17	11	Socket stone in center of east balk
Q17	12	Clay bedding south of Loci 4 and 5
Q17	13	LB I pavement on Locus 12 bedding
Q17	14	Material between pavement Loci 2 and 13 in northeast balk
Q17	15	Chalk bedrock on west side of square
Q17	16	Limestone bedrock in southeast area of square
Q17	17	Hardpacked soil in north balk east of Locus 4
Q17	18	Hardpacked soil in south end of east balk
Q18	1	Disturbed surface soil
Q18	2	Mixed debris between surface soil and bedrock
Q18	3	Possible wall on south side of square
Q18	4	Upper portion of pit in northwest corner
Q18	5	Lower portion of pit in northwest corner
Q19	1	Disturbed surface debris
Q19	2	Stone-rimmed pit in southwest corner
Q19	3	Concentration of LH/ER sherds on east side
Q19	4	*Huwwar* floor or surface in south 2 m of square
Q19	5	Concentration of stones in north 3 m of square
Q20	1	Disturbed surface soil
Q20	2	0.8 m high ridge of fallen stones below Locus 1 and above Wall 102 on the east side of the square
Q20	3	Soil from 1 m wide probe trench along south side of square
Q20	4	Mixed debris below Locus 2 and bedrock, between Loci 7, 9, and 11
Q20	5	Mixed debris in west 2 m of square; combined with Locus 1
Q20	6	Soft, chalky bedrock in northeast portion of square; combined with Locus 8
Q20	7	Wall 170
Q20	8	Soft, chalky bedrock throughout the square, cracked and crumbly in some places
Q20	9	Wall 102
Q20	10	Wall 171
Q20	11	Wall 56
Q20	12	Small area of earth in the southeast corner behind Wall 102
Q20	13	Small area of earth in the northeast corner behind Wall 56
Q21	1	1.5 m thick hardpacked stone and earth matrix in west sector of square
Q21	2	Dark brown soil beneath Locus 1 and above Locus 3 and Locus 5
Q21	3	Large stones at the base of Wall 102 in northwest corner of north room
Q21	4	Wall 102
Q21	5	White chalky bedrock beneath Locus 2

Square	Locus	Description
Q21	6	South side of Wall 105 of structure
Q21	7	Soil below Locus 1, north of Wall 105
Q21	8	Hardpacked soil below Locus 1 east of Wall 101
Q21	9	Wall 101
Q21	10	Bedrock between Walls 105 and 106
Q21	11	Wall 106
Q21	12	Floor of north room
Q21	13	Probe to bedrock west of Wall 101
Q21	14	Soil below Locus 8 east of Wall 101
Q21	15	Bedrock-cut chamber under north end of Locus 14
Q21	16	Bedrock-cut chamber south of Locus 15
Q21	17	Remnants of northwest–southeast Wall 56 founded on bedrock beneath Walls 6, 9, and 11
Q22	1	Mixed debris from vandalism
Q22	2	Soil beneath Locus 1 in southeast quadrant of square
Q22	3	Soil beneath Locus 1 in the southwest quadrant of the square
Q22	4	Earth within installation Locus 10
Q22	5	Dark soil directly above bedrock in southwest quadrant of the square beneath Locus 3
Q22	6	Soil beneath Locus 2 and directly above bedrock
Q22	7	Soil layer beneath surface debris in the northwest quadrant of the square
Q22	8	Soil beneath the bedrock ledge on the southern edge of the square
Q22	9	Wall 160: in southeast corner of square under the large, flat stone removed from above Locus 15 in Square P22
Q22	10	Small storage pit carved into bedrock in southeast quadrant of the square
Q22	11	Wall running northeast–southwest through square; no wall number assigned.
Q22	12	Soil within Locus 13
Q22	13	Square cut pit in the bedrock on the eastern end of square
Q22	14	Soil within installation Locus 15
Q22	15	Round pit in bedrock
Q22	16	Soil within installation Locus 17
Q22	17	Silo under Squares Q22 and R22
Q23	1	Surface debris
Q23	2	Layer of reddish-brown earth beneath surface debris
Q23	3	Layer of soil beneath Locus 2
Q23	4	Wall 112
Q23	5	Earth southeast of Locus 4 and southwest of Locus 10
Q23	6	Earth northwest of Locus 4 and northeast of Locus 16
Q23	7	Natural cave in the bedrock adapted for practical function
Q23	8	Top layer of debris within Locus 7
Q23	9	Layer of earth within Locus 7 under Locus 8
Q23	10	Wall running through the northeast corner of the square; no wall number assigned.
Q23	11	Bowl-shaped pit in Location 34–45
Q23	12	Bench-like installation carved into bedrock at Locations 27 and 33
Q23	13	Socket-like installation in northeast corner of square

Square	Locus	Description
Q23	14	Soil inside of Locus 15 in northwest corner of square
Q23	16	Wall 113
Q24	1	Surface debris
Q24	2	Soil north of Wall 153
Q24	3	Soil layer beneath surface debris south of Wall 153 west of Wall 155 and north of Wall 154
Q24	4	Soil east of Wall 155 and south of Wall 153
Q24	5	Soil south of Wall 154 and west of Wall 155
Q24	6	Wall 153: northwest–southeast wall through northern end of square
Q24	7	Wall 154: northwest–southeast wall through the western half of the southern end of the square
Q24	8	Wall 155: northeast–southwest wall through the center of the square
Q24	9	Soil surrounding and inside tabun Locus 15
Q24	11	Soil inside Locus 10 (silo)
Q24	12	Earth in southeast corner of the square enclosed by Wall 162 to the north and Wall 161 to the west
Q24	13	Wall 161: northeast–southwest wall in the eastern side of the square
Q24	14	Carved pit in bedrock
Q24	15	Intact tabun in niche or corner of Wall 153
Q24	16	Wall 162: northwest–southeast wall in the eastern side of the square
Q24	17	Soil within installation Locus 14
Q24	18	Wall 147: north-northeast–south-southwest. Continues into Square R25
Q24	19	Wall 162: northwest to southeast wall in southeast corner of the square. Continues into Q25
Q25	1	Surface debris
Q25	2	Soil beneath Locus 1 in eastern half of square
Q25	3	Soil under Locus 1 on west side of square
Q25	4	Soil below surface south of Wall 153
Q25	5	Silo carved into bedrock in northwest corner of the square
Q25	6	Small pit in bedrock immediately to the south-southeast of Locus 5
Q25	7	Soil inside silo Locus 5
Q25	8	Wall 141
Q25	9	Stairwell of five steps cut into bedrock
Q25	10	Soil fill of Locus 9
Q25	11	Silo carved into bedrock in west-southwest extremity of square south of Wall 153 and west of Wall 141
Q25	12	Earth fill of Locus 11
Q25	13	Cut in bedrock in southeast corner of square that generally ran northwest–south-southeast
Q25	14	Earth fill of Locus 13
Q25	15	Tunnel beginning at the bottom of Locus 9 on the southwest end and running into Square R25
Q25	16	Earth fill from Locus 15
Q25	17	Wall 153: ran northwest to southeast and continues into Square Q24
Q31	1	Ash layer from the surface to bedrock
R9	1a	Disturbed surface debris

Square	Locus	Description
R9	1b	Agricultural soil beneath Locus 1a
R10	1	Top layer of soil, fieldstones, and cast-up cobbles
R10	2	Heavy rubble under Locus 1 south of Wall 66
R10	3	Wall 66: single line of boulders
R10	4	Wall 60
R10	5	Soil sloping downward to the north
R10	6	Material under Locus 2 south of Wall 56
R10	7	Narrow, triangular locus east of Locus 4 and south of Locus 3
R10	8	Large accumulation of cobbles piled up against and on top of Wall 56
R10	9	Wall 56A (continued line of Wall 56A from Square Q9)
R11	1	Surface rubble
R11	1	Surface rubble in northern 3.5 m of the eastern balk
R11	1a	Disturbed surface debris
R11	1b	Cobbles against northwest face of Wall 56
R11	2	Earth layer below Locus 1 (2016)
R11	2a	Outer (northwest) face of Wall 56
R11	3	Wall 79
R11	3	Soil beneath Locus 1A southeast of Wall 56
R11	4	Stones above pit Locus 7 on southeast side of Wall 56
R11	5	Possible surface northwest of Wall 56
R11	6	Disturbed section of Wall 56 on east side of square
R11	7	Stone-lined pit on south side of square
R11	8	Secondary wall over Wall 56 oriented southwest–northeast on south side of square, forming northwest side of pit Locus 7; no wall number assigned
R11	9	Surface east of Wall 8
R11	10	Surface south of Locus 7
R11	11	Stone facing on south side of Locus 7
R11	12	Stones at bottom of Locus 7
R11	13	Wall forming northeast side of Locus 7, perpendicular to Locus 8
R11	15	*Huwwar* floor in IA Home 2, Phase 1
R11	16	Wall 77
R11	17	Wall 76
R12	1	Top layer of loose earth, pebbles, and cobbles
R12	2	Layer of earth pebbles and cobbles beneath Locus 1
R12	3	Wall 56A
R12	4	Dark soil below Locus 2 and above packed earth floor
R12	5	Beaten earth floor of Iron Age home
R12	6	Line of tumble containing mostly complete pithos
R12	7	Wall 128
R12	8	Wall 127
R12	9	Earth south of the Iron Age home lying north and west of Wall 128
R12	10	Earth south of Iron Age home lying north and west of Wall 134
R12	11	Wall 129
R12	12	Wall 134

Square	Locus	Description
R12	13	First of two layers of earth beneath the floor Locus 5
R12	14	Layer of earth below Locus 13
R15	1	Disturbed surface debris, mainly discarded stones from adjacent agricultural fields
R15	2	Wall 123
R15	3	Hardpacked material below Locus 1
R15	4	Wall 122
R15	4a	Outer (west) face of Wall 122
R15	4c	Rubble fill of Wall 122
R15	5	Material between Walls 123 and 122 made up of soil and boulders
R15	6	Northeast–southwest wall west side of Wall 123
R15	7	Soil beneath Locus 1 west of Wall 123
R15	8	Soil beneath Locus 7
R15	9	Soil beneath Wall 6 and above bedrock
R15	10	Clay layer beneath Locus 8 and above bedrock
R15	11	Fill between Walls 123 and 122 below Locus 5
R15	12	Soil below Locus 6
R15	13	Soil below Locus 12
R16	1	Disturbed surface debris, mainly discarded stones from adjacent agricultural fields
R16	2	Soil layer east of Wall 12
R16	3	Opening in bedrock in southeast corner
R16	4b	East face of north–south Wall 4
R16	5	Opening in bedrock in northeast corner
R16	6	Soil beneath Locus 1 on south
R16	7	Soil beneath Locus 1 on west
R16	8	Soil beneath Locus 1 between Wall 4b and Wall 12
R16	9	Clay layer beneath Locus 6
R16	10	Clay layer on bedrock
R16	11	Clay layer beneath Wall 4b
R16	12	West wall of U-shaped structure (Wall 122)
R16	13	South wall of U-shaped structure (Wall 122)
R16	14	Bedrock
R17	1	Disturbed surface soil
R17	2	Material between disturbed surface debris and bedrock inside U-shaped structure (Wall 122)
R17	3	Wall 50
R17	4	Wall across east side of gate chamber; no wall number assigned.
R17	5	Flat stones in south end of Locus 4
R17	6	Flat stones in Locus 8
R17	7	Pit cut into bedrock
R17	8	West wall of installation Loci 13 and 21
R17	9	South wall of installation Locus 13
R17	10	North wall of installation Locus 13
R17	11	Upper debris in installation Locus 13
R17	12	Lower debris in installation Locus 13

Square	Locus	Description
R17	13	Clay lining of installation Locus 13
R17	14	Bedrock
R17	15	Debris in installation Locus 21
R17	16	Clay lining of installation Locus 21
R17	17	Dirt layer beneath clay lining of installation Locus 13
R17	18	Plaster surface west of Locus 4
R17	19	Wall 53
R17	20	South wall of installation Locus 21
R17	21	Mosaic floor of installation Locus 21
R17	22	East wall of installation Locus 21
R17	23	Flat stone beneath floor of installation Locus 13
R17	24	Sump in southeast corner of installation Locus 21
R17	25	Wall 51
R17	26	Pillar in center of installation Locus 13
R17	27	East wall of installation Locus 13
R17	28	Material in the northeast corner of the square, north of installation Locus 13
R17	29	Material in the southeast corner of the square, south of installation Locus 21
R17	30	Plastered fill north and adjacent to the north wall of installation Locus 13
R17	31	Red clay west of the of the LH/ER wine press drainage vats
R18	1	Disturbed surface soil
R18	2	Wall 52
R18	3	Debris between Locus 1 and bedrock east of Wall 52
R18	4	Debris between Locus 1 and bedrock north of Wall 52
R18	5	Debris in northeast corner of R17 installation Locus 13
R18	6	Pit in northeast section of square
R19	1	Mixed debris from the surface to bedrock in the west 2 m of the square
R19	2	Disturbed surface soil in a 1 × 1 m probe in the southeast corner of the square
R19	3	Disturbed soil from the surface to bedrock, 0.28–0.69 m in depth
R19	4	Yellow-red burnt bedrock in the northwest corner, 0.09 m in depth
R19	5	Pinkish-gray and yellowish material on the east side of the square, 0.5 m in diameter and 0.54 m deep, in a depression in bedrock
R19	6	One-course wall ca. 0.5 m wide running southeast–northwest for 1.8 m in the southeast sector of the square, founded on bedrock; no wall number assigned
R19	7	Three-course wall 0.5–0.7 m wide running from the southeast end of Wall 6 northeast for 2.3 m, founded on bedrock; no wall number assigned
R19	8	Fill of Locus 9 (cistern)
R19	9	Partially collapsed cistern in the southeast corner of the square, with a maximum diameter of 2.0 m and a surviving height of 2.4 m
R20	1	Mixed surface soil 5–8 cm deep
R20	2	Compact soil under Locus 1, depth of 4–11 cm
R20	3	Pit on the north side of the square, ca. 2.2 m in diameter and 2.0 m deep
R20	4	Soil in Locus 3
R20	5	Bedrock
R20	6	Soil in Locus 7
R20	7	Shallow pit in the southwest sector of the square, ca. 1 m in diameter and 0.5 m deep

Square	Locus	Description
R20	8	Soil in Locus 9
R20	9	Clear circular feature hewn in bedrock
R20	10	Soil in Locus 11
R20	11	Shallow pit in the southwest sector of the square, ca. 1 m in diameter and 0.23 m deep
R20	12	Surface material
R20	13	Soil under surface debris
R24	1	Surface debris and looting damage
R24	2	hardpacked soil next to bedrock inside large public building
R24	3	Silo built into the floor of the large public building
R24	4	Soil below Locus 1 in the street area to the south of Wall 143
R24	5	Wall 153: west–east wall running into Squares R23 and Q24
R24	6	Wall 143: came to a corner with Wall 144
R24	7	Wall 144: western wall of large public building
R25	1	Surface debris within installation Locus 2
R25	2	Installation comprised of a stairwell and a sloped landing
R25	3	Earth within Locus 2
R25	4	Likely mikveh in the shape of a bell-cut cistern
R25	5	Pottery-rich fill disturbed by vandalism; likely originated in Locus 4
R25	6	Surface debris in southeast corner of large building
R25	7	Earth within Locus 4
R25	8	Southern wall of large building; equals Locus 6 in Square R24
R30	1	Disturbed surface debris on west side
R30	2	Layer of dark brown packed earth under Locus 1
R30	3	Bedrock
R30	4	Loose yellowish-brown soil under Locus 2
R30	5	Brown earth on bedrock
R30	6	Material in cistern
S12	1	Top layer of loose soil and fieldstones
S12	2	Layer of loose earth, pebbles, and cobbles that lay below Locus 1
S12	3	Southern part of the northern wall (Wall 56) of the Iron Age home
S12	4	Dense black crumbly earth below surface layers and above bedrock
S14	1	Disturbed surface debris
S14	2	Concentration of cobblestones and small boulders on the north side of the square
S14	3	Pebbly layer beneath Locus 1
S14	4	0.6 × 0.7 m area of blackened stones at Location 27
S14	5	Red clay layer lying on bedrock
S16	1	Disturbed surface debris, mainly discarded stones from adjacent agricultural fields
S16	2	Unexcavated rubble west of Wall 53
S16	3	Rubble from wall collapse, below Locus 1
S16	4	Material between Locus 3 and bedrock
S16	4b	East face of Wall 53
S16	5	Possible pit area
S16	6	Possible corner of a structure
S17	1	Disturbed surface soil

Square	Locus	Description
S17	2	Wall 52
S17	3	Dark ashy surface soil on west side of square
S17	4	Red dirt under Locus 3
S17	5	Earth layer under north face of Wall 52
S17	6	Beaten earth surface below Locus 4
S17	7	Debris between Locus 1 and bedrock on east side of square
S17	8	North–south wall on east side of square; no wall number assigned
S17	9	Bedrock
S17	10	Topsoil in east balk
S17	11	Trough south of Locus 13
S17	12	Topsoil in east balk
S17	13	Clay channel
S17	14	Topsoil in north balk
S17	15	Topsoil in northeast balk
S18	1	Disturbed surface soil
S18	2	Plaster-cobble matrix in northwest corner
S18	3	Hardpacked soil beneath Locus 1 in southwest corner
S18	4	Wall of circular structure enclosing Locus 2
S18	5	Fill inside circular structure
S18	6	Dark soil beneath Locus 5
S18	7	Yellowish soil beneath Locus 6
S18	8	Basin southeast of circular structure
S18	9	Plaster lining at bottom of circular structure
S18	10	Contents of circular structure in north balk
S18	101	Mixed surface soil, 0.05–0.42 m deep
S18	102	Hardpacked clay below Locus 1 and above bedrock, 0.0–0.1 m deep
S19	1	Disturbed surface soil, 0.04–0.33 m deep
S19	2	Hardpacked clay below Locus 1 and above bedrock, 0.07–0.14 m deep
S19	3	An installation on the west side of the square comprised of a clay lining in a low spot in the bedrock
S19	4	Contents of Locus 5
S19	5	Pit at the center of the west balk, with an irregular opening of ca. 0.9 × 0.7 m; the maximum inside diameter is ca. 1.5 m with a maximum depth of ca. 2 m
S21	1	Surface layer of soil, fieldstones, and debris around the opening leading down to the cavity
S21	2	Cavity in the bedrock, no plaster lining
S24/S25	1	Disturbed surface soil
S24/S25	2	Soil under Locus 1
S24/S25	3	Soil under Locus 2 in southwest portion of room
S24/S25	4	Soil under Locus 2 in central and east portion of room
S24/S25	5	Soil under Locus 3 in southwest portion of room
S24/S25	6	Soil under Locus 4 in central and east portion of room
S24/S25	7	Cistern on east side of room
S24/S25	8	East wall; no wall number assigned
S24/S25	9	Dividing wall between east and west sides of room; no wall number assigned

Square	Locus	Description
S24/S25	10	North wall; no wall number assigned
S29	1	Disturbed surface debris
S29	2	Wall 119
S29	3	Wall 120
S29	4	Hardpacked material near bedrock at the intersection of Walls 119 and 120
S29	5	Hardpacked material near bedrock at the south end of the east balk
S29	6	Leveling fill above bedrock
S30	1	Debris from Cistern 1 (see table 4.6) to the west
S30	2	Disturbed surface debris
S30	3	Beaten-earth surface associated with cistern to the west
S30	4	East face of wall or pier in northwest corner of square
S30	5	Debris on east side of square at same level as Locus 3 (surface)
S30	6	Leveling fill above bedrock
S30	7	Large fill stones
S30	8	Bedrock
T14	1	Disturbed surface debris
T14	2	Concentration of cobblestones and small boulders in the south 3 m of the square
T17	1	Disturbed surface soil in east 2 m of square
T17	2	Rocks and loose debris in west 3 m of square
T17	3	Brown soil between Locus 2 and bedrock
T17	4	Large stone in southwest corner
T18	1	Disturbed surface soil
T18	2	Soil below Locus 1 in the vicinity of Locus 4
T18	3	Soil below Locus 1 south of Locus 4
T18	4	Group of stones which may be the remnants of a wall
T18	5	Plaster surface between the stones of Locus 4
U18	1	Disturbed surface soil
U18	2	Hardpacked material below Locus 1
U18	3	Firm earth under Locus 2
V21–W21	1	Surface layer of soil and rocks lying on top of Wall 206
V21–W21	2	Soil from the northern face of Wall 206 and western face of Wall 203
V21–W21	3	Wall 206: LH/ER town wall
V21–W21	4	Wall 203: western wall of the tower
V22	1	Soil and rocks cleared from east face of Wall 202 Locus 2
V22	2	Wall 202: interior tower wall
W17	1a	Disturbed surface debris
W17	1b	Sedimentary deposit west and east of Wall 4
W17	2	Hardpacked surface east of Locus 4b
W17	3	Hardpacked surface 20 cm below Locus 2, east of Locus 4b, even with the bottom of Locus 4b
W17	4a	West face of Wall 122
W17	4b	East face of Wall 122
W17	4c	Rubble fill of Wall 122
W17	4d	Boulder fill below Locus 4c which may be remnants of an earlier wall

Square	Locus	Description
W17	5	Wall line west of Locus 4a
W17	6	Line of stones within Locus 4c
W17	6a	Possible wall line under Locus 4cin probe on north side
W17	7	Stones and agricultural soil west of Locus 4a
W17	8	ca. 0.2 m of occupational debris or fill between Surfaces 2 and 3
W17	9	ca. 1 m of occupational debris or fill from Surface 3 to bedrock
W17	10	Change in soil color from dark brown to strong brown west of Locus 4a
W17	10	Dark brown soil west of Locus 4a
W17	11	Soil in bedrock pockets under Locus 9 east of Locus 4b
W17	11	Soil in bedrock pockets east of Locus 4b
W17	12	Soil below Locus 4a
W17	13	Bedrock
W17	14	Area of cobblestones in northeast corner under Locus 9
W17	15	Rubble under Locus 6 within Wall 122
W17	16	Layer of small cobblestones under Locus 122
W18	1	Disturbed surface debris
W18	2b	Interior (south) face of Wall 131
W18	2c	Stone fill of Wall 131
W18	3	Compact fill below Locus 1; combined with Loci 4 and 6, and designated Locus 8
W18	4	Rocky soil below Locus 3; combined with Loci 3 and 6, and designated Locus 8
W18	5	Soil on and between cobbles of surface Locus 7
W18	5a	Material under occupational layer Locus 5 and over the cobblestone layer Locus 7
W18	6	Soft soil south of Locus 7 in the west probe trench; combined with Loci 3 and 4, and designated Locus 8
W18	7	Cobblestone surface south of Wall 131
W18	8	Soil south of Locus 2b under Locus 1, depth of 0.7–0.9 m, which appeared to be fill
W18	9	Hardpacked soil on bedrock, 0.1–0.2 m deep
W18	10	Firepit dug into Locus 5 occupational layer
W18	11	Concentration of small boulders south of and below the founding level of Wall 131
W22	1	Topsoil and surface debris
W22	2	Wall 203: outer western wall of the tower
W22	3	Earth layer below topsoil
W22	4	Wall 202: paralleled Wall 203; interlocked with the perpendicular Walls 204 and 205
W22	5	Room east of Wall 202
W22	6	Material in the northwest room between Walls 202 and 203
W22	7	Room east of Wall 202
W22	8	Northwest room under Locus 6 and over Locus 11
W22	9	Wall 204: paralleled Wall 205 and bonded to perpendicular Walls 202 and 203
W22	10	Northwest corner of the square, outside the tower and under Locus 1
W22	11	Northwest room under Locus 8 and over 15
W22	12	Room east of Wall 202 between Loci 7 and 14
W22	13	Wall 205: paralleled Wall 204 and interlocked with perpendicular Walls 202 and 203
W22	14	Room east of Wall 202 under Locus 14 and over bedrock
W22	15	Northwest room between floor level (Locus 11) and bedrock

Square	Locus	Description
W22	16	Northwest corner of the square that lies outside the tower under Locus 10
W22	17	Bedrock
X17	1a	Disturbed surface debris and wall fill
X17	1b	Firm soil beneath Locus 1a
X17	2c	Core of Wall 131
X17	3b	Narrow northwest–southeast wall projecting from the north end of Wall 5; no wall number assigned
X17	3c	Possible wall fill north of Wall 3a; no wall number assigned
X17	4a	West face of Wall 121
X17	5	Wall on the west side of Wall 4a; no wall number assigned
X17	6a	West (?) face of wall earlier than Wall 4; no wall number assigned
X17	7	Tumble of stones west of Wall 121, above Locus 5
X17	8	Packed earth below Locus 7 (tumble of stones west of Wall 121, above Locus 5)
X17	9	Cobblestones, flat stones, below Locus 8, west of Locus 5
X17	10	Bedrock
X17	11	Soil under Locus 5 and above bedrock
X18	1	Disturbed surface debris above Wall 131
X18	2a	Outer (north) face of Wall 131
X18	2c	Rubble fill of Wall 131
X18	3	Soil and cobbles below Locus 1, above Wall 131
X18	4	Soil and small boulders above Wall 131
X18	5	Unassigned
X18	6	Concentration of cobbles and boulders north of Wall 131, below Locus 1 surface debris and above Locus 8
X18	7	Disturbed surface debris north of Wall 131
X18	8	Concentration of cobbles and boulders north of Wall 131, below Locus 8 and above bedrock
X18	9	Leveling fill under Wall 131
X18	10	Leveling fill under Wall 131
X22	1	Sloping debris layer
X22	2	Wall 203: exterior wall of the tower
X22	3	Wall 204: interior wall of the tower
X22	4	Silo against Walls 203 and 204
X22	5	Bedrock
X23	1	Sloping debris layer
X23	2	Debris layer in southeast corner of square
X23	3	Same debris layer as Locus 2 but on other side of Locus 5
X23	4	Wall 201: paralleled Wall 204, joined two perpendicular walls (Walls 203 and 202)
X23	5	Wall 202: traversed square at 30 degrees
X23	6	Compact soil in southeast portion of the square
X23	7	Compact soil in southwest portion of square
X23	8	Loose debris in northwest area of square
X23	9	Isolated rock layer below topsoil of Locus 1
X23	10	Earth layer below debris of Locus 8 in northeast sector of square
X23	11	Dark brown soil southeast of Wall 202

Square	Locus	Description
X23	12	Tabun north of Wall 201
X23	13	Soil layer above bedrock southeast of Wall 202 and north of wall's entrance
X23	14	Earth layer close to bedrock in north chamber of square
X23	15	Earth layer near bedrock in southeast portion of the square
X23	16	Soil above bedrock in center of north chamber
X23	17	Bedrock
Z22	1	Surface debris
Z22	2	Earth layer below surface debris containing a heavy concentration of pottery
Z22	3	North-northwest–South-southeast stone ledge, possibly the edge of a megalithic masonry stone
Z22	4	Soil between Locus 3 and the southwest balk of the excavation area
Z22	5	Layer of soil directly above bedrock
Z22	6	Bedrock
Z22	7	Wall running northeast–southwest along the northwest edge of the excavation area; no wall number assigned
Z22	7	Wall running northwest–southeast along the northeast edge of the excavation area; no wall number assigned
ZB07	1	Mixed debris in the stoking pit on the south side of the kiln
ZC07	1	Disturbed surface soil mixed with tumble from the kiln walls
ZC07	2	Ash fill and burned wood fragments
ZC07	3	Exterior wall and clay lining of the fire box
ZF010	1	Disturbed surface debris
ZF010	2	Soil on top of Wall 5
ZF010	3	Wall 5: exterior south wall of monastery complex
ZF010	4	Soil and wall collapse below Locus 1 surface debris and above bedrock, south of Wall 5
ZF010	5	Soil and wall collapse below Locus 1 surface debris north of Wall 5
ZF04	1	Wall 1
ZF04	2	Disturbed soil above the stone floor, Locus 5, between Wall 1 and Locus 6
ZF04	3	Disturbed surface debris east of Wall 1
ZF04	4	Upper part of a probe in the north of the square where several paving stones have been robbed out
ZF04	5	Stone floor comprised of 20 complete paving stones ca. 0.5 × 0.8 m and 3 partial paving stones, abutting the external walls of the monastery
ZF04	6	Small 0.5 m long wall abutting the north side of Wall 2 and built over the stone paving, Locus 5; no wall number assigned
ZF04	7	Disturbed soil above Locus 5 to the west of Locus 6
ZF04	8	Unassigned
ZF04	9	Disturbed surface debris and wall collapse east of Wall 1 and south of Locus 10
ZF04	10	Wall tumble on the east side of the south end of Wall 1
ZF04	11	Disturbed surface debris and wall collapse east of Wall 1 and north of Locus 10
ZF04	12	3.5 m long shallow north–south drainage channel on the east side of Wall 1, ending at the north end of Square ZF04
ZF04	13	Wall 2
ZF04	14	Large limestone ashlar/lintel 1.03 × 0.55 × 0.5 m which was found out of context in Square ZF04 at the beginning of the excavation
ZF04	15	Disturbed soil above Locus 5 to the west of Locus 6

Square	Locus	Description
ZF04	16	Disturbed soil east of Wall 1
ZF04	17	Disturbed soil south of Wall 2
ZF04	18	Lower part of a probe in the north of the square where several paving stones have been robbed out, under Locus 4 and above bedrock
ZF04	19	ca. 0.70 m of mixed soil between the north end of Locus 5 and the north balk
ZF04	20	Mixed soil under Loci 16 and 17 and above Locus 21
ZF04	21	Hoard of ca. seven thousand tesserae lying on bedrock under Locus 20, and mixed with gray and white crumbled plaster
ZF04	22	Short 1 m wide floor support built on bedrock on the north side of the square
ZF04	23	Removal of east balk
ZF04	23	Sealed locus under 12 in-situ flagstones
ZF04	24	Sealed locus under seven in-situ flagstones
ZF05	101	Sealed locus under the in-situ floor (Locus 102)
ZF05	102	Floor consisting of five in-situ flagstones
ZF07	1	Disturbed surface debris above Wall 2
ZF07	2	Wall 5
ZF07	3	Wall 6
ZF07	4	Wall 2
ZG010	1	Disturbed surface debris
ZG010	2	Soil and wall collapse in southeast corner
ZG04	1	Mixed surface soil
ZG04	2	Soil and wall collapse north of Locus 3
ZG04	3	South side of foundation of apse of church
ZG04	4	Collapse from Wall 5
ZG04	5	East–west wall on south side of Locus 3; no wall number assigned
ZG04	6	East–west wall on south side
ZG04	7	Soil beneath the surface debris and over bedrock.
ZG04	8	Soil in the rocky west part of the square, under the surface debris and over bedrock
ZG04	9	Soil beneath the surface debris and over bedrock, between Loci 1 and 4.
ZG04	10	Plastered extension of the drainage channel from Square ZF04 in the southeast corner lying on bedrock
ZG04	11	Soil east of Locus 10 beneath the surface debris and above bedrock
ZG04	12	Large-to-medium-sized stones forming an east–west wall on the south edge of the central apse
ZG04	13	Central apse of the church
ZG04	14	Area inside the apse in the northwest corner of the square; it was below Locus 1 and above Locus 20
ZG04	15	Area east of the apse (Locus 13) in the northeast corner, below Locus 1
ZG04	16	Area with large stones and tumble in the southeast corner to the east of Locus 12 (east–west wall of monastery); it was below Locus 1 and above bedrock
ZG04	17	Area beneath Locus 14 inside the apse (Locus 13) and above Locus 25 (plastered structure) in the northwest corner
ZG04	18	Area in the southwest portion of the square below Locus 1
ZG04	19	Wall 3
ZG04	20	Three large, plastered-fused stones diagonally oriented at 45 degrees inside the central apse

Square	Locus	Description
ZG04	21	Wall 1
ZG04	22	Area below Locus 18 and above bedrock in the west portion of the square between Loci 12, 19, and 21
ZG04	23	Area under Locus 20 and over Locus 25 (plastered structure) in the northwest corner
ZG04	24	Area under tumble and above bedrock east of the exterior monastery wall
ZG04	25	Plastered area below Loci 20 and 23
ZG05	1	Disturbed surface soil in initial 3 × 3 m probe
ZG05	2	Continuation of arch stones from Square ZH05
ZG05	3	Support wall for arch
ZG05	4	Column base at arch entrance
ZG05	5	Soil beneath Locus 1 in initial 3 × 3 m probe and above the floor level determined by articulated tesserae
ZG05	6	Soil under locus 5 (tumble and mixed matrix) and over bedrock generally in the area northeast of an intact column (Locus 19)
ZG05	7	Soil under Locus 5 (tumble and mixed matrix) and over bedrock and was generally the area northwest of the column (Locus 19)
ZG05	8	Soil below Locus 7 in 1 m extension
ZG05	9	Soil between the arches
ZG05	10	Soil below Locus 10 and above bedrock
ZG05	11	Darker soil between the arches and just above floor/bedrock
ZG05	12	Door frame with left and right jambs in situ; door stops on both jambs had been cut out of large rocks; also, a door sweep at the bottom had been carved out of bedrock
ZG05	13	Three steps associated with Locus 13
ZG05	14	Continuation of bench from Square ZH05
ZG05	15	Plastered feature
ZG05	16	Bedrock
ZG05	17	Continuation of the limestone foundation threshold for the south chapel/apse from Square ZG04, 2.1 m long, 0.55 m wide and 0.285 m high under Locus 5 and over bedrock
ZG05	18	A 0.66 × 0.66 m column base matching the ones on the north side of the church
ZG05	19	An intact limestone column under Locus 5, length of 2.57 m, with a top diameter of 0.42 m and a bottom diameter of 0.52 m
ZG07	1	Disturbed surface debris
ZG07	2	Door threshold and jambs
ZG07	3	Wall 3
ZG07	4	Soil and wall collapse in southeast corner
ZG07	5	Wall 6
ZH010	1	Soil beneath the surface debris throughout square, above Loci 2 and 3
ZH010	2	Soil beneath Locus 1 in the south half of square
ZH010	3	Soil beneath Locus 1 in the north half of square
ZH010	4	Wall 14: north–south wall in the northwest corner of square beneath Locus 3 and founded on bedrock
ZH010	5	Wall 8: north–south wall in the northeast corner of square beneath Locus 3 and above threshold (Locus 13)
ZH010	6	Soil beneath Loci 2 and 3 between east balk and Walls 8 and 12, above Loci 11, 15, 16 and 17
ZH010	7	Soil west of Walls 8, 12, and threshold (Locus 13) and above Loci l, 21, 23, 25 and 26

Square	Locus	Description
ZH010	8	Wall 12: north–south wall running from threshold (Locus 13) to south balk
ZH010	9	Soil beneath Locus 3 and contiguous to Locus 7, sealing against north balk and threshold (Locus 13)
ZH010	10	Wall 11: east–west wall southeast of threshold (Locus 13)
ZH010	11	Soil above cobblestone floor Locus 24 in southeast corner of square
ZH010	12	Wall 15: north–south wall in southwest corner of square
ZH010	13	Threshold between Walls 8 and 12
ZH010	14	Wall 10
ZH010	15	Soil above cobblestone floor Locus 18 in northeast corner of square
ZH010	16	Portion of the threshold with four sockets
ZH010	17	Flagstone pavement east of threshold (Locus 13)
ZH010	18	Cobblestone floor in northeast corner of square
ZH010	19	Poorly built east–west wall between Wall 14 on the west and threshold (Locus 13) to the east
ZH010	20	Soil beneath Locus 9 and above flagstone pavement Locus 27 northwest of threshold (Locus 13)
ZH010	21	Soil north of Wall 17, between west balk and threshold ((Locus 13)) and above the steps (Locus 25)
ZH010	22	Wall 17
ZH010	23	Soil above bedrock between Walls 12, 15, and 17
ZH010	24	Cobblestone floor in southeast corner of square
ZH010	25	Steps on west side of threshold (Locus 13)
ZH010	26	Soil above bedrock between the steps Locus 25 and the west balk
ZH010	27	Flagstone pavement above bedrock on north side of square
ZH010	28	Bedrock/floor between steps Locus 25 and Wall 14
ZH010	29	Bedrock/floor between Walls 12 and 15
ZH010	30	Water channel on north side of Wall 17 between the steps Locus 25 and Wall 14
ZH010	31	Sealed locus under seven in-situ flagstones Locus 32
ZH010	32	Floor consisting of seven in situ flagstones
ZH010	33	Sealed locus under in-situ flagstone floor Locus 17
ZH010	34	Floor consisting of a single in site flagstone
ZH010	35	Sealed earth locus under the in-situ floor Locus 34
ZH04	1	Disturbed surface debris
ZH04	2	Soil beneath Locus 1 and above apse stones
ZH04	3	Central apse of the church, with a diameter of 5.49 m; the top (east) of the apse merges with the east outer wall of the monastery
ZH04	4	Soil and wall collapse below Locus 2 west of Locus 3
ZH04	5	Soil and wall collapse below Locus 2 east of Locus 3
ZH04	6	Removal of the sub-balk in the north 2 m of the square
ZH04	7	Two steps on the outside of the apse that provided ingress and egress
ZH04	8	Continuation from Squares ZG04 and ZF04 of the east (outer) wall of the church and monastery; it was abutted by two steps (Locus 7)
ZH05	1	Disturbed surface soil of the north 6 × 3 m area of the square
ZH05	2	A north–south section of on arch spring that mates with another set of arch stones uncovered to the east in Square ZH04
ZH05	3	Area east of the arch stones below Locus 1 measuring 1.8 × 3 m

Square	Locus	Description
ZH05	4	Soil west of the arch stones below Locus 1
ZH05	5	Soil east of the arch below Locus 3
ZH05	6	Soil west of the arch below Locus 4
ZH05	7	The soil west of the arch below Locus 6 and above bedrock
ZH05	8	Soil directly above bedrock between the two rows of arch stones
ZH05	9	Disturbed surface soil in the south 6 × 3 m portion of the square
ZH05	10	Tumble below Locus 9
ZH05	11	3.33 × 3 m area west of the arch stones
ZH05	12	Soil beneath Locus 11
ZH05	13	Column base in northwest portion of the square
ZH05	14	Area east of the arches measuring 1.8 × 3 m
ZH05	15	Soil below Locus 14 and a theoretical floor level just below the column base
ZH05	16	Soil below Locus 15 and above bedrock, west of the arch stones
ZH05	17	Soil below Locus 16 just above bedrock
ZH05	18	Bedrock
ZH06	1	Disturbed surface soil in a 3 × 3 m probe in the northwest corner of the square
ZH06	2	Disturbed surface soil in a 3 × 3 m probe in the northeast corner of the square
ZH06	3	Soil beneath Locus 1 and above apse stones
ZH06	4	Soil beneath Locus 2 east and south of Locus 5
ZH06	5	Column base in northeast corner of Locus 3 resting on stones on bedrock
ZH06	6	Column base in northeast corner of Locus 4 resting on stones on bedrock
ZH06	7	Column base in northwest corner of Locus 3 resting on stones on bedrock; only ca. half of it is exposed with the other half remaining in the west balk
ZH06	8	Soil beneath Loci 3 and 4
ZH06	9	Hardpacked soil beneath Locus 8
ZH06	10	Paving stones in the northeast corner of Locus 4 connecting to the south border of Locus 6; this locus was a floor and for preservation purposes the soil from beneath it was not excavated
ZH06	11	Disturbed surface soil in the south 3 × 5 m of the square
ZH06	12	Medium tumble in a 3 × 3 m area in the southwest beneath Locus 11
ZH06	13	Soil in a 3 × 3 m area in the southeast section of the square
ZH06	14	Bedrock below Locus 9
ZH06	15	Sealed locus under four flagstones that abutted an in-situ column base
ZH06	16	Unexcavated balk at Location 3
ZH06	17	Floor consisting of four flagstones
ZH07	1	Tumble-filled material under the surface debris
ZH07	2	A 6.0 × 3.2 m area of soil under Locus 1
ZH07	3	Wall 6
ZH07	4	Three paving stones covering an area of 0.75 × 1.2 m , founded on bedrock and abutting the west side of Locus 3
ZI010	1	Soil beneath the surface debris containing small and medium stones
ZI010	2	Megalithic stone in situ, functioning as both a column and one side of a doorframe, 0.62 × 0.47 × 1.18 m high
ZI010	3	Wall 8: north–south wall on running north–south on the east side of the square
ZI010	4	Soil east of Wall 8 and north of Wall 9

Square	Locus	Description
ZI010	5	Soil under Locus 1, west of Wall 8 and south of Wall 9
ZI010	6	Soil under Locus 1, west of Wall 13
ZI010	7	Wall 13
ZI010	8	Soil under Locus 5
ZI010	9	Soil under Locus 8
ZI010	10	Wall 9
ZI010	11	Soil under earth Locus 8, east of Wall 8 and south of Wall 9
ZI010	12	Soil under Locus 9, between Wall 8 and 13
ZI010	13	In situ column resting on a base, 0.39 m in diameter with a surviving height of 0.9 m
ZI010	14	Four courses of large, worked stones on the north end of bench Locus 16, matched by Locus 15 at the northeast corner of the baptistery
ZI010	15	Five courses of large, worked stones forming part of the east wall of the baptistery, matched by Locus 14 on the west side of the room
ZI010	16	Bench-like structure abutting the east side of Wall 13
ZI010	17	Soil inside the baptistery
ZI010	18	Wall 16
ZI010	19	Soil south of Wall 16
ZI010	20	Entryway in Wall 16, with three steps leading down to the room containing the baptistery
ZI010	21	East–west course of stones in the north balk
ZI010	22	Walls of the baptistery, with traces of plaster on the stones
ZI010	23	Bedrock floor of the baptistery
ZI04	1	Gravelly soil under the surface debris and above Loci 2, 3, and 4
ZI04	2	Soil inside the north chapel/apse under Locus 1 and over bedrock
ZI04	3	Soil beneath Locus 1 east of the outer wall of the chapel/apse
ZI04	4	Soil beneath Locus 1 in the north half of the square
ZI04	5	Limestone threshold measuring 2.4 × 0.58 m for the entrance to the north chapel/apse, below Locus 1 and above Locus 7
ZI04	6	Semicircular structure forming the north chapel/apse, under Loci 1 and 2 and over bedrock
ZI04	7	Hardpacked material east of the outer wall, beneath Locus 3 and above bedrock
ZI04	8	Hardpacked material identical to Locus 7, inside the chapel beneath Locus 2 and above bedrock
ZM0	1	Soil in agricultural terrace
ZM0	2	Terrace retaining wall