

MIQNE–EKRON 9/2

Field IV Lower

The Iron Age IIC Late Philistine City

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FINAL REPORTS
OF THE
TEL MIQNE–EKRON EXCAVATIONS

Trude Dothan and Seymour Gitin, Principal Investigators and Project Directors
W. F. Albright Institute of Archaeological Research, Jerusalem
Institute of Archaeology, Hebrew University of Jerusalem

- Ekron 9/1* Trude Dothan, Yosef Garfinkel, and Seymour Gitin, *Tel Miqne–Ekron Excavations 1985–1988, 1990, 1992–1995: Field IV Lower—The Elite Zone, Part 1: The Iron Age I Early Philistine City*
- Ekron 9/2* Seymour Gitin, Trude Dothan, and Yosef Garfinkel, *Tel Miqne–Ekron Excavations 1985–1988, 1990, 1992–1995: Field IV Lower—The Elite Zone, Part 2: The Iron Age IIC Late Philistine City*
- Ekron 9/3A* Seymour Gitin, Trude Dothan, and Yosef Garfinkel, *Tel Miqne–Ekron Excavations 1985–1988, 1990, 1992–1995: Field IV Lower—The Elite Zone, Part 3A: The Iron Age I and IIC Early and Late Philistine Cities Database*
- Ekron 9/3B* Seymour Gitin, Trude Dothan, and Yosef Garfinkel, *Tel Miqne–Ekron Excavations 1985–1988, 1990, 1992–1995: Field IV Lower—The Elite Zone, Part 3B: The Iron Age I and IIC Early and Late Philistine Cities Plans and Sections*

TEL MIQNE-EKRON EXCAVATIONS

1985–1988, 1990, 1992–1995

FIELD IV LOWER—THE ELITE ZONE

PART 2

THE IRON AGE IIC LATE PHILISTINE CITY

By

Seymour Gitin, Trude Dothan, and Yosef Garfinkel

With contributions by

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Ianir Milevski, Edward F. Maher, Brian Hesse, Omri Lerna,
Erik Steinbach, and Alexandra S. Drenka

Edited by

Seymour Gitin

Winona Lake, Indiana

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Selection of late Philistine pottery and objects (photos by Z. Radovan and I. Sztulman)

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**We dedicate this volume to our dear friend and colleague,
the late Ernest S. Frerichs, in acknowledgment of his commitment
and devotion to the Tel Migne-Ekron project**

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and additional assistance from the Leon Levy Foundation

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Ekron 9/3A, the complete excavation database, is available at <http://semiticmuseum.fas.harvard.edu/publications>:
Appendix 1: Area Context Charts with locus, stratum, phase, building, and room designations;
Appendix 2: Area Phasing Charts with locus, stratum, phase, field pottery readings, and
stratigraphic relationships; Index A: Locus Summaries; and Index B: Material Culture Samples

PREFACE

This volume is one of three parts of the final report on the excavations in Field IV Lower. It focuses on the elite zone of the Philistine Iron Age II city. The nine seasons of excavation were carried out under the overall supervision of Project Directors and Principal Investigators the late Trude Dothan (Professor Emerita) of the Institute of Archaeology (the Philip and Muriel Berman Center for Biblical Archaeology) at the Hebrew University of Jerusalem, and Seymour Gitin, Dorot Director and Professor of Archaeology (Emeritus) of the W. F. Albright Institute of Archaeological Research in Jerusalem. The field work was conducted under the supervision of Field Archaeologists J. P. Dessel in 1985 (Associate Professor, Department of History, University of Tennessee), Kathleen Wheeler in 1986 (Director of Independent Archaeological Consulting, LLC, Portsmouth, NH), and Yosef Garfinkel in 1987–1988, 1990, 1992–1995 (Yadin Professor, Department of Archaeology, Hebrew University of Jerusalem).

The authors thank the other researchers who contributed and/or coauthored chapters in this volume: Erik Steinbach, Rio Salado Archaeology LLC, Tempe, AZ; David Ben-Shlomo, Ariel University; Amir Golani, Israel Antiquities Authority; Alexandra S. Drenka, independent researcher, Jerusalem; Baruch Brandl, Associate Fellow, Albright Institute; Ianir Milevski, Israel Antiquities Authority; Edward F. Maher, Field Museum, Chicago; the late Brian Hesse, Pennsylvania State University, University Park; and Omri Lerna, Zinman Institute of Archaeology, Haifa University.

Post-excavation data management was carried out by Anna de Vincenz, who was responsible for the artifact inventory, the computer-generated pottery figures, and the pottery descriptions. The computer-generated quantitative figures and tables are by Jill Baker. The pottery and object drawings are by Marina Zeltser, the pottery and object photos by Ilan Sztulman and Zev Radovan, the photo inventory and digitization by J. Rosenberg, and the field photographs by Ilan Sztulman and Eran Kessel. A number of pottery and

object drawings are by Sarah Halbreich. The volume was copyedited by Edna Sachar and proofread by Samuel R. Wolff.

This volume, like the others in the Tel Miqne-Ekron Report Series, is based on the revised Gezer publication reporting system developed by the series editor, Seymour Gitin. Seven preliminary reports in the Ekron Limited Edition Series (*Ekron* 1–7) and one volume in the Tel Miqne-Ekron Final Report Series (*Ekron* 8) have already been published by the Albright Institute and Hebrew University. This is the second of the three volumes on the elite zone in Field IV Lower published under the auspices of the Harvard Semitic Museum; in addition to the print versions of *Ekron* 9/1, 9/2, and 9/3B, *Ekron* 9/3A is available electronically as a searchable database at <http://semiticmuseum.fas.harvard.edu/publications>. These volumes present an exposition of the occupational history of Field IV Lower integrated with an analysis of the stratigraphy and architecture, pottery, objects, and faunal evidence, accompanied by plans, sections, photos, and figures and a complete database of the excavations. A list of all the published and forthcoming reports appears on pp. xv–xvii.

The preliminary and final reports together serve as the database for the forthcoming final synthetic volume, *Ekron I–II: The Bronze Age and the Iron Age I–II Philistine Cities*, by S. Gitin and T. Dothan. This volume will deal with the major occupation phases, including data from all fields of excavation, with a focus on the main research topics of the project: the urban, economic, cultic, and material culture development of the Philistines.

The project directors wish to express their deep appreciation to their home institutions, the W. F. Albright Institute of Archaeological Research and the Institute of Archaeology of the Hebrew University, the primary sponsors of the project. The assistance of the project's other long-term sponsoring institutions is also greatly appreciated: Brown University and Boston College (1985–1988, 1990, 1992–1995),

the Philip and Muriel Berman (previously Lehigh Valley) Center for Jewish Studies (Allentown College of St. Francis de Sales, Cedar Crest College, Lafayette College, Lehigh University, Moravian College, Muhlenberg College) (1986–1988, 1990, 1992–1995), and the University of Lethbridge (1987–1988, 1990, 1992–1995). We are also grateful to the other sponsoring institutions: Augustana College (1992–1995), Baltimore Hebrew College (1986), the Heritage Arts Foundation (1994), the Jerusalem Center for Near Eastern Studies, Brigham Young University (1995), Pennsylvania State University (1993), Southeastern Baptist Theological Seminary (1985–1988), and the University of Toronto (1990, 1992–1993), and to the supporting institutions: Andrews University (1992–1995), Aurora University (1985, 1987–1988, 1990), Baltimore Hebrew University (previously College) (1985, 1987–1988, 1990, 1992–1995), Boston University School of Theology (1992–1995), California Baptist College (1992–1995), Claremont Graduate School (1993–1995), Gustavus Adolphus College (1993–1995), Harvard Semitic Museum (1985–1988, 1990, 1992–1995), the Israel Oil Industry Museum (1986, 1990, 1992–1995), James Madison University (1994–1995), Luther College (1994–1995), Mount Union College (1990, 1994), the University of Michigan (1995), the University of Toronto (1994), the University of Wyoming (1995), Weston School of Theology (1993), and York University (1992).

Special thanks go to the late Ernest S. Frerichs, who served as the Tel Miqne-Ekron Administrative Director in charge of the Volunteer Program and Consortium Relations from 1981–1996, during which he was Professor of Religious Studies, Brown University (1981–1984), Director of the Program in Judaic Studies, Brown University (1985–1995), and Executive Director of the Dorot Foundation (1995–1996). Thanks also go to the members of the Tel Miqne-Ekron Excavation Advisory Committee: William G. Dever, Professor Emeritus, University of Arizona (1985–1988, 1990, 1992–1995); the late Joseph A. Callaway, Professor Emeritus, Southern Baptist Theological Seminary (1985–1987); Joe D. Seger, Professor Emeritus, Cobb Institute of Archaeology, Mississippi State University (1988, 1990, 1992–1993), and J. Maxwell Miller, Professor Emeritus, Emory University (1994–1995), the last three former presidents of the W. F. Albright Institute of Archaeological

Research; Micha Bar-On (1985–1988) and Benny Sekay (1990, 1992–1995), Administrative Directors of the Institute of Archaeology, Hebrew University; and Joseph Aviram, Director/President, Israel Exploration Society (1985–1988, 1990, 1992–1995).

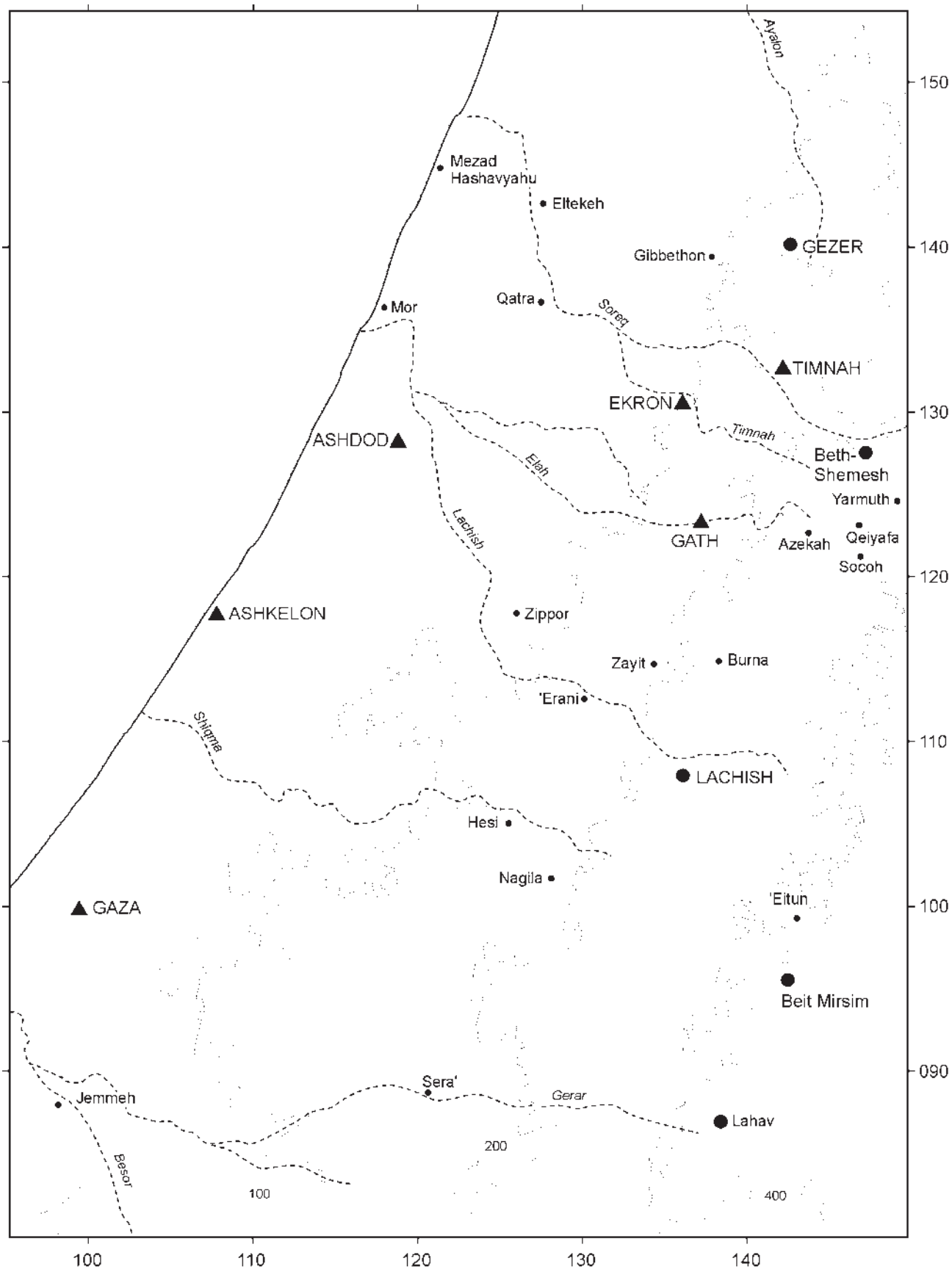
We also wish to extend our deepest gratitude to the Dorot Foundation for the generous gift that made possible the construction of the excavation camp and the purchase of the project's excavation equipment, for the annual travel grant program for student volunteers, and for the annual grant in support of the excavations. We are also indebted to Artemis Joukowsky for funding the project's excavation computer equipment. Additional travel grants for American students were provided by the Endowment for Biblical Research. The fellowship program for Israeli students was supported by Estanne Abraham, the late Lyman G. Bloomingdale, Eugene and Emily Grant, and Theodore I. Libby (1988), and funding support for staff was provided by the Herman and Rosa L. Cohen Fund. The Dorot Foundation is also the primary supporter of the publications program, for which we are most grateful. Additional funding for publications was provided by the Philip and Muriel Berman Center for Biblical Archaeology and the Richard J. Scheuer and Eugene and Emily Grant Family Foundations. Special thanks go to the Leon Levy Foundation for the funds for preparing the three volumes of this report for publication. We also wish to acknowledge the Friends of Miqne, whose ongoing support helped to make the Miqne-Ekron project a reality: Estanne Abraham, Bernard Bell, the late Philip and Muriel Berman, the late Lyman G. Bloomingdale, Edward and Betsy Cohen, Arnold and Amalia Flegenheimer, Eugene and Emily Grant, Artemis Joukowsky and Martha Sharp Joukowsky, the late Richard J. Scheuer, Lydie Shufro, the Swig Foundation, the late Joy Gottesman Ungerleider, and Daniel Wolk. Support also came from Issa Habesch, Halfon Hamaoui, Uri Herscher, Morris Offit, Irene Pletka, Daniel and Joanne Rose, Hershel Shanks, Watson Smith, and Noah Springer.

We are indebted to the members of Kibbutz Revadim for allowing us to build the excavation camp on their grounds and for their cooperation and active assistance with the project. Special thanks go to Kibbutz Liaison Natan Aidlin, whose unabated enthusiastic support was critical to the project's success. We are grateful to the late Moshe Gary, the architect

who designed the excavation camp and supervised its construction and improvements over the years, as well as to Yehuda Dagan for his invaluable counsel regarding camp logistics. We also acknowledge the contribution of Keren Kayemet LeIsrael, which was responsible for the construction and major repairs of the five-and-a-half kilometer access road to the tell, as well as the District Council of Yoav, responsible for its maintenance.

Finally, we wish to express our gratitude to the excavation staff and student volunteers, whose skill, enthusiasm, and diligence contributed so much to the success of the field project.

Seymour Gitin and Trude Dothan
Jerusalem, July 2015

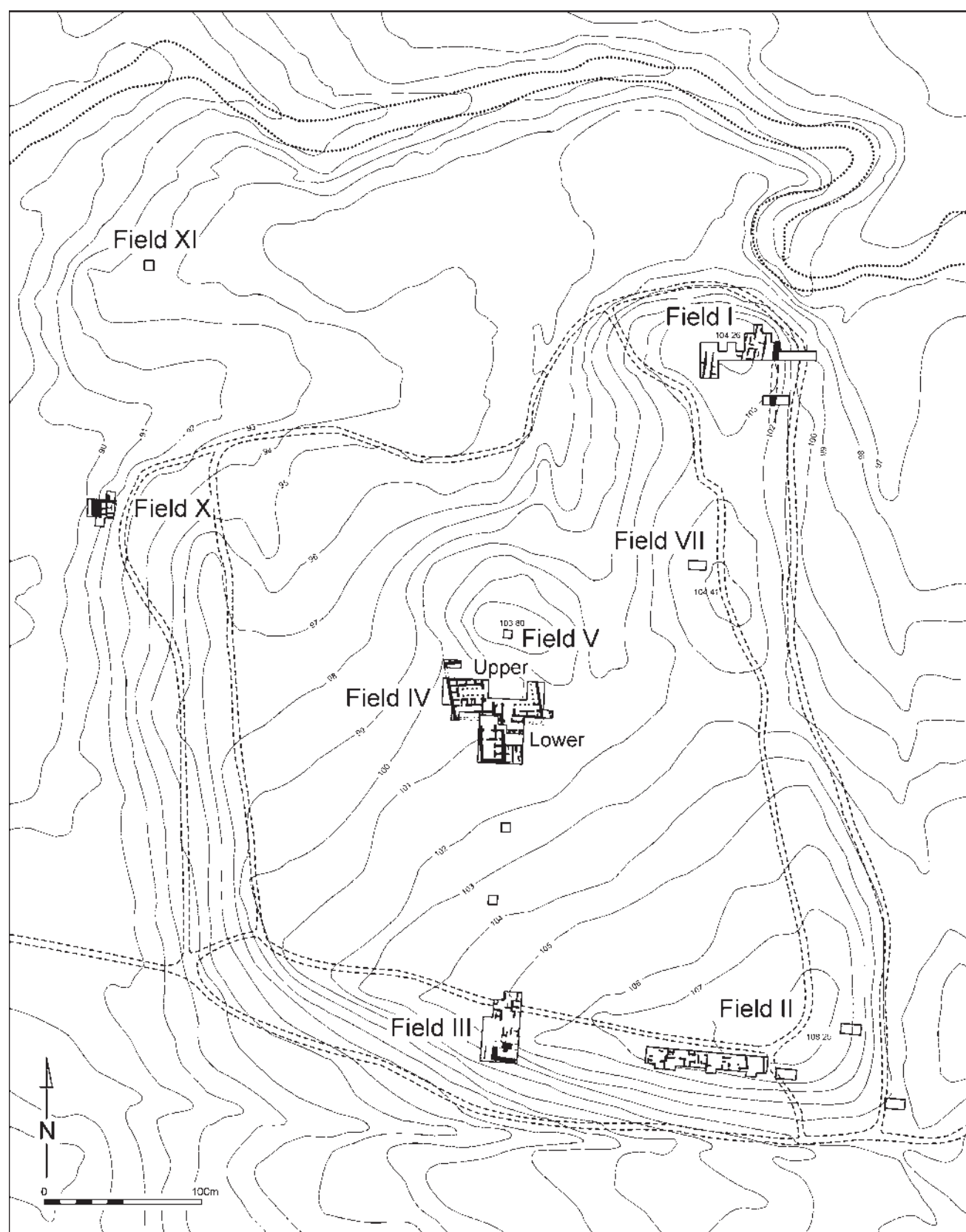


0-100m Coastal Plain
 100-200m Inner Coastal Plain
 200-400m Shephelah

0 5 10 15km

▲ Philistine sites
 ● Shephelah/Judean sites
 ● primary • secondary

Philistine Coastal Plain and Shephelah sites in the Iron Age



Top plan of Tel Miqne-Ekron showing fields of excavation

Tel Migne-Ekron Iron Age II Stratigraphic and Chronological Chart*

Str.	Dating BCE	Upper City		Lower City			Historical context	Pottery and objects
		Field I Sondage Fortifications	Field I Summit Commercial zone	Field III Industrial zone	Field IV Lower Elite zone	Field IV Upper Elite zone		
IA	Iron IIC 604–575?			Assyrian courtyard building	Walls Building 658		Neo-Babylonian Nebuchadrezzar 604 destruction	Philistine Inner Coastal Plain pottery
IB	Iron IIC 625–604	Monumental Storage Magazine 763	Monumental Storage Magazine 763 City Entrance 759 with drain	Olive oil and textile production center Buildings 502– 504, 507 City Wall 500 Gate 501	Temple Auxiliary Buildings 651–655	Temple Complex 650	Under Egyptian influence	Four-horned altars, silver hoards, iron tool cache, Ekron Royal Dedicatory and other inscriptions, mostly Philistine Inner Coastal Plain pottery
IC	Iron IIC 700–625	Mudbrick Tower 8003/7039 rebuilt with Stones 8002	Buildings 760–762	Tower 509	Alley 657 Street 656	Streets cc, dd	Neo-Assyrian vassal city-state	
IIA	Iron IIB 750–700		Street 750A, Buildings 755–758, City Entrance 752	GAP	GAP	GAP		Philistine Coastal and Inner Coastal Plain, Judean, and some Phoenician pottery
IIB	Iron IIB 800–750	Mudbrick Tower 8003/7039 with Ashlar Stone Facing 9003	Street 750B with central and side drains, Buildings 756–757, Drain 751, City Entrance 752 with drain	GAP	GAP	GAP	Semi- independent	
III	Iron IIA/B 975?–800		Street 750C Buildings 753–754	GAP	GAP	GAP		

* Soundings in Field IV Lower domestic area (Stratum IB), Field V (Roman and Islamic period remains), Field VII (Stratum IB) not included;
 Field II extension of Field III olive oil industrial buildings (Stratum IV), Field IV Upper Roman period omitted — indicates destruction level;
 indicates Stratum Pre-IC 705–701 BCE “scoops phase” (Ekron under control of Judah)

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- Ekron 2* T. Dothan and S. Gitin, *Tel Mique (Ekron) Excavation Project, Spring 1982, Field Report, Field INE, Areas 2, 3, 4, 5, 6, 7* (focus on Iron Age I–II) (1982).
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- Ekron 9/2* S. Gitin, T. Dothan, and Y. Garfinkel, *Tel Miqne-Ekron Excavations 1985–1988, 1990, 1992–1995: Field IV Lower—The Elite Zone, Part 2: The Iron Age IIC Late Philistine City*, with contributions by D. Ben-Shlomo, A. Golani, B. Brandl, I. Milevski, E. F. Maher, B. Hesse, O. Lerna, E. Steinbach, and A. Drenka (2017).
- Ekron 9/3A* S. Gitin, T. Dothan, and Y. Garfinkel, *Tel Miqne-Ekron Excavations 1985–1988, 1990, 1992–1995: Field IV Lower—The Elite Zone, Part 3A: The Iron Age I and IIC Early and Late Philistine Cities Database*, with contributions by L. B. Mazow, A. Zukerman, A. de Vincenz, J. Rosenberg, J. P. Dessel, and K. Wheeler (available at <http://semiticmuseum.fas.harvard.edu/publications>, 2016).
- Ekron 9/3B* S. Gitin, T. Dothan, and Y. Garfinkel, *Tel Miqne-Ekron Excavations, 1985–1988, 1990, 1992–1995: Field IV Lower—The Elite Zone, Part 3B: The Iron Age I and IIC Early and Late Philistine Cities Plans and Sections*, with contributions by L. B. Mazow and J. Rosenberg (2016).
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POPULAR VOLUME: T. Dothan and S. Gitin, *Ekron of the Philistines: From Sea Peoples to Olive Oil Industrialists* (in preparation).

EXCAVATION STAFF

FIELD IV LOWER EXCAVATION STAFF (1985–1988, 1990, 1992–1995 SEASONS)

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Staff and student volunteers, Fields I, III, and IV (1985)



Staff and student volunteers, Fields I, III, and IV (1990)

ABBREVIATIONS AND ADDITIONAL TERMS USED IN POTTERY READING

ABBREVIATIONS

AS	All Saved	Mort	Mortarium
B	Burnished	Myc	Mycenaean
BS	Body Sherds	nbl	no bottom level
BS NS	Body Sherds Not Saved	O	Open form
Byz	Byzantine	PEF	Possibly Earlier Form
C	Closed form	PEW	Possibly Earlier Ware
Chalco	Chalcolithic	Phil	Philistine
contam	contaminated	PLF	Possibly Later Form
cu	copper	predom	predominately
EB	Early Bronze	Rom	Roman
EF	Early Form	RS	Red Slip
EW	Early Ware	RSB	Red Slip Burnished
lg	large	UD	Undistinguished
LW	Late Ware	UD NS	Undistinguished Not Saved
MB	Middle Bronze	WS	White Slip
MC	Material Culture	var	variation
		*	important analytic forms

ADDITIONAL POTTERY TERMS

Gezer bowl	Cyma-shaped bowl with zig-zag pattern and palm-tree motif well known from Tell Gezer and other sites
Phil 1	Philistine 1 pottery (replacing the term Mycenaean IIIC:1)
Phil 2	Philistine 2 pottery (replacing the term Philistine Bichrome)
Phil 3	Philistine 3 pottery (designating debased Philistine forms)
Phil form	Philistine forms that do not have traditional Philistine decoration

INTRODUCTION: GOALS, FIELD REPORT, AND ARCHIVES

Seymour Gitin

The Tel Miqne-Ekron Excavation and Publications Project is a joint American, Israeli, and Canadian interdisciplinary research program of the W. F. Albright Institute of Archaeological Research, Jerusalem, and the Institute of Archaeology, Hebrew University of Jerusalem. The 14 seasons of excavation were directed by Trude Dothan and Seymour Gitin between 1981 and 1996. A discussion of the identification of Tel Miqne (Khirbet el-Muqanna⁶) as the Philistine capital city of Ekron, the city's historical importance, the history of the project, and a summary of the six major occupation periods from Middle Bronze Age II Stratum XI of the 17th/16th centuries through late Iron Age IIC Stratum IA of the early 6th century BCE appears in *Ekron* 8.¹

A: GOALS OF THE 1985–1988, 1990, 1992–1995 SEASONS IN FIELD IV LOWER

In 1985, the excavations of Field IV Lower began with four 5 sq m areas—Areas IVSE.16, IVSW.8, IVNE.1, and IVNW.9—opened every 48 m along a 222 m line extending northward from Field III across the center of the lower city (see the Grid Plan in *Ekron* 9/3B) up to the edge of the slope of the northwest acropolis in Field V. The purpose was to determine the stratigraphic profile of the center of the city. The results showed that there was a gap in occupation between Stratum IV of the 11th/10th century and Stratum I of the 7th century BCE, as also observed in Field III on the southern periphery of the lower city. Of the four areas, IVNW.9 produced the most promising results, yielding a large assemblage of exceedingly rich finds

sealed by a massive destruction, a phenomenon paralleling the pattern found in Field III.² Consequently, three new areas were opened in 1986 contiguous with Area IVNW.9—Areas IVNW.8, IVNW.24, and IVNW.25—all of which produced the same stratigraphic profile, including the 10th–8th century gap in occupation.³ In subsequent seasons, Field IV Lower was further expanded to establish a large horizontal exposure of the center of the two main Iron I and Iron II Philistine cities. By the last season in 1995, a total of 28.5 areas (Areas IVNW.7, 8, 9, 10, 11, 23, 24, 25, 26, 27, 39, 40, 41, 42, and 43; IVNE.7, 8, 9, 10, 11, 23, 24, 25, 26, and 27; IVSW.8; IVNE.1; IVSE.16; and half of IVNE.6) had been opened, exposing a total of 1,850 sq m, including 250 sq m of MB II, 700 sq m of Iron I, and 900 sq m of Iron II occupation (see the Grid Plan in *Ekron* 9/3B).⁴ The nature of Field IV Lower proved to be vastly different from the olive oil industrial zone excavated in Field III. While Area IVSE.16 was part of the industrial zone and Areas IVSW.8 and IVNE.1 to the south of the center of the city were part of a domestic zone, the remaining 25.5 areas to the north in the center of the lower city showed that this part of the city was an elite zone in both the Iron I and late Iron II. The excavation of the elite zone offered an opportunity to analyze the growth and development of Philistine material culture from the initial period of settlement in the second quarter of the 12th century to the final major period of occupation in the 7th century.⁵ This was based on the comparison of the two large and

1. See Gitin 2006a. For overall summaries of the results from all the fields of excavation, see *NEAEHL* 3: 1051–59; *NEAEHL* 5: 1952–58.

2. Dothan and Gitin 1986: 107.

3. Dothan and Gitin 1987: 66–67.

4. Four other areas—IVNW.55, 56, 57, and 58—opened only at topsoil level are not included in the 1,850 sq m total.

5. The meager post-7th century remains represented only a minor presence in Field IV Lower in the early 6th century.

extensive archaeological samples from the center of the earliest and the latest Philistine cities. Specifically, Field IV Lower provided data for examining and comparing the architectural form, construction technique, and function of a series of monumental buildings, as well as the development of ceramic morphology, cultic practices, and economic activity, and the impact of other cultures on the Philistines over a 600-year time span.

B: FIELD REPORT AND ARCHIVES

This final report is designed to enable the reader to reconstruct the excavations three-dimensionally. The data in the chapters, appendices, and indices present the stratigraphic position of each architectural element and artifact (their context) and a comprehensive understanding of the results within their historical setting. The available data include the narratives on occupational history presented in Chapter 1 and in *Ekron* 9/1 Chapter 2, with block plans and photos; the database in *Ekron* 9/3A, with the area context charts in Appendix 1, area phasing charts in Appendix 2, locus summaries in Index A, and material culture samples in Index B; and a full set of sections and plans in *Ekron* 9/3B. In addition, the chapters on pottery and objects include references to their findspot by stratum, locus, building and room or other architectural unit.⁶

In the Mique recording system, a locus number begins with the number of the excavated area (square) followed by three digits, accommodating up to 999 excavated loci in each area. Some locus numbers are followed by letters (A–D), indicating a sub-division of the locus or an adjacent locus discovered after the next series of numbers had already been assigned that required a defining number (e.g., 7011B). The letter P following a locus number as in 8020P indicates (usually restorable) pottery found on a surface, and a locus number followed by .1 indicates that the locus was dug to a depth of ca. 10 cm consisting of surface make-up

or fill immediately below the surface (e.g., 8020.1). This was intended to provide tight stratigraphic control of material culture relating to floors. Locus numbers are preceded by a defining word designation, for example, Wall, Surface, Debris, Hearth, Fill, Pit, etc. Given the large size of the tell including two parts, an upper and a lower tell, a single grid was not used, since the grid numbers for an area (square) would have had too many digits and become overly cumbersome. Instead, the principle of an expanding grid was employed, which allowed for each excavation field to have its own grid divided into quadrants: northwest (NW), northeast (NE), southwest (SW), and southeast (SE). As a result, each quadrant has its own set of locus numbers, differentiated by the quadrant designation. For example, the locus number 9007 could appear in each field and each quadrant, distinguished by the field and quadrant prefix, as in IVNW.9007 and IVNE.9007. Pottery bucket numbers are also differentiated by field, quadrant, and area, so that, for example, pottery bucket 25 from Area 9 in the northeast quadrant in Field IV would be designated IVNE.9.25.⁷

Since the discussion of the occupational history and stratigraphy of Field IV Lower deals separately first with the northwest and then the northeast quadrant, the locus numbers were not prefixed by the IVNW and IVNE designations unless the cited locus was in the other quadrant. This also applies to locus numbers cited on the plans, as it is clear in which quadrant the locus appears, and in the sections, since each has the full area description title (e.g., IVNW.24). In Appendices 1 and 2 and Indices A and B in *Ekron* 9/3A, the areas are prefixed by the quadrant designation in the heading on each page. In the pottery plate descriptions, the locus number is noted separately following the pottery bucket number that includes the field, quadrant, and area designations, and the same information is provided in the object chapters.

6. The text in *Ekron* 9/1 and 9/2 deals only with the areas in the main part of Field IV Lower, the northeast and northwest quadrants. All of the excavated data, including those from the other quadrants and the first season probes (Areas IVNE.1, IVSW.8, and IVSE.16) appear in the indices in *Ekron* 9/3A.

7. For a full discussion of the field methods and recording system, which were based on the Balk/Debris Layer Method, see Lance 1966; Seger 1971; Dever and Lance 1978; and *Gezer III* (HUC): 9–10. In its implementation, many of the fundamental aspects of the general Near Eastern “architectural” tradition were incorporated as a result of the ongoing methodological discussions between the two project directors.

The excavation records in hard-copy and digital form, with a complete set of photos and negatives, are on file in the archives at the Albright Institute, 26 Salah ed-Din Street, Jerusalem. All the pottery, objects, and

material culture and environmental samples from Field IV Lower have been turned over to the Israel Antiquities Authority for storage in the archival facility located in Beth-Shemesh.

CHAPTER 1

OCCUPATIONAL HISTORY: THE STRATIGRAPHY AND ARCHITECTURE OF IRON AGE II STRATA PRE-IC, IC, IB, AND IA

Seymour Gitin, Yosef Garfinkel, and Trude Dothan

INTRODUCTION

Following the destruction of Stratum IVA in the first quarter of the 10th century BCE at the end of the Iron Age I, the entire lower city of Ekron was abandoned, remaining unoccupied for 270 years until the very end of the 8th century BCE.¹ This occupational gap is equivalent to Iron IIA–B Strata III–IIA in the upper city located on the Northeast Acropolis (Field I).² Renewed activity in Field IV Lower is indicated in Stratum Pre-IC by the large assemblage of scoops and storage jars typical of the end of the 8th century sealed between Stratum IVA and Stratum IC.³ In Stratum IC of the beginning of the 7th century, Field IV Lower was again reoccupied on a massive scale, as was the rest of the lower city, and extended northward into the area of the modern Nahal Timnah, adding 35 acres to the lower city and increasing the size of Ekron to 85 acres. The upper city was rebuilt at the same time.⁴

Occupying the center of the lower city, part of Ekron's cultic center in the elite zone, Field IV Lower contained a complex of five *Temple Auxiliary Buildings 651–655* and *Street 656* and *Alley 657*.⁵ The elite, industrial, and domestic zones, together with the fortifications, represent the components of the well-

designed town plan of 7th century Ekron (Color Fig. 1.1).⁶

It was in Stratum IC dated to the first three quarters of the 7th century that Ekron reached the zenith of its physical and economic growth. An alternative date, however, for the beginning of Stratum IC in the second half of the 8th century has been suggested by Na'aman according to his understanding of when Ekron began to expand in the late Iron II. He bases this on a number of Assyrian tribute texts and the Azekah inscription, which appear to describe Ekron as a prosperous fortified city in the second half of the 8th century.⁷ If Na'aman's identification of Ekron as the city referred to in these texts is correct, this would fit the Stratum IIB fortified upper city of the second half of the 8th century on the Northeast Acropolis,⁸ but not the Stratum IC expansion and massive reoccupation of the lower city of Ekron in the 7th century. The conditions that generated this growth were Ekron's favored-nation status within the Neo-Assyrian Empire⁹ and the development of its olive oil industrial center, which can be dated only to the 7th century.¹⁰ If Ekron's expansion in Stratum IC had occurred in the

1. The lower city comprises Fields II, III, IV Lower, IV Upper, VII, IX, and X.
2. *NEAEHL* 3: 1056.
3. *NEAEHL* 5: 1956.
4. *NEAEHL* 5: 1955.
5. The Temple Auxiliary Buildings lay immediately to the south of the other part of the elite zone cultic center in Field IV Upper, Temple Complex 650 (*NEAEHL* 5: 1956).

6. For the fortifications and industrial and domestic zones, see Gitin 1997: 87–101.
7. Na'aman 2003: 84–85.
8. *NEAEHL* 5: 1955.
9. Na'aman 1998: 223; see also Gitin 1997: 85–87.
10. Gitin 2003a: 55*–56*. This huge industrial complex, the largest olive oil production center thus far uncovered in the ancient Near East, is represented by the industrial zone in Fields II and III, located inside the city along the line of its fortifications (Gitin 1990: 36–40; 1996: 222–27; Eitam 1996: 167–75).

second half of the 8th century, the lower city would have produced a large and comprehensive assemblage of 8th century pottery types, which is not the case.¹¹ Alternative dates for Stratum IC have also been suggested by James and Stager. James has proposed lowering the beginning date of Stratum IC to 675/650 BCE based on his dating of the Ekron Royal Dedicatory Inscription.¹² Stager argues that Stratum IC, in addition to Stratum IB, belongs to the period of Egyptian hegemony, which he dates to 640–604 BCE.¹³ Their proposed lowering of the date of Stratum IC, however, would create a significant gap of a quarter- to half-a-century in the history of Ekron at the very time that it was, according to the Neo-Assyrian Annals, a prosperous Assyrian vassal city-state; such a gap does not exist in the archaeological record for the Stratum IC occupation phase.¹⁴

In Stratum IB of the last quarter of the 7th century, Ekron came under the Egyptian sphere of influence.¹⁵ This last major occupation phase, destroyed by the

Neo-Babylonian King Nebuchadrezzar in 604 BCE,¹⁶ produced in Field IV Lower one of the largest assemblages of 7th century whole and restorable vessels, 16 inscriptions, three silver hoards, seven four-horned incense altars,¹⁷ five limestone incense stands,¹⁸ a cultic corner with two of the four-horned incense altars and the two complete incense stands, assemblages of figurines, and a host of other important objects.¹⁹ The final phase at Ekron following the city's destruction, Stratum IA, dated to the first quarter of the 6th century, was barely in evidence in Field IV Lower, represented by a few walls and a limited amount of pottery.²⁰

The two quadrants of Field IV Lower, northeast (NE) and northwest (NW), are presented separately in the discussion of each stratum below. This format is used throughout the Field IV Lower report, following the field recording system described on p. xxiv. When the same architectural feature appears in both quadrants, the part of the feature in the quadrant not under discussion is prefixed by its quadrant designation (for example, Wall/Socle 8006/8012/IVNW.8005 in the discussion of Building 654 in the northeast quadrant); a locus number may also be preceded by its quadrant designation in order to differentiate it from a locus of the same number in the other quadrant. All other locus numbers appear without their quadrant designation.

STRATUM PRE-IC: END OF THE IRON AGE IIB (end of the 8th century BCE)

The Stratum Pre-IC phase is represented in Field IV Lower in the northwest quadrant only by a debris/fill layer containing 32 ceramic scoops on or slightly

11. The 10th–8th century pottery assemblage found in Field IV Lower is composed of only 327 Residual Forms A, comprising only 3.47% of the Field IV Lower ceramic corpus of 9,437 vessels (for the definition of Residual Forms A, see the discussion in Chapter 2; for lists of residual forms from Stratum IB, see Chapter 4A: n. 2). The residual forms belong to the earlier Iron II Strata III–II documented only in the upper city (the Field I Summit). A discussion of these types, together with all of the Strata III–II pottery, will appear in *Ekron* 13/1–2. A similar phenomenon is reflected in the presence of the limited corpus of Late Bronze Age pottery in the lower city. In both cases, the quantity and types of pottery do not support the existence of occupation levels in the lower city during either the Late Bronze Age or the Iron IIA–B. This is confirmed by the stratigraphic gaps in the lower city for these periods, and is part of the established pattern of expansion when both the upper and lower cities are occupied and of contraction when only the upper city is occupied. For an analysis of the Late Bronze Age pottery and other evidence to support the conclusion that there was no occupation in the lower city in this period, see Gittlen 1992.

12. James 2006: 88–89.

13. Stager 1996: 71*.

14. For full discussions, see Gitin 2003a; 2012.

15. See Gitin 1998a: 173; while the city's industrial complex continued to function, olive oil production was somewhat diminished (Gitin 1997: 99).

16. See Gitin 2003a: 57*–59*.

17. One of which was found in secondary use (see below nn. 65, 216).

18. Two complete, one almost complete, and two fragmentary.

19. The objects, including those presented in this volume, will be published in full in the pertinent chapters in *Ekron* 14/1–2.

20. The best of the limited evidence for this stratum came from Field IIINE in the form of an Assyrian-type courtyard building, which continued into the first quarter of the 6th century (*NEAEHL* 3: 1057).

above the long-exposed destruction debris of Stratum IVA (Photos 1.1–1.2).²¹ Together with the 15 storage jars found in this stratum, they represent a limited renewed presence of short duration at the very end of the 8th century.

Stratum Pre-IC (NW)

In *Open Areas 640a* and *640b*, the scoops and storage jars were sealed by floors and wall foundations of the Stratum IB/C buildings in the northwest quadrant: the scoop fragment in Debris **23011** and the storage jars in Fill **23010** sealed by Stratum IB/C Surface **23006** (IVNW.23 east section; Fig. 4A.22:7); the scoops and storage jars in Fill **24019**, in Debris **24021P** on Stratum IVA Surface **24021**, and in Debris **24024** sealed by Debris/Surface Make-up **24015.1** (IVNW.24

north and south sections; Fig. 4A.10:3); the scoops in Debris **39010.1** and in Debris **39011** sealed by Stratum IC Surface **39010** (IVNW.23 [39] west section; Figs. 4A.8:1, 3, 5–6, 4A.9:1–2, 4A.10:1, 4); the scoops in Fill **39014** covered by Stratum IB/C Threshold Make-up **39008.1**; and the scoops in Debris **40007** and in Debris **40008** sealed by Stratum IB/C Surface **40004** (IVNW.40 north, south, and east sections; Photo 1.1; Figs. 4A.9:3–4 [Color Photo 4A.1:16], 4A.10:2). While Stratum Pre-IC Fill **8016** and Debris **8026** sealed by Stratum IB/C Wall **8006** and Surfaces **8012** and **8020** also contained storage jars (IVNW.8 west section; Photos 1.15–1.17; Fig. 4A.22:5 [Color Photo 4A.3:7]), Stratum Pre-IC Fill **8023** and Debris **41028** did not produce either scoops or storage jars.

The Stratum Pre-IC assemblage of scoops and storage jars have been related to food distribution at the time when the Judean King Hezekiah took control of Ekron in an attempt to fortify his western border against the impending attack of Neo-Assyrian King Sennacherib,²² which ultimately occurred in 701 BCE.²³ To prepare for the anticipated siege, Hezekiah apparently stored large quantities of food at Ekron and other cities,²⁴ as indicated by the large assemblage of scoops found in destruction levels dated to the end of the 8th century at other sites on Judah's western periphery. At Timnah (Tel Batash), for example, the 30 scoops from Stratum III,²⁵ like those at Ekron, were also found in the proximity of large groups of storage jars.²⁶ Gitin has suggested a similar interpretation for the 70 scoops from Lachish Level III.²⁷ However, according to David Ussishkin (Director of the Tel Aviv University expedition to Lachish), since these vessels, defined as

21. There are two reasons for the discrepancy between the number of scoops from Field IV Lower, namely, 53, initially assigned to Stratum IC published in Gitin 1993a: 106* and that recorded in the pottery quantification data in Chapter 4C, namely, 32, assigned to Stratum Pre-IC: (1) the higher number of 53 was determined while the restoration process was ongoing and included all the Stratum Pre-IC types, some of which were separately-counted fragments that later turned out to come from the same scoop; (2) only when the restoration process had been completed and a final stratigraphic attribution was made for each scoop could the corpus be quantified and the exact number of Stratum Pre-IC scoops be determined. Thus, in addition to the 32 scoops (Photos 1.1–1.2) of Types IISCP 1, 1.1, 2, 3, 4, 5, 6, 6.1, and 6.2 that had been stratigraphically attributed to Stratum Pre-IC, another 22 Stratum Pre-IC types (Types IISCP 1.1, 5, 6, and 8) were identified from Stratum IC and IB contexts, equaling 54 Stratum Pre-IC-type scoops of the total number of 80 accounted for in Chapter 4C. The corpus of 80 scoops includes 79 Iron II examples—54 scoops of Stratum Pre-IC types, 7 of Type IISCP 7 deriving from Stratum IC, IB, and top-soil contexts, 2 miscellaneous types, and 16 fragments that, although clearly Iron II in dating, could not be typed. The remaining scoop is of Iron I Type ISCP 9. The numbers quantified in Chapter 4C include IISCP types that are in fact variants and were subsequently combined with the primary type: Type IISCP 1.4 was combined with Type IISCP 1.1; Types IISCP 5.4, 5.5, and 5.14 were combined with Type IISCP 5; and Types IISCP 7.1 and 7.3 were combined with Type IISCP 7. The miscellaneous examples are Types IISCP 10 and 11.

22. Gitin 1993a: 106*.

23. *ANET*: 288–89.

24. Mazar 1990: 457–58; Halpern 1991: 23–24, 26, 38–39.

25. This number is based on an oral communication from Nava Panitz-Cohen cited in Gitin 1993a: 126*. According to the more recent Timnah field report, however, there may have been more than 30 scoops, based on the count of 148 scoop rim fragments (*Timnah II*: 147).

26. *Timnah II*: 51.

27. Originally 65 in Gitin 1993a: 106*. The total of 70 includes two found by the British expedition to the site and 68 found in the Israeli excavations: 27 complete examples and 41 fragments (see Ussishkin 2004a: 1900–3).

asymmetrical bowls, were not found in association with storage jars, they should not be related to food distribution.²⁸ On the other hand, in discussing their findspots in Level III, Ussishkin points out that “the asymmetrical bowls were mostly found in the gate passage and the adjoining chambers of the inner city gate, and were probably placed there during the siege (Assyrian), prior to the destruction of the gatehouse. Since the city gate at that time was blocked and was no longer used for passage in and out of the settlement, one could have kept bowls in the gate passage.”²⁹ Also significant is that Room 4014 adjoining the blocked inner city gate on its northern side³⁰ produced 54 storage jars, and was consequently defined as a store room.³¹ If the inner city gate had been turned into a large enclosed space at the time of the Assyrian siege, it is not inconceivable that the entire inner city gate area, gate passage, and adjoining rooms, which yielded both scoops and storage jars, were used for food distribution. This conclusion is supported by the 15 scoops, together with *lmlk*-stamped storage jars, found in the Israel Antiquities Authority excavations of the inner city gate conducted by Saar Ganor.³² Ironically, in referring to the “asymmetrical bowls,” Ussishkin also states that the “Iron Age group must have had some function connected to the Assyrian siege at the end of Level III.”³³ A logical interpretation would be the function suggested by Gitin, namely, food distribution. This fits with the archaeological evidence and the historical context of the events of 701 BCE, and the scenario of Judah fortifying its western border cities—Ekron, Timnah-Tel Batash, Beth-Shemesh, and Lachish—and storing large quantities of food in these cities in anticipation of the impending Neo-Assyrian campaign.³⁴

Other examples of this combination of vessel assemblages and physical context, with scoops found in storage or commercial areas together with significant numbers of all types of storage jars, also fit the criteria of food distribution. Dating to the same period as the Ekron assemblage are 17 scoops from Moza, eight of which were found inside silos,³⁵ five scoops from a large silo in Beth-Shemesh Stratum IIc,³⁶ and one from a “storehouse” in Tel Ira Stratum VII,³⁷ as well as one from Beersheba Stratum II and one from Taanach.³⁸ Scoops also appear together with storage jars in storage or commercial areas in 9th/8th century Iron IIB contexts preceding the late 8th century Assyrian campaign, including at least 20 examples from Beth-Shemesh Stratum III³⁹ and one from the Ophel in Jerusalem.⁴⁰ Thus, there is strong evidence in support of the function of scoops as a vessel involved in food distribution in the Iron IIB.

Stratum Pre-IC yielded only a smattering of pottery sherds besides the 32 scoops and 15 storage jars. These sherds represent 79 additional vessels—including a unique sherd from an imported Attic Middle Geometric cup with a meander decoration (Fig. 4A.6:15)⁴¹—bringing the total ceramic assemblage from this phase to 126 vessels.⁴² This assemblage comprises only 1.28% of the total Iron II ceramic corpus of 9,836 vessels from Field IV Lower,⁴³ and it is the only evidence found anywhere in the lower city

28. See Ussishkin 2004a: 1904, where he also rejects the proposed association of the Late Bronze Age scoops from Lachish with food distribution (Gitin 1993a: 104*). For the most recent treatment of this subject, see Zuckerman 2007: 322–25.

29. Ussishkin 2004a: 1903.

30. See the plan in Ussishkin 2004a: 1902, Fig. 26.67.

31. Zimhoni 2004a: 1790.

32. S. Ganor, personal communication; for a similar conclusion, see Katz 2004: 269.

33. Ussishkin 2004a: 1903.

34. See also Gitin 1993a: 106* and the references in n. 24 above.

35. Greenhut and De Groot 2009: 105.

36. *Ain Shems IV*: Pl. 66:18–22; *Ain Shems V*: 137–38.

37. Freud 1999: 198.

38. See Gitin 1993a: 106*–107*.

39. *NEAEHL* 3: 1646–47; the number of scoops was provided in an oral communication from Shlomo Bunimovitz.

40. *Ophel*: 40.

41. See also Waldbaum 1994: 58; Coldstream 1998: 364.

42. See Chapter 4C for the specific forms; for examples of bowls, see Figs. 4A.1:1–3, 4A.2:21, 27, 31, 4A.3:6, 33, 4A.4:8, 4A.5:10, 4A.6:5, 14, and 4A.7:10; for kraters, see Fig. 4A.13:10; for holmouth jars, see Fig. 4A.23:3, 7, 14; for amphorae, see Fig. 4A.24:6; and for jugs, see Fig. 4A.26:6; for their dating, see Chapter 4A.

43. While the quantitative database of the Field IV Lower ceramic corpus presented in Chapter 4C includes the entire Iron II corpus of 9,836 vessels, the quantitative analysis in Chapter 3 deals only with the corpus of 6,205 vessels from Stratum IB in Buildings 651–654.

that can be related stratigraphically to an Iron II presence earlier than Stratum IC. Elsewhere in the lower city—in Fields II, III, and IV Upper—as in the rest of Field IV Lower, Stratum I was built directly over the last phase of the Iron I, Stratum IVA, with no intervening Iron II occupation phases.⁴⁴ The “scoops phase” lacked architectural features, but had proscribed spatial parameters. In addition to the minimal ceramic assemblage, it yielded only a few small finds, including an ivory plaque (Obj. No. 1510 [Fig. 5.2:6]⁴⁵) and an iron blade (Obj. No. 1528⁴⁶). All of this indicates very limited activity within a short time-frame that, based on the pottery, occurred in the late 8th century, and based on historical inference, at the very end of that century.⁴⁷

STRATUM IC: IRON AGE IIC (first three quarters of the 7th century BCE)

Stratum IC (Block Plan I) was for the most part built directly over the abandoned remains of Stratum IVA of the end of the Iron I⁴⁸ and over Stratum Pre-IC *Open Area 640*.⁴⁹ Stratum IC is the earlier of the two late Iron II strata represented by the large complex of *Temple Auxiliary Buildings 651–655*, best preserved in its final phase, Stratum IB. The remains of the Stratum IC plan appear only in *Buildings 651, 653, and 654*, represented by a limited number of architectural features, including walls, surfaces, and installations, sealed between Stratum IVA and Stratum IB.⁵⁰ Other evidence for Stratum IC is represented by architectural elements in secondary use in Stratum IB, which are

discussed below. As mentioned above, Stratum IA, the final Stratum I occupation phase, is only sparsely represented.⁵¹

Stratum IC (NW)

Building 651 in the northwest quadrant of Field IV Lower contained nine Stratum IC architectural elements representing the earliest phase of Rooms c, e, and f. In Room e, stone Socle **25029** was bonded to the western end of stone Socle **25030**, forming the northwestern corner of the room. This corner, built above Stratum IVA mudbrick Walls **25038** and **25032**, had a slightly different orientation from the corner of the room formed by stone Walls **25013** and **25020** in Stratum IB (IVNW.25 south section). The Stratum IC floor of Room e, Surface **25019**, ran up to the eastern face of Socle **25029** and the northern face of Socle **25030**; it lay below Fill **25044** that was covered by Stratum IB Surface **25042** (IVNW.25 east section; Photo 1.14). Surface **25019** was laid over Debris **25025** that covered Stratum IVA Surface **25027**, and extended westward as Surface **9011** (IVNW.25 east section). This surface was covered by Fill **9009** immediately below Stratum IB Surface **9007** and was laid over Fill **9012A** that covered Stratum IVA Surface **9022** (IVNW.9 south section; Photos 1.9, 1.11, 1.13). Cobbles **9019**, possibly an installation, were found in the northeastern corner of the room, and plaster-lined Pit **25051** in the northwestern corner of the room was dug from Surface **25019** (IVNW.25 east section; Photo 1.8). Socle **25029** also served as the eastern wall line in the northern part of Room f. The floor of Room f in the north, Surface **25018**, was covered by Fill **25007** immediately below Stratum IB Surface **25016** and was laid over Fill **25028** that covered Stratum IVA Surface **25034** (IVNW.25 south section; Photo 1.14). The floor of Room f extended southward as Surface **24015**, which was covered by Fill **24014** immediately below Stratum IB Surface **24011** (IVNW.24 north, east, and south sections; Photo 1.16). Surface **24015** was laid over Debris **24019** that covered Stratum IVA Surface **24021** (IVNW.24 north and south sections). Another Stratum IC floor, Surface **39010**, found in Room c in the southwest, was covered by Fill **39009** immediately below Stratum IB Surface **39003** (IVNW.39 east

44. For Field II, see *Ekron 5*: 8, 41, 43, IISW.245 south section; the data from Field III will be published in *Ekron 12/1–3*, and from Field IV Upper in *Ekron 10*.

45. From Debris 24021P.

46. From Debris 24024.

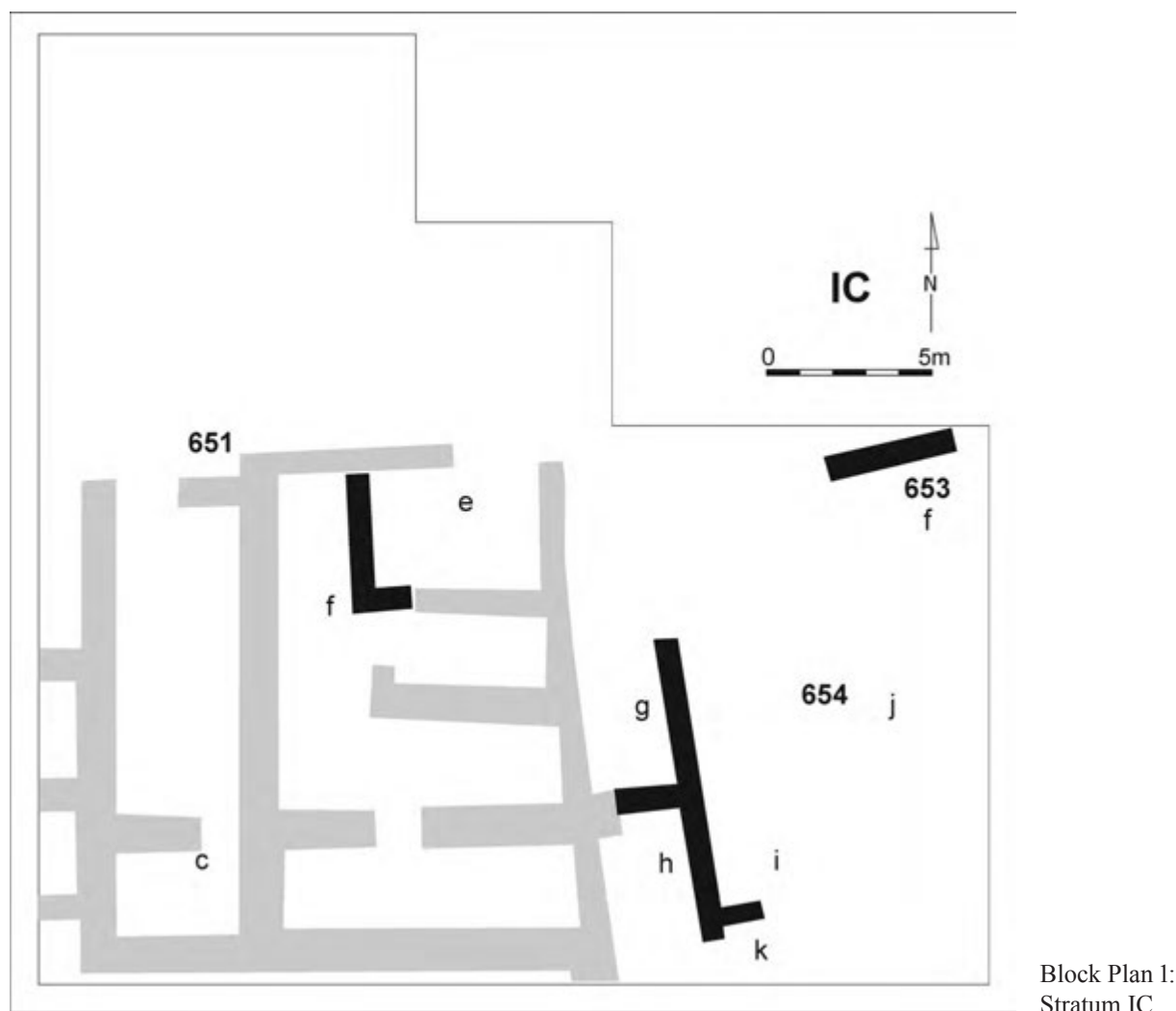
47. See the references in nn. 23–24 above.

48. For the dating of Stratum IVA, see Gitin, Garfinkel, and Dothan 2016.

49. A sub-phase of Stratum IC, Stratum ICb, is represented by material culture found below the Stratum IC surfaces and above Stratum Pre-IC.

50. A number of Stratum IC vessels were assigned to Buildings 652 and 655 and Street 656, as they were found in the Stratum IB construction phase of these architectural units (see Chapter 4C).

51. See n. 20 and the associated text.



section). Surface **39010** was laid over Fill **39011** that covered Stratum IVA Surface **39013**.

The Stratum IC pottery came mostly from fill and debris loci; some examples typologically assigned to Stratum IC came from later contexts.⁵² Special objects from *Building 651* Room e include a silver earring (Obj. No. 577 [Table 6.2:3]), a silver ring (Obj. No. 580 [Table 6.3:3]), and an inscribed four-shekel weight (Obj. No. 1220).⁵³ Another special object, large basalt Altar **23012** (Obj. No. 2577, Photo 1.19), was assigned,

with reservations, to the construction phase of Stratum IC.⁵⁴

Stratum IC (NE)

Building 653 and *Building 654* in the northeast quadrant of Field IV Lower respectively contained two and 11 Stratum IC architectural features. These represent elements of an architectural plan that were not reused in Stratum IB, and were therefore assigned different room letters to those used for Stratum IB.

In *Building 653*, Wall **25051** represented the north-south wall line of Room f. It was set into the lower part of Stratum IC Fill **25025**, with parts of the

52. For the specific forms, see Chapter 4C: Building 651. One of the best diagnostic examples is the bowl in Fig. 4A.1:36.

53. All from Fill 9012A (all the weights from Ekron will be published in Raz Kletter's chapter in *Ekron* 14/1–2).

54. See Gitin, Garfinkel, and Dothan 2016: 24, n. 53; *Ekron* 9/3A: Index A, Locus 23012.

wall founded in Stratum IVA Debris **25031**, **25032**, and **25033**. Wall **25051** was covered by Stratum IB Walls **25012** and **25019** (IVNE.25 west section; Photo 1.21:14). The Stratum IC surface level of Room f was determined by the top of the locus of six Sunken Jars **25026** dug into Fill **25025** in the western part of the room immediately to the south of Wall **25051**.

In *Building 654*, the main architectural feature was north–south Wall **7021/8031** (Photo 1.37). Wall **7021** separated Rooms h and i and Wall **8031** was the eastern wall of Room g. Wall **7021** was founded on Stratum IVA Wall **7031** and was covered by Stratum IB Fill **7020B** and Surface **7011** (IVNE.7 north section; Photo 1.21:25). Wall **8031** was founded on Fill **8035** that covered Stratum IVA Wall **8041**, and was phased out by Stratum IB Surface **8016** (IVNE.8 south section; Photos 1.21:31, 1.32–1.33, 1.42). East–west Wall **7028/8055** separating Rooms g and h abutted the western face of Wall **7021/8031**. The floor for Room h, Surface **7026**, was laid over Fill **7034** that covered Stratum IVB Surface **7040** (IVNE.7 north and west sections; Photo 1.37), and the floor of Room i, Surface **7025**, was laid over Stratum IVA Debris **7033** and was covered by Debris **7023** and Fill **7020B**, the foundation for Stratum IB Surface **7011** (IVNE.7 north section; Photo 1.21:25). Circular stone Installation **7029** associated with Surface **7025** was set into Debris **7025.1**. The Room g floor, Surface **8034**, into which Jar **8039** was sunk, was laid over Stratum IVA Debris **8040** and covered by Fill **8029** on which Stratum IB Socle **8003** was founded (IVNE.8 south and west sections; Photos 1.21:20, 1.32–1.33). Wall **7021** was bonded at its southern end to form a corner with Wall **7022** that separated Rooms i and k (Photo 1.37). Wall **7022** was founded on Debris **7033** covering Stratum IVA Surface **7035**, and was covered by Fill **7020B**, the foundation for Stratum IB Surface **7011** (Photo 1.21:25). The floor of Room k was Surface **7057**. In Room j to the east, Jar **24024** was set into Fill **24019**, the foundation layer for the architectural features of Stratum IB Room e (IVNE.24 north, west, and east sections).

The Stratum IC pottery came mostly from fill and debris loci; some examples typologically assigned to Stratum IC derived from later contexts.⁵⁵ Special

objects included astragalai (Obj. Nos. 9649⁵⁶ and 9657⁵⁷), a ceramic bulla/seal (Obj. No. 3634, Color Photo 5.1:4⁵⁸), an iron arrowhead (Obj. No. 3541⁵⁹), two grinding stones, a rubbing stone, and a limestone mortar (Obj. Nos. 3496, 3498–3499, 3517⁶⁰ [Table 9.10]).

The Stratum IC construction phase also included loci in *Buildings 651* and *654* designated as Stratum ICb in the pottery discussion in Chapter 4A. These loci contained 241 vessels typical of the 8th/7th century transition, and represent 3.4% of the 7,093 vessels from the two buildings.⁶¹ The total number of 1,679 vessels from all the Stratum IC excavation units⁶² represents 17.07% of the total of 9,836 vessels in Field IV Lower.

STRATUM IB: IRON AGE IIC (last quarter of the 7th century BCE)

The Stratum IB complex of *Temple Auxiliary Buildings 651–655* comprised the southern part of the Ekron's cultic center (Block Plan 2). The northern part, *Temple Complex 650*, with the city's central sanctuary, located immediately to the north in Field IV Upper,⁶³ was separated from *Temple Auxiliary Buildings 651–655*

Figs. 4A.1:6, 35 (Color Photo 4A.1:4), 4A.3:36, 4A.5:6, 16. For their dating, see Chapter 4A.

55. For the specific forms, see Chapter 4C: Buildings 653–654. The best diagnostic examples include the bowls on

56. From Fill 7020B. Although assigned to Stratum IB, this fill was sealed by Stratum IB Surface 7011 and lay over and included some of the material from Stratum IC Debris 7023 and Surface 7057.

57. From Debris 7023, Building 654 Room i.

58. From Debris 7023, Building 654 Room i.

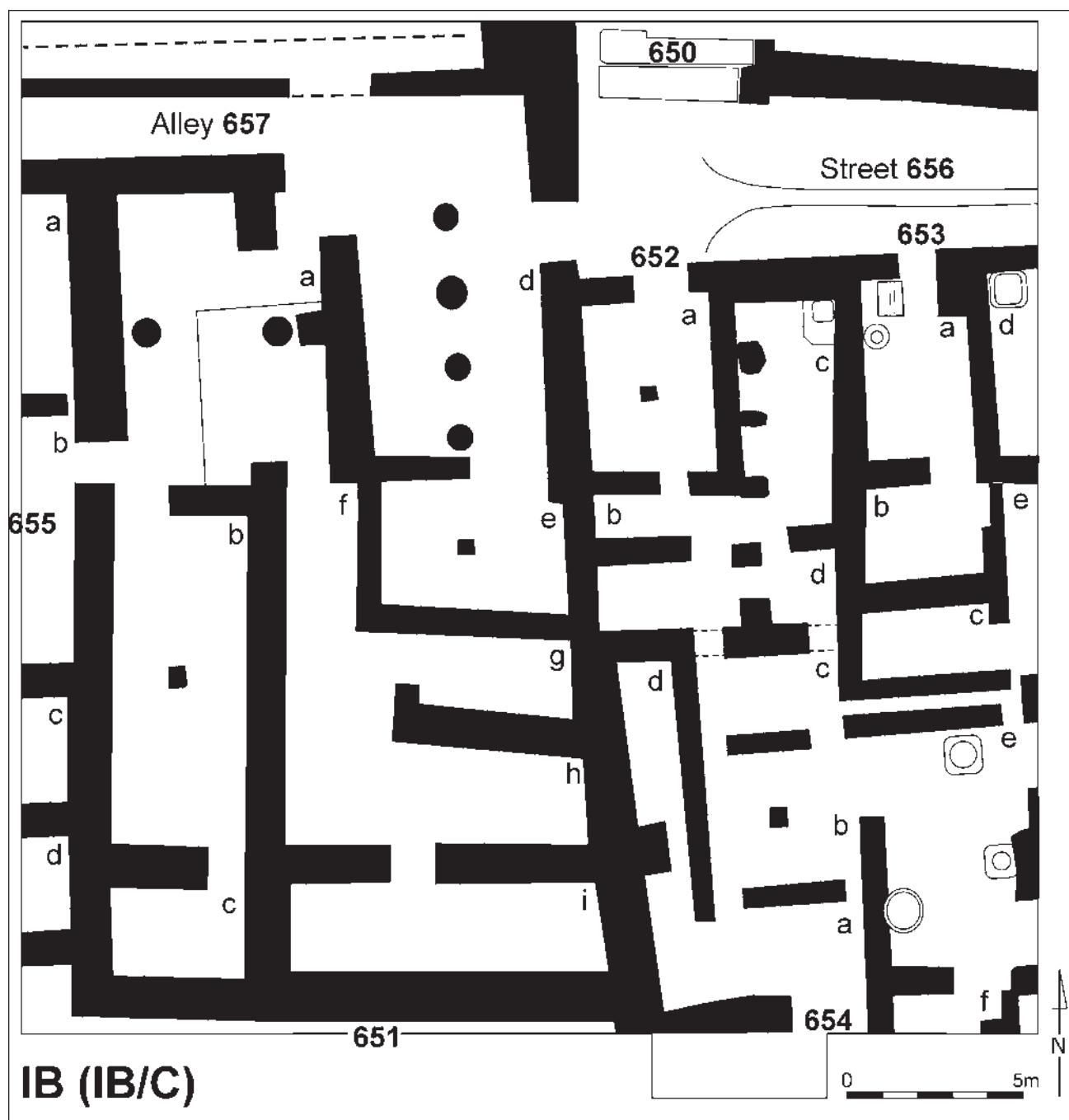
59. From Fill 8029, Building 654 Room g. Although assigned to Stratum IB, this fill lay above Stratum IC Surface 8034 and was covered by the floor make-up for Stratum IB Surface 8014 (Photos 1.21:35, 1.33, 1.40).

60. From Fill 25025, Building 653 Room f, the fill into which six neckless storage jars comprising Sunken Jars 25026 were dug.

61. Including topsoil and balk trim; for details, see Chapter 4C: Buildings 651 and 654. For the dating and examples of the pottery, see Figs. 4A.1:18, 4A.2:21, 27, 31, 4A.3:6, 33, 4A.4:15, 4A.5:2, 4–5, 4A.6:4–5, 4A.7:13–14, 4A.11:8, 4A.13:3, 13, 4A.17:2, 4A.22:4, 7, 4A.23:7, 4A.24:7, 4A.25:1, 7, 4A.26:6, 4A.28:10.

62. Including Buildings 651–655 and Street 656.

63. The results of the excavations in Field IV Upper will be published in *Ekron 10*.



Block Plan 2: Stratum IB

by *Street 656* and *Alley 657*. Most of the Stratum IC plan of *Temple Auxiliary Buildings 651–655*, the first of the two phases of this building complex, was incorporated into the Stratum IB complex, in effect creating a Stratum IB/C plan. A significant number of Stratum IC architectural elements were reused in the

construction of the walls of the Stratum IB buildings. These included 17 items of equipment from the olive oil industrial zone.⁶⁴ Five olive oil presses were found

64. A number of which are marked on the Stratum IB (IB/C) plan.

in secondary use: one in Wall **IVNW.25021** in *Building 651* (Photo 1.12); one in Wall **IVNE.10007** in *Building 652* (Photo 1.23); and Presses **IVNE.25021**, **25022**, and **25024** in Wall **25018** in *Building 653* (Photos 1.21:8, 1.22, 1.28–1.29). Three were reused as part of or constituting an installation: Press **IVNE.23009** and Vat (or Press) **24005** in *Building 654* Room e and Press **26003** in *Building 653* Room a (Photos 1.21:38, 41, 1.27, 1.32–1.33). In *Building 652* Room c, olive oil Basin **IVNE.10005** was in secondary use in Wall **10016** (Photos 1.23, 1.25). In addition, four perforated stone weights were reused in the construction of walls and socles: in Wall **IVNW.25020** in *Building 651*; in Socle **42006** in *Buildings 651/655*; in Socle **8011** of Wall **8004** between Rooms b and c in *Building 654* (Photos 1.21:21, 1.24, 1.32–1.33, 1.36); and in Wall **24012** in *Building 654* (Photo 1.21:39). One was reused as Pillar Base **IVNW.40006** in *Building 651* Room b; olive oil press Weight **9020A** was part of an installation in *Building 651* Room d (Photos 1.8, 1.13); another stone weight (Obj. No. 4339) was found in Fill **IVNW.10010** below Stratum IB Cobbles **10006** and Surface **10007** in *Building 651* Room d (Photos 1.6–1.7); and one (Obj. No. 4431) came from Debris **42026** in the debris layers below Stratum IB Cobbles **42007** in *Building 655* Room a. This was a common phenomenon also attested in the Field I Summit and in Fields II and III, and represents one of the major indicators for two occupation phases in the 7th century.⁶⁵

Four of the five Temple Auxiliary Buildings, *Buildings 651–654*, were almost totally excavated, and *Building 655* was partially excavated along the length of the north–south line of its eastern side. *Buildings 651* and *655* lay entirely within the northwest quadrant of Field IV Lower and *Buildings 652*, *653*, and *654* were for the most part in the northeast quadrant.

Stratum IB (NW)

Building 651, the largest of the buildings in Field IV Lower, was built for the most part over Stratum IVA, intermediate Stratum Pre-IC *Open Area 640*, and the limited architectural features of Stratum IC. In some

cases, the walls were constructed directly on top of the Stratum IVA walls, reusing them as foundations. The exterior dimensions of *Building 651* were 13.85×14.60 m in the north and 11.15×15.38 m in the south, for a total area of 373.70 sq m. It contained three units: Unit 1 comprised Rooms a, b, and c; Unit 2, Rooms d and e; and Unit 3, Rooms f, g, h, and i.

Unit 1 was located along the entire length of the western side of *Building 651*. The northern room, Room a, the largest of the three rooms, was square-shaped, with interior dimensions of ca. 5.77×8.07 m and 41.89 sq m of floor space.⁶⁶ Its mudbrick walls founded on thick stone socles and its two pillars and wall-supporting pier suggest that this room had a second storey. The surface of the room was composed of a thick layer of pebbles and cobbles, creating a thick, hard floor that could sustain the weight of pack animals. Adjacent Room d in Unit 2 of *Building 651* and *Alley 657* from which both rooms had direct access also had thick cobble surfaces. The similarity of the surfaces of Rooms a and d and *Alley 657* indicate that the traffic that passed through *Alley 657* was related to the activities in Rooms a and d, the main work/activity areas in *Building 651*. This is in contrast to the interior rooms in the three units of *Building 651*—Rooms b, c, e, f, g, h, and i—which had beaten-earth floors more conducive to lighter work, such as general domestic activities.

Room b, the middle room, had an elongated rectangular shape measuring 3.85×9.23 m, with floor space of 34.97 sq m.⁶⁷ The wide threshold of 2.30 m at the northern end of the room, with no traces of a door jam or socket, provided unhindered access between Rooms a and b, perhaps indicating a close use relationship between them. The much smaller Room c was also rectangular in shape, with interior dimensions of 2.46×3.85 m for an area of 9.47 sq m. Its narrow threshold providing access from Room b, however, had a door socket, indicating that Room c probably served as a closed storage area.

65. Another example is the four-horned altar (Obj. No. 4188) reused in the construction of Wall **IVNE.24008** in *Building 654* Room e (Photo 1.21:22); see the text associated with n. 17.

66. The floor space of 41.89 sq m was calculated by deducting 4.67 sq m taken up by the architectural features from the total area of 46.56 sq m.

67. The floor space of 34.97 sq m was calculated by deducting the 0.57 sq m of space taken up by the architectural features from the total area of 35.54 sq m.

The walls of Room a were represented by stone socles, one of which had part of its mudbrick superstructure preserved. Socle **42006/43005** on the west cornered with Socle **43011/27004** in the north (Photo 1.3).⁶⁸ Mudbrick Wall **26020** built on Socle **26006/25048** formed the eastern wall line of the room⁶⁹ and cornered with Wall/Threshold **25012** that abutted mudbrick Wall **41016** in the south (IVNW.26 south section; Photos 1.14, 1.21:14).⁷⁰ That the room was roofed is indicated by the two Pillar Bases **26026** and **42012** located at mid-point of the western and eastern walls of the room (Photo 1.3). On top of Pillar Base **26026**, Posthole **26023** was composed of a small ring of cobblestones and plaster (Photo 1.4); and between Pillar Base **26026** and Wall **26020** was a stone block that may have served as a pier supporting Socle **26006**.

The floor of Room a was primarily made up of cobble and pebble Surface **26015/42010/42011** in the northern half of the room⁷¹ and cobble and pebble Surface **25005/25007**⁷² and Flagstones **41013**⁷³ in the southeast (Photos 1.3, 1.14). Beaten-earth Surface **42011** continued southward as an upper layer extending over the southwestern part of the room, covering plaster Surface **42020** (Photo 1.3).⁷⁴ The north-south line of Stones **42019** in the center of the room served as a curb for raised plastered Surface **26019** that was 15–20

cm higher than the floor level in the rest of the room, and may indicate an activity peculiar to that part of the room (Photos 1.3–1.4). The main entrance to Room a, which was also the main entrance to *Building 651*, was in the northeastern corner between Socle **26016**⁷⁵ that cornered with the eastern end of Socle **27004** and the northern end of Wall **26020**. The entrance opened onto *Alley 657*, formed on the north by the line of Wall **27018**, the remnants of the southern wall of *Temple Complex 650*, and the curb of Cobbles **43010**, and on the south by Socles **27004/43011**. *Alley 657* seems to have extended into the northern end of Room d. The pavement of the alley, composed of cobble Surfaces **43008/43013**, was founded on a thick base layer of Cobbles and Fill **27008/27014/27023**⁷⁶ and Cobbles **43014/43014.1/43021**⁷⁷ that varied in thickness from 0.30–0.40 m. The intermediate layers of cobble surfaces in *Alley 657* were mostly likely the result of the intentional construction of the thick surface needed to support heavy traffic like that of pack animals, as well as to absorb the water from rainfall and run-off from the buildings on either side of the alley. Drain **43022** parallel to the northern face of Socle **43011** was part of the water run-off system in *Alley 657*. There was a similar construction technique of layers of cobbles and pebbles in *Street 656*, with central Drain **IVNE.11009/IVNE.27008** (Photo 1.44). It also mirrored the above-mentioned construction of the floors of *Building 651* Rooms a and d that opened onto *Alley 657*.

Access from the southern end of Room a into adjacent *Building 655* to the west may have been via what appears to be a break between the southern end of Socle **42006** and the northern end of Socle **41021**. Installation **41006/42021** at the northern end of Socle **41021** may have been part of a door jamb for a threshold (Photos 1.3, 1.5). There also seems to have been access from the south of Room a into Room f in Unit 3 in *Building 651* through Wall/Threshold **25012** (Photos 1.14, 1.21:14). The best defined access from Room a southward, however, was into Room b through wide Threshold **41020** between mudbrick Wall

68. Socle 42006, which included a reused perforated stone weight from an olive oil press, was founded on Stratum IVA Debris 42031 and 42044 (IVNW.42 north and south sections; Photos 1.3, 1.5); Socle 43005 was founded on Stratum IVB Surface 43023 (IVNW.43 south section).

69. Socle 26006 was founded in Stratum IVB Debris 26044 (IVNW.26 south section); Socle 25048 was founded in Stratum IVA Fill 25080 (IVNW.25 north section; Photo 1.14).

70. Mudbrick Wall 41016 was founded on Stratum IVA Monolith 41024 (IVNW.41 east section).

71. This surface was constructed over several Stratum IB/C cobble, pebble, and debris layers 0.40–0.80 m in depth that covered Stratum IVA Surface 26047 and Debris 42027 (IVNW.26 west and north sections, IVNW.42 north and east sections).

72. This surface was founded on a 0.50 m thick layer of Stratum IB/C Cobbles 25011 and Fill 25015 laid over Stratum IVA Debris 25049 (IVNW.25 north section).

73. Found within Debris 41010 laid over Stratum IVA Surface 41057 (IVNW.41 north section).

74. See IVNW.42 south section.

75. Socle 26016 was set into Stratum IVB Fill 26036 (IVNW.26 north section).

76. These were laid over Stratum IVA Debris 27024 (IVNW.26 east section).

77. These were laid over Stratum IVA Debris 43024 (IVNW.43 east section).

41016 and Socle **41021**/Wall **41018**. Threshold **41020** was built over large Monolith **41024** that also served as a Stratum IVA threshold (IVNW.41 east section).

The objects from Room a included four basalt querns (Obj. Nos. 3937–3938,⁷⁸ 3958, and 4197⁷⁹); four grinders (Obj. Nos. 4036, 4321,⁸⁰ 4196,⁸¹ and 1967⁸²); a pounder (Obj. No. 4181) and a lithic hammer (Obj. No. 4182);⁸³ and a mortar (Obj. No. 4089⁸⁴) (Table 9.10).

Room b was formed on the west by mudbrick Wall **41018**, the northern end of which was built over Socle **41021**.⁸⁵ Its southern extension, Wall **40005/39006**, was preserved to a height of eight courses, and its eastern face was plastered.⁸⁶ Mudbrick Wall **41016**, the short northern wall of Room b, cornered with its western Wall **25024/24009**, which was plastered on both its western and eastern faces,⁸⁷ and Wall **39007** was on the south (Photo 1.14).⁸⁸ The floor of Room b was composed of Surface **24026/40004/41007**, at the center of which was a stone weight in secondary use as Pillar Base **40006**, indicating that the room was at least partially roofed. In the southeastern, Pit **24031/40016** was dug from Surface **40004** (IVNW.24 west section).

The objects from Room b included a loomweight (Obj. No. 1963⁸⁹); two grinders (Obj. Nos. 7984⁹⁰ and 1952⁹¹ [Table 9.10]); a pounder (Obj. No. 2036⁹²); and an iron blade (Obj. No. 1911⁹³).

78. From Debris 42003 above Surface 42012P.

79. From pebble Debris 26017, part of Surface 26019.

80. From Surface 42011P.

81. From pebble Debris 26017, part of Surface 26019.

82. From Debris 41010 above Surface 41021.

83. Both from Debris 42003 above Surface 42012P.

84. From Surface 42011P.

85. The southern end of Wall 41018 was built over Stratum IVA mudbrick Wall 41025 (IVNW.41 south section).

86. Wall 40005/39006 was a rebuild of Stratum IVA Wall 40033A/39032 (IVNW.40 and IVNW.39 north sections).

87. Wall 25024 was founded on Stratum IVA Fill 25055 and Stratum IVB Stone Hearth 25056 (IVNW.25 south section), and Wall 24009 was built over Stratum IVB Fill 24032 (IVNW.24 south section).

88. Wall 39007 built over Strata IVA–IC Fill 39018 (IVNW.39 north and west sections).

89. From Surface 41007P.

90. From Surface 41007P.

91. From Surface 40004P.

92. From Surface Make-up 41007.1.

93. From Surface 40004P.

Access from Room b to Room c was through narrow Threshold **39008** with Door Socket **39012** between mudbrick Wall **39007** on the northern side of the room and mudbrick Wall **23003A** on its eastern side (IVNW.39 west section; Photo 1.19). Mudbrick Wall **39005A** was on the south⁹⁴ and mudbrick Wall **39006** on the west.

Unit 2 in *Building 651* to the east of Rooms a and f consisted of the elongated rectangular Room d, with interior dimensions of ca. 8.76×4.8 m and 39.68 sq m of floor space,⁹⁵ and the horizontally-rectangular Room e, with interior dimensions of 3.46×5.38 and 16.24 sq m of floor space.⁹⁶ The socles in Room d, like those in Room a, were 1.5 m wide, and could have supported a second storey in addition to their mudbrick superstructure. Although the stone walls of Room e were narrower, based on the amount of pottery found in this room, they, too, must have supported a second storey.⁹⁷ Narrower walls, therefore, did not necessarily preclude the presence of a second storey. Instead, wider stone socles and mudbrick superstructures indicate a second storey with a heavier load that required more substantial support.

It is also possible that Room e was actually the northeastern room in Unit 3 of *Building 651* made up of Rooms f–i, which would have given this unit a more regular rectangular shape. However, as there was well-defined access between Rooms d and e and no indication of access from Room e to either Room f or g in Unit 3, Room e is considered part of Unit 2.

The western wall of Room d was the eastern wall of Room a, mudbrick Wall **26020** built over Socle **26006/25048**, which may have extended northward for another 2.33 m, possibly creating an opening between Room d and *Alley 657* (Photo 1.14). The northern wall of the room was made up of Walls **27013/11007**, the remnants of the southern wall of *Temple Complex 650*. Its

94. Wall 39005A was founded on Strata VC–IVA Wall 39005B (IVNW.39 east section).

95. The floor space of 39.68 sq m of was calculated by deducting 2.37 sq m taken up by the architectural features from the total area of 42.05 sq m.

96. The floor space of 16.24 sq m was calculated by deducting 2.37 sq m taken up by the architectural features from the total area of 18.61 sq m.

97. See the quantitative analysis in Chapter 3.

eastern wall was made up of Socle **9027/10014** and Wall **11008**,⁹⁸ in which pebble Threshold **10008**⁹⁹ provided access to *Street 656* to the east.¹⁰⁰ The southern wall of the room was stone Wall **25021**, and stone Threshold **9008**¹⁰¹ between this wall and Socle **9027** provided access to Room e to the south (Photos 1.8, 1.12–1.14). The floor of Room d on the west was composed of the eastern part of Cobbles **27008** and Cobbles **26022**, the latter incorporating flat Stone **26010**; the floor in the southwest was Surface **25043**.¹⁰² The floor was made up of Cobbles **11005** in the northeast, of Cobbles **10006** and Surface **10007** in the center-east, and of Cobbles **9018** in the southeast (Photo 1.7).¹⁰³ Perforated olive oil press Weight **9020A** lay in Cobbles **9018** at the eastern end of Wall **25021** (IVNW.9 north section; Photos 1.8, 1.12–1.14). The press weight was either in secondary use in Wall **25021** and had fallen onto the

surface of Cobbles **9018**¹⁰⁴ or, less likely, may have served as an installation. In the center of Room d, the north–south row of Pillar Bases **10009**, **10011** (Photo 1.7), and **10012**, which could not be associated with a specific surface during the excavation, must have been in use with the surfaces of the Room d floor, as can be seen in their relationship to Cobbles **26022** and Cobbles **27008** (IVNW.10 west section, IVNW.26 east section, IVNW.27 east section).¹⁰⁵ At the southern end of the room, Pillar Base **9063** in line with the other three pillar bases may also have been in use, although it lay well under the southwestern surface of the room, Cobbles **9018** (IVNW.9 north section). However, it was almost adjacent to the southern wall of the room, and it seems to have been unnecessary to provide roof support in this location.

The objects from Room d included three loom-weights (Obj. Nos. 3492, 3445,¹⁰⁶ and 3533¹⁰⁷); two querns (Obj. Nos. 3693¹⁰⁸ and 4388¹⁰⁹ [Table 9.10]); a pounder (Obj. No. 3531¹¹⁰ [Table 9.10]); and an iron blade (Obj. No. 3493¹¹¹).

Room e was formed by Wall **25013** on the west, Wall **25021** and Threshold **9008** (which provided access to Room d) on the north, Wall **9002** on the east, and Wall **8011/9016/25020** on the south (Photos 1.8–1.10, 1.12–1.16).¹¹² The floor of Room e was composed

98. Socle 9027 was founded on Strata VA–IV mudbrick Wall 9017 (IVNW.9 north and south sections), and Socle 10014 was founded on Strata VA–IVA Wall 10021A (IVNW.10 south section).

99. Pebble Threshold 10008 was founded on Stratum IB/C Fill 10010 that covered Stratum IVA Debris 10018 (IVNW.10 south section).

100. Street 656, which also provided access to Buildings 652 and 653 and to the main entrance of Temple Complex 650 in Field IV Upper, was connected to north–south Street cc that ran along the eastern wall of Temple Complex 650.

101. Threshold 9008 was founded on Stratum IVA Debris 9012B, and Wall 25021 was founded on Stratum IB/C Fill 25047 that covered Stratum IVA Fill 25053 (IVNW.25 north section; Photos 1.8, 1.12–1.14).

102. Cobbles 27008 were founded on Stratum IB/C Fill 27014 above the Surface 27023 that covered Stratum IVA Debris 27024 (IVNW.27 east section). Cobbles 26022 were founded on Stratum IB/C Fill 26030/26035 that covered Strata VA–IVA Fill 26046 (IVNW.26 north, east, and south sections). Surface 25043 was founded on Stratum IB/C Fill 25047 that covered Stratum IVA Fill 25053 (IVNW.25 north and east sections).

103. Cobbles 10006 and Surface 10007 were founded on Stratum IB/C Fill 10010 that covered Stratum IVA Debris 10015 (IVNW.10 north and east sections); Fill 10010 contained an olive oil press weight (Obj. No. 4339) (Photo 1.6). Surface 9018 was founded on Stratum IB/C Fill 9012A that covered Stratum IVA Debris 9012B (IVNW.9 north section).

104. For additional examples of the reuse of Stratum IC olive oil installation equipment in the construction of Stratum IB walls, see the text associated with n. 65.

105. The problem in relating all of the surfaces of this room with the pillar bases lay in the significant difference in top levels between the surfaces in Area IVNW.10 with those in Area IVNW.9 (compare IVNW.9 and IVNW.10 west sections).

106. From Destruction Debris 10005 above Cobbles 10006.

107. From Cobbles 10006.

108. From Destruction Debris 26014 above Surface 26022.

109. From Destruction Debris 10005 above Cobbles 10006.

110. From Cobbles 10006.

111. From Destruction Debris 10005 above Cobbles 10006.

112. Wall 25013 was founded on Stratum IC Socle 25029 built over Strata VA–IVA Wall 25038 (IVNW.25 south section; Photo 1.14); Wall 9002 was founded on Stratum IB Debris 9009 that covered Strata VA–IVA mudbrick Wall 9017 (IVNW.9 south section; Photos 1.8–1.10, 1.13); Wall 9016 was founded on Stratum IB/C Debris 9012A that covered Stratum IVA Surface 9014, which ran up to the southern face of Wall 9021 (IVNW.9 west and south sections; Photos 1.8, 1.16); and Wall 25020

of Surfaces **9007** and **25042** (Photos 1.9–1.11, 1.13–1.14, 1.21:6, 1.22).¹¹³ A small stone platform, Installation **25026**, was in the northwestern corner of the room, and the square stone in the center of Surface **9007** may have served as a pillar base (Photo 1.11).

The objects from Room e included a jewelry hoard of 330 items (Obj. No. 723) in a jug (Color Photo 4A.4:4),¹¹⁴ 321 made of silver and nine of other materials; a four-horned altar (Obj. No. 694 [Photos 1.9–1.10]); 21 loomweights (Obj. Nos. 379, 408, 432, 435, 492 A–G, 495 A–D, 574, 11483, 11484, 11487, 11488, and 11550 [Photo 1.11]); five pounders (Obj. Nos. 383, 7914, 7952, 10005 [Table 9.10],¹¹⁵ and 7920); a grinder (Obj. No. 11478);¹¹⁶ a lithic palette (Obj. No. 551); three iron blades (Obj. Nos. 473, 536, and 643); an iron socket (Obj. No. 488); a toggle pin (Obj. No. 439); a bronze fibula (Obj. No. 630 [Table 6.8:1]); and three pieces of silver scrap (Obj. No. 547).¹¹⁷ A four-horned altar (Obj. No. 1100) was found in Rooms e/d.¹¹⁸

Unit 3 in *Building 651* was composed of the four Rooms f, g, h, and i. Room f had no pillar bases and may have served as an unroofed courtyard. The interior dimensions of its the lower rectangular-shaped part were 6.15×3.07 m for an area of 18.88 sq m and of its panhandle-shaped upper part were 4.23×1.92 m for an area of 8.12 sq m, making a total of 27 sq m. The long, narrow, rectangular shape was formed by Wall **24009/25024** on the west, by Wall/Threshold **25012**—which perhaps provided access to Room a—on the north, by Wall **25013** on the northeast, by Wall **24013** at almost mid-point on the east, and by Wall **23002** on the

south (Photos 1.14, 1.16, 1.19, 1.21:14). Threshold **24016** in Wall **24013** provided access to Room g.¹¹⁹ Courtyard Room f was open to Room g through Threshold **24016**, was completely open to Room h on the east, and had access to Room i on the south through Threshold **23009** (Photos 1.16, 1.19). The objects from Room f included two loomweights (Obj. Nos. 960 and 1082) and a grinder (Obj. No. 1013 [Table 9.10]).¹²⁰

Room g, a small rectangular-shaped room with interior dimensions of 2.15×4.23 m for an area of 9.09 sq m, was formed by stone Wall **24013** and Threshold **24016** on the west, by stone Wall **25020/9016** and mudbrick Wall **8011** on the north, by mudbrick Wall **8007A** on the east, and by mudbrick Wall **8006** on the south (Photos 1.15–1.17).¹²¹ The relatively small size, the well-constructed threshold, and the finds all indicate the special character of this room.

The objects from Room g included an inscription, *b* for *bat*, a volume measurement, on a storage jar sherd (Obj. No. 7793), an iron nail (Obj. No. 1155), a limestone mace-head (Obj. No. 1050 [Fig. 9.3:4]), a lithic bowl (Obj. No. 7822 [Table 9.10]), a limestone basin (Obj. No. 1234), two grinders (Obj. Nos. 10077, 10149 [Table 9.10]), eight astragali (Obj. No. 11313),¹²² and a silver pendant (Obj. No. 1190 [Table 6.2:4]).¹²³

Room h, of similar size and shape to Room g, had interior dimensions of 2.50×4.23 m for an area of 10.58 sq m, and was formed by mudbrick Wall **8006** on the north, mudbrick Wall **8007A** on the east, and mudbrick Wall **7003** on the south (Photos 1.15–1.17, 1.19–1.20).¹²⁴

was founded on Stratum IC Socle 25030 built over Stratum IC Fill 25031 that covered Strata VC–IVA mudbrick Wall 25032 (IVNW.25 south section).

113. Surface 9007 was founded on Stratum IB Fill 9007.1/Debris 9009 that covered Stratum IC Surface 9011 above Stratum IVA Fill 9012B, which in turn covered Stratum IVA Surface 9014 (IVNW.9 south section; Photos 1.8–1.11, 1.13); Surface 25042 was founded on Stratum IB Fill 25044 above Stratum IC Surface 25019 that covered Stratum IVA Debris 25025 (IVNW.25 east section; Photo 1.14).

114. The jug was dug into Fill 9011 from Surface 9007.

115. All the preceding objects came from Destruction Debris 9004 on Surface 9007.

116. From Surfaces 9004 and 9007P, respectively.

117. All from Destruction Debris 9003 on Surface 9007.

118. In Destruction Debris 25006.

119. Wall 24013 and Threshold 24016 were founded on Stratum IB Fill 24014 that covered Stratum IC Surface 24015 above Stratum Pre-IC Fill 24024 that covered Stratum IVA Surface 24025 (IVNW.24 east section; Photo 1.16); Wall 23002 was founded on Stratum IVA/B Surface 23013 and Fill 23015 (IVNW.23 north section; Photo 1.19).

120. From Destruction Debris 25010 above Wall 25024.

121. Wall 8006 was founded on the Stratum Pre-IC Debris 8026 that covered Stratum IVA/B Surface 8025, and Wall 8011 was founded on Stratum IVA Surface 8014 (IVNW.8 west section). Wall 8007A was a rebuild of Strata VA–IVA/B Wall 8007B (IVNW.8 north, east, and west sections).

122. All from Destruction Debris 8002 on Surface 8012.

123. From Destruction Debris 8010 on Surface 8012.

124. Wall 7003 was founded on Strata VA–IVA/B Wall 8019 (IVNW.7 west and north sections; (Photos 1.17, 1.19).

The objects included two inscriptions on storage jar sherds: *b* for the volume measurement *bat* (Obj. No. 7795) and *dbl*, a cluster of figs (Obj. No. 7794).¹²⁵

Room i, with a long, horizontal, rectangular shape of interior dimensions of 2.46×8.85 m for an area of 21.77 sq m, extended across the entire width of Unit 3 of *Building 651* at its southern end. It was formed by mudbrick Wall **23003A** on the west, mudbrick Walls **7003** and **23002** with Threshold **23009** providing access to courtyard Room f and Room h on the north, mudbrick Wall **7013A** on the east, and mudbrick Wall **7004A/230054A** on the south (Photos 1.19–1.20).¹²⁶ The floor of Room i in the east was Surface **7006/7006P** (Photo 1.20), with stone Installation **7008** composed of two grinders (Obj. Nos. 2049 and 2050 [Table 9.10]), and in the west was Surface **23006**.¹²⁷ The only object from this room was a grinder (Obj. No. 1948 [Table 9.10]) found in floor Make-up **23006.1**.

Rooms g, h, and i were probably covered; their size and narrow width would not have necessitated a central pillar to support a ceiling or roof.¹²⁸

Stratum IB (NE)

Buildings 652, 653, and 654, the three buildings that made up the eastern quadrant of Field IV Lower, had a completely different character than *Building 651* on the west. The socles and walls were narrower, and may not have been capable of supporting a substantial second storey, with the possible exception of Rooms a and c in *Building 652*, where a row of pillar bases seemed

to have been added for this purpose in Stratum IB.¹²⁹ The buildings in the northeast quadrant also had a different plan: the rooms tended to be smaller, many had evidence of two construction phases, and their material culture contents, including installations, ceramic assemblages, and small finds, indicate that they had different functions than the rooms in *Building 651*.

Building 652, the western side of which lay in the northwest quadrant Field IV Lower, was built over Stratum IVA immediately to the east of Unit 2 in *Building 651*. Its exterior dimensions were 6.38×9.23 m in the north and 8.07×4.61 m in the south, for a total area of 96.09 sq m,¹³⁰ and its single unit was made up of the four Rooms a–d.

The rectangular-shaped northern room, Room a, was the largest, with interior dimensions of ca. 3.46×5 m and floor space of 16.73 sq m.¹³¹ Room a was formed by Socle **INW.9027/10014** on the west, which cornered with stub Wall **IVNW.10013** on the north and ephemeral Wall **IVNW.X**¹³² on the south. Wall **9013/10009** on the east cornered with Wall **10007** on the north and Wall **9003** on the south (Photos 1.21:3, 1.22–1.23). Some of the features designated as walls could have been stone socles supporting a mudbrick superstructure that was not preserved. Beaten-earth Surface **10017**, the floor of Room a, included two possible installations: Cobbles **IVNW.9005** in the southwestern corner and Stones **9014** in the southeastern corner of the room (Photos 1.8, 1.13, 1.23). Pillar Base **10019** in the center indicated that the room was roofed. The entrance to Room a from *Street 656* Surface **10015** was in the north via the opening between Wall **IVNW.10013** on the west and Wall **10007** on the east (Photo 1.23). This also served as the entrance to *Building 652*, directly opposite monumental Threshold **11003** of *Temple Complex 650*

125. From Destruction Debris 8003 on Surface 8020; see also Gitin 1993b: 251.

126. Wall 7004A was founded on Strata VC–IVA Wall 7004B (IVNW.7 west section); Wall 7013A was founded on Strata VB/C–IVA Wall 7013B (see IVNW.7 north and east sections); and Wall 23004A was founded on Strata VC–IVA/B Wall 23004B (IVNW.23 west section).

127. Surface 7006 was founded on Stratum IVB Fill 7007 (IVNW.7 west section), and Surface 23006 was founded on Stratum Pre-IC Fill 23010 and Debris 23011 that covered Strata IVA/IB Surface 23013 (IVNW.23 east section).

128. Based on the amount of pottery found in Rooms g and h relative to their size, however, these two rooms appear to have had a second storey (see Chapter 3).

129. The pottery quantification analyses, however, indicate that Buildings 652 and 654 had a second storey, and Building 653 either a second storey or a small attic space (see Chapter 3).

130. This includes the eastern walls of Building 651 Rooms d and e, the western walls of Building 653 Rooms a, b, and part of c, and the northern walls of Building 654 Rooms c and d.

131. The floor space of 16.73 sq m was calculated by deducting 0.57 sq m taken up by the architectural feature—a pillar base—from the total area of 17.30 sq m.

132. This wall was not assigned a locus number because it was discerned only during post-excavation analysis.

(Photo 1.43). *Street 656* immediately to the south of this threshold was composed of Pebble Surface **11006** and Surface **11010**, both covered by Destruction Debris **11002** (Photo 1.43). The beaten-earth surface of Room a was similar to the floor of adjacent *Building 653*, which also opened onto *Street 656*. These beaten-earth floors were unlike the hard, thick surfaces of *Building 651* Rooms a and d and *Alley 657* onto which they opened, as well as of *Street 656* connected to the alley, surfaces built to sustain the heavy traffic of pack animals necessary for commercial activities. Thus, the beaten-earth floors of Rooms a in *Building 652* and *653* indicated that these rooms must have had a different function.

The objects in *Building 652* Room a included four basalt and kurkar grinders (Obj. Nos. 3659, 3660, 3661, and 4113 [Table 9.10]), a basalt quern (Obj. No. 3697), and a lithic hammer (Obj. No. 4114 [Table 9.10]).¹³³

Room b to the south of Room a had a narrow, horizontal, rectangular shape, with interior dimensions of 6.53×1.15 m for an area of 7.51 sq m. It was formed by Wall **IVNW.9002** on the west, ephemeral Wall **IVNW.X** and Wall **9003** and Pillar Base **9010** on the north, Wall **9011** on the east, and Walls **9005** and **9006** on the south (Photos 1.13, 1.21:5, 1.22). Access to the north into Room a was through an off-center opening between ephemeral Wall **IVNW.X** on the west and Wall **9003** on the east. Access to Room c on its east was through an opening between Pillar Base **9010** and Wall **9011** (Photos 1.21:5, 1.22). Access to Room d to its south was through the openings created between Wall **9005** and Pillar Base **9009** and Pillar Base **9009** and Wall **9006** (Photos 1.21:1, 4, 1.22, 1.26). Beaten-earth Surface **9007** served as the floor of both Rooms b and d (Photos 1.21:6, 1.22). In light of its multiple entranceways into Rooms a, c, and d, Room b most likely served as an ante-chamber/transit hallway for these rooms.

Room c had an asymmetrical vertical rectangular shape with interior dimensions of ca. 4.5×3 m and floor space of 12.10 sq m.¹³⁴ The room was formed by Wall **10009** on the west, Wall **10007** on the north,

Wall **10016** on the east, and Pillar Base **9010**—which served as an extension of Wall **9003**—on the south (Photos 1.21:5, 1.22, 1.23). Patchy remains of flagstone Surface **10012** served as the floor of Room c (Photo 1.23). Two installations comprising Installation **10011** lay on this floor, up against the center of Wall **10016**. Also on Surface **10012**, two stones in the northeastern corner seemed to serve as steps leading up to large Basin **10004**, part of a drainage system (Photo 1.23). The basin, set into the northeastern corner of the room formed by Walls **10007** and **10016**, was constructed of small stones covered with a layer of plaster. Its liquid contents would have emptied into stone-lined Drain **10018**, which extended northward through Wall **10007** and lay ca. 18 cm below Basin **10004**. North–south Drain **10018** connected to the main east–west Drain **11009/27008**, ca. 25 cm lower than Drain **10018**, that ran down the center of *Street 656*, the street separating *Temple Auxiliary Buildings 652* and *653* from *Temple Complex 650* to the north (Photo 1.23). The drop in elevation from Basin **10004** to the level of the main Drain **11009** (covered by limestone Pillar **11005** in Photo 1.44) was ca. 43 cm. The configuration of a basin and drain connected to a main drain is duplicated in the adjacent *Building 653*. Access from Room c to the south into Room b was through the opening between Pillar Base **9010** and Wall **9011** (Photos 1.21:5, 1.22).

Room c also contained a row of three Pillar Bases **9010**, **9015**, and **10010** in a north–south line together with two other Pillar Bases **9008** and **9009** in Rooms b and d (Photos 1.21:4–5, 1.22–1.23). These were either founded on or sunk into the surfaces of the room, with the exception of Pillar Base **9015**, which was founded on possibly earlier Pillar Base **9056**. Because the line of Pillar Bases **9010**, **9015**, and **10010** in Room c are positioned immediately next to Wall **9013/10009** and not in the center of the room, where pillar bases used to support the roof would usually be positioned, it might be suggested that they were from an earlier occupation phase (Photos 1.21:3, 5, 1.22–1.23). However, since no architectural features were found from an earlier phase that related to these pillar bases, a more plausible explanation is that they were positioned next to the wall in order to support a type of second storey that the thin walls of Room c perhaps could not sustain

133. All from Destruction Debris 10014 above Surface 10017.

134. The floor space of 12.10 sq m was calculated by adding up the more precise measurements of 3.07 × 3.07 m in the north, 0.92 × 2.30 m in the lower center, and 0.92 × 2.69 m in the south of the room, totaling 14.01 sq m,

and deducting the 1.92 sq m taken up by Pillar Bases 9015 and 10010, Basin 10005, and Installation 10011.

alone. The same applies to Pillar Base **9008** in Room d and its relationship to Wall **8006/8012** (Photos 1.21:7, 1.22). The exception may be Pillar Base **9009**, which appears to have served as a space divider creating openings between Rooms b and d (Photos 1.21:4, 1.22, 1.26). It is possible that the thin wall lines of Room c were constructed in Stratum IC and the pillar bases added in Stratum IB, when *Building 652* perhaps took on a new function that involved either adding a second storey or support for a heavier load on a pre-existing second storey, for both of which pillars were required, which would also have affected Room a. This is one of the indications of the two architectural phases that can be associated with Stratum IC and IB. The reuse of Stratum IC olive oil industrial equipment in the construction of the Stratum IB walls of *Building 652* is another: Basin **10005** in Wall **10016**, Presses **25021**, **25024**, and **25022** in Wall **25018**, and an unnumbered press in Wall **10007** (IVNE.10 east section, IVNE.25 east section; Photos 1.21:8, 1.22–1.23, 1.25, 1.28–1.29).¹³⁵

The objects from Room c included two incense Stands **9016** and **9017** (Obj. Nos. 3514 and 3525 [the former almost complete and the latter fragmentary])¹³⁶ and a worked astragalus (Obj. No. 9651 [Fig. 5.3:5]) and lithic loomweight (Obj. No. 3684).¹³⁷

Room d, parallel to and somewhat broader than Room b, had a narrow horizontal, rectangular shape with interior dimensions of 6.92×1.92 m for an area of 13.29 sq m. It was formed by Wall **8006/8012/IVNW.8005** on the south (Photos 1.21:7, 1.22); Wall **IVNW.9002** on the west (Photo 1.8); Wall **9005**, Pillar Base **9009**, and Wall **9006** on the north (Photos 1.21:1–2, 4, 1.22, 1.26); and Wall **25018** on the east (Photos 1.21:8, 1.22, 1.29). Pillar Base **9008** abutted the center of southern Wall **8006/8012**, creating, together with Pillar Base **9009**, an internal division in the room (Photos 1.21:4, 7, 1.22, 1.26). The floor was a continuation of Room b Surface **9007**, which ran up to both the southern and northern faces of Wall **9005** and the western and eastern faces of Pillar Base **9008** (IVNE.9 west and south sections; Photos 1.21:2, 6, 1.22).

North–south thresholds may have been constructed on either side of Wall **8006/8012**, as suggested by the lower level of the stones on the west (at 100.79) and on the east (at 100.63) (IVNE.8 north section; Photos 1.21:7, 1.22). Unlike the other rooms in *Building 652*, the excavations went deep enough to reach the foundations in part of Room d, clearly demonstrating the gap between Stratum I and Stratum IV in Field IV Lower. Stratum IB Wall **8006/8012** was built over Stratum IB Fills **8030** and **8049** that covered Strata VC–IVA Wall **8044A** and Stratum IVA–B Wall **8046** (IVNE.8 north section).

The objects from Room d included nine loomweights (Obj. Nos. 2931, 2960–2965, 11509, and 11566) and a lithic bowl (Obj. No. 3031), a mortar (Obj. No. 3030), a pestle (Obj. No. 2966), a pounder (Obj. No. 4532), and two hammers (Obj. Nos. 2981–2982) (Table 9.10).¹³⁸

Building 653, immediately to the east of *Building 652*, had exterior dimensions of 6.15×12.30 m for a total excavated area of 75.65 sq m,¹³⁹ and was composed of a single unit of five rooms.¹⁴⁰ Northwestern Room a had an asymmetrical vertical, rectangular shape with interior dimensions of ca. 3.07×5 m and floor space of 11.69 sq m.¹⁴¹ It was formed by Wall **10016** on the west, Walls **26016** and **26006** on the north, Wall **26004** on the east, and Wall **25012** on the south (Photo 1.21:14). The floor of the room was compacted beaten-earth Surface **26012** that ran up to the southern face of Wall **26016** and the western face of Wall **26004** (IVNE.26 west and south sections; Photo 1.27). Stone Platform **26017** was set into Surface **26012** in the northeastern corner of the room formed by Walls **26004** and **26006**. Basin **26010**, part of a drainage system, was built on Platform **26017**, and a gap in Wall **26006** along the eastern edge of the basin may have served to drain

135. For a summary of the physical evidence for this subdivision throughout Field IV Lower, see the text associated with n. 65; see also Gitin 2003a: 57*–58*.

136. From Destruction Debris 9002 above Surface 9007 (IVNW.9 north section).

137. From Destruction Debris 10013 above Surface 10012.

138. All from Destruction Debris 9002 above Surface 9007.

139. These dimensions included the eastern walls of Rooms b, c, and d of *Building 652*; the actual size of *Building 653* is unknown because the eastern extensions of Rooms d and e were not excavated.

140. Given that the eastern rooms were not completely excavated, it cannot be determined whether the building had two units.

141. The floor space of 11.69 sq m was calculated by deducting 3.66 sq m taken up by the various architectural features from the total area of 15.35 sq m.

its contents onto Surface **26011**, which was ca. 40 cm lower than the basin. Any liquid on Surface **26011** would have flowed into the main Drain **11009/27008** that ran down the middle of *Street 656* at a level ca. 15 cm lower than that of Surface **26011**. The drop in height from Basin **26010** to Drain **11009/27008** was ca. 55 cm. This configuration of basin and drain was mirrored in *Building 652* Room c and in *Building 653* Room d. Another installation, reused oil Press **26003**, was set into Surface **26012** up against the eastern face of Wall **10016**, probably another example of the reuse of Stratum IC olive oil equipment in Stratum IB (Photo 1.27).¹⁴² Immediately to the north of the press, Steps **26009** were founded on Surface **26012** in the north-western corner of the room formed by Walls **10016** and **26016** (Photo 1.27). Steps **26009** imply a second storey, perhaps above Room c in *Building 652*, suggested as the rationale for the addition of the line of pillar bases set against Wall **9013/10009** (Photos 1.21:3, 1.22–1.23).

The entrance to Room a, which was the entrance to *Building 653* from *Street 656*, was from Surface **26011** through Threshold **26015** between Wall **26016** on the west and Wall **26006** on the east (Photo 1.27). Access from Room a to Room b to its south was through Threshold **25020** between Wall **25012** on the west and Wall **25003** on the east (Photo 1.21:9, 14).

The objects from Room a included two loomweights (Obj. Nos. 3549–3550), a grinder (Obj. No. 3581), a quern (Obj. No. 3853), and a pestle (Obj. No. 3548) (Table 9.10).¹⁴³

Room b, immediately to the south of Room a, had an uneven square shape with interior dimensions of ca. 3.36×4.55 m for an area of 15.29 sq m. It was formed by Wall **25018** on the west, Wall **25012** on the north, partition wall/Mudbricks **25011B** and Wall **25011A** on the east, and Wall **25014** on the south (Photos 1.21:8, 12–14, 1.22, 1.29). Mudbricks **25011B** were a secondary feature that closed off an opening connecting Rooms b and c in Stratum IC, representing another example of the existence of two architectural phases in Field IV Lower (Photo 1.21:15).¹⁴⁴ The floor of the room was beaten-earth Surface **25016**, which ran up to the eastern face of Wall **25018**, the southern face of Wall **25012**,

the northern face of Wall **25014**, and the western face of Wall **25011A** and Mudbricks **25011B** (IVNE.25 west section; Photos 1.21:8, 13–15, 17, 1.22, 1.29).

The objects from Room b included 41 loomweights (Obj. Nos. 3173–3174, 3240–3242, 3244, 3250, 3307–3315, 3372–3373, 11490–11491, 11496, 11519,¹⁴⁵ and 3284–3306¹⁴⁶) and two grinders (Obj. Nos. 3245 and 7812 [Table 9.10]¹⁴⁷).

Room c, immediately to the south of Room b, had an asymmetrical horizontal, rectangular shape with interior dimensions of 2.30×3.46 m for an area of 7.96 sq m. It was formed by Wall **24015/8008** on the west, Wall **25014** on the north, Wall **25011A** on the east, and Wall **24003** on the south (Photos 1.21:10–13, 1.32). Wall **24015** was a mudbrick superstructure built on stone Socle **8009** (Photo 1.33). It is highly likely that the other walls in this room, like most of the walls in *Buildings 652–654*, were actually stone socles on which the mudbrick superstructure was not preserved. The floor of Room c was beaten-earth Surface **24013**, which ran up to the eastern face of Wall **24015** and the northern face of Wall **24003** (IVNE.24 west section; Photos 1.21:10, 16, 1.32). Surface **24013** was laid over Stratum IB Fill **24019** that covered Stratum IVA Surface **24020A** (IVNE.24 west section; Photo 1.21:16). Access to Room c was from Room e to the east through an opening between Walls **25011A** and **24003** (Photos 1.21:10, 13). The objects from Room c included two loomweights (Obj. Nos. 3166 and 11528).¹⁴⁸

Room d to the east of Room a most probably had a similar vertical, rectangular shape. The excavated part of the room was 6.67 sq m,¹⁴⁹ and it continued eastward into the unexcavated area. The room was formed by Walls **26004** and **25019** on the west, Wall **26006** on the north, and Wall **25003** on the south (Photo 1.21:9). The floor was cobble Surface **26013** that ran up to the southern face of Wall **26006** and the eastern face of Wall **26004** (IVNE.26 south section). The major feature in Room d was its drainage system, represented by Basin **26008** set into the northwestern corner of the

142. See the text associated with n. 65.

143. All from Destruction Debris 26002 above Surface 26012.

144. See the text associated with n. 65.

145. From Destruction Debris 25006 on Surface 25016.

146. From Surface 25016P.

147. From Destruction Debris 25006 on Surface 25016.

148. From Destruction Debris 24002 on Surface 24013.

149. The area of 6.67 sq m was calculated by deducting the 1.15 sq m of floor space taken up by Basin 26008 from the total area of 7.82 sq m.

room formed by Walls **26004** and **26006**. The contents of Basin **26008** would have emptied into Drain **26014** ca. 20 cm below it that extended northward through Wall **26006** and flowed into main Drain **11009/27008** in the center of *Street 656* at a level of ca. 15 cm below Drain **26014**. The drop in elevation from Basin **26008** to main Drain **11009/27008** was ca. 35 cm. This configuration of basin and drain mirrored that in adjacent Room a and in *Building 652* Room c. These three installations were aligned parallel to each other, and apparently served the same industrial function. The only object found in Room d was a hematite pendant (Obj. No. 3552 [Table 6.5:1]).¹⁵⁰

Room e to the south of Room d may have been square-shaped. The excavated area was 6.62 sq m, and it continued eastward into the unexcavated area. It was formed by Wall **25003** on the north and Wall **25011A** and partition wall/Mudbricks **25011B** on the west (Photo 1.21:9, 13, 15). Mudbricks **25011B** were a Stratum IB addition blocking the opening between Rooms b and e in Stratum IC (Photo 1.21:15). The floor of Room e was beaten-earth Surface **25017** (Photo 1.21:18). The room contained two limestone four-horned Altars **25004** and **25008** (Obj. Nos. 3186–3187, Photo 1.31) and two complete limestone incense Stands **25009** and **25010** (Obj. Nos. 3188–3189)¹⁵¹ in what appears to have been a cultic corner in the northwest.

Other objects from Room e included three loomweights (Obj. Nos. 3172, 11547 and 11523), a grinder (Obj. No. 3348), and a clay bulla (Obj. No. 3263 [Color Photo 5.1:5]).¹⁵² Four additional loomweights came from *Building 653* Rooms a–e (Obj. Nos. 3164, 3167, 4522, and 4541).¹⁵³

Building 654 was immediately south of *Buildings 652* and *653*, and, like *Building 653*, its eastern side extended into the unexcavated area, as did its southern side, a small part of which was excavated as a continuation of Room a. Its known exterior dimensions of ca. 13.07×12.69 m created an area of 165.86 sq m, approximately the same area as *Buildings 652* and *653*

combined.¹⁵⁴ *Building 654* contained two units: Unit 1 made up of the four western Rooms a, b, c, and d and Unit 2 of the two eastern Rooms e and f.

In Unit 1, Room a in the south had an uneven horizontal, rectangular shape with interior dimensions of ca. 6.02×3.36 m and floor space of 12.78 sq m.¹⁵⁵ Room a was formed by Wall **7067** on the west, Wall **7005** on the north, and Wall **23003** on the east (Photos 1.21:19, 24, 1.32–1.33, 1.36). Access to Room d to the northwest was through Threshold **7015** between Wall **7067** on the west and Wall **7003** on the east (IVNE.7 west section; Photos 1.21:20, 25, 1.33). Access to Room b to the northeast was through Threshold **7014** between Wall **7003** on the west and Wall **7005** on the east (Photos 1.21:19–20, 1.32–1.33, 1.36). The floor of Room a, Surface **7011**, consisted mostly of cobbles, with some patches of beaten earth (Photo 1.21:25). Tabun **7013** and Installation **7010** were founded on this surface, immediately north of the southern balk line, and plastered Pit **7024** was cut in its southwestern corner.

Around a third of the floor space of Room a was taken up by a drainage system that ran westward from the southern part of Room e in Unit 2 of *Building 654* into Drain **23008** on the eastern side of Room a over Surface **7011** (Photos 1.21:25, 27, 1.33). Drain **23008** emptied onto Cobbles **7020A** (Photo 1.33). It is comparable to the drainage systems in *Building 652* Room c and *Building 653* Rooms a and d that emptied northward from a stone basin into a drain and directly into a main drain running eastwards down the center of the street. In *Building 654* Room a, however, the drainage system was configured differently: water flowed westward from a basin in Room e into a drain and then over a plastered surface and into another drain that ran southwards. The elements of this drainage system included large stone Basin **23002** in Room e (Photos 1.21:42, 1.32–1.33), and Drain **23008**, plastered Surface **7019A**, and stone-lined Drain **7009/6005** in Room a (Photos 1.21:26–29, 1.32–1.33). Basin **23002**

150. From Destruction Debris 26007 on Surface 26013.

151. All from Destruction Debris 25002/25007 on Surface 25017.

152. All from Destruction Debris 25007 on Surface 25017.

153. From Destruction Debris 25002 that covered all of Area IVNE.25.

154. This includes the eastern wall of *Building 651* Rooms g, h, and i and the southern walls of *Building 652* Room d and *Building 653* Room c.

155. The floor space of 12.78 sq m was calculated by deducting the 7.45 sq m taken up by various architectural features from the total area of 20.23 sq m, excluding the continuation of Room a into the partially excavated Area IVNE.6 to the south.

in Room e was set on cobblestone Pedestal **23018** built on Cobbles **23007**, up against the eastern face of Wall **23003/23004** (Photos 1.21:23–24, 42, 1.32–1.33). Basin **23002** emptied into east–west stone-lined Drain **23008** that cut through the line of Wall **23003/23004** and was ca. 20 cm lower than the basin (IVNE.23 west section; Photos 1.21:23–24, 27, 42, 1.32–1.33). Drain **23008** emptied onto plastered Surface **7019A** that was ca. 7 cm lower than the drain. Surface **7019A** was the connecting link between east–west Drain **23008** and north–south Drain **7009**, which was ca. 27 cm lower than the surface. Drain **7009** continued southward as Drain **6005**, which was ca. 27 cm lower than Drain **7009** (Photos 1.21:29, 1.32, 1.37). Drain **6005**, abutted on the west by Wall **7030**, was built on Surface **6004** (IVNE.7 south section; Photos 1.21:29, 1.32, 1.37). The total drop in level from Basin **23002** to the excavated end of Drain **6005** was ca. 80 cm (Photos 1.21:29, 42, 1.32–1.33, 1.37). It is possible that, like the drainage systems in *Buildings 652* and *653*, Drain **6005** also emptied into an east–west drain running along a street. This could have been part of a north–south/east–west city grid plan that included north–south *Streets dd* and *cc* running parallel to the western and eastern sides of Field IV Upper *Temple Complex 650*, respectively, and the east–west line of *Street 656* and *Alley 657* that intersected with *Streets dd* and *cc*.¹⁵⁶

The objects from Room a included four inscriptions on storage jar sherds: *lšrt*, “for Asherat” (Obj. No. 9503, Photo 1.38),¹⁵⁷ *b* for *bat*, a volume measurement (Obj. No. 9504),¹⁵⁸ *š* for *shemen*, “oil” (Obj. No. 9505),¹⁵⁹ and *š šmn š*, the word *shemen* with the extra *š* sign on each side representing false starts (Obj. No. 9507).¹⁶⁰ A fifth inscription, *šmn, shemen*, “oil” (Obj. No. 9509, assigned locus number **7000**), was found on the surface of the tell some 20 m south of *Building 654* Room a. Other objects included a ceramic pillar figurine (Obj. No. 2022 [Fig. 5.3:2]) and an Egyptian

conical seal (Obj. No. 2043 [Color Photo 5.1:2]),¹⁶¹ a copper fibula (Obj. No. 2058 [Table 6.8:2]), an iron nail/pin (Obj. No. 2140), and a conical seal (Obj. No. 2017 [Table 6.5:3]),¹⁶² and four ceramic loomweights (Obj. Nos. 1938,¹⁶³ 2068, 2093, and 2141¹⁶⁴).

Room b, the middle room of Unit 1, was square-shaped, with interior dimensions of ca. 4.08×3.85 m and a floor space of 15.47 sq m.¹⁶⁵ It was formed on the west by Wall **7003** (the southern part of Socle **8003** with mudbrick superstructure Wall **8010**) (Photos 1.21:20, 1.32–1.33); on the north by mudbrick Wall **8004** built on Socle **8011** (at the eastern end of which a large olive oil press was incorporated in secondary use) (Photos 1.24, 1.32–1.33);¹⁶⁶ on the east by Wall **23004** with cobblestone Threshold **24009** (Photos 1.21:23, 38, 1.32–1.33); and on the south by Wall **7005** (Photos 1.21:19, 1.32–1.33, 1.36). Access from Room a to the south was through Threshold **7014** (Photo 1.33). Access to Room c to the north was through Threshold **8020** on the west between Walls **8010** and **8004** and through cobbled Threshold **8019** on the east between Walls **8004** and **24008** (Photos 1.21:22, 32–33, 1.32–1.33). Access to Room e to the east was through cobbled Threshold **24009** between Wall **24008** on the north and Wall **23004** on the south (Photos 1.21:22–23, 38, 1.32–1.33). The floor of Room b was plastered beaten-earth and flagstone Surface **8016**, in which Pillar Base **8028**, the support for Pillar **8017**, was founded in the center of the room (IVNE.8 south section; Photos 1.21:30–31, 1.32–1.33, 1.36).

The objects from Room b included an inscription on a storage jar sherd, *qdš lšrt*, “dedicated [*qodesh*] to Asherat” (Obj. No. 9502, Photos 1.38–1.39)¹⁶⁷ and a possible stone altar (Obj. No. 2170, Photo 1.36),¹⁶⁸ as well as a ceramic pomegranate (Obj. No. 1904 [Fig.

156. The top plan of Temple Complex 650 will be published in *Ekron* 10.

157. From Surface 7011P; see Gitin 1993b: 250–51.

158. From Surface 7011P.

159. From Destruction Debris 7004 immediately above Drain 7009.

160. From Destruction Debris 7017 located in both Rooms a and b.

161. From Destruction Debris 7002 that covered Surfaces 7011 and 7012 and Threshold 7015.

162. From Surface 7011P.

163. From Destruction Debris 7007 immediately above Surface 7011.

164. From Surface 7011P.

165. The floor space of 15.47 sq m was calculated by deducting the 0.24 sq m taken up by Pillar Base 8028 from the total area of 15.71 sq m.

166. For other examples, see n. 104 and the associated text.

167. From Surface 8016P; see Gitin 1993b: 250–51.

168. From Surface 8016P.

5.3:1]), a stone roller (Obj. No. 2041 [Fig. 9.3:1]),¹⁶⁹ a double-pronged iron plow (Obj. No. 2182 [Photo 1.41, Color Photo 7.1:4]),¹⁷⁰ a hoard of 87 silver pieces and a gold drop (Obj. No. 3649A–I, K), five clay sealings (Obj. No. 3649J),¹⁷¹ and 37 loomweights (Obj. Nos. 1900–1903, 1905,¹⁷² 1858–1866 [Fig. 5.3:4 for Obj. No. 1864], 1871–1872, 1874–1875, 1878–1884, 1890–1891,¹⁷³ 2060–2066,¹⁷⁴ and 1850–1852¹⁷⁵).

Room c, the northern room of Unit 1, had a horizontal, rectangular shape with interior dimensions of ca. 3.84×2.08 m for an area of 7.99 sq m. It was formed by mudbrick Wall **8010** built on Socle **8003** on the west (Photos 1.21:20, 1.32–1.33); Wall **8006** on the north (Photos 1.21:7, 1.22); Wall **8008** built on Socle **8009** on the east (Photo 1.21:11); and Wall **8004** built on Socle **8011** on the south (Photos 1.24, 1.32–1.33, 1.36). Thresholds (openings) providing access to *Building* 652 Room d to the north may have been constructed on either side of Wall **8006**, as suggested by the lower level of the stones on its western and eastern sides (at 100.79 and 100.68, respectively) (IVNE.8 north section). The floor of Room c was beaten-earth Surface **8021** (Photos 1.21:34, 1.22, 1.30, 1.32–1.33).

The objects from Room c included a hoard of 59 silver pieces (Obj. Nos. 2069–2080, 2083–2087 [Photo 1.30, Color Photo 1.1]) and six loomweights (Obj. Nos. 1855–1857, 1868–1869, 1876),¹⁷⁶ as well as a limestone gaming piece (Obj. No. 2028), an iron blade (Obj. No. 2025), an iron nail fragment (Obj. No. 2091), and an iron tool (Obj. No. 2088).¹⁷⁷

Room d, a long, narrow room on the western side of Unit 1, had interior dimensions of ca. 1.35×4.69 m for an area of 6.33 sq m. It was formed by mudbrick Wall **IVNW.8007A** on the west, Wall **8012** on the north, mudbrick Wall **8010** on Socle **8003** on the east,

and Wall **8018** on the south (Photos 1.16–1.17, 1.21:7, 20, 1.32–1.33). Access to Room d from Room a to its south from Room a through an opening between mudbrick Wall **8018** and Wall **7003** across a low wall line designated Threshold **7028** (Photos 1.21:20, 1.33). The floor of the room was beaten-earth Surface **8014**, from which Pit **8038** was cut (IVNE.8 west section; Photos 1.21:35, 1.33, 1.40). Given the large number of sherds relative to the size of the room, Room d was probably a pottery dump, perhaps serving as a *favis*.¹⁷⁸

The objects from Room d¹⁷⁹ included five inscriptions on storage jar sherds, two with *qdš*, *qodesh*, “holy” or “dedicated” (Obj. Nos. 7797–7798), one with *lmqm*, *lemaqom*, and *t* with three lines under it, “for the sanctuary, 30 units of *tebel*,” produce set aside for tithing (Obj. No. 7796, Photo 1.40),¹⁸⁰ one with *qdš lhq qdš*, “holy according to the prescription of [*lehoq*] Qudšu” (Obj. No. 7799),¹⁸¹ and one with *lš*, “for Sh?” (Obj. No. 9506), as well as nine loomweights (Obj. Nos. 1877, 1885–1889, and 1893–1895).

In Unit 2 of *Building* 654, Room e on the northeast had a vertical, rectangular shape with interior dimensions of ca. 6.92×3.85 m and floor space of 21.19 sq m.¹⁸² It was formed by Walls **23003** and **23004** on the west, Wall **24008** on the north (parallel to Wall **24003**, the southern wall of *Building* 653 Room c), and Walls **24011** and **24012** on the east (Photos 1.21:10, 22, 40, 1.32–1.33). The purpose of building two parallel Walls

169. From Destruction Debris 7006 above Surface 8016.

170. From surface Make-up 8016.1 for Surface 8016.

171. All found in Jug 8035A sunk into Debris/Floor Make-up 8015 for Surface 8021 and Fills 8030 and 8035 below it.

172. From Destruction Debris 7006 above Surface 8016.

173. From Destruction Debris 8002 that covered Surface 8016.

174. From Surface 8016P.

175. From Topsoil 8001 immediately above Destruction Debris 8002.

176. From Destruction Debris 8005 that covered Surface 8021.

177. From Debris/Floor Make-up 8015 for Surface 8021.

178. See Chapters 3 and 4C.

179. All of which were found in Destruction Debris 8007 on Surface 8014.

180. See Gitin 2003b: 289–90. As the word *tebel* interpreted as “produce set aside for tithing” is attested only from a much later context in the Mishnah (*Terumot* 10:6), another possibility could be suggested: the *t* for *tov*, meaning good, could refer to “wine of good quality,” known on an Iron Age inscription (Naveh 2000: 5). In any case, the *t* must refer to something used in the Sanctuary.

181. For the reading and translation of this inscription by Frank Moore Cross, see Gitin 1993b: 256, n. 24; for an alternative translation as “according to the rule of sanctity,” see Ahituv 2008: 344.

182. The floor space of 21.19 sq m was calculated by deducting the 5.45 sq m taken up by Stone (Installation) 23015, Pedestal 23018, Base 23045 for Press 23009, Vat (or Press) 24005, Installation 24014, and Quern 24014A from the total area of 26.64 sq m.

24003 and **24008** in such close proximity is unclear. The narrow space between them may have been a drain; alternatively, Wall **24008**, represented by only one course of stones, may have served as a bench, given that it was built of smaller stones than those used in the construction of Wall **24003** and at a slightly lower level. A four-horned altar (Obj. No. 4188) was in secondary use in Wall **24008** (Photo 1.21:22).¹⁸³ Access to Room e from Room b in Unit 1 to the west was through cobbled Threshold **24009** (Photos 1.32–1.33). On the eastern side of Room e, two openings led into the unexcavated areas—the northern between Walls **24011** and **24012** and the southern between Pillar Base **23013** and Stone (Installation) **23015** (Photo 1.21:40, 46). The floor of Room e was composed of compacted pebble and beaten-earth Surface **23012** in the southeast, Cobbles **23007** in the center-west, Cobbles **24016/24017** in the center-east, and Surface **24007** in the north (IVNE.23 east and north sections, IVNE.24 south and east sections; Photos 1.21:36, 43, 1.32–1.33).

In the northern part of Room e, olive oil Vat (or Press) **24005** was set into Surface **24007** in the north-western corner of the room formed by Wall **24008** and Threshold **24009** (Photos 1.21:22, 36, 38, 1.32–1.33). Square-shaped Stone Installation **24014** to the east of Vat (or Press) **24005** may originally have functioned as its pedestal or base (Photos 1.21:37–38, 1.33). In the southern part of the room, olive oil Press **23009** founded on stone Base **23045** may have been an element of an installation together with Stone **23015** and Cobbles **24016/24017**, on which Quern **24014A** (Obj. No. 3387 [Table 9.10]) lay next to the press (IVNE.23 north section; Photos 1.21:41, 1.32). Basin **23002** was part of the above-mentioned drainage system that extended into Room a (Photos 1.21:42, 1.32–1.33).

Room f, the partially excavated southern room of Unit 2, had interior dimensions of ca. 3.07×1.15 m and floor space of 3.24 sq m.¹⁸⁴ It was formed by Wall **23003** on the west, Wall **23006** on the north, and Wall **23025** with Pillar Base **23013** on the east (Photos 1.21:24, 44, 46, 1.32). Access to Room e to the north

was through the opening between Wall **23006** and Pillar Base **23013**. The room continued southward into the unexcavated area, which could have been a street. It is possible that Room f served as the entrance room for Unit 2, as Room a did for Unit 1. The floor of Room f was Cobbles **23014**, into which Pillar Base **23032** and Wall **23025** were set (IVNE.23 south section; Photos 1.21:45, 1.32).

The objects from Rooms e and f included two inscriptions on storage jar sherds, *b mʿrb*, “to offer” (Obj. No. 11452) and *tšrym* (təšurayim), “a double gift” (Obj. No. 11451),¹⁸⁵ a fragmentary stone incense stand (Obj. No. 3494),¹⁸⁶ a stone four-horned altar (Obj. No. 2946), a ceramic footbath (Fig. 4A.32),¹⁸⁷ stone Altar **23067** (Obj. No. 4530),¹⁸⁸ 19 clay loomweights (Obj. Nos. 2930, 11493, 11526,¹⁸⁹ 3090–3092,¹⁹⁰ 3121,¹⁹¹ 2928, 3089, 3257–3258, 3260–3261, 3264–3267,¹⁹² 3003, and 3262¹⁹³), three stone mortars (Obj. Nos. 3249, 3489–3490),¹⁹⁴ 11 stone grinders (Obj. Nos. 3501,¹⁹⁵ 3116,¹⁹⁶ 3001, 3114, 3122, 3148–3149, 9712, 9715, 9895, and 10036¹⁹⁷), five querns (Obj. Nos. 3511–3512,¹⁹⁸ 3518,¹⁹⁹ 3387, and 3388²⁰⁰) (Table 9.10), and an iron pick (Obj. No. 3128).²⁰¹

185. From Destruction Debris 24006 and Topsoil/Clean-up 24018 (from the east balk of Room e), respectively; Gitin and Aḥituv 2015.

186. From Topsoil/Clean-up 24018.

187. From Destruction Debris 24004.

188. Fell from the east balk.

189. From Destruction Debris 23001, part of a layer including Destruction Debris 23005 and 23010 that covered Surface 23012 and Cobbles 23014.

190. From Destruction Debris 23005, part of Destruction Debris 23010.

191. From Destruction Debris 23011 above Cobbles 23007 and Surface 23012.

192. From Destruction Debris 24004 above Destruction Debris 24006 on Surface 24007.

193. From Destruction Debris 24006.

194. From Cobbles 23007 surface.

195. From Cobbles 23007 surface.

196. From Destruction Debris 23010 above Surface 23012 and Cobbles 23014.

197. From Destruction Debris 24006.

198. From Cobbles 23007 surface.

199. From Cobbles 23014.

200. From Destruction Debris 24006 on Cobbles 24016/24017.

201. From Destruction Debris 23011.

183. This is another example of an object from the Stratum IC occupation phase reused in the rebuild for Stratum IB; see the text associated with nn. 65 and 216.

184. The floor space of 3.24 sq m was calculated by deducting the 0.29 sq m taken up by Pillar Base 23032 from the total area of 3.53 sq m.

STRATUM IA: IRON AGE IIC (end of the 7th/beginning of the 6th century BCE)

Stratum IA (Block Plan 3) was represented only in the northwest quadrant by the remains of *Building 658*, a partially preserved room formed by north–south stone Wall **25009** that cornered with east–west stone Walls **25008/41002** in the north and **24007/40002** in the south. Wall **41009** that abutted the western face of Wall **25009** may have served as an installation; Pillar Base **41011** was located in what should have been the center of the room. The walls were poorly constructed of unhewn limestone cobbles with interspersed chunks of hardened mudbrick and grinding stones in secondary use. Wall **25008** was built directly over Stratum IB mudbrick Wall **41016** of *Building 651* Room b, and Wall **24007** was built on Stratum IB Rooms b/f Wall **24009** (IVNW.24 north section, IVNW.41 west section). The walls of *Building 658* were generally mostly set into Stratum IB Destruction Debris **24005**, **25010**, **40003**, and **41003**, as was Pillar Base **41011** (IVNW.41 east section). A fragment of another stone wall, Wall **24006**, was located to the east of Wall **24007**.

While there were no discernible floor levels and no sealed pottery, 180 sherds representing various vessel types could possibly be associated with Stratum

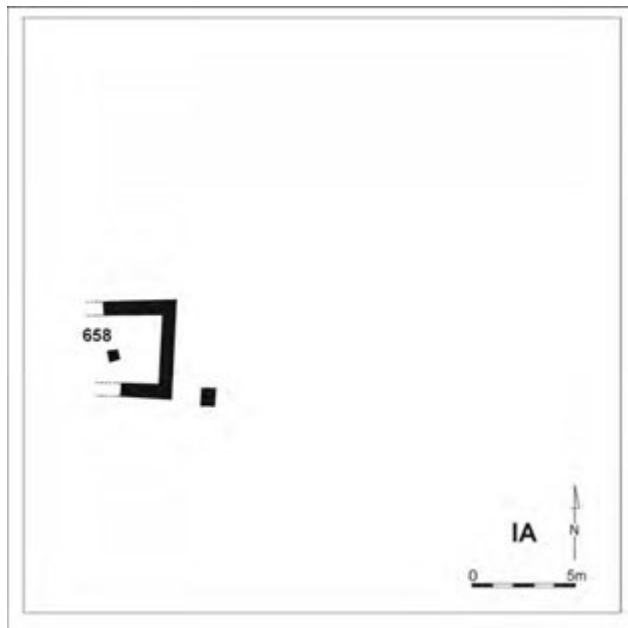
IA.²⁰² Among the few finds, one object of note was sealed in *Building 658* Wall **24007**, namely, a jar handle with a potter's mark (Obj. No. 1128).

Given this limited evidence, very little is known about Stratum IA in Field IV Lower other than that it was built directly over the destruction debris of Stratum IB and that the pottery associated with it was the same as that from Stratum IB.²⁰³

CONCLUSIONS: THE TEMPLE AUXILIARY BUILDINGS

The strongest evidence for understanding the Temple Auxiliary Buildings comes from *Buildings 651–654* in Stratum IB.²⁰⁴ They are described as such because of their physical location, their contents, and the activities with which they are associated. Immediately adjacent to *Temple Complex 650*, the northward-facing entrances of *Buildings 651*, *652*, and *653* open onto east–west *Alley 657* and *Street 656*, which were parallel to the southern facade of *Temple Complex 650*. The main entrance to *Temple Complex 650* was from *Street 656*, and lay directly opposite the entrance to *Building 652*. Although the main access to *Building 654* was in the south, it apparently opened onto an east–west street that should have connected to north–south *Street cc* parallel to the eastern façade of *Temple Complex 650* and intersecting with east–west *Street 656*. However, the possible secondary access points connecting Room c of *Building 654* with Room d of *Building 652* would have provided a direct connection between *Building 654* and *Street 656* and *Temple Complex 650*.

Most importantly, of the 26 inscriptions found at Ekron in Stratum IB, 16 were from Field IV Lower, including seven dedicatory inscriptions that appeared exclusively in *Building 654*.²⁰⁵ The seven dedicatory



Block Plan 3: Stratum IA

202. See the Stratum IA loci in *Ekron 9/3A*: Index A, and the pottery quantification data for Stratum IA in Chapter 4C.

203. The best architectural and ceramic evidence for Stratum IA comes from Assyrian-type courtyard Building 508, especially rooms i and m, in Field IIINE (*Ekron 12/2*).

204. Since only the eastern edge of Building 655 was excavated, it is excluded from the discussion.

205. The other 10 inscriptions included seven from Stratum IB in Field IV Upper. Two of these were found in the

inscriptions included: *qdš lhq qdš*, “holy according to the prescription of Qudšu”; two examples of *qdš*, “holy”; *lš*, “for Sh?”; *lmqm t*, with three parallel lines below the *t*, “for the sanctuary, 30 units of *tebel*” (produce for tithing); *lšrt*, “to Asherat”; and *qdš lšrt*, “holy” or “dedicated to Asherat.” Four inscriptions relate to the contents of storage jars: two examples of *šmn*, “oil”; one example of the short form for oil, *š*; and one example of *dbl*, a cluster of figs.²⁰⁶ Three inscriptions refer to volume measurements: *bt*, perhaps indicating 32 liters, and two examples of its short form, *b*.²⁰⁷ In addition, two inscriptions may reflect specific activities: *b mʿrb* may be associated with an offering and *tšryn* may be related to soaking for eating purposes or gift-giving.²⁰⁸

The dedicatory inscriptions underscore the cultic character of *Temple Auxiliary Buildings 651–651* and their relationship to *Temple Complex 650*. The

inscription “for the sanctuary” with the designation in the Phoenician numbering system of “30 units of *tebel*”—produce set aside for tithing—indicates that there was a central place of worship at Ekron. This proved to be the case with excavation of the Ekron Royal Dedicatory inscription in the Sanctuary of *Temple Complex 650*.²⁰⁹ The reference to tithing also implies the existence of a priestly class. The implication of centralized worship stands in contrast to the decentralized worship system indicated by the disparate locations of the 16 four-horned incense altars found in the industrial and domestic zones, as well as in *Temple Auxiliary Buildings 651, 653, and 654* in the elite zone.²¹⁰ The findspots of the 12 incense stands also support this conclusion. In addition to the five found in *Temple Auxiliary Buildings 652, 653, and 654*, seven came from the industrial zone, three from Field II²¹¹ and four from Field III.²¹² Thus, two different religious worship systems must have coexisted simultaneously at Ekron.

The types of produce used for tithing are suggested by the storage jar sherd inscriptions indicating oil and dried-fig cakes found in the *Temple Auxiliary Buildings*, and the *bat* volume measurement inscriptions may indicate the amount of produce dedicated for this purpose. The inscriptions “holy” or “dedicated to Asherat” and “holy according to the prescription of Qudšu” (the latter name possibly a synonym for Asherat²¹³), refer to a West Semitic or Canaanite goddess worshipped at Ekron to whom the contents of the jars were dedicated. The name Asherat may also represent the Semitic version of *Ptgyh*, interpreted as an

Sanctuary of Temple Complex 650: the Ekron Royal Dedicatory inscription from the cella (Obj. No. 7310; Gitin, Dothan, and Naveh 1997) and the *lbʿl wlpdy*, “for Baʿal and for Padi,” inscription from side Room p (Obj. No. 9510; Gitin and Cogan 1999). Four came from the southern side rooms of the Sanctuary: *bt*, a volume measurement, and *mym*, “water,” from side Room p (Obj. Nos. 7631 and 9512, respectively); *b*, the short form of *bt* from side Room s (Obj. No. 7186; Gitin 1993b: 251); and *yyn*, “wine” from side Room r (Obj. No. 7665). The seventh inscription from Field IV Upper, *lʿn[t]*, “for Anat?,” was found in a robber trench that cut Street cc (Obj. No. 7180). Another two inscriptions came from the Field I Northeast Acropolis: one from Stratum IB, *hmlk*, the short form of the name “(A)himelek,” from destruction debris in Area INW.10 (Obj. No. 3016), and the other, *bnʿnt*, “Benʿanat,” “the son of Anat,” was a surface find in Area ISW.8 (Obj. No. 3337; Gitin 1993b: 251–52). The 10th inscription was on a bowl found in Building 503 Room a in the Field III industrial complex: *š*, for *šmn*?, “oil” (Obj. No. 9508; Gitin 1993b: 252).

206. For an alternative translation as “cake of dried figs,” see Ahituv 2008: 344.

207. For the estimated measurement of 32 liters, see Gitin 1993b: 256, n. 32; for that of ca. 35 liters, see Chapter 4B: Fig. 4B.7.4. For a discussion of *bt* interpreted as signifying a jar type rather than a measurement, see Lipschits et al. 2010: 467–70; for a rebuttal, see Kletter 2014: 27–28.

208. These two readings are tentative.

209. Gitin, Dothan, and Naveh 1997.

210. These include two found in Building 651, one in Room e and the other in Rooms e/d, two in Building 653 Room e, one in Building 654 Room e, and one in Building 654 Room f. Another example found in secondary use in Building 654 Room e and associated with Stratum IC brings the total number of four-horned altars found at Ekron to 17; see also Gitin 2002: 114.

211. Obj. Nos. 7789–7791.

212. Obj. Nos. 2422, 2449–2451.

213. For a detailed examination of the arguments for and against the identification of Qudšu as Asherat, see Cornelius 1993: 29–33; 2004: 99–101.

Aegean goddess, the goddess to whom the Sanctuary in *Temple Complex 650* was dedicated.²¹⁴

The findspots of the inscriptions are also instructive. Of the 16, three prosaic inscriptions came from *Building 651*: two with the short form of the *bat* volume measurement and one with the word for dried-fig cake. The other 13, however, including all of the dedicatory inscriptions, came from *Building 654*, which also contained two four-horned incense altars and pottery associated with cultic practice,²¹⁵ together representing the major concentration of cultic finds in Field IV Lower.

Another example of ritual activities associated with the *Temple Auxiliary Buildings* is the cultic corner in *Building 653* Room e, composed of two four-horned incense altars and two stone incense stands, and four other four-horned altars, one each in *Building 651* Rooms e and e/d and *Building 654* Rooms e and f.²¹⁶ Of the 10 additional four-horned altars found in Stratum IB, one (Obj. No. 691) comes from the Field IV Lower domestic zone of occupation²¹⁷ and nine come from the industrial zone—two from Field II (Obj. Nos. 7783 and 7788, found together with incense Stand **IISW.150** [Obj. No. 7790]) and seven from Field III (Obj. Nos. 348, 724b–e, 1748, and 1816).²¹⁸ Three stone incense stands were also found in the industrial zone.²¹⁹ Since these objects are not exclusive to the Temple Auxiliary Buildings, however, it is apparent that cultic activities were conducted in other areas of the city. This indicates that a decentralized system of

religious practice coexisted at Ekron with the centralized system demonstrated by the presence of the Sanctuary in Temple Complex 650.

This also applies to some extent to the presence of pottery forms associated with cult in the Temple Auxiliary Buildings.²²⁰ Although similar pottery forms were found elsewhere at Ekron, seven out of the 24 rooms in *Temple Auxiliary Buildings 651–654* yielded a small but significant assemblage of pottery types associated with cult, such as chalices and lamps, indicating some kind of activity associated with rituals in these rooms: in entrance Room a in all four buildings, in Room b behind the entrance room in *Buildings 651* and *654*, and in Room e in *Building 653*, which contained a cultic corner with altars and incense stands.²²¹

Additional functions can also be attributed to *Temple Auxiliary Buildings 651–654* based on the presence of specific artifacts, for example, loomweights. Of the 162 loomweights found in Field IV Lower in Stratum IB, the vast majority (83%) were concentrated in *Buildings 653* and *654* in the northeast quadrant.²²² This indicates textile production activities in these buildings, which is supported by the presence of stone basins connected to water drainage systems—wool, the main source of cloth, needed to be washed (scoured),²²³ and the basins would have served this purpose.²²⁴ The distribution of loomweights in two of the room in *Building 653* in the northeast quadrant and *Building 651* in the northwest quadrant is also instructive. The largest concentration of loomweights in Field

214. Gitin, Dothan, and Naveh 1997: 12; Schäfer-Lichtenberger 2000: 89–91; 2015.

215. See the quantitative analysis in Chapter 3.

216. In addition, one four-horned altar (Obj. No. 4188) was found in secondary use in Stratum IB Wall IVNE.24008 (Photo 1.21:22), and unhorned basalt Altar 23012 (Obj. No. 2577) assigned to Stratum IC was found in Debris IVNW.23011 (Photo 1.19).

217. From Topsoil IVSW.8002. An unhorned altar (Obj. No. 724a) was also found in the domestic zone (in Fill IVSW.8003).

218. Of the nine four-horned altars assigned to the industrial zone, seven were found *in situ* and two in the course of a surface survey (Obj. Nos. 724d and 724e), one of which (Obj. No. 724e) may in fact come from the fortifications. For a discussion of all 17 four-horned altars and their definition as incense altars, see Gitin 2002.

219. All the incense stands will be published in *Ekron* 14/1–2.

220. As suggested by the quantitative analysis of the pottery in Chapter 3.

221. See the quantitative analysis in Chapter 3; see also the analysis of fish bones as they relate to cultic activities in Chapter 11.

222. Of these, 77 came from *Building 654*—39 from Room b, 19 from Rooms e/f, and the remainder from Rooms a, c, and d—and 58 came from *Building 653*—44 from Room b and the remainder from Rooms a, c, and e.

223. Forbes 1956: 81; Shamir 2007: 47.

224. In addition to Basins 26008 and 26010, Drain 26014, and the drain opening in Wall 26006 in Building 653 (which emptied into Drain 27008 in Street 656), Basin 10004 and Drain 10018 in adjacent Building 652 (which emptied into Drain 11009 in the same street) could also have been used for this purpose. In Building 654, Basin 23002 and Drains 23008 and 7009/6005 probably emptied into a street drain.

IV Lower—44—was found in *Building 653* Room b, and must have been in storage, since the other finds show that this room could not have served as an activity room for any aspect of textile production or other work activities.²²⁵ The same applies to *Building 651* Room e, which contained the largest concentration of loomweights—13—found in the northwest quadrant. It is possible that the textile production activities in *Buildings 653* and *654* were related to the needs of the priestly class, namely, to making priestly vestments. This may be another example of the special use of equipment that was common in the industrial zone—where loomweights were also found—for a non-industrial function in the Temple Auxiliary Buildings.²²⁶

Buildings 651–654 also contained objects related to food processing: 61 stone grinders, querns, pounders, mortars, and pestles and kurkar grinders and querns.²²⁷ With the exception of Room a in *Building 651* and Rooms e/f in *Building 654*, they were generally distributed as single objects in a number of the other rooms in the four buildings. *Building 651* Room a contained an assemblage of 10 and *Building 654* Rooms e/f of 23 of these objects. Based on the quantitative analysis of the pottery,²²⁸ *Building 651* Room a is considered as an area in which food prepared elsewhere was served and eaten and *Building 654* Rooms e/f are considered as an area in which food may have been prepared, as well as served and eaten. The latter conclusion is reinforced by the food preparation and related objects found in this area.

Finally, three silver hoards from *Building 651* Room e and *Building 654* Rooms b and c provide additional insight into activities in the Temple Auxiliary Buildings. The three hoards contained a total of 220 items of silver jewelry, *Hacksilber* (cut pieces of

silver), and silver ingots. Silver had a long history of use as currency in Mesopotamia, dating as far back as the third millennium, and as such, it served as a means of payment for the purchase of property and goods and for settling debts and taxes. By the 7th century, when the Neo-Assyrian Empire had expanded to its greatest extent, and when Ekron was one of its vassal city-states, silver had become the generally accepted currency throughout the empire, which greatly facilitated the growth of international commerce.²²⁹

While silver hoards were not unique to Field IV Lower,²³⁰ these hoards were the largest and contained the vast majority of the total number silver pieces, especially *Hacksilber* and ingots that were more easily weighed out or broken up for payment. Given that they were found in the Temple Auxiliary Buildings, it is quite possible that they were used either as payment for temple services or for tithes. It is also possible that the silver was used as currency for commercial exchanges associated with Ekron's position within the Neo-Assyrian and Phoenician trading system.²³¹ It is logical that a priestly or royal authority would be in charge of such activities.²³²

The evidence from *Temple Auxiliary Buildings 651–654* reflects their multi-functional character, with a concentration of cultic and related activities. While ritual elements are present in *Building 651* in the northwest quadrant of Field IV Lower, cultic and associated activities were concentrated in *Buildings 653–654* in the northeastern quadrant. Based on the size of the rooms and the character of the pottery from *Building 651*, its function was more closely related to general domestic activities.²³³

The Temple Auxiliary Buildings, with the entire city of Ekron, were destroyed in Stratum IB during the 604 BCE campaign of Neo-Babylonian King Nebuchadnezzar in Philistia. This marked the end of Ekron as a major urban city, and the end of the century of the city's greatest growth and prosperity, well represented in the evidence from Field IV Lower. It

225. The room was defined as a storage room based on the quantitative analysis of the pottery (see Chapter 3).

226. This could be the case for the only olive oil installation found outside the industrial zone: it came from one of the side rooms of the Temple Complex 650 Sanctuary and may have been used to make oil for cultic purposes (see the plan of Temple Complex 650 in Gitin 2004: 69, Fig. 5.6).

227. The total of 197 stone objects from Stratum IB occupation and destruction contexts given in Table 9.1 includes both fragments and objects identified only in the course of post-excavation analysis.

228. See Chapter 3.

229. Gitin and Golani 2001: 36–37; A. Golani 2013: 77–79.

230. Three additional hoards were found in Fields I, III, and IV Upper (Gitin and Golani 2001: 33–35).

231. Gitin and Golani 2001: 36–37, 43.

232. Gitin 1989: 50, 53, n. 19.

233. The more multi-functional character of this building is discussed in Chapter 3.

also marked the end of the almost 600-year process of gradual acculturation that was greatly accelerated with the advance of the Neo-Assyrian Empire into the Levant. The impact was so significant that by the time of the Babylonian conquest, when the large population

of the great 7th century city was apparently carried off into captivity, the Ekronites no longer had a sufficiently strong core culture to maintain their identity in exile. As a consequence, they eventually disappeared from the pages of history.²³⁴

234. For a detailed explanation of the process of acculturation at Ekron and its effects, see Gitin 2004: 63–76; for a recent summary of the textual and archaeological data pertaining to the history of Ekron in the late Iron Age, see Gitin 2010.

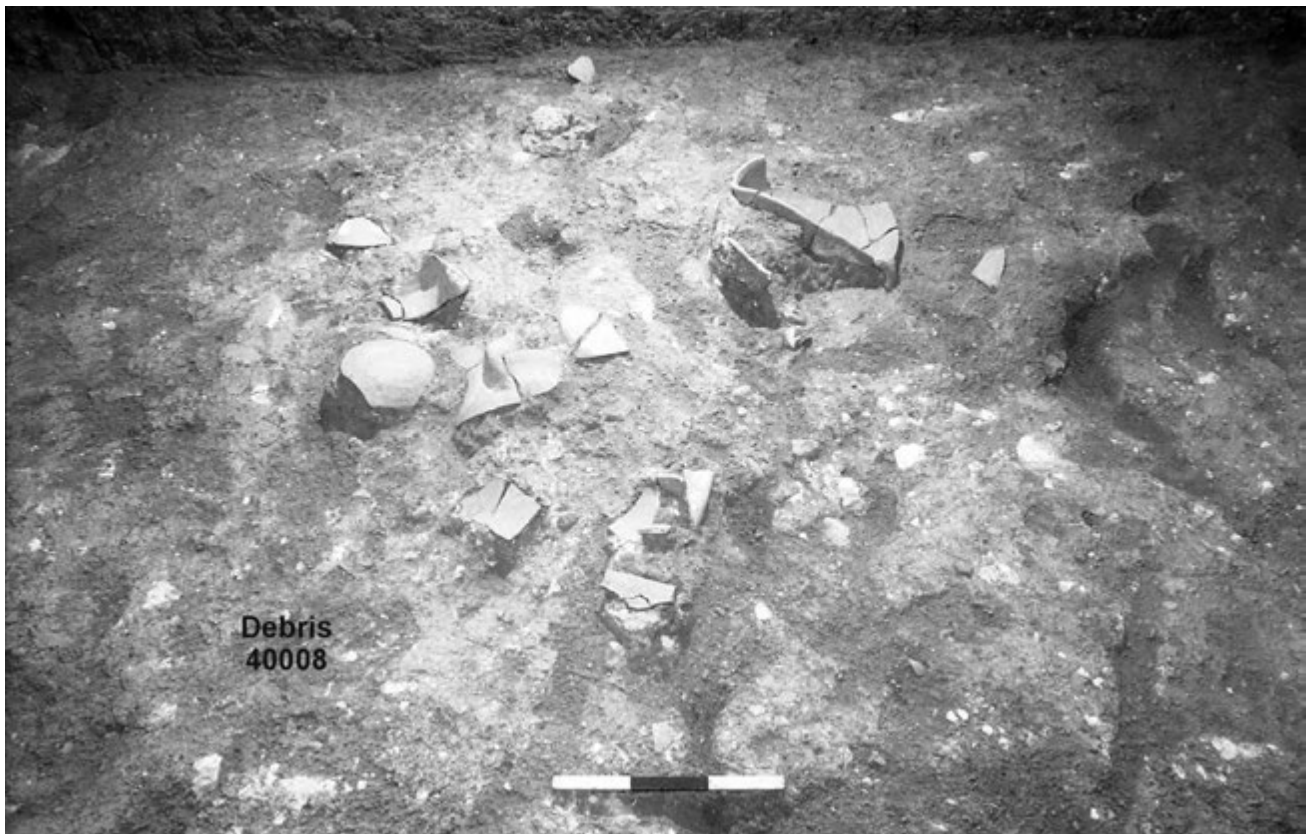


Photo 1.1. IVNW *Open Area 640a*: **Stratum Pre-IC** Debris 40008, with scoop fragments



Photo 1.2. IVNW **Stratum Pre-IC** restored standard-type scoops (Color Photos 4A.8:2, 4A.9:3)

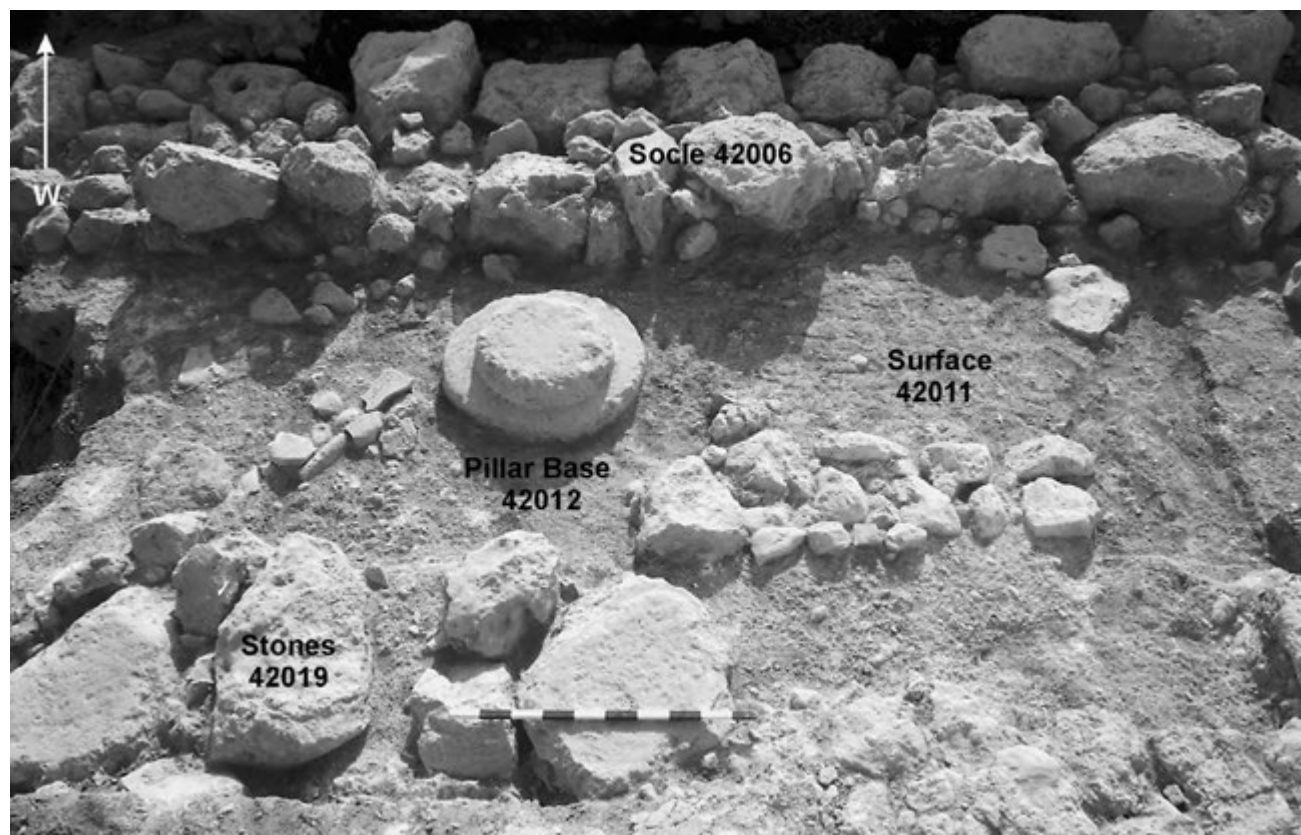
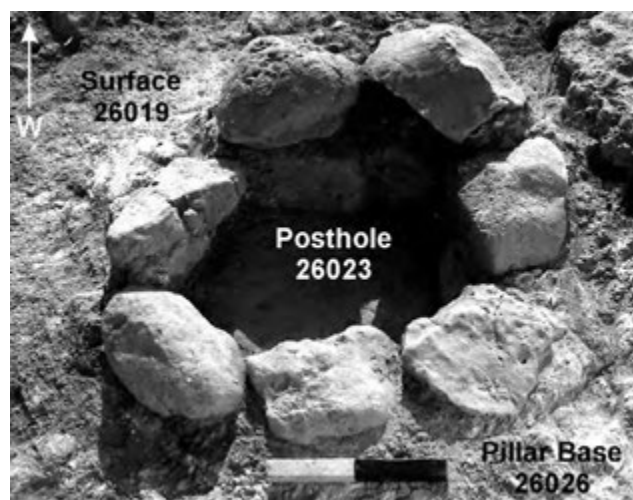
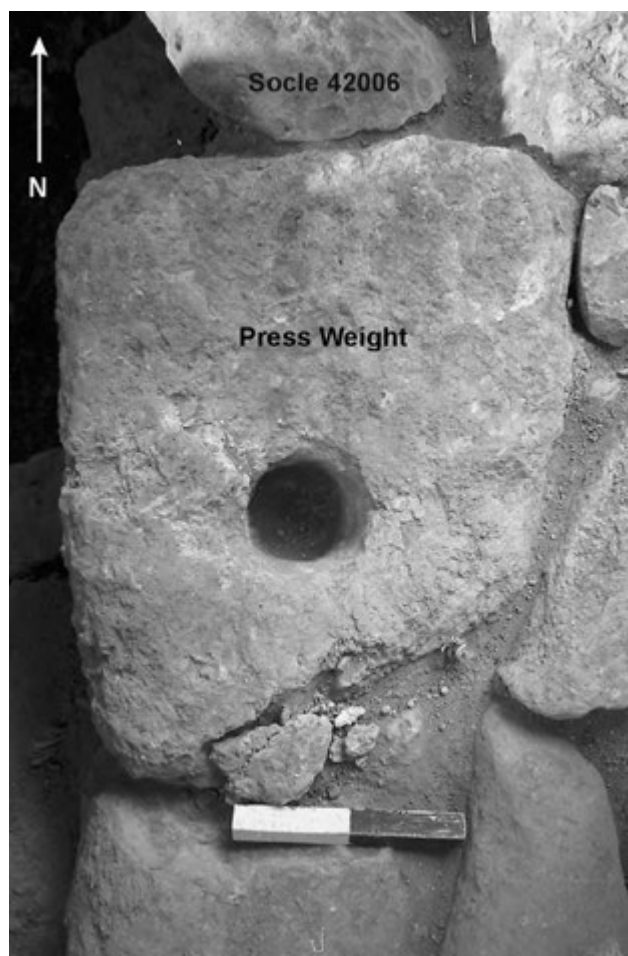


Photo 1.3. IVNW *Building 651 Room a*: **Stratum IB/C** Socle 42006, Surface 42011, Pillar Base 42012, Stones 42019



▲ Photo 1.4. IVNW *Building 651 Room a*: **Stratum IB/C** Pillar Base 26026, Posthole 26023, plaster Surface 26019

► Photo 1.5. IVNW *Building 651 Room a*: **Stratum IB** Socle 42006; **Stratum IC** olive oil press weight in secondary use in **Stratum IB**



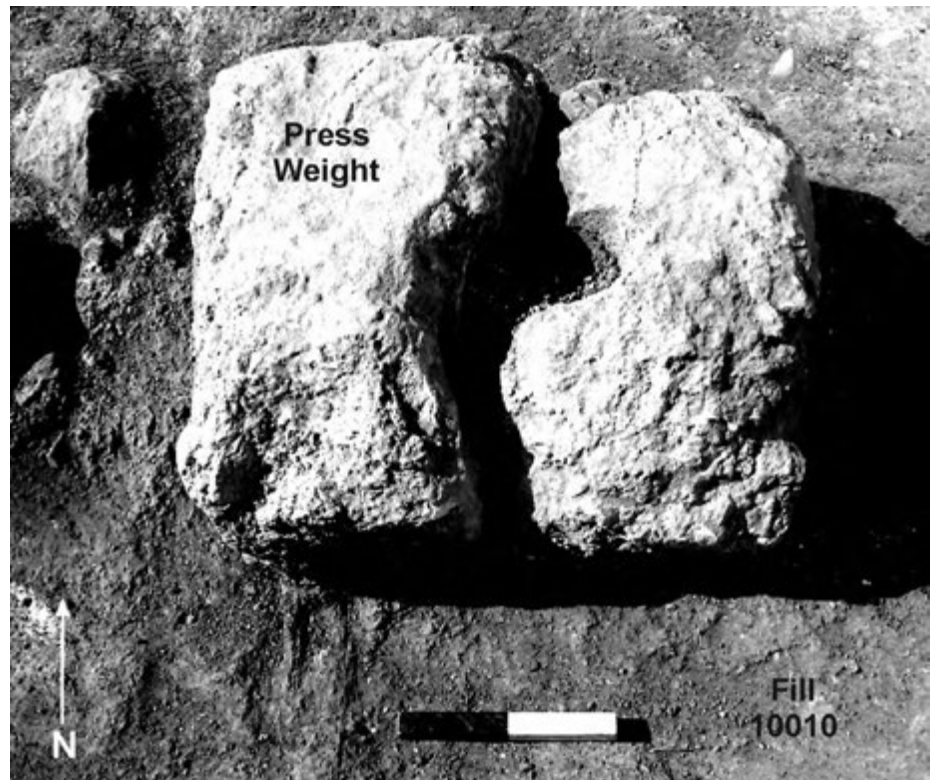


Photo 1.6. IVNW *Building 651* Room *d*: **Stratum IC** olive oil press weight (Obj. No. 4339) in **Stratum IB** Fill 10010.

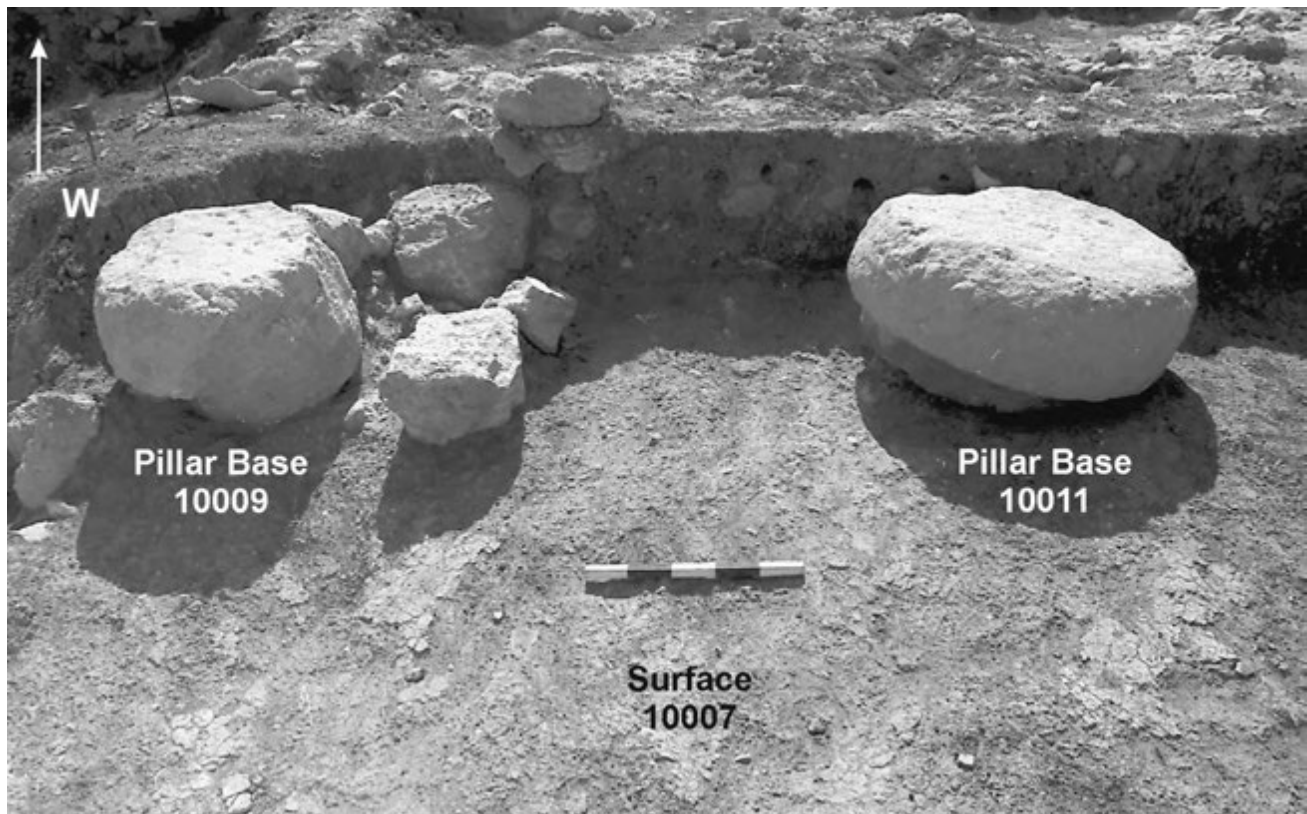


Photo 1.7. IVNW *Building 651* Room *d*: **Stratum IB/C** Surface 10007, Pillar Bases 10009, 10011

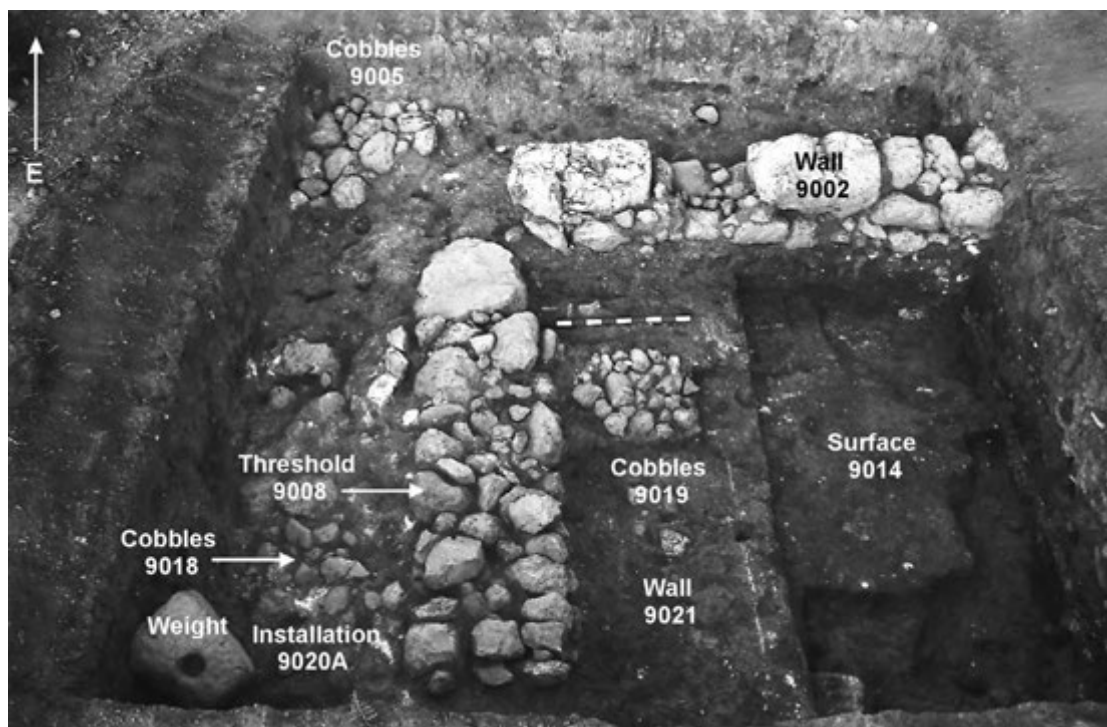


Photo 1.8. IVNW *Building 651 Room e*: **Stratum IVA/B** Surface 9014, Wall 9021; **Stratum IC** Cobbles 9019, olive oil press Weight 9020A in secondary use in **Stratum IB**; **Stratum IB/C** Wall 9002, Threshold 9008; **Stratum IB** Cobbles 9005

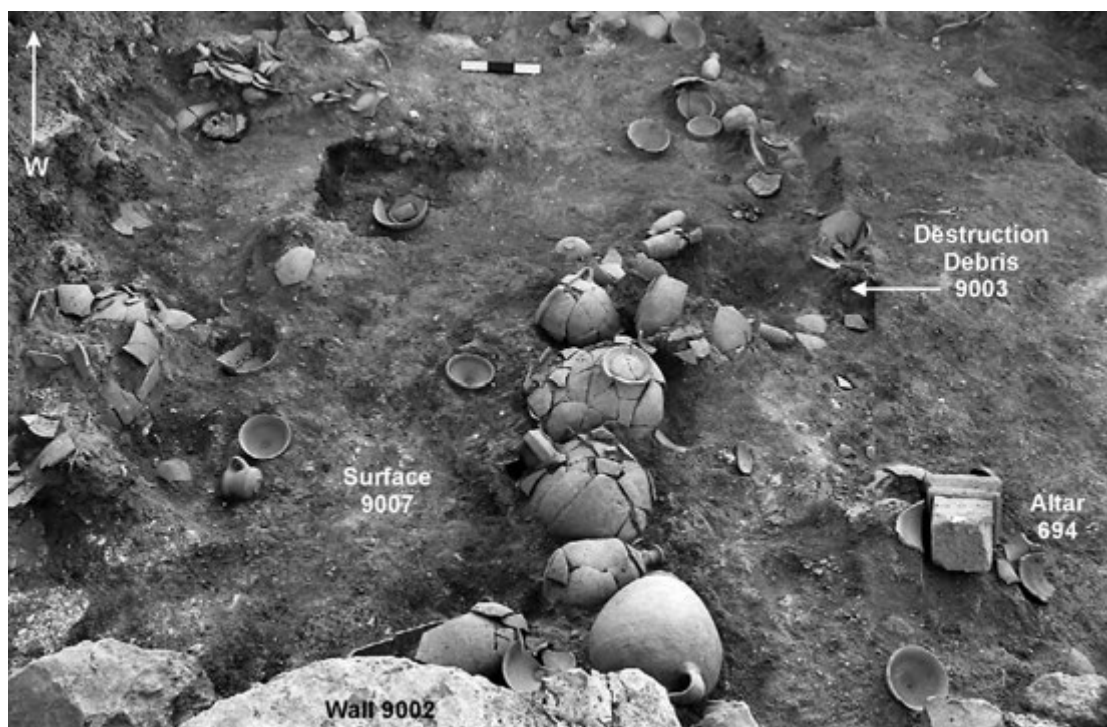


Photo 1.9. IVNW *Building 651 Room e*: **Stratum IB/C** Wall 9002, Surface 9007; **Stratum IB** Destruction Debris 9003, four-horned altar (Obj. No 694)

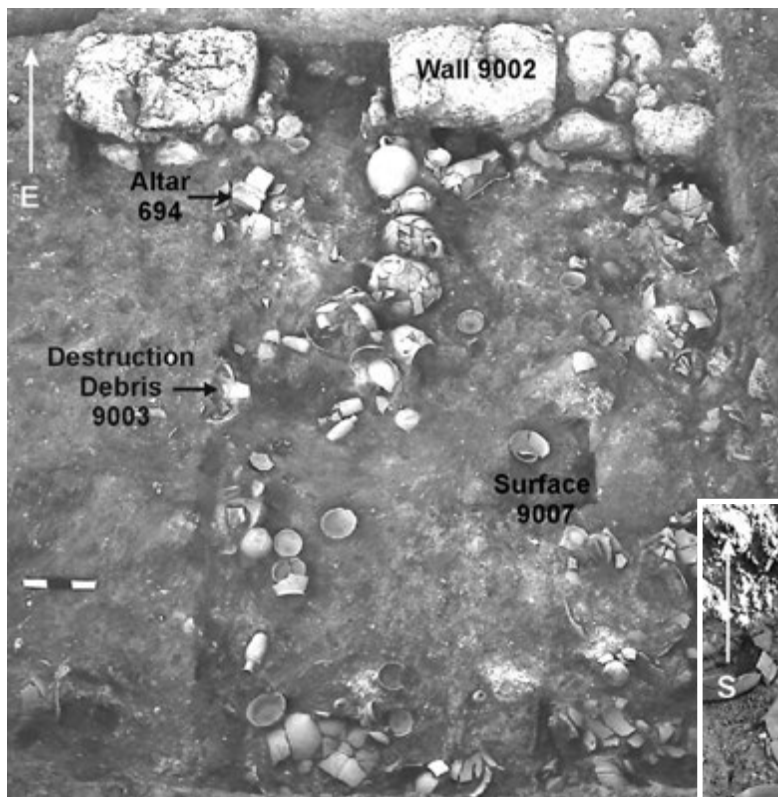


Photo 1.10. IVNW *Building 651 Room e*: **Stratum IB/C** Wall 9002, Surface 9007; **Stratum IB** Destruction Debris 9003, four-horned altar (Obj. No. 694)

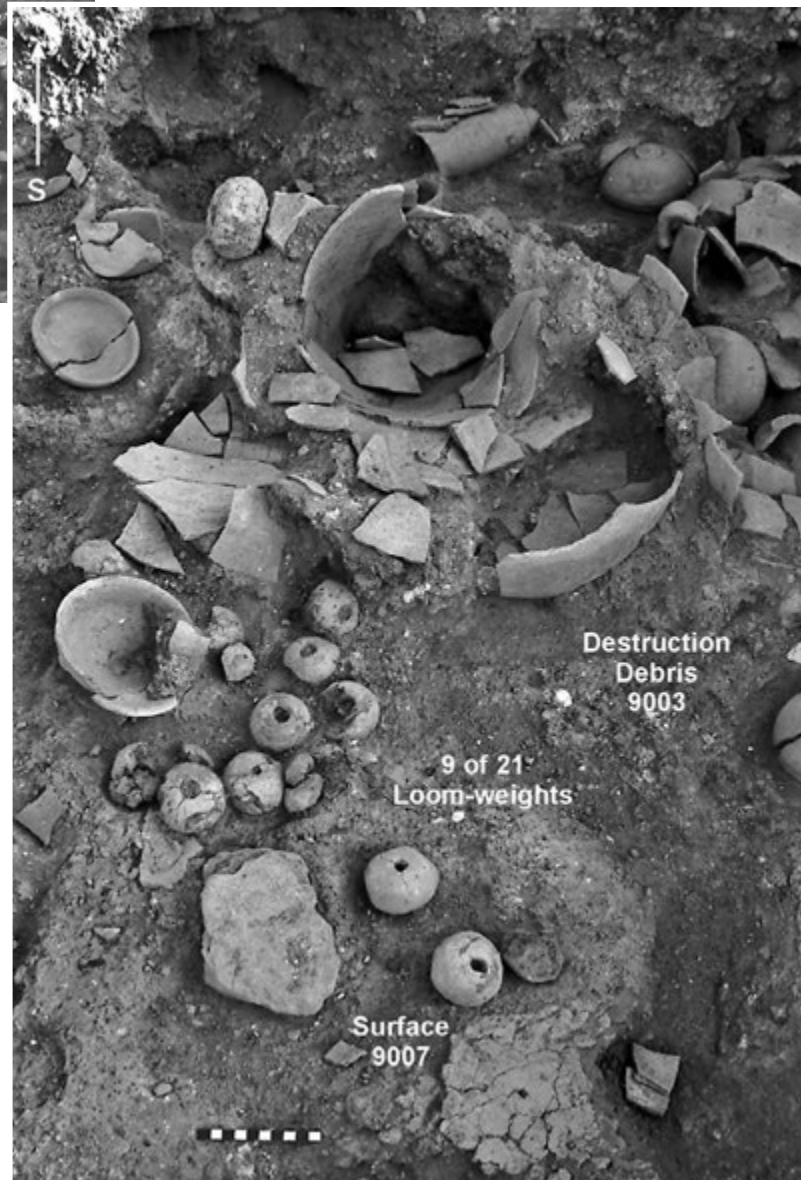


Photo 1.11. IVNW *Building 651 Room e*: **Stratum IB** Destruction Debris 9003, Surface 9007 with 21 loomweights

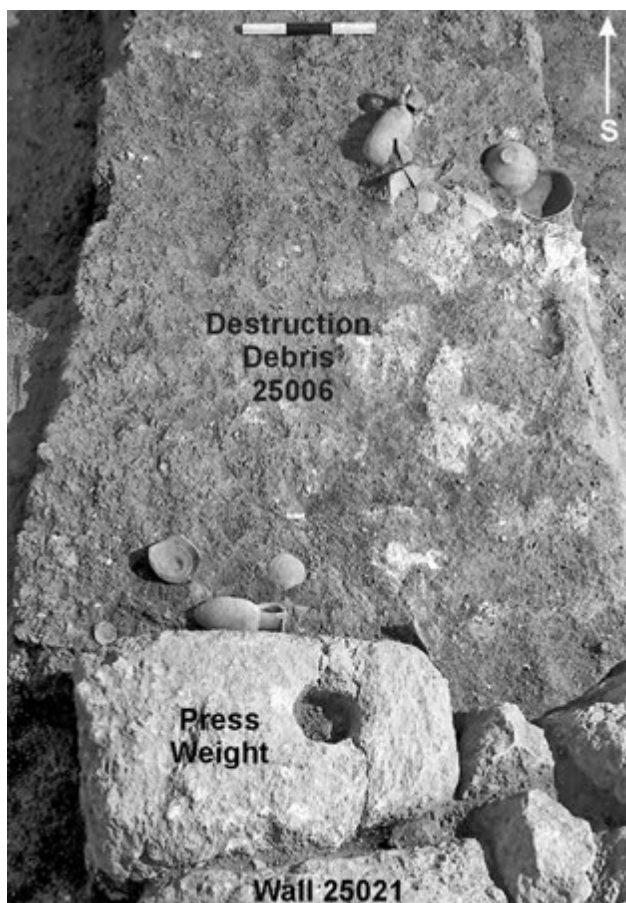


Photo 1.12. IVNW *Building 651 Room e*: **Stratum IC** olive oil press weight in secondary use in **Stratum IB** Wall 25021; **Stratum IB** Destruction Debris 25006

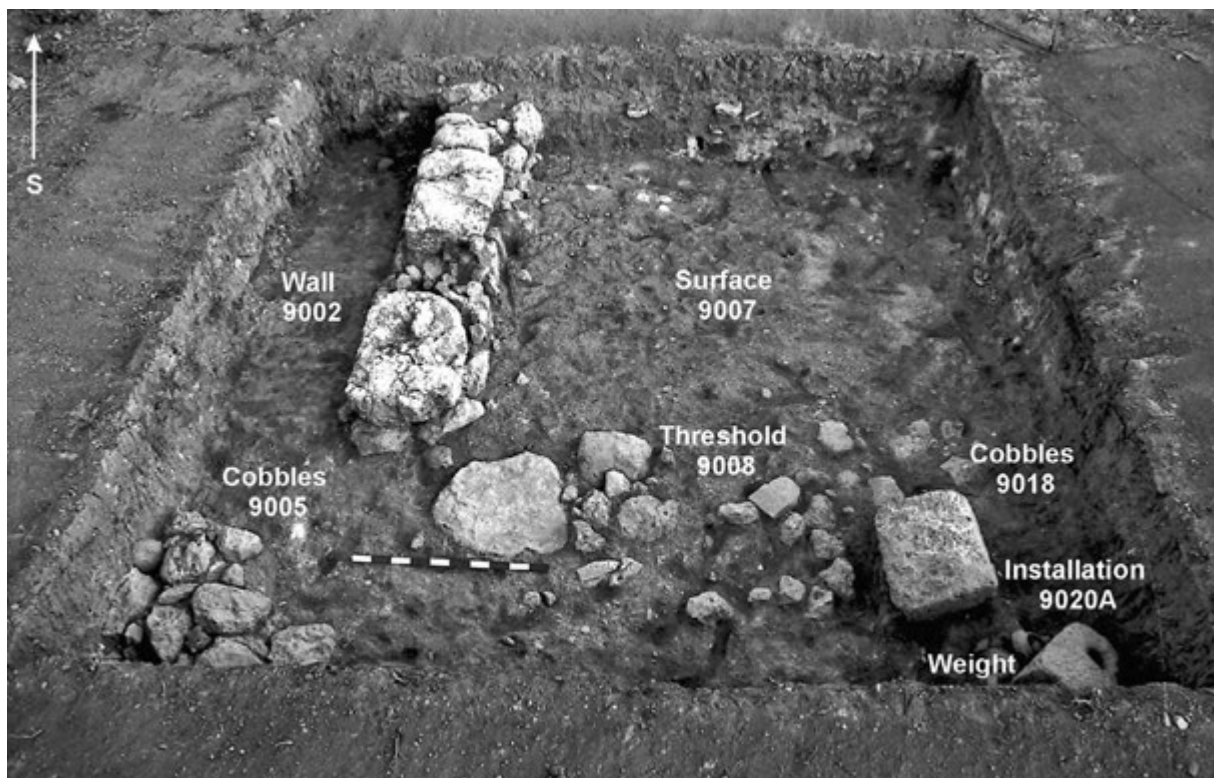


Photo 1.13. IVNW *Building 651 Rooms d-e*: **Stratum IC** olive oil press Weight 9020A in secondary use in **Stratum IB**; **Stratum IB/C** Wall 9002, Threshold 9008; **Stratum IB** Surface 9007, Cobbles 9005

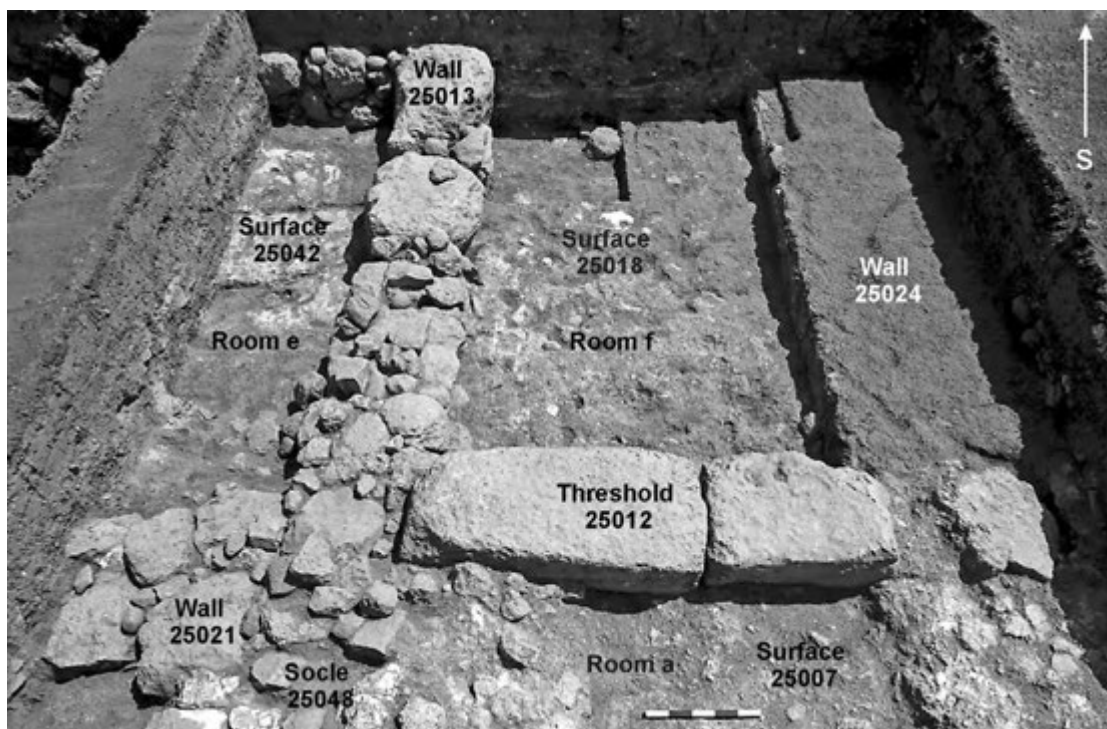


Photo 1.14. IVNW Building 651 Room f: **Stratum IC** Surface 25018; **Stratum IB/C** Wall 25024; **Stratum IB** Wall 25013; Building 651a: **Stratum IB/C** Socle 25048; **Stratum IB** Surface 25007, Wall/Threshold 25012; Building 651e: **Stratum IB** Wall 25021, Surface 25042

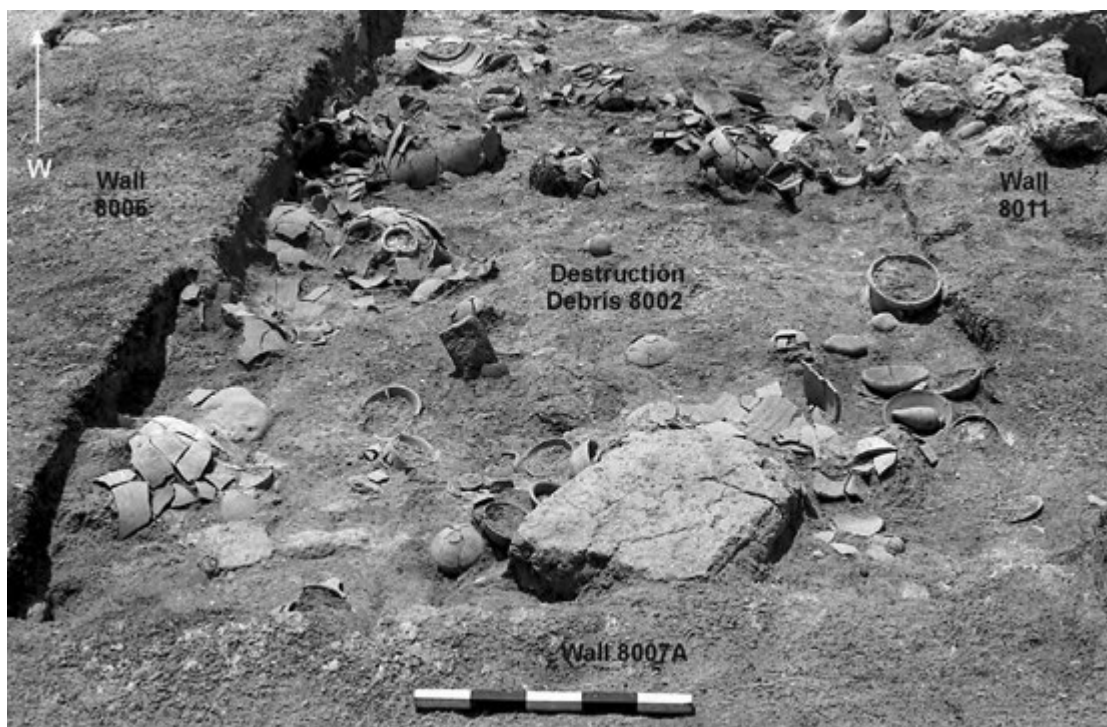


Photo 1.15. IVNW Building 651 Room g: **Stratum IB/C** Walls 8006, 8007A, 8011; **Stratum IB** Destruction Debris 8002 on Surface 8012

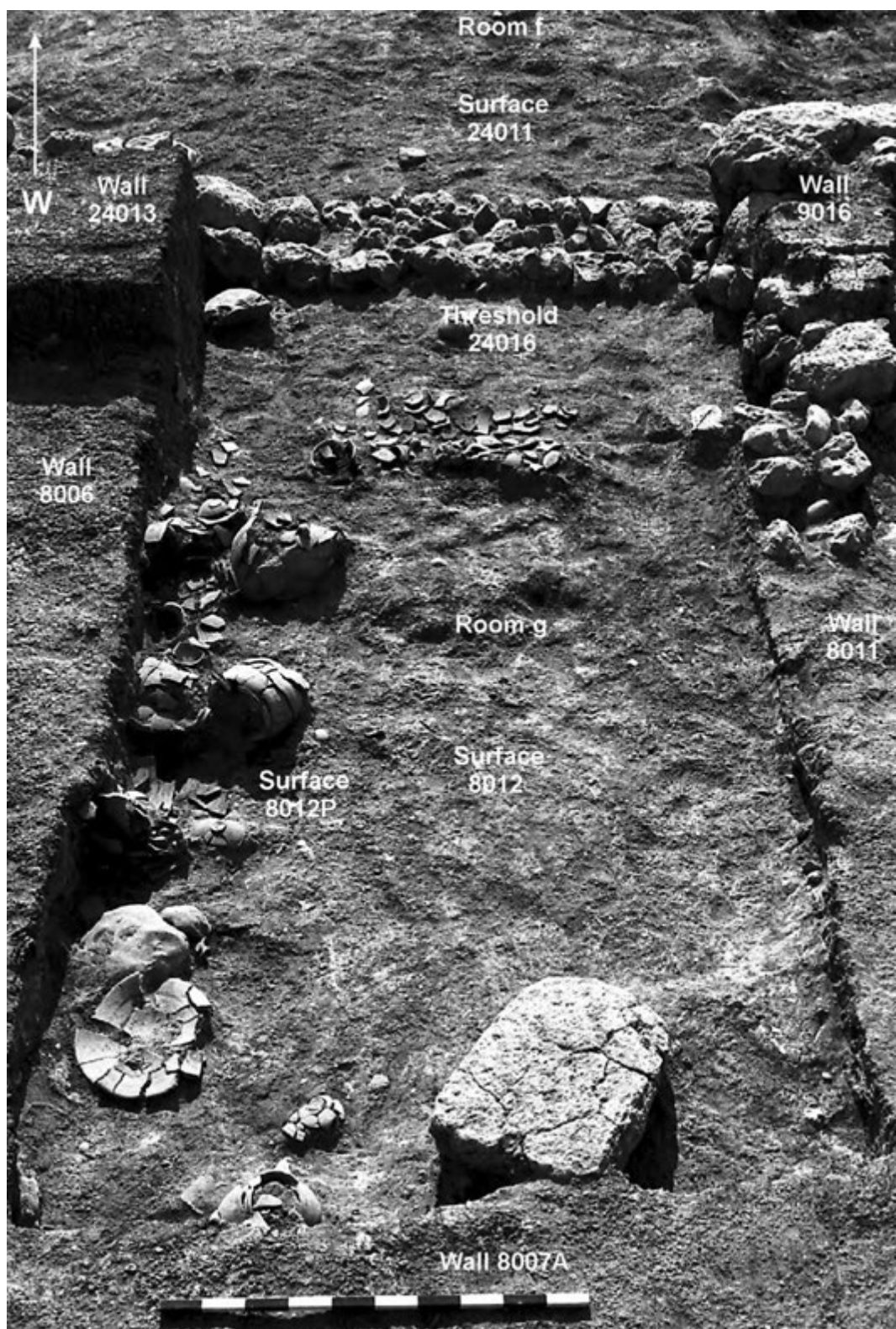


Photo 1.16. IVNW *Building 651* Room g: **Stratum IB/C** Walls 8006, 8007A, 8011, 9016, 24013, Threshold 24016, Surface 8012; **Stratum IB** Pottery 8012P on Surface 8012; *Building 651* Room f: **Stratum IB** Surface 24011

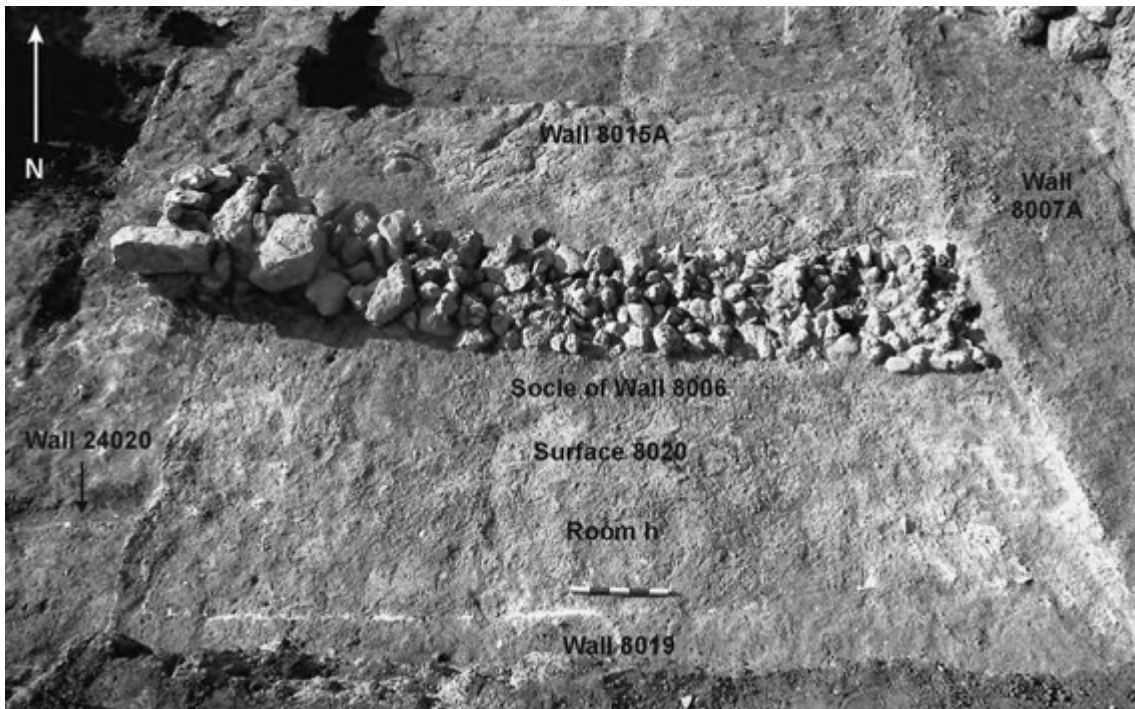


Photo 1.17. IVNW *Building 350 Room b*: **Strata VC–IVA** Wall 24020 below **Stratum IC** Debris 24015.1; **Strata VA–IVA** Wall 8015A below **Stratum IB/C** Surface 8012, Wall 8019; *Building 651 Rooms g, h*: **Stratum IB/C** Wall 8007A; *Building 651 Room h*: **Stratum IB/C** socle of Wall 8006, Surface 8020



Photo 1.18. IVNW *Building 651 Room i*: **Stratum IB/C** Wall 23004A above *Building 350 Room d*: **Strata VC–IVA** Wall 23004B; **Strata VC** Socle 23030

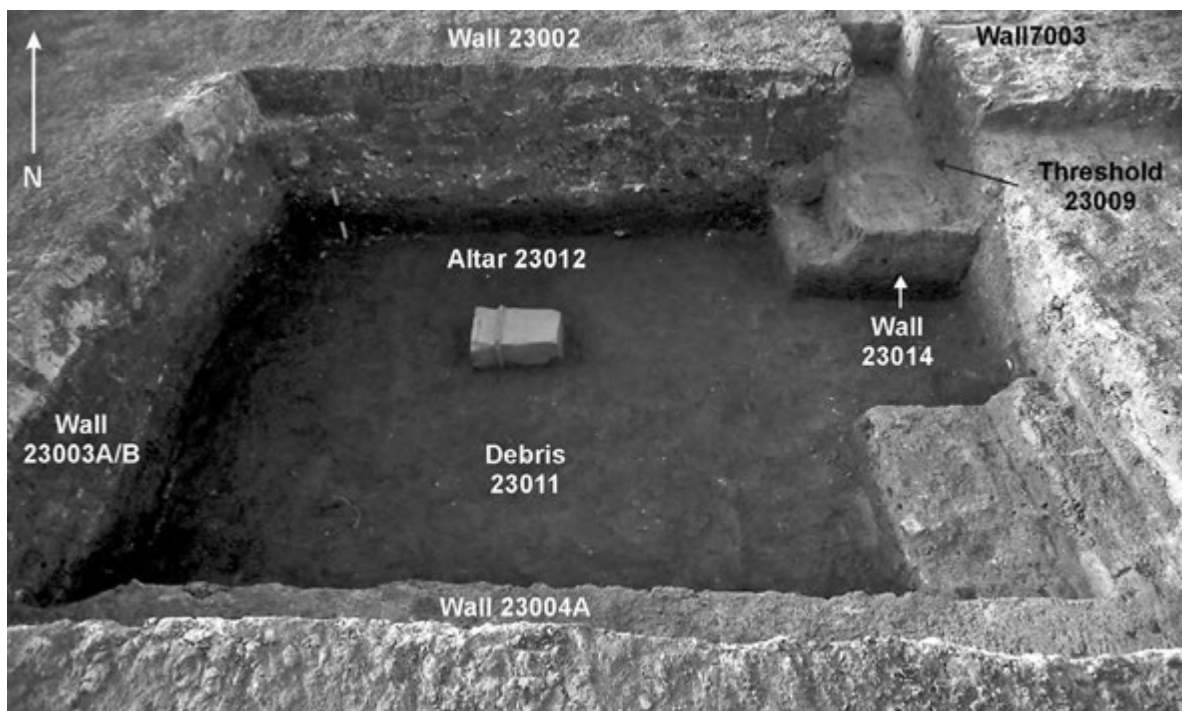


Photo 1.19. IVNW *Building 350 Room c*: **Stratum VC-IVA** Wall 23014 below **Stratum IB** Threshold 23009; *Building 651 Room i*: **Stratum Pre-IC** Debris 23011; **Stratum IC?** Altar 23012; **Stratum IB/C** Walls 7003, 23002, 23003A/B, 23004A; **Stratum IB** Threshold 23009

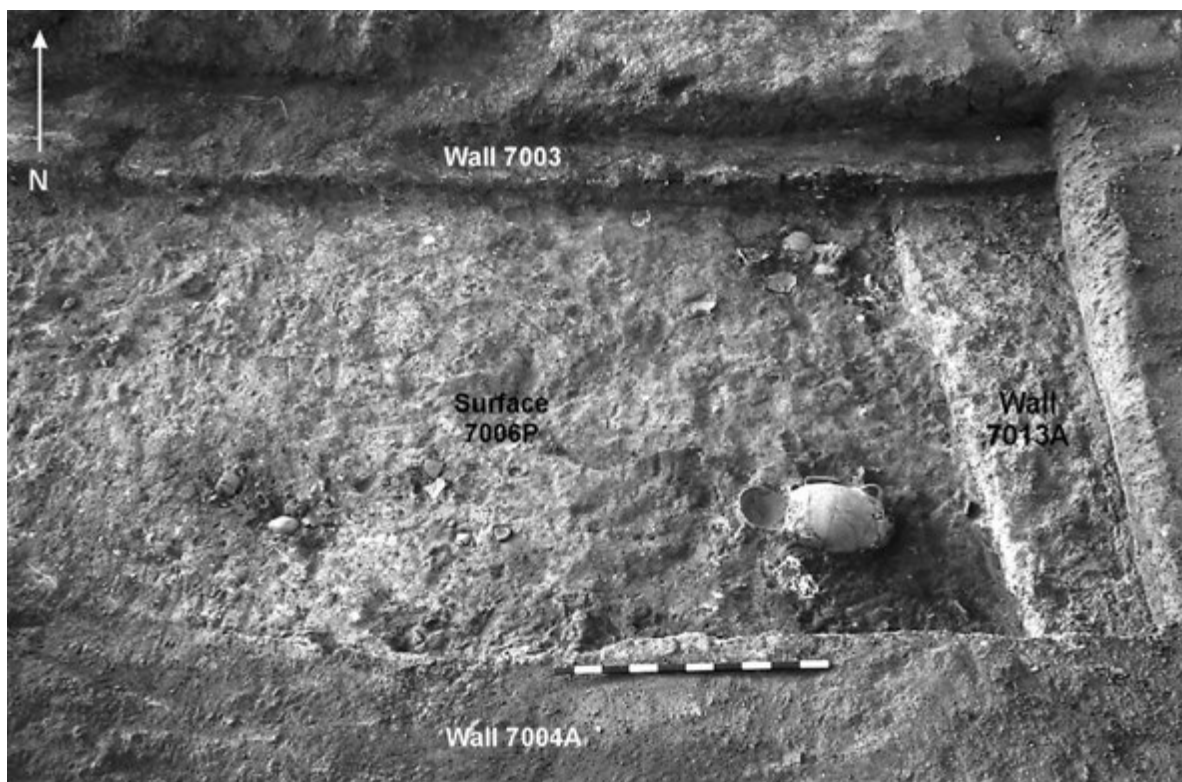


Photo 1.20. IVNW *Building 651 Room i*: **Stratum IB/C** Walls 7003, 7004A, 7013A; **Stratum IB** Surface 7006P

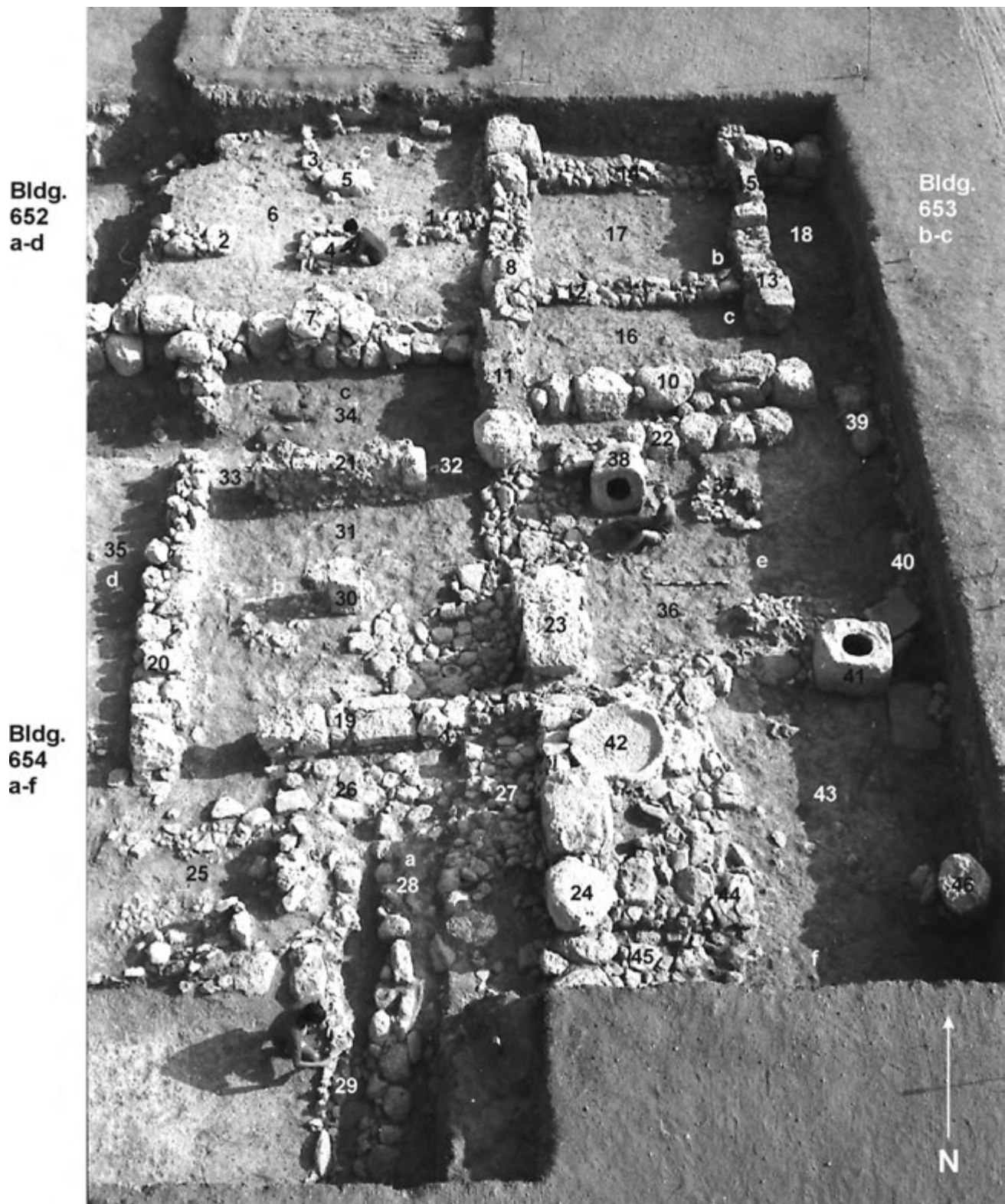


Photo 1.21. IVNE *Building 652 Rooms a–d: Stratum IB/C* (1) Wall 9006, (2) Wall 9005, (3) Wall 9013, (4) Pillar Base 9009, (5) Pillar Base 9010, (6) Surface 9007; *Stratum IB* (7) Wall 8006/8012, (8) Wall 25018; *Building 653 Rooms b–c, e: Stratum IB/C* (9) Wall 25003; *Stratum IB* (10) Wall 24003, (11) Wall 8008, (12) Wall 25014, (13) Wall. 25011A, (14) Wall/Threshold 25012, (15) Mudbricks 25011B, (16) Surface 24013, (17) Surface 25016, (18) Surface 25017; *Building 654 Rooms a–f: Stratum IB/C* (19) Wall 7005, (20) Wall/Socle 7003/8003, (21) Wall 8004/8011, (22) Wall 24008, (23) Wall 23004, (24) Wall 23003; *Building 654 Room a: Stratum IB/C* (25) Surface 7011, (26) Surface 7019A, (27) Drain 23008, (28) Drain 7009, (29) Drain 6005; *Building 654b: Stratum IB/C* (30) Pillar 8017, (31) Surface 8016, (32) Threshold 8019, (33) Threshold 8020; *Building 654c Stratum IB/C* (34) Surface 8021; *Building 654d: Stratum IB/C* (35) Surface 8014; *Building 654 Room e: Stratum IB/C* (36) Surface 24007, (37) Installation 24014, (38) Vat 24005, (39) Wall 24012, (40) Wall 24011, (41) Press (vat) 23009, (42) Basin 23002, (43) Surface 23012; *Building 654 Room f: Stratum IB/C* (44) Wall 23006, (45) Cobbles 23014, (46) Pillar Base 23013

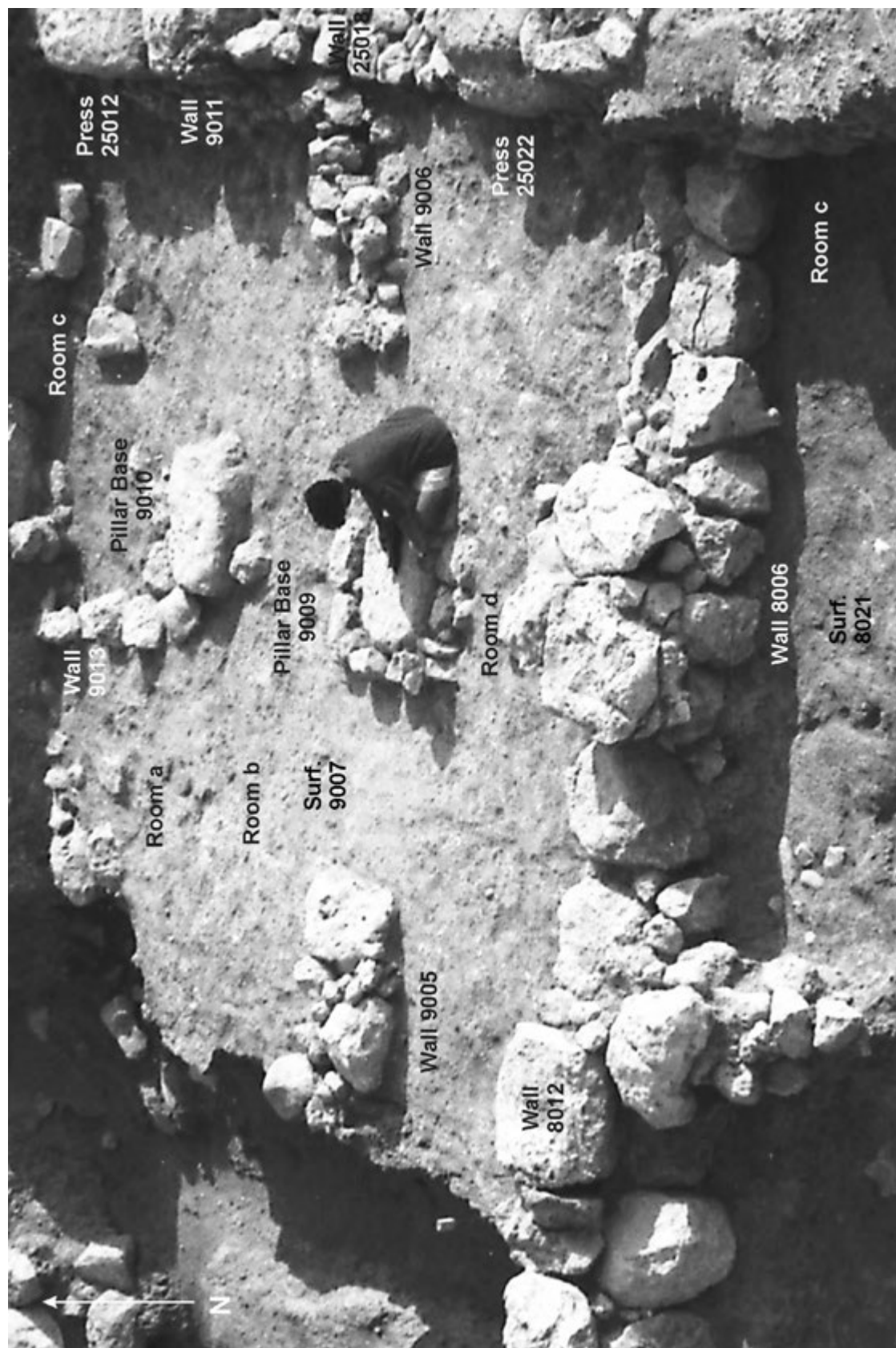


Photo 1.22. IVNE Building 652 Room a: **Stratum IB/C** Wall 9013; Building 652 Room b: **Stratum IB/C** Wall 9011, Surface 9007, Pillar Base 9010; Building 652 Room c: **Stratum IB/C** Press 25021; Building 652 Room d: **Stratum IB/C** Walls 8006, 8012, 9005, 9006, 25018, Pillar Bases 9008, 9009, Press 25022; Building 654 Room c: **Stratum IB/C** Surface 8021



Photo 1.23. IVNE Building 652 Room a: **Stratum IB/C** Wall 10009, Surface 10017; Building 652 Room c: **Stratum IB/C** Wall 10007, Surface 10012, Pillar Base 10010, Basins 10004, 10005; Street 656: **Stratum IB/C** Surface 10015, Drain 10018

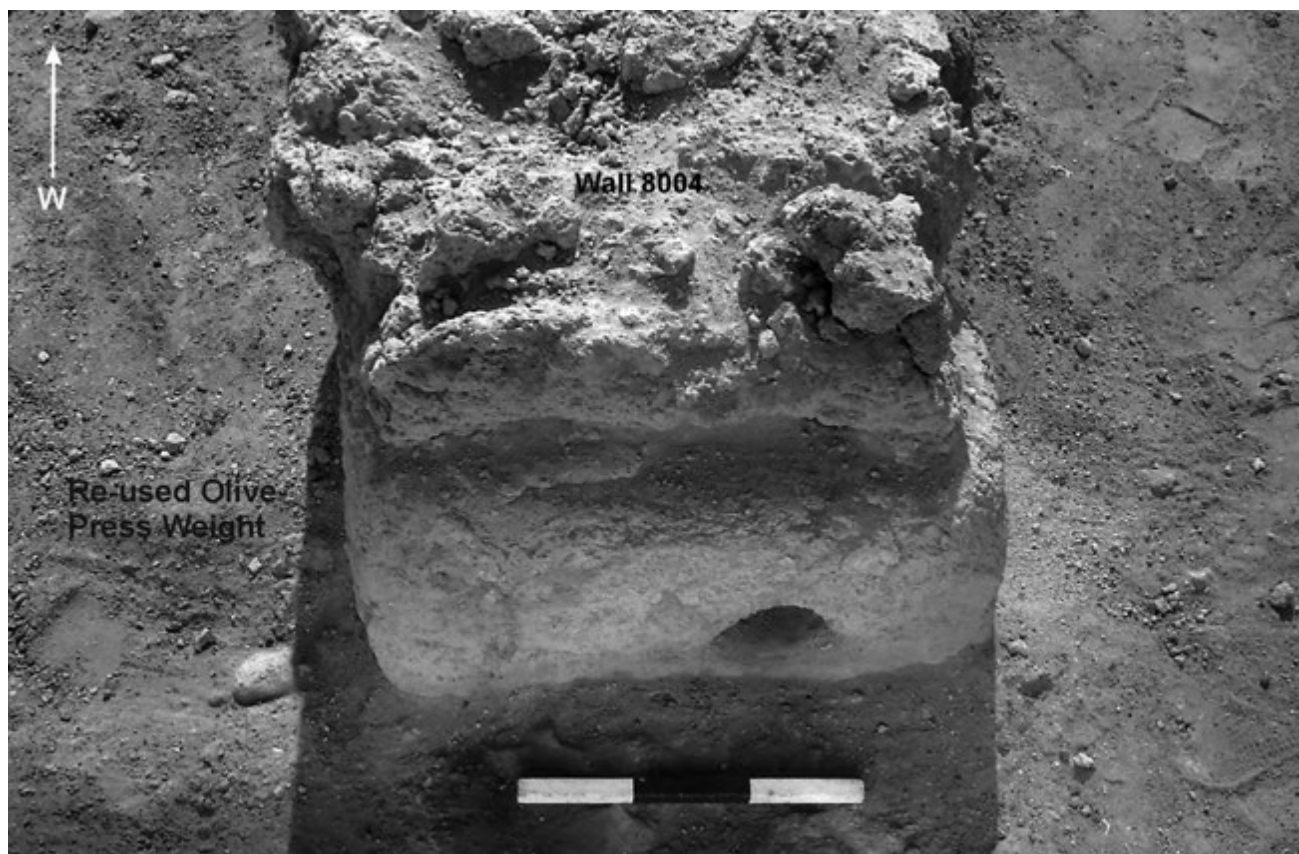


Photo 1.24. IVNE *Building 652 Rooms b/c*: **Stratum IB/C** Wall 8004 with reused olive press weight

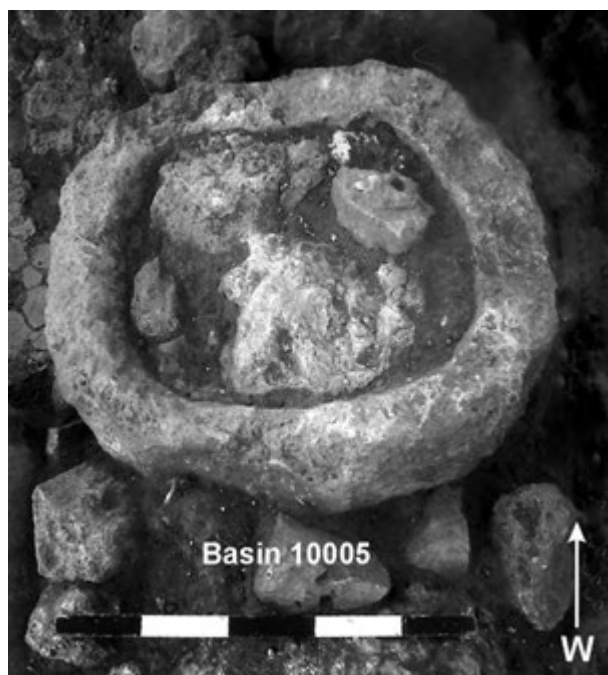


Photo 1.25. IVNE *Building 652 Room c*: **Stratum IB/C** Basin 10005

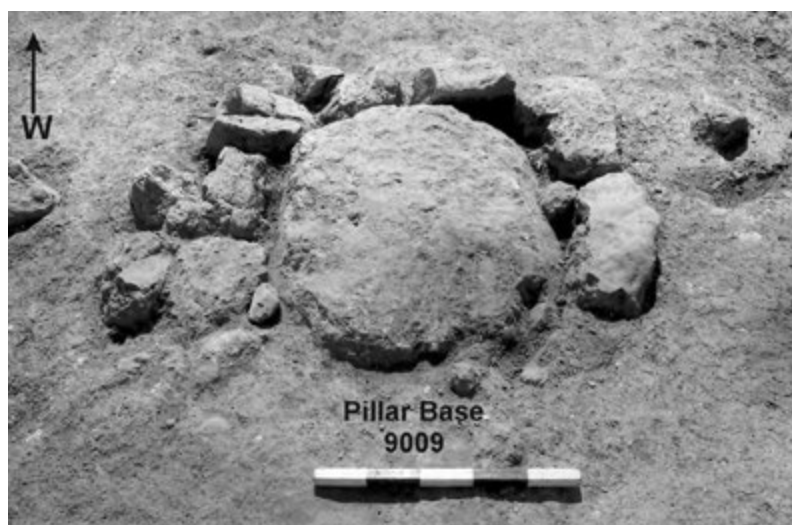


Photo 1.26. IVNE *Building 652 Rooms b/d*: **Stratum IB/C** Pillar Base 9009

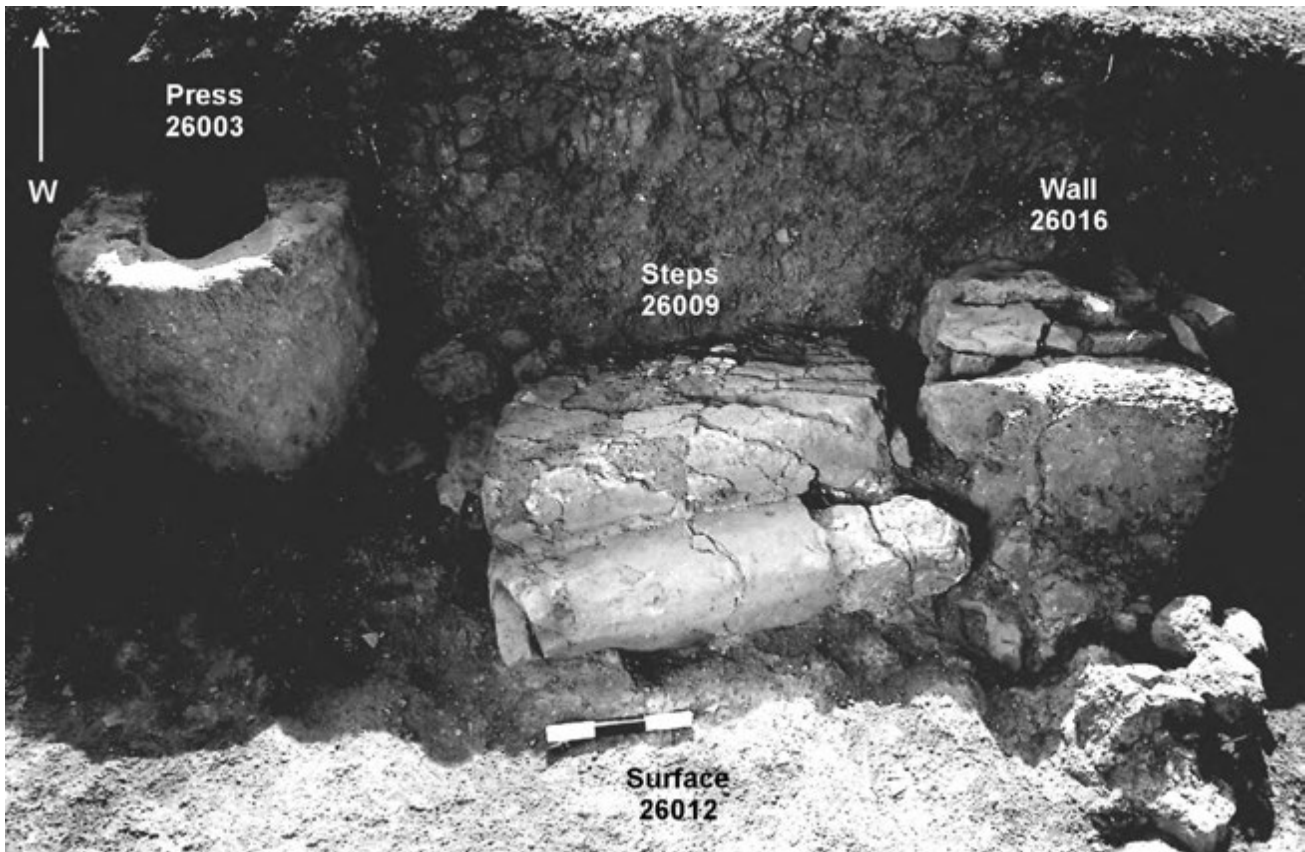
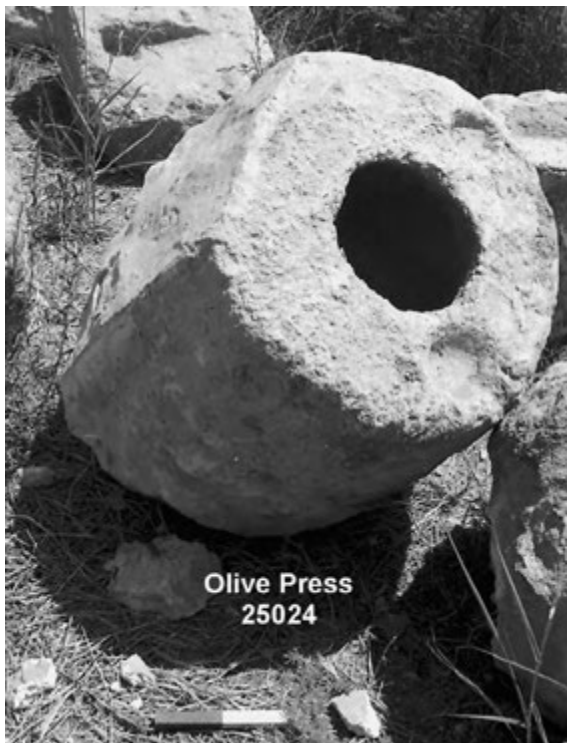


Photo 1.27. IVNE *Building 653 Room a*: **Stratum IB/C** Wall 26016, Surface 26012, Steps 26009, oil Press 26003



◀ Photo 1.28. IVNE *Building 653 Room b*: **Stratum IB/C** olive Press 25024

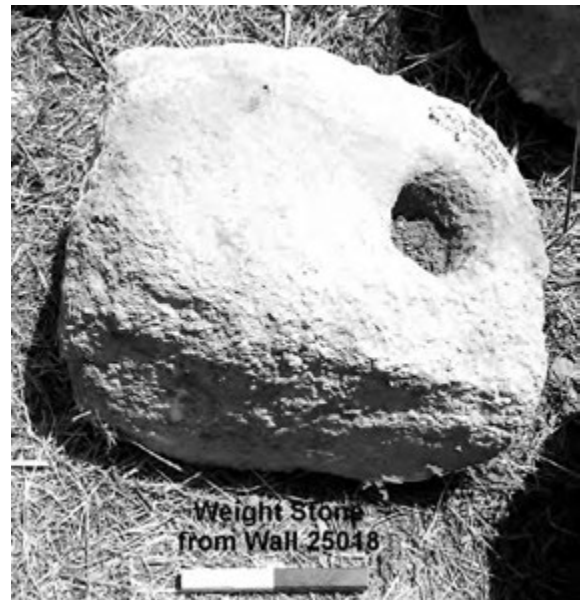


Photo 1.29. IVNE *Building 653 Room b*: **Stratum IB/C** olive oil press weight from Wall 25018



Photo 1.30. IVNE *Building 653 Room c*: **Stratum IB** hoard of 59 cleaned silver pieces (Obj. Nos. 2069–2080, 2083–2087) from Destruction Debris 8005 on Surface 8021 (see Color Photo 1.1)



Photo 1.31. IVNE *Building 653 Room e*: **Stratum IB** limestone Altar 25004 (in Destruction Debris 25007 on Surface 25017)

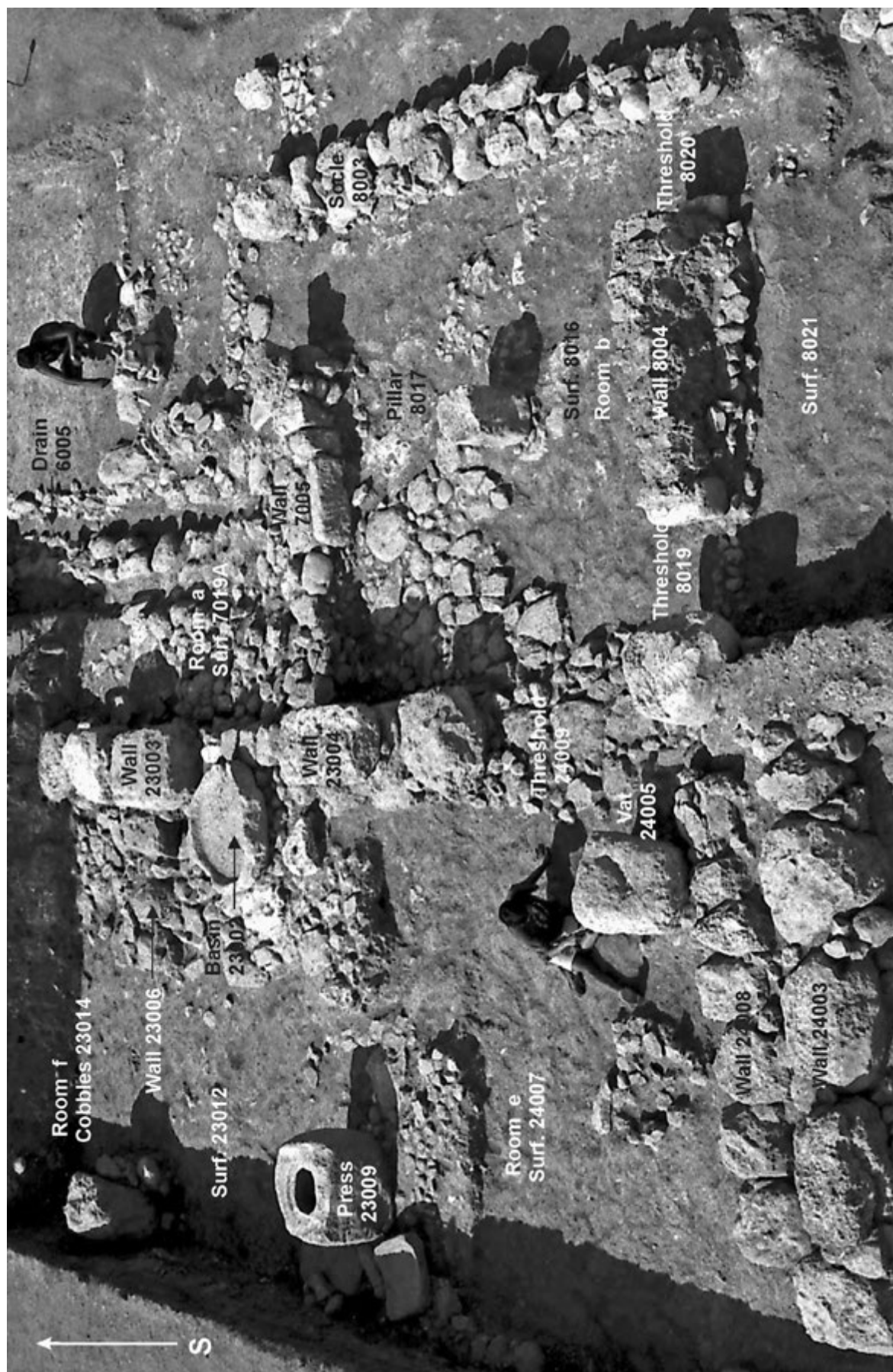


Photo 1.32. IVNE Building 654 Room a: **Stratum IB/C** Walls 7005, 23004, Surface 7019A, Drain 6005; **Building 654 Room b**: **Stratum IB/C** Socle 8003, Wall 8004, Surfaces 8016, 8021, Thresholds 8019, 8020, Pillar 8017; **Building 654 Room e**: **Stratum IB/C** Walls 24003, 24008, Surfaces 23012, 24007, Threshold 24009, Press 23009, Vat 24005, Basin 23002; **Building 654 Room f**: **Stratum IB/C** Walls 23003, 23006, Cobbles 23014

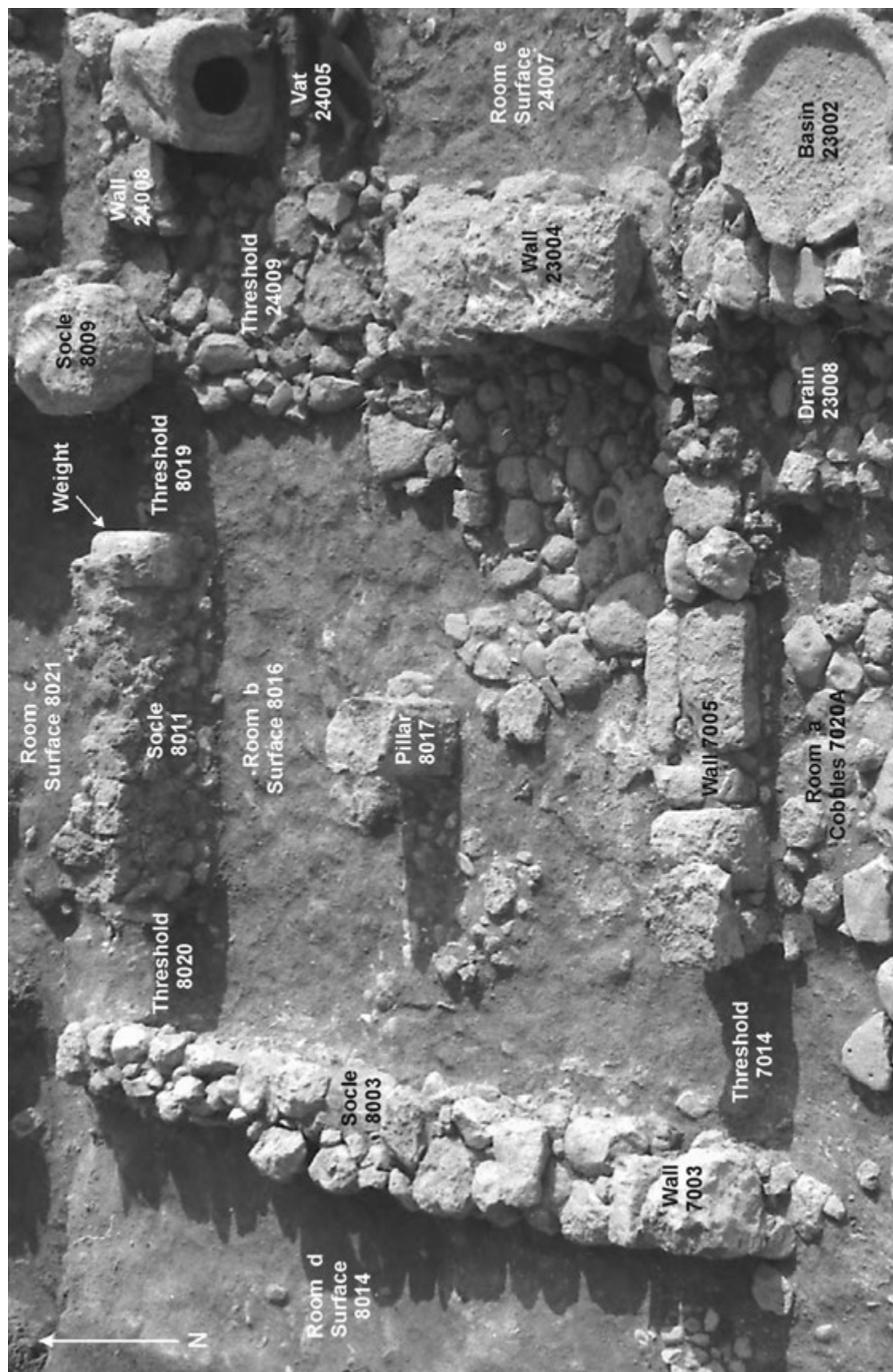


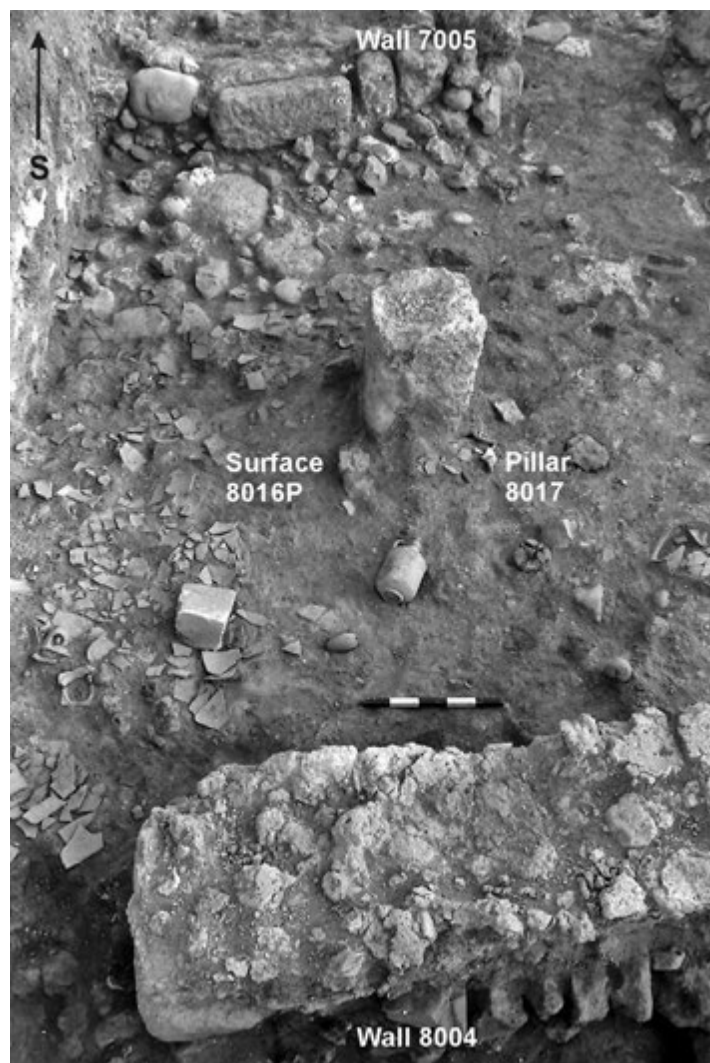
Photo 1.33. IVNE Building 654 Room a: **Stratum IB/C** Cobbles 7020A, Threshold 7014, Drain 23008; Building 654 Room b: **Stratum IB/C** Socles 8003, 8011, Walls 7003, 7005, 23004, Surface 8016, Thresholds 8019, 8020, Pillar 8017; Building 654 Room c: **Stratum IB/C** Socle 8009, Surface 8021; Building 654 Room d: **Stratum IB/C** Surface 8014; Building 654 Room e: **Stratum IB/C** Wall 24008, Surface 24007, Threshold 24009, Basin 23002, Vat 24005



Photo 1.34. IVNE *Building 654 Room c*: **Stratum IB** silver hoard (Obj. Nos. 2069–2080, 2083–2087) *in situ* in Destruction Debris 8005



Photo 1.35. IVNE *Building 654 Room a*: **Stratum IB** Surface 7011P



◀ Photo 1.36. IVNE *Building 654 Room b*: **Stratum IB/C** Walls 7005, 8004, Pillar 8017; **Stratum IB** Surface 8016P

▼ Photo 1.37. IVNE *Building 654 Rooms h/i*: **Stratum IC** Walls 7021, 7022, Surface 7026; *Building 654 Room α*: **Stratum IB/C** Wall 7030, Drain 6005

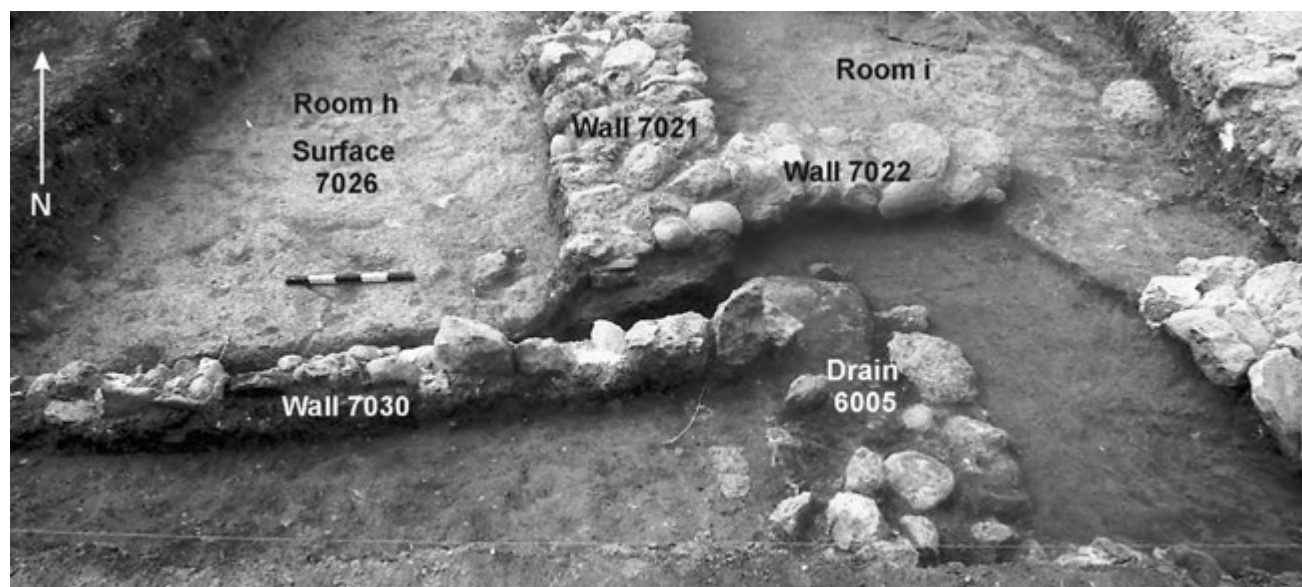


Photo 1.38. IVNE *Building 654 Room a*: **Stratum IB** Surface 7011P with inscribed sherd, *lšrt*, “to Asherat” (Obj. No. 9503)



Photo 1.39. IVNE *Building 654 Room b*: **Stratum IB** Surface 8016P with inscribed sherd, *qdš*, “dedicated” (Obj. No. 9502)

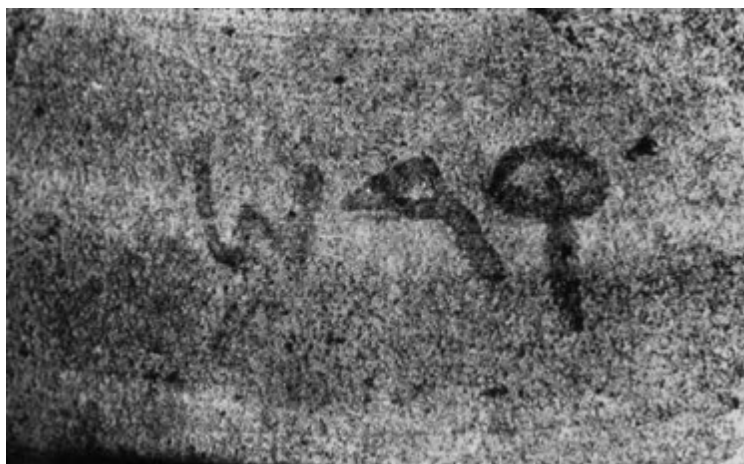


Photo 1.40. IVNE *Building 654 Room d*: **Stratum IB** Destruction Debris 8007 on Surface 8014, with inscribed sherd, *lmqm*, “for the shrine,” *ṭet*, and three lines under it, “thirty units of tevel” (Obj. No. 7796)





Photo 1.41. IVNE *Building 654 Room b*: **Stratum IB** double-pronged plow (Obj. No. 2182 [Color Photo 7.1:4]) in Debris 8016.1



Photo 1.42. IVNE *Building 654 Room b*: **Stratum IB** Pottery 8016P on Surface 8016

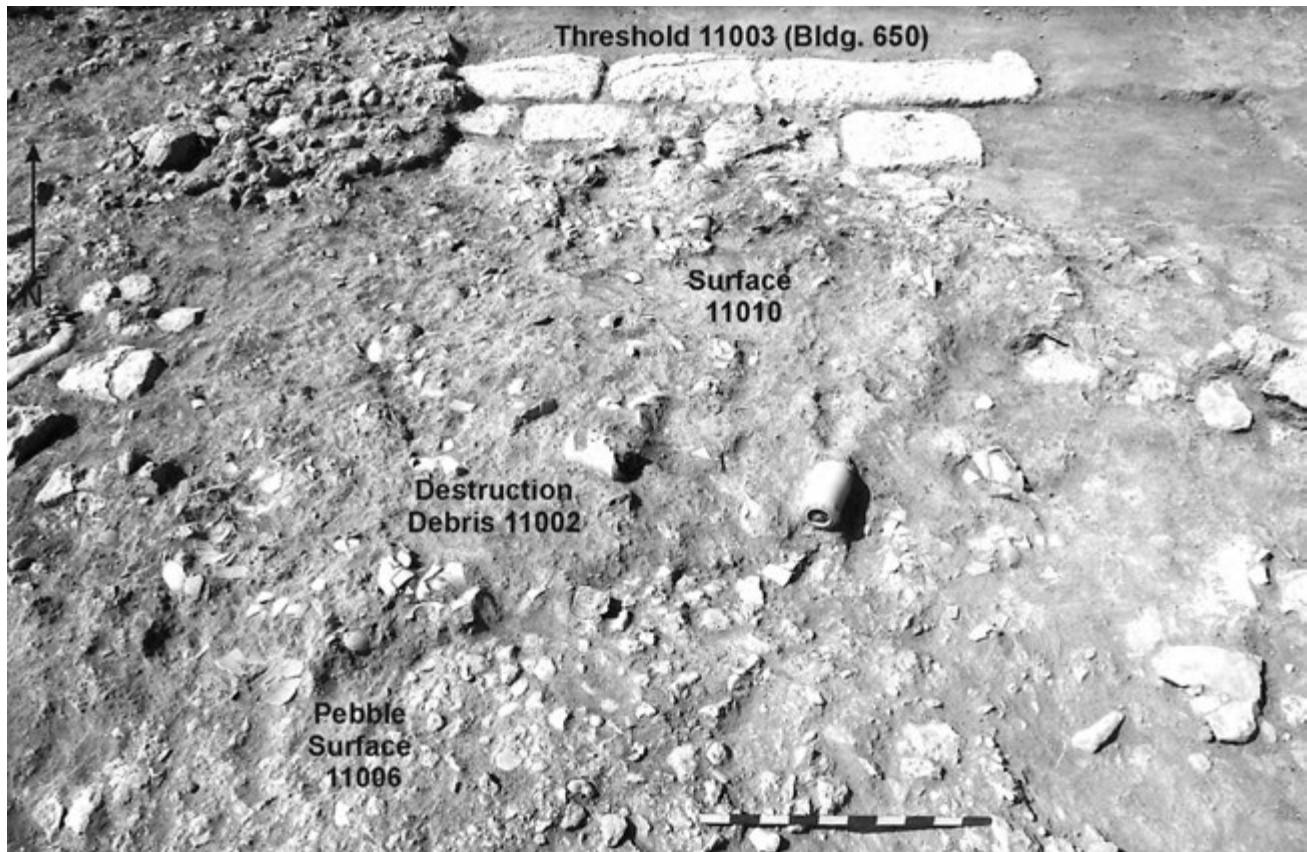


Photo 1.43. IVNE *Street 656*: **Stratum IB** Destruction Debris 11002 on **Stratum IB/C**, Pebble Surface 11006 and Surface 11010; *Temple Complex 650*: **Stratum IB/C** Threshold 11003

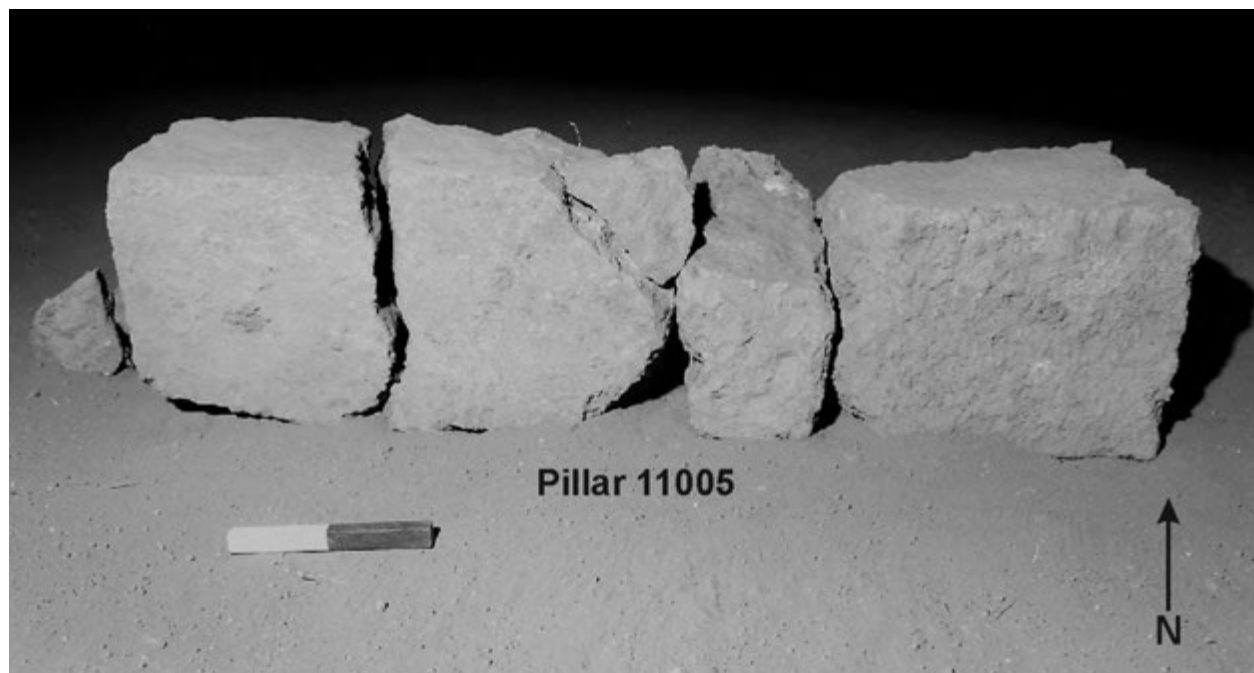


Photo 1.44. IVNE *Street 656*: **Stratum IB/C** limestone Pillar 11005 covering Drain 11009

CHAPTER 2

THE IRON AGE II POTTERY QUANTIFICATION PROJECT

Seymour Gitin

INTRODUCTION

The process of quantifying the Tel Mique-Ekron pottery corpus from the Iron Age II (ca. 1000–600 BCE) extended over 11 years from 1995–2005.¹ The project was designed and directed by S. Gitin, with the assistance of seven W. F. Albright Institute of Archaeological Research Associate Fellows: Vikesh Singh of Brown University (Fulbright Fellow, 1995–1996), Benjamin Porter of the University of Wyoming (1996–1998), Alison French of James Madison University (1998–1999), Danielle Steen of the University of Colorado (1998–2000), Tanya McCullough of the University of Toronto (1999–2001), and Anna de Vincenz, independent researcher (2001–2005). Additional assistance in the course of the project was provided by Ilya Berlov of the University of Melbourne (1999) and several student interns from the Hebrew University of Jerusalem Rothberg School for Overseas Students. Most of the data entry was done by Anna de Vincenz, and the computer-generated quantification and data charts were done by Jill Baker.

Due to the extraordinary quantity of ceramic material, together with time and funding limitations, it was not possible to count every sherd of the hundreds of thousands excavated in the 14 field seasons conducted from 1981–1996. Therefore, only the most secure and well-defined loci were processed for the quantification project, and not even all of these could be included in the final analyses.

Field III, the olive oil industrial zone, was the first to be excavated, and the pottery from almost 90% of the Iron II loci was quantified. Most of the pottery originated in the Stratum IB destruction layers, which produced a large number of restorable vessels. These provided a high percentage of the forms that came to constitute the late Iron II ceramic corpus. In Field IV Lower and Field IV Upper, representing the elite zone, the pottery from ca. 75% of the loci was counted, including a large assemblage of restorable vessels, of which some represented types peculiar to the elite zone. In Field II, the extension of the olive oil industrial zone, the pottery from ca. 25% of the loci was counted. As there was a gap in occupation in all of these fields—that is, throughout the lower city—in the Iron IIA–B (Strata III–II), all but a miniscule percentage of the Iron II pottery from these fields came from Iron IIC Strata IA–C.² In Field I on the summit of the Northeast Acropolis, possibly a commercial zone with streets, shops, and storage magazines, the pottery from ca. 80% of the loci was quantified. As there was no Iron II occupation gap in Strata III–II, the pottery from Field I included many forms not attested elsewhere at the site, as well as some Stratum IB vessels peculiar to this zone of occupation.

1. Over a four-year period during the initial summer field seasons conducted in the 1980s, a system of weighing sherds was employed and tested against a counting procedure for the same material. This experience clearly demonstrated that only the counting process provided an accurate system for quantifying the corpus.

2. The gap in occupation lasted from the end of the Iron I to the beginning of the Iron IIC, encompassing the time span between Stratum IV and Stratum I. There was, however, a small assemblage of scoops found in Field IV Lower that can be associated with Stratum Pre-IC activities in the final years of the 8th century (see Chapter 1: n. 21, and associated text; see also Gitin 1993a: 106*).

THE QUANTIFICATION PROCESS

The initial assemblage used to define the Iron II corpus was composed of restored, mended, and whole vessels from the 604 BCE destruction of Stratum IB in the olive oil industrial zone in Field III. As the excavations expanded, the pottery from the same stratum in the elite zone in Field IV Lower and Field IV Upper was subsequently incorporated into the corpus. This assemblage was also the basis for defining earlier and later ceramic horizons and for developing the typological sequence of the corpus comprising 45,231 ceramic items assigned to Strata III, IIB, IIA, Pre-IC, ICb, IC, IB/C, IB, and IA, as well as a number of Iron II forms identified in topsoil and clean-up loci.³

The first step in the quantification process was to establish a general classification of forms designated by the following abbreviations: amphora (AMP), amphoriskos (AMPS), basin (BS), bottle (BTL), bowl (BL), bowl—fine ware (BLF), bowl—miscellaneous (BLM), bowl—votive (BLV), chalice (CH), cooking pot (CP), cup (CUP), cup-and-saucer (CAS), decanter (DEC), footbath (FTB), funnel (FNL), goblet (GBL), holemouth jar (HMJ), jar-jug (JJ), jar-krater (JK), jug (JUG), jug-bottle (JUGB), juglet (JUL), juglet—votive (JULV), krater (KR), large krater (LKR), lamp (LMP), lamp stand (LMPS), lid (LID), mortarium (MRT), pithos (PITH), plate (PL), pyxis (PYX), scoop (SCP), stand (STD), storage jar (SJ), storage jar—miscellaneous (SJM), strainer (STR), and zoomorphic vessel (ZMP). As different types were identified within each category, they were allocated numbers, with variants assigned a sub-type number preceded by a dot, for

3. In contrast to the well-established pottery assemblages from various regions in ancient Israel, a comprehensive ceramic corpus did not exist for Iron II Philistia prior to the formulation of that from Ekron. However, the pottery from the Philistine site of Ashdod provided a general outline of forms that served as a guideline for structuring the Ekron corpus. While new material from Ashkelon and Tell eš-Šafi/Gath has been excavated and partially published, not all the Iron II phases are fully represented at these sites. In addition, the published material from Timnah (Tel Batash), a border site under the alternating control of Philistia and Judah in this period, includes significant Iron II Philistine material, which complements the ceramic assemblage from Ekron (see *Timnah II*: Pls. 64–75).

example, IISJ 5.1. Surface treatment of slip or wash in red or brown is indicated by adding an A-suffix to the form type, and black by a B-suffix, for example, IIBL 5A and IIBL 1B. Capital letter suffixes were also occasionally used to indicate sub-categories of decorated vessels in a close sequence of form and decoration, like IIBL 25A, IIBL 25B, etc. A category of decorated imported vessels was assigned a numerical sequence, for example, IIBL 35–39 for East Greek bowls.

Once the restored, mended, and whole vessels had been assigned a form name and type number, the rims became the primary diagnostic tool for typing and quantifying the remainder of the corpus, which consisted mostly of sherds. In analyzing rims, each example was clipped to expose its fabric, so that ware and core color and the degree of levigation could be determined using the Migne ware chart.⁴ Rims were also examined for surface treatment (slip, burnish, decoration) and condition, primarily warping or traces of burning on bowls used as lamps. These data and the registration number of each item, together with its stratigraphic designation and the number of the building with the room letter or of the architectural feature in which it was excavated, were entered into a database using Adobe FileMaker. This information was then used to quantify the corpus. In transferring the pertinent data to the descriptions accompanying each pottery figure and in discussing these forms in the text, the Roman numeral II for Iron II was added to the pottery type designation (e.g., IISJ 3), in order to distinguish it from the the Iron I pottery type designations.

To determine the minimum number of vessels of a given type, the diameter of the vessel was established and the percentage of the circumference represented by each rim of the type was measured. The percentages of each type of vessel of the same diameter, ware and/or core color, levigation, and surface treatment were totaled. If this total was 95%, for example, it represented one vessel; if it was 202%, three vessels were indicated.⁵ Sherds that measured less than 5% of the

4. The chart immediately precedes the pottery figures in Chapter 4A. To ensure that all researchers working on the project identified colors in the same way, *Munsell Soil Color Charts* were used as the determining reference.

5. This conservative approach to quantifying data produces a more accurate number of pottery forms than

complete rim circumference were not included in the count because of the lack of accuracy in determining the diameter from so small a sherd.

To test the accuracy of this procedure, a control group was established using storage jar sherds excavated in the Stratum IB destruction layers in Area IVNW.76 in Field IV Upper within Temple Complex 650 sanctuary side Room p.⁶ Storage jar rims were typed, analyzed, and counted using the method described above. In the 350 pottery buckets excavated in this area within Room p, an estimated 458 vessels were identified, including 329 storage jars, most of which (282) were of the standard two-handled Philistine olive-oil storage jar IISJ 5/5.1.⁷ They were excavated in two layers separated by mudbrick debris, with the lower yielding 34 storage jars and the upper 295 storage jars. Based on a count of the handles, the number of storage jars in the lower level was estimated at 37 and in the upper layer at 309, for a total of 346.⁸

other methods of quantification. For example, “eyeballing” rim sherds that remain after the restoration process to determine whether they are from the same vessel is too subjective, with a large number of apparently unrelated rims quantified as representing other vessels of the same type, resulting in an unjustifiably high number of a given type in the corpus.

6. This project was conducted by excavation staff Benjamin Porter, Lydie Shufro, and Amanda Cox and restorer Moshe Ben-Ari.
7. Originally published as preliminary IISJ 3 in Gitin and Cogan 1999: 193.
8. The lower layer of pottery, which according to the rim count contained 34 storage jars, primarily IISJ 5/5.1, was most probably related to the activities associated with the olive oil installation in adjacent Room o. Room p was exceptionally large and probably had mudbrick shelving along its walls. Thus, Area IVNW.76 could have contained this number of whole storage jars, as well as several smaller vessels. The 295 storage jars in the upper layer, presumably representing a collapsed second storey, could have been empty, stored in a tiered attic with several shelf levels. The upper storey would also have had to have been quite large, as the spread pattern of breakage indicates that the jars were whole before they fell. The possibility that Area IVNW.76 and Room p as a whole was used as a pottery dump is highly unlikely, as this would mean that the room would have had to have gone out of use before the building was destroyed. This does not fit with the other

The 17-jar difference between the handle and the rim count can readily be explained by the fact that not all of the destruction loci in Area IVNW.76, representing less than half of Room p, were excavated.⁹

In the absence of rims from small and/or delicate pottery types, other characteristic features were used for identification. For example, amphoriskoi were identified by their unique base, and juglets, of which a number of whole forms are included in the corpus, were identified mainly by body shape. Balloon bottles were often identified on the basis of both body and base shape. These exceptions, however, constitute only ca. 0.02% of the corpus.

Body sherds, including those with special diagnostic characteristics, were counted from a large number of loci in order to provide as complete a quantification sample as possible. The original objective was to use these data to supplement the results obtained from the rim count by testing the latter for various categories of vessels, especially jars of all types. Body sherds were divided into three categories: open vessels, closed vessels, and undetermined. In addition, since *lmlk*-jar body sherds have a distinctive metallic ware, they and body sherds with special surface treatment, for example, highly polished burnish or unique decoration, were also counted as separate categories. In attempting to determine the number of vessels represented by the body-herd count, the body sherds of dozens of restored vessels of all types were counted to compute the average number of body sherds that would make up a specific pottery type. This procedure was not successful, however, as there was no consistency in the number of body sherds that made up similar vessels, and it became clear that even similar pottery types did not break in the same way. This information was therefore not included in the database and not used in the quantitative analyses.

evidence from Room p, including cultic installations and a significant number of luxury ivory objects that would not have been left in a room used as a dump.

9. The final results of the analysis of Room p included the entire Area IVNW.76 and parts of Areas IVNW.60 and IVNW.92, producing a total of 377 IISJ 5/5.1 storage jars. The detailed analysis will be published in *Ekron* 10.

QUANTITATIVE ANALYSES

The ultimate goal of quantifying the Iron II pottery assemblage was to create a database suitable for analyzing several aspects of the relationship between the quantities of specific pottery types and their stratigraphic and architectural contexts. These include examining the typological development of ceramic types over time and determining which class and specific type within that class had the greatest frequency. The database for Field IV Lower in Chapter 4C presents an inventory of the pottery from Strata Pre-IC, ICb, IC, IB/C, and IB in Temple Auxiliary Buildings 651–655, Street 656, Alley 657, and Open Area 640, and from Stratum IA Building 658, with four categories of data for each. The first presents the overall count of each class of pottery from all of the above strata, as well as from topsoil, balk trim, and clean-up loci. The maximum and minimum number of vessels and their percentage of the assemblage of each class of pottery is given in order to demonstrate the difference between the more casual “eye-balling” method of counting rims and the conservative method based on the procedures described above that produces a more accurate vessel count. The second category includes the minimum number of vessels of all classes with their percentage of the assemblage by room and by wall and socle associated with more than one room. The third category contains a breakdown of the minimum number of classes of vessels and their percentage of the assemblage by stratum and room or other architectural feature, and the fourth includes each individual pottery type by name and number, also according to stratum and room or other architectural feature.

The use of quantitative data in Chapter 4C is exemplified in Chapter 3, for which they provide the basis for analyzing the functional relationship between pottery types and their architectural context in Stratum IB Temple Auxiliary Buildings 651–654.¹⁰ The analysis is based on six categories of ceramic types grouped by their assumed function: *Category 1: Storage (Stationary)*; *Category 2: Storage (Transport)*; *Category 3: Food Preparation*; *Category 4: Food Service*; *Category 5: Special Function (Cultic)*;

and *Category 6: Multi-function*. The ceramic types included in each of these six categories is presented in Color Figs. 3.1–3.4. A number of pottery types in the Chapter 4C database are not included in the analysis of categories of pottery vessels by function, and as a result, the totals that appear in Chapter 4C differ from those in Chapter 3. These include Residual Forms A that originated in the earlier Iron II Strata III–II, represented only in Field I; Residual Forms B from earlier phases of Stratum I in Field IV Lower; and Residual Forms A–B comprising a few pottery types that are known from Stratum II in Field I and continue in the early phases of Stratum I in Field IV Lower. These pottery types are usually represented by small fragments in Stratum IB, mostly originating in mudbricks or other secondary loci. The residual forms are included in Color Figs. 3.1–3.4. While the classification of Residual Forms A and B is based on well-defined stratigraphic and quantitative data and a comparative analysis of whole forms, the latter was not always possible in the case of Residual Forms A–B. These forms were represented mainly by rim sherds classified as IISJ 4–4.3 based on the rims of whole or almost whole forms that are widest at mid-point on the body.¹¹ However, a few whole or almost whole forms from Stratum IB that are widest below mid-point on the body, giving the vessel a somewhat slimmer shape, are classified as IISJ 4 based on the same rim form. This is a variant of IISJ 4 that first appears in Stratum Pre-IC,¹² and is not residual in Stratum IB, when whole forms are attested in sealed loci.¹³ Because the difference in body shape was not apparent in the early stages of the quantification project when whole forms of IISJ 4 and its variant had not yet been recovered, both were counted as a single storage jar type. Therefore, in order to provide the most conservative number of each form type for the quantitative analysis in Chapter 3, all the IISJ 4s are considered as residual, and only when a whole or almost whole form is identified as a IISJ 4 variant is the distinction made in the quantitative analysis.

10. The other Stratum IB architectural units and the other strata do not offer a sufficiently large database for such an analysis.

11. For example, Fig. 4A.18:4 from Stratum Pre-IC.

12. For example, Reg. No. IVNW.24.122.1.

13. For example, in Field III, Reg. No. IIISE.27.209.6.

CHAPTER 3

A QUANTITATIVE ANALYSIS OF THE POTTERY FROM STRATUM IB IN TEMPLE AUXILIARY BUILDINGS 651–654: CHARACTER AND FUNCTION

Seymour Gitin

INTRODUCTION

The Stratum IB ceramic assemblage from *Temple Auxiliary Buildings 651, 652, 653, and 654* mostly derived from the thick layer of destruction debris that covered the entire area of the elite zone,¹ together with pottery found *in situ* on the floors of a number of rooms.² The destruction is dated to the 604 BCE campaign of Neo-Babylonian King Nebuchadnezzar.

The analysis of this assemblage, based on the pottery quantification data presented in Chapter 4C, provides significant information regarding the character and function of *Temple Auxiliary Buildings 651–654*, supplementing the information and observations in Chapter 1 on building plans, architectural and construction features, and material culture contents other than pottery.³ The analysis deals with the implications of **1.** the size and make-up of the pottery assemblage relative to the size of the room in which it was found; **2.** the presence or absence of specific pottery types grouped according to six categories of function—*Category 1: Storage (Stationary)*; *Category 2: Storage (Transport)*; *Category 3: Food Preparation*; *Category 4: Food Service*; *Category 5: Special*

Function (Cultic); and *Category 6: Multi-function* (listed on Color Figs. 3.1–3.6 [see also Chapter 2]); and **3.** the ratio of the combined categories of Small-to-Medium Closed Vessels (SMCV)/Small-to-Medium Open Vessels (SMOV), mostly bowls, to Large Closed Vessels (LCV), mostly storage jars, in rooms of the same or different size. The results represent the data used to determine whether the rooms of each building had only one storey or also a second storey/storage attic and the nature of their either single or multiple functions.

The detailed plans of Buildings 651–654 are published in *Ekron 9/3B*.

BUILDING 651 (Color Fig. 3.1)

The assemblage from *Building 651* consists of 2,811 vessels, ca. 48% of the total of 5,798 vessels⁴ found in Stratum IB in *Buildings 651–654* in both the northwest and northeast quadrants of Field IV Lower. Unit 1 in *Building 651* (Rooms a–c) yielded 809 vessels; Unit 2 (Rooms d–e), 906 vessels; and Unit 3 (Rooms f–i), 1,096 vessels.⁵

1. See, for example, *Ekron 9/3A*: Index A: Loci IVNW.8002, 8003, 9003, 10005, 24005, 25006, 40003, and 41003 and IVNE.42001, 24006, 25002, 25006, 25007, and 27002.

2. See, for example, *Ekron 9/3A*: Index A: Loci IVNW.8012P, 24011, 40004P, and 41007P.

3. Since this analysis does not include Residual Forms A, the quantity of some vessel types differ from those in Chapter 4C, which includes all forms. Residual Forms A are listed by type and quantity in Chapter 4A: n. 1.

4. Excluding Residual Forms A that do not belong to Stratum IB and the vessels assigned to more than one room in the four buildings. These would bring the total number of items to 6,205, the total recorded from these four buildings in Chapter 4C.

5. Excluding Residual Forms A and forms assigned to Rooms d/e, which would bring the total number of vessels from Stratum IB to 2,960 (850 from Unit 1,

1. Size and Make-up of Pottery Assemblage Relative to Room Size

Based on room size and the size and composition of the ceramic assemblages from Rooms a, b, d, and f, a number of LCV could have lined the free wall space on the ground floor in each of these rooms, above which wall shelving could have accommodated a significant number of SMCV/SMOV, with a second storey providing space for the remaining vessels. This would have left adequate space for work and/or for passage on the ground floor.⁶ For example, Room a had ground-floor space of 41.89 sq m, but only 16.04 m of free wall space. Of the 364 vessels, 77 were LCV,⁷ requiring 21.70 m of free wall space.⁸ Thus, the additional wall space needed to accommodate all of the LCV is 5.66 m.⁹ The extra space was most likely provided by a second storey, unless more of the space on the ground floor was used to store LCV, which would greatly have limited the available work space in Room a. As for the 287 SMCV/SMOV,¹⁰ multiple wall shelves on the ground floor, above the height of the standing LCV, could have accommodated these vessels, and left sufficient work space on the ground floor.

Room b, on the other hand, with ground-floor space of 34.97 sq m, had 19.23 m of free wall space. Of the 351 vessels found in the room, 61 were LCV,

requiring 20.44 m of free wall space, only a little more than the amount available.¹¹ However, if all the LCV had lined all of the walls of this long, narrow room, the remaining 3 m of space running down the center of the room would not have been sufficient for a work area and a passageway connecting Room b with Rooms a and c. It is therefore more than likely that only half of the free wall space was used for the LCV, and the remaining vessels were kept on a second storey. The presence of a second storey is indicated by the deeply-founded and wide ground-floor walls of *Building 651* that would have been necessary to support it. The 290 SMCV/SMOV from Room b could have been accommodated partially on wall shelves on the ground floor and partially on a second storey.

Room d, with ground-floor space of 39.68 sq m, had 14.46 m of free wall space. Of the 392 vessels found in the room, 72 were LCV, requiring 14.40 m of free wall space, approximately the amount available in the room.¹² However, as in Room b, it is more than likely that only part of the free wall space would have been used for stacking LCV. In Room d, it would have been the western wall, leaving the eastern wall to provide a parallel open corridor connecting the entrances of Rooms d and e. The 320 SMCV/SMOV from Room d could have been accommodated partially on wall shelves on the western wall of the ground floor and partially on a second storey.

Room f had ground-floor space of 27 sq m. The 9.23 m of free wall space could have accommodated the 54 LCV of the total of 577 vessels found in this room, as they would have required only 8.29 m of free wall space.¹³ This would have left sufficient space for a passageway to Rooms g and h on the east and to Room i on the south, and possibly also for a small work area in the southwestern corner of the room. The additional space needed to accommodate the 523 SMCV/SMOV

962 from Unit 2, and 1,148 from Unit 3), as recorded in Chapter 4C.

6. In Field IIISE, a broken shelf made of white plastered mudbricks was found close to rows of stacked bowls in Stratum IB Destruction Debris 15005 in Building 502 Room c1 (*Ekron* 3: 99–105). At Tell Qasile, Stratum X Building 225 storage and activity Room 168, which contained 80 storage jars, presumably also had shelving; the possibility of a second storey has been suggested as well (*Qasile* 1: 44–45).
7. See Figs. 4A.18:3, 4A.21:3, 4A.23:6.
8. The calculation of 21.70 m is based on the combined widths of the 77 LCV: 2 amphorae, 55 storage jars, 4 jar-kraters, and 16 holemouth jars.
9. LCV are usually found standing next to a wall; four examples were found *in situ* in Field IIISE Building 503 Room c1 (Photo 657 [7/16/85] in the Ekron archives at AIAR); at Tell Qasile, 20 of the 80 storage jars in Stratum X Building 225 Room 168 were found lining the walls of the room (*Qasile* 1: 44, Pl. 26:1).
10. See Figs. 4A.1:17, 4A.2:18–19, 25, 28, 4A.3:34, 4A.5:20, 4A.6:1, 4A.7:11–12.

11. The calculation of 20.44 m is based on the combined widths of the 61 LCV: 3 amphorae, 44 storage jars, 2 jar-kraters, and 12 holemouth jars.

12. The calculation of 14.40 m is based on the combined widths of the 72 LCV: 4 amphorae, 44 storage jars, 5 jar-kraters, 18 holemouth jars, and 1 storage jar miscellaneous (SJM).

13. The calculation of 8.29 m is based on the combined widths of the 54 LCV: 5 amphorae, 32 storage jars, 4 jar-kraters, and 13 holemouth jars.

could have been partially provided by wall shelves on the ground floor, but most would have been stored on a second storey.

On the other hand, Room e had 16.24 sq m of floor space and 514 vessels, 61% less floor space and 29% more vessels than Room a. The 62 LCV would have required 18.83 m of free wall space, but only 8.46 m was available on the ground floor.¹⁴ With 452 SMCV/SMOV also found in Room e, the space for wall shelves could not have accommodated all of these vessels. Even with an additional second or third storey, there would not have been sufficient space for a work area and for storing the vessels. Room e must therefore have been used solely as a storage space.

Room g, with 9.09 sq m of ground-floor space, yielded 260 vessels. The 37 LCV would have required 6.58 m of free wall space, and 9.61 m were available.¹⁵ However, if all of this space was used for LCV, there would neither have been work space nor sufficient space in which to move around the room. The most likely explanation is that one wall was used for the LCV, and the majority of these vessels, as well as many of the 223 SMCV/SMOV, were stored on a second storey.

A similar situation existed in Room h, which yielded 226 vessels and had 10.58 sq m of ground-floor space. The 30 LCV would have required 4.37 m of free wall space, with 9.23 m available.¹⁶ However, as in Room g, using all of the wall space would have filled Room h almost completely, rendering it unusable for anything other than storage. If only one wall was used for the LCV, the remainder, together with most of the 196 SMCV/SMOV, could have been stored on a second storey, leaving some work space on the ground floor.

When analyzed according to vessel function, and as implied by the ratios of SMCV/SMOV to LCV (see

below), Rooms g and h do not provide optimal work space and could have been used as eating areas.

Room c was the smallest room in *Building 651*, with ground-floor space of 9.47 sq m. It yielded only 94 vessels. The 15 LCV would have required 4.57 m of free wall space, with 8.76 m available.¹⁷ Thus, the LCV could easily have been accommodated on the ground floor, together with all of the 79 SMCV/SMOV on wall shelving.

Room i is somewhat of an anomaly: at 21.77 sq m, it is the fifth largest of the nine rooms in *Building 651*, but it yielded the smallest ceramic assemblage, comprising 33 vessels. The 3 LCV would have required only 0.68 m of free wall space, with 19.46 m available.¹⁸ All the LCV and the 30 SMCV/SMOV could easily have been accommodated on the ground floor. Room i could therefore have provided a large work space or could have served as living quarters.

2. Presence and Absence of Pottery Types by Functional Category

The presence and absence of pottery types grouped according to the six categories of function listed in Color Fig. 3.1 provide the basis for further analysis of how the rooms in *Building 651* were used. Those closest to *Alley 657* to the north of the building had the greatest number of both Category 1 Storage (Stationary)¹⁹ and Category 2 Storage (Transport) vessels,²⁰ with 73 in Room a and 70 in Room d. The rooms that were further away from *Alley 657* and the entrance to *Building 651* had fewer storage-related vessels, with 61 in Room b and 52 in Room f. These four rooms had 32% more Category 1 Storage (Stationary) than Category 2 (Transport) vessels, perhaps indicating that their primary function was as storage magazines. The presence of a large number of storage-related vessels (65) in small Room e in the middle of the building is consistent with its use solely as a storage area. The rooms furthest away from the entrance to *Building 651* contained significantly smaller numbers

14. The calculation of 18.83 m is based on the combined widths of the 62 LCV: 4 amphorae, 49 storage jars, and 9 holemouth jars.

15. The calculation of 6.58 m is based on the combined widths of the 37 LCV: 5 amphorae, 24 storage jars, 2 jar-kraters, 5 holemouth jars, and 1 storage jar miscellaneous (SJM).

16. The calculation of 4.37 m is based on the combined widths of the 30 LCV: 3 amphorae, 18 storage jars, 1 jar-krater, 8 holemouth jars, and 1 storage jar miscellaneous (SJM).

17. The calculation of 4.57 m is based on the combined widths of the 15 LCV: 6 storage jars, 1 storage jar miscellaneous?, 2 jar-kraters, and 6 holemouth jars.

18. The calculation of 0.68 m is based on the combined widths of the 3 LCV: 2 storage jars and 1 holemouth jar.

19. For example, Fig. 4A.18:3.

20. For example, Figs. 4A.21:2, 4A.23:6.

of storage-related vessels, with 16 in Room c, 33 in Room g, 27 in Room h, and only 5 in Room i. These quantities probably reflect the ease of transferring large vessels to and from the rooms closest to the entrance of *Building 651*, perhaps indicating that the main commercial transactions involving the distribution and storage of goods took place in these rooms and that the rooms further inside the building had other functions. The small size of Room c, the smallest in *Building 651*, together with its limited ceramic assemblage, indicate that it was not suitable for an activity that required open space, and was probably used as a storage area. Room i, on the other hand, had a large open space with no internal architectural features and the smallest ceramic assemblage of any room in *Building 651*. As suggested above, it may have been used as a large work space or as living quarters. Rooms g and h, in contrast, with their high percentages of Category 4 Food Service vessels (22% and 17%, respectively)—like other rooms with high percentages of these vessel types (for example, Rooms a and d)—could have been used as eating areas, as suggested below, in addition to serving other functions.

Building 651 had no apparent cooking installations, like tabuns, firepits, and/or hearths. Nevertheless, 4.2% of its ceramic assemblage is composed of Category 3 Food Preparation vessels, including 47 cooking pots²¹ (7 in Room a, 2 in Room b, 4 in Room d, 13 in Room e, 9 in Room f, 7 in Room g, 4 in Room h, and 1 in Room i) and 71 other food preparation vessels, including 64 kraters (8 in Room a, 10 in Room b, 1 in Room c, 9 in Room d, 9 in Room e, 15 in Room f, 6 in Room g, and 6 in Room h) and 7 mortaria (1 in Room a, 1 in Room d, 2 in Room g, and 3 in Room h). This may indicate that food was cooked elsewhere and brought into the *Building 651* rooms to be eaten. The large number of Category 4 Food Service vessels²² in *Building 651* (601) supports this conclusion, with 71 in Room a, 72 in Room b, 10 in Room c, 77 in Room d, 137 in Room e, 127 in Room f, 57 in Room g, 40 in Room h, and 9 in Room i, comprising 21% of the entire ceramic assemblage. In Rooms b, c, and i, on the other hand, the small number of cooking pots (2 in Room b, none in Room c, and 1 in Room i), the limited number

of kraters (10, found only in Room b), and the total absence of mortaria may indicate that food consumption was not a significant activity in these three rooms of the building. As for Room e, the 22 Category 3 Food Preparation vessels (including 13 cooking pots) and the 137 Category 4 Food Service vessels were part of an assemblage of 514 vessels that would have taken up all of the space even if the room had upper stories. Room e was therefore most likely a storage space, and would not have been used for any other activities, like food consumption.

The ratio of Category 4 Food Service to Category 3 Food Preparation vessels may provide some indication as to the number of persons who may have eaten in these rooms. Discounting Rooms b, c, and i due to the very limited number of food preparation vessels, the average ratio for the remaining rooms is 5:1—a ratio of ca. 4.5:1 for Room a, 6.3:1 for Room d, of 5.3:1 for Room f, 3.8:1 for Room g, and 2.7:1 for Room h. Grouping these rooms together according to size, however, Rooms a, d, and f provide an average ratio of ca. 5.4:1 and Rooms g and h an average ratio of ca. 3.3:1. These ratios are more consistent with the physical dimensions of the two groups of rooms. Thus, for every cooking pot, krater, or mortarium that could have been used to carry food into these rooms from other areas or to prepare it in the room, ca. 5 food service vessels were available in the larger rooms, implying that one food preparation vessel provided food for 5 persons. In the smaller rooms, one food preparation vessel could provide food for ca. 3 persons.

The Category 5 Special Function (Cult) vessels may also offer some insight into the functions of the rooms in *Building 651*. Thirteen chalices²³ were found in the building: 5 in Room a, 3 in Room b, 1 each in Rooms c, e, and g, and 2 in Room i. Rooms d, f, and h had none. It is significant that the other cultic-related vessels (lamps, goblets, cup-and-saucers, and the Type JUL 19 votive juglet) appeared only in the rooms that contained chalices, with the single exception of Room h, in which 1 lamp was found. The cultic function of these lamps is suggested by their small number in Field IV Lower (28) and their association with chalices. The vessel most likely used as an ordinary lamp in a non-cultic setting—as indicated by black ash marks around

21. For example, Fig. 4A.14:3–4.

22. For example, Figs. 4A.2:34, 4A.6:9, 4A.25:2, 4A.26:5, 4A.27:4, 12.

23. For example, Fig. 4A.11:2–3.

the rim—is the small bowl of Type BL 1, found in very large numbers.²⁴

3. Ratios of Small-to-Medium Closed and Open Vessels to Large Closed Vessels

The correlation between the size of a room, its location in relation to the access to *Building 651*, and the ratio of SMCV/SMOV to LCV has a number of noteworthy implications. Three rooms of comparable size with access closest to *Alley 657* yielded similar total numbers of vessels. In Unit 1, Room a, with an area of 41.89 sq m, had 287 SMCV/SMOV and 77 LCV (364 vessels), and Room b, with an area of 34.97 sq m, had 290 SMCV/SMOV and 61 LCV (and 351 vessels), for a ratio of ca. 3.73:1 and 4.80:1, respectively. In Unit 2, the somewhat smaller Room d, with an area of 39.68 sq m, had 320 SMCV/SMOV and 72 LCV (392 vessels), for approximately the same ratio at 4.43:1. The back room of Unit 1, Room c, much smaller at 9.47 sq m, had 79 SMCV/SMOV and 15 LCV (94 vessels), for a ratio of 5.26:1.

There is a higher ratio in favor of smaller vessels in the smaller Room e, at 16.24 sq m, at the rear of Unit 2. The room yielded 452 SMCV/SMOV and 62 LCV (514 vessels), for a ratio of 7.29:1. A similar ratio biased in favor of smaller vessels was also found in two small rooms in Unit 3 toward the rear of the building: Room g (9.09 sq m) had 223 SMCV/SMOV and 37 LCV (260 vessels), and Room h (10.58 sq m), 196 SMCV/SMOV and 30 LCV (226 vessels), for a ratio of 6.03:1 and 6.53:1, respectively. An even greater bias in favor of smaller vessels is apparent in Room f in the middle interior of *Building 651*. With an area of 27 sq m, the room had 523 SMCV/SMOV and 54 LCV (577 vessels), for a ratio of 9.69:1. Room i, one of the largest rooms in *Building 651* (21.77 sq m) has a similar bias in favor of smaller vessels: with 30 SMCV/SMOV and 3 LCV (33 vessels), the ratio is 10:1.

The pattern that emerges from the analysis of the ratios of small to large vessels is that the further away a room is from the entrance to the building, the higher the ratio in favor of smaller vessels, and this is

generally not influenced by the size of a room. Thus, Room a, one of the closest to the building's entrance and one of the largest rooms, has a 3.73:1 ratio of small to large vessels; the ratio for Room g in the middle-rear of the building, one of the smaller rooms, is 6.03:1; Room i, one of the rooms at the rear of the building and also one of the largest rooms, has a ratio of 10:1.²⁵ This indicates that it was more practical to keep the larger vessels closer to the entrance to the building, which supports the suggestion that the rooms closest to *Alley 657* were used for some kind of commercial traffic for which large storage vessels were required.²⁶

The second pattern that emerges from the analysis is that vessel quantities were influenced by the available free wall space on the ground floor of each room, which does not necessarily correlate with a room's size, but rather with its plan. The smaller the amount of free wall space on the ground floor—which would indicate a similar amount on a second storey—the greater the bias in favor of smaller rather than larger vessels. For example, the room with one of the greatest useable free wall space, Room b with 19.23 m, has a ratio of small to large vessels of 4.80:1; one of the rooms with the smallest amount of free wall space on the ground floor, Room e, with 8.46 m, had one of the highest ratios of small to large vessels at 7.29:1. This implies that the planning of the building took into consideration the function of its rooms, specifically, the need for free wall space against which storage vessels could be stood, while still allowing for work and/or passageway space.

BUILDING 652 (Color Fig. 3.2)

The ceramic assemblage from *Building 652* consisted of 646 vessels,²⁷ representing ca. 11.14% of the total of 5,798 vessels from Stratum IB in *Buildings 651–654* in

24. This conclusion is reinforced by the similar pattern in all fields of excavation, especially Field IV Upper, which yielded multi-wick lamps with tall stands that clearly had a cultic function (Gitin 2012: 233, 237).

25. Room c, also at the rear of the building, has a ratio of only 5.26:1; in this case, the very small size of the room (9.47 sq m) is a mitigating factor.

26. See also *Alley 657* in Chapter 1.

27. Excluding the 44 residual forms that do not belong to Stratum IB, which would bring the total number of vessels to 690, as recorded for Building 652 Stratum IB in Chapter 4C (see n. 3).

both the northwest and northeast quadrants of Field IV Lower. *Building 652* had four rooms: Room a yielded 260 vessels; Room b, 51 vessels; Room c, 155 vessels; and Room d, 180 vessels.

1. Size and Make-up of Pottery Assemblage Relative to Room Size

The relationship between the size of the ceramic assemblage in Rooms a, b, c, and d and the size of the rooms serves as a basis for examining the function of *Building 652*. Like *Buildings 653* and *654*, the other two buildings in the northeast quadrant of Field IV Lower, the function of *Building 652* differed from that of *Building 651* in the northwest quadrant. Furthermore, the rooms in the eastern buildings may not have had the same kind of second storey, but rather only a small attic-like area for minimal storage. This possibility and other evidence of different functions are apparent from the architectural plan, type of construction, and material culture contents of these buildings discussed in Chapter 1.

Of the 646 vessels in Rooms a, b, c, and d of *Building 652*, 534 were SMCV/SMOV, the majority bowls, and 112 were LCV. A number of LCV could have lined the free wall space on the ground floor in each of these rooms, above which wall shelving could have accommodated a significant number of SMCV/SMOV, with a second storey/attic providing space for the remaining vessels. This would have left adequate ground-floor space for a work area or passageway.²⁸ Thus, if all of the available free wall space in the rooms of *Building 652* had been used for the storage jars, the building would not have required a second storey to accommodate the other ceramic vessels, as opposed to most of the rooms in *Building 651*.

Room a, with ground-floor space of 16.73 sq m and 10.77 m of free wall space, contained 260 vessels, 213 SMCV/SMOV and 47 LCV, the latter requiring 11.42 m of free wall space, slightly more than that available.²⁹ Room b, with ground-floor space of 7.51 sq m and 3.46 m of free wall space, yielded 51 vessels, 40 SMCV/SMOV and 11 LCV, the latter requiring 2.73 m of free

wall space, less than the available amount.³⁰ Room c, with 12.10 sq m of ground-floor space and 7.85 m of free wall space, had 155 vessels, 125 SMCV/SMOV and 30 LCV, the latter requiring 6.73 m of free wall space, less than that available.³¹ Room d, with ground-floor space of 13.29 sq m and 6.77 m of free wall space, contained 180 vessels, 156 SMCV/SMOV and 24 LCV, the latter requiring 5.96 m of free wall space, less than the amount available.³²

2. Presence and Absence of Pottery Types by Functional Category

The presence and absence of pottery types grouped according to the six categories of function listed in Color Fig. 3.2 provide the basis for further analysis of how the rooms in *Building 652* were used. Room a, which opened onto *Street 656* at the northern end of the building, contained 45 Category 1 Storage (Stationary) and Category 2 Storage (Transport) vessels, the largest number of such vessels in any room in *Building 652*. Of these, 30 were Category 1 Storage (Stationary) and 15 Category 2 Storage (Transport) vessels, the latter representing more than double the number of transport vessels found in any other room in the building. Room d at the southern end of the building and the furthest from *Alley 657* had 23 storage vessels, around half the number in Room a, of which only 4 were transport-related. Thus, Room a, with the largest number of Category 2 Storage (Transport) vessels and closest to the entrance to the building, probably served as a staging area for the movement of both dry and liquid goods. The Category 2 Storage (Transport) vessels for dry goods are represented by 8 holemouth jars³³ and for liquids by 7 storage jars.³⁴ Transport jars decreased in quantity the further a room was from Room a and the entrance to *Building 652*, with 6 in Room b, 5 in

28. See n. 9.

29. The calculation of 11.42 m is based on the combined widths of the 47 LCV: 2 amphorae, 33 storage jars, 4 jar-kraters, and 8 holemouth jars.

30. The calculation of 2.73 m is based on the combined widths of the 11 LCV: 1 amphora, 3 storage jars, 1 jar-krater, and 6 holemouth jars.

31. The calculation of 6.73 m is based on the combined widths of the 30 LCV: 2 amphorae, 25 storage jars, 1 jar-krater, 1 holemouth jar, and 1 pithos.

32. The calculation of 5.96 m is based on the combined widths of the 24 LCV: 4 amphorae, 12 storage jars, 2 jar-kraters, 3 holemouth jars, and 3 large kraters.

33. For example, Fig. 4A.23:4.

34. For example, Fig. 4A.21:2.

Room c, and 4 in Room d, including 1 transport jar for liquids in each of the three rooms. Room b, with the lowest number of vessels (51), probably served primarily as a temporary staging area for the movement of vessels from one room to another.

Although *Building 652* had no apparent cooking installations (tabuns, firepits, and/or hearths), 32 Category 3 Food Preparation vessels, representing almost 6% of the ceramic assemblage, were found, including 5 cooking pots (1 each in Rooms a, b, and d and 2 in Room c), 24 kraters (8 in Room a, 4 in Room b, 2 in Room c, and 10 in Room d), and 3 mortaria (1 each in Rooms a, b, and c). This may indicate that food was cooked elsewhere and brought into these rooms to be eaten, as was the case in a number of the rooms in *Building 651*. The large number of Category 4 Food Service vessels in *Building 652* (146) supports this conclusion. Room a had 67 Category 4 Food Service vessels, 23% of the ceramic assemblage from the room, indicating that one of its multiple functions was as an eating area. This also seems to apply to Rooms c and d: they, too, had a significant number of Category 4 Food Service vessels, with 38 in Room c and 34 in Room d, representing 24% and 18% of their ceramic assemblages, respectively. Room b contained only 7 such vessels, further supporting its suggested function as primarily a temporary staging area.

The ratio of Category 4 Food Service to Category 3 Food Preparation vessels may provide some indication as to the number of persons who may have eaten in these rooms. In Room a, the ratio is 6.7:1; in Room b, 1.17:1; in Room c, 7.6:1; and in Room d, 3.09:1. The average ratio is thus 4.64:1, implying that one food preparation vessel could provide food for ca. 5 persons, comparable with the average number of 5.4 persons for *Building 651* Rooms a, d, and f, although their size and ceramic assemblages were far greater.

As for Room b, the ratio is not significant because of the above-mentioned character and function of this room. The ratio for Room c might indicate that 7.6 people could have used it as an eating area, but given the actual amount of available floor space—4.63 sq m less than that in Room a—and the other activities that took place in the room, the 7.6 figure may be skewed. The ratio for Room d, indicating that ca. 3 persons could have used it as an eating area, is reasonable given its size and the other activities conducted in the room.

Only 7 Category 5 Special Function (Cult) vessels—namely, chalices—were found in *Building 652*, all in Room a. Their presence may be related to the fact that the room is the sole entrance to *Building 652* from the outside and is directly opposite the monumental entrance to *Temple Complex 650*.³⁵

3. Ratios of Small-to-Medium Closed and Open Vessels to Large Closed Vessels

In analyzing the correlation between the size of a room, its location in relation to the access to *Building 652*, and the ratio of SMCV/SMOV to LCV, the correlation of room size with the other factors does not appear to be significant, while the correlation of the ratio of SMCV/SMOV to LCV and the distance of a given room from the *Street 656* is. Rooms a and c, both at the northern end of the building and closest to *Street 656* (although only Room a had access to the street), had a similar ratio of SMCV/SMOV to LCV. Room a, with 213 SMCV/SMOV and 47 LCV (260 vessels), had a ratio of 4.53:1, and Room c, with 125 SMCV/SMOV and 30 LCV (155 vessels), had a similar ratio of 4.17:1. Room d, the room furthest away from the street, with 156 SMCV/SMOV and 24 LCV (180 vessels), had a ratio of 6.5:1. Room b is an anomaly because of its location, in addition to its above-mentioned character and function.

One pattern that emerges is somewhat similar to that in *Building 651*: the further away a room is from the street, the higher the ratio in favor of smaller vessels, indicating that it was more practical to keep the larger vessels closer to the building entrance; this supports the suggestion that the rooms closest to *Street 656* were involved in some kind of commercial traffic for which large storage vessels were used.³⁶

Another pattern that emerges is based on the available free wall space on the ground floor of each room, which does not necessarily correlate with the room's size, but rather with its plan. The smaller the amount of free wall space on the ground floor, the greater is the bias in favor of smaller over larger vessels. For example, Room a, with one of the largest amounts of useable free wall space (10.77 m), had a ratio of

35. See *Ekron 9/3B*: Stratum IB/C Plan (northeastern corner).

36. See also *Street 656* in Chapter 1.

SMCV/SMOV to LCV of 4.53:1; Room d, with the smallest amount of free wall space (6.77 m), had the highest ratio of SMCV/SMOV to LCV at 6.5:1. This implies that the planning of the building took into consideration the function of its rooms, specifically, the need for free wall space against which storage vessels could be stood, while still allowing for work and/or passageway space.

BUILDING 653 (Color Fig. 3.3)

The assemblage from *Building 653* consisted of 749 vessels,³⁷ representing ca. 13% of the total of 5,798 from Stratum IB in *Buildings 651–654* in both the northwest and northeast quadrants of Field IV Lower: Room a contained 110 vessels; Room b, 313 vessels; Room c, 141 vessels; Room d, 69 vessels; and Room e, 116 vessels.

1. Size and Make-up of Pottery Assemblage Relative to Room Size

Based on room size and the size and composition of the ceramic assemblages from Rooms a–e, it unclear whether a second storey or small attic space would have been required to accommodate both the LCV and SMCV/SMOV.³⁸ Room a had ground-floor space of 11.69 sq m, but only 5.96 m of free wall space; of the 110 vessels, 24 were LCV, requiring 6.67 m of free wall space.³⁹ Room b had ground-floor space of 15.29 sq m, but only 9.38 m of free wall space; of the 313 vessels, 40 were LCV, requiring 13.14 m of free wall space.⁴⁰ Room c had ground-floor space of 7.96

sq m, but only 8.69 m of free wall space; of the 141 vessels, 39 were LCV, requiring 9.45 m of free wall space.⁴¹ Room d had ground-floor space of 6.67 sq m, but only 3.46 m of free wall space; of the 69 vessels, 11 were LCV, requiring 3.51 m of free wall space.⁴² Room e had ground-floor space of 6.62 sq m, but only 4.23 m of free wall space; of the 116 vessels, 18 were LCV, requiring 5.08 m of free wall space.⁴³ As for the SMCV/SMOV, the 86 in Room a, 273 in Room b, 102 in Room c, 58 in Room d, and 98 in Room e could easily have been accommodated on multiple wall shelves above the height of the standing LCV on the ground floor and/or on a second storey.⁴⁴

The difference between the amount of free wall space required for the LCV in each room and the amount available is minimal, averaging ca. 0.59 m more required than available in Rooms a, c, d, and e. This could easily have been compensated for by doubling up 2–3 LCV in each room or by putting some of the vessels in an upper attic area. Furthermore, wall shelving in these rooms could have accommodated the SMCV/SMOV as well. The single exception is Room b, where the difference between the available and the required free wall space for the storage of the LCV was 3.76 m. Since the walls of this room were not sufficiently substantial to support a second storey that would have provided the extra space required to accommodate both the LCV and the large number of SMCV/SMOV, it appears that the room's total area of 15.29 sq m of was used as storage space. That the only Stratum IC entrance to Room b on its eastern side was bricked up in Stratum IB, creating an entirely closed room, may support this interpretation.

37. Excluding the 18 residual forms that do not belong to Stratum IB and the 7 vessels assigned to more than one room, which, when included, brings the total to 774, as recorded for Building 653 Stratum IB in Chapter 4C (see n. 3).

38. See the discussion on the lack of architectural and construction evidence for a second storey in Chapter 1.

39. The calculation of 6.67 m is based on the combined widths of the 24 LCV: 2 amphorae, 15 storage jars, and 7 holemouth jars.

40. The calculation of 14.56 m is based on the combined widths of the 40 LCV: 1 large krater, 32 storage jars, 3 jar-kraters, and 4 holemouth jars.

41. The calculation of 9.45 m is based on the combined widths of the 39 LCV: 17 storage jars and 22 holemouth jars.

42. The calculation of 3.51 m is based on the combined widths of the 11 LCV, all storage jars.

43. The calculation of 5.08 m is based on the combined widths of the 18 LCV: 14 storage jars, 2 jar-kraters, and 2 holemouth jars.

44. When evaluating the available space, size, and composition of the ceramic assemblages from Rooms d and e, it must be taken into consideration that these two rooms were only partially excavated.

2. Presence and Absence of Pottery Types by Functional Category

The presence and absence of pottery types grouped according to the six categories of function listed in Color Fig. 3.3 allow for only limited additional analysis of how the rooms in *Building 653* were used. An examination of the distribution of Category 1 Storage (Stationary) and Category 2 Storage (Transport) vessels does not produce a significant pattern, as opposed to that in *Buildings 651* and *652*, in which the numbers of vessels in these categories are more than double those in *Building 653*. Furthermore, the relationship of the access point between *Building 653* and *Street 656* in terms of the movement of liquid and dry goods is not as relevant as those between *Building 651* and *Alley 657* and *Building 652* and *Street 656*. In *Building 653*, only Room a, which was fully excavated, had direct access to *Street 656*, and the single room to which it was connected—Room b—was an enclosed storeroom with no access to any other room. Room c, which contained large numbers of Category 1 Storage (Stationary) and Category 2 Storage (Transport) vessels, only had access to Room e, which was partially excavated. As for Room d, also only partially excavated, the direction of the flow of traffic and access from this room to any other room, to the east–west *Street 656*, and/or to north–south *Street cc* that ran parallel to the eastern side of *Temple Complex 650* immediately to the north of *Building 653* could not be determined.

Building 653 had no apparent cooking installations—tabuns, firepits, and/or hearths—although ca. 3.9% of the ceramic assemblage is made up of 29 Category 3 Food Preparation vessels, including 11 cooking pots (5 in Room a, 3 in Room b, 1 in Room c, and 2 in Room d) and 18 kraters (15 in Room b, 1 in Room d, and 2 in Room e). There were no mortaria in *Building 653*. However, of these 29 Category 3 Food Preparation vessels, more than half were found in Room b, a storeroom; in the two other rooms that were fully excavated, only 5 cooking pots come from Room a and 1 from Room c. Thus, it is possible that food was cooked elsewhere and brought to Room a to be eaten, as in the case of a number of the rooms in *Buildings 651* and *652*, and that this was one of the multiple functions of the room. In light of the small size of the sample, the presence of other Category 3 Food Preparation vessels in Rooms c, d, and e, two of

which were not fully excavated, does not provide a sound basis for analysis.

As for the number of persons who might have eaten in Room a, the ratio of Category 4 Food Service vessels to Category 3 Food Preparation vessels is 4.4:1. Thus, each cooking pot that could have been used to carry food into Room a from elsewhere could have provided food for 4.4 persons, comparable with the average of 5.4 persons in *Building 651* Rooms a, d, and f, although their size and ceramic assemblages were much larger.

Regarding Category 5 Special Function (Cult) vessels, the total of 13 includes 8 chalices (3 in Room a, 2 in Room b, 1 in Room d, and 2 in Room e) and 5 lamps (2 in Room a, 2 in Room b, and 1 in Room c). Their presence in Room a may be related to the location of its entrance, the only external access to *Building 653*, which opens onto *Street 656* that runs past the monumental entranceway to *Temple Complex 650*. The 3 chalices in Rooms d and e may indicate some cultic activity as well. The 1 lamp in Room c is negligible, and the 4 cultic vessels in storage Room b can be discounted.

3. Ratios of Small-to-Medium Closed and Open Vessels to Large Closed Vessels

While the correlation between the size of a room, its location in relation to the access to *Buildings 651* and *652*, and the ratio of SMCV/SMOV to LCV provided meaningful data for *Buildings 651* and *652*, this is not the case for *Building 653* for the reasons given in the above analysis. The same applies to correlating the relationship between the available free wall space on the ground floor of each room and its size or plan.

BUILDING 654 (Color Fig. 3.4)

The assemblage from *Building 654* consisted of 1,592 vessels,⁴⁵ representing 27.46% of the total of 5,798 from Stratum IB in *Buildings 651–654* in both the

45. Excluding the 87 residual forms and 102 vessels assigned to Rooms e/f, which would bring the total number of vessels for Stratum IB to 1,781, with 426 in Room a, 245 in Room b, 114 in Room c, 365 in Room

northwest and northeast quadrants of Field IV Lower.⁴⁶ Room a contained 398 vessels; Room b, 237; Room c, 113; Room d, 346; Room e, 464; and Room f, 34.

1. Size and Make-up of Pottery Assemblage Relative to Room Size

Based on room size and the size and composition of the ceramic assemblages from Rooms a, b, c, and e, a number of LCV could have lined the ground floor free wall space in each of these rooms, above which wall shelving could have accommodated a significant number of SMCV/SMOV, with a second storey providing space for the remaining vessels. This would have left adequate space for work and/or passage on the ground floor.⁴⁷ For example, Room a had ground-floor space of 12.78 sq m, but only 3.46 m of free wall space; of the 398 vessels, 67 were LCV, requiring 21.85 m of free wall space.⁴⁸ Thus, the additional wall space needed to accommodate all of the LCV was 18.39 m. Even if all of the floor space in Room a was used for the LCV, an additional 5.86 sq m would still have been required. As for the 331 SMCV/SMOV, some could have been stacked on wall shelving on the ground floor and the remainder kept on a second storey.

On the other hand, Rooms b and c may not have needed storage space on a second storey. Room b had ground-floor space of 15.47 sq m and 9.22 m of free wall space. Of the 237 vessels, 32 were LCV, requiring 10.81 m of free wall space.⁴⁹ The minimal discrepancy in the amount of free wall space available and required could have been compensated for by doubling up a few of the storage jars on the ground floor. Room c had ground-floor space of 7.99 sq m and 8.31 m of free wall space. Of the 113 vessels, 8 were LCV, requiring 4.84 m of free wall space,⁵⁰ far less than the amount

available. Wall shelving on the ground floor could have accommodated the 205 and 105 SMCV/SMOV in Rooms b and c, respectively.

Room d, with ground-floor space of 6.33 sq m, was one of the smallest rooms in the building, and its long and narrow proportions would not have been conducive for activities conducted in most of the rooms in the other buildings. Of the 346 vessels, 43 were LCV, requiring 13.53 m of free wall space, with only 5 m available;⁵¹ furthermore, the narrow plan of the room was not suitable for the amount of wall shelving necessary to stack all of the 303 SMCV/SMOV. Thus, even if Room d had two or three upper stories, they would not have provided sufficient space to store all of the 346 vessels. Room d must therefore have served as a dump for broken and discarded vessels.

Room e, with ground-floor space of 21.19 sq m, was the largest room in *Building 654*, but had only 4.08 m of free wall space. Of the 464 vessels—one of the largest single assemblages found in Field IV Lower—93 were LCV, requiring 27.59 m of free wall space.⁵² As there was insufficient free wall space for even a fraction of the LCV, so, too, there would not have been enough space above the standing LCV on the ground floor for wall shelving to accommodate the 371 SMCV/SMOV. Room e, therefore, must definitely have had a second storey of at least the same size as the ground floor in order to accommodate all of the ceramic vessels.

Little can be said about the relationship between the ceramic assemblage and dimensions of partially-excavated Room f at 3.24 sq m, except that of its 34 vessels, the 2.22 m of free wall space required for the 7 LCV could have been accommodated by the 3 m available.⁵³ The room also had sufficient space for wall shelving to stack the 27 SMCV/SMOV.

d, 492 in Room e, 37 in Room f, and 102 in Rooms e/f, as recorded in Chapter 4C.

46. See n. 3.

47. See n. 9.

48. The calculation of 21.85 m is based on the combined widths of the 67 LCV: 1 amphora, 50 storage jars, 11 jar-kraters, and 5 holemouth jars.

49. The calculation of 10.81 m is based on the combined widths of the 32 LCV: 6 amphorae, 20 storage jars, 3 jar-kraters, and 3 holemouth jars.

50. The calculation of 4.84 m is based on the combined widths of the 8 LCV: 2 amphorae, 4 storage jars, and 2

holemouth jars.

51. The calculation of 13.53 m is based on the combined widths of the 43 LCV: 4 amphorae, 28 storage jars, 4 jar-kraters, 1 pithos, and 6 holemouth jars.

52. The calculation of 27.59 m is based on the combined widths of the 93 LCV: 12 amphorae, 58 storage jars, 1 jar-krater, and 22 holemouth jars.

53. The calculation of 2.22 m is based on the combined widths of the 7 LCV: 6 storage jars and 1 holemouth jar.

2. Presence and Absence of Pottery Types by Functional Category

The presence and absence of pottery types grouped according to the six categories of function listed in Color Fig. 3.4 provide the basis for further analysis of how the rooms in *Building 654* were used. The two units of *Building 654* were oriented to the south, most likely toward a street, and had access to the exterior through the southern openings in Room a in Unit 1 and Room f in Unit 2, which was in effect an extension of Room e and served as its entranceway.⁵⁴ This parallels the orientation of the exterior access of *Buildings 651*, *652*, and *653* onto a street to the north, and as in the case of these buildings, the rooms closest to the entranceways of *Building 654* had the greatest quantities of storage vessels. In Unit 1, Room a had the largest number, with 69 storage-related vessels, 46 of these Category 1 Storage (Stationary)⁵⁵ and 23 Category 2 Storage (Transport)⁵⁶ vessels. The room furthest away from the entrance to *Building 654*—Room c—had only 6 of these vessels: 4 Category 1 Storage (Stationary) and 2 Category 2 Storage (Transport) vessels. The room between Rooms a and c—Room b—had 28 storage-related vessels: 19 Category 1 Storage (Stationary) and 9 Category 2 Storage (Transport) vessels. Since Room a had such a large number of stationary storage vessels—and 50% more stationary than transport vessels—it appears that one of the primary functions of this room was as a storage supply magazine. The relatively large number of transport vessels indicates that the room was also associated with the distribution of various types of dry and liquid goods. However, since the amount of available free floor and wall space in Room a, as discussed above, was far too limited to accommodate such a large number of storage vessels, as well as hundreds of other types of vessels, it must have had a second storey. Thus, Room a was apparently the focal point of the main commercial transactions in Unit 1 involving both the storage and distribution of goods.

In Room d, the numbers of vessels of different categories was not the critical datum for determining the function of the room. As concluded above, the room

was too small, even with a second storey, to accommodate all of the 346 vessels it contained, including the 43 Category 1 Storage (Stationary) and Category 2 Storage (Transport) vessels, and it must therefore have served as a pottery dump.

In Unit 2, Room e, the largest room in *Building 654* (although with a minimal amount of free wall space, as discussed above), had four exit/entry points and a number of installations; the useable floor space for storage and activities was therefore limited. But Room e yielded the highest quantity of vessels (464), including the largest numbers of Category 1 Storage (Stationary) and Category 2 Storage (Transport) vessels⁵⁷ at 53 and 31, respectively. Room f, immediately to the south of Room e and its extension/entranceway, produced only 34 vessels. Like Room a in Unit 1, Room e was apparently the focal point of the main commercial transactions in Unit 2, involving both the storage and distribution of goods.

As for food-related activities, Unit 1 contained a single tabun,⁵⁸ but no other apparent cooking installations. Nevertheless, ca. 6% of its ceramic assemblage is composed of Category 3 Food Preparation vessels, including 26 cooking pots⁵⁹ (15 in Rooms a, 3 in Room b, and 8 in Room d), 26 kraters⁶⁰ (6 in Room a, 7 in Room b, 1 in Room c, and 12 in Room d), and 6 mortaria (4 in Room a and 2 in Room d). The tabun, 15 cooking pots, and 10 other food preparation vessels in Room a indicate that food was prepared in the room, and the 79 Category 4 Food Service vessels indicate that food was eaten in the room. On the other hand, the 3 cooking pots and 7 other food preparation vessels in Room b may indicate that food was cooked elsewhere and brought to the room to be eaten, a conclusion supported by the 52 Category 4 Food Service vessels found in this room. As for the 22 Category 3 Food preparation vessels and the 85 Category 4 Food Service vessels found in Room d, these data are not significant, because this room served as a pottery dump. The single Category 3 Food Preparation vessel—a krater—and the 35 Category 4 Food Service vessels in Room c may indicate that eating food was a minimal function of this room.

54. For details, see Building 654 in Chapter 1.

55. For example, Fig. 4A.18:2.

56. For example, Fig. 4A.20:3.

57. For example, Fig. 4A.20:6.

58. Tabun 7013 in Room a.

59. For example, Fig. 4A.14:1–2.

60. For example, Figs. 4A.12:9, 4A.13:3.

Although Unit 2 had no cooking installations (tabuns, firepits, and/or hearths), 3.21% of its ceramic assemblage is composed of Category 3 Food Preparation vessels. The combined numbers of these vessels from Rooms e and f are 8 cooking pots (7 in Room e and 1 in Room f),⁶¹ 7 kraters (4 in Room e and 3 in Room f), and 1 mortarium (in Room e). These numbers indicate that food could have been prepared in Unit 2 or prepared elsewhere and brought to Unit 2 to be eaten, as supported by the 92 Category 4 Food Service vessels found in Unit 2.

The ratio of Category 4 Food Service vessels to Category 3 Food Preparation vessels may provide some indication as to the number of persons who might have eaten in Rooms a and b in Unit 1, with a ratio of 2.9:1 for Room a and 5.2:1 for Room b. In Unit 2, the combined ratio for Rooms e and f is 5.75:1. These ratios are consistent with the available floor space in the rooms. Also, the lower ratio in Room a seems to be more appropriate for a room with a large open drainage system. Thus, for every cooking pot, krater, or mortarium that could have been used for preparing food in a room or for carrying food into a room from elsewhere, almost three food service vessels were available in Room a, implying that one food preparation vessel could provide food for around 3 persons. In the larger rooms, one food preparation vessel could have provided food for 5–6 persons.

The Category 5 Special Function (Cult) vessels may also provide some insight into the functions of the rooms of *Building 654*. Of these vessels, 6 chalices were found in Unit 1 (3 in Room b, 2 in Room c, and 1 in Room d).⁶² It is significant that the largest number of the only other cultic-related vessels present in *Building 654*—6 lamps⁶³—was found in Room b, which also yielded the largest quantity of chalices. Thus, some kind of cultic activity could have been conducted in this room. The 4 lamps in Room a and the 2 chalices in Room c may indicate some cultic activity in these rooms as well, while the 3 cultic-related vessels in Room d are not significant because it was a pottery dump. There were no cultic-related vessels in Rooms e and f in Unit 2.

61. For example, Fig. 4A.14:10.

62. For example, Fig. 4A.11:1, 4–5.

63. For example, Fig. 4A.31:12–15; see text associated with n. 24.

3. Ratios of Small-to-Medium Closed and Open Vessels to Large Closed Vessels

In analyzing the correlation between the size of a room, its location in relation to the access to *Building 652*, and the ratio of SMCV/SMOV to LCV, two rooms of relatively comparable size produced the two largest assemblages of vessels. These rooms provided access from *Building 654* to the exterior, possibly onto a street—Room a in Unit 1 and Room e and its extension/entranceway, Room f, in Unit 2. Room a in Unit 1, with an area of 12.78 sq m, yielded 331 SMCV/SMOV and 67 LCV (398), for a ratio of 4.94:1. Unit 2 Rooms e and f, with a combined area 24.43 sq m, had 398 SMCV/SMOV and 100 LCV (498 vessels), for a ratio 3.98:1. As for the two other rooms in Unit 1, Room b at 15.47 sq m yielded 205 SMCV/SMOV and 32 LCV (237 vessels), for a ratio of 6.40:1; and Room c, at 7.99 sq m, had 105 SMCV/SMOV and 8 LCV (113 vessels), for a ratio of 13.12:1.

The pattern that emerges from the analysis of the ratio of small to large vessels in Unit 1 is that the further away a room was from the entrance to the building, the higher the ratio in favor of smaller vessels, and this was not influenced by the size of a room. Thus, medium-size Room a, with the building entranceway, has a ratio of small to large vessels of 4.94:1; Room b in the middle of the building, somewhat larger than Room a, has a ratio of 6.40:1; and Room c at the rear of the building, much smaller than both Rooms a and b, has a ratio of 13.12:1. This indicates that it was more practical to keep the larger vessels closer to the building entrance, which supports the suggestion that the rooms closest to the presumed street or alley were involved in some kind of commercial traffic for which large storage vessels were used.⁶⁴

The pattern evident in *Buildings 651* and *652*, whereby rooms in which the room with a smaller amount of free wall space on the ground floor had a greater bias in favor of small vessels,⁶⁵ is absent in *Building 654*. In fact, the opposite applies to *Building 654* Unit 1: while Room a, with the smallest amount of

64. See the discussion on Street 656 and Alley 657 in Chapter 1.

65. As indicated above, whether this pattern was also reflected in *Building 653* could not be determined because of lack of adequate data.

free wall space (3.46 m), has a ratio of small to large vessels of 4.94:1, Room b, with the largest amount of free wall space (9.22 m), has a ratio of 6.40:1. Apparently, the mitigating factors in the case of Unit 1 are the plan and function of the rooms. Room a, for example, had an open drainage system that drastically reduced its potential wall, storage, and work space. Room d was a pottery dump, the only one thus far identified in the excavations, and altered the spatial relationships of Rooms a, b, and c. As for Unit 2, only one large room was excavated, precluding the analysis of small to large vessel ratios.

CONCLUSIONS

The quantitative analysis of the pottery assemblage provides insights into the character and function of the Stratum IB rooms in *Buildings 651–654* that help to determine whether the rooms had only one level or a second storey or storage attic and the nature of their single or multiple functions as spaces used for storage, distribution of goods, working, eating, living quarters, and/or cultic-related activities.

Buildings 651, 652, and 654 had a second storey and *Building 653* a second storey or small attic space to accommodate their ceramic assemblages. Most of the rooms in these buildings were multi-functional, generally used for work activities and storage, and sometimes for other functions as well. *Building 651* Rooms a and d, *Building 652* Room a, and *Building 654* Rooms a and e, with its smaller extension/entranceway Room f, all of which were closest to a street, served as staging areas for the movement of dry and liquid goods, as attested by the large numbers of Category 1 Storage (Stationary) and Category 2 Storage (Transport) vessels in these rooms. In the interior rooms of the buildings (*Building 651* Rooms b, c, e, f, g, h, and i, *Building 652* Rooms b, c, and d, and *Building 654* Rooms b and c), the quantities of Category 1 Storage (Stationary) and Category 2 Storage (Transport) vessels decreased in stages the further the interior room was from the building entrance. The greater the distance from the entrance, the fewer the number of these vessels, and the ratio of smaller to large vessels increased in reverse, reflecting the differences in room function.

Building 651 Rooms b and f, *Building 652* Rooms c and d, *Building 653* Rooms a, c, d, and e, and *Building*

654 Rooms a, b, c, d, e, and f were for the most part work areas. The primary eating areas (with food brought into rather than prepared in the room) were: *Building 651* Rooms g and h (Rooms a, d, and f were supplementary eating areas); *Building 652* Rooms a, c, and d; *Building 653* Room a; and *Building 654* Unit 1 Rooms a and b and Unit 2 Room e. Based on the ratio of Category 3 Food Preparation to Category 4 Food Service vessels, the number of persons who could have used these eating areas ranges from 3 to 6. Food was most likely also prepared in Unit 1 Room a, which contained a tabun. In considering which rooms were used as cooking or eating areas and how many persons could have eaten food provided by one cooking vessel, it should be borne in mind that carrying cooked food from one building to another in Iron IIC cooking pots was facilitated by their form: in comparison to the earlier Iron IIA–B cooking pots, they are generally smaller, have a smaller opening, and always have two handles, making them more portable than the generally larger and more bulky earlier cooking pots with a more open mouth.⁶⁶ The smaller size of the Iron IIC cooking pot is also indicative of the smaller number of persons each cooking pot was intended to feed, and their size and form may also be indicative of a change in diet.⁶⁷

Building 651 Room e and possibly *Building 653* Room b were used solely for storage. Based on the presence of Category 5 Special Function (Cult) vessels, *Building 651* Rooms a, b, and possibly i, *Building 652* Room a, *Building 653* Rooms a, d, and e, and *Building 654* Rooms a, b, and c may have had cultic-related functions. *Building 651* Room i may have served as a work area or living quarters, and *Building 654* Room d was a pottery dump. Thus, when considering the results of the quantification analysis together with the observations on the building's design, architectural features, and types of construction, as well as the objects and other material cultural elements in each room presented in Chapter 1, a more comprehensive

66. Compare the Iron IIA–B cooking pots in *Timnah II*: Fig. 5 with the Iron IIC cooking pots in this volume, Chapter 4A: Fig. 4A.14.

67. The change in cooking pot types from the Iron IIB to Iron IIC also occurs in neighboring Judah (Gitin 2015: 390, n. 22), probably similarly reflecting a change in eating customs.

picture emerges of the activities conducted in *Buildings 651–654*.

The largest number of vessels in a single category in each room, almost always representing more than 50% of its assemblage, is Category 6 Multi-Function vessels, consisting of the most common bowl and krater types at Ekron. While it might be argued that they could have been used as ancillary forms to the five other categories of pottery vessels defined by function, none of these bowl and krater types would have been required in such large numbers for use in conjunction with any of the other vessel types in all five categories. There must therefore be another explanation for the presence of these vessels in such large numbers. It is possible that they were used in some way in work projects conducted in *Buildings 652, 653, and 654* that involved the basin installations and drainage systems in these buildings and/or associated with an aspect of the activities conducted by the priests who may have worked and/or lived in *Temple Auxiliary Buildings 651–654*. Another possibility is that they were stored in these buildings as part of an inventory that was either sold or distributed to the local population. To address

these issues, further study of this phenomenon in the context of Ekron's entire Iron II ceramic assemblage is required, including the data from the Field I Summit, Fields II–III, and Field IV Upper, where large numbers of Category 6 Multi-Function vessels also appear.

While differences in function of the rooms within *Buildings 651–654* are well defined, there is relatively little difference in the overall function of each building itself (Color Fig. 3.5). The spread of percentage per building of vessels of Categories 1–4 and 6—Storage (Stationary), Storage (Transport), Food Preparation, Food Service, and Multi-Function—is similar, the differences ranging from 4%–5%.

The only significant difference is in the percentage of Category 5 Special Function (Cult) vessels in each of *Buildings 651–654*, with the spread ranging up to 20%. *Building 651* had the highest percentage—33%—indicating the prominent role of cult in this building, followed by *Building 654* with 31%, *Building 653* with 20%, and *Building 652* with 13% (Color Fig. 3.6). This dovetails well with the presence of cultic objects other than pottery, such as four-horned incense altars and cultic inscriptions, in *Buildings 651 and 654*.⁶⁸

68. See Chapter 1.

CHAPTER 4A

THE IRON AGE IIC POTTERY

Seymour Gitin

INTRODUCTION

The Iron Age IIC 7th century ceramic corpus from Field IV Lower includes diagnostic forms from Strata ICb, IC, IB, and IA, as well as from Stratum Pre-IC, the last representing the final phase of the Iron Age IIB at the very end of the 8th century. Diagnostic forms from topsoil, balk trim, and clean-up are also included. Together, these constitute a comprehensive corpus of all the Iron II pottery from Field IV Lower. While each ceramic type is recorded in the database in *Ekron 9/3A* according to its findspot, this does not necessarily imply that it belongs to the stratum in which it was found, and it may therefore be assigned to a different stratum. For example, a fill associated with Stratum IB but part of its construction phase would be assigned to an earlier stratigraphic phase. This applies particularly to Stratum ICb, the construction phase of Stratum IC.

The corpus consists of 9,437 items, based on the minimum number of forms derived from the maximum number of Iron II diagnostic sherds from Field IV Lower, namely, 11,947. These represent 26.4% of the total number of Iron II diagnostic sherds—45,231—from Fields I, II, III, and IV. The minimum number of forms was determined on the basis of the methodology described in Chapter 2, with the detailed results presented in Chapter 4C. The total of 9,437 does not include the 317 Residual Forms A identified in the initial phase of classifying and quantifying the pottery corpus. These forms are associated with Strata III–II of the 10th–8th centuries on the Field I Northeast Acropolis Summit, and are intrusive in Field IV Lower. The total of 9,437 also does not include 82 pieces registered in the minimum total of items from Field IV Lower (9,836) excluded from the quantification process. However, the corpus of 9,437 does include a number of Residual Forms A identified only in the final stages of the corpus analysis, as well as

Residual Forms B from earlier phases of Stratum I in Field IV Lower and Residual Forms A–B representing a few pottery types known from Stratum II in Field I that appear in the early phases of Stratum I in Field IV Lower.¹

While the percentages of the majority of ceramic types are calculated on the basis of their relationship

1. Types included in the three classifications of Residual Forms A, B, and A–B are: **Residual Forms A:** IIAMP 12A, 13A (n=2); IIBL 1A (n=42), IIBL 9–9.2 (n=79), IIBL 16–16.4 (n=31), IIBL 27–28.2 (n=43), IIBL 32B (n=2), IIBL 41 (n=1); IICH 11 (n=4); IICP? 1–2 (n=34); IIHMJ 6 (n=1); IIJUGM 1 (n=3), IIJUGM 2.3 (n=8); IIKR 6 (n=12); IIJUL 15A (n=2), IIJUL 16B (n=1); IIPL 5A (n=3), IIPL 7 (n=1), IIPL 7B (n=1); IISJ 1.1 (n=31), IISJ 1.3 (n=13), IISJ 16A (n=2), IISJ 16.1A (n=1), IISJ Misc (n=1). **Residual Forms B:** IIBL 14X.3A, 17, 17.3, 20–21.5A, 22, 25.1, 25C, 26, 26B, IIBLM 8, 34A, 37–37A, 39A; IICH 9; IIJK 2.2, 6–7; IIPL 3, 3A, 6A, 7A, 7C; IISJ 1, 1.2; IISCP 5. **Residual Forms A–B:** IISJ 4–4.3.

Suggested emendations and additions to Residual Form classifications: IIBL 14X.1A should be reconsidered as a Residual Form A; IIBL 21–26A, IIBL 15, and IIBL 32C may be Residual Forms A–B; IICH 11, classified as Residual Form A, and IICH 12 have been reevaluated and assigned to the Iron I; IIKR 1–3 could be Residual Forms B; IIKR 13, 14, 15 may be Residual Forms B or A; IISJ 1, 1.2 classified as Residual Forms B may be Residual Forms A; IISJ 1.1, 1.3 classified as Residual Forms A may be Residual Forms B; IISJ 1.4 is most likely a Residual Form B that survived into Stratum IB; IISJ 2, 2A, 3 are most likely Residual Forms A–B that survived into Stratum IB; IIJUG 3, 4 are most likely Residual Forms A; IIAMP 13A should be considered Residual Form A.

Although there may be more Residual Forms A and B than originally designated, the tabular counts used in the discussion are based on the original attributions.

to the total of 9,437, those of the bowl and storage jar types—the primary corpus classes—are calculated as a proportion of their total number, with 5,415 bowls and 999 storage jars representing 57% and 11% of the Field IV Lower corpus, respectively.

The individual forms in the corpus are classified by both type and region. The three main regions are the Philistine Inner Coastal Plain (Ekron, Timnah [Tel Batash], and Tell eš-Šafi/Gath²), the Philistine coast (Ashdod and Ashkelon), and Judah (primarily Arad, Beersheba, the Beersheba Valley sites of Horvat ʿUza, Malḥata, Masos, and Tel ʿIra, Beth-Shemesh, En-Gedi, Jerusalem [the City of David, Ophel, and Jerusalem Caves], Lachish, Ramat Raḥel, and Tell Beit Mirsim). Parallels also come from sites in the south, including Aroer, Tell el-ʿAjjul, Tell el-Fûl, Tel ʿEton, Gibeon, Tel Ḥalif, Tell el-Hesi, Tell Jemmeh, Kheleifeh, Tell en-Naṣbeh, Qitmit, Ras Abu Maʿaruf (Jerusalem), Ruqeish, and Tel Seraʿ; from sites on the southern Coastal Plain including Mezad Ḥashavyahu and Yavneh-Yam; and from Kuntillet ʿAjrud and Kadesh-Barnea in Sinai. Northern sites at which parallels are attested include Dan, Beth-Shean, Tell el-Farʿah (North), Gezer (in the northern Shephelah), Hazor, Megiddo, Qiri, Rosh Zayit, Samaria, and Taanach, as well as the northern and central Coastal Plain sites of Achzib, Acco, Kabri, Keisan, Michal, Qasile, and Shikmona. Reference is also made to sites in Transjordan (Busayra, Tawilan, and Adoni Nur); in the eastern Mediterranean basin; in Lebanon (Sarepta and Tyre); on Cyprus (Kition, Idalion, and Salamis); in the western Mediterranean (Carthage and Toscanos); in Turkey (Al Mina, Tell Ahmar, and Tille Höyük); and in Mesopotamia (Khatuniyeh, Khirbet Qarij, Nimrud, Qasrij Cliff, and Tall Shiad Hajim).

Following is the breakdown of the 9,437 ceramic forms by region:

Philistia: 3,050 items (32%) from the coastal cities of Ashdod and Ashkelon and the Inner Coastal Plain sites of Ekron, Timnah, and Šafi/Gath: IIBL 1 (1,841), IIBL 2 (205), IIBL 8 (63), IIBL 30A (2), IIKR 11 (23), IICP 5–9 (118), IIPITH (5), IJK 5–5.1, 9 (16), IISJ 1–1.2, 4

(115), IIAMP (91), IIJUG 1–3, 13–13.6, 14 (512), IIJUL 1–1.4, 2–2.1 (59).

Philistine Inner Coastal Plain: 4,144 items (44%) from Ekron, Timnah, and Šafi/Gath (* = attested only at Ekron): IIBL 3 (1,378), IIBL 4 (1,040), IIBL 5 (143), IIBL 11 (52), IIBL 12 (23), IIBLF 1–2 (3), IISCP 1–11, IISCP? (70), IICH 3–6A (17), IIKR 1–5, 7–10 (815), IJK 1–1.2, 1.4, 2.2, 4.1 (56), IISJ 5–6 (522), IIJUG 5*, 6*, 8*, 9*, 10 (16), IIJUL 5*, 19 (4), IIBTL 3.1*, 6*, 7* (3), IILID* (2).

Judah (south): 620 items (6.5%): IIBL 7 (96), IIBL 17 (42), IIBL 18 (58), IIBL 19 (7), IIBL 20 (6), IIBL 21–26B (26), IIKR 15 (27), IICP 12, 14 (9), IISJ 15 (26), IIHMJ (295), IIJUG 4/4.1, 9.1 (4), IIDEC 1.2–1.2A, 5.1 (11), IIJUL 10, 11, 12, 12.1 (7), IILMP 3–4 (6).

Philistia and Judah: 134 items (1%): IIBL 13 (10), IIBL 14 (58), IIKR 13–14 (2), IIJUL 3–4 (64).

North: 19 items (0.2%): IIDEC 1–1.1 (19).

North and south (* = including some Philistine sites): 223 items (2.3%): IIBL 10 (166), IICH 9–10 (7), IICP 10–11 (2), IIBSN (3), IISJ 8 (1), IIDEC 2, 2.2 (5), IIJUL 15 (1), IISTD* (26), IICAS (1), IILMP 1–2 (10), IIFTB (1).

Cyprus: 46 items (0.5%): IIBL 43–43B (17), IIMRT (28), IIJUL 24 (1).

Assyrian tradition: 37 items (0.4%): IIBL 29 (11), IIGBL (7), IISJ 17 (1), IIBTL 1–1.3, 2, 4 (18).

East Greek repertoire: 6 items (0.06%): IIBL 35, 37–38 (6).

Phoenician repertoire: 248 items (3%): IIBL 31A (1), IIBL 32A, 32C (2), IIBL 33A, 34A (2), IIPL 2, 2A, 7B/C (29), IISJ 7, 9–14 (211), IIJUL13–13.2 (3).

Miscellaneous types: 564 items (6%): IIBL 15 (2), IIBLM 4–6, 8, 14, 26, 32B, 37–37A (14), IIBL?, IIBLMisc., IIBLV 1, 4B, IIBLM Mis (144), IICH? (23), IIKR? (43), IICP? (1), IJK 6, 7? (20), IISJ? (80), IISJ Mis (43), IIDEC? (3), IIJUG? (94), IIJULG 16A (1), IIJUL? (79), IILMP? (12), IIFNL (1), IIJJ (1), IISV (1), Pyxides (2).

Miscellaneous (MNC = not classified by type): 346 items (4%).

Philistine types represent 76% of the Field IV Lower corpus; Judean types (including those attested in Philistia and the north) comprise 10%; northern,

2. Although the site is geographically located in the lower Shephelah, Šafi/Gath is on the eastern edge of the Philistine Inner Coastal Plain.

Cypriot, East Greek, Assyrian, and Phoenician types comprise 4%; and miscellaneous types and unclassified miscellaneous forms represent 10%. Color Fig. 4A.1 illustrates the percentage of each vessel class.

In the classification of forms, types not included in the analysis represent those absent in the Field IV Lower ceramic corpus but attested elsewhere at the site. As for attested types that are not illustrated, this usually means that a better example comes from another field of excavation and will be illustrated in the report on that field. While Residual Forms A are not included in the Field IV Lower corpus, some examples are illustrated to emphasize primary Iron IIA–B diagnostic forms that are not Iron IIC types, for example, bowl types in the **IIBL 9**, **IIBL 16**, and **IIBL 28** series. The **IIBL 27** series is included because some of the best drawable examples of this rare type appear in Field IV Lower, as is **IIBL 41**, because it is the only example found at Ekron and is rare elsewhere.

In discussing antecedents and parallels, examples from Strata III–II in Field I and/or from Stratum Pre-IC in Field IV Lower are presented first, followed by related forms from other sites. The Philistine sites are cited in order of those closest to Ekron on the Philistine Inner Coastal Plain—Timnah, daughter city of Ekron in the late Iron II, and Šafi/Gath—and then the coastal sites of Ashdod and Ashkelon.³ Judean sites are cited next, followed by those in the northern Shephelah, the Coastal Plain, the north, Sinai, Transjordan, and Cyprus, and then East Greek, Assyrian-tradition, and Phoenician types.

The summary quantification tables below present types sufficiently common in the corpus. Otherwise, the inventory and percentages are given in the text description. For Residual Forms A, the total number of each type appears in the text.

BOWLS

The three major type series are **IIBL 1–1B**, **IIBL 3–3B**, and **IIBL 4–4.5**, representing 34%, 25%, and 19%,

3. In discussing parallels from Timnah, for which quantification data are available, the terms most common, common, rare, etc., are used; parallels from sites with unquantified ceramic assemblages are cited as present, represented, appears, attested, found, or similar.

respectively, of the bowl corpus (78% of the corpus) (Table 4A.1).

The **IIBL 1** series represents 34% of the bowl corpus, and is the most common 7th century Philistine bowl in Field IV Lower (Table 4A.2).⁴ The primary forms are **IIBL 1** and **IIBL 1.1**, with 1,281 examples, best attested in Stratum IB by 865 examples, 70% of the **IIBL 1** and sub-type assemblage.

IIBL 1 and its sub-types (Fig. 4A.1) are small to medium-size round-sided bowls with an incised/grooved rim and a short ring or disc base. **IIBL 1** (Fig. 4A.1:1–16; see Color Photo 4A.1:1) has a simple tapered usually vertical or slightly in-turned rim with a thin incision. **IIBL 1.1** (Fig. 4A.1:17–24; see Color Photo 4A.1:19) has a profiled rim with a slightly wider incision/groove, and **IIBL 1.2** (Fig. 4A.1:25–28), also with a profiled rim, has a wide incision/groove. The shallow groove in the rim of **IIBL 1.3** (Fig. 4A.1:29–31) creates a simple slightly inset vertical rim. **IIBL 1.4** (Fig. 4A.1:32–34) has a thickened simple or profiled rim with a wide groove. **IIBL 1B** (Fig. 4A.1:35–36, Color Photo 4A.1:4) has a simple rim with a thin incision; it has black wash on the interior and upper exterior.

Antecedents of **IIBL 1** appear in Field IV Lower in Stratum IV of the 11th/10th centuries. Typologically early examples occur in Strata III–II of the 10th–8th centuries in Field I. While the red-slipped examples from Strata IV, III, and II vary in rim diameter and tend to be deep, early plain forms from these strata, as well as **IIBL 1**, **IIBL 1.1**, and **IIBL 1.4**, tend to have a wider rim diameter and a thinner incision. In Field IV Lower, these include examples from Strata Pre-IC (Fig. 4A.1:1, 3), ICb (Fig. 4A.1:4–5, 18), and IC (Fig. 4A.1:6, 34). The rare black-washed **IIBL 1B** from Stratum IC also has a wider rim diameter (Fig. 4A.1:35–36).⁵

4. The total of 1,841 does not include 42 examples of what was originally considered Iron IIC sub-type **IIBL 1A**, but subsequently understood to be a residual form from Stratum IVA, and these examples were reassigned as **IBL 16** (Zukerman and Gitin 2016b: Fig. 5.103:17). This form is the sometimes red-slipped forerunner of Iron II **IIBL 1**. Also, one example each of **IIBL 1.1A** and **IIBL 1.2B** are represented by only very small fragments, and their attribution is uncertain.

5. For another example of a black-washed bowl from Stratum IC, see **IIBL 10B**.

Table 4A.1: Bowl corpus

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=48	0.9%	N=151	3%	N=1045	19%	N=3632	67%	N=208	4%	N=331	6%	N=5415	100%
1-1B	18	1	58	3	341	19	1254	68	78	4	92	5	1841	34
2-2.3	2	1	10	5	32	16	143	70	7	3	11	5	205	4
3-3B	6	0.4	38	3	299	22	901	65	52	4	82	6	1378	25
4-4.5	3	0.3	20	2	188	18	703	68	43	4	83	8	1040	19
5-5.8A	2	1.1	1	0.8	20	14	107	75	2	1.1	11	8	143	3
7-7.9A	-	-	1	1	21	22	62	65	3	3	9	9	96	2
8-8.8A	4	6	4	6	14	22	32	51	3	5	6	10	63	1
10-10B	4	2	9	6	40	24	103	62	3	3	7	4	166	3
11-11.3	1	2	-	-	9	17	34	65	2	4	6	12	52	1
12-12.3	-	-	1	4	5	22	15	65	2	9	-	-	23	0.43
13	-	-	-	-	2	20	8	80	-	-	-	-	10	0.18
14-14X.3A	5	9	-	-	6	10	39	67	2	4	6	10	58	1.07
15	-	-	1	50	-	-	-	-	-	-	1	100	2	0.04
17-17.3	-	-	-	-	7	17	29	69	-	-	6	14	42	0.77
18-18.3	-	-	1	2	11	19	38	66	2	3	6	10	58	1.07
19-19.2	-	-	-	-	1	14	5	72	1	14	-	-	7	0.13
20-20.1	-	-	-	-	-	-	6	100	-	-	-	-	6	0.11
21-26B	-	-	1	4	9	34	15	58	-	-	1	4	26	0.48
29A-29.2A	-	-	-	-	3	27	7	64	-	-	1	9	11	0.2
30A	-	-	-	-	1	50	1	50	-	-	-	-	2	0.04
31A	-	-	-	-	-	-	1	100	-	-	-	-	1	0.02
32A, 32C	-	-	-	-	1	50	-	-	-	-	1	50	2	0.04
33A, 34A	1	50	-	-	1	50	-	-	-	-	-	-	2	0.04
35, 37-38	-	-	-	-	1	17	5	83	-	-	-	-	6	0.11
43-43B	-	-	-	-	3	18	13	76	1	6	-	-	17	0.31
BLM 4-6, 8, 14, 26, 32B, 37, 37A	1	7	-	-	4	29	9	64	-	-	-	-	14	0.25
BL? BL Misc BLV1, 4B, BLM Mis	1	1	6	4	26	18	102	71	7	5	2	1	144	2.6

Table 4A.2: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=18	1%	N=58	3%	N=341	19%	N=1254	68%	N=78	4%	N=92	5%	N=1841	100%
1	10	1	27	4	125	18	456	66	45	6	31	5	694	38
1.1	4	1	16	3	118	20	409	69	11	2	29	5	587	32
1.2	1	1	6	2	53	20	185	70	10	4	9	3	264	14
1.3	1	1	4	3	22	17	97	73	3	2	5	4	132	7
1.4	1	1	5	3	23	14	106	65	9	6	18	11	162	9
1B	1	50	-	-	-	-	1	50	-	-	-	-	2	0.01

Table 4A.3: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=2	1%	N=10	5%	N=32	16%	N=143	70%	N=7	3%	N=11	5%	N=205	100%
2	-	-	5	5	19	20	68	70	3	3	2	2	97	48
2.1	-	-	3	5	9	14	46	72	2	3	4	6	64	31
2.2	1	7	1	7	1	7	9	60	2	13	1	7	15	7
2.3	1	1	1	3	3	17	20	73	-	-	4	14	29	14

Table 4A.4: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=6	1%	N=38	3%	N=299	21%	N=901	65%	N=52	4%	N=82	6%	N=1378	100%
3	-	-	23	2	236	22	703	65	38	4	70	7	1070	78
3.1	2	1	7	4	33	17	137	70	7	4	8	4	194	14
3.2	-	-	1	6	4	25	11	69	-	-	-	-	16	1
3B	4	4	7	7	26	27	50	51	7	7	4	4	98	7

Parallels for **IIBL 1** appear as BL 37 at Timnah, where they are the third most common bowl type attributed to Strata III–II of the 8th–7th centuries.⁶ **IIBL 1** also appears in limited numbers at Gezer as BL 45 in Stratum VIA of the mid-8th century.⁷ **IIBL 1.1** and **IIBL 1.2** are represented at Ashdod in Strata IX and VIII/VII of the late 9th and 8th/7th centuries, but these bowls are usually somewhat deeper and are red-slipped and burnished,⁸ as are the possibly 9th century examples from Tell eš-Šafi/Gath Stratum A3.⁹ Rare red-slipped and burnished examples have been found in the 604 BCE destruction at Ashkelon.¹⁰ They also appear sporadically in the 7th century at Meẓad Ḥašavyahu¹¹ and in Jerusalem in the mid-8th–7th centuries.¹² Given the large concentration of **IIBL 1** and its sub-types at Ekron and the frequency of parallel BL 37 at Timnah, as well as its minimal distribution in other regions, these bowls can be considered one

of the classic regional ceramic forms of the Philistine Inner Coastal Plain.

IIBL 2 constitutes only 4% of the bowl corpus (Table 4A.3). They are small carinated bowls with a simple or tapered rim and usually a disc base (Fig. 4A.2:1–8). **IIBL 2** (Fig. 4A.2:1–4) has a slightly rounded carination and lower sidewall and an out-turned rim. **IIBL 2.1** (Fig. 4A.2:5–6; see Color Photo 4A.1:3) has a high carination, a straight lower sidewall, and an out-turned rim. **IIBL 2.2** (Fig. 4A.2:7) has a high sharp carination, a straight lower sidewall, a vertical rim, and a ring base. **IIBL 2.3** (Fig. 4A.2:8) has a sharp carination, a straight lower sidewall, and an outwardly-curved upper sidewall, similar to **IIBL 1.3**. **IIBL 2** and its sub-types may be variants of **IIBL 1.3**, possibly the by-product of the process of mass production. This is supported by their small number. That **IIBL 2** is also only minimally represented in Field I in Stratum IIA and does not appear at other sites suggests that it may be a local variant.

IIBL 3 represents 25.3% of the bowl corpus. It is the second most common type in Field IV Lower (Table 4A.4). The primary type is **IIBL 3**, best attested in Stratum IB, representing 78% of the **IIBL 3** and sub-type assemblage.

IIBL 3 (Fig. 4A.2:9–36) are small to medium-size rounded or sharply carinated bowls with an angled or

6. *Timnah II*: 30, 35.

7. *Gezer III* (HUC): Pl. 20:1–2; it may also appear in Stratum VIB of the mid-9th century (*Gezer III* [HUC]: Pl. 13:1).

8. *Ashdod II–III*: Figs. 37:11–13, 39:15–16; *Ashdod IV*: Figs. 10:11, 13:5–7, 26:6.

9. Shai and Maeir 2012: Pl. 14.2:2.

10. *Ashkelon 3*: Fig. 5.33, Bowl 10.

11. Naveh 1962: 101, Fig. 4:7.

12. *Ophel*: Pl. 25:28.

outwardly-curved upper sidewall, a straight or rounded lower sidewall, a simple rounded or tapered rim, and a short ring or disc base. The main form **IIBL 3** (Fig. 4A.2:10–20, Color Photo 4A.1:5) has an outwardly-angled or slightly outwardly-curved upper sidewall. Of the three sub-types, **IIBL 3.1** (Fig. 4A.2:21–26) has an outwardly-curved upper sidewall; **IIBL 3.2** (Fig. 4A.2:27–32) tends to be more shallow and has a lower carination and an outwardly-angled upper sidewall; and **IIBL 3B** (Fig. 4A.2:33–36) has a rounded carination and an angled or slightly out-curved upper sidewall, and is red-slipped on the interior and upper exterior and wheel-burnished on the interior.

IIBL 3 and its sub-types first appear in Field I in Stratum III and develop through Stratum I (10th–7th centuries). The earlier forms from Field I Strata III–II and Field IV Lower Strata ICb–IC tend to be wider and shallower (**IIBL 3.1** and **IIBL 3.2** in Fig. 4A.2:21, 27, 30–31) compared to the smaller and slightly deeper Stratum IB examples (Fig. 4A.2:12–30). Red-slipped and burnished **IIBL 3B** (Fig. 4A.2:33–36)¹³ is one of the three major decorated bowl forms in Stratum IB (together with **IIBL 5A** and **IIBL 7.1A**).

The **IIBL 3** series is among the best examples of a 7th century Philistine bowl. It appears only at Ekron and at Timnah (as BL 12,¹⁴ although some examples of **IIBL 3B** are classified as BL 46¹⁵). Limited to the Philistine Inner Coastal Plain, it does not appear at the coastal cities of Ashdod and Ashkelon, the only other major Philistine cities in the 7th century.¹⁶ At

Timnah, BL 12 assigned to Strata III–II of the 8th–7th centuries includes two variants, one of which—Variant A—parallels **IIBL 3** and appears primarily in Stratum II.¹⁷ BL 12 Variant B, paralleled by **IIBL 4** and some sub-types, is a different form, and appears almost exclusively in Stratum II.¹⁸ Timnah BL 12 Variant B, like **IIBL 4**, is deeper and wider than Variant A, and usually has a wide ring base, as opposed to the small disc base of Variant A. Most significantly, Variant B, unlike Variant A, has an incised/grooved rim. The only characteristic that the two variants have in common is that they are carinated. Also noteworthy is that while **IIBL 3** appears at Ekron in Strata III–I of the 10th–7th centuries, Timnah BL 12 Variant A appears primarily in Stratum II of the 7th century.

As for the chronological attribution of BL 12 Variant A at Timnah, according to the excavators, its “main distribution [is] in the 8th century levels in Judah and [it] appear[s] less frequently in the late 7th century.”¹⁹ If this were correct, it would mitigate against the above conclusion that the **IIBL 3** equivalent at Ekron is a major 7th century form that occurs only on the Philistine Inner Coastal Plain. The parallels brought to support the chronological attribution of BL 12 Variant A are all from Judah, including from Lachish Level III, Beit Mirsim Stratum A, Beth-Shemesh Stratum IIb, Jerusalem Caves I and II, Ramat Rahel Stratum V, the ‘Eton Tombs, Beersheba Stratum II, and Arad Stratum X.²⁰ All are bowls with a very low carination and an outwardly-angled straight sidewall, a common Judean form in the Iron IIB, with its main distribution in the 8th century. None are parallels for Ekron **IIBL 3**, and not a single example of the form appears on the Philistine Inner Coastal Plain in the 7th century. If these forms were directly related, that is, variants, they should occur in both Judah and the Philistine Inner Coastal Plain, but that is not the

13. A typologically earlier wider and shallower red-slipped example appears in Field I Stratum IIB.

14. *Timnah II*: 31, Fig. 1: BL 12.

15. Among the examples of BL 46 at Timnah, only one whole form from Stratum II (*Timnah II*: Pl. 41:15) is a perfect example of **IIBL 3B**. The others are mostly fragmentary, and could represent at least two other bowl types (*Timnah II*: 47): for example, *Timnah II*: Pl. 27:2 is a better parallel for **IIBL 10B**. Also, most of the parallels listed for BL 46 duplicate those cited for BL 12 (*Timnah II*: 46), which is the basis for concluding that BL 12 and BL 46 are primarily Judean types. The Judean “parallels,” however, rather represent a bowl type characterized by a very low carination and an outwardly-angled sidewall.

16. With the possible exception of a generally similar bowl found in the 604 BCE destruction at Ashkelon that may be a variant of **IIBL 3.2**, although it lacks the distinctive

carination and disc or ring base (*Ashkelon 3*: Fig. 5.3, Bowl I).

17. *Timnah II*: Pls. 31:15–20, 41:19, 64:2–4, 71:17–19, 94:7–10; one bowl assigned to BL 24 in Stratum III is actually an example of BL 12 Variant A (see *Timnah II*: Pl. 23:3).

18. *Timnah II*: Pls. 31:1, 6–14, 41:18, 21, 58:3, 64:5–7, 94:11 (Stratum II).

19. *Timnah II*: 46.

20. *Timnah II*: 46.

Table 4A.5: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=3	0.3%	N=20	2%	N=188	18%	N=703	68%	N=43	4%	N=83	8%	N=1040	100%
4	2	0.4	6	1	90	18	329	66	18	4	52	10.6	497	48
4.1	-	0.3	10	3	69	19	241	66	17	5	28	8	365	35
4.2	-	-	4	3	24	17	102	73	7	5	3	2	140	13
4.3	-	-	-	-	4	13	27	84	1	3	-	-	32	3
4.5	1	17	-	-	1	17	4	66	-	-	-	-	6	1

case.²¹ Rather, they should be interpreted as functional equivalents—that is, small to medium-size carinated bowls—in the ceramic assemblages of two different regions, not parallel forms.

The **IIBL 4** series constitutes 19% of the bowl corpus, and the third most common 7th century bowl in Field IV Lower (Table 4A.5). Primary types **IIBL 4** and **IIBL 4.1**, with 862 examples, are best represented in Stratum IB with 570 examples, 83% of the **IIBL 4** assemblage.

IIBL 4 and its sub-types (Fig. 4A.3:1–20) are medium-size bowls with a rounded to pronounced carination, an angled or outwardly-curved upper sidewall, a straight or rounded lower sidewall, a slightly everted tapered incised rim, and generally a short ring or sometimes disc base. **IIBL 4** (Fig. 4A.3:1–6) has a rounded carination, angled or slightly outwardly-curved upper sidewall, and tapered rim. **IIBL 4.1** (Fig. 4A.3:7–12) has a slight carination, angled or slightly outwardly-curved upper sidewall, and tapered rim. **IIBL 4.2** (Fig. 4A.3:13–16) has a pronounced carination, outwardly-curved upper sidewall, and everted tapered rim. **IIBL 4.3** (Fig. 4A.3:17–19, Color Photo 4A.1:6) has a pronounced carination, outwardly-curved upper sidewall, and profiled rim. **IIBL 4.5** (Fig. 4A.3:20, Color Photo 4A.1:7) has a wide shallow pronounced carination, an

angled upper sidewall, a straight lower sidewall, and a tapered rim.

IIBL 4.1, **IIBL 4.2**, and **IIBL 4.5** appear in Stratum IIA prior to the 7th century in Field I,²² while the complete **IIBL 4** series appears in all Stratum I phases in Field IV Lower. The earlier forms, like **IIBL 4.1**, are wider and more shallow in Strata IIA and IC (Fig. 4A.3:7, 11) than in Stratum IB (Fig. 4A.3:8, 10). This morphological development is similar to that of the two other main 7th century bowls, **IIBL 1** and **IIBL 3**, earlier forms of which from Stratum Pre-IC and Strata ICb and IC tend to be wider and shallower than the latest examples from Stratum IB. Variants of **IIBL 4**, sometimes with red slip, also appear in Strata III–II in Field I. The rim of **IIBL 4.2** (Fig. 4.3:16) is only slightly different to that of **IIBL 4.3** (Fig. 4.3:17), and these should probably be considered as a single sub-type. **IIBL 4.5** (Fig. 4A.3:20), the most common of the **IIBL 4** series in Field I Stratum IIA, is another early example of a major local bowl form at Ekron that is wider and more shallow than in Stratum IB.

The **IIBL 4** series is another example of a primary 7th century Philistine bowl form of which sub-types first appear at Ekron Field I Stratum IIA of the second half of the 8th century. Parallels are common at Timnah, with BL 12 Variant B attested in Stratum III of the 8th and primarily in Stratum II of the 7th century.²³ **IIBL 4** and its sub-types are limited to the region of the Philistine Inner Coastal Plain, with the exception of Type B 6 at Mezad Hashavyahu.²⁴

21. Examples from Lachish Levels V–IV of the 9th–8th centuries that are close in form to **IIBL 3** are wider and seem to be related to Timnah BL 24 (*Timnah II*: 46), which is similar to **IIBL 14**. However, it is quite possible that the Lachish Level IV examples of B 15 (Zimhoni 2004b: 1763, Fig. 25.42:16–17) and Level III examples of B 4 (Zimhoni 2004a: 1813, Fig. 26.3:8–9) are variants of **IIBL 3.2**.

22. Two early examples of **IIBL 4** come from Field IV Lower Stratum Pre-IC.

23. See n. 26 for parallels from Timnah.

24. Fantalkin 2001: Fig. 23: B 6; the parallels Fantalkin cites from Jerusalem are actually of another bowl type, more akin to **IIBL 3**.

Table 4A.6: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=2	1%	N=1	0.07%	N=20	14%	N=107	75%	N=2	1%	N=11	8%	N=143	100%
5	1	8	-	-	2	15	8	62	-	-	2	15	13	9
5A	-	-	-	-	11	16	50	72	2	3	6	9	69	48
5B	-	-	-	-	-	-	4	100	-	-	-	-	4	3
5D	-	-	-	-	-	-	1	100	-	-	-	-	1	0.7
5.1	-	-	-	-	2	17	8	66	-	-	2	17	12	8.4
5.1A	1	11	-	-	1	11	7	78	-	-	-	-	9	7
5.3	-	-	-	-	1	20	4	80	-	-	-	-	5	4
5.3A	-	-	1	7	1	7	11	79	-	-	1	7	14	10
5.4A	-	-	-	-	1	8	11	92	-	-	-	-	12	8.4
5.5A	-	-	-	-	1	50	1	50	-	-	-	-	2	1
5.6A	-	-	-	-	-	-	2	100	-	-	-	-	2	1

The **IIBL 5** series constitutes 3% of the bowl corpus (Table 4A.6).²⁵ The primary type is **IIBL 5A**, best represented in Stratum IB with 50 examples, 48% of the **IIBL 5** assemblage.

IIBL 5 and its sub-types (Fig. 4A.3:21–36) are small to medium-size carinated bowls with an outwardly-curved upper sidewall, an overhanging, everted, or slightly out-turned rim, and usually a short ring base; they are generally red-slipped on the interior and on the upper exterior or exterior rim, and most are wheel-burnished on the interior. **IIBL 5** (Fig. 4A.3:21–22) with an overhanging rim is plain. The main form, **IIBL 5A** (Fig. 4A.3:23–27) with an overhanging rim, is red-slipped on the interior and rim exterior and wheel-burnished on the interior, as is **IIBL 5D** with a profiled rim. **IIBL 5B** (not illustrated) with a short profiled rim is red-slipped on the interior and upper exterior. **IIBL 5.1A**, **IIBL 5.3**, **IIBL 5.3A**, **IIBL 5.4A**, **IIBL 5.5A**, and **IIBL 5.6A** are similar to **IIBL 5A**, but tend to be shallower and wider with a lower carination, and except for plain **IIBL 5.3** (Fig. 4A.3:31), have red slip on the interior and upper exterior and wheel burnish on the interior. **IIBL 5.1A** (Fig. 4A.3:29–30) has an extended everted curved rim; **IIBL 5.3** (Fig. 4A.3:31) and **IIBL 5.3A** (Fig. 4A.3:32–34) have a slightly out-turned or extended everted curved rim; and **IIBL 5.4A**

(Fig. 4A.3:35) and **IIBL 5.5A** (Fig. 4A.3:36) have an everted rim. **IIBL 5.6A** (not illustrated) is a variant with a high rounded carination and a profiled rim.

The typological development of **IIBL 5** to some extent parallels that of **IIBL 1–IIBL 4** in that the earlier forms—for example, **IIBL 5.3A** from Stratum ICb (Fig. 4A.3:33) and **IIBL 5.5A** (Fig. 4A.3:36) from Stratum IC—tend to be shallower and wider than the Stratum IB types, like **IIBL 5A** (Fig. 4A.3:25). Also, the earlier extended everted rim in Stratum IC—as on **IIBL 5.3A** (Fig. 4A.3:33)—becomes an overhanging rim in Stratum IB, as on **IIBL 5A** (Fig. 4A.3:26). Another difference lies in that the shallow types, like **IIBL 5.1A** (Fig. 4A.3:29), have red slip on the upper exterior, in contrast to the narrower deeper forms with red slip only on the rim exterior, as **IIBL 5A** (Fig. 4A.3:26). **IIBL 5A** is one of three major red-slipped forms in Stratum IB, together with **IIBL 3B** and **IIBL 7**.

Parallels for **IIBL 5** and **IIBL 5A** appear at Timnah as BL 47, with 11 examples from Stratum III and 64 from Stratum II of the 8th and 7th centuries, respectively.²⁶ The majority parallels **IIBL 5A**, with slip and burnish on the interior and rim exterior.²⁷ There are no examples of other **IIBL 5** sub-types at Timnah, and no parallels are known from other sites.²⁸ The **IIBL 5**

25. While seven sherds of **IIBL 5** and **IIBL 5A** were recorded in Stratum IIA in Field I, they come from unsealed loci with intrusive elements, which makes their attribution to Stratum IIA suspect.

26. *Timnah II*: 48.

27. *Timnah II*: Pl. 31:26.

28. The two proposed parallels from Ashdod and Mezad Hashavyahu cited in *Timnah II*: 48 are not examples

Table 4A.7: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=1	1%	N=21	22%	N=62	65%	N=3	3%	N=9	9%	N=96	100%
7	-	-	-	-	3	14	16	76	-	5	1	5	21	23
7.1	-	-	1	9	2	18	5	46	-	-	3	27	11	11
7.1A	-	-	-	-	10	25	26	65	2	5	2	5	40	42
7.3A	-	-	-	-	1	33	2	67	-	-	-	-	3	3
7.5A	-	-	-	-	-	-	1	100	-	-	-	-	1	1
7.6	-	-	-	-	-	-	1	100	-	-	-	-	1	1
7.6A	-	-	-	-	-	-	2	67	-	-	1	33	3	3
7.7A	-	-	-	-	2	50	2	50	-	-	-	-	4	4
7.8A	-	-	-	-	3	30	5	50	-	-	2	20	10	10
7.9A	-	-	-	-	-	-	2	100	-	-	-	-	2	2

series is therefore limited to the region of the Philistine Inner Coastal Plain and primarily to the 7th century.

IIBL 6 and its sub-types only appear in Strata III–II in Field I.

The **IIBL 7** series represents 2% of the bowl corpus (Table 4A.7). The primary type, **IIBL 7.1A**, is best represented in Stratum IB with 26 examples, 42% of the **IIBL 7** assemblage.

IIBL 7 types (Fig. 4A.4:1–6) include medium-size round-sided bowls with an overhanging pointed rim and a short ring base, often red-slipped on the interior and rim exterior and wheel-burnished on the interior. **IIBL 7** (Fig. 4A.4:1, Color Photo 4A.1:8) has wheel burnish on the interior; **IIBL 7.1** (Fig. 4A.4:2) is plain;

and **IIBL 7.1A** (Fig. 4A.4:3–6) has red slip on the rim and wheel burnish on the interior.

IIBL 7.6A, **7.7A**, and **7.9A** catalogued as **IIBL 7** sub-types may instead be variants of Judean straight-sided shallow bowls. **IIBL 7.6A** (Fig. 4A.4:7) has a cut squared rim, **IIBL 7.7A** (Fig. 4A.4:8) an overhanging vertical rim, and **IIBL 7.9A** (Fig. 4A.4:9) a short up-turned tapered rim. All are red-slipped on the interior and rim exterior and wheel-burnished on the interior, except for **IIBL 7.7A**, which is hand-burnished on the interior. Four additional variants (not illustrated) are **IIBL 7.3A** with a shorter rim, **IIBL 7.5A** with a vertical rim, **IIBL 7.6**, perhaps a plain version of **IIBL 7.6A**, and **IIBL 7.8A**, a larger version of **IIBL 7.9A**.

IIBL 7 and its sub-types first appear in Field I in Stratum IIB of the first half of the 8th century, with **IIBL 7.1A** the most common of the series.

At Timnah, parallels for **IIBL 7.1**²⁹ and **IIBL 7.1A**³⁰ are represented by BL 14, reflecting the same stratigraphic profile and approximately the same percentages as at Ekron, namely, 1% of the bowls in 8th century Stratum III and 2% in 7th century Stratum II.³¹ Parallels for **IIBL 7.1** also appear at Ashdod in Strata

of **IIBL 5** or its sub-types. The one from Ashdod is most likely a chalice, as indicated by the parallels cited in *Ashdod II–III*: 97, Fig. 40:1; that from Mezad Hashavyahu presented in Naveh 1962: Fig. 4:6 was reevaluated as a round-sided bowl with an extended curved overhanging rim (Fantalkin 2001: Fig. 23:5), although it appears to have a high carination. Furthermore, the parallels cited for this bowl come from the Phoenician sphere (Fantalkin 2001: 54–55), and these bear no relationship at all to **IIBL 5** and its sub-types. It is possible, however, that a variant or related form of **IIBL 5.3A** with similar characteristics, including the decoration, does appear in the 604 BCE destruction at Ashkelon (*Ashkelon 3*: Fig. 5.7, Bowl 2).

29. *Timnah II*: Pl. 54:15 (Stratum II).

30. *Timnah II*: Pls. 14:4 (Stratum III), 29:19, 91:16 (Stratum IIIA), 54:16, 64:20, 71:21, 94:6 (Stratum II). One example cited as BL 14 (*Timnah II*: Pl. 14:3) is a shallow plate paralleled at Ekron by **IIBL 7C** (Fig. 4A.7:17).

31. *Timnah II*: 30.

VIII–VI of the late 8th–7th centuries,³² and for **IIBL 7.1A** in Stratum VII of the 7th century.³³ **IIBL 7.6A**, a form similar to **IIBL 7.1A**, is also known from the 604 BCE destruction at Ashkelon.³⁴ In Judah, **IIBL 7.1** is attested in 7th century Strata 10B and 10C in Jerusalem,³⁵ in Stratum VII at Arad,³⁶ and at Masos;³⁷ it also appears at Tawilan in Transjordan.³⁸ **IIBL 7.1A** is represented in 8th century Judah at Beth-Shemesh in Tomb 8,³⁹ Lachish in Level III (as B-1),⁴⁰ and Jerusalem in Stratum 12,⁴¹ and in the 8th–7th centuries at ʿIra in Strata VIII–VI,⁴² as well as in the northern Sinai at ʿAjrud.⁴³ The two examples from Mezad Hashavyahu cited in the literature are rim fragments that seem to come from shallow plates.⁴⁴

While **IIBL 7**, **IIBL 7.1**, and **IIBL 7.1A** are a southern bowl type, occurring mainly in Judah in the 8th–7th centuries, they also appear in Philistia in the same time-frame and in Edom in Transjordan in the 7th century.⁴⁵ Variants **IIBL 7.3A**, **IIBL 7.5A**, **IIBL 7.6**, **IIBL 7.6A**, **IIBL 7.7A**, **IIBL 7.8A**, and **IIBL**

7.9A apparently belong to a group of Judean shallow straight-sided bowls (often defined as plates) that have a wide variety of rim forms and are typical of the 8th–7th centuries.⁴⁶ These variants represent one of the minor bowl types in Field IV Lower. Most are red-slipped and wheel-burnished, and together with **IIBL 3B** and **IIBL 5A**, comprise the majority of the red-slipped wheel-burnished vessels in Stratum I, representing a significant percentage of the food-service bowls.⁴⁷

The **IIBL 8** series comprises 1% of the bowl corpus (Table 4A.8). The primary types are **IIBL 8**, **IIBL 8.2**, and **IIBL 8.4** (42 examples), with **IIBL 8** represented by 15 examples in Stratum IB, 55% of the **IIBL 8** assemblage.

IIBL 8.1, **IIBL 8.4**, and **IIBL 8.5** (Fig. 4A.4:10–12) are medium-size round-sided bowls with an internally-profiled rim, grooving below the rim exterior, and a short ring base. **IIBL 8.1** (Fig. 4A.4:10) has a thick rim with a single groove; **IIBL 8.4** (Fig. 4A.4:11) has a thin rim with a double groove; and **IIBL 8.5** (Fig. 4A.4:12) has a thick rim with a double groove. The six unillustrated related forms—**IIBL 8**, **IIBL 8.2**, **IIBL 8.3**, **IIBL 8.3A**, **IIBL 8.6**, and **IIBL 8.8A**—tend to have a slightly shorter rim. Both **IIBL 8.3A** and **IIBL 8.8A** have red slip on the interior.

One of the primary Field IV Lower forms, **IIBL 8.4** (Fig. 4A.4:11), appears in Field I in Strata III–I together with **IIBL 8.3** and **IIBL 8.6–8.10A**, the predominant Field I Strata III–II types. In comparison

32. *Ashdod II–III*: Figs. 93:26 (Stratum VII), 45:3 (Stratum VIII); *Ashdod IV*: Fig. 19:4 (Stratum VII).

33. Ben-Shlomo 2005: Fig. 3.100.

34. *Ashkelon 3*: Fig. 5.31, Bowl 9.

35. City of David Area G Locus 997, Reg. No. 11931/1, with variants in Locus 986, Reg. No. 17545/3, and Locus 903, Reg. No. 11127/3 (Jane Cahill West, personal communication).

36. Herzog et al. 1984: Fig. 25:1.

37. Zimhoni 1983: Pl. 163:4.

38. *Tawilan*: Fig. 6.1:13.

39. *Ain Shems IV*: Pl. LIV:8.

40. Zimhoni 2004a: Figs. 26.18:8, 26.20:1. Other Level III examples of B-1, however, are much shallower (Zimhoni 2004a: Figs. 26.3:12, 26.17:7) and better described as plates or as variations of a similar form (Zimhoni 2004b: Figs. 25.29:1, 25.42:6). Another parallel may come from Lachish Levels III–II (*Lachish III*: Pl. 80:65, Class B.11).

41. City of David Area G Locus 1119, Reg. No. 15479/2 (Cahill West, personal communication).

42. Freud 1999: Fig. 6.71:1.

43. Ayalon 1995: 145, Fig. 3:6.

44. Naveh 1962: Fig. 4:1–2.

45. The suggestion in *Timnah II*: 49 that the development of BL 14 (the equivalent of **IIBL 7**) was influenced by a class of shallow bowl with an overhanging rim and high ring base that has Phoenician affinities, attested in the north in the 9th–8th centuries, needs to be reevaluated.

46. Fantalkin describes them as flat shallow straight-sided bowls, presenting as parallels flat/wide shallow straight-sided bowls with an extended overhanging rim and a wide disc base (Fantalkin 2001: 53). These, however, are better classified as plates, like those from Lachish Stratum II (*Lachish V*: Pls. 47:7, 49:3, 50:1) and Ramat Raḥel Stratum VA, although the latter are somewhat smaller in diameter than those at Lachish; they are very shallow and have a wide disc base and an extended rounded overhanging rim (*Ramat Raḥel II*: Pl. 16:1, 3–9, 14–17). Freud and Beit-Arieh also categorize these forms as shallow straight-sided bowls (platters), citing parallels from throughout Judah, as well as from Edom; the parallels they cite, however, include not only shallow plates, but also examples of **IIBL 7.1**, e.g., from Arad (1995: 212).

47. See Chapter 3.

Table 4A.8: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=4	6%	N=4	6%	N=14	22%	N=32	51%	N=3	5%	N=6	10%	N=63	100%
8	1	3	4	11	9	25	15	43	3	9	3	9	35	55
8.1	-	-	-	-	-	-	2	100	-	-	-	-	2	3
8.2	-	-	-	-	2	-	-	-	-	-	1	-	3	5
8.3	-	-	-	-	3	30	6	60	1	10	-	-	10	16
8.3A	2	100	-	-	-	-	-	-	-	-	-	-	2	3
8.4	-	-	-	-	2	50	2	50	-	-	-	-	4	6
8.5	-	-	-	-	-	-	1	100	-	-	-	-	1	2
8.6	-	-	-	-	-	-	4	80	-	-	1	20	5	8
8.8A	1	100	-	-	-	-	-	-	-	-	-	-	1	2

with the latter, with their slightly shorter rim and slip, the predominant Field IV Lower Strata IC and IB form, **IIBL 8**, has a thinner sidewall and thinner and longer internally-profiled rim, and is rarely slipped. There is a major shift in fabric color from brown to red-brown and in levigation from poor to fair, perhaps indicating an increase in the quality of the ware in Stratum I. It is possible that the Field IV Lower examples of **IIBL 8.3**, **IIBL 8.3A**, **IIBL 8.6**, and **IIBL 8.8A** are residual—they have many of the typological characteristics of the earlier **IIBL 8A**, **IIBL 8.7**, **IIBL 8.8**, **IIBL 8.9**, **IIBL 8.10**, and **IIBL 8.10A** that are absent in Field IV Lower, and are represented by only 18 examples, mostly small fragments, in Stratum I.

The **IIBL 8** series is attested mainly on the Philistine Inner Coastal Plain at Ekron and Timnah (as BL 32). The earliest examples from Ekron Stratum IV of the 11th/10th century parallel primary types **IIBL 8** and **IIBL 8.3**; parallels for the former have a slightly thicker rim and sidewall, and for the latter, the characteristic shorter rim and red slip on the interior.⁴⁸ The earliest red-slipped and hand-burnished examples are attested at Timnah in Stratum III of the 8th century,⁴⁹ closely paralleling Ekron IBL 16, perhaps the Iron I antecedent of the **IIBL 8** series in Stratum IV.⁵⁰ Other

examples from Timnah Stratum III include parallels for **IIBL 8**, **IIBL 8.1**, **IIBL 8.3**, and **IIBL 8.8A**, some with a thicker and others a thinner sidewall.⁵¹ Although some of the Timnah examples were assigned to Stratum II, the excavators point out that they should not be regarded as a Stratum II type.⁵² Examples from Ashdod Strata VIII and VII of the 8th and first half of the 7th century are parallels for **IIBL 8.3A** and **IIBL 8.1**, respectively, but are red-slipped and burnished.⁵³ A parallel for **IIBL 8.3A** with red slip and irregular hand burnish on the interior and upper exterior appears at Tel Sera^c in Strata VII/VI of the 9th/8th century.⁵⁴ Thus, the **IIBL 8** series represents a minor bowl form primarily in the northern region of Philistia and absent at more southerly Philistine sites like Ashkelon and Şafi/Gath, although it is attested on the southern edge of Philistia at Sera^c.⁵⁵ It apparently developed from an Iron I form.

IIBL 9 (Fig. 4A.4:13) and its Residual Form A subtypes are well attested in Strata III–II in Field I. This medium-size carinated bowl with a flaring upper sidewall and simple rim, usually slipped on the upper interior and the exterior, is represented by 90 examples in Field IV Lower.

48. *Timnah II*: Pls. 7:3–4, 84:5.

49. *Timnah II*: Pls. 13:29, 87:14.

50. Zukerman and Gitin 2016b: Fig. 5.103:18. Another early example comes from Stratum IIa/b of the 10th/9th century at Beth-Shemesh. It has a thick sidewall and thick short rim, and is red-slipped on the exterior and hand-burnished on the interior (*Ain Shems IV*: Pl. LXIII:17).

51. *Timnah II*: Pls. 14:9, 12, 57:2, 18.

52. *Timnah II*: 38.

53. *Ashdod II–III*: Fig. 37:15; *Ashdod IV*: Fig. 19:9; see also the related form in *Ashdod IV*: Fig. 13:8.

54. Oren 1992: 98, Ill. 10:4.

55. Contrary to the suggestion in *Timnah II*: 38, it does not appear at Arad.

Table 4A.9: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=4	2%	N=9	6%	N=40	24%	N=103	62%	N=3	2%	N=7	4%	N=166	100%
10	2	3	-	-	16	20	55	70	2	3	3	4	78	47
10A	2	2	9	10	23	27	48	55	1	1	4	5	87	52
10B	1	100	-	-	-	-	-	-	-	-	-	-	1	1

The **IIBL 10** series comprises 3% of the bowl corpus (Table 4A.9). Of the two primary types, **IIBL 10** and **IIBL 10A** (165), the latter is best represented in Strata IC and IB by 71 examples, comprising 52% of the **IIBL 10** assemblage.

IIBL 10 and **IIBL 10A** (Fig. 4A.4:14–16) are small to medium-size hemispherical bowls with a simple tapered rim and a short ring base. **IIBL 10** is plain (Fig. 4A.4:14, Color Photo 4A.1:9), and **IIBL 10A** (Fig. 4A.4:15–16) is red-slipped on the interior and upper exterior. **IIBL 10B** (not illustrated) has the carelessly-applied black wash on the interior and upper exterior typical in the first half of the 7th century.⁵⁶

IIBL 10 first appears in Field IV Lower as IBL 11 in the last phase of the Iron I, Stratum IVA of the 11th/10th century.⁵⁷ It continues to develop through Strata III, II, and I of the 10th–7th centuries in Field I, in which **IIBL 10A** also appears.

Possible parallels may be represented by the incomplete examples of BL 46 from Strata III–II of the 8th–7th centuries at Timnah,⁵⁸ and those from Stratum VI of the late 7th century at Ashdod.⁵⁹ While examples of the **IIBL 10** series with the same hemispherical shape and proportions and with a short ring base are rare, the hemispherical bowl (often described as a semi-globular bowl) is a universal type found in many configurations in Philistia and elsewhere in the eastern Mediterranean basin. At Philistine coastal sites, deep hemispherical bowls are known from Ashdod Strata IX–VIIIb of the 9th–8th centuries and Stratum VII of the 7th century,⁶⁰ and wider examples with a round or a short disc base appear at Ashkelon in the

604 BCE destruction (Bowl 1).⁶¹ They are also known in the south at Beit Mirsim in Stratum A of the Iron II,⁶² and at Horvat Qitmit in the 7th/6th century.⁶³ Related forms appear in Jerusalem and at Arad in the 9th–7th centuries,⁶⁴ at ‘Ira in Strata VII–VI from the end of the 8th through the early 6th century,⁶⁵ and at Meẓad Hashavyahu in the 7th century.⁶⁶ Examples are also known in the north at Hazor in Stratum VI of the 8th century,⁶⁷ at Tyre in Phoenicia in Stratum IX of the 9th/8th century,⁶⁸ and in “Kition horizon 750? to after 700 B.C.” on Cyprus.⁶⁹

The **IIBL 11** series comprises 1% of the bowl corpus (Table 4A.10). The primary type, **IIBL 11**, is best attested in Strata IC and IB by 33 examples, representing 73% of the **IIBL 11** and sub-type assemblage.

IIBL 11, **11.1**, **11.3** (Fig. 4A.4:17–19; see Color Photo 4A.1:10), and **11.2** (not illustrated) are small relatively deep straight-sided bowls with an outwardly-angled sidewall, effecting a narrow V-shape, and a simple rounded rim. They usually have a disc, thick concave, or short ring base.

IIBL 11 first appears in Field I Stratum IIB of the 8th century, and, together with **IIBL 11.1**, continues in Strata IIA–I with little, if any, change in size and form. Parallels appear only at Timnah (as BL 15), with 24 examples reported from Strata III–II of the 8th–7th

56. See, for example, Fig. 4A.1:35–36.

57. Zukerman and Gitin 2016b: Fig. 5.101:1.

58. *Timnah II*: Pls. 27:2, 64:8.

59. Ben-Shlomo 2005: Fig. 3.106:5.

60. Ben-Shlomo 2005: Figs. 3.88:11, 3.98:10. For Strata VIII/VII, see *Ashdod II–III*: Fig. 37:8.

61. *Ashkelon 3*: Figs. 5.1–5.4.

62. *TBM I*: Pl. 67:16; *TBM III*: Pl. 24:6.

63. Freud and Beit-Arieh 1995: Fig. 4.1:26.

64. For Jerusalem, see *Ophel*: Fig. 10.15; for Arad, see Singer-Avitz 2002: Fig. 10: B20.

65. Freud 1999: Fig. 6.68:3.

66. Naveh 1962: Fig. 4:18.

67. *Hazor III–IV*: Pl. CLXXXI:17–19.

68. *Tyre Pottery*: Pl. XIX:8.

69. Bikai 1987: Pl. XIX:487–488, 500.

Table 4A.10: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=1	2%	N=0	0%	N=9	17%	N=34	65%	N=2	4%	N=6	12%	N=52	100%
11	1	3	-	-	8	21	25	66	2	5	2	5	38	73
11.1	-	-	-	-	1	10	5	50	-	-	4	40	10	19
11.2	-	-	-	-	-	-	3	100	-	-	-	-	3	6
11.3	-	-	-	-	-	-	1	100	-	-	-	-	1	2

Table 4A.11: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=1	4%	N=5	22%	N=15	65%	N=2	9%	N=0	0%	N=23	100%
12	-	-	1	11	2	22	6	67	-	-	-	-	9	39
12.1	-	-	-	-	2	17	8	66	2	17	-	-	12	52
12.3	-	-	-	-	1	50	1*	50	-	-	-	-	2	9

* Reclassified as IIBL 12.2

centuries.⁷⁰ Although not attested elsewhere, it has been suggested on the basis of cited parallels that this was a common form throughout the country, especially in the 8th and 7th centuries.⁷¹ The cited parallels, however, are medium-size shallow bowls with a wide rim diameter, often red-slipped and sometimes burnished. While this is indeed a common form that appears throughout the country (and may be related to Ekron **IIBL 7.6**, **7.6A**, **7.7A**, and **7.9A**), it has no relationship either to **IIBL 11** at Ekron or to BL 15 at Timnah.⁷² The latter are small relatively deep and narrow V-shaped bowls with a small base, and are carelessly made, as attested by wheel marks on the exterior; furthermore, their average depth is 2.77 cm, compared to the average of 5 cm for **IIBL 11**. The **IIBL 11** series, therefore, represents a rare bowl found only at Ekron and Timnah in the 8th and 7th centuries.

The **IIBL 12** series comprises 0.42% of the bowl corpus (Table 4A.11). The most common in the series is **IIBL**

12.1, best represented in Stratum IB by 8 examples, 52% of the **IIBL 12** assemblage.

IIBL 12 (Fig. 4A.4:20) is a small straight-sided thin-walled bowl with a flat cut rim and a relatively thick disc base. **IIBL 12.1** (not illustrated) is a small round-sided thin-walled bowl with a slightly incurved simple rim and a relatively thick ring base. **IIBL 12.2** (not illustrated) is a small very shallow bowl with a rounded sidewall, a slightly incurved simple rim, and a thick disc base. **IIBL 12.3** (not illustrated) is a medium-size shallow bowl with a wide rim diameter, a rounded sidewall, a rounded thickened rim, and a ring base.

Three rim-and-sidewall fragments of **IIBL 12** and **12.1** were found in Field I Stratum IIA of the second half of the 8th century. While the **IIBL 12** series is not well attested, a few related forms appear in Philistia and Judah. **IIBL 12.2** (possibly a lid) appears at Arad in Strata IX–X of the mid-8th century⁷³ and at Lachish in Level II of the 7th/6th century.⁷⁴ A form similar to **IIBL 12.3** is attested at Ashdod in Strata IX and VII of the 9th and 7th centuries, respectively.⁷⁵ Given the small numbers of these bowls, they could be considered as sub-types of **IIBL 11**.

70. *Timnah II*: 30, Pl. 31:27–28.

71. *Timnah II*: 49–50. None of the parallels cited are examples of the **IIBL 11** series, and none appear to be examples of BL 15 at Timnah.

72. For just a few of the hundreds of examples, see Type 62 in *Gezer III* (HUC): 182–85; Type B-1 in Zimhoni 2004b: Fig. 25.42:1–15; *Ophel*: Fig. 22:1–7.

73. Singer-Avitz 2002: Figs. 24:8–9, 33:10.

74. *Lachish III*: Pl. 98:558–589.

75. *Ashdod IV*: Figs. 10:2, 19:4.

Table 4A.12: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=0	0%	N=2	20%	N=8	80%	N=0	0%	N=0	0%	N=10	100%
13	-	-	-	-	2	20	8	80	-	-	-	-	10	100

Table 4A.13: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=5	9%	N=0	0%	N=6	10%	N=39	67%	N=2	4%	N=6	10%	N=58	100%
14	1	3	-	-	4	10	28	71	1	3	5	13	39	67
14.1	-	-	-	-	-	-	-	-	1	100	-	-	1	2.5
14X.1A	4	24	-	-	2	12	10	58	-	-	1	6	17	29
14X.3A	-	-	-	-	-	-	1	100	-	-	-	-	1	2.5

A rare type, the 10 identified examples of **IIBL 13** constitute 0.18% of the bowl corpus (Table 4A.12). **IIBL 13** (Fig. 4A.4:21) is a small and shallow bowl with a flaring sidewall, an extended everted horizontal cut-off rim, and a thick disc base.

A slightly wider form was found in Field I Stratum IIA of the second half of the 8th century. It clearly does not represent a distinct Iron II bowl form, and is most likely a smaller variant of the larger wider form with a wider base that appears at Şafi/Gath in Stratum A3 of the 9th century.⁷⁶ It is also attested in Judah in the 9th–8th centuries at Lachish in Levels IV–III⁷⁷ and in the 7th century at ‘Ira in Stratum VII;⁷⁸ a variant of similar size but with a thick sidewall appears at Arad in Strata X–VIII of the 8th and Stratum VI of the late 7th century.⁷⁹

The 58 examples of the **IIBL 14** series comprise 1.07% of the bowl corpus, and are best represented in Stratum IB by 39 examples, 67% of the **IIBL 14** assemblage (Table 4A.13).

IIBL 14 (Fig. 4A.4:22) and **IIBL 14.1** (not illustrated) are small shallow round-sided bowls with a short upturned simple rim and a disc base; some variants have a longer upturned rim. **IIBL 14X.1A**

(Fig. 4A.4:23)—a small shallow bowl with a rounded carination, a simple rounded rim, and a concave disc base, red-slipped on the interior and upper exterior—is probably a Residual Form A. **IIBL 14X.3A** (Fig. 4A.4:24)—a medium-size shallow carinated bowl with an outwardly-angled upper sidewall and simple rounded rim, red-slipped on the interior and upper exterior—is a Residual Form A–B.

Only **IIBL 14.1** appears prior to the 7th century in Field I. The occurrence of **IIBL 14**, **14.1**, **14X.1A**, and **14X.3A** at other sites and their regional attribution will be dealt with in the discussion of the late Iron II pottery from Fields IV Upper and III, in which the best examples are attested.

A rare type, only two fragments of **IIBL 15** were found in Field IV Lower—one in Stratum ICb and the other in topsoil—representing 0.04% of the bowl corpus. They are most likely residual forms from Field I, as they are in Field III. **IIBL 15** (not illustrated) is a medium-size round-sided bowl with a small hammerhead rim.

The 31 examples of **IIBL 16** (Fig. 4A.5:2), **16.1A**, **16.3A**, **16.5A** (Fig. 4A.5:1, 3–4), and **16.4** (not illustrated) are Residual Forms A. They are one of the major diagnostic bowl types for the Iron IIA–B, and are well represented in Field I Strata III–II of the 10th–8th centuries. These medium-size to large to very large round-sided shallow or deep bowls with a hammerhead rim are usually red-slipped and wheel-burnished.

76. Shai and Maeir 2012: Pl. 14.15:1.

77. Zimhoni 2004a: Group B-1, Figs. 26.14:1, 3, 26.43:1–4; 2004b: Group A, Fig. 25.48:1–5.

78. Freud 1999: Fig. 6.87:1.

79. Singer-Avitz 2002: Fig. 10: B4.

Table 4A.14: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=0	0%	N=7	17%	N=29	69%	N=0	0%	N=6	14%	N=42	100%
17	-	-	-	-	5	26	11	58	-	-	3	16	19	45
17.1	-	-	-	-	1	5	16	80	-	-	3	15	20	48
17.3	-	-	-	-	1	33	2	67	-	-	-	-	3	7

The **IIBL 17** types are designated Residual Forms B in Field IV Lower, and comprise 0.77% of the bowl corpus (Table 4A.14). They are best represented in Stratum IB by 29 examples, 69% of the **IIBL 17** series.

IIBL 17.1 (Fig. 4A.5:5) is a very large and deep carinated bowl with a folded oblong-shaped rim; **IIBL 17** (not illustrated) is similar, but is round-sided; and **IIBL 17.3** (not illustrated) is a smaller version of the carinated form.

The **IIBL 17** series appears in Strata IIB–I of the first half of the 8th–7th century in Field I, but because it is represented primarily by rim profiles, it is not always possible to determine whether the sherds come from round-sided **IIBL 17** or carinated **IIBL 17.1** bowls.⁸⁰ However, the larger fragments from Stratum IIA allow for the identification of at least **IIBL 17.3** with certainty.

IIBL 17 and **17.1** appear at Timnah as BL 13, the second most common bowl in Strata III–II of the 8th–7th centuries.⁸¹ They are classified as one type based on the similarity of their folded rim, which for the most part is profiled rather than flat and oblong.⁸² Some of

the Timnah examples with handles may be kraters.⁸³ **IIBL 17** is attested at Ashkelon in the late 7th century,⁸⁴ and **IIBL 17.1** at Ashdod in Stratum VI of the late 8th century (published as a krater).⁸⁵ The folded-rim tradition of **IIBL 17** and **17.1** has antecedents at Lachish in Levels V–IV from the end of the 10th–early 8th centuries.⁸⁶ Both types are common throughout Judah in the 8th and 7th centuries, for example, at Lachish in Levels III and II⁸⁷ and in Jerusalem.⁸⁸ **IIBL 17.1** appears at Arad as B25 with a flat folded rim, where it

defined as distinct sub-types, each with their own classification number (*Gezer III* [HUC]: 167–72, 174–77). At Gezer, **IIBL 17** is paralleled by Type 50A assigned to Strata VA/VB of the 8th–7th century ceramic horizon (*Gezer III* [HUC]: 167–68).

83. *Timnah II*: Pl. 60:9.

84. In Grid 38 Phase 14a and Grid 50 Phase 7 (Daniel Master, personal communication).

85. Ben-Shlomo 2005: Fig. 3.89:1, with red slip and wheel burnish on the interior and the rim exterior.

86. Zimhoni 2004b: 1671, B-24, according to which there are only four examples with an outwardly-folded rim, two from Stratum V and two from Stratum IV (actually, one example of B-24 comes from Stratum V [Zimhoni 2004b: Fig. 25.3:8] and four from Stratum IV [Zimhoni 2004b: Figs. 25.37:2–3, 25.45:23, 25]). In addition, a krater with red slip and hand burnish on the interior designated B-20 (Zimhoni 2004b: Fig. 25.35:5) is actually an example of B-24.

87. For a list of sites at which these types appear, see *Timnah II*: 40. Subsequently published examples, most with interior wheel burnish, come from Lachish Levels III and II: for **IIBL 17** from Lachish Level III, see Zimhoni 2004a: B-2 on Fig. 26.3:16, 19; B-3 on Figs. 26.3:20, 22, 26.20:6, 26.32:8; for **IIBL 17.1**, see B-2 on Figs. 26.3:17–18, 26.8:9, 26.20:7; B-3 on Figs. 26.18:10, 26.32:6. For examples of **IIBL 17.1** with interior wheel burnish from Lachish Level II, see Zimhoni 2004b: Fig. 25.56:6, 12.

88. *Ophel*: Pl. 9:26–27.

80. The five examples of **IIBL 17** and **17.1** from Stratum III in Field I were found in contaminated loci heavily disturbed by a Stratum IIB foundation trench and drains.

81. For parallels for **IIBL 17** in Stratum III, see *Timnah II*: Fig. 91:8, and in Stratum II, *Timnah II*: Figs. 60:7, 64:15, 71:12–15. For parallels for **IIBL 17.1** in Stratum III, see *Timnah II*: Figs. 14:1, 15, 91:10, and in Stratum II, *Timnah II*: Figs. 41:24, 26, 60:9, 64:13–14, 16–17, 94:3, 96:3. The two examples listed from Stratum IV in *Timnah II*: Fig. 10:7–8 are of a different form.

82. This emulates Tufnell's approach to the form in her Lachish publication, which includes sub-types and variants under a single classification (see *Timnah II*: 39–40). Classifying bowls with different types of folded rim in the Ekron corpus, e.g., **IIBL 17–25C**, follows this author's approach to corpus analysis, in which round-sided bowls with folded-rim variations are

Table 4A.15: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=1	2%	N=11	19%	N=38	66%	N=2	%	N=6	10%	N=58	100%
18	-	-	1	2	10	21	33	67	1	2	4	8	49	84
18A	-	-	-	-	-	-	2	100	-	-	-	-	2	3
18.1	-	-	-	-	-	-	1	100	-	-	-	-	1	2
18.2	-	-	-	-	1	20	1	20	1	20	2	40	5	9
18.3	-	-	-	-	-	-	1	100	-	-	-	-	1	2

is the predominant bowl type in Strata VII–VI of the 7th century, while B24 with a profiled rim appears in Strata X–VII of the 8th–7th centuries, but is absent in Stratum VI.⁸⁹ However, a typical late 8th century example of **IIBL 17.1** with handles is classified as a krater.⁹⁰ Other examples are attested at Beersheba in Stratum II of the 8th century,⁹¹ as is a related carinated bowl with a profiled folded rim.⁹² In the northern Sinai, examples of **IIBL 17.1** appear at Kadesh-Barnea in Stratum 2, as one of the folded-rim B10.1 bowls.⁹³

The floruit of the **IIBL 17** series was in the 8th/7th century. While it appears in Philistia, it is a southern form represented primarily in Judah;⁹⁴ some of the examples attested by sherds with a wide rim diameter could be kraters.

The **IIBL 18** series comprises 1.07% of the bowl corpus, best represented in Stratum IB by 38 examples, 66% of the **IIBL 18** assemblage (Table 4A.15).

IIBL 18 and **18A** (Fig. 4A.5:6–9) are medium-size round-sided bowls, sometimes with a slight high carination; they have a folded rim in the half-moon-shape tradition and a disc or short ring base. **IIBL 18** (Fig. 4A.5:6–7, Color Photo 4A.1:12) often has wheel

burnish on the interior; **IIBL 18A** (Fig. 4A.5:8–9) has red slip and wheel burnish on the interior and the rim exterior. **IIBL 18.1** and **18.2** (Fig. 4A.5:10–11) are slightly deeper round-sided bowls with a convex disc base. **IIBL 18.1** (Fig. 4A.5:10) has an angled cut rim with an inverted tapered end, and **IIBL 18.2** (Fig. 4A.5:11) has an angled cut rim affecting a slight hammerhead. **IIBL 18.3** (not illustrated) is a larger variant of **IIBL 18**. Although the rims of **IIBL 18.1–18.3** were formed differently than that of **IIBL 18**, they could be considered an imitation of the folded half-moon rim.⁹⁵

IIBL 18 (4 examples) and **IIBL 18A** (2 examples) first appear in Field I Stratum IIA of the second half of the 8th century. They are related to other Ekron bowl types with a folded rim (e.g., **IIBL 17**, **17.1**, **IIBL 19**, **19.1A**, and **IIBL 20**), which represent a major diagnostic bowl-rim tradition of the late 8th–7th centuries.

Parallels for **IIBL 18** and **18A** appear at Timnah as part of the tradition of round-sided bowls with a folded rim (BL 13), primarily in the 7th century.⁹⁶ Examples of **IIBL 18.1** and **IIBL 18.2** are also attested in Strata III–II of the 8th–7th centuries.⁹⁷ A variant of **IIBL 18** appears at Ashkelon in the 8th and 7th centuries;⁹⁸ it is absent at Ashdod and Şafi/Gath, however, as well as at the Philistine border site of Tel Zayit.⁹⁹ It appears

89. Singer-Avitz 2002: 132–34.

90. Singer-Avitz 2002: Fig. 32:11.

91. *Beer-sheba I*: Pls. 59:63–71, 64:1–6, 68:1, 72:6–8, 73:17–18.

92. *Beer-sheba I*: Pls. 60:75–76, 67:5, 72:12, 73:16.

93. Bernick-Greenberg 2007: Pl. 11.108:5.

94. While the folded-rim tradition may have begun in the 9th century, the conclusion that it began earlier (in the 10th century) suggested in the Timnah report, based on comparisons with 10th century bowls from Beersheba (*Timnah II*: 40), is not supported by the evidence. These parallels are actually examples of thickened-rim bowls (*Beer-sheba II*: Figs. 21:7, 26:8).

95. See *Gezer III* (HUC): 171, Type 51; *Beer-sheba II*: Figs. 21:7, 26:8.

96. *Timnah II*: 39–40. One of the three sub-types included in the Timnah BL 13 class of bowls is a parallel for **IIBL 18** and **18A** (*Timnah II*: Pls. 32:1–2, 41:28); this bowl class, in which all folded-rim-tradition bowls are subsumed, is the second most common bowl type in Strata III and II (*Timnah II*: 30).

97. *Timnah II*: Pls. 22:15, 71:9.

98. *Ashkelon 3*: Fig. 5.10, Bowl 3.

99. Ron Tappy, personal communication.

Table 4A.16: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=0	0%	N=1	14%	N=5	72%	N=1	14%	N=0	0%	N=7	100%
19	-	-	-	-	-	-	2	100	-	-	-	-	2	29
19.1A	-	-	-	-	-	-	1	100	-	-	-	-	1	14
19.2	-	-	-	-	1	25	2	50	1	25	-	-	4	57

at Meẓad Ḥashavyahu in the 7th century,¹⁰⁰ as does **IIBL 18A**.¹⁰¹

While variations of **IIBL 18** round-sided bowls with a folded rim are attested at Gezer as Types 50A–50C in Stratum VB of the late 8th/7th century and in Stratum VA of the 7th/6th century,¹⁰² they represent major bowl types only in the 7th century.¹⁰³ **IIBL 18.2** also appears at Gezer as Type 51 in Stratum VB of the late 8th–7th centuries.¹⁰⁴ In Judah, while the folded-rim bowl tradition is dominant in the second half of the 8th–7th centuries at Lachish in Level III,¹⁰⁵ Beersheba in Stratum II,¹⁰⁶ and ʿIra in Stratum VII,¹⁰⁷ the floruit of **IIBL 18** and **18A** is in the 7th century. These bowls are attested at Lachish in Stratum II (Bowl Types 280 and 530),¹⁰⁸ and at Arad in Strata VII–VI as part of folded-rim B25 assemblage. This assemblage includes both carinated forms (like **IIBL 17.1**) and round-sided forms (like **IIBL 18**),¹⁰⁹ mainly the former. In Jerusalem, **IIBL 18** with wheel burnish

on interior and rim is a common form,¹¹⁰ as is **IIBL 18A**.¹¹¹ **IIBL 18** also appears at ʿIra in Stratum VI,¹¹² as well as at Kadash-Barnea in Stratum 2 (as B10.1).¹¹³

Thus, **IIBL 18** and **18A** are rare forms in Philistia, except at Timnah,¹¹⁴ and major forms in Judah and most of the south. They and variations are represented to a limited extent in the first half of the 8th century at inland sites in the north and south, and continue in large numbers from the second half of the 8th through the 7th century and into the early 6th century. The folded-rim bowl is one of the main diagnostic forms of the late Iron II, and is well represented elsewhere in the eastern Mediterranean basin, including Lebanon, Turkey, Jordan, and Cyprus, as well as in Mesopotamia.¹¹⁵ **IIBL 18.1** and **18.2** are minor variations of **IIBL 18**, and are not well attested at Ekron or elsewhere.

The **IIBL 19** series represents 0.13% of the bowl corpus, best represented in Stratum IB by 5 examples, comprising 71% of the **IIBL 19** assemblage (Table 4A.16).

IIBL 19–19.2 (Fig. 4A.5:12–13, 15) are medium-size, large, or very large round-sided bowls with an in-turned oblong half-moon-shaped folded rim, a thin

100. Naveh 1962: Fig. 4:12; see also Fantalkin 2001: 57, Fig. 23:15–16, Type B 11.

101. Naveh 1962: Fig. 4:9; see also Fantalkin 2001: 58, Fig. 23:18, Type B 13. Fantalkin, however, compares Type B 13 to Type 71 in the Gezer corpus (*Gezer III* [HUC]: Pl. 27:28), which, unlike **IIBL 18**, has a sharp carination and flanged rim.

102. *Gezer III* (HUC): Pls. 24:5, 11, 25:7.

103. *Gezer III* (HUC): 171–72.

104. *Gezer III* (HUC): Pl. 24:4.

105. For example, a round-sided bowl that resembles **IIBL 18**, but is a medium-size to large carinated folded-rim bowl (Zimhoni 2004a: B-3, Fig. 26.32:4). For earlier examples of the folded-rim bowl tradition, see nn. 97, 112.

106. *Beer-sheba II*: Pl. 71:8.

107. Freud 1999: Fig. 6.59:7.

108. *Lachish V*: Pl. 47:1–4, 11–16.

109. Singer-Avitz 2002: 132, Fig. 43:19, 22.

110. City of David Area G, Stratum 10C, Reg. No. 15309/1 (Cahill West, personal communication).

111. City of David Area G, Stratum 10C, Reg. Nos. 15231/2, 11935/1 (Cahill West, personal communication).

112. Freud 1999: Figs. 6.92:6, 6.100:5. The examples of **IIBL 18** at ʿIra are combined with many variations of the folded-rim bowl, some round-sided and some carinated, and some with a flanged rim (Freud 1999: 198, 215).

113. Bernick-Greenberg 2007: Pl. 11.86:4–6.

114. This is due to the location of Timnah on the border with Judah, resulting in the influence of Judean traditions.

115. For a summary of the distribution of this folded-rim tradition, see *Gezer III* (HUC): 168–72.

Table 4A.17: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=0	0%	N=0	0%	N=6	100%	N=0	0%	N=0	0%	N=6	100%
20	-	-	-	-	-	-	5	100	-	-	-	-	5	83
20.1	-	-	-	-	-	-	1	100	-	-	-	-	1	17

groove immediately below the rim, and a ring base; they are sometimes red-slipped on the interior.

A bowl from Timnah Stratum III may be related to **IIBL 19**,¹¹⁶ and another from Stratum II is similar to **IIBL 19.1A**.¹¹⁷ Both are included in the Timnah 8th–7th century BL 13 general classification, as are the Ekron **IIBL 17** and **IIBL 18** series, in which all types of rounded-sided or carinated folded-rim bowls are grouped.¹¹⁸ **IIBL 19.2** appears in late 7th century Stratum VI at Ashdod (with wheel burnish),¹¹⁹ in the 604 BCE destruction at Ashkelon,¹²⁰ and at Mezad Hashavyahu.¹²¹ In Judah, some late Iron II bowls from Jerusalem¹²² and 'Ira Stratum VI¹²³ have similar features; and in Level III of the second half of the 8th century at Lachish, a B-3 bowl with wheel burnish on the interior has features similar to **IIBL 19.1A**.¹²⁴ A somewhat larger example of **IIBL 19** with red slip and burnish on the interior and upper exterior appears at Kadesh-Barnea as B10 in Stratum 3b of the end of the 8th century.¹²⁵

Since the **IIBL 19** series is rare at Ekron and has only a very limited number of parallels at other sites, it could be a variant of the smaller **IIBL 18** series. However, given the large size of the three **IIBL 19** types, especially **IIBL 19.1A** and **19.2**, which may indicate a special function relating to food service, they are classified separately. By highlighting their special characteristics, other examples may be identified that

were previously subsumed within the general class of folded-rim bowls.

IIBL 20 and **IIBL 20.1**, comprising 0.11% of the bowl corpus, are represented only in Stratum IB and are Residual Forms B (Table 4A.17). **IIBL 20.1** (Fig. 4A.5:14) is a medium-size round-sided bowl with a high carination and a thickened folded profiled rim; **IIBL 20** (not illustrated) has a pointed profiled rim.

At Timnah, a bowl with features similar to **IIBL 20.1** appears in Stratum II of the 7th century, and is classified together with the folded-rim BL 13 assemblage.¹²⁶ At Gezer, an example also with similar features (Type 71) comes from Stratum VA of the 7th/6th century.¹²⁷ While bowls related to Gezer Type 71 appear in the north, they are mainly represented in the south in the 8th–7th centuries, grouped by their major characteristic—the carination—and secondarily by their folded rim.¹²⁸ Other examples appear at 'Ira in Strata VII and VI of the end of the 8th–7th centuries.¹²⁹ Thus, **IIBL 20.1** could be considered a hybrid of carinated and folded-rim bowl forms, rather than a variant of the folded-rim bowl. It is primarily a Judean form—with its floruit in the 7th century—that is relatively rare on the Philistine Inner Coastal Plain.

IIBL 21–26B comprise 0.48% of the bowl corpus, and are best represented in Stratum IB by 15 examples, 58% of these bowl types (Table 4A.18).

IIBL 21, **21.1**, **21.5A**, and **22** (not illustrated) are large to very large bowls with a high carination and a folded rim; they are often burnished. Most examples have two handles, and could be considered kraters. **IIBL 23A**, **24A**, **26**, **26A**, and **26B** (not illustrated)

116. *Timnah II*: Pl. 24:14.

117. *Timnah II*: Pl. 21:7.

118. *Timnah II*: 38–41.

119. *Ashdod II–III*: Fig. 52:26.

120. *Ashkelon 3*: Fig. 5.29, Bowl 8.

121. Naveh 1962: 101, Fig. 4:15.

122. *Ophel*: Pl. 10:18.

123. Freud 1999: Fig. 6.98:2.

124. Zimhoni 2004a: Fig. 26.35:7.

125. Bernick-Greenberg 2007: Pl. 11.38:1.

126. *Timnah II*: Fig. 54:18.

127. *Gezer III* (HUC): Pl. 27:28.

128. *Gezer III* (HUC): 194–96.

129. Freud 1999: Figs. 6.55:11, 6.106:7.

Table 4A.18: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=1	4%	N=9	34%	N=15	58%	N=0	0%	N=1	4%	N=26	100%
21	-	-	1	20	1	20	3	60	-	-	-	-	5	19
21.1	-	-	-	-	1	50	1	50	-	-	-	-	2	8
21.5A	-	-	-	-	-	-	1	100	-	-	-	-	1	4
22	-	-	-	-	1	20	3	60	-	-	1	20	5	19
23A	-	-	-	-	1	100	-	-	-	-	-	-	1	4
24A	-	-	-	-	3	100	-	-	-	-	-	-	3	11
25C	-	-	-	-	1	50	1	50	-	-	-	-	2	8
25.1	-	-	-	-	-	-	1	100	-	-	-	-	1	4
26	-	-	-	-	1	25	3	75	-	-	-	-	4	15
26A	-	-	-	-	-	-	1	100	-	-	-	-	1	4
26B	-	-	-	-	-	-	1	100	-	-	-	-	1	4

are large round-sided bowls with an inverted folded rim, usually with a pronounced angular profile. They are red-slipped on the rim interior and exterior, and often burnished. The examples with two handles could also be considered kraters. **IIBL 25C** (Fig. 4A.5:16) is a very large shallow round-sided bowl with a pronounced angular sharply inverted and folded rim with a slight exterior overhang. It is red-slipped and wheel-burnished on the exterior, rim, and partially on the interior.

Although **IIBL 21–22**, **IIBL 25C**, **IIBL 26**, and **IIBL 26B** are classified as Residual Forms B, several examples could be considered Residual Forms A–B. Most of the **IIBL 21** series types are best represented in Field I; **IIBL 23A** and **24A** are attested in Field III. **IIBL 25C** does not appear in earlier contexts in Field I.

A possible parallel for **IIBL 25C** from 7th century Stratum II at Timnah is a plain large bowl with a similar rim, but without the exterior overhang; it was not assigned a type number.¹³⁰ An example with a grooved rim from Level III of the second half of the 8th century at Lachish is classified as a krater;¹³¹ another example—without grooving on the rim—has wheel burnish on the interior and rim.¹³² **IIBL 25C** is rare in both Philistia and Judah, with chronological range

from the second half of the 8th through 7th centuries; it most likely originated in Judah as a variant of the folded-rim bowl.

All but two of the 10 examples of the **IIBL 27** series come from Stratum IB. **IIBL 27**, **27.5A** (Fig. 4A.5:17–18), **27.1**, **27.2**, and **27.3** (not illustrated) belong to the general class of bowls with horizontal bar handles. They are designated Residual Forms A, although it is possible that they are Residual Forms B.

IIBL 27 (Fig. 4A.5:17), a medium-size round-sided bowl, has a sharply inverted rim and bar handles with pinched vertical spatula-shaped knobs protruding from either end of the bars. **IIBL 27.5A** (Fig. 4A.5:18), a very large round-sided bowl with a high carination and a short vertical upper sidewall, has a sharply inverted rim and bar handles with cylinder-shaped knobs closely attached and barely protruding at either end of the bars. It is red-slipped on the interior and upper exterior. The other bowls in the **IIBL 27** series vary in size and type of bar handle and rim; they are best represented in Fields I and III.

The 33 examples of the **IIBL 28** series are Residual Forms A. **IIBL 28.1** (Fig. 4A.5:19) and related types **IIBL 28** and **28.2** are medium-size deep round-sided bowls with a thickened sharply inverted and usually grooved rim. These bowls are well represented in Strata III–II in Field I.

130. *Timnah II*: Fig. 102:5.

131. Zimhoni 2004a: Fig. 26.3:24.

132. *Lachish V*: Pl. 44:12.

Table 4A.19: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=0	0%	N=3	27%	N=7	64%	N=0	0%	N=1	9%	N=11	100%
29A	-	-	-	-	-	-	2	100	-	-	-	-	2	18
29.1	-	-	-	-	1	17	4	66	-	-	1	17	6	55
29.2A	-	-	-	-	2	67	1	33	-	-	-	-	3	27

IIBL 29A–29.2A comprise 0.2% of the bowl corpus (Table 4A.19). The series is best represented in Stratum IB by six examples of **IIBL 29.1**, 55% of the **IIBL 29** assemblage.

IIBL 29A (Fig. 4A.6:7) is a medium-size deep bowl with a rounded carination affecting a globular-shaped body, a long splayed upper sidewall, a tapered rim, and a round base; it has red slip on the interior and upper exterior and close wheel burnish on the upper interior and exterior. **IIBL 29.1** (not illustrated) is a small thin-walled bowl with a rounded carination and a short everted tapered rim. **IIBL 29.2A** (not illustrated) is a small thin-walled bowl with a low rounded carination, a splayed tapered rim, and a rounded base; it has pale green slip on the interior and upper exterior.

A form that may be related to **IIBL 29A** appears in an unstratified context at Timnah as BL 17a with a squat body and disc base.¹³³ A similar form is attested at Tell Jemmeh.¹³⁴ **IIBL 29A** is a rare local imitation of an Assyrian Palace Ware bowl known from Nimrud in the 7th century.¹³⁵ Similar forms in local fine ware appear in southeastern Turkey at Till Höyük in Level VIII of the 7th century,¹³⁶ in northern Syria at Tell Ahmar (Til Barsip) in Stratum 2A, possibly of the 7th/6th century,¹³⁷ and at Tell Jurn Kabir in Group C of the 7th century.¹³⁸ A related fine ware form with a more pronounced carination and a longer flared rim also appears at Khirbet Qasrij in Iraq in the 7th/6th century,¹³⁹ and a similar form is known at Tawilan in Edom, a plain example of

bowl Type J, but with a flat base.¹⁴⁰ This form seems to have developed into the more common fine ware bowl with a low rounded carination, a rounded base, and a long splayed tapered rim found at a number of sites in the west, for example, at Tell Ahmar in Stratum 2C of the 7th century.¹⁴¹ A further typological development is represented by a variant with a lower and sharper carination and a longer splayed rim that becomes common in Edom: for example, as Type K at Tawilan,¹⁴² as Type K3 at Busayra,¹⁴³ and in the 7th century assemblage of locally-made Assyrian bowls at Kheleifeh.¹⁴⁴ This and a variant with a more shallow body and a sharper carination that also reflects Assyrian influence are widely distributed at a number of sites in the north and south, as well as in Edom, from the end of the 8th through the 7th century.¹⁴⁵

IIBL 29.1 and **IIBL 29.2A** (not illustrated) are also local imitations of Assyrian-style pottery. They appear in a number of variations and are widely distributed; those related to **IIBL 29.1** are relatively common at some Philistine sites.¹⁴⁶ **IIBL 29.1** and **29.2A** are best represented at Ekron in Fields III and IV Upper.

The two examples of **IIBL 30A** represent 0.04% of the bowl corpus (Table 4A.20). **IIBL 30A** (Fig. 4A.5:20) is a large deep globular bowl with a high rounded carination, a short out-curved tapered rim, and a knob on

133. *Timnah II*: Pl. 86:14. Other examples of BL 17a presented in *Timnah II*: Pls. 14.6, 31:24 are of a different bowl type.

134. Ben-Shlomo 2014: Fig. 13.3:d.

135. Oates 1959: Pl. XXXVII:59.

136. Blaylock 1999: 283, Fig. 10:4.

137. Jamieson 1999: 304, Fig. 6:1.

138. Eidem and Ackermann 1999: 323, Fig. 8:4.

139. *Qasrij*: Fig. 31:140.

140. *Tawilan*: Fig. 6.8:11.

141. Jamieson 1999: 304, Fig. 6:4, 6.

142. *Tawilan*: Fig. 6.8:18–22.

143. *Busayra*: Fig. 9.26:20–22.

144. *Kheleifeh*: Pl. 26:7–8.

145. For a summary of these variants, see *Kheleifeh*: 41–43; Singer-Avitz 2007: 183–85.

146. *Ashdod I*: 134. For a summary of examples of both types and related and variant forms, see *Gezer III* (HUC): 196–99 (Types 72–75); *Timnah II*: 42–43 (Type BL 17); Singer-Avitz 2007: 184; Stern 2015: 541, Pl. 4.4.1:6.

Table 4A.20: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=0	0%	N=1	50%	N=1	50%	N=0	0%	N=0	0%	N=2	100%
30A	-	-	-	-	1	50	1	50	-	-	-	-	2	100

Table 4A.21: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=0	0%	N=0	0%	N=1	100%	N=0	0%	N=0	0%	N=1	100%
31A	-	-	-	-	-	-	1	100	-	-	-	-	1	100

one side of the carination; it is red-slipped on the upper interior and exterior, decorated with black bands on the exterior, and wheel-burnished. An extremely rare form, only one other example is attested elsewhere at Ekron (in Field III Stratum IC). Related **IIBL 30.1A** with the same surface treatment has a slightly longer everted rounded rim; it is attested in Field I Stratum II of the 8th century.

A parallel from Ashdod 7th century Stratum VII is larger than **IIBL 30A** and has the same band decoration, but no slip or burnish.¹⁴⁷ A related round-sided form of the same size and in typical “Ashdod Ware,” designated a holemouth krater, comes from Ashdod Strata IX–VIII of the 9th–8th centuries.¹⁴⁸

While the form of **IIBL 30A**, whether considered a bowl or krater, is extremely rare, its decoration is within the well-known “Ashdod Ware” tradition, Iron II examples of which are designated Late Philistine Decorated Ware (LPDW).¹⁴⁹ LPDW is primarily an Iron IIA–B phenomenon, and evidence for its continuation into the Iron IIC is based mainly on material from Ashdod; except for the few examples from Ekron, Iron IIC LPDW is unknown at any of the other sites at which this pottery has been found. This raises the question of whether or not the 7th century examples from Ashdod and Ekron are residual.¹⁵⁰ This is the case for Ekron storage jars **IISJ 16A** and **16.1A** (Fig. 4A.22:6–8), represented by fragments of well attested 9th/8th century jars.¹⁵¹ However, since the form of

IIBL 30A is rare and is not well known in the Iron IIA–B, and given that a similar whole form is attested at Ashdod in the 7th century without the traditional “Ashdod Ware” decoration,¹⁵² **IIBL 30A** may be a 7th century form decorated in a different tradition.

The single example of **IIBL 31A** represents 0.018% of the bowl corpus (Table 4A.21). **IIBL 31A** (Fig. 4A.6:1) is a medium-size shallow bowl with a straight outwardly-angled sidewall that has a slight ridge on the interior. The upper sidewall is slightly concave on the interior. It has a rounded rim and a wide disc base, and is red-slipped on the interior.

The two examples of **IIBL 31A** from Field I are assigned to Stratum IIA of the second half of the 8th century.¹⁵³ Parallels come from Ashdod Stratum VI of the 7th century,¹⁵⁴ and a similar form with a more pronounced concave rim interior is known from the 604 BCE destruction at Ashkelon.¹⁵⁵ **IIBL 31A** is primarily attested at sites on the Phoenician coastal plain from the 8th–6th centuries: Kabri Stratum E2,¹⁵⁶ Keisan Level 5,¹⁵⁷ the Achzib cemeteries,¹⁵⁸ Abu Hawam

147. *Ashdod IV*: Fig. 20:1.

148. Ben-Shlomo 2005: Fig. 3.89:10.

149. Ben-Shlomo, Shai, and Maeir 2004.

150. Ben-Shlomo, Shai, and Maeir 2004: 19.

151. Ben-Shlomo, Shai, and Maeir 2004: 5–6.

152. Ben-Shlomo 2005: Fig. 3.89:4–7, 11.

153. Although the two examples come from loci assigned to Strata III and IIB (ISW.28110 and INW.4053), these loci were severely cut by drains that were not sealed until Stratum IIA.

154. *Ashdod II–III*: Fig. 53:12.

155. *Ashkelon 3*: Fig. 5.34, Bowl 11.

156. Lehmann 2002: Fig. 5.76:5.

157. *Keisan*: Pl. 38:3.

158. *Achziv Cemeteries*: Fig. 5:1, Type B3 III; *Achziv Southern Cemetery*: Fig. 20b:5.

Table 4A.22: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=0	0%	N=1	100%	N=0	0%	N=0	0%	N=1	50%	N=2	100%
32A	-	-	-	-	1	100	-	-	-	-	-	-	1	100
32C	-	-	-	-	-	-	-	-	-	-	1	100	1	100

Stratum II,¹⁵⁹ Tyre Stratum I,¹⁶⁰ Sarepta Strata B–C,¹⁶¹ and Al Mina Level VIII,¹⁶² and it is also well known in “Kition horizon 750? to after 700 B.C.” on Cyprus.¹⁶³ This rare form at Ekron belongs to the Phoenician repertoire.

The two examples of **IIBL 32A** and **IIBL 32C** represent 0.04% of the bowl corpus (Table 4A.22). The single example of **IIBL 32B** found in Stratum IB is tentatively considered a Residual Form A, although both **IIBL 32B** and **IIBL 32C** may be Residual Forms A or B.

IIBL 32A (Fig. 4A.6:2) is a medium-size red-slipped shallow straight-sided bowl with an everted horizontal ledge rim. **IIBL 32B** and **IIBL 32C** (Fig. 4A.6:3–4) are medium-size shallow bowls with a short straight sidewall and a splayed, tapered, or square-cut rim; they are red-slipped on the interior and rim exterior.

An unslipped parallel for **IIBL 32A** appears at Ashdod in Stratum VI of the last third of the 7th century.¹⁶⁴ A related form, classified as B 5, is known from Arad Stratum X of the mid-8th century; it has red slip on the interior and rim exterior, and is described as unusual, represented by only one example.¹⁶⁵

On the Phoenician coastal plain, a burnished example of **IIBL 32A** is attested at Kabri in Stratum E2 of the second half of the 7th century.¹⁶⁶ Unslipped burnished parallels are also attested at Tyre in Strata II–III of the last third of the 8th century;¹⁶⁷ in the Tyre–Al

Bass cemetery, it is a common form in most burial urns in Period IV of the second half of the 8th–beginning of the 7th century.¹⁶⁸ Similar forms are attested at Sarepta as Type X-4—with continuous wheel-burnishing on the interior and exterior—in Stratum C2 of the 9th/8th century¹⁶⁹ and Stratum B of the 6th century.¹⁷⁰ Also at Sarepta, related Type X-B5—with semi-continuous wheel-burnishing on the interior and exterior—appears in Stratum C1 of the 8th/7th century.¹⁷¹ On Cyprus, the type is attested with red slip and burnish on the interior and upper exterior in “Kition horizon 750? to after 700 B.C.”¹⁷²

Thus, **IIBL 32A** belongs to the Phoenician repertoire, and is found primarily at Phoenician coastal sites from the 8th–6th centuries, as well as on Cyprus. It is extremely rare in Philistia and Judah.

IIBL 32B and **IIBL 32C** first appear in Field I in Stratum IIA of the second half of the 8th century and in Stratum IIB of the first half of the 8th century, respectively. **IIBL 32B** appears at Timnah with red slip and burnish on the interior in Stratum II of the 7th century,¹⁷³ and related forms are attested at Ashdod with red slip and wheel burnish on the interior and exterior, as well as with white and black decoration.¹⁷⁴ **IIBL 32B** with red slip on the exterior is also attested on the Phoenician coast at Al Mina in Level 6 of the 7th/6th century, as is **IIBL 32C** with red slip on the interior and rim exterior.¹⁷⁵ Although rare, **IIBL 32B** and **32C**, like **IIBL 32A**, belong to the Phoenician repertoire, and perhaps are variants of the more common

159. Hamilton 1935: 5, 7–8.

160. *Tyre Pottery*: Pl. I:7–11.

161. *Sarepta I*: 149, X-9, Pl. 38:19, 21, 23.

162. Taylor 1959: 80, Fig. 6:39.

163. Bikai 1987: 534–36.

164. *Ashdod II–III*: Pl. 93:24.

165. Singer-Avitz 2002: 128, Fig. 10: B 5.

166. Lehmann 2002: Fig. 5.77:13.

167. *Tyre Pottery*: Pl. IX:15.

168. Núñez 2004: Fig. 248:12.

169. *Sarepta I*: Pl. 35:17.

170. *Sarepta I*: Pl. 38:13.

171. *Sarepta I*: Pl. 36:23.

172. Bikai 1987: Pl. 220:545.

173. *Timnah II*: Pl. 96:5.

174. Ben-Shlomo 2005: Fig. 3.106:8–9.

175. Lehmann 1998: 19, Fig. 6:12–13.

Table 4A.23: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=1	50%	N=0	0%	N=1	50%	N=0	0%	N=0	0%	N=0	0%	N=2	100%
33A	-	-	-	-	1	100	-	-	-	-	-	-	1	100
34A	1	100	-	-	-	-	-	-	-	-	-	-	1	100

ledge-rim bowls found throughout Phoenicia and Cyprus in the 7th century.¹⁷⁶

IIBL 33A and **IIBL 34A** together represent 0.036% of the bowl corpus (Table 4A.23). **IIBL 33A** (Fig. 4A.6:5) is a medium-size shallow wide fine ware bowl with a short outwardly-angled sidewall extending from the flat bottom to the tapered rim. It is red-slipped on the interior and exterior and has a black painted band on the rim and burnish on the interior. **IIBL 34A** (Fig. 4A.6:6) is a variant of **IIBL 33A** with highly polished red slip on the interior.

The only other example of **IIBL 33A** at Ekron was found in Field III in Stratum IB.¹⁷⁷ **IIBL 33A** may be a Residual Form B and **IIBL 34A** may be a Residual Form A or B.

The limited number of parallels for **IIBL 33A** come from Ashdod Strata VIII/VII of the 8th/7th century, described as “Samaria Ware,”¹⁷⁸ and from northward along the coastline, with an example from Tel Michal Stratum XII of the 8th century.¹⁷⁹ In the north, an assemblage of these bowls was found at Samaria in E207 in Periods VI–V of the 9th/8th century,¹⁸⁰ and at Megiddo (as Type 57) in Strata V–III of the 10th–8th centuries, the latter without the black band on the rim but with concentric circles of red slip on the interior bottom.¹⁸¹ More recent excavations at Megiddo have

shown that this type, also described as “Samaria Ware” and also lacking the black band on the rim, appears in Stratum IVA of the 10th/9th century.¹⁸²

On the Phoenician coastal plain, “Samaria Ware” examples without the black band on the rim are attested at Kabri in Stratum E2 of the second half of the 7th century,¹⁸³ at Keisan in Level 5 of the 8th/7th century,¹⁸⁴ at Abu Hawam assigned to Stratum III,¹⁸⁵ and in the Achziv tombs as “Samaria Bowl Type B81” of the 9th/8th century.¹⁸⁶ Other parallels—both with and without the black band on the rim—appear at Tyre in Strata III–II of the 8th century¹⁸⁷ and at Sarepta in Stratum C1 of the 8th century.¹⁸⁸ At Al Mina, this type is the most common bowl in Level VIII of the 9th century, both with and without the black band on the rim and with concentric circles of red slip on the interior bottom.¹⁸⁹ On Cyprus, a large number of examples are known from Salamis and in “Kition horizon 750? to after 700 B.C.”¹⁹⁰

IIBL 33A belongs to the Phoenician repertoire, and is found primarily at sites along the Phoenician coast and on Cyprus from the 8th–6th centuries. It is extremely rare in Philistia, and absent in the south. Petrographic analysis confirms its Phoenician origin.¹⁹¹ Parallels for **IIBL 34A** are attested in the north at Samaria in E207 in Periods VI–V of the 9th/8th century within the general class the most common bowl

176. For example, Sarepta Sub-Stratum C1 (*Sarepta I*: Pl. 36:19, 21, 23); “Kition horizon 750? to after 700 B.C.” (Bikai 1987: 541).

177. *Ekron 3*: 89, Locus 14007, IIIE.14.75.

178. *Ashdod II–III*: 95, Figs. 37:17, 59:6, 10.

179. Singer-Avitz 1989a: Fig. 7.4:1.

180. *Samaria III*: Fig. 18:6; some of the examples associated with Fig. 18:8, actually a close variant, are decorated with concentric circles on the bottom of the base (*Samaria III*: 153).

181. *Megiddo I*: 169, n. 70, Pl. 25:57. Examples also appear in Tomb 80C (*Megiddo Tombs*: Pl. 75:8–9).

182. Finkelstein, Zimhoni, and Kafri 2000: 313, Fig. 11.43:3.

183. Lehmann 2002: Fig. 5.90:3.

184. *Keisan*: Pl. 40:12a.

185. Balensi and Herrera 1985: 100, Fig. 9:5.

186. *Akhziv Cemeteries*: Fig. 5.3:1.

187. *Tyre Pottery*: Pl. XI:12–14.

188. *Sarepta I*: Pl. 38:4.

189. Taylor 1959: 80, Fig. 6:1–3.

190. Bikai 1987: Pl. XVIII:461, 466–469, 501–502, 504, 506–509.

191. Based on tests conducted by Daniel Master (personal communication).

Table 4A.24: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=0	0%	N=1	17%	N=5	83%	N=0	0%	N=0	0%	N=6	100%
35	-	-	-	-	-	-	1	100	-	-	-	-	1	17
37	-	-	-	-	-	-	2	100	-	-	-	-	2	33
37A	-	-	-	-	1	50	1	50	-	-	-	-	2	33
38	-	-	-	-	-	-	1	100	-	-	-	-	1	17

types.¹⁹² It is attested in a thin red ware at Beth-Shean in Level IV of the 8th century,¹⁹³ and also in a thin ware at ʿAmal in Strata II–I of the 8th/7th century.¹⁹⁴ Related forms also appear at Beth-Shean in the 10th–8th centuries.¹⁹⁵ At Tyre on the Phoenician coast, a related form appears in fine ware in Stratum III of the last third of the 8th century.¹⁹⁶ **IIBL 34A** belongs to the Phoenician repertoire, and is found locally at sites in the north and in Phoenicia from the 10th–8th centuries.

The small sample of six examples of Phoenician bowl types—**IIBL 31A**, **32A**, **32C**, **33A**, **34A**, and Residual Form A **IIBL 32B**—represents 0.11% of the bowl corpus. While the reported range of dates is from the 10th–6th centuries, the best of the stratified examples indicate that the floruit was in the 9th–8th centuries, except for **IIBL 31A** and **32A**, with the floruit in the 8th/7th century. Whatever their chronological assignment, they are rare imports into Philistia.

The six examples of **IIBL 35**, **IIBL 37**, and **IIBL 37A**, and **IIBL 38** comprise 0.11% of the bowl corpus; they are best represented in Stratum IB (Table 4A.24). They are Ionian cups belonging to the East Greek repertoire.

IIBL 35 (Fig. 4A.6:13, Color Photo 4A.1:13) is a medium-size round-sided skyphos with an everted tapered rim, horizontal handles, and a ring base, and has black glaze with red and black bands on the interior and exterior. **IIBL 37** and **37A** (not illustrated)

are variants of **IIBL 35**.¹⁹⁷ **IIBL 38** (Fig. 4A.6:14) is a large deep round-sided skyphos with an everted tapered rim, horizontal handles, and a high trumpet base, and also has black glaze with red and black bands on the interior and exterior.

Large concentrations of East Greek pottery have been found in 7th century contexts at Ashkelon¹⁹⁸ and at Meẓad Ḥashavyahu,¹⁹⁹ and smaller amounts at Timnah in Stratum II.²⁰⁰ This pottery is known on the Phoenician coastal plain at Kabri in Stratum E2²⁰¹ and Keisan in Level 4,²⁰² with sporadic finds at Dor.²⁰³ It is also attested in the north at Dan in Stratum I,²⁰⁴ on the Coastal Plain at Yavneh-Yam and Ruqesh, in Judah at Tell el-Hesi, and further south at Jemmeh, among others.²⁰⁵ Petrographic analyses have demonstrated that East Greek pottery originates either in eastern Greece or the northeastern Aegean,²⁰⁶ and based on the best

192. *Samaria III*: Fig. 18:8.

193. Beth-Shean 1966: Fig. 67:13.

194. Levy and Edelstein 1972: Fig. 7:2.

195. *Beth-Shean I*: Pl. 28:4, 7; for a comprehensive bibliography for this form and related types, see *Beth-Shean I*: 326–27, BL 55.

196. *Tyre Pottery*: Pl. XIA:10.

197. Of the two examples of **IIBL 37**, one is from Stratum IB and the other, while assigned to Stratum IC in the database, is actually from a drain that contained mixed Stratum IB pottery.

198. Waldbaum 2002.

199. Fantalkin 2001: 74–78.

200. *Timnah II*: 142–43.

201. Niemeier and Niemeier 2002: 223–42.

202. *Keisan*: 150–51, Pls. 32:1–2, 35:10.

203. Waldbaum 2015: 507.

204. Biran 1994: 261, Fig. 221:3.

205. For a comprehensive summary of the data at these sites and others, see Waldbaum and Magness 1997: 24–30; Fantalkin 2001: 74–79; Waldbaum 2015.

206. For petrographic analyses of wares from Ashkelon, see *Ashkelon 3*: 67–69; for general ware analysis, see Dupont in Cook and Dupont 1998: 142–91; for a general treatment of the subject with detailed examinations of the distribution of East Greek pottery in the eastern Mediterranean, see Villing and Schlotzhauer 2006.

Table 4A.25: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=0	0%	N=3	18%	N=13	76%	N=1	6%	N=0	0%	N=17	100%
43	-	-	-	-	-	-	1	100	-	-	-	-	1	6
43A	-	-	-	-	3	21	11	79	-	-	-	-	14	82
43B	-	-	-	-	-	-	1	50	1	50	-	-	2	12

stratigraphic evidence from Philistia, it is dated to the last third of the 7th century.²⁰⁷

IIBL 39 and **40** are East Greek cups attested only in Fields I and III.

The single example of **IIBL 41** (Fig. 4A.6:15), defined as a Residual Form A, was found in in Stratum Pre-IC. It is a cup or kantharos sherd with black glaze on the interior and exterior and a hatched meander pattern on the exterior. It dates to Iron IIB Stratum II of the 8th century. While parallels are known from Idalion and other sites on Cyprus,²⁰⁸ it is a rare example of Attic ware from the Middle Geometric Period of the mid-8th century at Ekron,²⁰⁹ and one of the few examples of such pottery found in the southern Levant.²¹⁰

IIBL 42 (not illustrated) is a sherd of an Attic black figure cup from Field I that is included because it is rare and is the only example of this vessel at Ekron.²¹¹

The **IIBL 43** series comprises 0.31% of the bowl corpus, and is best represented in Stratum IB by 13 examples, 76% of the **IIBL 43** assemblage (Table 4A.25).

IIBL 43–43B (Fig. 4A.6:8–12) are medium-size to large deep carinated bowls with an inwardly-inclined upper sidewall and an everted tapered rim, usually either red-slipped or decorated with a black band, and sometimes burnished. **IIBL 43** (Fig. 4A.6:8) is plain.

207. The sealed destruction levels of Neo-Babylonian King Nebuchadnezzar II in 604 BCE at Ekron and Timnah provide a firm *terminus ante quem* (Walbaum and Magness 1997: 36–40).

208. See *Idalion*: 58–61.

209. See Coldstream 1998: 364.

210. Walbaum 2015: 519, Pl. 4.3.1:5.

211. This example is similar to the early 5th century Attic black figure cups from Jemmeh (Waldbaum 1997: 7).

IIBL 43A (Fig. 4A.6:9–11) has red slip on the interior rim and upper exterior, and sometimes wheel burnish on the rim. **IIBL 43B** (Fig. 4A.6:12) has a black band on the rim exterior and wheel burnish on the upper exterior.

Local parallels for **IIBL 43** types have been identified at only a limited number of sites.²¹² Parallels for **IIBL 43A** are known from the 604 BCE destruction at Ashkelon.²¹³ They are also attested at Hesi in Judah²¹⁴ and at Sera^c in Stratum V of the 7th century, where it is a common type.²¹⁵ A possibly related partial form with the combined decoration of **IIBL 43A** and **43B** appears on Cyprus in “Kition horizon 750? to after 700 B.C.”²¹⁶ It was identified as a Phoenician import in the non-Cypriot assemblage.²¹⁷ While there are no close parallels on the Phoenician mainland, the ware is similar to that of Strata V–IV vessels at Tyre.²¹⁸ Petrographic analysis of the Ekron and Hesi examples indicates that they are imports, perhaps from the Aegean-Cyprus or Anatolia.²¹⁹ Thus, the **IIBL 43** series is tentatively considered a 7th century import at two Philistine and two Judean sites.

212. This may be due to mistaken identification. In the initial examination in the field, prior to washing, a partial body/rim sherd of this type was found that resembles an MB II carinated bowl with an everted rim. However, closer examination of the ware and surface treatment indicates an Iron Age rather than a Middle Bronze Age form.

213. *Ashkelon 3*: Figs. 5.37–5.39, Bowl 13.

214. Jeffrey Blakeley, personal communication.

215. Reg. No. Locus 334, Cat. No. 670 (Eliezer Oren, personal communication).

216. Bikai 1987: Pl. XIX:492.

217. Bikai 1981: 23.

218. Bikai 1981: 30. These strata are dated to the mid-8th century or later.

219. Yuval Goren, personal communication.

Table 4A.26: Bowls

IIBLM	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=1	7%	N=0	0%	N=4	29%	N=9	64%	N=0	0%	N=0	0%	N=14	100%
BLM 4	-		-	-	1	50	1	50	-	-	-	-	2	14
BLM 5	-		-	-	-	-	1	100	-	-	-	-	1	7
BLM 6	-		-	-	1	100	-	-	-	-	-	-	1	7
BLM 8	-		-	-	-	-	1	100	-	-	-	-	1	7
BLM 14	-		-	-	-	-	4	100	-	-	-	-	4	29
BLM 26	-		-	-	1	100	-	-	-	-	-	-	1	7
BLM 32B	1	100	-	-	-	-	-	-	-	-	-	-	1	7
BLM 37	-		-	-	1	50	1	50	-	-	-	-	2	14
BLM 37A	-		-	-	-	-	1	100	-	-	-	-	1	7

MISCELLANEOUS BOWLS

The category of miscellaneous bowls includes nine types, representing 0.25% of the bowl corpus (Table 4A.26).

IIBLM 4 (Fig. 4A.7:1) is a small bowl with a low rounded carination, a long splayed upper sidewall, a tapered rim, and a concave disc base. **IIBLM 5** (Fig. 4A.7:2) is a medium-size very deep bowl with a slightly rounded carination, a long splayed upper sidewall, a tapered rim, and a ring base, and has wheel burnish on the interior and exterior. **IIBLM 6** (Fig. 4A.7:3) is a medium-size deep round-sided bowl with a grooved vertical upper sidewall, a tapered rim, and a short ring base. **IIBLM 8** (Fig. 4A.7:4) is a medium-size shallow round-sided bowl with a very narrow incision on the slightly in-turned rim. It is a Residual Form B, and may rather represent a fine ware bowl reminiscent of **IIBL 1**. **IIBLM 14** (Fig. 4A.7:5, Color Photo 4A.1:11) is a medium-size bowl with a rounded lower sidewall, a high carination, a splayed rounded rim, and a short ring base.²²⁰ **IIBLM 26** (Fig. 4A.7:6) is a medium-size round-sided bowl with a thin folded rim in the half-moon-shaped tradition (see also **IIBL 18A**). **IIBLM 32B** (Fig. 4A.7:7) is a small slightly carinated bowl with an outwardly-rounded upper sidewall and a rounded rim; it has black wash on the interior and exterior. **IIBLM 37** (not illustrated) is a Residual Form B. **IIBLM 37A** (Fig. 4A.7:11)—also a Residual Form

B—is a large very deep bowl with a low carination, a long outwardly-angled upper sidewall with grooves near the top, and a slightly out-turned rounded rim. It is red-slipped and wheel-burnished on the interior and upper exterior.

These bowls differ from others that appear in very limited numbers at Ekron in that they are either represented at other sites in larger numbers or are imports. They will therefore be discussed in *Ekron I–II* together with the other 37 miscellaneous Iron II bowls from all of fields of excavation.

Another group of miscellaneous bowls comprises 2.6% of the bowl corpus (Table 4A.27). They are represented mostly by fragments that could not be typed, except for **IIBLV 1** (Fig. 4A.7:10) and **IIBLV 4B** (Fig. 4A.7:12), whole forms unique to the corpus and classified as votive bowls.

FINE WARE BOWLS

The three examples of **IIBLF 1**, **IIBLF 2**, and **IIBLF 6**—one of each type—come from Stratum IB, and represent 0.06% of the bowl corpus.

IIBLF 1, **IIBLF 2**, and **IIBLF 6** are small shallow bowls in eggshell-thin ware. **IIBLF 1** (Fig. 4A.7:8) is round-sided with a slightly in-turned rounded rim; it is stippled on the exterior. **IIBLF 2** (Fig. 4A.7:9) is also round-sided, and has a very thin incised rim; it is wheel-burnished on the exterior. **IIBLF 6** (not illustrated) is the base of a very shallow bowl.

220. The form of **IIBLM 14** appears to have been influenced by an Assyrian tradition (see Anastasio 2010: 97, Nos. 1–5).

Table 4A.27: Bowls

IIBL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=1	1%	N=6	4%	N=26	18%	N=102	71%	N=7	5%	N=2	1%	N=144	100%
BL?	1	1	2	2	20	16	97	77	3	2	2	2	125	87
BL Misc.	-	-	4	29	4	29	2	14	4	29	-	-	14	10
BLV 1, 4B	-	-	-	-	2	100	-	-	-	-	-	-	2	1
BLM Mis	-	-	-	-	-	-	3	100	-	-	-	-	3	2

Table 4A.28: Plates

IIPL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=3	10%	N=9	31%	N=15	52%	N=1	3%	N=1	3%	N=29	100%
2	-	-	3	11	9	35	12	46	1	4	1	4	26	90
2A	-	-	-	-	-	-	1	100	-	-	-	-	1	3
7B/C	-	-	-	-	-	-	2	100	-	-	-	-	2	7

Only **IIBLF 2** appears earlier in Field I Strata III and II of the 10th/9th and 8th centuries, as well as in Stratum I of the 7th century. It is a fine ware version of the **IIBL 1** series, and displays a similar typological development with respect to size. The Strata III–II examples are wider than the Stratum I vessels. In contrast to the rim development of **IIBL 1**, however, the earlier examples of **IIBLF 2** have a thin incised profiled rim with an almost flat appearance, a feature that all but disappears in Stratum I.

Parallels for **IIBLF 2** are attested at Timnah as BL 37, the class of bowls that also includes examples of **IIBL 1**.²²¹ Fine ware examples of BL 37 appear in Strata III–II of the 8th–7th centuries.²²² **IIBLF 1** is apparently a variant of **IIBLF 2** with no incision on the rim, and appears primarily in the 8th and 7th centuries.

PLATES

IIPL 2, **2A**, and **7B/C** represent 0.3% of the corpus, best represented in Stratum IB by 15 examples, 52% of the **IIPL** assemblage (Table 4A.28).

IIPL 2 (Fig. 4A.7:13) is a medium-size to large wide shallow straight-sided plate with a thickened rounded rim. **IIPL 2A** (Fig. 4A.7:15), a medium-size

wide very shallow straight-sided plate with a simple rim, has red slip on the interior. **IIPL 7B/C** (Fig. 4A.7:14), a medium-size to large wide shallow slightly carinated plate with an overhanging tapered rim and a short ring base, has red slip on the interior and upper exterior.²²³

While the total number of plates recorded in Chapter 4C is 115, 13 of these were question-marked and are not included in the analysis. Of the remaining 102 examples, one was mismarked as PL, another as PL 4.2, and a third was unrecoverable, leaving 99 examples.²²⁴ Of these, 29 examples of **IIPL 2**, **2A**, and **7B/C** are presented in this chapter. Of the remaining 70 examples, five are Residual Forms A (three of **IIPL 5A** and one each of **IIPL 7** and **7B**), and the remainder are made up of **IIPL 1**, **2B**, **2.1**, **3**, **3A**, **4**, **6A**, **7A**, **7C**, and several miscellaneous examples. These are represented mostly by small fragments of shallow straight-sided vessels of indeterminate stance and rim diameter. Some may be Residual Forms A and B, given their relatively large quantities in Field I Stratum II.

221. *Timnah II*: 35.

222. See *Timnah II*: Figs. 13:6, 8–9, 26:19 and Fig. 54:7, respectively.

223. While **IIPL 7B** and **IIPL 7C** were separated in the quantification process, it was evident from the final analysis that the minor variation in surface treatment did not warrant assigning them different type numbers.

224. Although the last two were included in the general listing of types by stratum in Chapter 4C, raising the total to 101.

IPL 2 and **2A** appear in Field I Strata III–I of the 10th/9th through 7th centuries, and **IPL 7B/C** in Stratum IIA–B of the 8th century. While straight-sided plates—often designated platters or shallow bowls—appear in Philistia in the Iron II,²²⁵ exact parallels for **IPL 2** and **2A** are rare. A related form appears at Gezer in Stratum VIB of the mid-9th century,²²⁶ and plates are also known in Judah, some related to **IPL 2**, for example, from Lachish Levels III and II of the 8th and late 7th/early 6th centuries.²²⁷ Other forms described as bowls belong to a different class of plates, for example, from Arad Strata X–VII of the 8th–7th centuries.²²⁸ In the north, an example described as a “Samaria Ware” bowl comes from Hazor Stratum V of the 8th century.²²⁹ A form that may be related to **IPL 7B/C**, but with a short overhanging rim, is attested at Meẓad Ḥashavyahu,²³⁰ and a similar plain form is known from the late Iron II at Busayra in Transjordan.²³¹ The closest parallels for **IPL 7B/C** appear at the Phoenician coastal plain sites of Kabri in Stratum E2 of the second half of the 7th century (with a slight carination, described as Phoenician Fine Ware or Levantine Fine Ware);²³² Keisan Level 5 of the 8th/7th century (described as a plate but slightly deeper);²³³ Tyre Stratum I of the end of the 8th century;²³⁴ Sarepta Stratum C2 of the 8th/7th century (slightly deeper but also red-slipped and wheel-burnished);²³⁵ and Al Mina Strata 5–6 dated to 700–650 BCE.²³⁶ The best example, albeit plain, comes from Al Mina Stratum 6.²³⁷

IPL 2 and **2A** are local forms of plates with numerous variations that appear in Philistia, Judah,

and the north in the Iron II from the 10th–7th centuries, but not in significant numbers. As indicated above, the reason straight-sided plates are not well documented is probably because of the difficulty in determining the stance and rim diameter from fragments of such shallow vessels. This is not the case with **IPL 7B/C**, however, which has a distinctive profile. Rare at Ekron, along the coast, and in Transjordan, it is well known in Phoenicia in the 8th and 7th centuries. While the ware of **IPL 7B/C** has yet to be analyzed, it appears to be local, and the form emulates a Phoenician tradition.

GOBLETS

The total of seven goblets represents 0.07% of the corpus. **IIGBL 1, 1.1, 1A, 2, and 4** are represented by one example each in Stratum IB, and **IIGBL 2.1** by one example in Stratum IC. An untyped goblet fragment also comes from Stratum IB.

IIGBL 1 (Fig. 4A.7:16, Color Photo 4A.5:5) is a small goblet with a rounded carination, extended splayed upper sidewall, simple rim, and round base, and is wheel-burnished on the upper exterior. **IIGBL 1.1** (not illustrated) is similar, but in very fine ware. **IIGBL 1A** (Fig. 4A.7:17) is a small squat goblet with a rounded carination, a splayed upper sidewall, a tapered rim, and a round base; it is red-slipped on the interior and upper exterior and wheel-burnished on the upper interior and exterior. **IIGBL 2** (Fig. 4A.7:19) is a medium-size wide-mouthed goblet with a rounded grooved carination, an outwardly-angled upper sidewall, a tapered rim, and a slightly concave disc base; it has reddish wash on the upper exterior and wheel burnish on the upper interior. **IIGBL 2.1** (not illustrated) is a minor variant of **IIGBL 2**. **IIGBL 4** (Fig. 4A.7:18)—a large wide-mouthed goblet also designated a cup—has a low rounded carination, a slightly out-curved upper sidewall, a tapered rim, and a flat disc base.

IIGBL 1–4 are *sui generis* to Ekron. Since they display some Assyrian characteristics, they may have been inspired by the Assyrian pottery tradition. **IIGBL 1, 1.1, and 1A** are reminiscent of a 7th century Assyrian Palace Ware bowl type from Nimrud.²³⁸ **IIGBL 2** may be a variant of what is described as an Assyrian-type

225. For example, at Šafi/Gath in the Iron IIA (Shai and Maeir 2012: Pl. 14.15:1), at Ashdod in the 8th/7th century (*Ashdod II–III*: Fig. 53:14), and at Ashkelon in the 7th century (*Ashkelon 3*: 81–82, Bowl 9, Figs. 5.31–5.32).

226. *Gezer III* (HUC): Pl. 14:15.

227. Zimhoni 2004a: Figs. 26:12:9, 26:54:1.

228. Singer-Avitz 2002: Figs. 10:1, 24:8–9.

229. *Hazor I*: Pl. LXXV:18.

230. Fantalkin 2001: Fig. 23:1.

231. *Busayra*: Fig. 9.4:9.

232. Lehmann 2002: Fig. 5.77:2.

233. *Keisan*: Pl. 40:2a.

234. *Tyre Pottery*: Pl. I:13.

235. *Sarepta I*: Pl. 35:9.

236. Lehmann 1998: Fig. 6:11.

237. Lehmann 1998: Fig. 7:4.

238. Lines 1954: Pl. XXXVIII:8.

Table 4A.29: Mortaria

IIMRT	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=2	7%	N=2	7%	N=18	64%	N=2	7%	N=4	14%	N=28	100%
?	-	-	-	-	1	33.3	1	33.3	-	-	1	33.3	3	11
1	-	-	-	-	1	17	4	60	-	-	1	17	6	21
2	-	-	-	-	-	-	6	66	2	20	2	20	10	36
3	-	-	2	22	-	-	7	78	-	-	-	-	9	32

bowl found at Dan in Stratum I of the end of the 7th through the 6th century.²³⁹ While **IIGBL 2.1** appears at Ekron in Stratum IIB in Field I, since it was found in possibly contaminated loci, its dating cannot be determined. **IIGBL 4** may be related to a 7th century *istikan*, a small thick-walled drinking vessel common in the Assyrian repertoire at Nimrud.²⁴⁰ This vessel is also found in Judah, for example, at Beersheba in Stratum II of the end of the 8th century.²⁴¹ Except for **IIGBL 1.1** made of a fine ware resembling Assyrian Palace Ware, all of the **IIGBL** vessels appear to have been made of local clay.²⁴² Thus, while the ware of the **IIGBL** series at Ekron may be local, their forms were inspired by Assyrian traditions.

MORTARIA

Mortaria represent 0.3% of the corpus, and are best represented in Stratum IB by 18 examples, 64% of the **IIMRT** assemblage (Table 4A.29).

Mortaria are large heavy bowl-like forms with a thick grooved straight sidewall that is sharply angled outwards, a profiled D-shaped folded rim, and a slightly concave base. **IIMRT 1** (Fig. 4A.7:20, Color Photo 4A.1:14) with a thin profiled rim has shallow finger impressions on the base exterior; **IIMRT 2** (Fig. 4A.7:21) with a thick profiled rim has prominent finger

impressions on the base exterior. **IIMRT 3** (not illustrated), a variant of **IIMRT 2**, is slightly smaller and has a more profiled rim.

The **IIMRT 3** examples assigned to Stratum IIA of the second half of the 8th century in Field I come mostly from loci contaminated by late Bedouin burials, and are best dated typologically to Stratum IB. Parallels for **IIMRT 1–3** are found in the 7th/6th century from Philistia northward along the coast, as well as in Judah and the north.²⁴³ Recent finds demonstrate that this 7th century form first appears at the end of the 8th century. Initially, evidence indicating a possibly earlier pre-7th century dating came from Ashdod Stratum VIII of the late 8th century,²⁴⁴ although this author previously argued that the vessel was intrusive.²⁴⁵ However, a deep bowl with a form similar to the mortarium comes from Tyre Stratum III of the second half of the 8th century,²⁴⁶ and an example from Rosh Zayit is attributed to the 8th century,²⁴⁷ as is a mortarium from a Phoenician shipwreck off the coast of Ashkelon, dated by the associated ceramic assemblage

239. Biran 1994: 266, Fig. 220:6.

240. Oates 1959: Pl. XXXVI:37–48. It may also be related to a bottle from Tell Ahmar in northern Syria (Jamieson 1999: 302, Fig. 4:1).

241. Singer-Avitz 1999: 39, Fig. 10:36; see *Keisan*: Pl. 45:2 for a possibly related form.

242. For an analysis of local clay sources for a range of pottery forms with Assyrian characteristics, see Singer-Avitz 1999: 37–38.

243. For a general summary of this distribution, see *Timnah II*: 51, although the mortarium from Tel Michal referenced on this page in fact comes from Stratum X of the Persian period, not from the Iron II (Singer-Avitz 1989b: Fig. 9.1:1). For discussions on a broader distribution, see *Rosh Zayit*: 190–92; see also Lehmann 2002: Fig. 5.78:11–14; Freud 1999: Fig. 6.96:2. For a stratigraphic analysis of key sites on which the dating of mortaria to the 7th century is based, and for their distribution in Syria, Turkey, Cyprus, Greece, and Egypt, see *Gezer III* (HUC): 210–12. For sites in Turkey, see Lehmann 1998: Fig. 6:17–18.

244. *Ashdod II–III*: Pl. 45:15.

245. *Gezer III* (HUC): 211.

246. *Tyre Pottery*: Pl. IX:19.

247. *Rosh Zayit*: 192, Fig. VII.11:19.

Table 4A.30: Scoops

IISCP	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=32	46%	N=0	0%	N=22	31%	N=13	19%	N=0	0%	N=3	4%	N=70	100%
1	3	100	-	-	-	-	-	-	-	-	-	-	3	4
1.1	5	46	-	-	4	36	2	18	-	-	-	-	11	16
2	1	100	-	-	-	-	-	-	-	-	-	-	1	1
3	2	100	-	-	-	-	-	-	-	-	-	-	2	3
4	1	100	-	-	-	-	-	-	-	-	-	-	1	1
5	5	50	-	-	4	40	1	10	-	-	-	-	10	14
6	6	86	-	-	1	14	-	-	-	-	-	-	7	10
6.1	4	100	-	-	-	-	-	-	-	-	-	-	4	6
6.2	5	100	-	-	-	-	-	-	-	-	-	-	5	7
7	-	-	-	-	3	75	1	25	-	-	-	-	4	6
8	-	-	-	-	-	-	2	67	-	-	1	33	3	4
9	-	-	-	-	-	-	-	-	-	-	1	100	1	1
10	-	-	-	-	-	-	-	-	-	-	1	100	1	1
11	-	-	-	-	-	-	1	100	-	-	-	-	1	1
?	-	-	-	-	10	63	6	37	-	-	-	-	16	23

to the 8th century.²⁴⁸ The most recent Thin Section Petrographic Analysis (TSPA) of a comprehensive sample of mortaria confirms that while the mortarium is a well-established form in the 7th century, continuing into the Hellenistic period, the earliest examples appear in the mid- to late 8th century.²⁴⁹ TSPA has also shown that this vessel type, previously considered part of the East Greek repertoire,²⁵⁰ is a Cypriot import, and that “[t]he reason for importing these vessels from a relatively remote region (Cyprus) to various locations in the southern Levant seems to be functional and economic rather than related to culture-specific traditions of food preparation... mortaria were high-quality grinding implements and were lighter than stone vessels of comparable size.”²⁵¹

SCOOPS

Scoops represent 0.7% of the corpus, and are best represented in Stratum Pre-IC by 32 examples, 46%

the **IISCP** assemblage (Table 4A.30).²⁵² Of the three miscellaneous types (**IISCP 9–11**), the single example of **IISCP 9** comes from topsoil, and although it is included in the total count, it should be reassigned to the Iron I.

IISCP 1–7 (Figs. 4A.8–10) represent two scoop types: composite (**IISCP 1, 1.1, 3, 7, and 8**) and standard (**IISCP 2, 4, 5, 6, 6.1, and 6.2**). Scoops are medium-size to large round-sided asymmetrical bowl forms with one sidewall bent inward to create a vertical or curved back wall or pushed outward to form a curved back wall. They have a round base and two large loop handles.²⁵³

Composite scoops **IISCP 1, 1.1** (Fig. 4A.8:1–2, Color Photo 4A.1:15), and **IISCP 7** (Fig. 4A.10:3–4) are medium-size and shallow with a rounded rim and large loop handles extending to the bottom of the bowl. **IISCP 3** (Fig. 4A.8:5) is an exception in that it has

248. Ballard et al. 2002: 160, Fig. 9:3:621–663.

249. Zukerman and Ben-Shlomo 2011: 88–91.

250. Fantalkin 2001: 80–82; Lehmann 2002: 196.

251. Zukerman and Ben-Shlomo 2011: 91–99.

252. See Chapter 1: n. 21 for the procedure involved in quantifying these scoops.

253. For the explanation as to why these asymmetrical bowls are defined as scoops, see Chapter 1 under Stratum Pre-IC; see also Gitin 1993a: 100*–107*. For a discussion on the significance of the context of scoops, see Gitin 1993a: 107*–108*; for a different interpretation, see Zuckerman 2007: 325–27.

a grooved rim and the handles extend only to mid-body. **IISCP 8** (not illustrated) is a somewhat smaller composite type with an inwardly-curved body, a vertical/slightly angled or a rounded back wall, a simple rounded or tapered rim, and loop handles extending from the rim to mid-body. The three miscellaneous types **IISCP 9**, **10**, and **11** (not illustrated), each represented by only one example, could be classified as composite scoops. **IISCP 9** is similar in shape to **IISCP 8**, but has a profiled rim. **IISCP 10** has a rounded carination, a slightly out-curved upper sidewall, a thickened rounded rim, and handles extending from the rim to the carination. **IISCP 11** is a small straight-sided scoop with what appear to be debased handles attached to the upper part of the sidewall.

The mass-produced standard types include **IISCP 2** (Fig. 4A.8:3–4), a shallow scoop with a curved back wall, an everted rim, and two large loop handles extending from the rim to the mid-body carination. **IISCP 4**, **5**, **6**, **6.1**, and **6.2** are deep with large loop handles attached from the rim to the upper body. **IISCP 4** (Fig. 4A.8:6) is a round-sided scoop with an internally-thickened rim, a variant of the **IISCP 6** series. **IISCP 5** (Fig. 4A.9:1–2) has a high carination, a short outwardly-curved upper sidewall, and an out-turned rim. **IISCP 6** (Fig. 4A.9:3–4, Color Photo 4A.1:16) has a rounded carination, a straight outwardly-angled upper sidewall, and a simple rounded rim. **IISCP 6.1** (Fig. 4A.10:1) has a high slight carination, a short slightly out-turned upper sidewall, and a thickened rim. **IISCP 6.2** (Fig. 4A.10:2) has a high carination, a short out-turned upper sidewall, and a rounded rim.

Scoops first appear in Field IV Lower in Iron I Stratum VC, and are attested in Strata VA and IVA of the second half of the 11th century and first quarter of the 10th century. Three of these are composite,²⁵⁴ one is standard,²⁵⁵ and three are too fragmentary to type.²⁵⁶ The earliest Iron II scoop is composite type **IISCP 8**, attested in Field I Stratum IIA–B of the first and second half of the 8th century. It differs from the Iron I composite scoops in that it is deeper with an inwardly-curved body, a slightly angled or rounded back wall, and a simple rounded or tapered rim.

In Field IV Lower, composite types **IISCP 1** and **1.1** (Figs. 4A.8:1–2) of Stratum Pre-IC and Stratum IC, respectively, have a thicker sidewall than the Iron I scoops, a simple rounded rim, and large loop handles extending almost to the bottom of the vessel. Compared to earlier Iron II forms, **IISCP 7** (Fig. 4A.10:3) from Stratum IC has a slightly thinner sidewall, more characteristic of **IISCP 7** (Fig. 4A.10:4) from Stratum IB. All the composite scoops from Strata Pre-IC, IC, and IB tend to be more crudely made than the earlier Iron I and Iron IIA–B examples, except for Stratum Pre-IC **IISCP 3** (Fig. 4A.8:5), a more finished form with a grooved rim and handles extending to mid-body. The main differences between the composite scoops from Stratum IC and Stratum IB are that the former generally have a vertical or curved back wall and handles located at the meeting point of the back wall and sidewall, and the latter have an outwardly-pushed curved back wall and handles attached at mid-point on the rounded sidewall.

The three main standard types (**IISCP 2**, **IISCP 5**, and **IISCP 6**) and three variants (**IISCP 4**, **IISCP 6.1**, and **IISCP 6.2**) appear in Stratum Pre-IC. While they have different body, rim, and handle forms to the standard Iron I type (**ISCP 2**),²⁵⁷ they too are asymmetrical with a bent back wall, the defining feature of the standard scoop in the Iron Age. The shallow standard type **IISCP 2** also appears in Stratum IC.

Parallels for composite scoops from the end of the Iron IIB—the equivalent of the Stratum Pre-IC assemblage at Ekron—appear in limited numbers at Beth-Shemesh in Stratum IIB²⁵⁸ and at Taanach in association with the second half of the 8th century.²⁵⁹ Their sporadic appearance may have fulfilled a need for small-scale food distribution. Parallels for the Stratum Pre-IC mass-produced standard scoop, however, appear in large numbers at Timnah in Stratum III (as BL 18),²⁶⁰ at Lachish in Level III,²⁶¹ in Jerusalem,²⁶²

254. Zukerman and Gitin 2016b: Figs. 5.59:13, 5.80:4 (Stratum V); Fig. 5.106:1 (Stratum IVA).

255. Zukerman and Gitin 2016b: Fig. 5.106:2.

256. Zukerman and Gitin 2016b: Fig. 5.80:1–3 (Stratum VA).

257. Zukerman and Gitin 2016b: Fig. 5.106:2.

258. *Ain Shems IV*: Pl. 66:18–22.

259. *Taanach I*: Fig. 8:d. This and the above example from Beth-Shemesh could not be typed (Gitin 1993: 124*).

260. *Timnah II*: 30, Pl. 14:15–18.

261. *Lachish III*: Pls. 81:115, 102:656; Ussishkin 2004a: Figs. 26.14:8, 26.25:1–5, 26.17:1–6.

262. *Ophel*: Pl. 18:22.

Table 4A.31: Chalices

IICh	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=1	2%	N=1	2%	N=6	13%	N=38	81%	N=0	0%	N=1	2%	N=47	100%
1	-	-	-	-	1	33	2	67	-	-	-	-	3	6
2	-	-	-	-	1	100	-	-	-	-	-	-	1	2
3A	-	-	-	-	-	-	5	100	-	-	-	-	5	11
4A	-	-	-	-	-	-	1	100	-	-	-	-	1	2
4B	-	-	-	-	-	-	1	100	-	-	-	-	1	2
5	-	-	-	-	-	-	2	100	-	-	-	-	2	4
5A	-	-	-	-	-	-	3	100	-	-	-	-	3	6
6A	-	-	-	-	-	-	1	100	-	-	-	-	1	2
9	-	-	-	-	1	25	3	75	-	-	-	-	4	9
9A	-	-	-	-	-	-	-	-	-	-	1	100	1	2
10	-	-	1	100	-	-	-	-	-	-	-	-	1	2
12	1	100	-	-	-	-	-	-	-	-	-	-	1	2
?	-	-	-	-	3	13	20	87	-	-	-	-	23	49

and at Beersheba in Stratum II,²⁶³ all within the second half of the 8th century. This author has previously suggested that the distribution pattern of standard scoops follows the clustering of frontier administrative centers involved in large-scale food allocation required as a result of the changing political relationship between Judah and the Neo-Assyrian Empire at the end of the 8th century.²⁶⁴

Parallels for the composite type from Ekron Stratum IC have yet to be identified, while the standard type has a parallel in Stratum VII at 'Ira.²⁶⁵ However, composite type parallels most likely dating to the second half of the 7th century—the equivalent of Stratum IB at Ekron—come from the Judean Desert at Vered Yeriho²⁶⁶ and from Timnah Stratum II.²⁶⁷ One example, also from Timnah Stratum II, may be a standard type,²⁶⁸ but it is possible that this type disappears by the second half of the 7th century. Thus, unlike scoops from earlier in the Iron Age, the 7th century examples

are basically limited to the Philistine Inner Coastal Plain.

CHALICES

Chalices comprise 0.5% of the corpus,²⁶⁹ the majority from Stratum IB, representing 81% of the IICh corpus (Table 4A.31).

IICh 1–2 (not illustrated) have a bowl with a slightly outwardly-curved sidewall and a rounded or tapered rim; the stand has a similar profile to that of **IICh 3A**, but is undecorated. **IICh 3A–6A** (Fig. 4A.11:1–5) have a bowl with a low carination, an outwardly-inclined upper sidewall, and a tapered rim; some have a deep groove separating the carination from the rounded lower sidewall. The bowl is set on or into a tall narrow or wide stand. The stand narrows at the top, and is connected to the bowl by a slightly or sharply curved neck; its flaring base has an everted bottom rim. The entire vessel is decorated. The bowl of **IICh 3A** (Fig. 4A.11:1, Color Photo 4A.1:17) is set on a narrow stand connected by a slightly curved neck; the stand has applied knobs (debased leaves) on the

263. Reg. No. 12098/2, L. 1284 (Lily Singer-Avitz, personal communication).

264. Gitin 1993a: 106*–108*.

265. 'Ira: Fig. 6.74:11.

266. Reg. Nos. 92/2, L. 5; 179/1, L. 27; 292/1 L. 42 (Avraham Eitan, personal communication).

267. *Timnah II*: 50–51: Pls. 102:3?, 104:1–3.

268. *Timnah II*: Pl. 54:25.

269. This includes one example of **IICh 12** that should be reassigned to the Iron I, together with **IICh 11**, originally defined as a Residual Form A.

upper part, and red bands, one in the groove on the bowl. The bowl of **IICH 4A** (Fig. 4A.11:2, Color Photo 4A.1:18) is set on a wide stand connected by a sharply curved neck. The stand has thin vertical lines incised on the upper part and red bands and diamond-shaped designs, and the bowl has red diagonal lines within bands and triangular designs. The bowl of **IICH 4B** (Fig. 4A.11:3) is set into a wide stand connected by a curved neck. The stand has red bands and amoeba-shaped designs within bands on a white wash. **IICH 5** (not illustrated) has the same profile as **IICH 5A**, but is not decorated. The bowl of **IICH 5A** (Fig. 4A.11:4) is set into the stand connected by a curved neck, and has red triangles and long irregular diagonal lines on white wash. **IICH 5.3A** (not illustrated) has a small cyma-shaped bowl with an everted rim, and is red-slipped and wheel-burnished on the interior and rim exterior.²⁷⁰ The bowl of **IICH 6A** (Fig. 4A.11:5) is wide with a high carination and an incised rim, and is decorated with long diagonal red lines.

IICH 9–10 (Fig. 4A.11:6–8) have a wide stand narrowing at the top, and the flaring base has a short everted bottom rim. They are distinguished from **IICH 3A–6A** primarily by the decoration of applied petals (or leaves) below the neck of the stand. **IICH 9** (Fig. 4A.11:6) has six prominent drooping petals attached to the upper part of the stand; although this type is considered a Residual Form B, it could be a Residual Form A.²⁷¹ The bowl of **IICH 9A** (Fig. 4A.11:7) is set on a wide stand with four prominent broad petals extending slightly outward from the upper stand and a red hatch pattern and bands on the lower part. This type could also be either a Residual Form A or B. **IICH 10** (Fig. 4A.11:8, Color Photo 4A.1:19) has a bowl with a hole in the bottom extending into the stand, and is connected to the stand by a neck band. Six prominent

knob-like petals with impressions are attached below the band. This could be another example of a Residual Form A or B.

IICH 11 (not illustrated), a large heavy chalice with a tall stand and a deep bowl with an everted rim, is represented by four examples—three from Stratum IB and one in topsoil. It was initially classified a Residual Form A, but a reevaluation of this and **IICH 12** (not illustrated)—also a large chalice with a deep bowl and a sharply splayed rim, represented by one example in Stratum Pre-IC—shows that neither type belongs to the Iron II assemblage, but should rather be considered Iron I residual forms.²⁷² They first appear in Stratum IVA at the beginning of the 10th century,²⁷³ and are well attested in 10th century strata at other sites throughout the country, for example, Michal Strata XIV–XIII.²⁷⁴ These forms seem to have developed into a smaller chalice with a shorter stand and a shallow bowl with an everted rim, like CH 4 at Timnah attested in Strata IV–II of the 10th–7th centuries.²⁷⁵ While variants of this form appear at Ekron as **IICH 5.3** and **5.3A**, they are not well represented.

IICH 9 and **10** first appear in Field I Stratum III of the 10th/9th century, and **IICH 9** is also attested in Stratum IIB of the first half of the 8th century. As suggested above, these types may be Residual Forms A. One stand of **IICH 3A** is assigned to Stratum IIA of the second half of the 8th century.

An undecorated parallel for decorated chalice **IICH 3A** appears at Timnah as CH 5 in Stratum II of the 7th century,²⁷⁶ as does a decorated parallel for **IICH 6A**.²⁷⁷ The antecedents of the decorated chalices at Timnah—the parallels for **IICH 3A**, **4A**, **4B**, **5A**, and **6A**—are not, as has been suggested, Iron I decorated chalices that developed from the LB II tradition,²⁷⁸ but

270. Given that **IICH 5.3A** and **IICH 5.3** are represented only by small fragments, they were easily confused with **IIBL 5.3A** and **IIBL 5.3**. It is therefore possible that they were included in the quantification tables in the count of the 14 **IIBL 5.3A** from Stratum ICb–topsoil and the count of 5 **IIBL 5.3** from Strata IC and IB. Only one example could possibly be reassigned to **IICH 5.3A**.

271. This type and **IICH 9A** and **IICH 10** need to be reevaluated in light of the evidence from the other excavation fields at Ekron.

272. Neither type appears in Field I Strata III–II of the 10th–8th centuries.

273. Zukerman and Gitin 2016a: Fig. 4.106:3.

274. Singer-Avitz 1989a: 84, Fig. 7.5:5–6.

275. *Timnah II*: 55; see *Timnah II*: 56–57 for a summary of the earlier Iron II chalices with a deep bowl and the later more shallow forms.

276. *Timnah II*: 57–58, Pl. 95:1.

277. *Timnah II*: Pl. 65:2, with the same bowl size and profile as **IICH 6A** and the same type of stand as **IICH 3A**.

278. See *Timnah II*: 57; the Iron I chalices with which they are associated differ in bowl and stand form and proportions, as well as type and pattern of decoration.

rather are related to the chalice tradition in Philistia. A hybrid chalice from Şafi/Gath 9th century Stratum 3A combines the everted-rim bowl of 10th and 8th century Philistine tradition and the characteristic tall stand and decoration of the 7th century decorated chalices at Ekron.²⁷⁹ This form also has six protruding leaves/petals, representing the early development of the plastic decoration characteristic of **IICH 9, 9A**, and **10** of the 10th/9th and 8th centuries. Another chalice from the same stratum at Şafi/Gath also exhibits hybrid characteristics. The bowl has a splayed sidewall and everted rim, and the profile of the tall stand is similar to that of the Ekron 7th century chalices. In addition, it has a characteristic Iron I Philistine pattern of dense Aegean-style decoration covering the entire vessel, with a black band on the rim and a row of netted lozenges on the bowl body and checkerboard and herringbone designs on the stand, as well as four applied leaves/petals.²⁸⁰ Yet another example from Şafi/Gath 9th century Stratum 3A (Type CH 2), however, is a direct antecedent of the 7th century decorated chalices at Ekron. It has the same type of decorated bowl as **IICH 6A**, and a stand with a similar profile to **IICH 3A**.²⁸¹ While other chalices appear in various parts of the country,²⁸² they are not related to **IICH 3A–6A**, which represent the classic Philistine Inner Coastal Plain type. First attested in the 9th century at Şafi/Gath, **IICH 3A–6A** developed through the 8th century and reached their floruit in the 7th century at Ekron.

279. Shai and Maeir 2012: Pl. 14.4:4.

280. Shai and Maeir 2012: Pl. 14.14:12.

281. Shai and Maeir 2012: Pl. 14.15:6.

282. For example, although a chalice with white slip and painted bands and splashes appears in Philistia at Ashdod in Stratum VII in the 7th century (*Ashdod II–III*: Fig. 51:7), its form is totally different from the Ekron chalices. It has a shallow bowl with an everted rim, and belongs to the class of undecorated Iron II chalice bowls known from 10th century Judah, for example, at Lachish in Stratum V (*Lachish V*: Pl. 41:14–21), as well as in the north at Megiddo in Stratum V (*Megiddo I*: Pl. 33:18–20). Although it also appears later in Judah, for example, at Beth-Shemesh in Stratum IIc of the 8th century (*Ain Shems IV*: Pl. LXVII:3), and in Philistia, for example, at Ashdod in Stratum VIII at the end of the 8th century (*Ashdod II–III*: Fig. 44:4), it is not attested in the 9th–7th centuries.

A parallel for the plastic leaf/petal decoration of **IICH 9** also appears at Şafi/Gath in Stratum 3A of the 9th century,²⁸³ and, as indicated above, it is from this tradition that the leaf/petal decoration of **IICH 9–10** develops. A related leaf/petal tradition on the stand of two-piece incense burners is known in Judah and in the north, for example, at Lachish in Level V, Megiddo in Strata VIA and V, and Arad in Stratum X, from the 10th to mid-8th centuries.²⁸⁴

KRATERS

Kraters comprise 9.6% of the corpus, best represented in Stratum IB by 700 examples, 77% of the **IIKR** assemblage (Table 4A.32). The three main types are represented by the **IIKR 4** series (479), **IIKR 1–3** (170), and the **IIKR 7** series (108), respectively accounting for 53%, 16%, and 12% of the krater assemblage.

IIKR 1–4.5 (Fig. 4A.12:1–8) are medium-size to large deep globular kraters with an inverted downwardly-angled rim and a footed ring base. **IIKR 1–3** (Fig. 4A.12:1–3) have a short rounded hammerhead rim.²⁸⁵ **IIKR 4–4.2** and **4.5** (Fig. 4A.12:4–6, 8, Color Photo 4A.2:1) have a flat tapered hammerhead rim. **IIKR 4.3** (Fig. 4A.12:7) has a short vertical neck and a flat tapered hammerhead rim.²⁸⁶ **IIKR 5** (Fig. 4A.12:9, Color Photo 4A.2:2) has an elongated cyma-shaped body and an everted rim. The 12 examples of **IIKR 6** (Fig. 4A.13:1) with a short everted rim are Residual Forms A.²⁸⁷

IIKR 7–7.4 (Fig. 4A.13:2–8) are medium-size to large deep globular kraters with a medium to high neck, a flat cut rim, a footed ring base, and a double-ribbed loop handle extending from the rim to the upper shoulder. **IIKR 7** (Fig. 4A.13:2, 7, Color Photo 4A.2:3)

283. Shai and Maeir 2012: Pl. 14.16:5.

284. Singer-Avitz 2002: 138–39. The best examples come from Megiddo, with the petals/leaves interpreted as “adaptations of an Egyptian architectural detail taken from a pillar or capital” (May 1935: 21).

285. As do variants **IIKR 1.2, 1.2A, 1.2y, 1.5, 2.1, 2.2, 3.1**, and **3.2**.

286. The **IIKR 4** series includes variants **IIKR 4.4** and **4.6**.

287. Although these are not included in the total of 910 cited above, they are recorded as part of the total in Chapter 4C.

Table 4A.32: Kraters

IIKR	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=2	0.2%	N=8	1%	N=107	12%	N=700	77%	N=34	4%	N=59	6%	N=910	100%
1	-	-	-	-	6	16	27	71	3	8	2	5	38	4
1.1	-	-	-	-	8	17	33	72	1	2	4	9	46	5
2	-	-	-	-	9	19	34	71	3	6	2	4	48	5.3
3	-	-	-	-	2	5	31	82	1	3	4	10	38	4
4	-	-	2	1	16	8	158	81	8	4	11	6	195	21
4.1	-	-	2	1	22	15	111	76	5	3	7	51	147	16
4.2	-	-	1	1	9	11	66	77	4	5	5	6	85	9
4.3	-	-	-	-	1	2	44	92	2	4	1	2	48	5.3
4.5	-	-	-	-	-	-	4	100	-	-	-	-	4	0.4
5	-	-	-	-	3	7	31	72	3	7	6	14	43	5
7	-	-	-	-	16	24	47	69	2	3	3	4	68	7.5
7.1	-	-	1	5	6	27	15	68	-	-	-	-	22	2
7.2	-	-	1	11	-	-	8	89	-	-	-	-	9	1
7.3	-	-	-	-	1	20	2	40	-	-	2	40	5	0.5
7.4	-	-	-	-	1	25	3	75	-	-	-	-	4	0.4
8	-	-	-	-	-	-	4	100	-	-	-	-	4	0.4
9	-	-	-	-	1	33	1	33	-	-	1	33	3	0.3
10/10.1	-	-	-	-	-	-	7	88	-	-	1	12	8	1
11	-	-	-	-	2	9	20	87	-	-	1	4	23	3
13	-	-	-	-	-	-	1	100	-	-	-	-	1	0.1
14	-	-	-	-	-	-	1	100	-	-	-	-	1	0.1
15/16	2	7	-	-	4	15	18	67	-	-	3	11	27	3
?	-	-	1	2	-	-	34	79	2	5	6	14	43	5

has a slightly outwardly-inclined neck, and the rim has a slight bulge on the interior and exterior. **IIKR 7.1** (Fig. 4A.13:8) has a curved neck and the same rim form. **IIKR 7.2** (Fig. 4A.13:3–4) has an outwardly-inclined neck and a slightly inverted angled or horizontal rim. **IIKR 7.3** (Fig. 4A.13:5) has a slightly inwardly-inclined neck and a grooved rim. **IIKR 7.4** (Fig. 4A.13:6) has a slightly thickened outwardly-inclined neck and a rounded rim with a short point; it may have two handles.

IIKR 8 (not illustrated) is a large very deep globular krater with a high vertical neck, a thin bolt-head-shaped rim, a high footed base, and two loop handles extending from rim to the upper shoulder. **IIKR 9** (Fig. 4A.13:9) is a medium-size deep round-sided krater with an inverted oblong folded rim, a footed ring base, and four loop handles extending from the lowest point of

the rim to the upper shoulder. **IIKR 10/10.1** (not illustrated) is small krater with a low rounded carination, a rounded upper sidewall, an inverted oblong folded rim, a ring base, and two or four loop handles extending from the bottom of the rim to mid-point on the body.

IIKR 11 (not illustrated) is medium-size krater with a vertical sidewall, an outwardly-inclined neck, and a flat cut horizontal rim. **IIKR 13–14** (Fig. 4A.13:11–13) are large to very large and very deep wide-mouthed round-sided kraters with a ridged profiled rim. **IIKR 15/16** (Fig. 4A.13:10) is a large rounded-sided wide-mouthed krater with an inverted oblong folded rim and two handles extending from the lowest point of the rim to the upper shoulder.

IIKR 1–3 first appear in Field I Stratum IIB of the first half of the 8th century and continue into Stratum

IIA of the second half of the 8th century.²⁸⁸ Although they appear in significant numbers in Strata IC and IB, comprising 16% of the krater assemblage, they are represented only by fragments. This does not apply to the other two main krater types, the **IIKR 4** and **IIKR 7** series, which are represented by whole examples in Stratum IB. It is therefore possible that **IIKR 1–3** belong in the category of Residual Forms B, and should be associated only with the earlier Stratum IC phase. Parallels at other sites from strata corresponding to Ekron Stratum I are also represented only by fragments. In Field I, **IIKR 4** and **IIKR 7** types first appear in Stratum IIB of the first half of the 8th century and continue into Stratum IIA of the second half of the 8th century.

Parallels for **IIKR 1–3** and **IIKR 4** types appear at Timnah as KR 11a in Strata III–II of the 8th–7th centuries.²⁸⁹ At Ashdod, **IIKR 1–3** types are assigned to Strata IX–VIII of the 9th–8th centuries.²⁹⁰ Two examples from Ashdod Stratum VIII of the second half of the 8th century have a complete profile;²⁹¹ another example is assigned to Strata VIII–VII of the 8th/7th century.²⁹² The only other parallels for **IIKR 1–3** types come from Gezer (Type 95), assigned to Stratum V of the late 8th/7th century.²⁹³ **IIKR 4** types also appear at Mezad Hashavyahu (as K5).²⁹⁴ The third main krater type, the **IIKR 7** series, appears at Timnah as KR 8a in Stratum III–II of the 8th–7th centuries.²⁹⁵ A

related form appears at Ashdod in Strata IX–VII of the 9th/8th century; it has two horizontal handles on the upper shoulder, and is red-slipped and wheel-burnished.²⁹⁶ A parallel—with red painted bands on the body—also appears in Stratum VI of the 7th century.²⁹⁷ Another example with two handles comes from the Coastal Plain site of Ruqeish, possibly dating to the 8th century.²⁹⁸

Given the large concentrations of **IIKR 1–3** at Ekron and Timnah, these kraters can be considered one of the classic regional forms of the 8th/7th century Philistine Inner Coastal Plain.²⁹⁹ This also applies to the **IIKR 4** and **IIKR 7** series. **IIKR 5**, a variant of the **IIKR 4** series, is found only at Ekron in the 7th century. Of the other krater types, three are rare, and apparently also appear only at Ekron in the 7th century. **IIKR 8** could be considered a variant of **IIKR 7**, and **IIKR 9** may be a large variant of **IIKR 10/10.1**, itself a rare form.³⁰⁰

Although not common, a sufficient number of examples of **IIKR 11** appear at Ekron in the 7th century in Field IV Lower and in the 8th century in Field I for it to be considered a distinct type. It has a very limited distribution on the Coastal Plain, represented by a parallel with two horizontal handles at Ashdod in Stratum VIII of the second half of the 8th century,³⁰¹ and a

288. Although examples from Field I were also assigned to Stratum III, almost all come from loci cut by Stratum IIB, and could therefore be contaminated.

289. For Stratum III examples of **IIKR 1–3** types, see *Timnah II*: Pl. 15:6–7, and of **IIKR 4** types, *Timnah II*: Pls. 15:4, 25:4, 90:14, 91:24. For Stratum II examples of **IIKR 1–3** types, see *Timnah II*: Pls. 54:23, 60:12, and of **IIKR 4** types, *Timnah II*: Pls. 72:1–2, 65:5.

290. Ben-Shlomo 2005: Fig. 3.89:5, 7, 11

291. *Ashdod II–III*: Fig. 47:4–5.

292. *Ashdod II–III*: Fig. 76:12.

293. *Gezer III* (HUC): 208–9, Pl. 28:3, and related examples on Pl. 28:1–2, 5.

294. Fantalkin 2001: Fig. 25: K5. A single example with a ridged rim reported as a rare variant in the 604 BCE destruction at Ashkelon (*Ashkelon 3*: 85, Fig. 5.45, Krater 2) may, however, be the ridged rim of a misdrawn holemouth jar.

295. *Timnah II*: Pls. 55:14, 57:13, 61:6. All necked kraters assigned to Stratum III at Timnah have a wide mouth,

perhaps representing an earlier form of KR 8a (see *Timnah II*: Pl. 25:8). Furthermore, some of the Stratum II examples are slipped and burnished (see *Timnah II*: Pl. 94:13).

296. *Ashdod II–III*: Figs. 37:20, 40:3, 6–7; *Ashdod IV*: Fig. 20:2; Ben-Shlomo 2005: Fig. 3.89:3. This form also appears in Judah in the 8th century (Zimhoni 2004a: Fig. 26.37:12).

297. Ben-Shlomo 2005: Fig. 3.107:1.

298. Culican 1973: 75, Fig. 3: R15.

299. Their appearance at Gezer does not negate this conclusion, as the Gezer assemblage comprises only four examples in an Iron II corpus in which all diagnostic sherds were counted.

300. Their mouth, rim, and four-handle form and placement are similar to those on the upper part of a large storage jar from Timnah 7th century Stratum II (SJ 14b) (*Timnah II*: Pl. 45:15), as well as on the upper part of a larger pithos from Beersheba 8th century Stratum II (*Beer-sheba I*: Pl. 65:3).

301. *Ashdod II–III*: Fig. 40:7.

Table 4A.33: Cooking pots

IICP	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=0	0%	N=17	13%	N=103	79%	N=4	3%	N=6	5%	N=130	100%
5	-	-	-	-	-	-	1	100	-	-	-	-	1	1
6	-	-	-	-	7	15	38	83	-	-	1	2	46	35
6.1	-	-	-	-	3	11	18	67	1	3	5	19	27	21
6.3	-	-	-	-	1	5	20	90	1	5	-	-	22	17
7	-	-	-	-	-	-	4	100	-	-	-	-	4	3
7.1	-	-	-	-	1	12	5	63	2	25	-	-	8	6
8	-	-	-	-	4	44	5	56	-	-	-	-	9	7
9	-	-	-	-	1	100	-	-	-	-	-	-	1	1
10	-	-	-	-	-	-	1	100	-	-	-	-	1	1
11	-	-	-	-	-	-	1	100	-	-	-	-	1	1
12	-	-	-	-	-	-	7	100	-	-	-	-	7	5
14	-	-	-	-	-	-	2	100	-	-	-	-	2	1
?	-	-	-	-	-	-	1	100	-	-	-	-	1	1

single 7th century example from Meẖad Ḥashavyahu.³⁰² It may be related to a type with a similar neck and rim, but a wider mouth and a large globular body that appears in Judah, for example, at Lachish in Level III of the 8th century.³⁰³

IHKR 13 is also rare, appearing at Ekron only in Field IV Lower. The closest related vessel is a cooking pot with the same rim form found at Beersheba in Stratum II of the 8th century, although the body has the more common carinated cooking pot shape.³⁰⁴ **IHKR 14**, another rare form, does appear at Ekron in Field I Stratum IIA of the second half of the 8th century. The closest related form is a two-handled cooking pot from Gezer Stratum V of the late 8th/7th century (Type 97H),³⁰⁵ and from Timnah Stratum II of the 7th century (CP 7).³⁰⁶ While neither the **IHKR 13** nor the **IHKR 14** examples were sufficiently preserved to determine whether they had handles, and, more significantly, neither was made of cooking pot ware, they might nevertheless have served as cooking vessels.

On the other hand, the inverted oblong folded rim of **IHKR 15** that appears on various round-bodied

kraters was found in sufficient numbers to be considered a distinct type. This rim form appears on kraters from Field I Stratum II of the 8th century, as well as at Timnah (as KR 35a), considered a Stratum III 8th century type.³⁰⁷ Variations of this rim are well known on kraters from Gezer,³⁰⁸ Beersheba Stratum II,³⁰⁹ and Lachish Level III of the 8th century.³¹⁰ This evidence demonstrates that **IHKR 15** is primarily a southern form, with its floruit in the 8th century.

Given that **IHKR 13**, **14**, and—except for one complete vessel—**IHKR 15** are represented at Ekron only by rim fragments, and that parallels come primarily from the 8th century, they could be Residual Forms B, and one or more could even be Residual Forms A.

COOKING POTS

Cooking pots represent 1.4% of the corpus, primarily attested in Stratum IB by 103 examples, comprising 79% of the **IICP** assemblage (Table 4A.33). The main

302. Fantalkin 2001: Fig. 24: K4.

303. Zimhoni 2004a: Fig. 26.37:12.

304. *Beer-sheba I*: Pl. 55:11.

305. *Gezer III* (HUC): Pl. 24:18.

306. *Timnah II*: Fig. 88:1.

307. *Timnah II*: 69.

308. For a detailed analysis of the **IHKR 15** rim form, see *Gezer III* (HUC): 128–30, Types 8A and 8B.

309. *Beer-sheba I*: Pl. 69:13.

310. Zimhoni 2004a: Fig. 26.32:11.

types are represented by the **IICP 6** series, with 95 examples comprising 73% of the **IICP** assemblage.

IICP 1–2 (34 examples) are Residual Forms A.³¹¹ **IICP 3–4** are absent in Field IV Lower, and are best known in Field I. **IICP 5** (Fig. 4A.14:1) is a medium-size cooking pot with an uneven globular body, a short inwardly-inclined neck, a thick flattened rim, and two ribbed handles.

IICP 6, 6.1, 6.3,³¹² **IICP 7, 7.1, 7.5,**³¹³ and **IICP 8** (Fig. 4A.14:2–6, 8) are small to large globular to bag-shaped cooking pots with an everted or outwardly-inclined neck, a pinched profiled, flat profiled, grooved, or rounded rim, and two double-ribbed handles. **IICP 6** (Fig. 4A.14:2; see Color Photo 4A.2:4) has a globular body, an everted neck, and a sharply-pinched beveled profiled rim. **IICP 6.1** (not illustrated) has a bag-shaped body, a short outwardly-inclined neck, and a slightly pinched profiled rim. **IICP 6.3** (Fig. 4A.14:3; see Color Photo 4A.2:4) has an everted neck and a grooved rim. **IICP 7** (Fig. 4A.14:4–5) has an everted neck and a flat profiled rim. **IICP 7.1** (Fig. 4A.14:6, Color Photo 4A.2:6) has an outwardly-inclined neck and pinched flat profiled rim. **IICP 8** (Fig. 4A.14:8, Color Photo 4A.2:7) has a sharply everted neck and a rounded rim. **IICP 9** (not illustrated) is a smaller version of **IICP 8** with a short everted neck and a thickened rim.

IICP 10–11 (Fig. 4A.14:7, 9) are small squat cooking pots with a low carination, an inverted thickened or grooved rim, and two double-ribbed handles. **IICP 12** (Fig. 4A.14:10) is a medium-size neckless cooking pot with a globular body, an everted rectangular slightly grooved rim, and two double-ribbed handles; it is made of thin metallic ware.³¹⁴ **IICP 14** (not illustrated) is a small to medium-size globular cooking pot or cooking jug with a high ridged neck, a simple out-turned rim, and two ribbed handles.³¹⁵

IICP 6, 6.1, 6.3, and 8 first appear in Field I Stratum IIA of the second half of the 8th century.

However, since some of the loci in which they were found were cut by later burials and installations, their contents could have included intrusive ceramic forms; the first sealed contexts in which these types appear are in Stratum IC in Field IV Lower. The **IICP 7** series attested almost exclusively in Stratum IB could represent variants of **IICP 6** with a flat rather than pinched profiled rim. **IICP 5, IICP 8, and IICP 9** with a globular body but different rim profiles are also related to **IICP 6**. **IICP 10, 11, 12, and 14** are rare forms unrelated to the main 7th century **IICP** traditions at Ekron. They are minimally attested only in Stratum IB.

The earliest parallels for the **IICP 6** series may include an example from Timnah Stratum III of the 8th century,³¹⁶ and from Ashdod assigned to Strata IX–VIII, most likely of the 8th century,³¹⁷ and Stratum VIII of the end of the 8th century,³¹⁸ an example also comes from Tel Hamid Stratum V of the second half of the 8th century.³¹⁹ Another example that can be assigned to the 8th century comes from Stratum E at the southern coastal site of Jemmeh.³²⁰ A type related to the **IICP 6** series with the same upper body, neck, and rim form but with a low carination appears at Beersheba in Stratum II of the 8th century,³²¹ where it is “highly prominent... consisting of 19 vessels that form 29.7% of the total number of open cooking-pots.”³²² This type, of which there is also one example from Arad Stratum IX of the second half of the 8th century,³²³ does not appear elsewhere in Judah; it has been suggested that it may be the antecedent of the 7th century **IICP 6** types.³²⁴ Whether the **IICP 6** series first appears on the Philistine Coastal Plain at the end of the 8th century or has carinated antecedents attested at Beersheba and Arad at the end of the 8th century is still open to question. However, as demonstrated

311. Of the 162 cooking pots listed in Chapter 4C, 32 are Residual Forms A.

312. Includes variant **IICP 6.2** (illustrated on Fig. 4B.5:2).

313. Includes variants **IICP 7.2, 7.5, 7.7, and 7.9**.

314. Includes variant **IICP 12.2**.

315. The two rim fragments of this type found in Field IV Lower and the two in Field I demonstrate that this type was present, if only minimally, outside of Judah, as far west as Ekron (*contra Timnah II*: 85, CP 9).

316. *Timnah II*: Pl. 103:18, although this sherd is described as typologically doubtful in *Timnah II*: 86.

317. Ben-Shlomo 2005: Fig. 3.90:1.

318. *Ashdod II–III*: Fig. 46:9.

319. Samuel Wolff, personal communication. The excavations of Tel Hamid, an Iron Age site on the northwestern edge of the Shephelah and a satellite of Gezer, are directed by Samuel R. Wolff and Alon Shavit.

320. *Gerar*: 4, Pl. 52:32t.

321. *Beer-sheba I*: Pl. 73:11–12.

322. Singer-Avitz 1999: 14.

323. Singer-Avitz 2002: Fig. 14: CP4.

324. Singer-Avitz 1999: 14–16.

below, while the **IICP 6** series appears in limited numbers in Judah in the 7th century, it is the dominant 7th century cooking pot at most sites in Philistia.

Parallels for **IICP 6** in the 7th century appear at Timnah in Stratum II (as CP 10),³²⁵ where it is the third most common cooking pot.³²⁶ They are known at Ashdod in Strata VII–VI of the 7th–6th centuries,³²⁷ and represent the most common cooking pot in the 604 BCE destruction at Ashkelon.³²⁸ They also appear at Meẓad Ḥashavyahu in the 7th century (as CP 2).³²⁹ The only known examples from the Judean Shephelah come from Lachish, one from Level II of the 7th/6th century³³⁰ and the other from beneath the foundations of the Stratum IB Persian period Solar Shrine.³³¹ In Judah, a few examples dated to the 7th/6th century are known from Arad Strata VII–VI³³² and En-Gedi Stratum V.³³³ Examples from Beersheba Valley sites come from 7th century contexts at Aroer in Stratum II,³³⁴ Ḥorvat ʿUza in Stratum III, Malḥata in Stratum III, and Masos in Stratum VI,³³⁵ and from 7th/6th century contexts at ʿIra in Stratum VI³³⁶ and Ḥorvat Qitmit.³³⁷ They are also attested in the 7th/6th century in northern Sinai at Kadesh-Barnea in Stratum 2,³³⁸ and an isolated example comes from Dan Stratum I in the north.³³⁹ **IICP 6.1** with a bag-shaped body is apparently attested only at Ekron.

The single examples of **IICP 10** and **IICP 11** are related to the larger shallow carinated cooking pot with

a slightly stepped or grooved rim found throughout the country in the 8th century.³⁴⁰ **IICP 12** is well known throughout Judah, and represents the major 7th century cooking pot form in this region.³⁴¹ It is also the most common cooking pot at Timnah in Stratum II of the 7th century (CP 11).³⁴² **IICP 14** is another major Judean cooking pot/cooking jug form in the 8th/7th century,³⁴³ and is the second most common cooking pot at Timnah in Stratum II of the 7th century.³⁴⁴

Although differing in form, the relatively narrow-mouthed 7th century cooking pots from Philistia and other regions have a similar capacity. Both differ dramatically from the virtually homogeneous wide-mouthed early and late shallow carinated cooking vessels of the Iron I and Iron IIA–B found throughout Cisjordan and Transjordan that developed from the Late Bronze Age Canaanite cooking pot. The smaller cooking pots suggest a change in diet and/or in communal eating habits involving a smaller family unit

325. For example, *Timnah II*: Pl. 34:12.

326. *Timnah II*: 86.

327. See *Ashdod II–III*: Fig. 50:7 (7th century Stratum VII); Ben-Shlomo 2005: Fig. 3.107:6–7 (late 7th century Stratum VI); *Ashdod I*: Fig. 41:12; *Ashdod II–III*: Fig. 55:1 (6th century).

328. Stager 1996: 64*, Fig. 3: middle; *Ashkelon 3*: Figs. 5.45–5.46, Cooking Pot 1.

329. Fantalkin 2001: Fig. 25:6.

330. Zimhoni 2004a: Fig. 26.55:13.

331. *Lachish V*: Pl. 51:13.

332. Singer-Avitz 2002: Fig. 14: CP 5.

333. Yezerski 2007.

334. Biran and Cohen 1981: 261, Fig. 10:6.

335. Zimhoni 1983: Pl. 165:10–12; **IICP 6.3** also appears at Masos in Stratum VI (Zimhoni 1983: Pl. 165:13).

336. Freud 1999: Fig. 6.42: left.

337. Freud and Beit-Arieh 1995: Fig. 4.6:21.

338. Bernick-Greenberg 2007: 162, Pl. 11.99:7–11.

339. Pakman 1992: 235, Fig. 4:7.

340. Among the closest parallels are those from Gezer in the northern Shephelah—Types 105C and 105A from Stratum VIA of the mid-8th century (*Gezer III* [HUC]: Pls. 22:2, 5). For a summary of these types, see *Gezer III* (HUC): 217–19; for **IICP 11** at Beersheba in Stratum II of the 8th century, see *Beer-sheba II*: Pl. 60:84–85.

341. See *Gezer III* (HUC): 219–21, Pl. 26:11–14, Type 106 of Stratum VA of the 7th–6th centuries; Fantalkin 2001: 62, Fig. 25: CP 1. Other 7th/6th century examples come from Lachish Level II (Zimhoni 2004a: Fig. 26.54:6, Group II: CP-2), En-Gedi Stratum V (Yezerski 2007: 92, Pl. 5:1–15, 17–18, CP 5), ʿIra Stratum VI (Freud 1999: 217, Fig. 6.105:5), and Kadesh-Barnea Stratum 2 (Bernick-Greenberg 2007: 161, Pl. 11.94:8–9, CP7).

342. *Timnah II*: 87, Pl. 34:9, with a list of sites at which CP 11 appears in Judah and on the Coastal Plain.

343. See Singer-Avitz 2002: 141, Fig. 15: CP 10 (Arad Strata VII and VI of the 7th/6th century); *Beer-sheba II*: Pl. 61:89–91 (Beersheba Stratum II of the 8th century).

344. At Timnah, it appears as CP 9 (*Timnah II*: Pl. 34:1–7). For a list of other sites at which it appears, see *Timnah II*: 85, but the conclusion that CP 9 does not appear outside Judah except at Timnah needs to be updated, as it appears at Ekron as **IICP 14**, and variants are known from Gezer Stratum VIA/B of the 8th/7th century (*Gezer III* [HUC]: 223–24, Pls. 24:15, 27:15, Types 100 and 111). For 7th/6th century examples from En-Gedi Stratum V, see Yezerski 2007: 91, Pl. 4:7–14, CP 1, and from Kadesh-Barnea Stratum 2, Bernick-Greenberg 2007: 162, Pl. 11.87:5–7, CP 8.

than in the Iron IIA–B.³⁴⁵ Distribution patterns of the smaller cooking pot types based on ware analysis offers an opportunity to examine the relationships between the coastal region, the Beersheba Valley, and Edom in the 7th century. For example, 50% of the Philistine cooking pots found at sites in the Beersheba Valley were made of hamra clays from the coastal region and approximately a third of sandstone, a non-coastal resource, the same fabric as that used for Edomite cooking pots from sites in the Beersheba Valley.³⁴⁶

BASINS

The three examples of basins represent 0.03% of the Field IV Lower ceramic corpus.

IIBSN 1 (Fig. 4A.15:1) is a very large deep rectangular basin with a slightly outwardly-angled sidewall and a thickened angled hammerhead rim; thin molded vertical handles are attached to the rim, and rope molding around the middle of the body.

One of the three examples comes from Stratum IC and one from topsoil. The third (Fig. 4A.15:1) comes from Stratum IB, and although it is included in the Field IV Lower corpus, it was actually found in what was later discovered to be the courtyard of Field IV Upper Temple Complex 650.³⁴⁷

A wider form related to **IIBSN 1** comes from Ashdod Stratum X of the 10th century.³⁴⁸ The closest parallel in terms of shape, size, rim form, and rope molding appears in the north at Megiddo in Strata III–II of the 8th–7th centuries, although it has one rounded end, and is designated a bathtub.³⁴⁹ Another related form, but oblong in shape, handleless, and lacking

rope molding, comes from Hazor Stratum VI of the 8th century.³⁵⁰

IIBSN 1 is not only rare at Ekron and in Philistia in general, but also in the north, where the closest related forms are found. Due to their size and wide open shape, these large basins are usually represented by fragments and not always easily identified. Based on the limited available evidence, **IIBSN 1** cannot be considered an exclusively Philistine Coastal Plain and northern form.

The term basin is used for a variety of Iron Age vessels of different sizes, the majority of which are small and shallow, most attested in the 7th century.³⁵¹ Another basin type can also be designated a footbath (Figs. 4A.32–4A.33).

PITHOI

The five examples of pithoi represent 0.05% of the corpus. Four are **IIPITH 1** (one from Stratum IC, one from Stratum IB, and two from topsoil), and one is **IIPITH 3** (from Stratum IB). The only example of **IIPITH 2** comes from Field III Stratum IA.

IIPITH 1 (Fig. 4A.15:2) is very large with a rounded body, a tall outwardly-angled neck, a wide mouth, and an everted overhanging rim. It apparently had four large double-ribbed loop handles attached from the bottom of the neck to the upper body, with rope molding at the attachment on the neck and a second row of rope molding immediately above it. **IIPITH 3** (not illustrated) is a large ovoid neckless pithos with a narrow mouth and a thickened angled cut top creating a pointed everted rim.³⁵²

IIPITH 1 is a rare type that may be related to examples designated kraters from 7th century Stratum II at Timnah,³⁵³ and a similar form designated a pithos

345. Faust 2012: 26.

346. At Horvat 'Uza, 24% of the cooking vessels were of the coastal type (Freud 2007: 120); in Beit-Arieh's excavations at Malhata, the percentage in Stratum IIIA was 23% (Freud 2015: 196). The latter does not include the count from Kochavi's earlier excavations (Liora Freud, personal communication). The identification of the fabrics is described in Freud 2015: 196.

347. Only two examples are therefore included in Chapter 4C.

348. *Ashdod IV*: Fig. 6:6.

349. *Megiddo I*: Pl. 18:91.

350. *Hazor III–IV*: Pl. CLXXXVII:10.

351. Examples of these smaller basins appear in Stratum II at Timnah (*Timnah II*: Pls. 22:14, 36:7, 59:12–13); for another example, designated a vat, see *Timnah II*: Pl. 50:18. Parallels also appear at Ashdod in Stratum VII of the 7th century (*Ashdod II–III*: Figs. 51:9, 13, 59:1).

352. This type will be discussed in *Ekron* 12/2.

353. *Timnah II*: Pl. 47:9; see *Timnah II*: 74 for a discussion on its function.

Table 4A.34: Jar-kraters

IJK	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=1	1%	N=19	21%	N=66	72%	N=1	1%	N=5	5%	N=92	100%
1	-	-	-	-	6	16	28	76	-	-	3	8	37	40
1.1	-	-	-	-	5	45	6	55	-	-	-	-	11	12
1.2	-	-	-	-	-	-	4	100	-	-	-	-	4	4
1.4	-	-	-	-	-	-	1	100	-	-	-	-	1	1
2.2	-	-	-	-	-	-	1	100	-	-	-	-	1	1
4.1	-	-	-	-	-	-	2	100	-	-	-	-	2	2
5	-	-	1	8	2	17	7	58	-	-	2	17	12	13
5.1	-	-	-	-	-	-	3	100	-	-	-	-	3	3
6	-	-	-	-	1	25	3	75	-	-	-	-	4	4
7	-	-	-	-	-	-	1	100	-	-	-	-	1	1
9	-	-	-	-	-	-	1	100	-	-	-	-	1	1
?	-	-	-	-	5	33	9	60	1	7			15	16

from Stratum VII at Ashdod.³⁵⁴ These associated types from Timnah and Ashdod may rather be understood as large kraters.

JAR-KRATERS

Jar-kraters represent 0.9% of the corpus, and are best represented in Stratum IB by 66 examples comprising 72% of the **IJK** assemblage (Table 4A.34). The most common form is represented by the 49 examples of **IJK 1** and sub-types **IJK 1.1** and **1.2**.

IJK 1 (Fig. 4A.16:1) is a large elongated sack-shaped neckless jar-krater with a wide mouth, an inverted concave rim, a short footed ring base, and four double-ribbed handles attached from the bottom of the rim to the upper shoulder. **IJK 1.1** (not illustrated) has an oblong-shaped rim, and **IJK 1.2** (not illustrated) has a rim with a thickened end point.

IJK 1.4 (Fig. 4A.16:2, Color Photo 4A.3:8) is the only example of a large elongated cylindrical-shaped neckless jar-krater with a wide mouth, sharply inverted oblong-shaped rim, short footed ring base with a reverse omphalos, and four double-ribbed handles attached to the upper shoulder. Its size, wide mouth, base, and multiple handles, together with its unique

body shape and pithos-type holemouth rim, indicate a hybrid form.

IJK 2.2 (Fig. 4A.16:3) with an inverted thickened folded rim is a Residual Form B. **IJK 4.1** (not illustrated) is medium-size to large with a round sidewall, wide mouth, short inverted neck, angled hammerhead rim, and multiple handles. **IJK 5** (Fig. 4A.16:4) is a medium-size round-sided neckless jar-krater with a wide mouth, everted flanged profiled rim, and multiple handles. **IJK 5.1** has a less pronounced flanged rim.

IJK 6 (Fig. 4A.16:5) is medium-size with a round sidewall, outwardly-angled neck, and small angled hammerhead rim. **IJK 7** (Fig. 4A.16:6) is a medium-size round-sided jar-krater with a vertical neck, everted rim, and two single-ribbed handles attached from the rim to the upper shoulder. Both are Residual Forms B. **IJK 9** (not illustrated) is large with a wide mouth and an inwardly-angled neck set in from the body, creating a step-like carination. It has a folded rounded hammerhead rim.

The earliest jar-kraters are represented by **IJK 2.2**, defined as a Residual Form B, well attested in Field I Strata III–II. Of the two main types (**IJK 1** and **IJK 5**), **IJK 1** first appears in Field IV Lower in Stratum IC and continues into Stratum IB, and **IJK 5** first appears in Stratum ICb and continues through Strata IC and IB, with **IJK 5.1** represented only in Stratum IB. Thus, there is a major change in the krater forms between Strata III–II and Stratum I.

³⁵⁴ *Ashdod IV*: Fig. 31:1.

Parallels for **IJK 1-1.2** appear at Timnah only in Stratum II of the 7th century (as a krater-jar type KR 35b),³⁵⁵ as do **IJK 4.1** parallels.³⁵⁶ **IJK 5-5.1** also appear at Timnah only in Stratum II of the 7th century (as deep krater type KR 12),³⁵⁷ and at Ashdod in Strata VIII-VII of the second half of the 8th-7th centuries.³⁵⁸ It is possible that some of the fragments at Ekron typed as **IJK 5-5.1** may be kraters rather than jar-kraters. As for **IJK 9**, the only complete example comes from Ashdod Stratum VIII of the second half of the 8th century.³⁵⁹ All the other parallels come from 7th century contexts at Ashdod and from Gezer, represented only by sherds.³⁶⁰ Consequently, **IJK 9** could be reassessed as a Residual Form B.

As no other parallels for **IJK 1-1.2** and **IJK 4.1** are attested, these types apparently represent a local phenomenon limited to the Philistine Inner Coastal Plain; the lack of other parallels for **IJK 5-5.1** indicates that they, too, are limited to the region of Philistia. The single example of the hybrid **IJK 1.4** form represents a type limited to Ekron. Other multi-handled jar-kraters are well known in Judah from the Iron IIA through IIC, and these types also appear in limited numbers in Philistia and in the north.³⁶¹ As for **IJK 6**, this fragment, classified as a jar-krater, could also be considered either a small jar or a jug-jar, but in any case, it is rare. **IJK 7** may a variant of **IJK 7** and **7.1** discussed above.³⁶²

STORAGE JARS

Storage jars represent 11% of the corpus, and are best represented in Stratum IB by 685 examples, comprising 69% of the **IISJ** assemblage (Table 4A.35). The primary group is the **IISJ 5** series, with 509

examples, comprising 51% of the **IISJ** assemblage; the second most common group is the **IISJ 7** series, with 134 examples representing 13% of the storage jar assemblage.³⁶³

IISJ 1 and **1.2** (Fig. 4A.17:1-3, Color Photo 4A.3:1) are wide oval-like storage jars with a high rounded shoulder, a short vertical or slightly in-curved neck, a simple rounded rim, a round base, and two large thick loop handles with a rounded hole. They were counted as Residual Forms B, but may be Residual Forms A. The rims of **IISJ 1.1** (24 examples), **IISJ 1.3** (13 examples [not illustrated]), and variants of **IISJ 1** are considered Residual Forms A. **IISJ 1.4** (not illustrated), a smaller form related to **IISJ 1**, with a narrow round oval-like body, a vertical neck, and a thickened rounded rim, is most likely a Residual Form B that survived into Stratum IB. **IISJ 2/2A** (Fig. 4A.22:1), another form related to **IISJ 1**, has a more slender oval-like body and a longer upper shoulder, and although not originally counted as such, might also be considered Residual Forms A-B. **IISJ 3** (not illustrated) has a more rounded oval-like body, a long low slightly carinated shoulder, a short thickened rim, and two large thick loop handles with a vertical oblong-shaped hole.

Parallels for **IISJ 1** are included in the category of SJ 7a at Timnah in Stratum III of the 8th century,³⁶⁴ and are also found at Ashdod in Stratum IX of the 9th century.³⁶⁵ At Şafi/Gath, parallels for **IISJ 1** come from Stratum 3A of the 9th century, classified as SJ 1.1-SJ 2, and for **IISJ 1.2**, as SJ 1.1-SJ 1.3.³⁶⁶ They have also been found at Tel Zayit on the border of Philistia in the 9th century.³⁶⁷ **IISJ 1** appears at Lachish as Group III SJ-11 in Level III of the 8th century.³⁶⁸ **IISJ 2** and **IISJ 3** are uncommon forms with similar features to Group III SJ-10 at Lachish in Level III of the 8th century.³⁶⁹ **IISJ 1** and **IISJ 1.2** may therefore be considered a common Philistine Coastal Plain storage jar type also

355. *Timnah II*: Pls. 36:3-4, 45:14, 67:8, 97:3. The comment in the Timnah publication that the "concave rim shape is unique to Tel Batash... and does not appear elsewhere" (*Timnah II*: 69) is no longer valid.

356. *Timnah II*: Pl. 73:4.

357. *Timnah II*: Pls. 33:8, 5:10, 60:11, 72:3.

358. *Ashdod IV*: Figs. 16:6, 20:3-5, 26:13.

359. *Ashdod II-III*: Fig. 49:1.

360. See *Gezer III* (HUC): 209, Type 96.

361. See *Timnah II*: 70-71.

362. See the discussion of **IJK 7** and **7.1** above.

363. Excluding the 48 examples of Residual Forms A, **IISJ 1.1**, **1.3**, **IISJ 16A-16.1A**, and **IISJ Misc**.

364. *Timnah II*: Pl. 20:1-2, 5.

365. *Ashdod IV*: Fig. 11:4.

366. For **IISJ 1**, see Shai and Maeir 2012: Pls. 14.9.9-11, 14.11:11, 14.19:3; for **IISJ 1.2**, see Shai and Maeir 2012: Pls. 14.3:9, 10, 14.5:6, 14.19:5.

367. Tel Zayit Reg. No. 932, Tappy, personal communication.

368. Zimhoni 2004a: Fig. 26.11:2.

369. Zimhoni 2004a: Fig. 26.11:1.

Table 4A.35: Storage jars

IISJ	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=13	1%	N=30	3%	N=125	13%	N=685	69%	N=42	4%	N=104	10%	N=999	100%
1, 1.2	2	13.3	8	26	2	1.5	7	.97	1	2.3	-	-	20	2
1.4-3	1	6.6	6	19	8	6	28	3.9	1	2.3	5	4.7	49	5
4-4.3	5	33	3	10	3	2	26	3.6	3	7	6	5.6	46	4.6
5-5.7	-	-	6	19	50	38	283	39.4	20	46.5	58	54.7	417	42
5.8-5.9	-	-	-	-	7	5.3	30	4.18	-	-	2	1.9	39	4
5.11-5.13	-	-	1	3.2	5	4	28	3.9	1	2.3	2	1.9	37	3.7
5.14-5.15	-	-	-	-	2	1.5	14	1.94	-	-	-	-	16	1.6
6.1-6.3	-	-	-	-	1	0.8	12	1.7	-	-	-	-	13	1.3
7-7.3	1	6.6	3	10	15	11.5	90	12.52	7	16.3	18	17	134	13
8	-	-	-	-	-	-	1	0.13	-	-	-	-	1	0.1
9-9.6	-	-	-	-	2	1.5	13	1.8	1	2.3	-	-	16	1.6
10-10.1	-	-	-	-	-	-	7	0.97	-	-	-	-	7	0.7
11-11.1	-	-	-	-	1	0.8	7	0.97	-	-	2	1.9	10	1
12-12.3	2	13.3	-	-	4	3	23	3.2	1	2.3	1	0.94	31	3
13-13.3	1	6.6	-	-	2	1.5	9	1.25	-	-	1	0.94	12	1.2
14	-	-	-	-	-	-	1	0.13	-	-	-	-	1	0.1
15, 15.2-15.5	-	-	1	3.2	4	3	19	2.66	1	2.3	1	0.94	26	2.6
17	-	-	-	-	-	-	1	0.13	-	-	-	-	1	0.1
?	-	-	2	6.4	6	5	59	8.22	5	11.6	8	7.5	80	8
M 1	-	-	-	-	3	2	8	1.1	-	-	-	-	11	1
M 3	-	-	-	-	-	-	4	0.56	-	-	-	-	4	0.4
M 6	-	-	-	-	-	-	1	0.13	-	-	-	-	1	0.1
M 7	-	-	-	-	1	0.8	-	-	-	-	-	-	1	0.1
M 8	1	6.6	-	-	-	-	-	-	-	-	-	-	1	0.1
M 10	-	-	-	-	2	1.5	1	0.13	-	-	-	-	3	0.3
M 11	-	-	-	-	2	1.5	5	0.69	1	2.3	1	0.94	9	0.9
M ?	-	-	-	-	5	4	8	1.1	-	-	-	-	13	1.3

attested at Judean Shephelah sites in the 9th and 8th centuries.

IISJ 4 (Fig. 4A.17:4) is neckless with an elongated oval body, widest at mid-point, a short stub rim, a high rounded shoulder, a round base, and two large thick loop handles with a rounded hole. **IISJ 4.1-4.3** (not illustrated) are represented only by a few disparate rim fragments. While **IISJ 4-4.3** were classified as Residual Forms A-B, only **IISJ 4** can be categorized as such with certainty. In addition, some whole or almost whole examples typed as **IISJ 4** should have been typed as a **IISJ 4** variant, since they are similar except for the more slender body, widest just below

mid-point. This variant is designated **IISJ X** for the purposes of the typological discussion below, and while there are some whole and almost whole forms that can be assigned to Strata Pre-IC and IB, their total number cannot at this point be separated out from the **IISJ 4** count, since most of the forms counted are represented by rim fragments, and both **IISJ 4** and **IISJ X** have a short stub rim.

The **IISJ 4** series represents one of the main storage jar types in Strata III-II of the 10th-8th centuries in Field I, with some continuing into Stratum IC of the early 7th century.

Parallels for **IISJ 4** at Timnah are included with SJ 7a³⁷⁰ and SJ 7b in Stratum III of the 8th century,³⁷¹ although **IISJ 4** differs in that its maximum diameter is at mid-point on the body. The widest point of SJ 7a and SJ 7b is beneath mid-body, at the bulge that gives the form a sack shape. Thus, Timnah SJ 7a and SJ 7b are closer to the **IISJ 5** series. Almost whole examples of **IISJ 4** appear at Ashdod in Stratum III of the end of the 8th century,³⁷² and a whole example, as well as partial forms, appears at Gezer in Stratum VIA of the mid-8th century.³⁷³ Whole examples are also known from Tel Hamid Stratum V of the second half of the 8th century,³⁷⁴ Lachish Level III of the 8th century,³⁷⁵ and 'Ajrud in northern Sinai in the 8th century.³⁷⁶ A complete form was also recovered from the sea off the coast of Israel,³⁷⁷ dated to the 8th century by comparison with an example from Beersheba Stratum II.³⁷⁸

IISJ X, perhaps a late variant of **IISJ 4**, appears in Stratum IB at the end of the 7th century.³⁷⁹ A somewhat similar form is found at Timnah in Stratum II of the 7th century (SJ 7d).³⁸⁰ Late 8th century parallels come from Beersheba Stratum II³⁸¹ and 'Ajrud.³⁸²

Thus, the **IISJ 4** series represents a Philistine Inner Coastal Plain and Philistine coastal type (although absent at Ashkelon). These jars are also found in the adjacent Judean Shephelah, as well as at a limited

number of other southern sites that most likely had a commercial relationship with Philistia in the 9th–8th centuries.³⁸³ They appear at Ekron in the first half of the 7th century, with one variant attested at the end of the 7th century.

The four main groups of the **IISJ 5** series are **IISJ 5–5.7** (417 examples), **IISJ 5.8–5.9** (39 examples), **IISJ 5.11–5.13** (37 examples), and **IISJ 5.14–5.15** (16 examples). These are bulky sack-shaped jars with a high short carinated shoulder, a short almost vertical neck, a thickened rounded rim, a slightly pointed or rounded base, and two large loop handles (for **IISJ 5–5.6**, see Fig. 4A.18:1–4, Color Photo 4A.3:2; for **IISJ 5.11**, see Fig. 4A.19:2).

The **IISJ 5** series first appears in Field I Stratum IIA of the second half of the 8th century, with **IISJ 5–5.7** the most prominent. **IISJ 5.8–5.9** and **IISJ 5.11–5.13** are minimally represented.

The earliest parallels for **IISJ 5** come from the 9th century at Safi/Gath (in Stratum 3A, included with types SJ 1.1 and SJ 1.2)³⁸⁴ and Tel Zayit.³⁸⁵ Parallels for **IISJ 5–5.7** are found at Timnah as SJ 7a in Stratum III of the 8th century, represented only by sherds,³⁸⁶ as discussed above, the whole examples of SJ 7a in Stratum III are rather parallels for **IISJ 1** and **IISJ 4**.³⁸⁷ However, large numbers of whole examples of SJ 7a appear in Stratum II of the 7th century.³⁸⁸ While other ovoid storage jars from Timnah Stratum II classified as SJ 7b have a similar body shape and handles to **IISJ 5–5.7**, they differ in two major respects: SJ 7b is neckless with a short stub rim, while **IISJ 5–5.7** have a short neck and thickened rim. These are not merely stylistic differences, but most likely related to function and regional production.³⁸⁹ These two types have sometimes been considered as one and the same

370. *Timnah II*: Pl. 17:7. Although the loop handles have a round hole, they are more upwardly angled in the style of the **IISJ 5** series.

371. *Timnah II*: Pl. 20:3.

372. *Ashdod II–III*: Figs. 47:6–7, 89:3.

373. *Gezer III* (HUC): Pl. 17:2–5. For a discussion on the typological development of the Gezer equivalent of **IISJ 4**, see *Gezer III* (HUC): 119–20.

374. Wolff, personal communication.

375. Zimhoni 2004a: Fig. 26.38:9.

376. Ayalon 1995: Fig. 13:1–3.

377. Zemer 1978: Pl. III:7.

378. Zemer 1978: 11.

379. An almost whole example appears at Ekron in Field III in Stratum IB (IIISe.27.209.6 in L. 27022). There are, however, a number of rim and shoulder fragments attested in the 7th century that could represent either **IISJ X** or residual forms like **IISJ 4**. The same applies to parallels from other sites.

380. *Timnah II*: Pls. 45:8, 97:5.

381. *Beer-sheba I*: Pl. 66:7.

382. Ayalon 1995: Fig. 13:4.

383. Singer-Avitz 1999: 3–6.

384. Shai and Maeir 2012: Pls. 14.8:6, 14.10:10.

385. Tel Zayit Reg. No. 927 (Tappy, personal communication).

386. *Timnah II*: Pls. 17:10, 12, 25:17–18, 27:18, 57:9, 10?, 92:7, 93:18?, 103:21, 22?.

387. *Timnah II*: Pls. 20:1–2, 5, 17:7; see also a possible parallel for **IISJ 1.2** in *Timnah II*: Pl. 93:17.

388. *Timnah II*: 91, 98, Pls. 35:5–6, 45:1–5, 63:5, 66:2–4, 9, 73:1.

389. For a comparison with the Timnah SJ 7b examples, see *Timnah II*: Pls. 35:4, 66:6, 8, 45:6.

in the literature, and must be differentiated in order to understand their correct chronological development.

IISJ 5 is compared to a neckless storage jar in the publication of the Iron IIC pottery from Ashkelon, in which it is defined as Ashkelon Storage Jar 1, the most common pottery type found in the 604 BCE destruction.³⁹⁰ The conclusion that “all agree that this jar appears by the last quarter of the 8th century,” however, is partly based on types other than the neckless storage jar, for example, Timnah SJ 7a, a necked jar with a thickened rim that is the equivalent of **IISJ 5–5.7**,³⁹¹ and on antecedents of the neckless storage jar, as demonstrated below. In addition, the 8th century examples cited from ‘Ajrud are ovoid storage jars,³⁹² three of which are parallels for 8th century **IISJ 4** and one an example of **IISJ X**,³⁹³ and they lack the swollen sack-shaped body and typical oblong handles of Ashkelon Storage Jar 1. The 8th century dating of the ‘Ajrud examples based on Gezer Jar 1 from Stratum VIA and Timnah SJ 7b from Stratum III³⁹⁴ are actually parallels for **IISJ 4**. Furthermore, the examples cited from Lachish Level III of the 8th century are neckless and have a rounded shoulder and a short stub-like rim, but also lack the swollen sack-shaped body and oblong handles of Ashkelon Storage Jar 1, although they may represent its antecedent.³⁹⁵ However, a number of

neckless storage jars from Ashdod Stratum VIII of the 8th century could be considered as antecedents of the “Ekron type.”³⁹⁶ The other forms cited as 7th century parallels for the neckless jar include examples from Ashdod Stratum VII³⁹⁷ and Ruqeish,³⁹⁸ and they are most common at Lachish as Group II SJ-4 in Level II,³⁹⁹ at ‘Ira in Stratum VI,⁴⁰⁰ at Aroer in Stratum II,⁴⁰¹ and at Kadesh-Barnea as SJ 8a, the most common jar type in Stratum 2 of the late 7th/early 6th century.⁴⁰² Thus, the above examples establish a beginning date in the 8th century for the neckless storage jar represented by Timnah SJ 7b and Ashkelon Storage Jar 1.⁴⁰³

The neck and rim forms of **IISJ 5–5.7** indicate different methods of sealing than those of the neckless storage jar, suggesting that each may have had a specific function in terms of the storage and/or transportation of different kinds of dry and liquid produce. Their very large numbers at Ekron is the rationale for dubbing them “Ekron-type” storage jars.⁴⁰⁴ Furthermore, the presence of a number of variations of closely related storage jars at sites throughout the Mediterranean basin in the 7th century suggests that they might have been used as transport vessels for Ekron’s mass-produced olive oil.⁴⁰⁵ However, because of their bulky sack shape and the lack of supporting evidence for their use as transport vessels, they are functionally classified as Category 1 Storage (Stationary) jars.⁴⁰⁶ This conclusion is sustained by petrographic analyses of

390. Although cited as a parallel for Ekron **SJ 1** in *Ashkelon 3*: 88, this was based on a reference in *Gezer III* (HUC): Pl. 17, revised in the current volume to **IISJ 5**. Unlike Ashkelon Storage Jar 1, it is not neckless. Gezer Jar Type 1 is also cited as a parallel, but this is actually an example of Ekron **IISJ 4**, a totally different type of ovoid storage jar. For a comprehensive review of Ashkelon Storage Jar 1, see Barako 2008: 443, Amphora 13.

391. *Ashkelon 3*: Fig. 5.56, Storage Jar 1.

392. Singer-Avitz 2006: 204–5.

393. These 8th century examples from ‘Ajrud are also cited in the Timnah report as representing the earliest appearance of the SJ 7b neckless sack-shaped storage jar in large quantities (*Timnah II*: 99).

394. Singer-Avitz 2006: 204.

395. Zimhoni 2004a: Figs. 26.11:3, 26.36:9. This is an example of Group III: SJ-9 at Lachish in Level III of the 8th century, which is described as developing into 7th century Group II: SJ-4, which would parallel Timnah neckless type SJ 7b. Zimhoni also defines it as a type that originated on the Coastal Plain, from where it reached inland sites (2004a: 1799).

396. *Ashdod II–III*: Fig. 95:1, 3–4; *Ashdod IV*: Fig. 15:4.

397. *Ashdod IV*: Figs. 22:3–4, 23:2.

398. Culican 1973: Fig. 4: R21.

399. Zimhoni 2004a: Fig. 26.46:1–11; *Lachish V*: Pl. 48:16.

400. Freud 1999: Fig. 6.101:8.

401. Biran and Cohen 1981: Fig. 5:2.

402. Bernick-Greenberg 2007: Figs. 11.77:3–4, 11.88:1–2, 11.105:1.

403. However, a necked example from Beersheba Stratum II of the 8th century with a rounded rather than a short carinated shoulder, a swollen sack-shaped body, and upwardly-angled handles (*Beer-sheba I*: Pl. 65:9) could be an 8th century antecedent in Judah of the **IISJ 5** series.

404. Gitin 1995: 67, Fig. 4.7.

405. See the discussion of this phenomenon in *Ashkelon 3*: Storage Jar 1, Fig. 5.51. Among the parallels for **IISJ 5** in the west, see the example from Cerro Macareno (Seville), Spain, in Ruiz and Molinos 1998: Fig. 14:A.2.

406. See Chapter 3: Color Figs. 3.1–3.4.

examples from Ekron and Ashkelon, as well as from sites in the western Mediterranean, showing that they were produced locally.⁴⁰⁷ While further analysis of a more comprehensive sample should provide the data necessary to address the issue of their possible use in long-distance trade,⁴⁰⁸ the Ekron storage jars are better suited for transporting olive oil.⁴⁰⁹

Thus, **IISJ 5–5.7** that first appear on the Philistine Inner Coastal Plain in the 8th century represent the most prominent group of storage jars in the 7th century at Timnah in Stratum II⁴¹⁰ and Ekron in Strata IC and IB. On the other hand, the neckless storage jar that first appears on the Philistine Coastal Plain and in Judah in the 8th century is widely distributed in these regions and at Timnah in the 7th century.⁴¹¹ **IISJ 5.8–5.9** are variant forms that seem to be local to Ekron.

IISJ 6.1, 6.2 (not illustrated), and **IISJ 6.3** (Fig. 4A.22:3) are large ovoid/sack-shaped storage jars with a similar body to **IISJ 5–5.7** and a high very short carinated shoulder. They are neckless with a flat folded horizontal rim resembling a holemouth jar rim, and are reminiscent of jar-kraters. The base is usually slightly pointed and the two large loop handles have a rounded hole. The illustrated example of **IISJ 6.3** is a variant with a very short rim and loop handles with horizontal holes.

IISJ 6.1–6.3 were not identified in Field I, although some rims assigned to **IJK** may belong to these forms. Parallels for the **IISJ 6** series are unknown, but related forms include SJ 14a from Timnah 7th century Stratum

II,⁴¹² and examples from 'Ira Stratum VI of second half of 7th–6th century.⁴¹³ Other possibly related types discussed in the Timnah report differ in their mid-body center of gravity, which gives them a different shape. The conclusion in the Timnah report is that SJ 14a is a local hybrid,⁴¹⁴ as is the **IISJ 6** series at Ekron.

IISJ 7, 7.1, 7.2, and 7.3 (not illustrated) are narrow ovoid-shaped storage jars with the center of gravity below mid-body. They have a high short carinated shoulder and are generally neckless with a short tapered stub rim (**IISJ 7.2**), a short tapered rim pushed down to form a slight inner bulge (**IISJ 7**), or a short thin out-curved tapered rim (**IISJ 7.3**). Examples with a very short vertical neck have a short tapered rim (**IISJ 7.1**). The base is pointed, and the two large loop handles, often angled upward, usually have a horizontal oblong hole.

IISJ 7, 7.1, and 7.3 first appear in Field I Stratum IIA of the second half of the 8th century, and are best attested in Stratum IB in Field IV Lower. While parallels for **IISJ 7–7.3** are not in evidence, Timnah SJ 7 and its sub-types, attested primarily in Stratum II of the 7th century, may be related.⁴¹⁵ The **IISJ 7** series could represent the antecedent of a form with the same general profile but sharper features that appears at the end of the Iron Age on the Phoenician coast. It has a slightly waisted upper body, a more tapered lower body, and a short sharply carinated shoulder, for example, SJ2 in the Achzib cemeteries, dated by parallels from the 6th–5th centuries continuing into the Persian period.⁴¹⁶ An example with similar features recovered from the sea off the coast of Israel is dated to the second half of the 8th century based on a parallel from Cyprus.⁴¹⁷ While a significant number of **IISJ 7–7.3** were identified at Ekron, most are attested by rim and upper body fragments that in some cases could have been mistaken for other types of storage jars with a similar rim. However,

407. For a summary of this evidence, see *Ashkelon 3*: 88; for specific test results, see Docter 1997.

408. Further petrographic analysis on examples from sites in northern Africa and southern Spain is being conducted by Carolina A. Aznar, Saint Louis University, Madrid Campus, within the framework of a project directed by Carlos G. Wagner, Universidad Complutense de Madrid, in association with the Mique-Ekron project, entitled “Periferia y Centro: La implantación fenicia en Occidente y el imperio neosirio en el S. VII a.C.”.

409. See **IISJ 8–9.5, IISJ 11–13** in Chapter 3: Color Figs. 3.1–3.4.

410. *Timnah II*: 91.

411. A few examples of the neckless storage jar may appear in 7th century contexts in Ekron Field III, like Reg. No. IIISE.27.116.31 with a simple stub-like rim (to be published in *Ekron 12/2*).

412. *Timnah II*: Pl. 45:15.

413. Freud 1999: Fig. 6.99:7.

414. *Timnah II*: 102.

415. *Timnah II*: 98–101.

416. *Akhziv Cemeteries*: Fig. 5.5:4; the parallels cited, however, are not for Achzib SJ2, but for Achzib SJ4, a variant of Ekron **IISJ 13** (*Akhziv Cemeteries*: 118).

417. Zemer 1978: 21, Pl. VI:17, from the Salamis horizon.

the complete examples from Field I leave no doubt that **IISJ 7–7.3** represent a distinct type.⁴¹⁸

IISJ 8 (Fig. 4A.20:2, Color Photo 4A.3:3) is an oval storage jar tapering to a pointed base. It has a high rounded short carinated shoulder, a short splayed neck, an everted tapered rim, and two double-ribbed handles with a horizontal oblong hole. The single identified example comes from Stratum IB.

Parallels for **IISJ 8** are unknown, although a neckless example with a similar body, but with a short carinated horizontal shoulder and an everted very short stub rim was recovered from the sea off the coast of Israel.⁴¹⁹ The single example from Ekron and the lack of parallels indicate that **IISJ 8** may not represent a specific type and could be a hybrid. Petrographic analysis indicates that it is made of a local fabric.⁴²⁰

IISJ 9 (not illustrated), **IISJ 9.1–9.3** (Fig. 4A.20:1, 3–4; see Color Photo 4A.3:4), and **IISJ 9.6** (Fig. 4A.20:6) are relatively short narrow bullet-shaped storage jars with a high sharply carinated short flat shoulder, a very short slightly angled neck, a thickened rim, a pointed base, and two large double-ribbed loop handles, often angled upward, with a horizontal oblong hole. **IISJ 9.5** (Fig. 4A.20:5, Color Photo 4A.3:5) is an elongated variant with straight sides and a high slightly carinated shoulder, short vertical neck, and two small single-ribbed loop handles with a rounded hole. Petrographic analysis indicates that it is of local origin.⁴²¹

A few sherds of **IISJ 9** and **9.1** appear in Stratum IIA of the second half of the 8th century in Field I. Parallels for **IISJ 9.2** and **IISJ 9.3** are attested at Timnah as SJ 7d and SJ 7e, respectively, in Stratum II of the 7th century.⁴²² A fragment of the upper part of a vessel similar to **IISJ 9.5** appears at Ashdod in Stratum

VIII of the end of the 8th century.⁴²³ A form similar to **IISJ 9** found at Beirut is assigned to the Type 2 group of the 7th century,⁴²⁴ and a vessel similar to **IISJ 9.1** appears in the Carthage Nécropoles puniques of the 7th–6th centuries.⁴²⁵ Except for locally-produced **IISJ 9.5**, the evidence suggests that most of the other examples in the **IISJ 9** series were imports (as were all the **IISJ 10**, **IISJ 11**, **IISJ 12**, **IISJ 13**, and **IISJ 14** series types).

IISJ 10–10.1 (not illustrated) are medium-size slightly waisted cylindrical storage jars tapering to a short stub or pointed base. They are neckless with a broad sharply carinated shoulder, a short slightly everted tapered rim, and two loop handles with a horizontal hole. Of the two rim fragments found in Field I, only one comes from a securely-dated context, that is, Stratum IC of the first three quarters of the 7th century.

Parallels for **IISJ 10–10.1** appear on the Phoenician coastal plain at Keisan in Level 5 of the 8th/7th century,⁴²⁶ at Kabri in Stratum E2 of the second half of the 7th century (constituting 40% of all transport storage jars in this stratum),⁴²⁷ and at Shiqmona in Stratum 9 of the second half of the 8th–7th centuries.⁴²⁸ They also appear at Beirut as Types 1 and 2 groups of the 7th century,⁴²⁹ and at Carthage in Tomb A.196 of the 7th century.⁴³⁰ They are defined as a Levantine prototype of a Phoenician transport amphora of Class CdEI at Toscanos in Spain.⁴³¹ Variants with a narrower V-shaped body from Stratum II of the 7th century at Timnah are classified as short “torpedo” jar SJ 15a.⁴³² Similar narrow forms are known from Ashdod in Stratum VII of the 7th century,⁴³³ in northern Sinai at Kadesh-Barnea as SJ9 in Stratum II of the 7th/6th

418. Complete examples were found in Field I Locus INE.33012, Bucket Nos. INE.33.67.1, INE.33.74.15.

419. Zemer 1978: 21, nn. 60–61, Pl. VI:16. The parallels Zemer cites from Lachish and Ashdod-Yam are actually examples of **IISJ 4** and **IISJ 5**. However, the example he cites from Carthage does have a similar body shape to **IISJ 8**, although it has a short horizontal carinated shoulder and a short vertical rim (see Cintas 1950: Pl. XXII:277).

420. Master 2002: Pl. 3:4.

421. Master 2002: Pl. 5:4.

422. *Timnah II*: Pls. 45:8, 97:5.

423. *Ashdod IV*: Fig. 16:1.

424. Badre 1997: Fig. 44:2.

425. Cintas 1950: Pl. XCIII: bottom left; see Wolff 1986: 74 for further discussion on this form.

426. *Keisan*: Pl. 47:3.

427. Lehmann 2002: 198, Fig. 5.82:8, 10.

428. Elgavish 1994: Fig. 50: back row right.

429. Badre 1997: Figs. 41:1–2, 42:1–2.

430. *Bysra II*: Amphora A.196.1, Fig. 453.

431. Docter 1997: Ill. 579:c (V.3), *Die Klasie Levantinisch* 3.

432. *Timnah II*: Pl. 47:1–3, of which the last is the best example.

433. *Ashdod IV*: Fig. 27:1.

century,⁴³⁴ in the north at Hazor in Stratum IV of the last third of the 8th century,⁴³⁵ and on the Phoenician coastal plain at Kabri in Stratum E2 of the second half of the 7th century⁴³⁶ and at Tyre as SJ 5 in Stratum II of the second half of the 8th century.⁴³⁷ Examples recovered from the sea, especially off the coast of Acco, are dated by parallels to the last third of the 8th through the 6th centuries.⁴³⁸

Thus, **IISJ 10–10.1** primarily represent a 7th century Phoenician form known mostly from the western Mediterranean and the Levantine Phoenician coastal region, which also appears in parts of Philistia. At Ekron, **IISJ 10.1** is attested in both Strata IC and IB. The **IISJ 10** series types are also considered imports (like the **IISJ 9**, **IISJ 11**, **IISJ 12**, **IISJ 13**, and **IISJ 14** series).

IISJ 11–11.1 (not illustrated) are medium-size cylindrical storage jars tapering to a slightly pointed base. They are neckless with a broad sharply carinated shoulder, a short stub-like sharply everted rim, and two doubled-ribbed loop handles with a round hole.

IISJ 11–11.1 do not appear prior to the 7th century in Field I.⁴³⁹ Parallels come from Ashdod Stratum VII of the 7th century,⁴⁴⁰ the 604 BCE destruction at Ashkelon (as Amphora 17),⁴⁴¹ and at Meẓad Ḥashavyahu as SJ 1 in the 7th century.⁴⁴² They also appear on the Phoenician coast at Beirut assigned to the Type 2 group of the 7th century,⁴⁴³ at Kabri in Stratum E2 of the second half of the 7th century,⁴⁴⁴ at Keisan in

Level 4 of the second half of the 7th/6th centuries,⁴⁴⁵ and at Shiqmona in Stratum 9 of the second half of the 8th through 7th centuries.⁴⁴⁶ A variant with a stub base is attested in the Achzib cemeteries (as SJ1), dated by parallels to the 7th/early 6th centuries.⁴⁴⁷ Examples of the form with a narrower body and more tapered base were also recovered from the sea off the coast of Israel, dated by parallels to the 8th–6th centuries.⁴⁴⁸ They are also known on Cyprus from Tomb 116/22 at Polis/Ayios Demetrios in “Amathus horizon after 700 to after 600 B.C.”,⁴⁴⁹ an example with a small stub base is classified as Plain White IV Ware Jar 2 of the Cypro-Archaic I (700–600 BCE).⁴⁵⁰ A similar example in Plain White V Ware of the Cypro-Archaic II (600–475 BCE)⁴⁵¹ represents the development of the form in the Persian period, of which there are numerous examples in the Salamis tombs.⁴⁵² A smaller example of **IISJ 11** is found in Carthage in the 7th–6th centuries.⁴⁵³ The **IISJ 11** series types are also considered imports (like the **IISJ 9**, **IISJ 10**, **IISJ 12**, **IISJ 13**, and **IISJ 14** series), and petrographic analysis of one example of **IISJ 11** indicates that it is from Phoenicia.⁴⁵⁴

IISJ 12.1 (Fig. 4A.21:1) is a neckless sausage jar with a square rim, a sharply carinated broad shoulder, and a waisted body. **IISJ 12**, **12.2**, and **12.3** (not illustrated) have a variant of the ridged or slightly profiled rim characteristic of sausage jars with a very short or no neck, an elongated straight-sided or slightly waisted body, and usually two ear-shaped handles. While these are represented only by rim fragments in Field IV Lower, the general description is based on whole forms from other sites with similar rim and/or neck and shoulder profiles.

IISJ 12 and **12.1** first appear in Stratum IIB of the 8th century in Field I, and both—one slightly and the other more distinctly waisted—continue through Stratum IB

434. Bernick-Greenberg 2007: Pls. 11.77:8, 11.105:6.

435. *Hazor II*: Pl. CI:11.

436. Lehmann 2002: Fig. 5.82:9.

437. *Tyre Pottery*: Pl. III:2.

438. Zemer 1978: Pl. V:15.

439. Only a single rim fragment of **IISJ 11** was registered in Field I, assigned to Stratum IIB of the first half of the 8th century. The locus in which it was found, however, was severely cut by post-Stratum I burials, and cannot be considered secure.

440. *Ashdod IV*: Fig. 22:2.

441. Barako 2008: 447, Fig. 23.17; also Storage Jar 2 in *Ashkelon 3*: Fig. 6.10, Phoenician Amphora.

442. Naveh 1962: Fig. 6:15; see Fantalkin 2001: 63–64 for a discussion on the dating and petrographic and NAA analyses of SJ 1.

443. Badre 1997: Figs. 41:4–7, 43:7.

444. Lehmann 2002: Fig. 5.82:15.

445. *Keisan*: Pl. 25:3.

446. Elgavish 1994: Fig. 50: back row center, two vessels.

447. *Akhziv Cemeteries*: 118, Fig. 4.6:3.

448. Zemer 1978: Pl. 5:15, 18.

449. Bikai 1987: Pl. XXIII:604.

450. *SCE IV/2*: Fig. XLIV:10.

451. *SCE IV/2*: Fig. LVI:28.

452. See the discussion in Barako 2008: 447.

453. Cintas 1950: Pl. XXII:281; see Wolff 1986: 75 for further discussion on this form.

454. David Ben-Shlomo, personal communication.

of the 7th century. Parallels for **IISJ 12**, **12.2**, and **12.3** in the north come from mixed Strata IV–I contexts at Megiddo (9th century through Persian period)⁴⁵⁵ and 8th century Stratum VI at Hazor.⁴⁵⁶ They also are known at Gezer as Jar Types 4A and 4B from Stratum VIA of the second half of the 8th century.⁴⁵⁷ Examples from Lachish Level III of the 8th century (SJ-6) are parallels for **IISJ 12**.⁴⁵⁸ In Phoenicia, parallels come from 8th century contexts at Beirut⁴⁵⁹ and 8th century Stratum D1 at Sarepta, the latter designated SJ.2, including the waisted and elongated slightly waisted types.⁴⁶⁰ The center of gravity is close to mid-body on the former and close to the base on the latter, another typological distinction between these types at Sarepta. At Tyre, a number of examples of the straight-sided or slightly waisted sausage jar are included in the Type SJ 5 group from Strata III–II of the last third of the 8th century.⁴⁶¹ On Cyprus, the sausage jar is attested in “Kition horizon 750? to after 700 B.C.”⁴⁶² An important assemblage comes from two shipwrecks in the deep sea off the coast of Ashkelon, both apparently of Phoenician origin and dated to the 8th century. These two wrecks—the Tanit and the Elissa—produced 385 and 396 whole examples, respectively, and the contents of those tested indicate that they contained wine.⁴⁶³

Parallels for **IISJ 12.1** appear at Timnah as SJ 15b torpedo jars assigned to Stratum II of the 7th century.⁴⁶⁴ Of the eight identified examples,⁴⁶⁵ the only complete vessel published was assigned to the construction phase of Stratum II, and could therefore be dated either to an earlier phase of Stratum II—when the installation with which it was associated was built—or to Stratum

III of the 8th century.⁴⁶⁶ At Ashdod, examples are attested in Stratum VIII of the 8th century and Stratum VI of the last quarter of the 7th century.⁴⁶⁷ In the north, examples come from Megiddo Strata III–I of the 8th century through Persian period⁴⁶⁸ and Hazor Strata VI and IV of the 8th century.⁴⁶⁹ In Judah, 8th century examples are known from Lachish Level III (SJ-6)⁴⁷⁰ and Beersheba Stratum II,⁴⁷¹ and a single vessel comes from ‘Ira Stratum VII of the end of the 8th/first half of the 7th century.⁴⁷² An example recovered from the sea off the coast of Israel is dated by parallels to the 8th–7th centuries.⁴⁷³ In Phoenicia, parallels are assigned to the Type 5 group of the 7th century at Beirut,⁴⁷⁴ as SJ.2 from Stratum D2 of the 8th century at Sarepta,⁴⁷⁵ and as SJ 4 from Stratum II of the last third of the 8th century at Tyre.⁴⁷⁶

Thus, **IISJ 12**, **12.2**, and **12.3** first appear in Phoenicia, on Cyprus, and at sites in the north and Philistia in the second half of the 8th century and continue in the 7th century, and are apparently Phoenician in origin (like the **IISJ 9**, **IISJ 10**, **IISJ 11**, **IISJ 13**, and **IISJ 14** series); they are extremely rare in the south.⁴⁷⁷ While **IISJ 12.1** appears in Phoenicia and at sites in

455. *Megiddo I*: Pl. 16:81.

456. *Hazor II*: Pl. LXXIII:1–3, 5–9, 13, 16.

457. *Gezer III* (HUC): Pl. 16:4–5.

458. Zimhoni 2004a: Fig. 26.22:10, and possibly Fig. 26.24:12.

459. Badre 1997: Figs. 37:1–2, 44:1–2.

460. *Sarepta*: Fig. 23:19 and 18, 20, respectively; see also see *Sarepta I*: Pl. 37:11–12.

461. *Tyre Pottery*: Pls. II:9–11, III:5.

462. Bikai 1987: 588.

463. Ballard et al. 2002: 151, 160–62, Figs. 7:4–5, 9:5–6, Table 3.

464. *Timnah II*: Pl. 47:4.

465. *Timnah II*: 91, Table 12.

466. *Timnah II*: 104. One of the examples typed as SJ 15b is actually a variant of SJ 7b (*Timnah II*: Pl. 77:2).

467. *Ashdod II–III*: Figs. 42:4, 57:8. The earlier example has a longer waisted body and center of gravity immediately above the base rather than close to mid-body, like the later example. This may be a chronologically significant typological distinction.

468. *Megiddo I*: Pl. 16:79–80.

469. *Hazor II*: Pls. LXXIII:4 and CI:9, respectively.

470. Zimhoni 2004a: Figs. 26.11:10, 26.19:3, 26.22:7–9; see also Tufnell’s Class S.3 in *Lachish III*: Pl. 95:489, and the fragment from Level II of the first quarter of the 6th century in the same class in *Lachish III*: Pl. 96:530.

471. *Beer-sheba I*: Pl. 57:7; Singer-Avitz 2010: 191, Fig. 1:1–3.

472. Freud 1999: Fig. 6.75:4.

473. Zemer 1978: 14, Pl. 4:9–10, dated by parallels from sites in the north and south.

474. Badre 1997: Fig. 44:4.

475. *Sarepta*: Pl. 23:19.

476. *Tyre Pottery*: Pl. III:8.

477. For a detailed discussion on this form, see *Gezer III* (HUC): 124–27; for an analysis and list of parallels, see Ballard et al. 2002. For a discussion based on parallels for examples from Beersheba, see Singer-Avitz 2010: 188–91.

the north and Philistia, it is also attested in Judah in the 8th–7th centuries. Petrographic analyses support the conclusion that **IISJ 12.1** with a square rim is of Phoenician origin, and that the examples in the **IISJ 12** series with a ridged/profiled rim are more likely to be local.⁴⁷⁸

Two explanations have been suggested for why two similar storage jar types, represented by **IISJ 12** and **12.2–12.3** and **IISJ 12.1**, were produced at approximately the same time and have a somewhat similar distribution pattern. One is that the straight-sided type is earlier, beginning in the 9th/8th century, and the waisted type is a later development.⁴⁷⁹ The other explanation is that the typological differences result from production in different workshops or in response to the developing needs of maritime transport, with the straight-sided jar used for wine—as shown by tests on the jars from the two above-mentioned Phoenician shipwrecks off the coast of Ashkelon—and the waisted jar used for olive oil.⁴⁸⁰ This seems a logical explanation for the differences in form, also taking into account whether the jars were stacked horizontally or vertically on board ship. Another possibility is that the drastic difference in the location of the center of gravity of the two types may reflect requirements for storing and transporting their contents, namely, wine or olive oil. Yet another consideration is that unlike the straight-sided jar, the waisted storage jar was widely distributed in Judah and Philistia.

IISJ 13 (Fig. 4A.21:2) is an elongated sharply-waisted sausage jar with a very short sharply carinated shoulder that overhangs the body. Its widest diameter—the center of gravity—is represented by a bulge above the base, which tapers sharply to a point. It is neckless, usually with a flat or convex angled folded rim, and has two small twisted carelessly-applied

loop handles. **IISJ 13.3** (not illustrated) has a short outwardly-angled rim.

Two rim fragments of **IISJ 13** series jars were recorded in Stratum II of the 8th century in Field I, but it is possible that they were intrusive from Stratum I. A parallel for **IISJ 13**, possibly the only example at Timnah, comes from Stratum II, classified as an SJ 15b torpedo jar,⁴⁸¹ which also includes **IISJ 12**. Parallels for **IISJ 13** appear in the 604 BCE destruction at Ashkelon (Amphora 14),⁴⁸² and at Ashdod-Yam, dated to 700 BCE.⁴⁸³ An example found in the sea off the coast of Israel is dated by parallels to the 8th–7th centuries.⁴⁸⁴ On the Phoenician coast, the type is best represented at Achzib as SJ3, dated to the 6th–5th centuries,⁴⁸⁵ at Keisan in Level 4a, dated to 600–580 BCE,⁴⁸⁶ at Kabri in Stratum E2 of the second half of the 7th century,⁴⁸⁷ and at Shiqmona in Stratum 9 of the second half of the 8th–7th centuries.⁴⁸⁸ It also appears on Cyprus in “Amathus horizon after 700 to after 600 B.C.”⁴⁸⁹ and it is categorized as the Levantine V storage jar of the 7th century at Carthage in North Africa, Toscanos in Spain, and Cumae in Italy.⁴⁹⁰ It is also classified as Lehmann’s Type 384, distributed from Cyprus to the site of Nimrud,⁴⁹¹ and corresponds to Sagona’s Type 5 attested in Palestine, Cyprus, and on the southern coast of Anatolia.⁴⁹² There are apparently no parallels for **IISJ 13.3**.

478. Y. Goren and Halperin 2004: 2562, Table 36.4:8–10.

It has also been suggested that both the straight-sided and waisted storage jar types “were imitated abroad in the Phoenician colonies of Tunis, Sicily, Spain, and Morocco” (Raban 1980: 10). For the most recent petrographic results that form the basis for assigning the origin of the ridged-rim jars to the Lebanese coast and the square-rim jars to Israelite manufacture, see Singer-Avitz 2010: 188–90.

479. *Tyre Pottery*: 46, although this could not be demonstrated on the basis of the data from Tyre.

480. Raban 1980: 10.

481. *Timnah II*: Pl. 104:20.

482. Barako 2008: Fig. 23.14; see also *Ashkelon 3*: Fig. 6.9, Phoenician Amphora 1.

483. Kaplan 1969: 147, Fig. 8:8.

484. Zemer 1978: 17, Pl. 4:11.

485. *Akhziv Cemeteries*: Fig. 5.6:1.

486. *Keisan*: Pl. 27:1–4.

487. Lehmann 2002: Fig. 5.82:12.

488. Elgavish 1994: Fig. 50: back row left.

489. Bikai 1987: Pl. XXIII:589. An example with the same body form but a different rim also appears on Cyprus, classified as Jar 3 of Plain White V Ware and dated to the Cypro-Archaic II, 600–475 BCE (*SCE IV/2*: Fig. LVI:29).

490. Docter 1997: 579b.

491. Lehmann 1998: 17–18, Fig. 6:31. The single example from Nimrud is listed in the collection of the Ashmolean Museum, Oxford University, as AN1954.32: Amphora, hole-mouth Phoenician type, Nimrud, Iraq, Prof. Mallowan’s excavations, Marked 2(Z?) T17 ND197.

492. Sagona 1982: Fig. 1:10.

Thus, **IISJ 13**, widely distributed throughout the Mediterranean basin in the 7th century, is considered a Phoenician import in Philistia and at sites on the Phoenician coast, as indicated by petrographic analysis.⁴⁹³ It seems to be part of the large assemblage of storage jar types considered imports (like the **IISJ 9**, **IISJ 10**, **IISJ 11**, **IISJ 12**, and **IISJ 14** series).

IISJ 14 (not illustrated) is represented by a folded horizontal rim, the same as that on the complete example from Field III, a neckless storage jar with a waisted body tapering to a slightly pointed base, its center of gravity above the base. It was not found in Field I.

Parallels for **IISJ 14** appear on the Phoenician coastal plain at Keisan in Level 5 of the end of the 8th/first half of the 7th century,⁴⁹⁴ in the north at Far'ah (N) in Level VIIe of the 7th century,⁴⁹⁵ and in northern Sinai at Kadesh-Barnea (as SJ9) in Stratum 2 of the 7th/6th century.⁴⁹⁶ A similar vessel appears on Cyprus in Salamis Tomb 79 in Cypro-Archaic II Plain White Ware V (600–450 BCE).⁴⁹⁷

IISJ 12–14 waisted sausage/torpedo storage jars and related types have a long history and wide distribution as transport vessels in the Mediterranean basin. Like the **IISJ 9**, **IISJ 10**, and **IISJ 11** series, they are found in small numbers in a distinct distribution pattern at sites along the southern Levantine littoral and its immediately adjacent interior. It is therefore suggested that they were used to import a highly valued commodity into Philistia from Phoenicia, for example, wine, as discussed for the **IISJ 12** series.⁴⁹⁸

IISJ 15 (Fig. 4A.21:3, Color Photo 4A.3:6) and **IISJ 15.2–15.5** (not illustrated) generally have an oval body, a broad rounded shoulder, a truncated neck, a

simple rim, a round base, and four double-ribbed handles. These *lmlk*-type jars are for the most part made of a very distinctive gray or reddish-brown metallic fabric. **IISJ 15** (Fig. 4A.21:3) has a somewhat more slender body as a result of the decreased width at the point at which the top of the handle is attached to the widest part of the shoulder. The vertical neck is narrow with a slightly out-curved rim. **IISJ 15.2** has a less rounded broad shoulder, a more tapered lower body, an inverted neck, and an externally-thickened profiled rim. **IISJ 15.3** has a slightly inwardly-inclined neck and an internally-thickened rounded rim. **IISJ 15.4** is smaller with a more oval-shaped body, an almost vertical neck, a bulbous everted rim, and two doubled-ribbed handles. **IISJ 15.5** has a narrow elongated almost ovoid body with a sharply downwardly-angled shoulder, a vertical neck, a simple rim, and two thin oblong-shaped handles.

Parallels for **IISJ 15** and **IISJ 15.2–15.5** and typologically related forms appear from the 10th–9th through the first quarter of the 6th century. Prototypes in Judah dated to the 10th–9th centuries come from Beersheba Strata V–IV⁴⁹⁹ and Lachish Levels V–IV,⁵⁰⁰ and 9th/8th century examples come from Beit Mirsim Stratum A⁵⁰¹ and Beth-Shemesh Stratum 3.⁵⁰² Parallels are attested in 9th century Stratum A3 at Šafi/Gath⁵⁰³ and in 8th century Stratum III at Timnah (as SJ 8).⁵⁰⁴ The majority of the parallels for the Ekron *lmlk*-type storage jars, however, come from Judah, some with *lmlk*-stamped jar handles.⁵⁰⁵ They are attested in the 8th century at Arad as SJ 1 in Strata X–IX,⁵⁰⁶ at Beersheba in Stratum II,⁵⁰⁷ at Halif above

493. Petrographic tests of similar examples from Ashkelon indicate that they are Phoenician imports (*Ashkelon* 3: Chapter 4). The fabric of **IISJ 13** at Ekron has the typical orange-brown color, no core, and fair levigation of an imported ware; the similar ware of a form from Kabri is regarded as the typical Phoenician fabric found throughout the Mediterranean basin (Lehmann 2002: 198).

494. *Keisan*: Pl. 47:1.

495. *Far'ah I*: Pl. 45:23.

496. Bernick-Greenberg 2007: Pl. 11.77:7.

497. *Salamis III*: Pl. CCXXV:806.

498. While the Phoenician origin of these storage jars is supported to some extent by petrographic analysis, further tests are needed to substantiate this suggestion.

499. Singer-Avitz 2016a: Fig. 11.27:1.

500. In Levels V, IV as SJ-7 in Zimhoni 2004b: 1687, Fig. 25.19:16; in Stratum IV as SJ 130 in *Lachish V*: Pl. 44:10.

501. *TBM I*: Pl. 52:10.

502. Bunimovitz and Lederman 2000: 257, Photo Fig. 2.

503. Maeir 2001: Fig. 10:1.

504. *Timnah II*: Pl. 6:1, 6, 9.

505. For comprehensive discussions on these and the examples mentioned in the text below, see *Gezer III* (HUC): 122–24; *Timnah II*: 93–97; Zimhoni 2004a: 1794–97; Gitin 2006b.

506. Singer-Avitz 2002: 144, Figs. 31:10, 34:13 without stamped handles.

507. *Beer-sheba I*: 76–77, Pl. 65:10–11 without stamped handles.

an ephemeral Stratum VIA surface,⁵⁰⁸ and at Lachish in Level III.⁵⁰⁹ Examples also appear at Gezer in 8th century Stratum VIA⁵¹⁰ and in 8th/7th century Judah at 'Ira in Stratum VII.⁵¹¹ In the 7th century, they are attested in Philistia at Timnah in Stratum II (as SJ 9)⁵¹² and in Judah at Aroer in Stratum III⁵¹³ and the City of David in Stratum 10C/B,⁵¹⁴ and they continue at 'Ira into 7th/6th century Stratum VI.⁵¹⁵

Thus, **IISJ 15** and **IISJ 15.2–15.5** are *lmlk*-type (*lmlk*-like) storage jars similar to *lmlk* storage jars but without stamped handles. These have been redefined as a new class of storage jar, the oval four-handled storage jar, a group that includes a minimum of five main types over a time span of more than 200 years, extending from at least the 9th century to the first quarter of the 6th century, primarily attested in Judah, but with some representation in Philistia.⁵¹⁶

IISJ 16A (Fig. 4A.22:6, 8), represented by two examples, and **IISJ 16.1A** (Fig. 4A.22:7), represented by one, are Residual Forms A. They are fragments of a rounded ovoid storage jar with a high carinated shoulder, a slightly inwardly-angled high neck with thin incised lines, a small flat rim, and two loop handles. They are decorated in the LPDW style with black and red bands on the exterior body and neck and on the rim interior and exterior (like **IIBL 30A**). Both **IISJ 16A** and **IISJ 16.1A** appear in Field I Strata III–II.

IISJ 17 (Fig. 4A.22:5, Color Photo 4A.3:7), represented by only one example, is handleless with a narrow elongated oval-shaped body, a high out-curved neck, an everted profiled overhanging rim, and a

prominent stub base. It has incised lines on the shoulder and immediately above the stub base.

Parallels for **IISJ 17** with a narrower body and shorter neck are attested in the north at Megiddo in Stratum III of the 8th/7th century,⁵¹⁷ and with a narrower body and neck ridges at Nimrud in the 7th century Late Assyrian period.⁵¹⁸ **IISJ 17** is apparently an Assyrian import.⁵¹⁹

MISCELLANEOUS STORAGE JARS

Thirty of the miscellaneous storage jars could be typed within seven classes of **IISJM**. All are minimally represented in Field IV Lower, and do not constitute major storage jar types. They are also unrelated to other storage jar types either attested in very limited numbers at Ekron but are represented in larger numbers at other sites or belong to import assemblages.

IISJM 1 (not illustrated) has a high vertical neck with thin grooves below the slightly out-turned thickened rim. **IISJM 3** (not illustrated) has a grooved neck with a lower ridge and an everted flat rim. **IISJM 6** (not illustrated) has a wide oval body with a slightly carinated broad shoulder, a short inclined neck with a sharp collar, a round thickened rim, a round base, and two loop handles. **IISJM 7** (not illustrated) has a slender oval body, a very short vertical neck with a sharp collar, a thickened profiled rim, a round base, and two loop handles. **IISJM 8** (Fig. 4A.19:1) has a ball-like globular body with a short shoulder, an inclined neck, a slightly profiled rim, a round base, and two loop handles. **IISJM 10** (not illustrated) has a high short carinated shoulder, a short vertical neck, and a thickened profiled rim. **IISJM 11** (Fig. 4A.22:4) has an ovoid body with a high short slightly carinated shoulder, a vertical grooved neck, an everted rim, and two large loop handles.

508. Blakely and Hardin 2002: 24, Figs. 10:1–2 without stamped handles.

509. Zimhoni 2004a: Figs. 26.6:1–3, 26.13:5, 26.26:5, 26.33:3; Ussishkin 2004b with stamped handles; Zimhoni 2004a: Figs. 26.6:4, 26.7:1–8, 26.8:1–8, 26.9:1–8, 26.10:1–10 without stamped handles.

510. For an analysis of the stamped handles from Gezer, see Lance 1971: 144–250; *Gezer III* (HUC): 122–24; for examples without stamped handles, see *Gezer III* (HUC): Pl. 15:1–12, 14–15, Types 4, 4B.

511. Freud 1999: Fig. 6.75:10–12.

512. *Timnah II*: Pls. 46:1, 63:4.

513. Biran and Cohen 1981: Fig. 8:2.

514. For example, Reg. Nos. 4861/1, 4968 (Cahill West, personal communication).

515. Freud 1999: Fig. 6.92:23.

516. Gitin 2006b; Lipschits, Sergi, and Koch 2010: 6–9.

517. *Megiddo I*: Pl. 16:82.

518. Lines 1954: 167, Pl. XXXIX:2–3.

519. Petrographic analysis indicates that the type does not originate in the southern Levant (Ben-Shlomo, personal communication).

Table 4A.36: Holemouth jars

IIH MJ	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=0	0%	N=48	16%	N=203	69%	N=21	7%	N=23	8%	N=295	100%
1	-	-	-	-	15	31	76	37	7	33	8	35	106	36
1.1	-	-	-	-	9	18	52	25	1	5	7	30	69	23
1.2–1.3	-	-	-	-	2	4	8	4	-	-	-	-	10	3
2, 2.3	-	-	-	-	2	4	10	5	3	14	-	-	15	5
3–3.2	-	-	-	-	1	2	5	3	2	10	3	13	11	4
4	-	-	-	-	1	2	1	1	-	-	-	-	2	1
5–5.2	-	-	-	-	5	10	9	4	-	-	2	9	16	5
5.3	-	-	-	-	-	-	7	3	1	5	1	4	9	3
5.4	-	-	-	-	4	8	4	2	1	5	-	-	9	3
6.1–6.3	-	-	-	-	2	6	1	1	-	-	-	-	3	1
8.1	-	-	-	-	1	2	1	1	-	-	-	-	2	1
10.3	-	-	-	-	-	-	1	1	-	-	-	-	1	1
M 4	-	-	-	-	3	6	1	1	-	-	-	-	4	1
?	-	-	-	-	3	6	27	13	6	28	2	9	38	13

HOLEMOUTH JARS

Holemooth jars represent 3% of the corpus, best represented in Stratum IB by 203 examples, comprising 69% of the **IIH MJ** assemblage (Table 4A.36).⁵²⁰ The primary types are the **IIH MJ 1** series with 185 examples, 63% of the holemouth jar assemblage.

IIH MJ includes types and variants of medium-size cylindrical handleless holemouth jars with a straight, rounded, or slightly curved sidewall, an inwardly-angled grooved rim with a ridge, and a rounded or slightly pointed base. The typology of these jars is based primarily on the number of grooves on the rim, secondarily on the presence of a flange on the rim, and thirdly on body shape. The rationale is that number of grooves is functional, determined by the type of cover/lid that was used.⁵²¹

IIH MJ 1 has an angled rim with two grooves (Fig. 4A.23:4–5, Color Photo 4A.3:6) and sometimes a short external flange (Fig. 4A.23:1–2). **IIH MJ 1.1** has three or

four grooves on the rim (Fig. 4A.23:6) and sometimes a short external flange (Fig. 4A.23:3). **IIH MJ 1.2** (not illustrated) and **IIH MJ 1.3** (Fig. 4A.23:9) have three grooves with a pronounced ridge and a downwardly-angled external flange. **IIH MJ 2** (Fig. 4A.23:7) has three grooves and a pronounced external flange; variant **IIH MJ 2.3** (not illustrated) has two grooves and more of an external twist than a flange. **IIH MJ 3–3.2** (not illustrated) have a shorter thinner inwardly-curved rim with one to three grooves, and **IIH MJ 4** (not illustrated) has a rounded sidewall and a very thin horizontal rim with two wide shallow grooves. **IIH MJ 5** (Fig. 4A.23:8; see Color Photo 4A.3:10) has a short angled rim with two deep narrow grooves; **IIH MJ 5.1–5.3** (not illustrated) have a short stub rim with two grooves; and **IIH MJ 5.4** (Fig. 4A.23:10, 12) has a rounded sidewall and a T-shaped angled rim with two pronounced grooves. **IIH MJ 6.1, 6.3** (not illustrated), and **6.2** (Fig. 4A.23:11) have a rounded sidewall and a thickened rim with one groove. The single example of **IIH MJ 6** is a Residual Form A.⁵²² **IIH MJ 8.1** and **IIH MJ 10.3** (not illustrated) are variations of the same

520. While two **IIH MJ 6** Residual Forms A are not included in this count, they were included in the total number of 297 **IIH MJ** in Chapter 4C.

521. For an earlier comprehensive analysis of the small to medium-size cylindrical holemouth jar tracing its development from the 10th through the 7th/6th centuries by region, see *Gezer III* (HUC): 132–37.

522. This typological distinction is based on its grooveless rim and similarity to earlier holemouth jars; compare with Singer-Avitz 2016a: Fig. 11.48:14.

type with an ungrooved thickened rounded horizontal hammerhead-like rim.⁵²³

IIHMJ 1-1.1 appear in Field I Stratum II of the 8th century, and although their distribution in Philistia is limited, they represent a well-established type in Judah in the Iron IIA–B.⁵²⁴ In the Iron IIC, however, the cylindrical holemouth jar that continues to appear in Judah⁵²⁵ becomes one of the major types in Philistia.⁵²⁶ The earliest type in Field IV Lower, **IIHMJ 6.2** (Fig. 4A.23:11) with an almost horizontal thickened single-grooved rim is typologically associated with Stratum Pre-IC. Examples of **IIHMJ 5.4** with a slightly angled rim and two grooves are attested in Strata IC (Fig. 4A.23:12) and IB (Fig. 4A.23:10). **IIHMJ 1.3** (Fig. 4A.23:9), another jar with three grooves and a pronounced ridge affecting a downwardly-angled external flange on the rim is typologically associated with Stratum IC. The primary forms at Ekron—**IIHMJ 1-1.1** (Fig. 4A.23:1–3), usually with an internally-angled rim with two or three grooves and a short external flange, as well as unflanged with two to four grooves (Fig. 4A.23:4–6, 8)—appear from Stratum IC through IA. The most prominent sub-type in Stratum IB is **IIHMJ 2** (Fig. 4A.23:7) with three grooves and a pronounced flange on the rim.

Parallels for **IIHMJ** are prominent at Timnah, Ashdod, and Ashkelon. In the 7th century, **IIHMJ 1** appears at Timnah in Stratum II⁵²⁷ and at Ashdod in Stratum VII.⁵²⁸ In Judah, **IIHMJ 1** is attested at Beersheba in Stratum III of the 9th/8th century⁵²⁹ and Stratum II of the 8th century.⁵³⁰ In the 8th century, it also appears at Lachish in Level III⁵³¹ and at Beth-Shemesh in Stratum IIc,⁵³² and a few fragments are

attested at Arad in Strata X–VIII.⁵³³ In the 7th century, **IIHMJ 1** is attested at Lachish in Level II⁵³⁴ and at Ramat Raḥel in Stratum V.⁵³⁵ On the Coastal Plain, it appears at Tell Qasile in Stratum VII of the 7th century.⁵³⁶ A variant of **IIHMJ 1** with a horizontal rim appears at Gezer in Stratum VIA of the 8th century (Type 11D),⁵³⁷ and **IIHMJ 1** is represented at the site in Stratum VA of the 7th/6th century (Type 11H).⁵³⁸ In the north, **IIHMJs** are sporadically attested, with **IIHMJ 1** at Megiddo assigned to Strata IV–I, possibly of the 8th–7th centuries.⁵³⁹

IIHMJ 1.1 first appears at Timnah in Stratum III of the 8th century,⁵⁴⁰ and is represented in the 7th century in the 604 BCE destruction at Ashkelon (under the general classification of Storage Jar 2).⁵⁴¹ Petrographic analysis of the Ashkelon holemouth jars indicates that all were produced locally.⁵⁴² In Judah, **IIHMJ 1.1** appears in 7th century Stratum V at Ramat Raḥel⁵⁴³ and Stratum V at En-Gedi.⁵⁴⁴ On the Coastal Plain, it is attested at Meẓad Ḥashavyahu in the 7th century (HM 1)⁵⁴⁵ and at Gezer in Stratum VA of the 7th/6th century (Type 11E).⁵⁴⁶

IIHMJ 2 is attested in the 7th century at Timnah in Stratum II (SJ 10b),⁵⁴⁷ at Ashdod in Stratum VII,⁵⁴⁸ and at Ashkelon in the 604 BCE destruction (under the general classification of Storage Jar 2).⁵⁴⁹ It appears in Judah at Beth-Shemesh in Stratum IIc of the 8th century⁵⁵⁰ and Ramat Raḥel in Stratum V of the 7th century.⁵⁵¹ It is also attested at Gezer in Stratum VA of

523. **IIHMJM 4**, classified as a miscellaneous type, should have been counted as a holemouth jar sherd.

524. *Gezer III* (HUC): 136; *Timnah II*: 107; Herzog and Singer-Avitz 2015: 216.

525. Gitin 2015: 349.

526. See *Timnah II*: 91, Type SJ 10b; *Ashkelon 3*: 89, which states that “they are similarly ubiquitous at Ashkelon” as at Timnah.

527. *Timnah II*: Pls. 67:10, 73:5.

528. *Ashdod IV*: Fig. 23:5–6.

529. *Beer-sheba I*: Pl. 56:17.

530. *Beer-sheba I*: Pl. 58:17–21, 25.

531. Zimhoni 2004a: Fig. 26.19:4.

532. *Ain Shems IV*: Pl. LXV:32.

533. Singer-Avitz 2002: Fig. 18: SJ 15.

534. *Lachish III*: Pl. 97:544.

535. *Ramat Raḥel*: Fig. 12:4.

536. *Qasile 2*: Fig. 57:8–13.

537. *Gezer III* (HUC): Pl. 16:6.

538. *Gezer III* (HUC): Pl. 26:28.

539. *Megiddo I*: Pl. 11:57.

540. *Timnah II*: Pl. 21:1.

541. *Ashkelon 3*: Fig. 5.57: left and center.

542. *Ashkelon 3*: 89.

543. *Ramat Raḥel*: Fig. 29:4.

544. Yezerski 2007: Pl. 8:11–12.

545. Fantalkin 2001: Fig. 26:14.

546. *Gezer III* (HUC): Pl. 26:23–24.

547. *Timnah II*: Pl. 73:6.

548. *Ashdod II–III*: Fig. 51:4, 6; *Ashdod IV*: 27:4.

549. *Ashkelon 3*: Fig. 5.57: right.

550. *Ain Shems IV*: Pl. LXV:28.

551. *Ramat Raḥel*: Fig. 29:5.

Table 4A.37: Amphorae

IIAMP	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=1	1%	N=1	1%	N=13	14%	N=68	75%	N=2	2%	N=6	7%	N=91	100%
1	-	-	1	2	7	17	31	76	1	2	1	2	41	45
1.1	-	-	-	-	-	-	6	100	-	-	-	-	6	7
2	-	-	-	-	-	-	5	71	1	14	1	14	7	8
3	1	11	-	-	2	22	5	56	-	-	1	11	9	10
4	-	-	-	-	1	33	2	67	-	-	-	-	3	3
5	-	-	-	-	1	33	2	67	-	-	-	-	3	3
6	-	-	-	-	-	-	1	100	-	-	-	-	1	1
6.1	-	-	-	-	2	50	1	25	-	-	1	25	4	4
8	-	-	-	-	-	-	1	100	-	-	-	-	1	1
9	-	-	-	-	-	-	4	80	-	-	1	20	5	5
10	-	-	-	-	-	-	2	100	-	-	-	-	2	1
13A	-	-	-	-	-	-	-	-	-	-	1	100	1	2
?	-	-	-	-	-	-	8	100	-	-	-	-	8	9

the 7th/6th century (as Jar 11G).⁵⁵² **IIHMJ 2.3** appears at Ashdod in Stratum VII of the 7th century.⁵⁵³

IIHMJ 5.4 is attested at Ashdod in Stratum VIII of the 8th century⁵⁵⁴ and at Timnah in Stratum II of the 7th century.⁵⁵⁵ In Judah, it appears at Lachish in Levels III–II of the 8th–7th centuries⁵⁵⁶ and at Beit Mirsim in Stratum A of the 9th–7th centuries,⁵⁵⁷ and 8th century examples are attested in Stratum IIc at Beth-Shemesh⁵⁵⁸ and Stratum II at Beersheba.⁵⁵⁹ It also appears at Gezer in Stratum VIA of the 8th century.⁵⁶⁰

A variant of **IIHMJ 6.2** with a single ridge on the rim appears at Şafi/Gath, where holemouth jars constitute 20% of the 9th century Stratum A3 assemblage.⁵⁶¹ This variant is also attested in Judah at Beersheba in Stratum II of the 8th century⁵⁶² and on the Coastal Plain at Ruqeish in the 7th century.⁵⁶³

552. *Gezer III* (HUC): Pl. 26:27.

553. *Ashdod II–III*: Fig. 51:5; *Ashdod IV*: Figs. 23:4, 27:5.

554. Ben-Shlomo 2005: Fig. 3.91:4–5.

555. *Timnah II*: Pl. 47:13

556. *Lachish III*: Pl. 97:549, 551.

557. *TBM I*: 79, Pl. 52.1.

558. *Ain Shems IV*: Pl. LXV:19, 26, 30.

559. *Beer-sheba I*: Pl. 58:26.

560. *Gezer III* (HUC): Pl. 16:7.

561. Shai and Maeir 2012: 333, Pl. 14.19:6.

562. *Beer-sheba I*: Pl. 58:23.

563. Culican 1973: Fig.1: R3 (with a pointed base).

The greater frequency of holemouth jars at Ekron and Timnah on the Philistine Inner Coastal Plain in the 7th century may be due to their association with the olive oil industry, especially at Ekron, the center for the mass production of olive oil after the oil-producing Shephelah sites had been destroyed in Sennacherib's 701 BCE campaign.⁵⁶⁴

AMPHORAE

Amphorae represent 0.96% of the corpus, mainly in Stratum IB, the 68 examples comprising 75% of the **IIAMP** assemblage (Table 4A.37).⁵⁶⁵ The primary types are **IIAMP 1** and **1.1**, with 47 examples representing 52% of the amphorae.

Primary types **IIAMP 1** and **IIAMP 1.1** (Fig. 4A.24:1–3, Color Photo 4A.4:1), as well as **IIAMP 2** and **3** (Fig. 4A.24:4–6), are medium-size with a globular body, a high wide slightly inclined neck, a profiled rim either with single or multiple ridges or pinched, a

564. Holemouth jars are well documented at Iron IIA–B olive-oil production sites in the Judean Shephelah, like Beth-Shemesh (Momigliano 1996: 164–67). For the destruction of these sites, see Na'aman 1993: 113.

565. Excluding one Residual Form A **IIAMP 12A** that is included in the count of the total number of 92 in Chapter 4C.

low convex ring base, and two double-ribbed handles extending from mid-point on the neck to the shoulder.⁵⁶⁶ **IIAMP 4** (not illustrated) has a variant **IIAMP 1** rim with one to three ridges. **IIAMP 5** with a higher ridged neck and triangular rim has two handles connected at the neck ridge. **IIAMP 6** has a wide shoulder, narrow neck, triangular rim, and two ribbed handles extending from mid-point on the neck to the shoulder (Fig. 4A.24:8), and **IIAMP 6.1** (not illustrated) has a variant **IIAMP 6** rim and a slightly narrower neck. **IIAMP 8** (not illustrated), also with a variant **IIAMP 1** rim, has handles attached at the rim. **IIAMP 9** is large with an ovoid body, high wide vertical neck, thick profiled overhanging rim, concave footed ring base, and two double-ribbed elbow-shaped handles extending from the rim to the shoulder. The only complete example was found in Field III in Stratum IA (illustrated on Fig. 4B.10:6); it is represented by only a few sherds in Stratum IB in Field IV Lower and Field IV Upper. **IIAMP 10** (not illustrated) is large with a rounded body, downwardly-angled cut rim, and handles attached at the rim. **IIAMP 12A** and **13A** (Fig. 4A.24:9–10), one example each in LPDW, are Residual Forms A.

IIAMP 1, 1.1, and 2 appear in Field I in 8th century Stratum II. Due to the minimal fragmentary sample, however, including those from the 7th century, defining a typological development of any of the **IIAMP** types from the 8th through the 7th century is not possible.

While parallels for amphorae are not well represented on the Philistine Inner Coastal Plain, a variant of **IIAMP 3** with a larger piriform body appears at Timnah in Stratum II of the 7th century (as AM 5).⁵⁶⁷ Another amphora type with a narrow ridged neck is attested by a single example from Timnah 7th century Stratum II.⁵⁶⁸ At Ashkelon, an amphora fragment related to a Phoenician jug appears in the 604 BCE destruction;⁵⁶⁹ the suggested parallel from Ekron is actually a residual 8th century LPDW amphora (Fig. 4A.24:9–10). A parallel classified as an LPDW jug, however, appears at Šafi/Gath in Stratum A3 of the 9th century, defined as a local coastal type.⁵⁷⁰ Also in

Philistia, the antecedent of **IIAMP 1** is attested at Šafi/Gath as Jug 2 in Stratum A3 of the 9th century.⁵⁷¹

A number of amphorae similar to **IIAMP 1** are attested on the Coastal Plain at Ruqeish in the 7th century.⁵⁷² In Judah, a variant of **IIAMP 1** appears with a less globular body at Arad in Stratum VIII of the 8th century, described as a type not attested in other Iron II assemblages.⁵⁷³

JUGS

Jugs represent 6.6% of the corpus, the majority from Stratum IB (438), comprising 70% of the **IIJUG** assemblage (Table 4A.38). The four most frequent types—**IIJUG 1-1.2**, **IIJUG 13-13.2**, **IIJUG 2, 2.2-2.3**, and **IIJUG 14, 14.1**—respectively comprise 45%, 18%, 9%, and 4% of the assemblage.

IIJUG 1-1.2 (Fig. 4A.25:1–4) are medium-size with a globular body, a high wide vertical neck, a flattened rim forming a short hammerhead or an interior or exterior protrusion, a ring base, and a handle extending from the rim to the upper shoulder. **IIJUG 1.3-1.4** (not illustrated) have a shorter hammerhead rim or a thin cut triangular or thickened rounded rim. **IIJUG 2.2** (Fig. 4A.25:5), also medium-size with a globular body, has a high wide inwardly-angled neck and a thickened rounded rim. Variants **IIJUG 2** and **2.3** (not illustrated) have flattened and thickened rim forms.

IIJUG 3-10 are limited in number, and some may be residual forms. **IIJUG 3** (Fig. 4A.25:6) has a globular body, narrow neck, and inverted rim. **IIJUG 4/4.1** (Fig. 4A.25:7), also with a globular body, has a high neck and a wavy profiled rim indicating a trefoil mouth, as known from more complete examples from other sites. **IIJUG 5** (not illustrated) has a medium-size piriform body with a curved neck and a pointed everted rim. **IIJUG 6** (not illustrated) has a large piriform body, a curved neck, and a flanged rim. **IIJUG 8** (Fig. 4A.25:9) has a globular body, a ridged neck, a slightly profiled rim, and a trefoil mouth. **IIJUG 9** (Fig. 4A.25:10, Color Photo 4A.4:2) has a medium-size piriform body, a sharply-ridged curved neck, a tapered everted rim, and a trefoil mouth, while **IIJUG**

566. One variation of **IIAMP 2** has the same rim but a higher neck, and is typologically earlier (Fig. 4A.24:4).

567. *Timnah II*: Pl. 68:1.

568. *Timnah II*: Pl. 49:6.

569. *Ashkelon 3*: 91, Fig. 5.59: Amphora 1.

570. Shai and Maeir 2012: 338–39, Fig. 14.9:6.

571. Shai and Maeir 2012: Pl. 14.6:9.

572. Culican 1973: 75, Fig. 3: R17.

573. Singer-Avitz 2002: 153, Fig. 19: J 7.

Table 4A.38: Jugs

IIJUG	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=5	1%	N=8	1%	N=96	15%	N=438	70%	N=38	6%	N=43	7%	N=626	100%
1-1.2	1	0.4	3	1	42	15	195	69	16	6	25	9	282	45
1.3-1.4	-	-	-	-	5	25	12	60	-	-	3	15	20	3
2, 2.2-2.3	2	4	1	2	9	16	36	64	6	10	2	4	56	9
3	-	-	-	-	-	-	1	100	-	-	-	-	1	0.1
4/4.1	-	-	-	-	3	100	-	-	-	-	-	-	3	0.5
5-6	-	-	-	-	-	-	8	100	-	-	-	-	8	1
8, 9-9.1	-	-	-	-	-	-	7	100	-	-	-	-	7	1
10	-	-	-	-	-	-	2	100	-	-	-	-	2	0.3
13- 13.2			3	3	16	14	82	73	7	6	4	4	112	18
13.3, 13.5	-	-	-	-	5	38	7	54	1	8	-	-	13	2
13.4	-	-	-	-	-	-	2	100	-	-	-	-	2	0.3
13.6	-	-	-	-	-	-	2	100	-	-	-	-	2	0.3
14-14.1	-	-	-	-	4	17	16	70	1	4	2	9	23	4
14A	-	-	-	-	-	-	1	100	-	-	-	-	1	0.1
?	2	2	1	1	12	13	65	69	7	7	7	7	94	15

9.1 (Fig. 4A.25:8) has a gutter-ridged neck and a thickened rounded rim. **IIJUG 10** (Fig. 4A.25:11) has large piriform body, a high vertical neck, and a rounded everted rim.

IIJUG 13, 13.1 (Fig. 4A.26:1-2, Color Photo 4A.4:4), and **IIJUG 13.2** (not illustrated) are small with an elongated rounded body, a short outwardly-angled neck, a stepped profiled rim, a ring base, and a ribbed handle extending from the rim to the upper shoulder. Variants include **IIJUG 13.3** (Fig. 4A.26:3) with a less rounded body, **IIJUG 13.4** (Fig. 4A.26:4, Color Photo 4A.4:5) with a squat body, and **IIJUG 13.6** (Fig. 4A.26:5) with a bulging carination on the body and a less profiled rim. Since the rims on some examples have traces of burning, they could have been used as cooking vessels. **IIJUG 14** and **14.1** (Fig. 4A.26:6-7, 9) are medium-size with an ovoid body, high narrow inwardly-inclined neck, vertical multi-ridged or unridged rim, low ring base, and handle extending from the rim to the upper shoulder. **IIJUG 14A** (Fig. 4A.26:8, Color Photo 4A.4:3), the same form as **IIJUG 14** with a multi-ridged rim, is decorated with a red band on the rim interior and red and black bands on the body.

Two miscellaneous jug types—**IIJUGM 1** represented by three examples and **IIJUGM 2.3** represented

by eight examples—are classified as Residual Forms A.

IIJUG 1-1.2 and sub-types **IIJUG 1.3, 1.4**, as well as **IIJUG 2** and **2.2-2.3**, are first attested in Field I in Stratum II of the 8th century. While variations in body size and shape are similar in the 8th and 7th centuries, the neck is thinner in section and the rim is rounded or slightly profiled on the 8th century examples, as opposed to the flattened hammerhead rim of the 7th century examples.

Parallels for the **IIJUG 1** series first appear at Ashdod in 10th century Stratum Xa and 9th century Stratum IX,⁵⁷⁴ although what may be a prototype is attested at Ashdod in Stratum Xb of the 11th/10th century.⁵⁷⁵ Examples are also known from Şafi/Gath Stratum A3 of the 9th century,⁵⁷⁶ and from 8th-7th century Strata III-II at Timnah (Jug 11)⁵⁷⁷ and Strata VIII-VII at Ashdod.⁵⁷⁸ The rim on the examples from the 604 BCE destruction at Ashkelon is profiled on the

574. *Ashdod IV*: Figs. 8:2 and 10:16, respectively.

575. *Ashdod IV*: Fig. 3:12.

576. Shai and Maeir 2012: Pl. 14.15:7.

577. *Timnah II*: Pls. 21:10, 37:2-3, 48:1-2, 57:8, 74:3, 104:16.

578. *Ashdod II-III*: Figs. 46:1, 51:1-2, 56:18-19, 94:10; *Ashdod IV*: Fig. 15:1-2.

interior.⁵⁷⁹ While primarily a Philistine type,⁵⁸⁰ this jug is attested in limited numbers in 8th century contexts in Judah and the south, for example, at Beersheba in Stratum II⁵⁸¹ and Lachish in Level III,⁵⁸² as well as at Tell el-ʿAjjul,⁵⁸³ Ruqeish,⁵⁸⁴ and ʿAjrud.⁵⁸⁵

IIJUG 3, represented by only one example in Field IV Lower Stratum IB, is well attested in Strata III–II of the 10th/9th and 8th centuries in Field I, and should therefore be considered a possible Residual Form A. A few parallels for **IIJUG 3** appear at Timnah in Stratum III of the 8th century, classified as Jug 11, the majority of which are parallels for the **IIJUG 1** series with variations of a short hammerhead rim.⁵⁸⁶ Examples are also attested at Ashdod in Stratum IX of the 9th century⁵⁸⁷ and Stratum VII of the 7th century.⁵⁸⁸ However, since the total number of examples is minimal and mostly represented by neck and rim fragments, it is reasonable to assume that **IIJUG 3** is another variant of the **IIJUG 1** series types.

IIJUG 4 first appears in Field I Stratum III of the 10th/9th century and continues through Stratum II of the 8th century; in Field IV Lower, **IIJUG 4/4.1** is represented by three examples in Stratum IC. Parallels for **IIJUG 4**—with the characteristic vertical neck, trefoil mouth, and profiled rim of an Iron IIB Judean jug type—come from 8th century Level III at Lachish,⁵⁸⁹ Strata IX–VIII at Arad,⁵⁹⁰ and Stratum VIA at Gezer,⁵⁹¹ with variants attested at Beth-Shemesh⁵⁹² and at Naṣbeh.⁵⁹³ Thus, **IIJUG 4/4.1** is a Judean type, and is considered a Residual Form A at Ekron.

IIJUG 5, **IIJUG 6**, and **IIJUG 8** are attested only in Field IV Lower Stratum IB, and are apparently

unique to Ekron. **IIJUG 5** could be considered a variant of **IIJUG 1**. **IIJUG 6**—except for the single handle—closely resembles **IIAMP 9** described above (the only complete example of which is attested in Field III [illustrated on Fig. 4B.10:6]), and **IIJUG 8** resembles an amphora from Arad Stratum X of the 8th century.⁵⁹⁴

IIJUG 9 and **9.1** are also attested at Ekron only in Field IV Lower Stratum IB. Parallels for both types are known from Timnah Stratum II of the 7th century.⁵⁹⁵ **IIJUG 9** is rare outside Philistia, with one example attested at Dan in Stratum I.⁵⁹⁶ On the other hand, **IIJUG 9.1** is well documented throughout Judah in the 7th century: in Jerusalem,⁵⁹⁷ Tell el-Fûl Stratum IIIB,⁵⁹⁸ En-Gedi Stratum V,⁵⁹⁹ Lachish Level II,⁶⁰⁰ Arad Stratum VII,⁶⁰¹ Aroer Phase B1,⁶⁰² ʿIra Stratum VI,⁶⁰³ and Gibeon Area 17.⁶⁰⁴ A variant of **IIJUG 9.1** with a neck ridge rather than a gutter-ridged neck is also attested in the 7th century on the Coastal Plain at Meẓad Ḥashavyahu,⁶⁰⁵ and in Judah in Jerusalem,⁶⁰⁶ the Beth-Shemesh underground reservoir,⁶⁰⁷ Lachish Level II,⁶⁰⁸ Tell el-Fûl Stratum IIIB,⁶⁰⁹ and En-Gedi Stratum V.⁶¹⁰

IIJUG 10, which appears at Ekron only in Field IV Lower Stratum IB, is a rare type, with one other example known from Timnah 7th century Stratum II.⁶¹¹

IIJUG 13 first appears in Field I Stratum II of the 8th century. Parallels come from Iron IIB 8th century

579. *Ashkelon 3*: Fig. 5.61: Jug 1.

580. Petrographic analysis shows that the examples from Ashkelon were made locally (*Ashkelon 3*: 65).

581. Singer-Avitz 1999: Fig. 8:16.

582. *Lachish III*: Pl. 85:205, 209.

583. *Ancient Gaza II*: Pl. 30:34U2.

584. Culican 1973: Figs. 1: R6, 2: R10.

585. Ayalon 1995: Fig. 14:1.

586. *Timnah II*: Pls. 21:14, 27:4.

587. *Ashdod IV*: Fig. 10:16; Ben-Shlomo 2005: Fig. 3.85:3.

588. *Ashdod II–III*: Fig. 51:1.

589. Zimhoni 2004a: Fig. 26.35:11.

590. Singer-Avitz 2002: Fig. 19: J3.

591. *Gezer III* (HUC): 146–47, Pl. 19:6, Type 20C.

592. *Ain Shems IV*: Pl. LXVII:10.

593. *TN II*: 564.

594. Singer-Avitz 2002: Fig. 19: J7.

595. *Timnah II*: Pls. 96:15 and 74:4–5, respectively.

596. Pakman 1992: 236, Fig. 5:3.

597. *Ophel*: Fig. 3:7.

598. *el-Fûl*: Pl. 56:14–16, 18.

599. Yezerski 2007: Pl. 6:25–29.

600. *Lachish III*: Pl. 86:246, 248; *Lachish V*: Pl. 47:24.

601. Singer-Avitz 2002: Fig. 19: J5.

602. *Aroer*: Pl. 166:2.

603. Freud 1999: Figs. 6.98:4, 6.100:21–23, 6.101:2.

604. *Gibeon*: Fig. 47:11.

605. Fantalkin 2001: Fig. 27: Jg 1.

606. *Ophel*: Fig. 4.23:1.

607. Bunimovitz and Lederman 2003: Fig. 8:1–3.

608. *Lachish III*: Pl. 86:238, 249; *Lachish V*: Pls. 47:23, 50:13.

609. *el-Fûl*: Pls. 53–54, 55:9.

610. Yezerski 2007: Pl. 6:30–31.

611. *Timnah II*: Pl. 68:5.

Table 4A.39: Decanters

IIDEC	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=0	0%	N=7	18%	N=30	79%	N=1	3%	N=0	0%	N=38	100%
1	-	-	-	-	6	33	11	61	1	6	-	-	18	47
1.1	-	-	-	-	1	100	-	-	-	-	-	-	1	3
1.2	-	-	-	-	-	-	9	100	-	-	-	-	9	23
1.2A	-	-	-	-	-	-	1	100	-	-	-	-	1	3
2	-	-	-	-	-	-	3	100	-	-	-	-	3	8
2.2	-	-	-	-	-	-	2	100	-	-	-	-	2	5
5.1	-	-	-	-	-	-	1	100	-	-	-	-	1	3
?	-	-	-	-	-	-	3	100	-	-	-	-	3	8

Stratum III at Timnah,⁶¹² Stratum VIII at Ashdod,⁶¹³ and Stratum A2 at Šafi/Gath.⁶¹⁴ In the 7th century, **IJUG 13** and **13.1** appear at Timnah in Stratum II⁶¹⁵ and Ashdod in Stratum VII.⁶¹⁶ **IJUG 13.3** is attested at Ashdod in Stratum VI,⁶¹⁷ and **IJUG 13.4** at Ashkelon in the 604 BCE destruction.⁶¹⁸ Since the **IJUG 13** series and variants do not appear outside Philistia, they are considered typical Philistine forms.

IJUG 14 is first attested in Field I Stratum II of the 8th century. Parallels are attested in the 8th century at Timnah in Stratum III⁶¹⁹ and Ashdod in Stratum VIII,⁶²⁰ and in the 7th century at Ashdod in Stratum VII.⁶²¹ The only parallel for **IJUG 14A** comes from the north at Samaria in 8th century E207.⁶²² A rim form related to **IJUG 14** is attested sporadically in the Iron IIB/C in the north and south.⁶²³

612. *Timnah II*: Pl. 21:16.

613. *Ashdod II–III*: Figs. 41:21, 45:23–24, 28–29; Ben-Shlomo 2005: Fig. 3.85:7.

614. Avissar and Maeir 2012: Pl. 15.6:12.

615. *Timnah II*: Pl. 37:5–6.

616. *Ashdod II–III*: Figs. 20:7–9, 26:9, 50:20.

617. Ben-Shlomo 2005: Fig. 3.109:1–2.

618. *Ashkelon 3*: Fig. 5.62, Jug 2.

619. *Timnah II*: Pls. 21:23, 26:12, 27:19.

620. *Ashdod II–III*: Fig. 45:19; *Ashdod IV*: Fig. 14:6.

621. *Ashdod I*: Figs. 39:7, 40:17, 41:16; *Ashdod II–III*: Figs. 50:19, 56:29–30.

622. *Samaria III*: Fig. 22:11.

623. See *Gezer III* (HUC): 150–51, Jug Type 28.

DECANTERS

Decanters represent 0.4% of the corpus (Table 4A.39). The main type, **IIDEC 1** and sub-type **IIDEC 1.1**, constitutes 50% of the decanter corpus, but is attested only by neck and rim sherds. The second most common type, **IIDEC 1.2** and sub-type **IIDEC 1.2A**, comprises 26% of the decanter assemblage, and is attested by whole forms.

IIDEC 1 (Fig. 4A.27:1) with a grooved rim is a typical northern decanter with a rounded or sometimes squat body. The small or medium-size southern decanter **IIDEC 1.2** has an everted flanged rim (Fig. 4A.27:2, 4–5) or a splayed rim (Fig. 4A.27:3), a sack-shaped body, a sharply carinated shoulder, a rounded carination above the base, a narrow ridged neck with an unridged or single-ridged handle attached at the neck ridge, and a ring base; it may be wheel-burnished or red-slipped and wheel-burnished, like **IIDEC 1.2A** (Fig. 4A.27:5). Minor type **IIDEC 2** (Fig. 4A.27:6, Color Photo 4A.5:2) and sub-types **IIDEC 2.1** (not illustrated) and **IIDEC 2.2** (Fig. 4A.27:7, Color Photo 4A.5:1) have a cylindrical barrel-shaped body and a splayed rim. **IIDEC 5.1** (Fig. 4A.27:8) is small with a narrow sack-shaped body, representing a debased decanter form; the illustrated example has a skewed stance.

An un-typed decanter is first attested in Stratum II of the 8th century in Field I. Parallels for **IIDEC 1** and **1.1** with the grooved rim typical of northern decanters and **IIDEC 1.2** with the splayed rim typical of southern decanters are rare in Philistia. They appear in the 7th

century at Timnah in Stratum II.⁶²⁴ An example with an everted flanged rim and globular body comes from Ashdod Stratum VII;⁶²⁵ a similar example is attested in Strata X–IX⁶²⁶ and a typical **IIDEC 1.2** body form in Strata IX–VIII,⁶²⁷ both most likely from the 8th century. The southern decanter type is attested at Ashkelon in the 604 BCE destruction,⁶²⁸ as is a single example of a decanter with a tear-drop-shaped body, probably a residual 8th century form.⁶²⁹ One neck and rim fragment of **IIDEC 1.2** was found at Şafi/Gath in Stratum IIB of the 8th century.⁶³⁰ While **IIDEC 2** and **2.2** do not appear elsewhere in Philistia, **IIDEC 2** is attested in 7th century contexts in the north and south, for example, Megiddo Stratum II,⁶³¹ Dan Stratum I,⁶³² and Lachish Stratum II,⁶³³ and variants come from Kabri Stratum E2⁶³⁴ and Naşbeh.⁶³⁵ It also appears in Assyria at Nimrud, dated to the 6th/5th century,⁶³⁶ and two examples—one without decoration and the other with bichrome decoration—come from Sidon in Phoenicia, dated to the Iron IIC.⁶³⁷ **IIDEC 5.1** also does not appear elsewhere in Philistia, but is attested in Judah in 7th/6th century contexts, for example, Lachish Level II,⁶³⁸ Arad Strata VII–VI,⁶³⁹ and ʿIra Stratum VI.⁶⁴⁰

The decanter is not a Philistine type, but was one of the most common jug types in the 8th and 7th centuries with a wide distribution throughout the north and south.

JUGLETS

Juglets represent 2.3% of the corpus (Table 4A.40).⁶⁴¹ The main type is represented by **IJJUL 1**, sub-types **1.1** and **1.2**, and variants **IJJUL 1.3**, **1.4**, **2**, and **2.1** (59 examples), comprising 27% of the juglet assemblage. The second and third most common types are **IJJUL 4** (45 examples) and **IJJUL 3** (19 examples), respectively constituting 21% and 9% of the juglets.

IJJUL 1 (Fig. 4A.28:1–5, Color Photo 4A.4:6) has an oval body with a splayed neck, a simple out-turned rim, a pointed or slightly rounded base, and a handle attached from the rim to the shoulder. Sub-types **IJJUL 1.1** and **1.2** (Fig. 4A.28:6–9) have a vertical neck and an everted rim; one example (Fig. 4A.28:9) is an imitation of a metal form.⁶⁴² Variants **IJJUL 1.3**, **1.4**, and **2–2.1** (Fig. 4A.28:10–12, Color Photo 4A.4:7) have a more rounded body and base with a shorter splayed neck and a slightly thickened out-turned rim. **IJJUL 3** (Fig. 4A.28:13–18, Color Photo 4A.4:8) has an elongated rounded body and a rounded base, and **IJJUL 4** (Fig. 4A.28:19–23) has a tall cylindrical body with a flattened or a short stub base. Both **IJJUL 3** and **IJJUL 4** have a splayed neck, out-turned rim, and handle extending from the rim to the shoulder. **IJJUL 5** (Fig. 4A.28:24) is a smaller version of **IJJUL 4** with a pinched mouth and strainer top.

IJJUL 10 (Fig. 4A.29:1–2, Color Photo 4A.4:9) and the larger **IJJUL 11** (Fig. 4A.29:3) have a swollen bag-shaped body, short narrow neck, simple rim, rounded base, and handle extending from the rim to the shoulder. **IJJUL 12** (not illustrated), with a tear-drop-shaped body, and **IJJUL 12.1** (Fig. 4A.29:4), apparently with an ovoid body, may be variants of a bag-shaped dipper juglet. **IJJUL 13** and sub-type **IJJUL 13.1** (Fig. 4A.29:5–6, Color Photo 4A.4:10) are neckless with a short cylindrical/bag-shaped body, everted simple rim, slightly pointed or rounded base, and thick handle extending above the rim; sub-type **IJJUL 13.2** (Fig. 4A.29:7) is sack-shaped. **IJJUL 15** (Fig. 4A.29:9) with a sack-shaped body is a variant in the black

624. *Timnah II*: Pls. 37:1, 61.8, 96:16.

625. *Ashdod IV*: Fig. 20:10.

626. Ben-Shlomo 2005: Fig. 3.85:8.

627. Ben-Shlomo 2005: Fig. 3.93:4.

628. *Ashkelon 3*: Fig. 5.64, Decanter 1.

629. *Ashkelon 3*: 93, Fig. 5.65, Decanter 2.

630. Avissar and Maeir 2012: Pl. 15.3:10.

631. *Megiddo I*: Pl. 2:67.

632. Pakman 1992: 236, Fig. 5:1.

633. *Lachish V*: Pl. 48:13.

634. Lehmann 2002: Fig. 5.79:14.

635. *TN II*: Pl. 39:737.

636. *Nimrud*: Fig. 279.

637. Culican 1975: 146, 149, Figs. 1A, 4:A.

638. Zimhoni 2004a: Fig. 26.52:1–7.

639. Singer-Avitz 2002: Fig. 21: J 16.

640. Freud 1999: Fig. 6.91:10.

641. Excluding three examples of Residual Forms A **IJJUL 15A** (2) and **IJJUL 16B** (1). One example of **IJJUL 15** from Field IV Upper was erroneously included in the count for Field IV Lower in Chapter 4C.

642. Compare with the bronze juglet from Ashdod Strata XI–X of the Iron I/IIA in *Ashdod II–III*: Fig. 76:2.

Table 4A.40: Juglets

IIJUL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=3	1%	N=30	14%	N=173	79%	N=5	2%	N=8	4%	N=219	100%
1	-	-	1	3	4	13	25	81	1	3	-	-	31	14
1.1	-	-	-	-	1	17	5	83	-	-	-	-	6	3
1.2	-	-	-	-	-	-	1	100	-	-	-	-	1	0.5
1.3	-	-	-	-	2	20	8	80	-	-	-	-	10	5
1.4	-	-	-	-	-	-	1	100	-	-	-	-	1	0.5
2-2.1	-	-	-	-	2	20	7	70	1	10	-	-	10	5
3	-	-	-	-	4	21	15	79	-	-	-	-	19	8
4	-	-	1	2	5	11	36	80	1	2	2	4	45	21
5	-	-	-	-	-	-	3	100	-	-	-	-	3	1
10-11	-	-	1	20	-	-	4	80	-	-	-	-	5	2
12-12.1	-	-	-	-	-	-	-	-	-	-	2	100	2	1
13-13.2	-	-	-	-	-	-	3	100	-	-	-	-	3	1
15	-	-	-	-	1	100	-	-	-	-	-	-	1	0.5
16A	-	-	-	-	-	-	1	100	-	-	-	-	1	0.5
19	-	-	-	-	-	-	1	100	-	-	-	-	1	0.5
24	-	-	-	-	-	-	1	100	-	-	-	-	1	0.5
?	-	-	-	-	11	14	62	78	2	3	4	5	79	36

juglet tradition, which also includes red-slipped or burnished juglets. **IIJUL 15A** (not illustrated) with a small cylindrical body and a pinched mouth is a Residual Form A. While **IIJUL 16A** (not illustrated) with a piriform-shaped body and red slip was included in the juglet count, it should be considered a Residual Form A. **IIJUL 16B** (not illustrated), a variant of the globular red-slipped juglet, is also a Residual Form A. **IIJUL 19** (Fig. 4A.29:11) is a miniature version of the small piriform-shaped juglet with a handle extending above the rim. **IIJUL 24** (Fig. 4A.29:10, Color Photo 4A.4:11) is a Cypriot import with a squat globular body, trefoil mouth, and concave disc base. The slip is somewhat uneven, and the black painted bands on the body, neck, and rim and the circles on the upper body are carelessly executed. It is classified as Black-on-Red (BoR) III ware according to Gjerstad's traditional typology,⁶⁴³ and belongs to the Cypriot Iron Age Type V ceramic group of the Cypro-Archaic II.⁶⁴⁴ **IICUP 1**

(Fig. 4A.29:8), mistakenly included in the juglet count, is the reworked lower half of a **IIJUL 4** vessel with red slip and vertical burnish.

IIJUL 1 first appears in Field I Stratum II of the 8th century. While well attested at Ekron, it is poorly represented at other sites. A partial form with an oval body and pointed base appears at Ashdod, and although assigned to Strata X-IX, it is most likely from the 8th century.⁶⁴⁵ Oval dipper juglet bodies appear at Timnah in Stratum II of the 7th century,⁶⁴⁶ as does a smaller example.⁶⁴⁷ The Timnah examples, classified as JT 7a, are grouped together with the bag-shaped dipper juglet known from Strata IV-II of the 10th-7th centuries.⁶⁴⁸ Forms related to sub-types and variants **IIJUL 1.1**, **IIJUL 1.4**, and **IIJUL 2.1** with a short squat oval-shaped body and a splayed or short angled neck are also known from Ashdod Strata VII-VI of the 8th-7th

643. For similar forms found on Cyprus, see *SCE IV/2*: Figs. LII.6, LII.10.

644. Thanks go to Joanna Smith for identifying and dating this juglet (personal communication).

645. Ben-Shlomo 2005: Fig. 3.74:6.

646. *Timnah II*: Pl. 74:11-12.

647. *Timnah II*: Pl. 55:15.

648. *Timnah II*: 124-25.

centuries,⁶⁴⁹ and smaller variants appear in Stratum VII.⁶⁵⁰ While these types seem to be unique to the Philistine corpus, they are most likely the equivalent of the small dipper juglet with a cylindrical to bag-shaped body that appears throughout Judah in the 8th and 7th centuries.⁶⁵¹

IJJUL 3 and **IJJUL 4** are first attested in Stratum II of the 8th century in Field I. The earliest parallels appear in the Iron IIB in the south, for example, at Beersheba in Stratum II⁶⁵² and Arad Stratum VIII of the 8th century,⁶⁵³ and both juglet types subsequently become an integral part of the 7th century Philistine repertoire. They are the only dipper juglet types well represented in the 7th century at Timnah in Stratum II,⁶⁵⁴ at Ashdod in Strata VII–VI,⁶⁵⁵ and at Ashkelon in the 604 BCE destruction.⁶⁵⁶ Parallels for **IJJUL 5** are unknown.

IJJUL 10 first appears in Field IV Lower in Stratum IB. **IJJUL 11** is represented in Field I in a mixed locus assigned to Stratum IIA of the 8th century. **IJJUL 12** and **12.1** are attested only in topsoil in Field IV Lower.

Parallels for **IJJUL 10** are well attested throughout the south, where it is one of the main juglet types in the Iron IIB 8th century assemblages from Arad Strata X–VIII,⁶⁵⁷ Beersheba Stratum II,⁶⁵⁸ and Lachish Level III.⁶⁵⁹ It appears at most sites in the 7th/6th century, as at En-Gedi in Stratum V (some with vertical burnish),⁶⁶⁰ Ramat Raḥel in Stratum V,⁶⁶¹ Lachish in Level II,⁶⁶² 'Ira in Stratum VI,⁶⁶³ and Kadesh-Barnea in Stratum 2 of the 7th century.⁶⁶⁴ **IJJUL 11** also appears at 'Ira

in Stratum VI of the 7th century⁶⁶⁵ and at En-Gedi in Stratum V of the 7th/6th century (some with vertical burnish).⁶⁶⁶ **IJJUL 12** and **12.1**, single examples of variants of the small dipper juglet, are not found elsewhere.

The **IJJUL 13** series first appears in Field IV Lower Stratum IB. These forms are well attested in the 8th–7th century Phoenician assemblages at Tyre in Strata III–I,⁶⁶⁷ Sarepta in Stratum C,⁶⁶⁸ Keisan in Levels 5–4,⁶⁶⁹ and Achzib in Tomb ZRXXXVI,⁶⁷⁰ and in the 7th century at Kabri in Stratum E2.⁶⁷¹ They also appear in the 8th, 7th, and 6th centuries at Megiddo in Strata III–II,⁶⁷² and in the 8th century at Hazor in Stratum VB.⁶⁷³

IJJUL 15 in the black juglet tradition appears only in Field IV Lower in Stratum IC, and is minimally represented in Philistia in general. It is attested at Timnah in Stratum III of the 8th century, in black ware with red slip and burnish,⁶⁷⁴ and at Ashdod in Stratum VII of the 8th/7th century.⁶⁷⁵ The example cited from 7th century Stratum II in the Timnah report is actually a parallel for **IJJUL 11**.⁶⁷⁶ The black juglet first appears in the north in 10th century contexts at a number of sites, for example, at Yoqne'am in Stratum XIV: it has a piriform or sack-shaped body, a relatively high usually vertical or sometimes out-curved narrow neck, a rounded or button base, and a handle attached from mid-point on the neck to the shoulder.⁶⁷⁷ It continues in the 9th and 8th centuries at Hazor in Strata VII and VA,⁶⁷⁸ with a smaller and more rounded body and a handle attached from the rim to the shoulder. It is most common in the south, attested at numerous sites in the

649. *Ashdod II–III*: Fig. 94:15; Ben-Shlomo 2005: Fig. 3.102:2.

650. *Ashdod IV*: Fig. 21:5.

651. For example, *Lachish V*: Pl. 47:27; Singer-Avitz 2002: Fig. 45:9.

652. Aharoni and Aharoni 1976: Fig. 4:15.

653. Singer-Avitz 2002: Fig. 38:9.

654. *Timnah II*: 126–27, Type JT 7c.

655. *Ashdod II–III*: Fig. 77:7.

656. *Ashkelon 3*: Fig. 5.67.

657. Singer-Avitz 2002: 156, Figs. 27:3–4, 31:7, 35:15.

658. *Beer-sheba I*: Pl. 66:14–18.

659. *Lachish III*: 301, Pl. 88:313.

660. Yezerski 2007: Pl. 6:1–4.

661. *Ramat Raḥel*: Fig. 11:29.

662. Zimhoni 2004a: Fig. 26.55:7.

663. Freud 1999: Fig. 6.100:15–16.

664. Bernick-Greenberg 2007: Pl. 11.82:4–10.

665. Freud 1999: Fig. 6.92:19.

666. Yezerski 2007: Pl. 6:5–10.

667. *Tyre Pottery*: Pl. XII:1–16.

668. *Sarepta IV*: Fig. 49:6–7, 10–11.

669. *Keisan*: Pls. 33:3–4, 43:8–8a.

670. *Akhziv Cemeteries*: Fig. 4.27:66.

671. Lehmann 2002: Fig. 5.79:5–6.

672. *Megiddo I*: Pl. 1:10–11, 13.

673. *Hazor III–IV*: Pl. CCXXIV:7.

674. *Timnah II*: Pls. 29:18, 93:20.

675. *Ashdod II–III*: Fig. 38:7.

676. *Timnah II*: Pl. 38:7.

677. Zarzecki-Peleg, Cohen-Anidjar, and Ben-Tor 2005: Fig. II.45.4.

678. Garfinkel and Greenberg 1997: Fig. III.33:12; *Hazor II*: Pl. LXXXVI:16, respectively.

Table 4A.41: Bottles

IIBTL	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=0	0%	N=3	14%	N=17	81%	N=0	0%	N=1	5%	N=21	100%
1-1.3	-	-	-	-	3	23	10	77	-	-	-	-	13	61
2	-	-	-	-	-	-	1	100	-	-	-	-	1	5
3.1	-	-	-	-	-	-	-	-	-	-	1	100	1	5
4	-	-	-	-	-	-	3	100	-	-	-	-	3	14
6	-	-	-	-	-	-	1	100	-	-	-	-	1	5
7A	-	-	-	-	-	-	1	100	-	-	-	-	1	5
?	-	-	-	-	-	-	1	100	-	-	-	-	1	5

10th/9th century, for example, Arad Stratum XII,⁶⁷⁹ in the 8th century at Lachish in Level III,⁶⁸⁰ and in the 7th century in City of David Stratum 10.⁶⁸¹

IJJUL 19 and **24** are attested only in Stratum IB in Field IV Lower. A miniature goblet with characteristics similar to **IJJUL 19** comes from Timnah 7th century Stratum II.⁶⁸² Forms similar to **IJJUL 24** are found on Cyprus.⁶⁸³

BOTTLES

Bottles represent 0.2% of the corpus (Table 4A.41). The **IIBTL 1** series comprises 61% of the bottle corpus, represently mainly in Stratum IB by 10 examples, 77% of the **IIBTL** assemblage.

IIBTL 1 (Fig. 4A.30:1–2, Color Photo 4A.5:3), **IIBTL 1.1** (not illustrated), **IIBTL 1.2** (Fig. 4A.30:3), and **IIBTL 1.3** (Fig. 4A.30:4) have a globular body, a very short narrow sharply splayed neck ending in a pointed pinched ridge, a concave rim, and usually a round base. **IIBTL 1.3** (Fig. 4A.30:4) has a flattened base. **IIBTL 2** and **IIBTL 4**, although not well represented, are part of the standard Iron IIC bottle repertoire. **IIBTL 2** (Fig. 4A.30:5) has a cone-shaped body tapering to a pointed base, a short rounded shoulder, a high wide neck, and an everted overhanging rim. **IIBTL 4** (Fig. 4A.30:6–7, Color Photo 4A.5:4) has

a carrot-shaped body tapering to a rounded base, a broad rounded shoulder, a short splayed neck, and a rounded rim. Three miscellaneous bottle forms are represented: **IIBTL 3.1** (Fig. 4A.30:8) with an elongated cup-shaped body, a wide splayed neck, a tapered rim, and a rounded base; **IIBTL 6** (Fig. 4A.30:9) with a globular body, a short wide vertical grooved neck, a simple rim, and a slightly pointed base; and **IIBTL 7A** (Fig. 4A.30:10) with a small globular body, a wide outwardly-inclined neck, a simple rim, and a slightly rounded base.

IIBTL 1 may be attested in the early Iron IIB in the 8th century in Field I, based on the presence of two whole examples, one from a fill cut by a post-Stratum I pit and the other found in topsoil. Parallels for the **IIBTL 1** series are rare in Judah, the earliest attested in the Iron IIB by variations from Beersheba Stratum II⁶⁸⁴ and Beit Mirsim Stratum A.⁶⁸⁵ This bottle also appears in the north at Megiddo in Stratum III of the 8th/7th century,⁶⁸⁶ in Achzib Tomb ZR IX, with 10th–7th century material, the balloon bottle is dated to the 7th century.⁶⁸⁷ **IIBTL 1** is attested at Timnah in Stratum II of the 7th century,⁶⁸⁸ in the northeastern Sinai at Kadesh-Barnea in Stratum 2 of the 7th/6th century,⁶⁸⁹ and in Transjordan in the Ammonite ceramic assemblage, for example, at Adoni Nur.⁶⁹⁰ **IIBTL 1** is a variant and

679. Singer-Avitz 2002: 117, Fig. 3:5.

680. Zimhoni 2004a: Fig. 26.24:4.

681. *City of David VIIIB*: Fig. 4.4:5.

682. *Timnah II*: Pl. 75:17.

683. *SCE IV/2*: Figs. LII.6, LII.10.

684. Singer-Avitz 1999: Fig. 10:27–32.

685. *TBM I*: Pl. 37:3, 21.

686. *Megiddo I*: Pl. 9:16.

687. *Akhziv Cemeteries*: Fig. 4.7:21.

688. *Timnah II*: Pls. 37:8–11, 69:1–3.

689. Bernick-Greenberg 2007: Pl. 11.91:10.

690. Harding 1953: Fig. 22:89–90.

Table 4A.42: Stands

IISTD	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=0	0%	N=0	0%	N=4	15%	N=20	77%	N=0	0%	N=2	8%	N=26	100%
1	-	-	-	-	1	12	7	88	-	-	-	-	8	31
1.2	-	-	-	-	1	33	2	67	-	-	-	-	3	12
2-2.2	-	-	-	-	-	-	8	80	-	-	2	20	10	38
4.1	-	-	-	-	-	-	1	100	-	-	-	-	1	4
?	-	-	-	-	2	50	2	50	-	-	-	-	4	15

local imitation of an Assyrian globular neckless vessel with an everted rim.⁶⁹¹

IIBTL 2 appears in limited numbers in the north at Keisan in Stratum 5 assigned to the 8th/7th century,⁶⁹² at Far'ah (North) assigned to Stratum VIIb-c of the 10th-9th centuries,⁶⁹³ and at Tell Qiri in association with the 7th century.⁶⁹⁴ While it first appears at Ekron in Stratum IB in Field IV Lower, elsewhere in Philistia it is attested only at Timnah in Stratum II of the 7th century.⁶⁹⁵ In Judah, a slipped 7th century example comes from Arad Stratum VII,⁶⁹⁶ and both slipped and unslipped examples appear in City of David Stratum 10A of the 7th/6th century.⁶⁹⁷ Also in the 7th/6th century, unslipped examples appear at Naşbeh,⁶⁹⁸ and unslipped variants are attested in the northern Sinai at Kadesh-Barnea in Stratum 2.⁶⁹⁹ A range of forms of this bottle type occurs in 7th century contexts in Assyria, for example, at Khirbet Khatuniyeh,⁷⁰⁰ and in its western provinces, for example, at Tell Ahmar.⁷⁰¹

IIBTL 4 variants appear in the north at Keisan in Stratum 5 assigned to the 8th/7th century,⁷⁰² in the 7th century at Megiddo in Stratum II⁷⁰³ and Far'ah (N) in

Stratum VIIe,⁷⁰⁴ and at Qiri in association with the 7th century.⁷⁰⁵ It appears at Timnah in Stratum II of the 7th century⁷⁰⁶ and at Ashkelon in the 604 BCE destruction.⁷⁰⁷ In Judah, variants are known from Lachish Tomb 106 dated to ca. 600 BCE.⁷⁰⁸ Attested in Ammonite tombs in Transjordan, for example, at Adoni Nur,⁷⁰⁹ it is also known in 7th century contexts in Assyria, for example, at Tall Shaykh Hamid.⁷¹⁰

IIBTL 3.1, **IIBTL 6**, and **IIBTL 7A** cannot be defined as distinct types. While single examples are attested at Ekron, parallels are unknown elsewhere.

STANDS

Stands represent 0.27% of the corpus (Table 4A.42). The most common type is the **IISTD 2** series, comprising 38% of the assemblage, best represented in Stratum IB.

IISTD 1.2, **2**, **2.1**, and **2.2** (Fig. 4A.31:1-4; see Color Photo 4A.5:6-7) and **IISTD 4.1** (not illustrated) are all sub-types of **IISTD 1**.⁷¹¹ The stands range in size from small to large and have an hourglass shape with an open top and bottom, an outwardly-curved sidewall, and usually an everted overhanging or flanged rim.

691. Oates 1959: Pl. XXXVIII:83.

692. *Keisan*: Pl. 37:10-10c.

693. *Fa'rah I*: Pl. 61:16; in the opinion of this author, however, it comes from a definitive 7th century material culture context.

694. Hunt 1987: Fig. 44:7.

695. *Timnah II*: Pl. 49:8.

696. Singer-Avitz 2002: 183, Fig. 41:10.

697. *City of David VIIb*: Fig. 4.5:6-7.

698. *TN II*: 13, §66, Pl. 27:444-448, 452.

699. Bernick-Greenberg 2007: Pls. 11.75:19, 11.80:9.

700. *Khatuniyeh*: Fig. 39:166-168.

701. Jamieson 1999: 300, Fig. 2:5.

702. *Keisan*: Pl. 37:13-13a.

703. *Megiddo I*: Pl. 9:6-7.

704. *Fa'rah I*: Pl. 61:13-14.

705. Hunt 1987: Fig. 44:6.

706. *Timnah II*: Pl. 49:10.

707. *Ashkelon 3*: Fig. 8.14-15.

708. *Lachish III*: Pl. 90:383-384.

709. Harding 1953: Fig. 22:94-99.

710. Anastasio 2010: 139, Pl. 31:8.

711. The best complete example of **IISTD 1** comes from Field IV Upper, Bucket No. IVNW.28.77.1, to be published in *Ekron 10*.

IISTD 1/IISTD 1.2 may be attested in Iron IIB 8th century contexts in Field I, based on an example found on a late 8th century surface cut by a post-Stratum I pit. Parallels for **IISTD 1** and sub-types **IISTD 1.2**, **2**, **2.1**, **2.2**, and **4.1** are attested in Philistia at Šafi/Gath in Stratum A3 of the 9th century,⁷¹² at Ashdod in Strata VIII–VI of the 8th and 7th centuries,⁷¹³ and at Ashkelon in the 604 BCE destruction,⁷¹⁴ as well as at Timnah in Stratum II of the 7th century.⁷¹⁵ These stands are widely distributed in the north, for example, at Megiddo in Strata IV–II of the 9th–7th centuries,⁷¹⁶ at Keisan in Levels 5 and 4 of the 8th/7th and 7th centuries, respectively,⁷¹⁷ at Samaria in Period IV of the 8th century,⁷¹⁸ at Hazor in Strata VI and V of the 8th century,⁷¹⁹ and at Far‘ah (N) in Stratum VIIe of the 7th century.⁷²⁰ They are similarly frequent in Judah at Beersheba in Stratum II of the 8th century,⁷²¹ Lachish in Levels III–II of the 8th–7th centuries,⁷²² and Ramat Rahel in Stratum V of the 7th century.⁷²³

The shape variations of the **IISTD 1** series are generally not typologically relevant, as different forms appear in most phases of the Iron II. The low number of stands found in Philistia and elsewhere compared to the number of closed vessels lacking the type of base that would allow them to stand upright, such as storage jars, implies that stands may have been used only for jars or other vessels that served special functions requiring a steady vertical stance.

LIDS

The three examples of lids represent 0.02% of the corpus. **IILID 1** first appears in Stratum IC (two examples), and **IILID 2** is represented by one example

712. Shai and Maeir 2012: Pls. 14.3.7, 14.11.8.

713. *Ashdod II–III*: Figs. 44:6–13, 49:7, 57:12–16; Ben-Shlomo 2005: Fig. 3.95:6–7.

714. *Ashkelon 3*: Fig. 5.72.

715. *Timnah II*: Pls. 38:15–17, 44:6–7.

716. *Megiddo I*: Pl. 34:5–15.

717. *Keisan*: Pls. 45:7–12 and 32:7, respectively.

718. *Samara III*: Fig. 28:7, 9–11.

719. *Hazor III–IV*: Pls. CCL:18, CCLIII:9.

720. *Far‘ah I*: Pl. 47:1–4.

721. *Beer-sheba I*: Pl. 63:131.

722. Zimhoni 2004a: Figs. 26.14:7, 26.21:11, 26.43:11.

723. *Ramat Rahel*: Figs. 25:5–6, 26:4.

from Stratum IB. Both types resemble upside-down thin-walled shallow round-sided bowls. **IILID 1** has an inset cut rim (Fig. 4A.31:5) and **IILID 2** has an angled cut rim (Fig. 4A.31:6). Their delicacy and similarity to fine ware shallow round-sided bowls make them difficult to identify, especially in the absence of a grooved lid-rim device, which probably explains why they are not attested elsewhere.

CUP-AND-SAUCERS

The single example of **IICAS 1** (Fig. 4A.31:7) comprises 0.01% of the corpus. The vessel is composed of a round-sided bowl with another bowl inside it attached at the center. The interior bowl, which is usually taller than the saucer, has an everted rim. The only other example of a cup-and-saucer at Ekron comes from the earliest phase of the Iron IA.⁷²⁴ Rare in Philistia—and not well represented in Iron II Israel, and then primarily in the north—this vessel is mostly attested in the Late Bronze Age and Iron I.⁷²⁵

LAMPS

Lamps represent 0.29% of the corpus (Table 4A.43). The most common type is **IILMP 1**, comprising 32% of the lamp assemblage. The majority of the lamps come from Stratum IB, constituting 78% of the assemblage.

IILMP 1 (Fig. 4A.31:8–10, Color Photo 4A.5:8) has a large flat to slightly curved saucer, an open shallow pinched spout, a wide horizontal lip, and a rounded base. **IILMP 2** (Fig. 4A.31:11) with a large curved saucer, slightly rounded base, and open shallow spout, has a carination below the short narrow out-curved lip. **IILMP 3** (Fig. 4A.31:12) with a large slightly curved saucer, low disc base, and deep pinched spout, has a slight carination below the wide down-curved lip. **IILMP 4** (Fig. 4A.31:13–15, Color Photo 4A.5:9) with a small asymmetrical saucer, high thick base, and deep pinched spout, has a prominent carination below the very wide extended out-curved lip.

724. Dothan, Gitin, and Zukerman 2006: Fig. 3.3:19.

725. See Uziel and Gadot 2010 for a comprehensive database and a discussion of its function as a cultic vessel.

Table 4A.43: Lamps

IILMP	Pre-IC		ICb		IC		IB		IA		Topsoil		Total	
	N=1	4%	N=4	14%	N=1	4%	N=22	78%	N=0	0%	N=0	0%	N=28	100%
1	1	11	1	11	1	11	6	67	-	-	-	-	9	32
2	-	-	-	-	-	-	1	100	-	-	-	-	1	4
3	-	-	-	-	-	-	1	100	-	-	-	-	1	4
4	-	-	-	-	-	-	5	100	-	-	-	-	5	18
?	-	-	3	25			9	75	-	-	-	-	12	42

IILMP 1 is the common Iron Age generic lamp type.⁷²⁶ It has a deep saucer in the Iron I–IIB. In the 9th and 8th centuries, it appears alongside the lamp with a shallow saucer. Iron I parallels for **IILMP 1** with a deep saucer appear in the 12th century in the north at Hazor in Stratum XII⁷²⁷ and at Megiddo in Strata VII–VI.⁷²⁸ It is also attested at Gezer in Stratum XII of the 12th and 11th centuries,⁷²⁹ and at Hazor in Strata X–V of the 10th–8th centuries.⁷³⁰ **IILMP 1** with a shallow saucer is attested at Hazor in Strata VIII–VII of 9th century⁷³¹ and Strata VI–V of the 8th century.⁷³² In the south, the Iron I version of **IILMP 1** with a deep saucer appears at Lachish in Stratum VI of the 12th century.⁷³³ In the Iron IIB, a variation of **IILMP 2** is attested at Lachish in Stratum IV of the 9th/8th century.⁷³⁴ Examples of **IILMP 3** appear at Arad in Strata X–VIII of the 9th and 8th centuries,⁷³⁵ at Beersheba in Strata III and II of the 9th/8th and the 8th centuries,⁷³⁶ and at Lachish in Stratum III⁷³⁷ and City of David in Strata 12–11 of the 8th century.⁷³⁸ The deep version of **IILMP 1** appears at Ashdod in Iron I/IIA Stratum Xb of the 11th/10th

century,⁷³⁹ as well as at Safi/Gath in Stratum A3 of the 9th century⁷⁴⁰ and Ashdod in Stratum VIII of the 8th century.⁷⁴¹ The shallow saucer form of **IILMP 1** is attested at Ashdod in Strata VII and VI of the 8th/7th and 7th centuries⁷⁴² and at Ashkelon in the 604 BCE destruction.⁷⁴³ It also appears at Timnah in Stratum II of the 7th century,⁷⁴⁴ as does **IILMP 3**.⁷⁴⁵

Parallels for **IILMP 4**—not common in the north—first appear at Hazor in Stratum VA of the 8th century⁷⁴⁶ and at Far'ah (N) in Strata VIId and VIIe of the 8th and 7th centuries.⁷⁴⁷ A variant with a larger and deeper saucer, a slightly lower and thinner base, and a short out-curved rim is attested at Megiddo in Stratum III of the 8th/7th century.⁷⁴⁸ In Judah, **IILMP 4** is the predominant type with a wide distribution. It appears in City of David Stratum 12 of the 8th century⁷⁴⁹ and Stratum 10 of the second half of the 7th century,⁷⁵⁰ Arad Strata VII and VI of the late 8th and 7th centuries,⁷⁵¹ and Ramat Raḥel Stratum V of the 7th century.⁷⁵² It is also attested in 7th/6th century contexts

726. Amiran 1969: 291, Pl. 100.

727. *Hazor III–IV*: Pl. CLXIX:7–8.

728. *Megiddo II*: Pl. 86:13–16.

729. *Gezer IV* (HUC): Pl. 38:13–14.

730. Ben-Ami 2012a: Figs. 2.8:26, 2.13:16–17, 2.21:11; 2012b: Fig. 3.2:7; Sandhaus 2012: Fig. 4.312:17.

731. Ben-Ami 2012b: Fig. 3.15:22.

732. Garfinkel and Greenberg 1997: Figs. III.37:6, III.45:5.

733. *Lachish V*: Pl. 40:10.

734. *Lachish V*: Pl. 44:8.

735. Singer-Avitz 2002: Figs. 27:9–10, 28:2, 34:11, 39:3–4.

736. *Beer-sheba I*: Pls. 56:5–7, 63:33–34, 64:18–19.

737. *Lachish V*: Pl. 46:12.

738. *City of David VIIb*: Figs. 4.29:9, 4.33:1, 4.35:33, 4.36:10, 4.38:16.

739. *Ashdod IV*: Fig. 5:5, 8.

740. Shai and Maeir 2012: Pl. 14.3:5.

741. *Ashdod II–III*: Fig. 50:21–22; Ben-Shlomo 2005: Fig. 3.74:8–9.

742. *Ashdod II–III*: Figs. 44:1–3, 58:1–3; Ben-Shlomo 2005: Fig. 3.110:1.

743. *Ashkelon 3*: Fig. 5.59, Lamp.

744. *Timnah II*: Pl. 75:6.

745. *Timnah II*: Pls. 38:9, 50:16, 75:5.

746. *Hazor III–IV*: Pl. CCXXXII:9.

747. *Far'ah I*: Pl. 59:14–19.

748. *Megiddo I*: Pl. 37:7.

749. *City of David VIIb*: Figs. 4.54:10–11, 4.57:29–30.

750. *City of David VIIb*: Figs. 4.11:24, 4.15:32.

751. Singer-Avitz 2002: Figs. 41:11–12, 45:11–13, 46:6.

752. *Ramat Raḥel*: Fig. 11:36–38.

at Lachish in Stratum II,⁷⁵³ En-Gedi in Stratum V,⁷⁵⁴ and 'Ira in Stratum VI.⁷⁵⁵ **IILMP 4** also appears at Timnah in Stratum III of the 8th century,⁷⁵⁶ and becomes more common Stratum II of the 7th century.⁷⁵⁷ It is not attested, however, at the Philistine coastal sites of Ashdod and Ashkelon.⁷⁵⁸

JUG-JARS

The single fragmentary example of a jug-jar comprises 0.01% of the corpus.⁷⁵⁹ **IJJ** (not illustrated) is medium-size with an ovoid body, a wide vertical neck, a slightly out-turned rim, and two handles extending from the shoulder to the upper body.

FUNNELS

Funnels are represented by a single fragmentary example, comprising 0.01% of the corpus. **IIFNL** (not illustrated) is medium-size with an ovoid body, a high wide vertical neck, a slightly out-turned rim, and two loop handles extending from the shoulder to the upper body.

SIEVES

IISV (not illustrated) is represented by only a small fragment of a perforated thin-walled straight-sided bowl, comprising 0.01% of the corpus. As it is the only example in the entire Iron II ceramic assemblage, it will be discussed together with other unique fragments in the final corpus analysis to be published in the synthetic volume on Ekron.

FOOTBATHS

Footbaths are represented by two examples in Field IV Lower, although only one was included in the quantification of the corpus; the other was found in one of the probes conducted outside the area on which the Field IV Lower ceramic typology is based. It is presented here because of the rarity of these vessels.

Footbaths are oval, circular, or rectangular in shape with a flat base, straight sidewall, and central support either in the form of one or two pillars with a round or flat head or of a handle that generally does not reach the height of the vessel rim. They have rounded ledges or tongues extending inward from the rim, and sometimes a small drainage hole or spout in the sidewall near the base. **IIFB 1** (Fig. 4A.32:1) from Stratum IB is oval with remains of four tongues. **IIFB 2** (Fig. 4A.33:1) from a post-Stratum I fill is typologically associated with Stratum IB; it is circular and has a central support in the form of a handle, four tongues, and a drainage spout.

Footbaths are rare. The examples first attested in the north in the Iron IIA–B are rectangular with a central support in the form of a handle and six tongues. They appear at Far'ah (N) in Level VIIb of the 10th/9th and Level VIIe of the 8th/7th centuries.⁷⁶⁰ A similar example appears at Megiddo in Stratum III of the 8th/7th century.⁷⁶¹ An oval footbath like **IIFB 1** but with a central double pillar handle, four ledge handles, and a drainage hole (similar to **IIFB 2**), and other variations of this vessel appear at Samaria in Periods IV–V of the 8th century.⁷⁶² In the south, 8th century variants of **IIFB 1** with a single central pillar and eight tongues appear at Beersheba in Stratum II,⁷⁶³ and one with two unconnected off-center pillars and six tongues comes from Lachish Stratum III.⁷⁶⁴ A fragment including one tongue is attested at Ras Abu Ma'aruf (Jerusalem)

753. *Lachish V*: Pls. 48:2–4, 49:8, 50:6

754. Yezerski 2007: Pl. 11:6–10.

755. Freud 1999: Figs. 6.91:11–12, 6.106:12.

756. *Timnah II*: Pl. 26:14.

757. *Timnah II*: Pls. 50:13–15, 75:5.

758. For supplementary data, see *Gezer III* (HUC): 225–27, Types 113–114; *Timnah II*: 133–35.

759. A detailed discussion based on the more complete forms found in Field IV Upper will be published in *Ekron* 10.

760. *Far'ah I*: Pl. 55:1–3. It is possible, however, that a circular-shaped fragment resembling **IIFB 2** found at Keisan in Stratum 9c of the 11th century might be an earlier example (*Keisan*: Pl. 73:12).

761. *Megiddo I*: Pl. 43:14.

762. *Samaria III*: Fig. 29:1–7.

763. *Beer-sheba I*: Pl. 63:138; Singer-Avitz 2016b: Fig. 12.56:1 and variant on Fig. 12.146:6.

764. Zimhoni 2004a: Fig. 26.2:4.

in the 7th century.⁷⁶⁵ An additional variant of **IIFB 1** with a central double pillar handle and extensions from both sides of the handle connecting it to the sidewall is attested at Timnah in Stratum II of the 7th century.⁷⁶⁶ A variant of **IIFB 2** with six tongues and

a drainage spout appears at Ashdod in an unstratified context.⁷⁶⁷ While the specific function of these vessels is uncertain, their interpretation as footbaths derives mainly from the production and use of similar items in modern-day Palestine.⁷⁶⁸

765. Seligman 1994: Fig. 9:8.

766. *Timnah II*: Pl. 62:1.

767. *Ashdod II–III*: Fig. 60:11.

768. *Samaria III*: 187; Prag 2012.

THE POTTERY

COLOR CODES

Ware:

A = brown
B = light brown
C = dark brown
D = red-brown
E = orange-brown
F = red
G = deep red
H = buff
I = buff-pink
J = buff-green
K = gray
L = white
M = weak red
N = gray-brown
O = green-gray

Core:

0 = no core
1 = brown
2 = dark brown
3 = gray
4 = dark gray
5 = light brown
6 = gray-green
7 = buff
8 = red-brown

LEVIGATION CODES

A = very good
B = good
C = fair
D = poor
E = very poor

Fig. 4A.1. Bowls: Nos. 1–3 Stratum Pre-IC; Nos. 4–5, 18 Stratum ICb; Nos. 6, 35? Stratum IC; Nos. 34, 36 Stratum IC typologically; Nos. 7–17, 19–33 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IIBL 1	IVNW.8.234.1	8026	D	2	C	
2.	IIBL 1	IVNW.8.221.51	8016	D	8	C	
3.	IIBL 1	IVNW.8.222.8	8023	A	1	C	
4.	IIBL 1	IVNW.9.163.6	9012A	A	1	C	
5.	IIBL 1	IVNW.9.163.2	9012A	D	0	C	
6.	IIBL 1	IVNW.25.137.16	25025	A	0	C	
7.	IIBL 1	IVNW.8.127.51	8002	K	0	C	
8.	IIBL 1	IVNW.8.162.1	8002	C	0	C	
9.	IIBL 1	IVNE.7.7.2	7004	D	0	C	
10.	IIBL 1	IVNW.24.169.5	24031	A	0	C	
11.	IIBL 1	IVNE.7.62.14	7011P	C	0	C	
12.	IIBL 1	IVNW.9.64.5	9003	K	0	C	
13.	IIBL 1	IVNE.7.16.1	7006	B	0	C	
14.	IIBL 1	IVNW.7.18.1	7006	A	0	C	
15.	IIBL 1	IVNW.9.43.1	9003	A	8	C	
16.	IIBL 1.1	IVNW.8.151.51	8002	C	0	C	
17.	IIBL 1.1	IVNW.42.24.1	42002	B	0	C	
18.	IIBL 1.1	IVNW.9.163.4.	9012A	A	0	C	
19.	IIBL 1.1	IVNW.7.73.1	7011P	D	2	C	
20.	IIBL 1.1	IVNW.8.122.1	8002	A	0	C	
21.	IIBL 1.1	IVNW.9.17.1	9003	O	1	C	
22.	IIBL 1.1	IVNW.25.52.1	25042P	A	0	C	
23.	IIBL 1.1	IVNW.7.101.10	7011P	C	0	C	
24.	IIBL 1.1	IVNW.8.93.7	8002	D	0	C	
25.	IIBL 1.2	IVNW.9.117.1b	9003	A	3	C	
26.	IIBL 1.2	IVNW.7.80.1	7012P	A	0	C	
27.	IIBL 1.2	IVNW.9.71.1	9003	A	0	C	
28.	IIBL 1.2	IVNE.7.66.1	7011P	C	0	C	
29.	IIBL 1.3	IVNW.9.101.1	9003	A	0	C	
30.	IIBL 1.3	IVNW.25.74.1	25006	D	0	C	
31.	IIBL 1.3	IVNW.8.187.1	8012P	C	1	C	
32.	IIBL 1.4	IVNW.8.41.22	8003	D	0	C	
33.	IIBL 1.4	IVNW.9.96.1	9003	D	0	C	
34.	IIBL 1.4	IVNW.8.101.54	8002	A	0	C	
35.	IIBL 1B	IVNW.39.72.22	39017A	A	0	C	Int. and upper ext.: black wash (Color Photo 4A.1:4)
36.	IIBL 1B	IVNW.26.41.2	26017	D	2	C	Int. and upper ext.: black wash

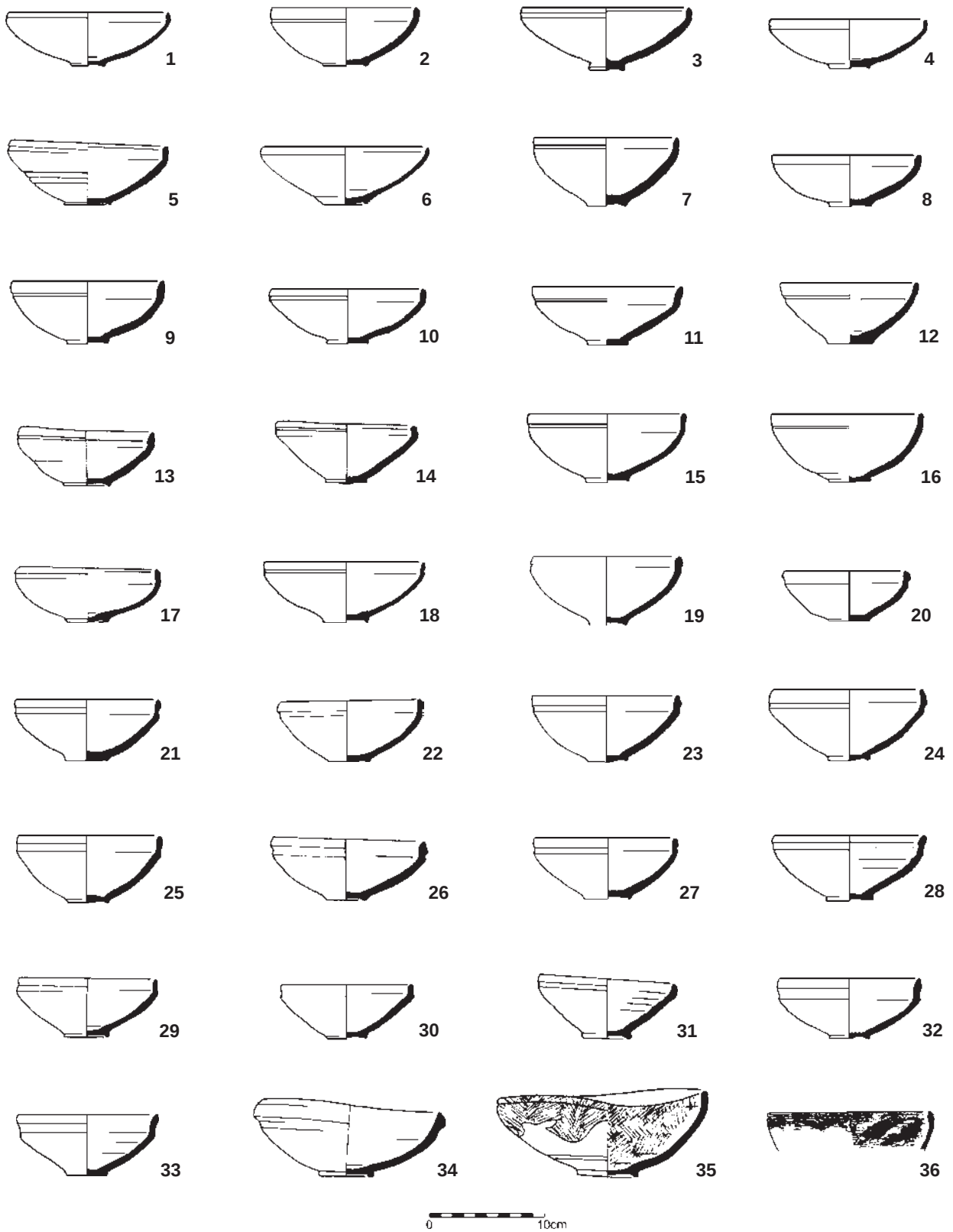


Fig. 4A.1

Fig. 4A.2. Bowls: Nos. 21, 27, 31 Stratum ICb; No. 30 Stratum IC; Nos. 1-20, 22-26, 28-29, 32-36 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IIBL 2	IVNW.25.72.1	25006	B	0	C	
2.	IIBL 2	IVNW.8.142.51	8002	B	0	C	
3.	IIBL 2	IVNW.9.23.1	9003	D	0	C	
4.	IIBL 2	IVNE.25.97.1	25016P	D	1	C	
5.	IIBL 2.1	IVNE.8.94.1	8016P	C	0	C	
6.	IIBL 2.1	IVNW.9.109.5	9003	A	0	C	
7.	IIBL 2.2	IVNE.25.42.1	8016P	A	2	C	
8.	IIBL 2.3	IVNW.25.71.1	25006	B	0	C	
9.	IIBL 3	IVNW.9.104.51	9003	C	0	C	
10.	IIBL 3	IVNW.9.57.51	9003	A	2	C	
11.	IIBL 3	IVNW.9.53.51	9003	C	0	C	
12.	IIBL 3	IVNW.8.76.51	8002	B	0	C	
13.	IIBL 3	IVNW.10.33.51	10005	B	0	C	
14.	IIBL 3	IVNW.9.117.1a	9003	C	0	C	
15.	IIBL 3	IVNW.8.101.55	8002	A	3	C	
16.	IIBL 3	IVNW.9.45.51	9003	A	2	C	
17.	IIBL 3	IVNE.10.20.4	10012	A	2	C	
18.	IIBL 3	IVNW.42.74.1	42005	B	0	C	
19.	IIBL 3	IVNW.41.60.1	42010	A	2	C	
20.	IIBL 3	IVNE.7.83.1	7012P	A	0	C	
21.	IIBL 3.1	IVNE.10.58.4	10017	O	0	C	
22.	IIBL 3.1	IVNE.7.7.7	7004	A	0	C	
23.	IIBL 3.1	IVNE.7.15.13	7006	D	4	C	
24.	IIBL 3.1	IVNW.8.116.51	8002	A	0	C	
25.	IIBL 3.1	IVNW.39.13.1	39003P	A	0	C	
26.	IIBL 3.1	IVNW.9.147.51	9006A	A	2	C	
27.	IIBL 3.2	IVNW.24.160.51	24026.1	A	0	C	
28.	IIBL 3.2	IVNW.42.83.1	42016	C	0	C	
29.	IIBL 3.2	IVNW.24.175.5	24031	D	1	D	
30.	IIBL 3.2	IVNW.40.68.9	40016	A	1	C	
31.	IIBL 3.2	IVNW.8.197.54	8012.1	B	0	C	
32.	IIBL 3.2	IVNE.7.10.7	7004	A	0	C	
33.	IIBL 3B	IVNE.7.38.1	7008	A	0	C	Int. and upper ext.: red slip; int.: wheel burnish
34.	IIBL 3B	IVNW.9.99.1	9003	D	2	C	Int. and upper ext.: red slip; int.: wheel burnish
35.	IIBL 3B	IVNW.9.25.1	9003	D	3	C	Int. and upper ext.: red slip; int.: wheel burnish
36.	IIBL 3B	IVNW.9.13.15	9003	D	3	C	Int. and upper ext.: red slip; int.: wheel burnish

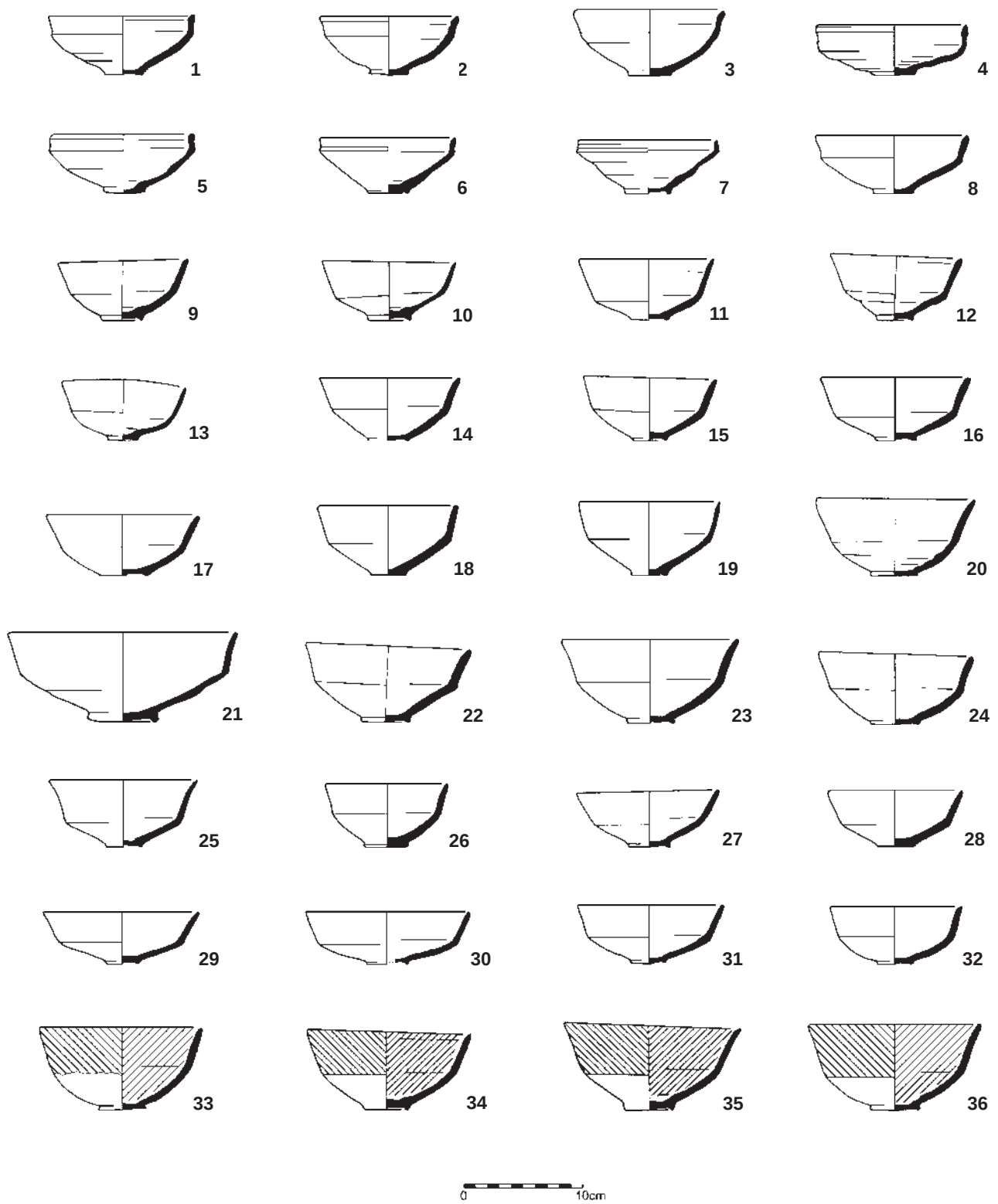


Fig. 4A.2

Fig. 4A.3. Bowls: Nos. 6, 33 Stratum ICB; Nos. 7, 11, 36 Stratum IC; Nos. 1-5, 8-10, 12-32, 34-35 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IIBL 4	IVNW.8.139.51	8002	D	0	C	
2.	IIBL 4	IVNW.9.109.55	9003	B	0	C	
3.	IIBL 4	IVNW.8.140.51	8002	A	3	C	
4.	IIBL 4	IVNW.9.31.4	9003	D	0	C	
5.	IIBL 4	IVNW.9.87.13	9003	D	0	C	
6.	IIBL 4	IVNW.8.198.20	8011	A	0	C	
7.	IIBL 4.1	IVNW.7.22.6	7006.1	D	2	C	
8.	IIBL 4.1	IVNE.24.71.1	24002	D	0	C	
9.	IIBL 4.1	IVNW.25.31.1	25006	D	0	C	
10.	IIBL 4.1	IVNW.8.138.51	8002	A	0	C	
11.	IIBL 4.1	IVNE.25.135.2	25025	A	0	C	
12.	IIBL 4.1	IVNE.7.18.51	7006	B	0	C	
13.	IIBL 4.2	IVNW.8.141.51	8002	C	0	C	
14.	IIBL 4.2	IVNW.9.107.51	9003	C	2	C	
15.	IIBL 4.2	IVNE.7.27.1	7002	D	0	C	
16.	IIBL 4.2	IVNE.7.29.1	7004	D	0	C	
17.	IIBL 4.3	IVNW.25.16.1	25007P	A	0	C	
18.	IIBL 4.3	IVNE.25.109.1	25007	D	0	C	(Color Photo 4A.1:6)
19.	IIBL 4.3	IVNW.8.177.1	8012P	K	0	C	
20.	IIBL 4.5	IVNW.8.193.4	8012P	D	3	C	
21.	IIBL 5	IVNW.8.144.51	8002	C	0	C	
22.	IIBL 5	IVNW.9.87.3	9003	D	0	C	Int.: wheel burnish
23.	IIBL 5A	IVNW.9.100.35	9003	D	2	C	Int. and rim ext.: red slip; int.: wheel burnish
24.	IIBL 5A	IVNE.24.123.1	24002	D	0	C	Int. and rim ext.: red slip; int.: wheel burnish
25.	IIBL 5A	IVNE.7.40.5	7008	C	0	C	Int. and rim ext.: red slip; int. and rim ext.: wheel burnish
26.	IIBL 5A	IVNE.25.99.1	25016P	D	0	C	Int. and rim ext.: red slip; int.: wheel burnish
27.	IIBL 5A	IVNW.25.90.51	25042	C	0	C	Int. and rim ext.: red slip; ext.: red lines
28.	IIBL 5D	IVNW.24.30.7	24005	A	0	C	Int. and rim ext.: red slip; int.: wheel burnish
29.	IIBL 5.1A	IVNW.8.135.3	8002	C	0	C	Int. and upper ext.: red slip; int.: wheel burnish
30.	IIBL 5.1A	IVNE.7.76.1	7011P	A	0	C	Int. and upper ext.: red slip; int.: wheel burnish
31.	IIBL 5.3	IVNE.10.48.3	10014	A	8	C	
32.	IIBL 5.3A	IVNE.8.64.28	8005	D	0	C	Upper int. and upper ext.: red slip; int.: wheel burnish
33.	IIBL 5.3A	IVNE.7.152.11	7025.1	D	2	C	Int. and upper ext.: red slip; int.: wheel burnish
34.	IIBL 5.3A	IVNW.41.24.14	41007P	D	0	C	Int. and upper ext.: red slip; int.: wheel burnish
35.	IIBL 5.4A	IVNE.9.40.12	9002	D	0	C	Int. and upper ext.: red slip; int.: wheel burnish
36.	IIBL 5.5A	IVNE.25.135.21	25025	C	0	C	Int. and ext.: red slip; int.: wheel burnish

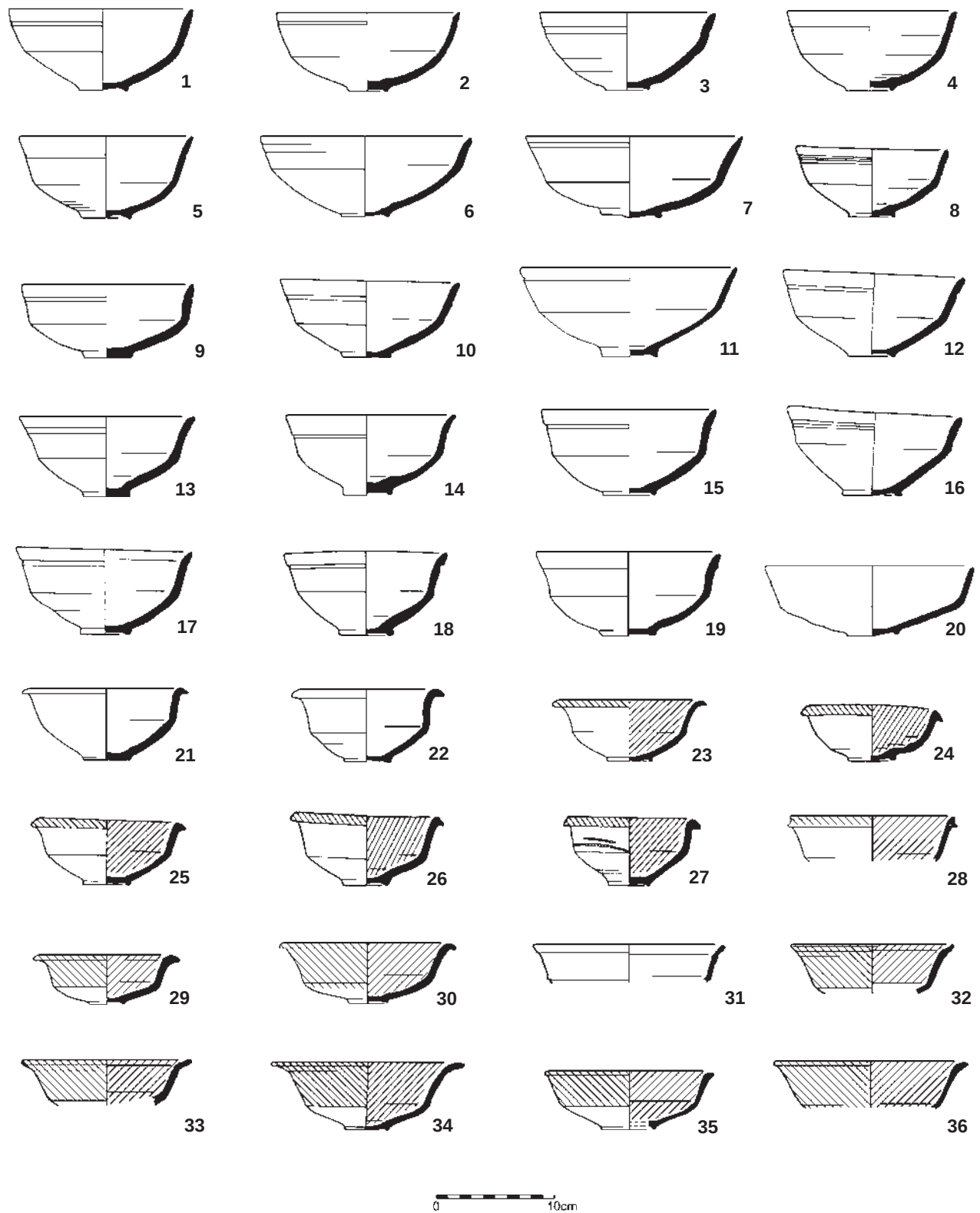


Fig. 4A.3

Fig. 4A.4. Bowls: No. 8 Stratum Pre-IC; Nos. 13, 23–24 Stratum Pre-IC typologically; No. 16 Stratum ICB; No. 20 Stratum IC; Nos. 1–7, 9–12, 14–15, 17–19, 21–22 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IIBL 7	IVNW.8.133.1	8002	K	0	C	Int.: wheel burnish (Color Photo 4A.1:8)
2.	IIBL 7.1	IVNW.8.132.51	8002	C	0	C	
3.	IIBL 7.1A	IVNW.9.125.51	9003	A	0	C	Int. and rim ext.: red slip; int.: wheel burnish
4.	IIBL 7.1A	IVNW.9.127.3	9003	D	02	C	Int. and rim ext.: red slip; int.: wheel burnish
5.	IIBL 7.1A	IVNW.9.44.51	9003	A	0	C	Int. and rim ext.: red slip; int.: wheel burnish?
6.	IIBL 7.1A	IVNW.9.13.2	9003	D	0	C	Int. and rim ext.: red slip; int.: wheel burnish
7.	IIBL 7.6A	IVNE.8.81.8	8002	C	5	C	Int. and rim ext.: red slip; int.: wheel burnish
8.	IIBL 7.7A	IVNW.24.120.11	24021P	B	1	C	Int. and rim ext.: red slip; int.: hand burnish
9.	IIBL 7.9A	IVNE.8.133.1	8025	D	1	C	Int. and rim ext.: red slip; ext.: splashes of red slip; int.: wheel burnish
10.	IIBL 8.1	IVNW.25.43.1	25004	D	1	C	
11.	IIBL 8.4	IVNE.7.135A.5	7020B	D	0	C	
12.	IIBL 8.5	IVNW.25.79.25	25006	C	1	C	
13.	IIBL 9A	IVNW.9.151.2	9009	A	0	C	Upper int. and upper ext.: red slip
14.	IIBL 10	IVNE.8.46.5	8007	C	0	C	(Color Photo 4A.1:9)
15.	IIBL 10A	IVNE.8.38.2	8002	D	0	C	Int. and upper ext.: red slip
16.	IIBL 10A	IVNW.9.218.1	9012A	C	0	C	Int. and upper ext.: red slip
17.	IIBL 11	IVNW.8.195.1	8012P	A	0	C	
18.	IIBL 11.1	IVNW.8.157.51	8002	K	0	C	
19.	IIBL 11.3	IVNW.8.43.16	8003	A	0	C	
20.	IIBL 12.3	IVNW.25.98.1	25044	A	0	C	
21.	IIBL 13	IVNW.9.151.2	9009	A	0	C	Int. and upper ext.: red slip
22.	IIBL 14	IVNW.9.145.51	9003	D	0	C	
23.	IIBL 14X.1A	IVNW.7.19.43	7006	D	0	C	Int. and upper ext.: red slip
24.	IIBL 14X.3A	IVNE.10.48.17	10014	D	2	C	Int. and upper ext.: red slip

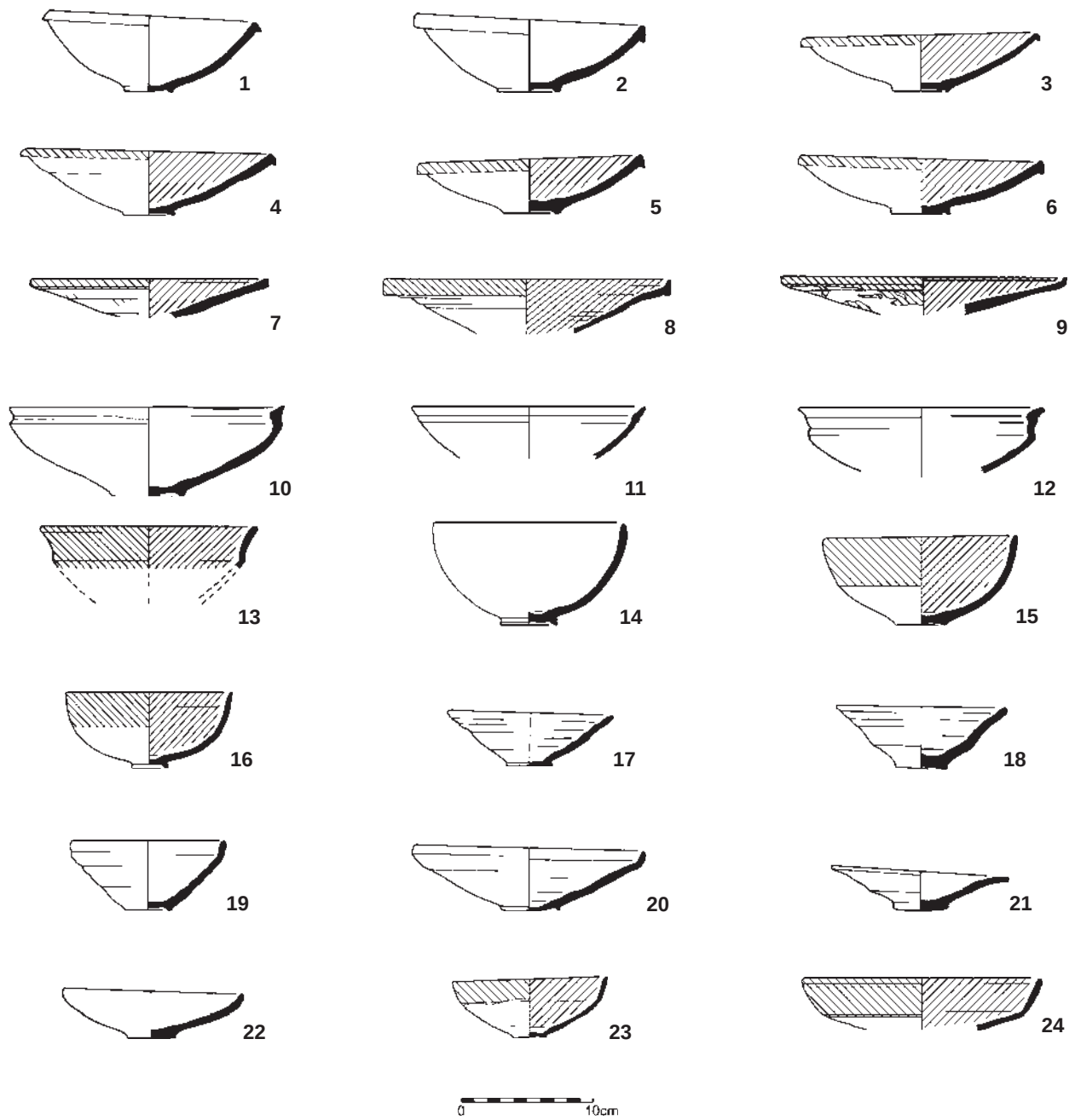


Fig. 4A.4

Fig. 4A.5. Bowls: No. 19 Stratum Pre-IC; Nos. 1, 3, 17–18 Stratum Pre-IC typologically; Nos. 2, 4–5 Stratum ICb; Nos. 6, 16 Stratum IC; Nos. 7–15, 20 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IIBL 16.1A	IVNE.10.53.5	10014	C	0	C	Int. and ext.: red slip; int.: wheel burnish
2.	IIBL 16	IVNE.7.154.5	7026.1	K	0	C	
3.	IIBL 16.5A	IVNE.7.120.9	7016	A	0	C	Int. and rim ext.: red slip
4.	IIBL 16.3A	IVNW.26.60.5	26024	K	0	C	Int. and upper ext.: red slip; int.: wheel burnish
5.	IIBL 17.1	IVNW.41.49.4	41012	C	0	D	
6.	IIBL 18	IVNW.40.77.3	40015	D	0	D	
7.	IIBL 18	IVNE.7.103.1	7011P	A	0	C	Int.: wheel burnish (Color Photo 4A.1:12)
8.	IIBL 18A	IVNW.9.31.2	9003	D	0	C	Int. and rim ext.: red slip, wheel burnish
9.	IIBL 18A	IVNW.9.88.1	9003	A	0	C	Int. and rim ext.: red slip; int.: wheel burnish
10.	IIBL 18.1	IVNW.8.134.52	8002	C	0	C	
11.	IIBL 18.2	IVNW.8.9.4	8003	D	2	C	
12.	IIBL 19	IVNW.9.6.54	9003	A	0	C	
13.	IIBL 19.1A	IVNW.25.29.3	25006	A	0	C	Int.: red slip
14.	IIBL 20.1	IVNE.7.80.7	7012P	C	0	C	
15.	IIBL 19.2	IVNE.7.90.2	7011P	A	0	C	
16.	IIBL 25C	IVNE.9.56.4	9007.1	B	3	D	Int. and upper ext.: red slip; int. and rim: wheel burnish; ext.: partial wheel burnish
17.	IIBL 27	IVNW.8.46.4	8003	A	0	C	
18.	IIBL 27.5A	IVNW.24.63.1	24011P	D	2	C	Int. and upper ext.: red slip
19.	IIBL 28.1	IVNW.23.28.4	23010	C	0	C	
20.	IIBL 30A	IVNW.40.68.51	40016	A	0	C	Upper int. and ext.: red slip; ext.: black bands, wheel burnish

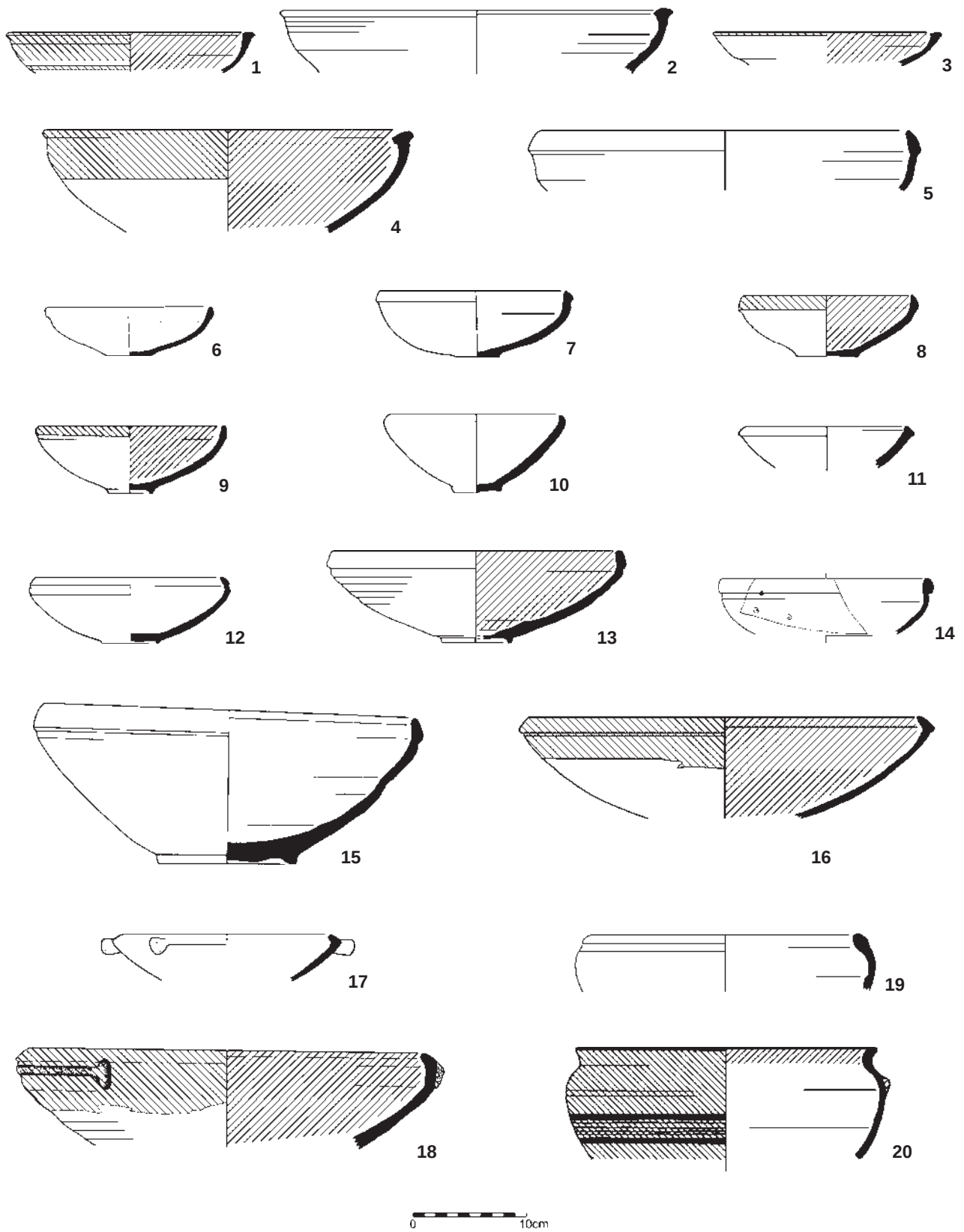


Fig. 4A.5

Fig. 4A.6. Bowls: No. 15 Stratum Pre-IC; Nos. 3–6 Stratum Pre-IC? typologically; Nos. 1–2, 7–14 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IIBL 31A	IVNW.42.65.5	42013	D	1	C	Int.: red slip
2.	IIBL 32A	IVNE.25.120.2	25016.1	A	0	C	Int. and ext.: red slip
3.	IIBL 32B	IVNE.8.10.3	8002	C	0	C	Int. and rim ext.: red slip
4.	IIBL 32C	IVNE.8.141.14	8001	C	0	C	Int. and rim ext.: red slip
5.	IIBL 33A	IVNW.8.298.3	8020.1	D	0	C	Int. and ext.: red slip; rim: black band; int.: burnish
6.	IIBL 34A	IVNW.40.63.16	40014P*	B	0	B	Int.: red slip, highly burnished
7.	IIBL 29A	IVNW.24.170.51	24031	A	0	C	Int. and upper ext.: red slip; upper int. and ext.: close wheel burnish
8.	IIBL 43	IVNW.8.42.5	8002	A	0	C	
9.	IIBL 43A	IVNW.25.70.2	25006	B	0	C	Rim and upper ext.: red slip
10.	IIBL 43A	IVNW.8.47.1	8002	N	0	C	Rim and upper ext.: red slip; rim: wheel burnish
11.	IIBL 43A	IVNW.9.42.2	9003	B	0	C	Rim and upper ext.: red slip
12.	IIBL 43B	IVNW.25.66.37	25006	K	0	C	Ext. rim: black band; upper ext.: wheel burnish
13.	IIBL 35	IVNW.9.13.8	9003	B	0	A	Int. and ext.: black glaze, red and black bands (Color Photo 4A.1:13)
14.	IIBL 38	IVNE.9.41.1	9002	C	0	A	Int. and ext.: black glaze, red and black bands
15.	IIBL 41	IVNW.23.30.1	23011	H	0	A	Int. and ext.: black glaze; ext.: red hatched meander pattern

* Although this locus is designated as a Stratum IVA surface, the item is assigned to Stratum Pre-IC

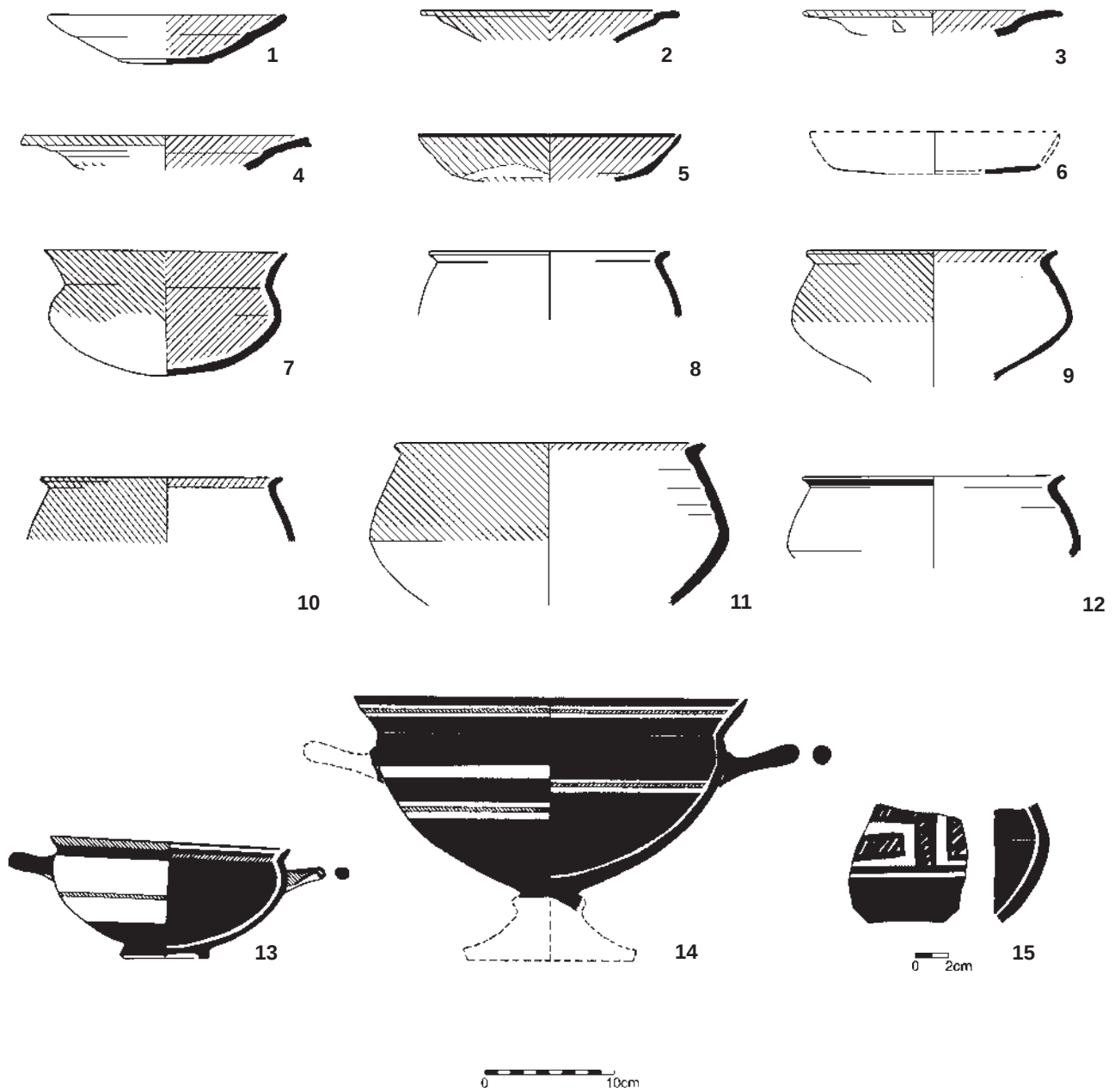


Fig. 4A.6

Fig. 4A.7. Bowls, plates, goblets, and mortaria: No. 7 Stratum Pre-IC; No. 10 Stratum ICb; Nos. 3, 6, 11 Stratum IC; Nos. 1, 4 Stratum IC typologically; Nos. 13–15 Stratum I or earlier; No. 12 Stratum IB/C typologically; Nos. 2, 5, 8–9, 16–21 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IIBLM 4	IVNE.25.70.1	25006	A	0	C	
2.	IIBLM 5	IVNE.7.68.1	7011P	A	0	C	Int. and ext.: wheel burnish
3.	IIBLM 6	IVNE.7.133A.5	7020P	A	2	C	
4.	IIBLM 8	IVNE.10.47.13	10014	H	0	B	
5.	IIBLM 14	IVNW.9.154.51	9007P	A	2	C	(Color Photo 4A.1:11)
6.	IIBLM 26	IVNW.9.151.23	9007.1	A	0	C	
7.	IIBLM 32B	IVNW.23.24.3	23010	A	0	C	Int. and ext.: black wash
8.	IIBLF 1	IVNW.42.32.1	42004	H	0	B	Eggshell-thin ware; ext.: stippling
9.	IIBLF 2	IVNW.41.29.15	41007P	B	0	B	Eggshell-thin ware; ext.: wheel burnish
10.	IIBLV 1	IVNW.42.104.1	42027*	A	0	C	
11.	IIBLM 37A	IVNW.42.93.1	42022	D	0	C	Int. and upper ext.: red slip, wheel burnish
12.	IIBLV 4B	IVNE.8.150.1	8026	K	0	C	Black ware; int.: wheel burnish
13.	I IPL 2	IVNW.8.66.10	8003	D	2	C	
14.	I IPL 7B	IVNE.10.48.12	20014	A	2	C	Int. and upper ext.: red slip
15.	I IPL 2A	IVNE.8.50.20	8007	A	0	C	
16.	IIGBL 1	IVNW.8.128.51	8002	B	0	C	Upper ext.: wheel burnish (Color Photo 4A.5:5)
17.	IIGBL 1A	IVNW.41.129.1	41003	A	2	C	Int. and upper ext.: red slip; upper int. and ext.: wheel burnish
18.	IIGBL 4	IVNW.25.50.1	25042P	A	0	C	Int.: red slip
19.	IIGBL 2	IVNW.8.194.1	8012P	K	0	C	Upper int.: wheel burnish; upper ext.: reddish wash
20.	IIMRT 1	IVNW.8.180.1	8012P	H	0	D	(Color Photo 4A.1:14)
21.	IIMRT 2	IVNW.8.109.16	8002	H	0	D	

* Although this locus is designated as a Stratum IVA surface, the item is most likely intrusive from Stratum ICb

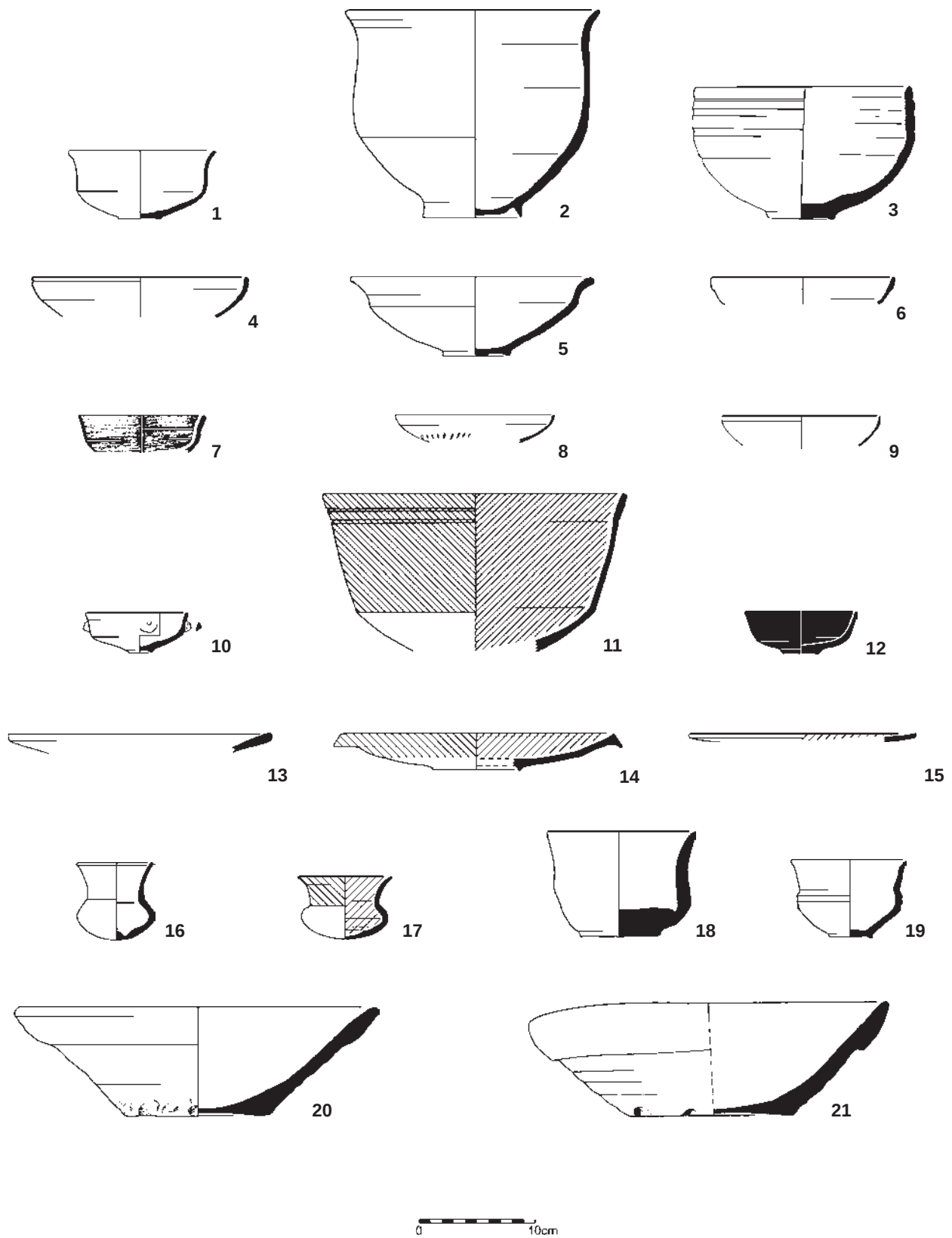


Fig. 4A.7

Fig. 4A.8. Scoops: Nos. 1, 3, 5–6 Stratum Pre-IC; Nos. 2, 4 Stratum IC

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IISCP 1	IVNW.39.31.4	39010.1	D	0	D	
2.	IISCP 1.1	IVNW.39.26.13	39009	D	0	D	(Color Photo 4A.1:15)
3.	IISCP 2	IVNW.39.43.14	39011	D	0	D	
4.	IISCP 2	IVNW.25.173.3	25047	A	0	D	
5.	IISCP 3	IVNW.39.35.6	39011	D	3	D	
6.	IISCP 4	IVNW.39.31.10	39010.1	D	0	D	

Fig. 4A.9. Scoops: Nos. 1–4 Stratum Pre-IC

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IISCP 5	IVNW.39.43.5	39011	D	0	D	
2.	IISCP 5	IVNW.39.38.2	39011	A	2	C	
3.	IISCP 6	IVNW.40.47.4	40008	D	3	C	(Color Photo 4A.1:16)
4.	IISCP 6	IVNW.40.45.4	40007	A	0	C	

Fig. 4A.10. Scoops: Nos. 1–2 Stratum Pre-IC; No. 3 Stratum IC; No. 4 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IISCP 6.1	IVNW.39.35.3	39011	A	0	C	
2.	IISCP 6.2	IVNW.40.49.3	40008	D	0	C	
3.	IISCP 7	IVNW.39.26.5	39009	D	0	D	
4.	IISCP 7	IVNW.9.39.1	9002	C	0	C	

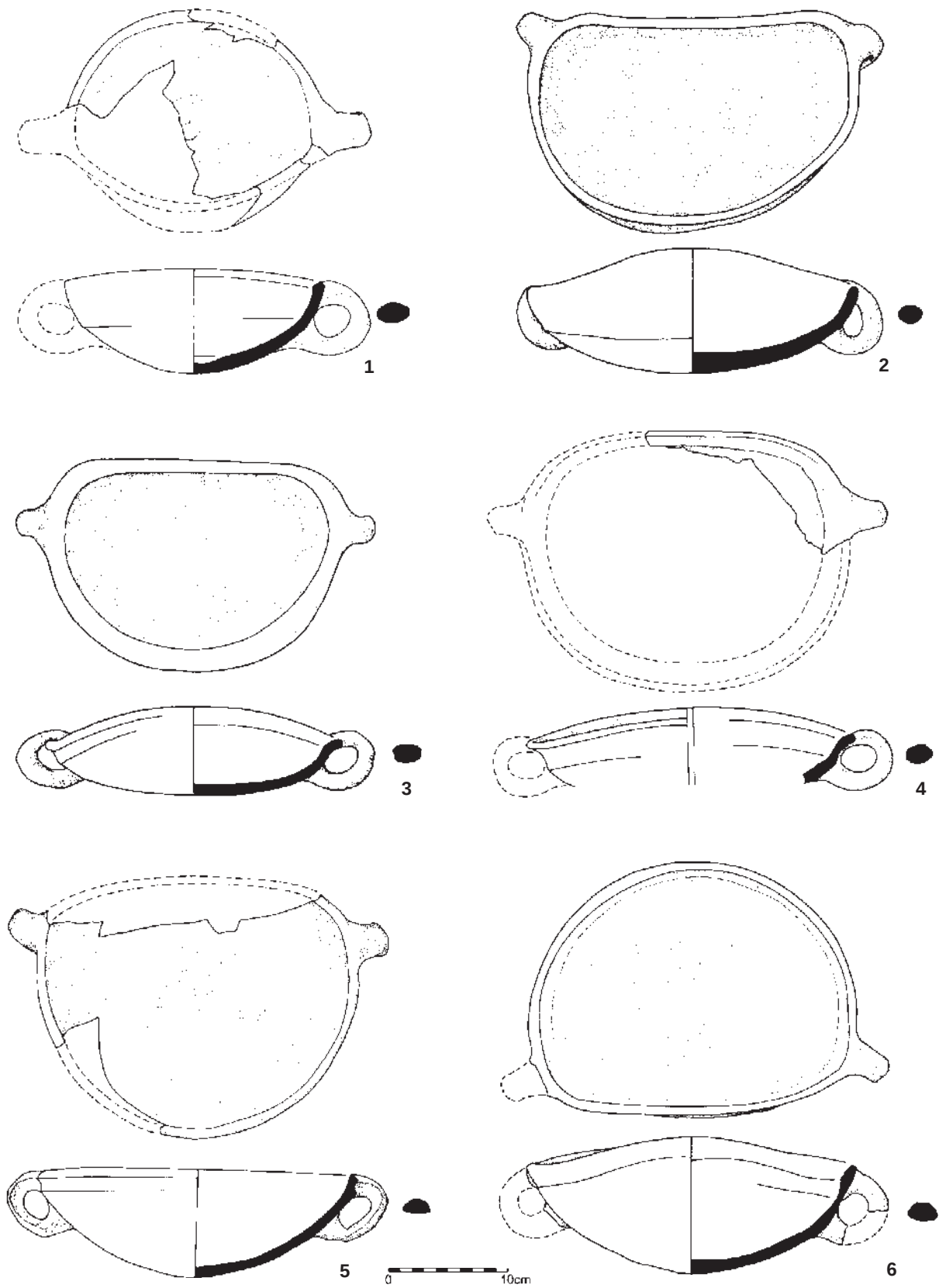


Fig. 4A.8

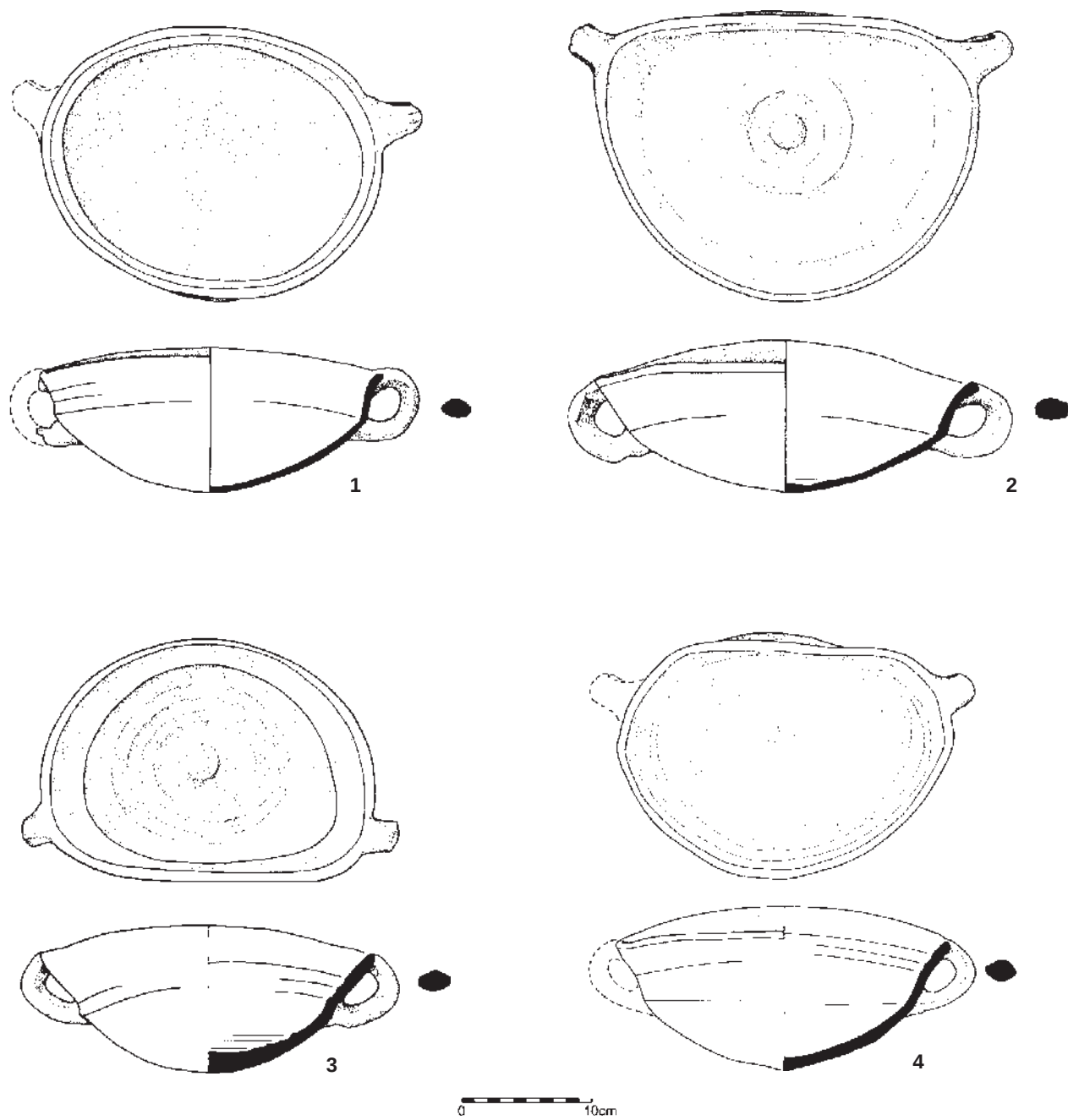


Fig. 4A.9

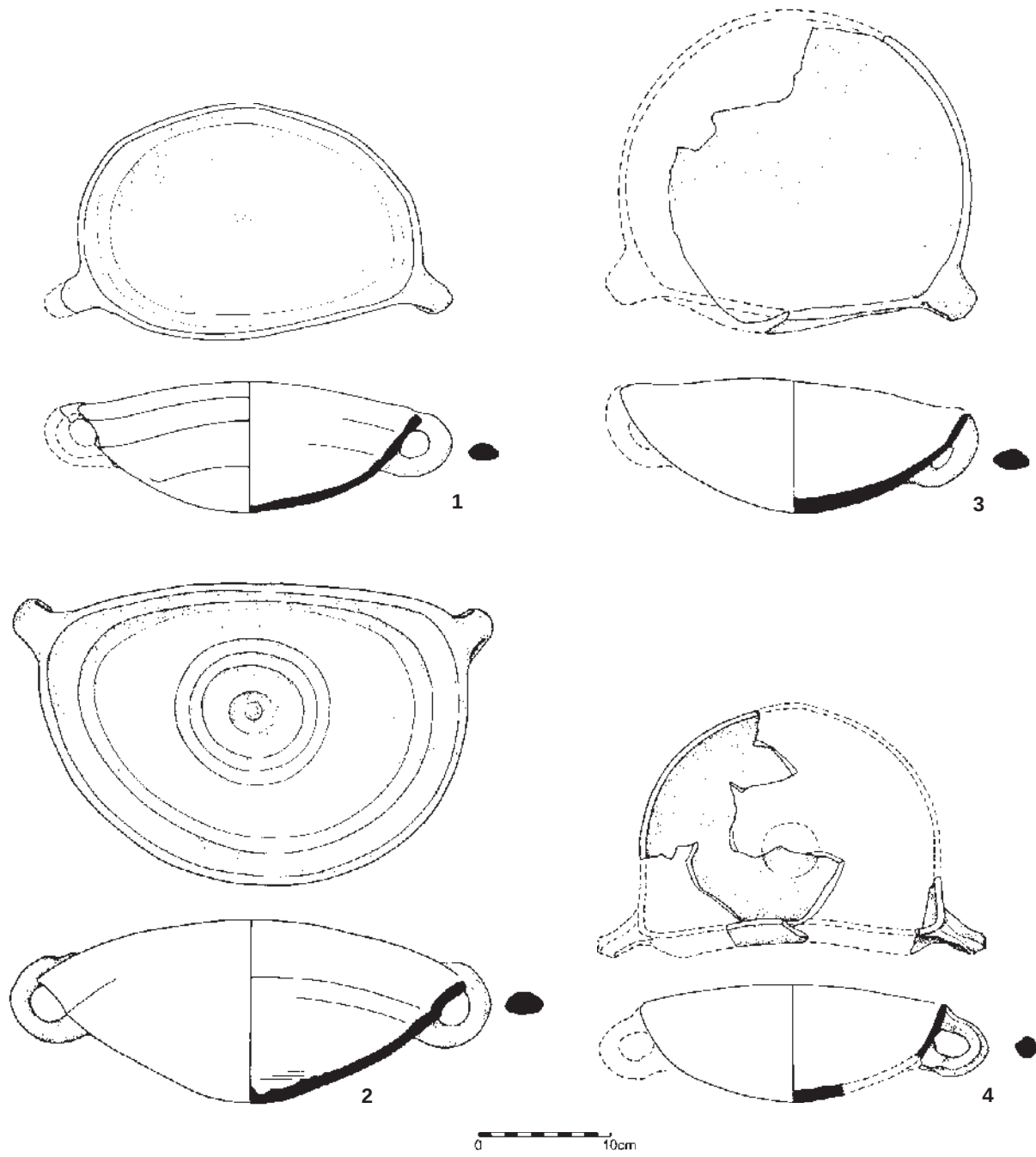
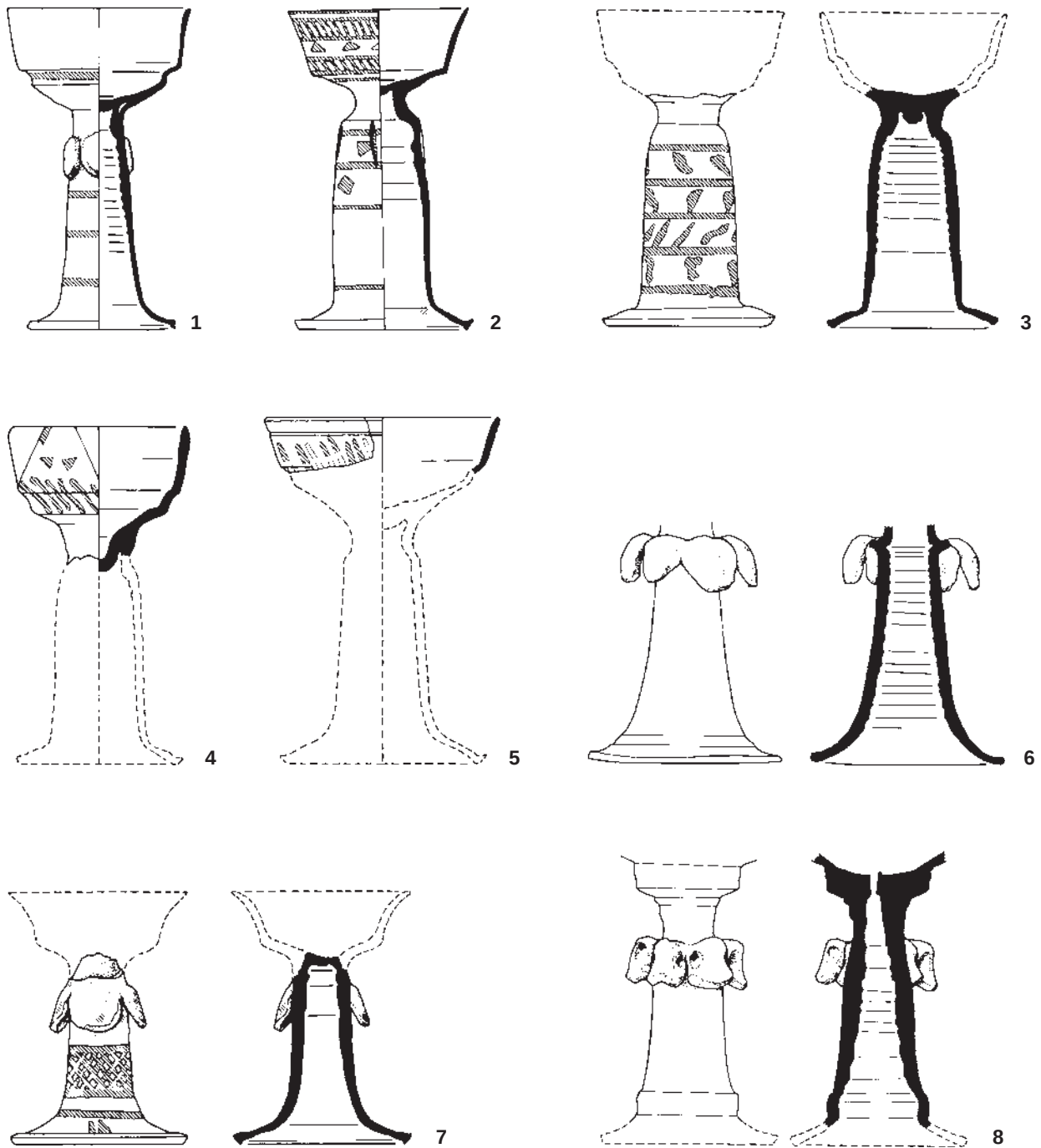


Fig. 4A.10

Fig. 4A.11. Chalices: Nos. 6–8 Strata III–II? typologically; Nos. 1–5 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IICH 3A	IVNE.8.62.1	8014	D	0	C	Ext.: red decoration, applied debased petals/leaves (Color Photo 4A.1:17)
2.	IICH 4A	IVNW.9.123.1	9003	A	0	C	Ext.: red decoration, incised lines (Color Photo 4A.1:18)
3.	IICH 3A	IVNW.40.163.1	40048	A	0	C	Ext.: white wash, red decoration
4.	IICH 4A	IVNE.7.19.11	7006	A	0	C	Ext.: white wash, red decoration
5.	IICH 4B	IVNE.8.13.53	8002	B	0	C	Ext.: red decoration
6.	IICH 5A	IVNW.7.9.1	7002	A	0	C	Applied petals/leaves
7.	IICH 6A	IVNW.43.227.1	43059	A	0	C	Ext.: red decoration, applied petals/leaves
8.	IICH 10	IVNW.39.39.1	39008	A	2	C	Applied impressed petals/leaves (Color Photo 4A.1:19)



0 10cm

Fig. 4A.11

Fig. 4A.12. Kraters: Nos. 1–3 Strata Pre-IC–IB typologically; Nos. 4–9 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IIKR 1.1	IVNW.8.98.4	8003	C	0	D	
2.	IIKR 2	IVNW.9.147.15	9006A	D	3	D	
3.	IIKR 3	IVNW.7.3.8	7001	A	0	D	
4.	IIKR 4	IVNW.8.100.14	8002	C	0	D	
5.	IIKR 4.1	IVNW.9.30.2	9003	B	0	C	(Color Photo 4A.2:1)
6.	IIKR 4.2	IVNE.7.23.1	7006	C	0	C	
7.	IIKR 4.3	IVNW.8.124.6	8002	D	2	C	
8.	IIKR 4.5	IVNW.9.129.3	9003	D	0	D	
9.	IIKR 5	IVNE.7.53.1	7002	A	0	C	(Color Photo 4A.2:2)

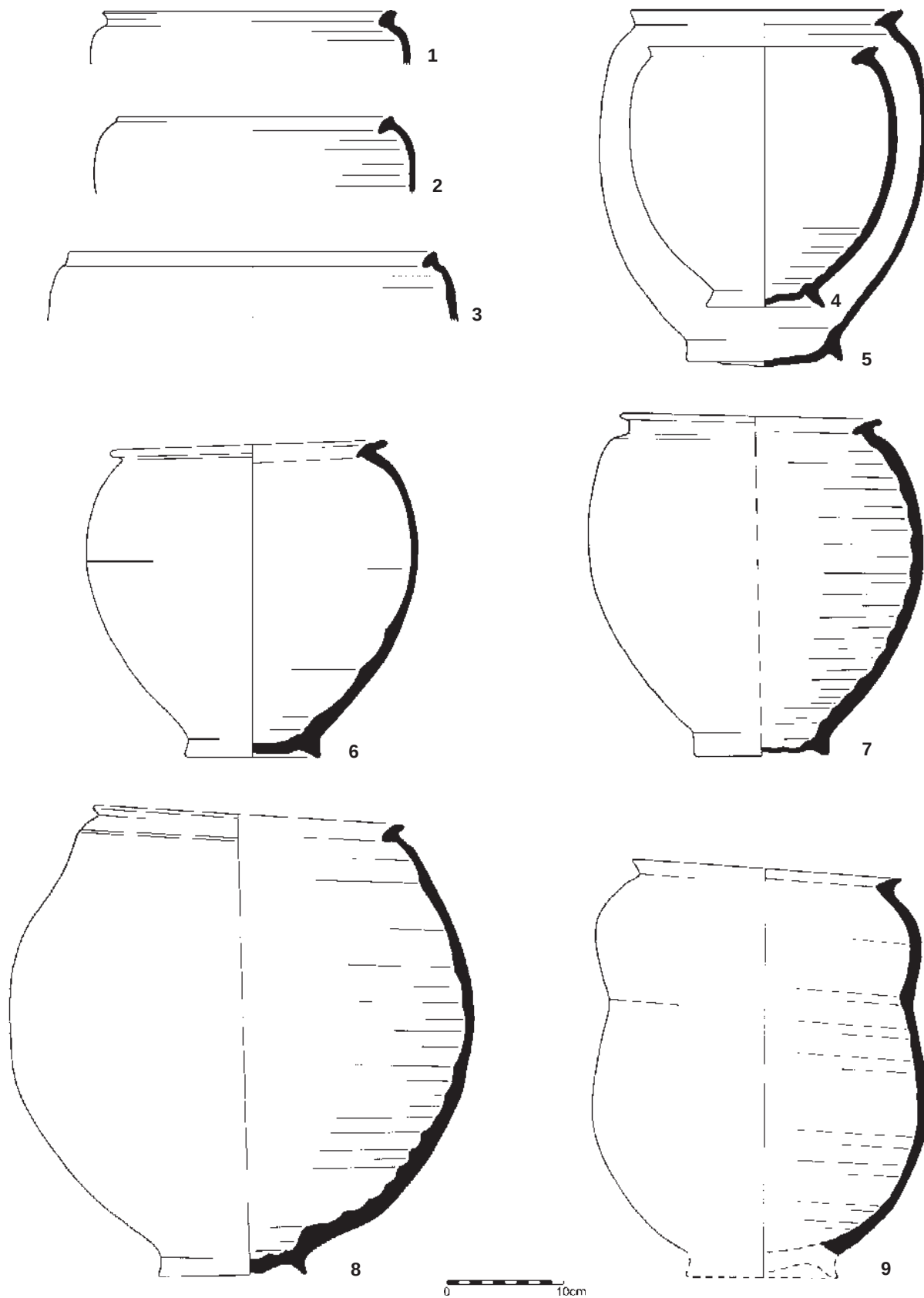


Fig. 4A.12

Fig. 4A.13. Kraters: No. 10 Stratum Pre-IC; No. 3 Stratum ICb; No. 1 Stratum IC; Nos. 2, 4–6, Strata Pre-IC–IB typologically; Nos. 7–9 Stratum IB; Nos. 11–13 Stratum IB or earlier?

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IIR 6	IVNW.40.77.1	40015	D	2	C	
2.	IIR 7	IVNW.25.34.5	25010	A	0	D	
3.	IIR 7.2	IVNE.7.152.10	7025.1	D	0	D	
4.	IIR 7.2	IVNW.9.1.5	9001	D	3	C	
5.	IIR 7.3	IVNW.9.211.1	9006B	H	0	C	
6.	IIR 7.4	IVNW.8.64.10	8003	D	2	C	
7.	IIR 7	IVNW.9.81.1	9003	D	0	C	(Color Photo 4A.2:3)
8.	IIR 7.1	IVNW. 9.14.1	9003	C	0	C	
9.	IIR 9	IVNW.9.82.1	9003	D	2	C	
10.	IIR 15	IVNW.39.43.18	39011	D	3	D	
11.	IIR 14	IVNE.25.19.10	25006	N	0	C	
12.	IIR 13	IVNE.10.52.5	10014	D	0	C	
13.	IIR 14	IVNE.9.56.1a	9007.1	N	0	N	

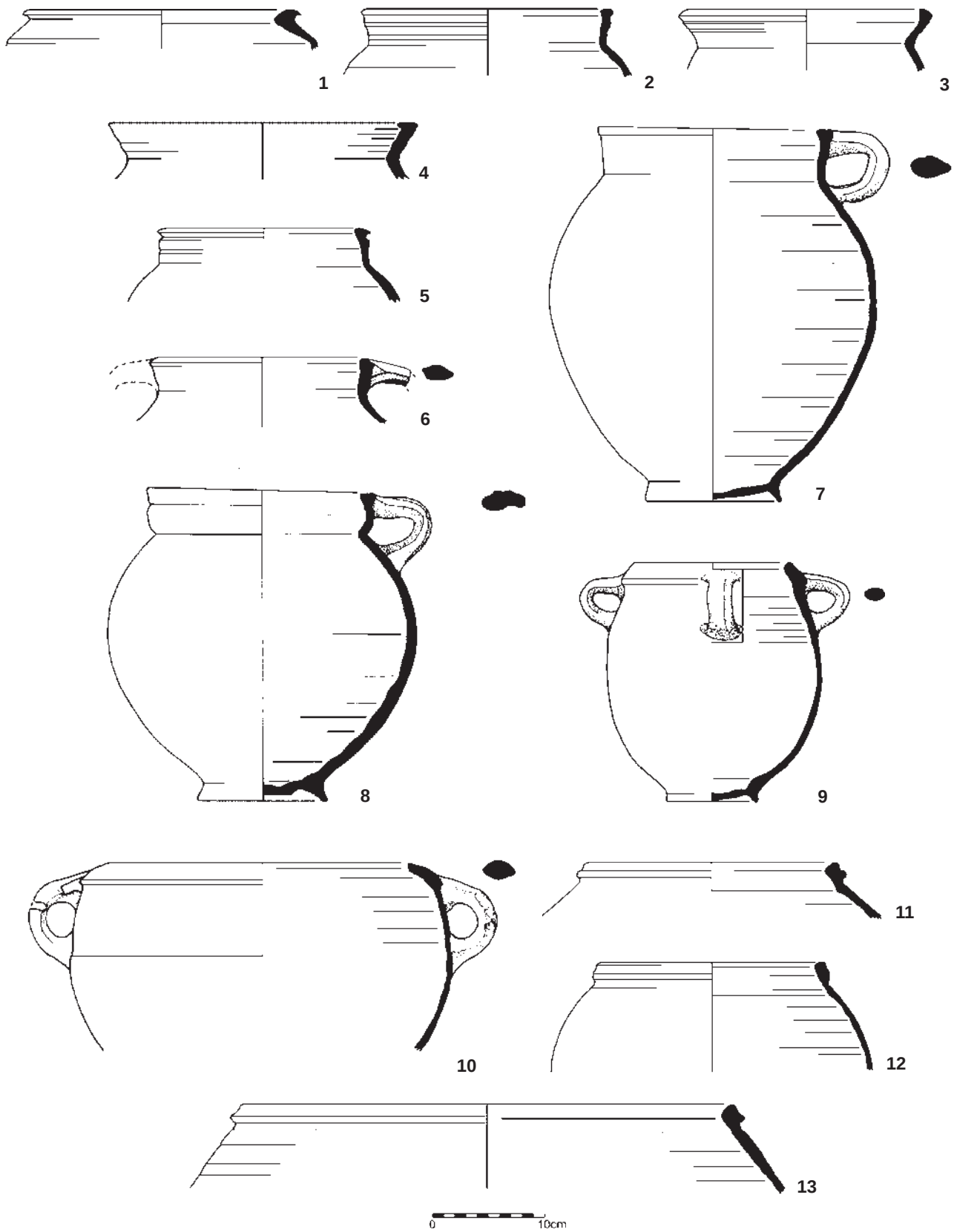


Fig. 4A.13

Fig. 4A.14. Cooking pots: Nos. 1–10 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IICP 5	IVNE.7.60.4	7011P	D	0	D	
2.	IICP 6	IVNE.7.98.1	7011P	D	0	D	
3.	IICP 6.3	IVNW.8.36.1	8003	A	3	B	
4.	IICP 7	IVNW.8.164.3	8002	C	3	C	
5.	IICP 7	IVNW.9.17.4	9003	A	0	C	
6.	IICP 7.1	IVNW.8.95.13	8002	D	0	C	(Color Photo 4A.2:6)
7.	IICP 11	IVNW.9.105.1	9003	D	0	C	
8.	IICP 8	IVNW.9.47.7	9003	D	3	C	(Color Photo 4A.2:7)
9.	IICP 10	IVNW.9.20.10	9002	D	0	D	
10.	IICP 12	IVNE.24.26.3	24007	D	1	C	

Fig. 4A.15. Basin and pithos: No. 1 Stratum IB; No. 2 Stratum IB? typologically

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IIBSN 1	IVNE.27.22.1	27003	A	0	D	
2.	IIPTH 1	IVNW.23.2.12	23001	A	2	D	

Fig. 4A.16. Jar-kraters: No. 3 Stratum Pre-IC? typologically; Nos. 5–6 Stratum IC? typologically; Nos. 1–2 Stratum IB; No. 4 Stratum IB typologically

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IJK 1	IVNW.9.23.4	9003	A	0	C	
2.	IJK 1.4	IVNW.23.6.1	23005	A	0	C	(Color Photo 4A.3:8)
3.	IJK 1	IVNW.24.140.27	24021*	D	2	C	
4.	IJK 1.4	IVNW.23.1.1	23001	C	0	C	
5.	IJK 2.2	IVNW.8.16.18	8002	J	0	D	
6.	IJK 5	IVNE.7.90.15	7011P	D	0	D	

* Although this locus is designated as a Stratum IVA surface, the item is most likely intrusive from a foundation trench for Stratum IB/C Wall 24009

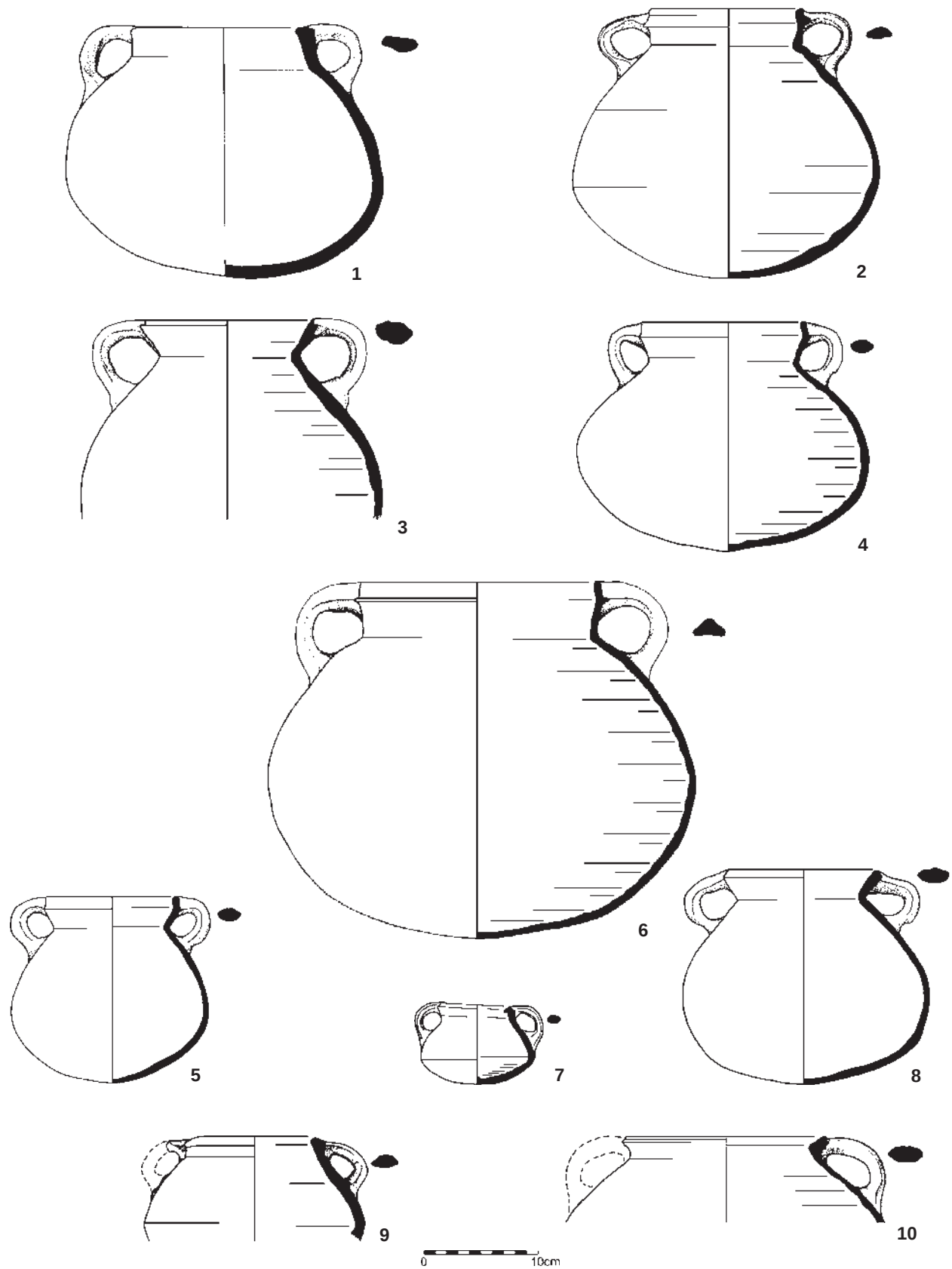


Fig. 4A.14

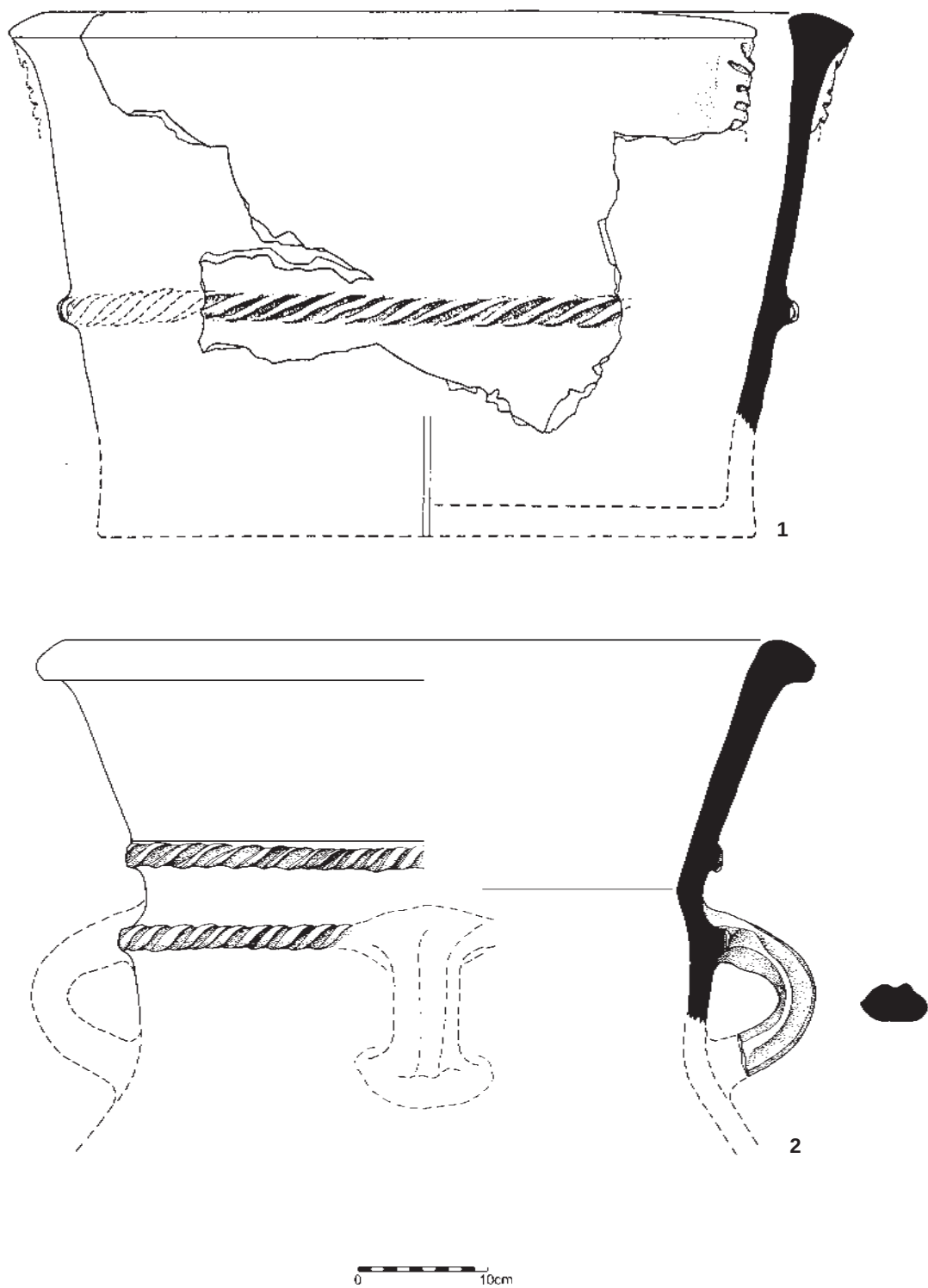


Fig. 4A.15

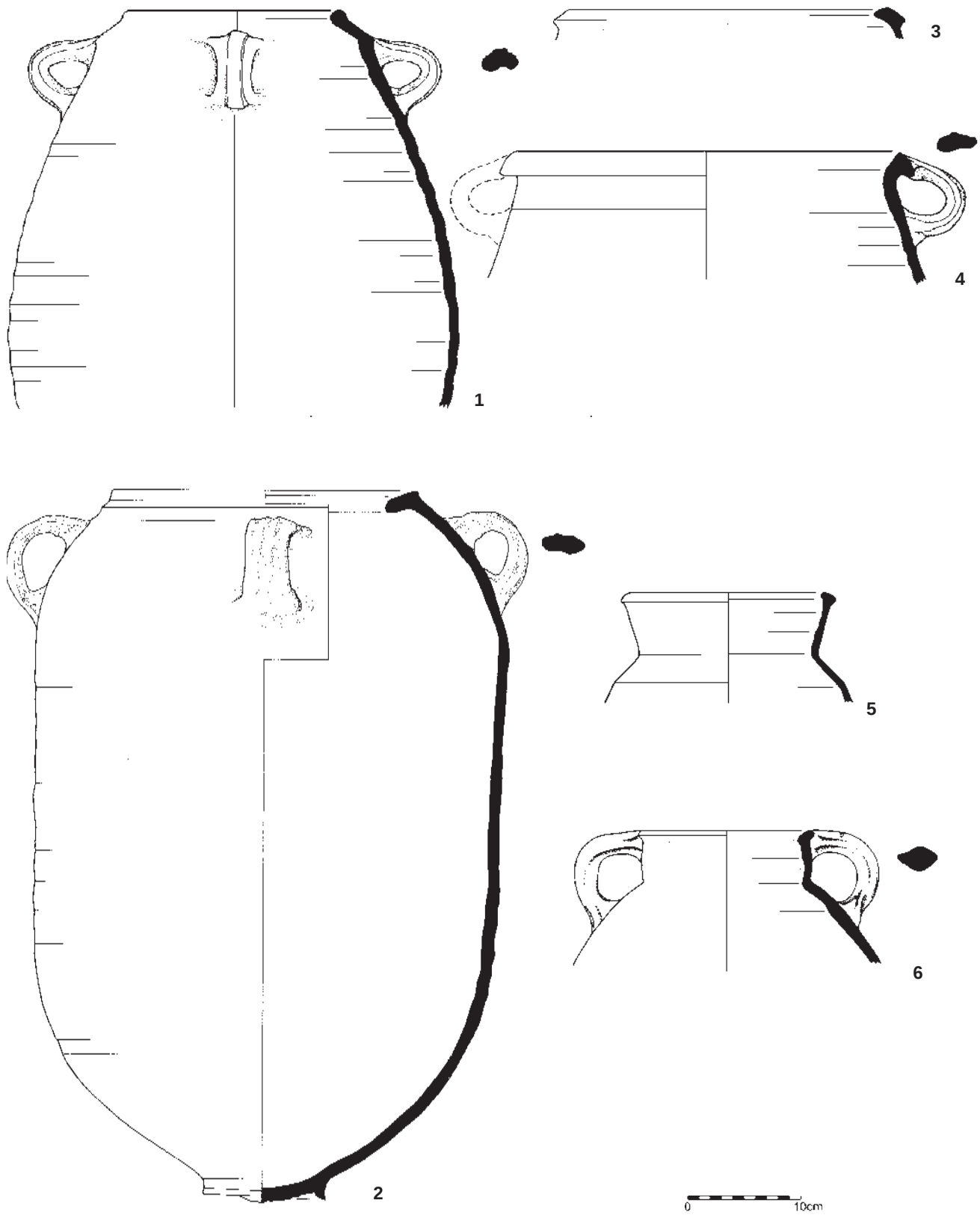


Fig. 4A.16

Fig. 4A.17. Storage jars: Nos. 1, 3–4 Stratum Pre-IC; No. 2 Stratum ICb

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IISJ 1	IVNW.8.236.4	8016	C	0	C	
2.	IISJ 1.2	IVNW.7.13.1	7004A	B	0	C	(Color Photo 4A.3:1)
3.	IISJ 1.2	IVNW.8.239.1	8016	D	2	C	
4.	IISJ 4	IVNW.8.231.2	8016	C	0	C	

Fig. 4A.18. Storage jars: Nos. 1–4 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IISJ 5	IVNE.7.70.2	7011P	A	0	C	
2.	IISJ 5.5	IVNE.7.78.1	7011P	D	0	C	<i>l'srt</i> inscription in ink
3.	IISJ 5.6	IVNW.42.47.1	42004	C	0	C	(Color Photo 4A.3:2)
4.	IISJ 5.3	IVNW.9.83.5	9003	D	3	C	

Fig. 4A.19. Storage jars: No. 1 Stratum Pre-IC; No. 2 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IISJM 8	IVNW8.243.1	8023	C	3	D	
2.	IISJ 5.11	IVNW.8.45.1	8002	D	3	C	<i>bt</i> inscription in ink

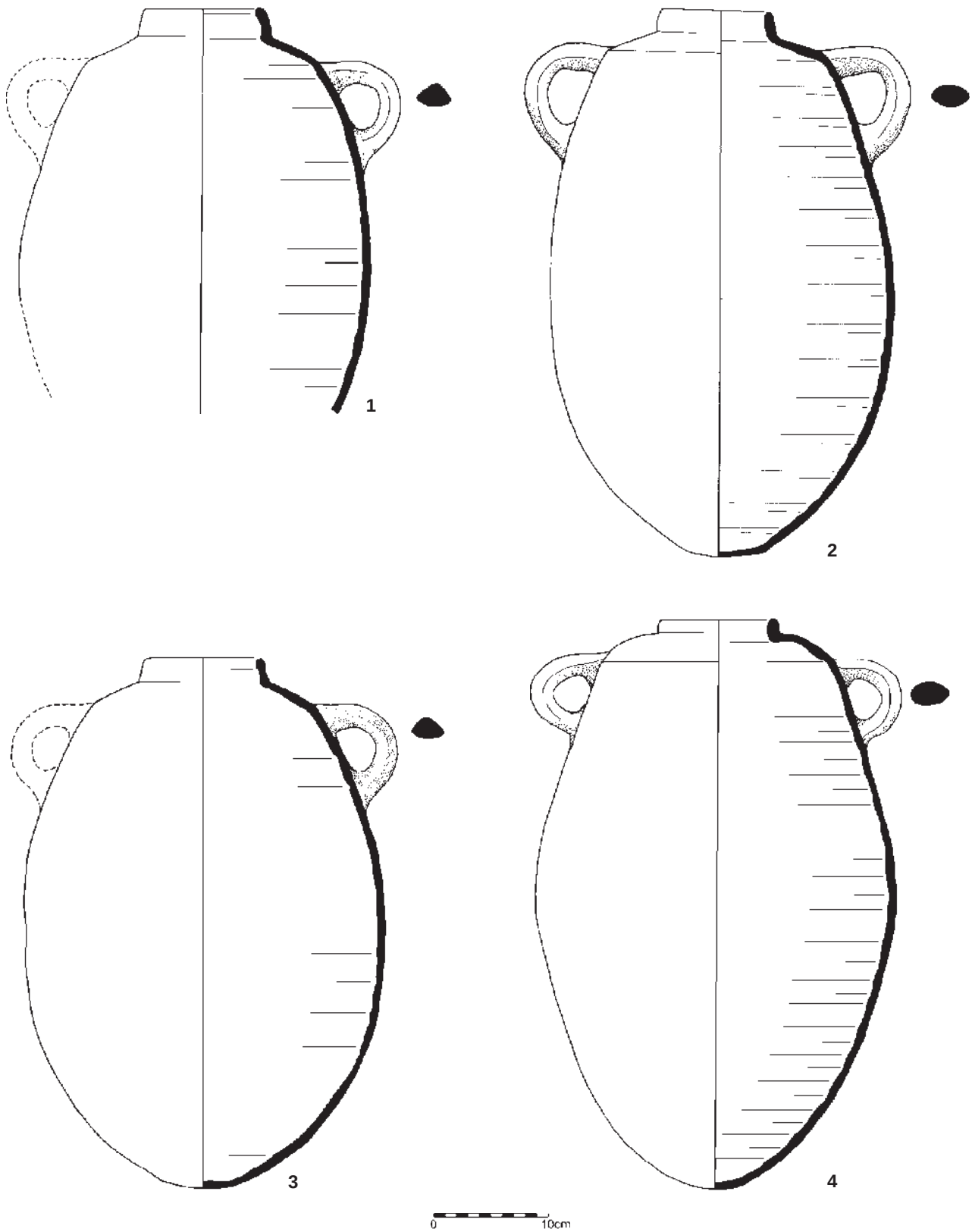


Fig. 4A.17

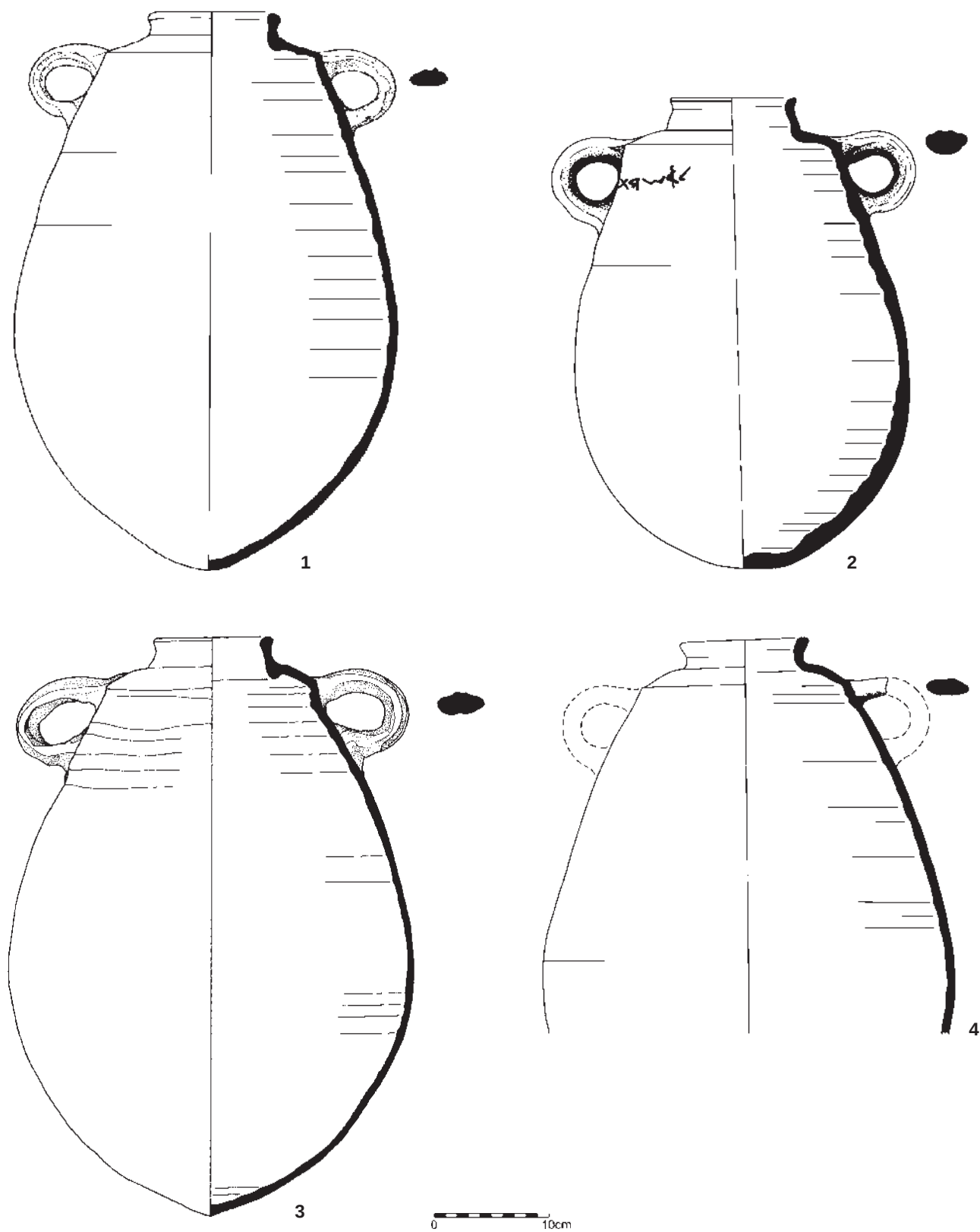


Fig. 4A.18

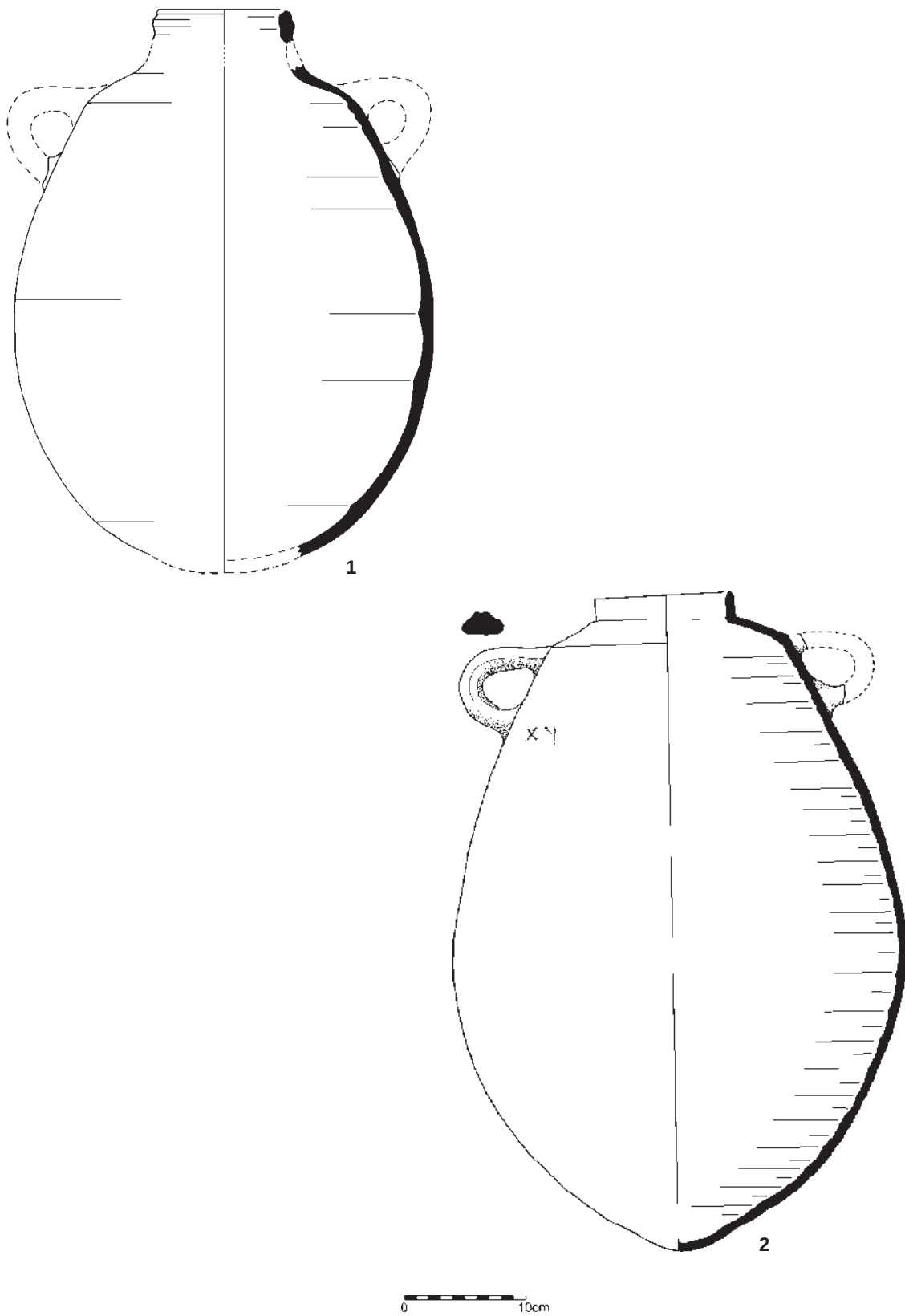


Fig. 4A.19

Fig. 4A.20. Storage jars: Nos. 1–6 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IISJ 9.1	IVNW.8.178.53	8012P	A	0	C	
2.	IISJ 8	IVNW.8.93.1	8002	B	4	C	(Color Photo 4A.3:3)
3.	IISJ 9.2	IVNE.7.67.2	7011P	S	0	C	
4.	IISJ 9.3	IVNE.25.54.1	25006	S	0	C	
5.	IISJ 9.5	IVNW.8.56.9	8002	D	3	C	(Color Photo 4A.3:5)
6.	IISJ 9.6	IVNE.24.85.8	24002	D	2	C	

Fig. 4A.21. Storage jars: Nos. 1–3 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IISJ 12.1	IVNW.41.120.1	41005	A	0	C	
2.	IISJ 13	IVNW.40.22.5	40004P	E	0	C	
3.	IISJ 15	IVNE.8.38.1	8002	C	0	C	(Color Photo 4A.3:6)

Fig. 4A.22. Storage jars: Nos. 7–8 Stratum Pre-IC; Nos. 1, 6 Stratum Pre-IC typologically; No. 2 Stratum IC; Nos. 3–5 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IISJ 2	IVNW.7.11.2	7006P	A	0	C	
2.	IISJ 5.13	IVNW.41.47.7	41012	A	0	C	
3.	IISJ 6.3	IVNE.24.90.6	24004	A	1	C	
4.	IISJM 11	IVNW.8.296.1	8020P	M	2	C	
5.	IISJ 17	IVNE.25.42.3	25006	B	0	C	Ext. shoulder and base: incised lines (Color Photo 4A.3:7)
6.	IISJ 16A	IVNW.24.130.6	24023*	A	0	D	Rim int.: red band; ext.: black and red bands
7.	IISJ 16.1A	IVNW.23.22.23	23010	A	0	D	Rim int.: black band; ext.: black and red bands
8.	IISJ 16A	IVNW.24.138.1	24019	C	0	C	

* Although this locus is designated as a Stratum IVA surface, the item is most likely intrusive from Stratum Pre-IC

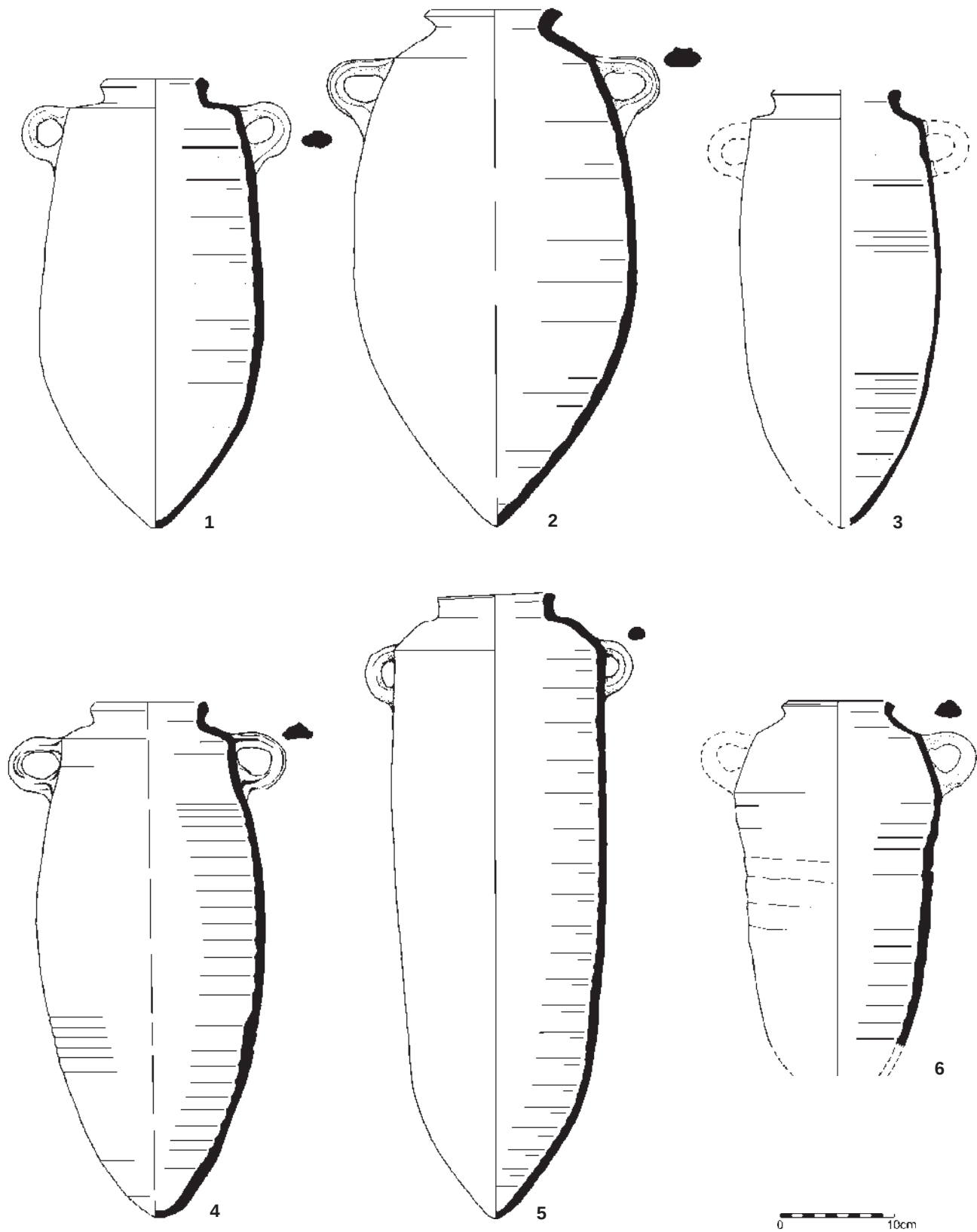


Fig. 4A.20

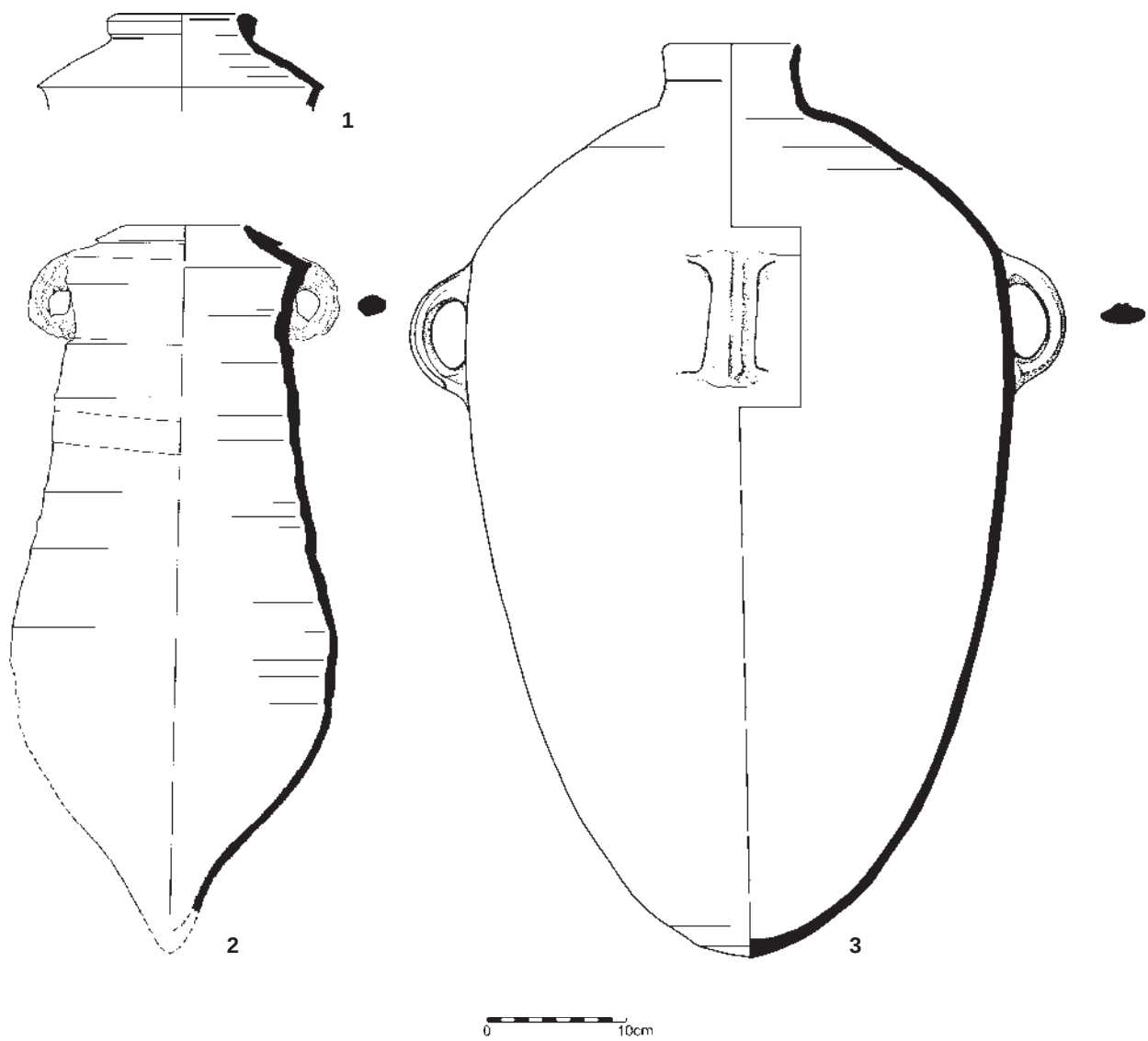


Fig. 4A.21

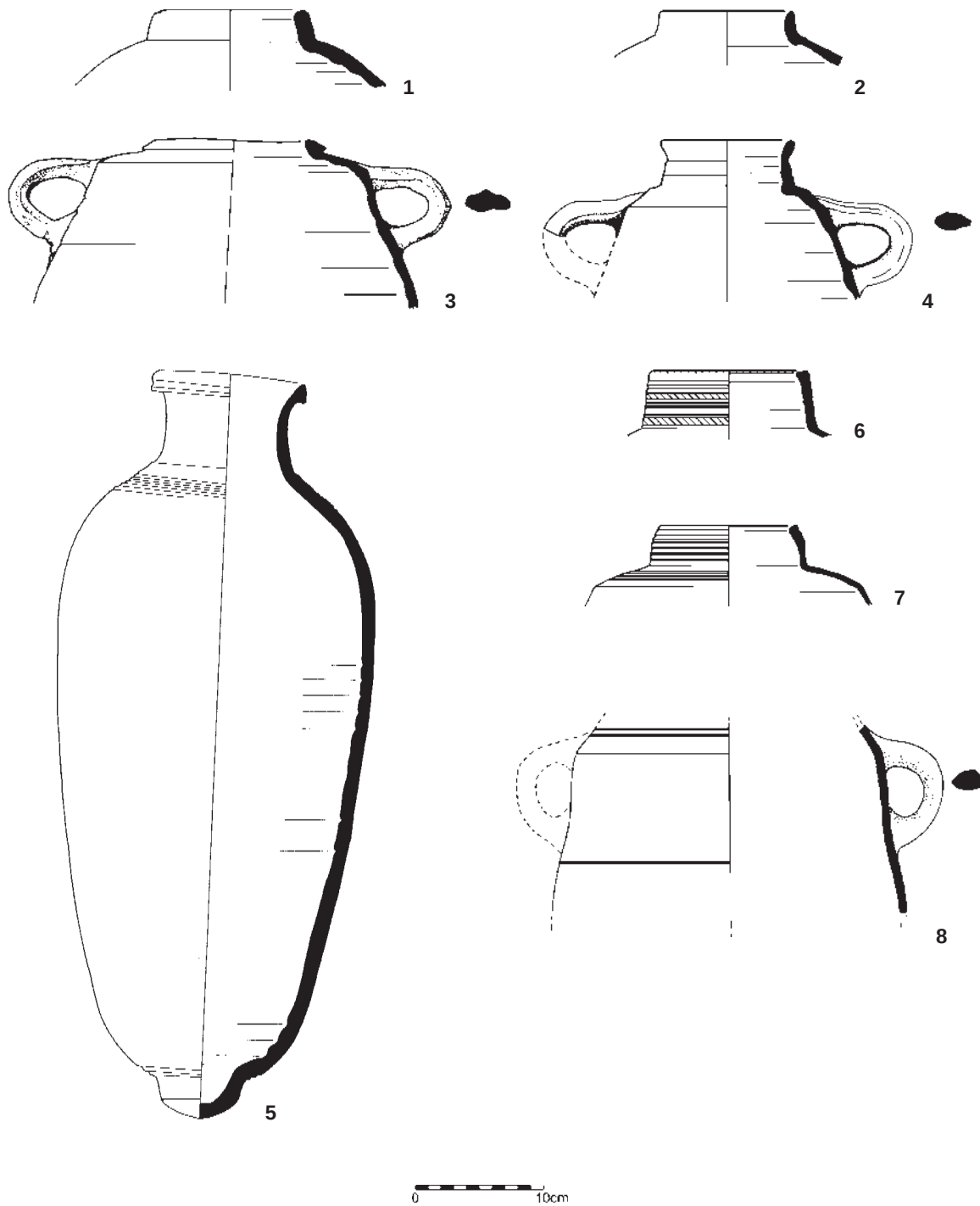


Fig. 4A.22

Fig. 4A.23. Holemouth jars: No. 11 Stratum Pre-IC typologically; Nos. 9, 12 Stratum IC; Nos. 1–2, 4–6, 10 Stratum IB; Nos. 3, 7–8 Stratum IB typologically

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IHMJ 1	IVNW.8.10.1	8003	J	3	D	
2.	IHMJ 1	IVNW.24.154.4	24010	C	0	C	
3.	IHMJ 1.1	IVNW.10.57.5	10010	A	0	C	
4.	IHMJ 1	IVNW.9.87.18	9003	D	0	C	(Color Photo 4A.3:9)
5.	IHMJ 1	IVNE.7.67.1	7011P	C	0	C	
6.	IHMJ 1.1	IVNW.40.28.15	40004P	C	0	D	
7.	IHMJ 2	IVNW.41.5.27	41001	C	0	D	
8.	IHMJ 5	IVNW.8.96.5	8001B	D	0	C	
9.	IHMJ 1.3	IVNW.10.54.6	10010	D	2	C	
10.	IHMJ 5.4	IVNE.7.133.3	7017	D	2	C	
11.	IHMJ 6.2	IVNW.9.147.17	9006A	D	3	D	
12.	IHMJ 5.4	IVNE.9.55.18	9007.1	D	1	C	

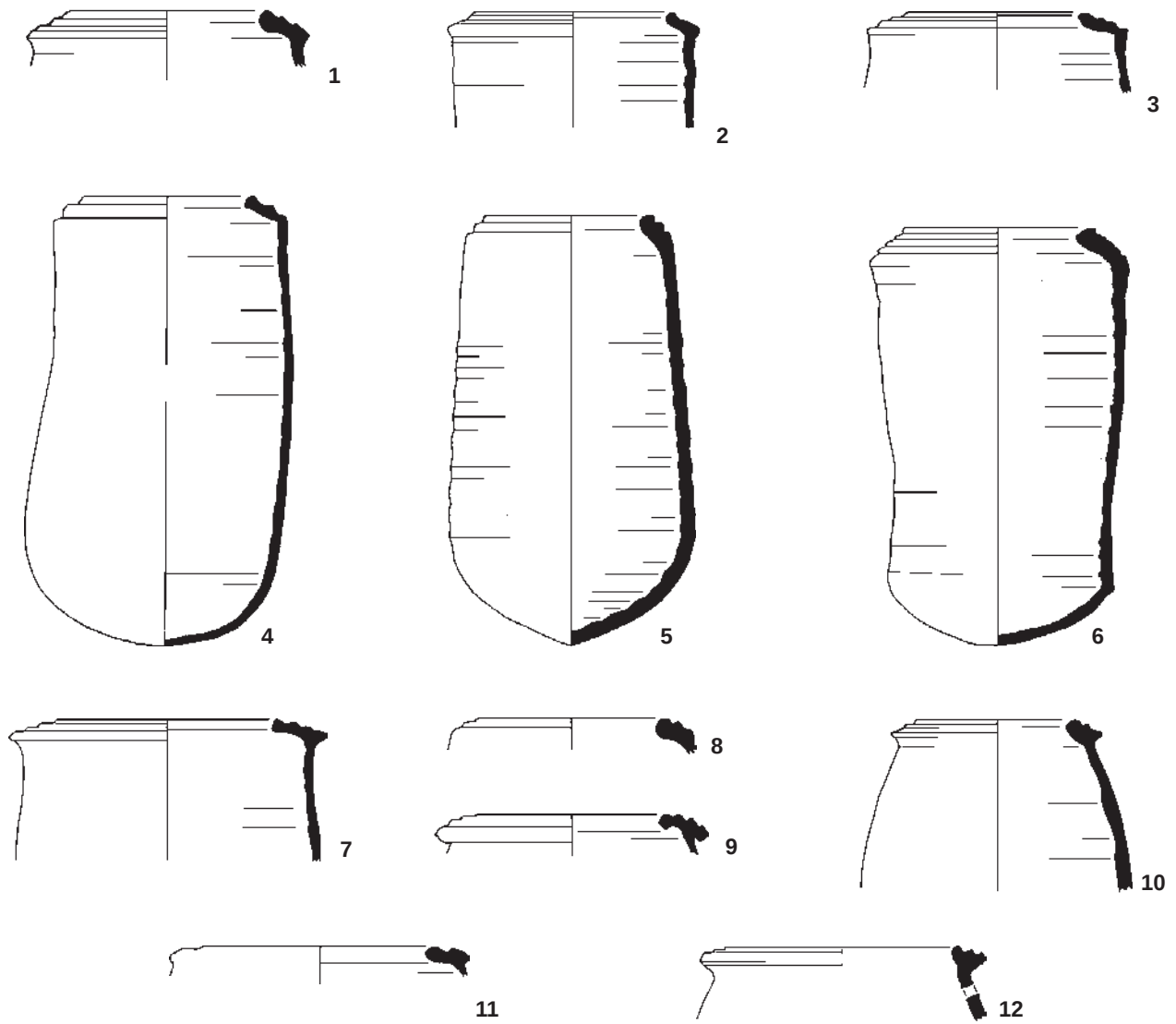


Fig. 4A.23

Fig. 4A.24. Amphorae: No. 5 Stratum Pre-IC; Nos. 4, 9-10 Stratum Pre-IC typologically; No. 7 Stratum IC; No. 2 Stratum IC typologically; Nos. 1, 3, 6, 8 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IIAMP 1	IVNW.9.46.1	9003	D	0	C	(Color Photo 4A.4:1)
2.	IIAMP 1.1	IVNW.10.59.10	10010	A	0	C	
3.	IIAMP 1.1	IVNW.8.34.3	8002	A	0	C	
4.	IIAMP 2	IVNW.7.2.12	7001	D	1	D	
5.	IIAMP 3	IVNW.8.238.2	8016	B	2	C	
6.	IIAMP 2	IVNW.9.73.1	9003	M	2	C	
7.	IIAMP 5	IVNW.9.237.1	9025	A	0	C	
8.	IIAMP 6	IVNE.24.97.2	24004	C	0	D	
9.	IIAMP 13A	IVNW.42.139.6	42043	A	0	C	Ext.: red slip, black and white bands
10.	IIAMP 12A	IVNE.8.15.1	8005	A	1	C	Ext.: red slip, white bands

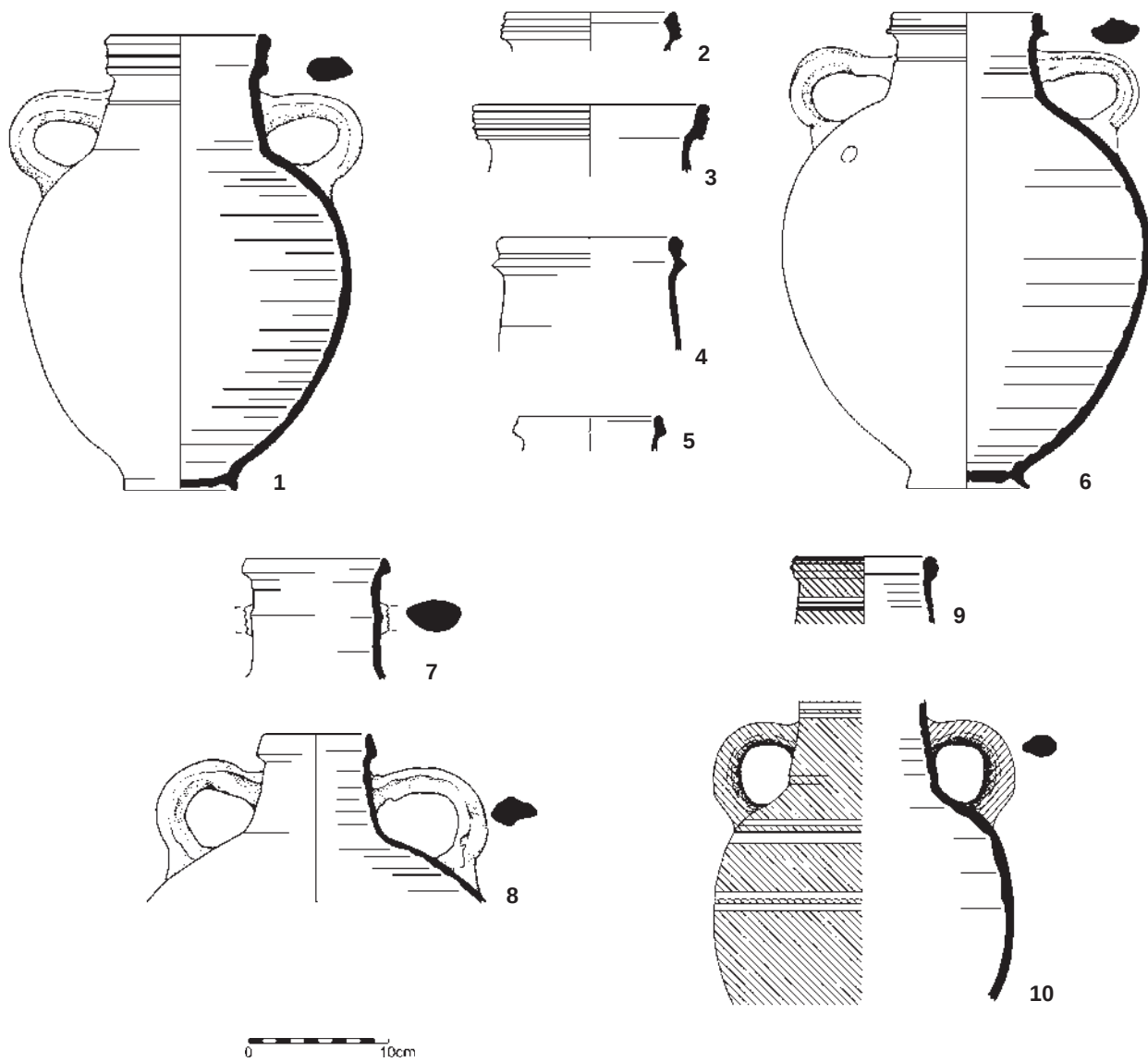


Fig. 4A.24

Fig. 4A.25. Jugs: Nos. 5–6 Stratum-Pre IC typologically; No. 7 Stratum ICb; Nos. 1–4, 8–11 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IJJUG 1	IVNW.8.202.7	8013	A	0	C	
2.	IJJUG 1	IVNW.42.44.1	42004	D	0	C	
3.	IJJUG 1.1	IVNE.8.123.1	8016P	A	0	C	
4.	IJJUG 1.2	IVNW.9.117.6	9003	A	0	C	
5.	IJJUG 2.2	IVNW.8.250.24	8025P*	D	0	C	
6.	IJJUG 3	IVNW.8.82.17	8002	A	0	C	
7.	IJJUG 4	IVNW.42.37.6	42003	C	0	D	Trefoil mouth
8.	IJJUG 9.1	IVNE.7.26.1	7004	C	8	D	Trefoil mouth
9.	IJJUG 8	IVNW.9.45.1	9003	A	0	C	Trefoil mouth
10.	IJJUG 9	IVNW.9.87.1	9003	H	0	C	Trefoil mouth (Color Photo 4A.4:2)
11.	IJJUG 10	IVNW.9.79.34	9003	B	1	C	

* Although this locus is designated as a Stratum IVA surface, the item is most likely intrusive from Stratum Pre-IC

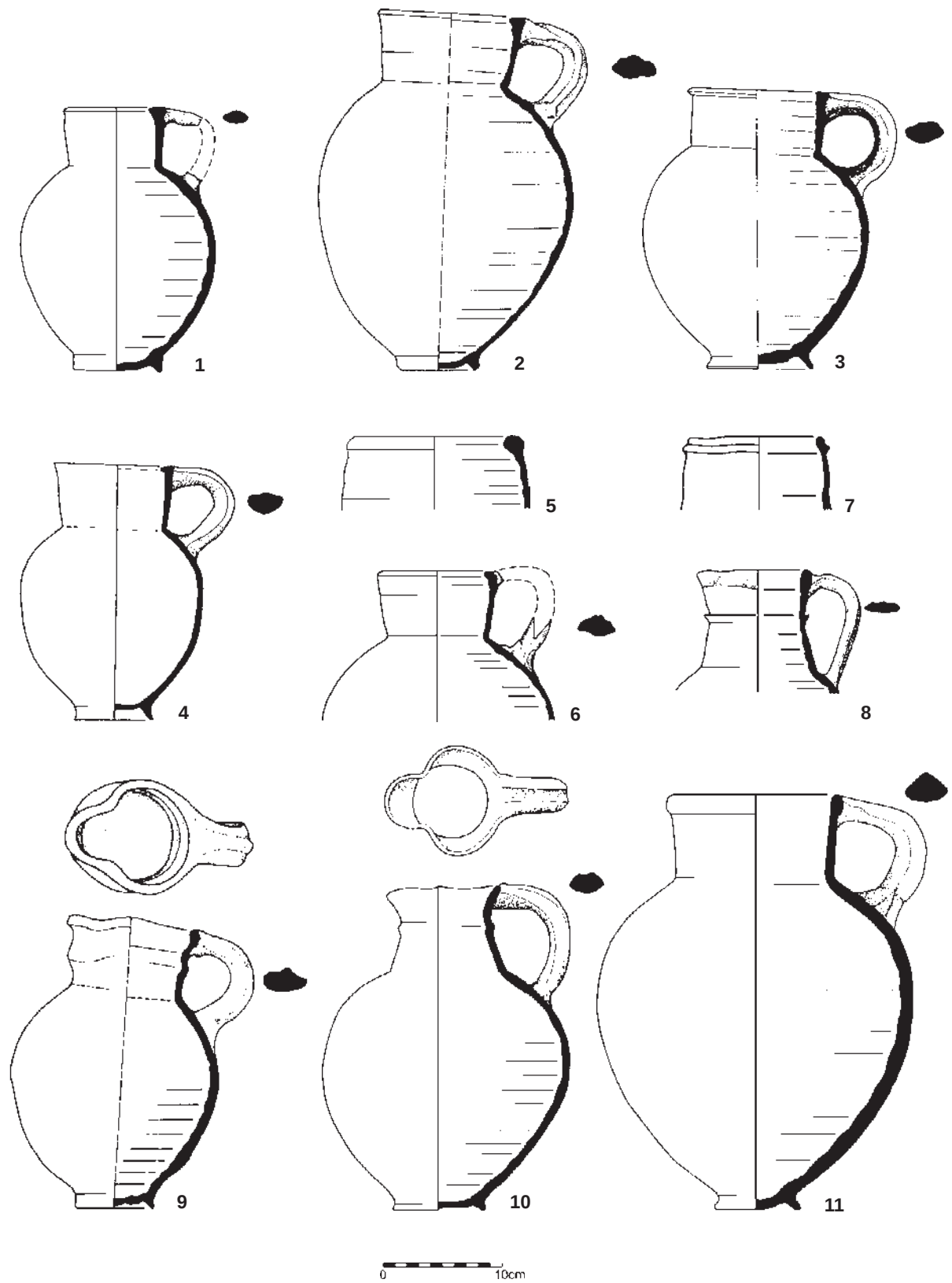


Fig. 4A.25

Fig. 4A.26. Jugs: No. 6 Stratum ICb; Nos. 1–5, 7–9 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IJJUG 13	IVNE.8.37.1	8007	B	1	C	
2.*	IJJUG 13.1	IVNW.9.162.51	9011	D	0	C	(Color Photo 4A.4:4)
3.	IJJUG 13.3	IVNE.8.64.5	8005	A	0	C	
4.	IJJUG 13.4	IVNW.9.62.1	9003	A	0	C	(Color Photo 4A.4:5)
5.	IJJUG 13.6	IVNW.9.64.1	9003	A	0	C	
6.	IJJUG 14	IVNE.9.59.7	9007.1	D	0	D	
7.	IJJUG 14.1	IVNE.25.19.31	25006	D	1	C	
8.	IJJUG 14A	IVNW.7.11.5	7006P	A	0	C	Rim int.: red band; ext.: red and black bands (Color Photo 4A.4:3)
9.	IJJUG 14.1	IVNW.8.62.1	8002	D	0	C	

* While the findspot of this jug was registered as Fill 9011, it was actually dug into Stratum IB Surface 9007; it contained jewelry hoard Obj. No. 723

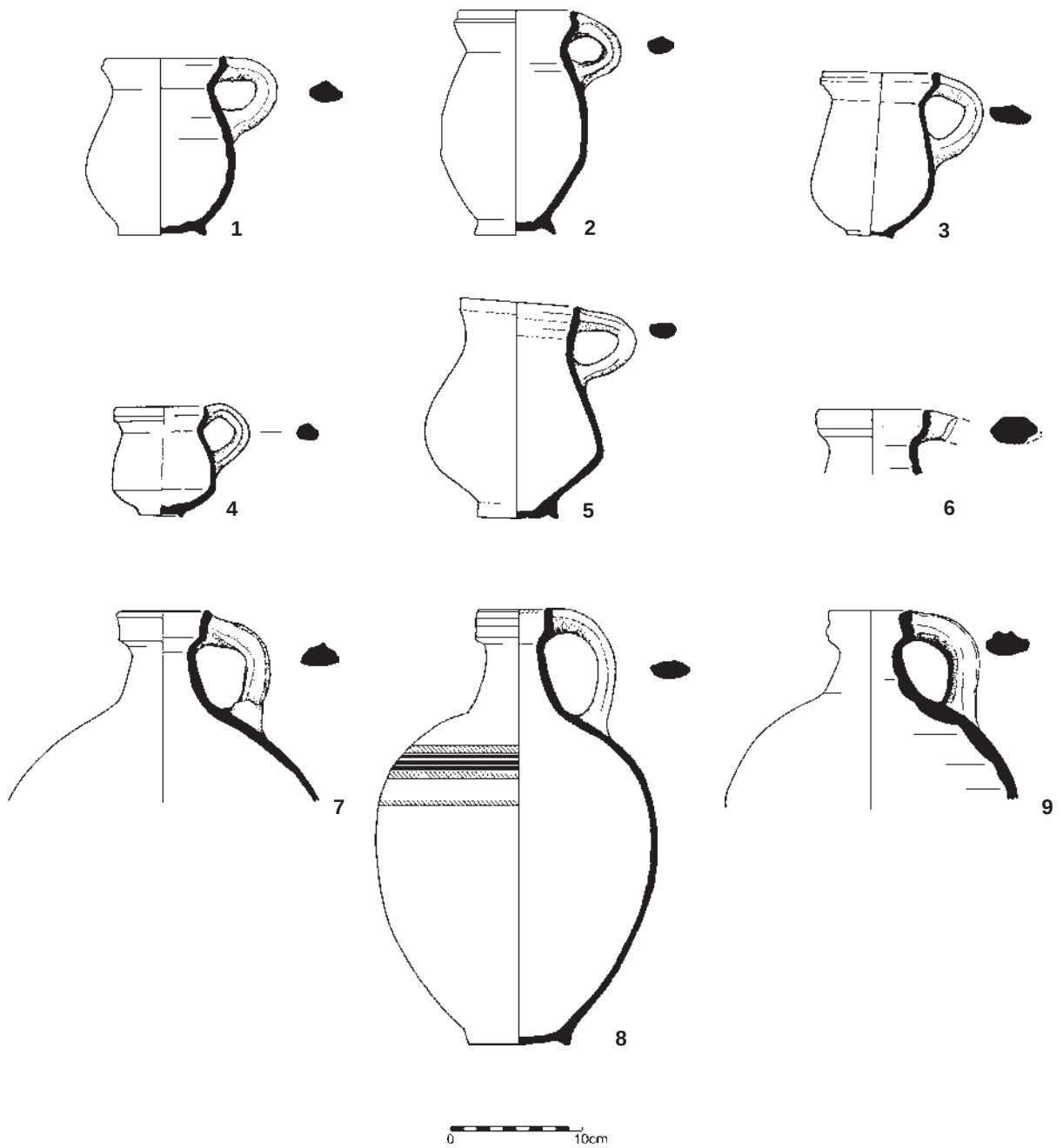


Fig. 4A.26

Fig. 4A.27. Decanters: No. 1 Stratum ICb; Nos. 2–8 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IIDEC 1	IVNW.41.72.49	41012	A	0	C	
2.	IIDEC 1.2	IVNE.26.13.2	26005	D	0	C	
3.	IIDEC 1.2	IVNW.9.77.4	9003	A	0	C	Ext.: wheel burnish
4.	IIDEC 1.2	IVNE.25.23.1	25006	A	0	C	
5.	IIDEC 1.2A	IVNE.25.55.1	25006	D	0	C	Ext. and handle: red slip; ext.: wheel burnish
6.	IIDEC 2	IVNE.8.68.1	8002	A	0	C	Ext.: wheel burnish (Color Photo 4A.5:2)
7.	IIDEC 2.2	IVNW.42.45.1	42004	C	0	C	(Color Photo 4A.5:1)
8.	IIDEC 5.1	IVNW.9.53.1	9003	A	0	C	

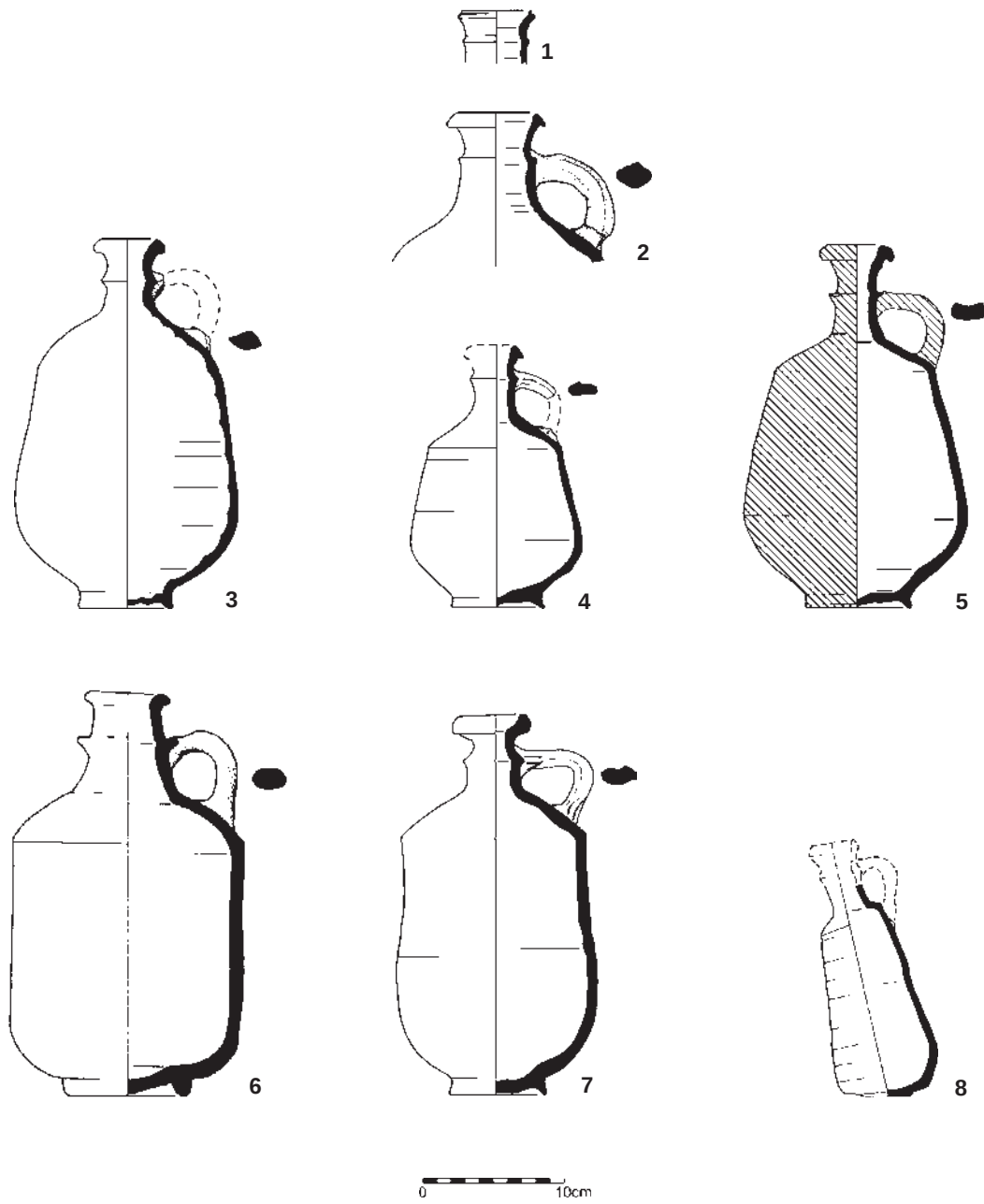


Fig. 4A.27

Fig. 4A.28. Juglets: No. 19 Stratum IC; No. 16 Stratum IC?; Nos. 1-15, 17-18, 20-24 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IJJUL 1	IVNE.7.33.1	7006	K	0	C	(Color Photo 4A.4:6)
2.	IJJUL 1	IVNW.25.92.51	25042P	A	0	C	
3.	IJJUL 1	IVNW.9.36.1	9003	A	0	C	
4.	IJJUL 1	IVNW.9.91.1	9003	A	0	C	
5.	IJJUL 1	IVNE.7.94.1	7011P	K	0	C	
6.	IJJUL 1.1	IVNE.9.175.1	9002	A	0	C	
7.	IJJUL 1.1	IVNE.24.17.1	24004	B	0	C	
8.	IJJUL 1.1	IVNE.8.115.1	8015	A	0	C	
9.	IJJUL 1.2	IVNE.25.60.1	25005	B	0	C	Imitation of metal form
10.	IJJUL 1.3	IVNE.9.33.1	9002	B	0	C	
11.	IJJUL 1.4	IVNE.8.57.1	8014	D	0	C	
12.	IJJUL 2.1	IVNW.8.61.1	8002	D	0	C	(Color Photo 4A.4:7)
13.	IJJUL 3	IVNW.9.21.1	9003	A	0	C	
14.	IJJUL 3	IVNW.9.39.1	9003	A	0	C	
15.	IJJUL 3	IVNW.9.65.1	9003	D	0	C	
16.	IJJUL 3	IVNW.24.166.1	24031	A	0	C	
17.	IJJUL 3	IVNE.8.70.1	8015	A	0	C	(Color Photo 4A.4:8)
18.	IJJUL 3	IVNW.25.89.51	24042P	A	0	C	
19.	IJJUL 4	IVNW.42.92.1	42007	A	0	C	
20.	IJJUL 4	IVNW.9.24.1	9003	A	0	C	
21.	IJJUL 4	IVNE.25.93.1	25016P	A	0	C	
22.	IJJUL 4	IVNW.9.55B.1	9003	A	0	C	
23.	IJJUL 4	IVNW.9.156.1	9007P	A	0	C	
24.	IJJUL 5	IVNE.8.14.1	8005	A	0	C	Strainer in mouth

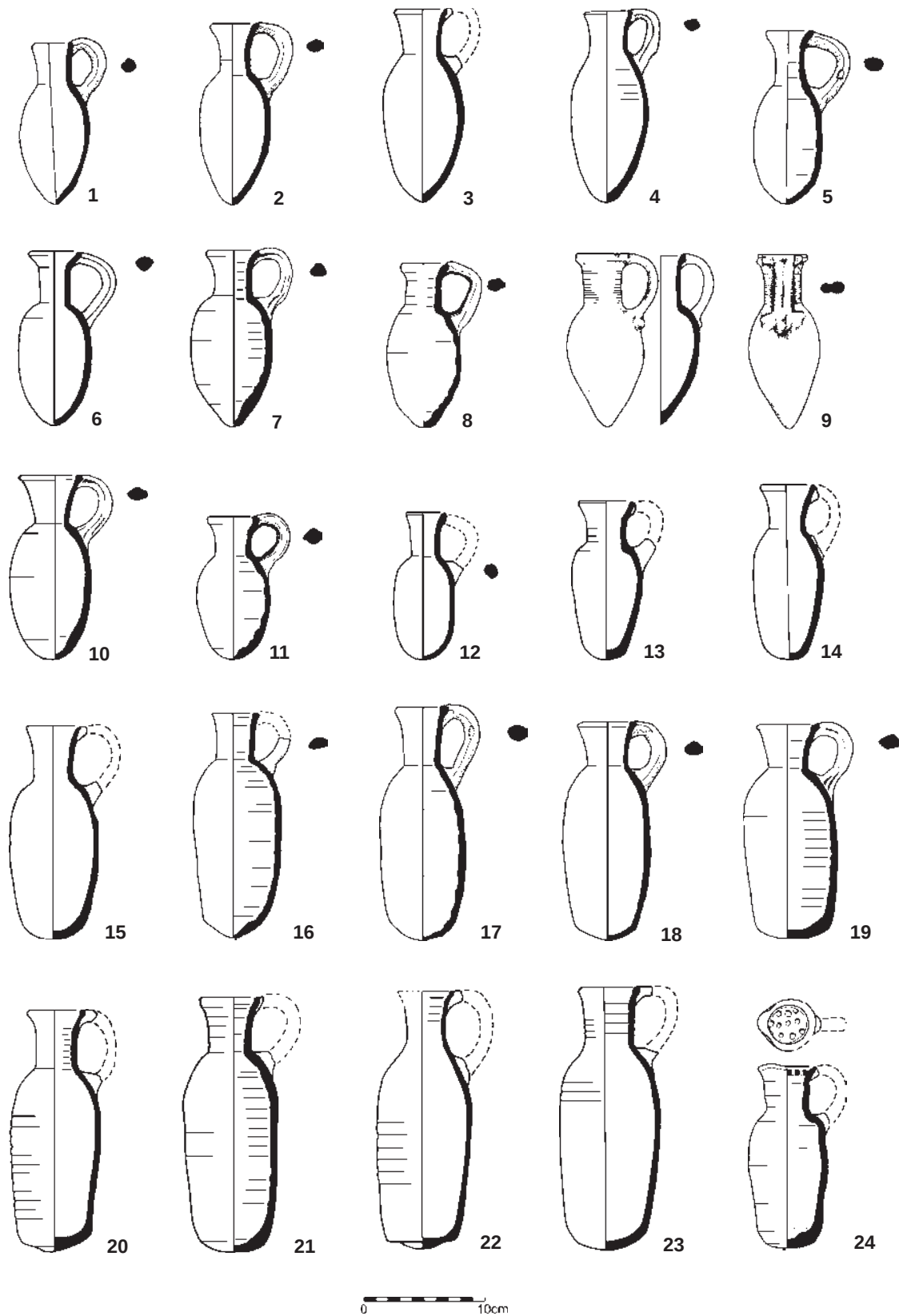


Fig. 4A.28

Fig. 4A.29. Juglets: No. 8 Stratum IC; No. 9 Stratum IC typologically; Nos. 1–3, 5–7, 10–11 Stratum IB; No. 4 Stratum IB typologically

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IJJUL 10	IVNE.8.52.1	8007	B	0	C	
2.	IJJUL 10	IVNE.8.44.29	8007	B	0	C	(Color Photo 4A.4:9)
3.	IJJUL 11	IVNW.25.78.1	25006	K	0	C	
4.	IJJUL 12.1	IVNE.8.2.3	8001	B	0	D	
5.	IJJUL 13	IVNE.7.103.7	7011P	B	4	C	
6.	IJJUL 1.3.11	IVNE.25.24.1	25006	B	0	C	(Color Photo 4A.4:10)
7.	IJJUL 1.13.2	IVNE.23.29.1	23005	C	0	C	
8.	IICUP 1*	IVNE.25.151.1	25026	A	0	C	Ext.: red slip, vertical wheel burnish
9.	IJJUL 15	IVNW.42.29.1	42003	C	0	C	
10.	IJJUL 24	IVNE.24.84.1	24002	B	0	B	BoR III; ext.: red slip (not drawn), black bands and concentric circles (Color Photo 4A.4:11)
11.	IJJUL 19	IVNW.8.117.1	8002	A	0	C	

* Reworked bottom of IJJUL 4

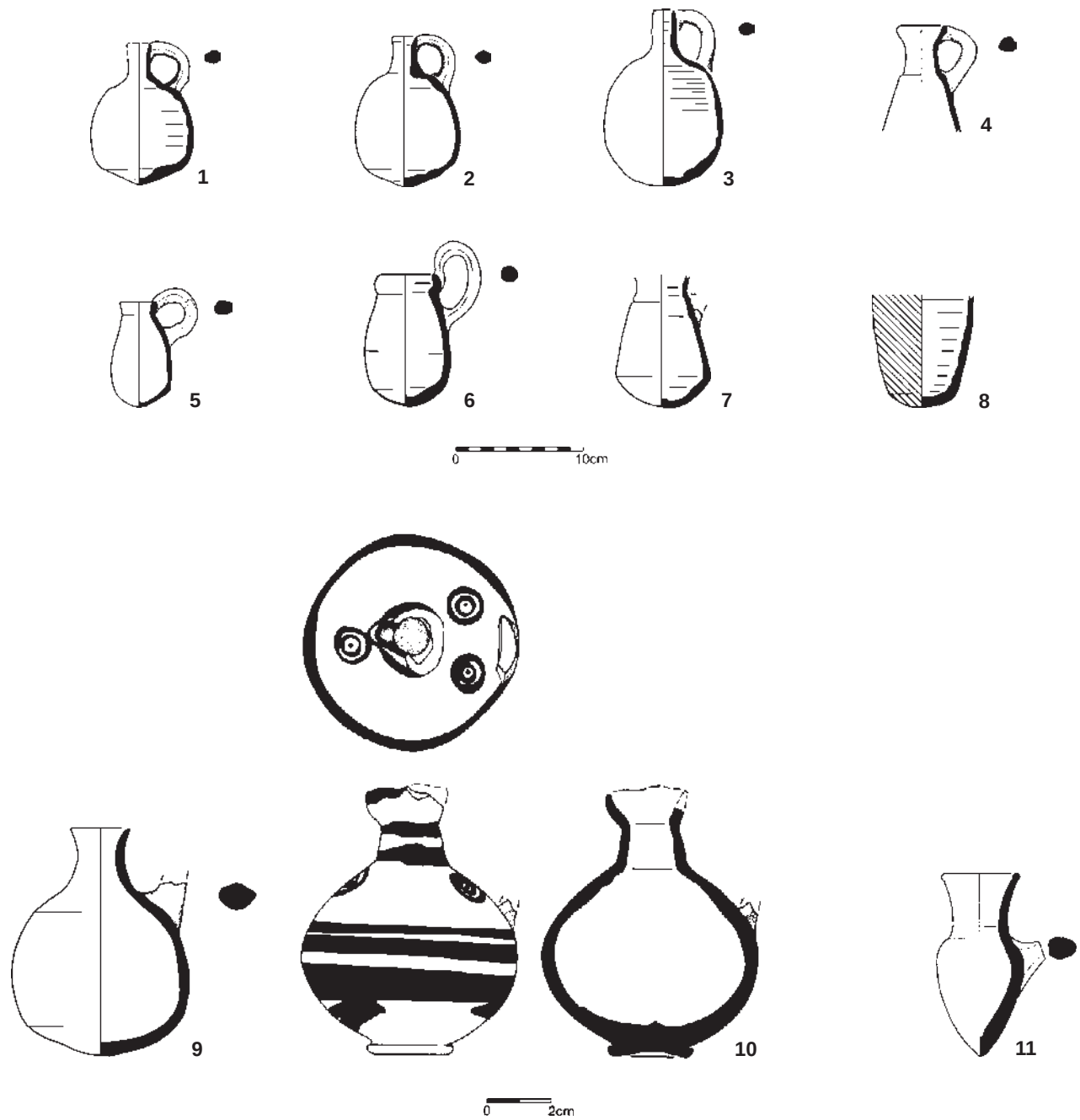


Fig. 4A.29

Fig. 4A.30. Bottles: Nos. 1–10 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IIBTL 1	IVNE.23.16.1	23001	D	0	C	
2.	IIBTL 1	IVNW.8.116.1	8002	P	0	C	(Color Photo 4A.5:3)
3.	IIBTL 1.2	IVNE.7.23.2	7006	C	0	C	
4.	IIBTL 1.2	IVNW.8.159.1	8002	C	0	C	
5.	IIBTL 2	IVNE.7.28.1	7004	C	0	C	
6.	IIBTL 4	IVNW.8.113.1	8002	D	0	C	
7.	IIBTL 4	IVNE.25.53.1	25006	B	0	C	(Color Photo 4A.5:4)
8.	IIBTL 3.1	IVNW.23.129.1	23040A	D	0	C	
9.	IIBTL 6	IVNE.8.34.1	8002	A	0	C	
10.	IIBTL 7A	IVNW.8.46.1	8003	A	0	C	Ext.: beige self-slip

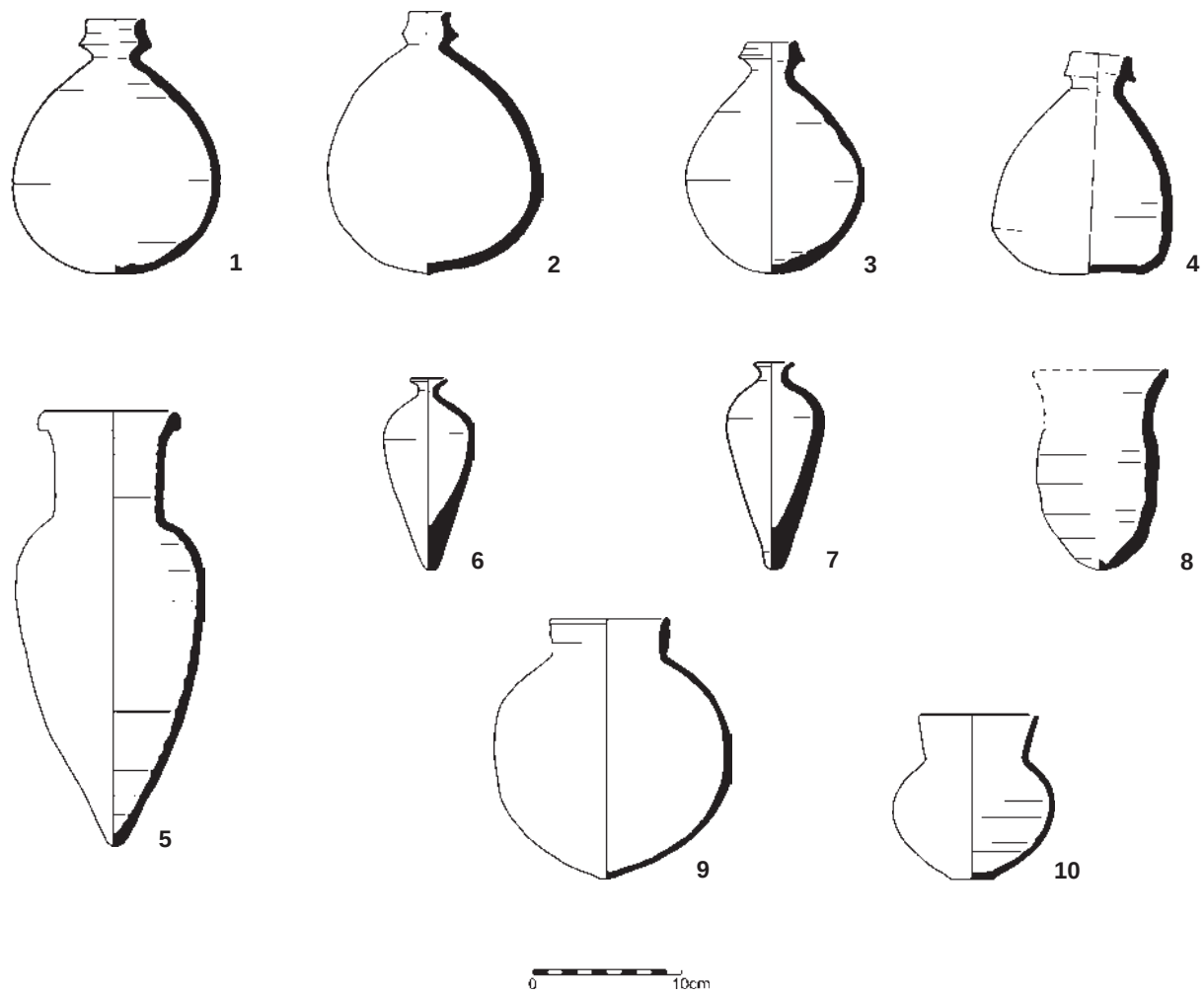


Fig. 4A.30

Fig. 4A.31. Stands, lids, cup-and-saucers, and lamps: No. 10 Stratum Pre-IC; No. 5 Stratum IC; Nos. 2–4, 6–9, 11–15 Stratum IB; No. 1 Stratum IB typologically

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IISTD 1.2	IVNE.7.140.6	7016	A	0	D	
2.	IISTD 2	IVNW.10.44.1	10004	D	1	D	
3.	IISTD 2.1	IVNW.8.154.1	8002	A	0	C	(Color Photo 4A.5:7)
4.	IISTD 2.2	IVNW.10.11.51	10005	A	0	D	
5.	IILID 1	IVNE.7.138A.13	7020P	A	0	C	
6.	IILID 2	IVNW.41.35.108	41007.1	D	3	C	
7.	IICAS 1	IVNW.25.51.2	25042P	A	0	C	
8.	IILMP 1	IVNE.7.80.20	7012P	A	0	C	(Color Photo 4A.5:8)
9.	IILMP 1	IVNE.26.28.4	26002	A	0	C	
10.	IILMP 1	IVNW.23.31.33	23011	C	0	C	
11.	IILMP 2	IVNE.25.105.1	25006	D	0	C	
12.	IILMP 3	IVNE.7.93.1	7011P	B	0	C	
13.	IILMP 4	IVNE.7.89.1	7011P	A	0	C	
14.	IILMP 4	IVNE.7.65.1	7011P	C	0	C	(Color Photo 4A.5:9)
15.	IILMP 4	IVNE.8.46.1	8007	F	0	D	

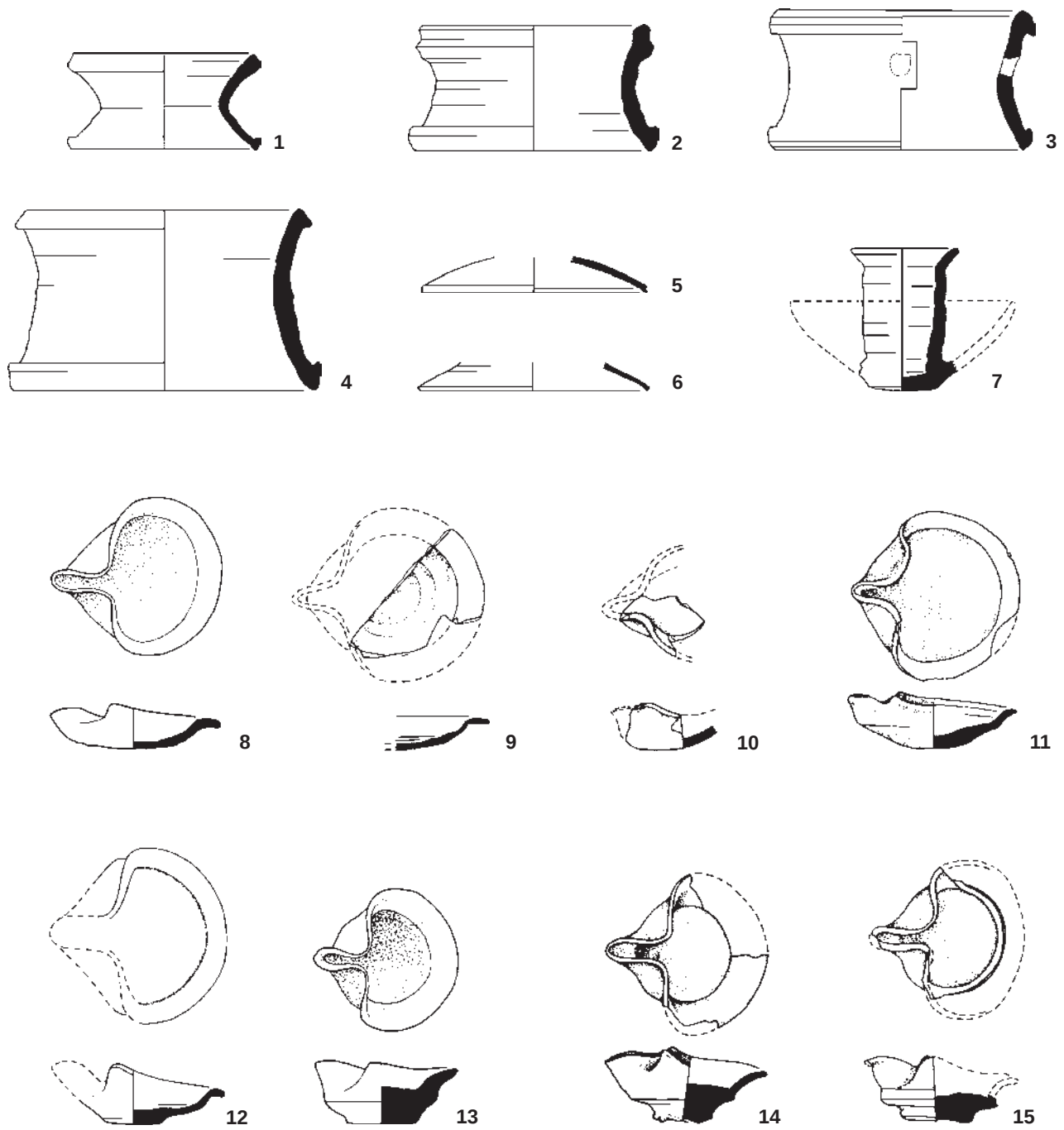


Fig. 4A.31

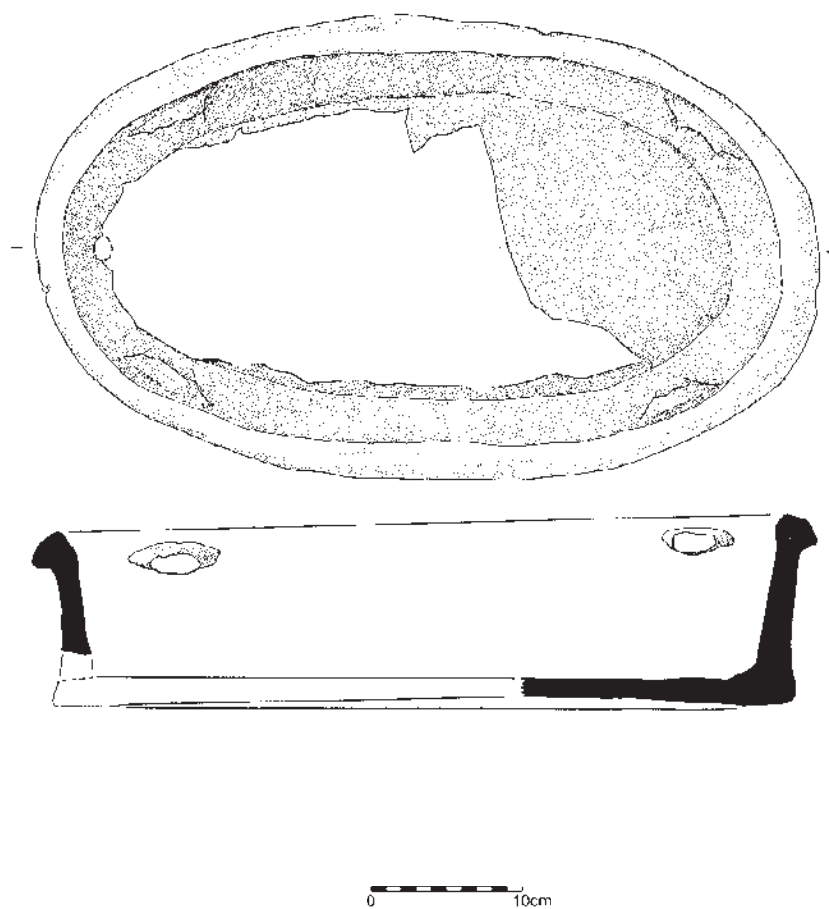


Fig. 4A.32. Footbath: No. 1 Stratum IB

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IIFB 1	IVNE.24.63.5	24004	C	3	D	

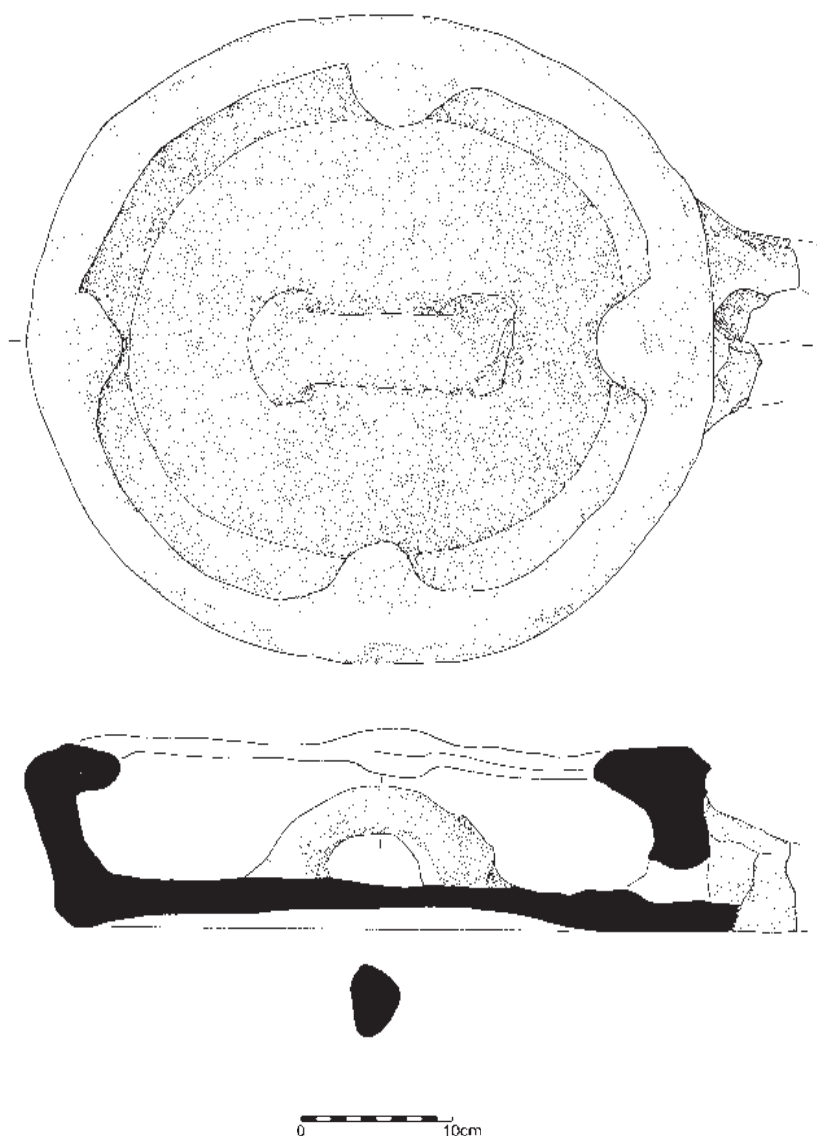


Fig. 4A.33. Footbath: No. 1 Stratum I typologically

	Type	Reg. No.	Locus	Description			Decoration
				Ware	Core	Levigation	
1.	IIFB 2	IVSW.8.18.1	8003	C	3	D	

CHAPTER 4B

CAPACITIES OF IRON AGE IIC POTTERY TYPES

1: USE OF COMPUTER-AIDED GRAPHIC DESIGN (CAGD) TO ESTIMATE THE CAPACITY OF CERAMIC VESSELS

Erik Steinbach

The capacity of pottery vessels can provide significant information regarding their use and construction, as well as serving as an indicator of broader implications concerning trade, political affiliation, and social structure. Answering these larger-scope questions requires a robust sample size, which is difficult to obtain when the number of intact or fully reconstructable vessels is limited or when the resources to measure the capacity of a large number of vessels are not available. What is needed is a practical, low-cost, non-destructive, and relatively accurate means of ascertaining the volume of the space enclosed by the walls of a ceramic vessel. This study presents a method of estimating vessel capacity using measurements taken from published pottery profiles and calculations carried out by means of commercially-available Computer-Aided Graphic Design (CAGD) applications.

Modeling complex objects in three dimensions is a routine part of a wide variety of commercial endeavors. Industry uses computer-aided design to blueprint and then fabricate everything from precision-machined aircraft parts to bridge girders. Entertainment companies use sophisticated algorithms to render and animate characters on the big screen that appear life-like because they interact within a virtual world that adheres to the laws of physics. In this virtual world, balls bounce, anvils drop, and cars crash because the software developed to animate these objects keeps track of their physical properties. These are the same real-world properties that are of interest to an archaeologist analyzing artifacts and architectural features. The benefit to archaeologists of the growth of CAGD is the availability of inexpensive 3D-design software.

Pottery drawings provide the basic information necessary to generate a three-dimensional model of a vessel. For wheel-thrown pots, only three pieces of information are required: the location of the centerline about which the pot was thrown; a section of the interior surface drawn in the same plane as the centerline; and a scale bar. Although it is possible to model non-symmetrical vessels, this requires additional information and is more time-consuming. In the ancient Near East, wheel-thrown pottery has a long history, and many vessel forms that are of interest from a capacity standpoint are wheel-thrown.

PREVIOUS RESEARCH

Procedures for estimating vessel capacity without direct measurement and that do not require modeling in three dimensions have previously been used.¹ One approach involved generalizing the shape of the pot to geometries for which volume formulae exist. A popular group of methods utilizing calculus was essentially based on the summed-cylinders method.² In this approach, a scale drawing of a vessel is divided into horizontal strips of equal height. The radius of each strip is measured and entered in the formula for the volume of a cylinder. The volume of the entire vessel is the sum of all the individual cylinder volumes. As the height of each cylinder approaches zero, the estimate approaches the true volume of the vessel.

1. Senior and Birnic 1995.

2. Rice 1987.

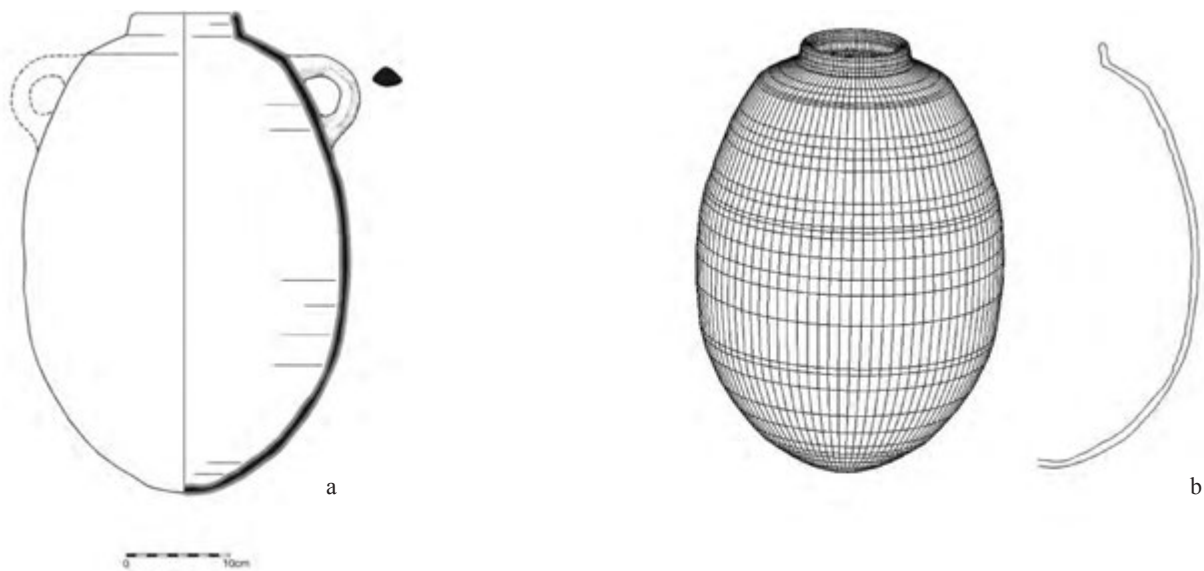


Fig. 4B.1. a: Vessel profile traced from pottery plate, and b: rotated about the centerline in a CAGD program

Further enhancement of calculus methods incorporated digitizers to acquire the necessary measurements and PC-based applications to calculate the area under the curve as well as methodological improvements to achieve better accuracy.³

Modeling and analysis of archaeological artifacts in 3D accelerated with the greater availability at major universities of multi-disciplinary programs combining the technical abilities and experience of researchers in computer science and in anthropology. One such program is the Partnership for Research in Spatial Modeling (PRISM), which created a 3D database network of lithic, faunal, and ceramic artifacts.⁴ Artifacts are scanned with a three-dimensional scanner and entered into a database in which they can be searched by their geometry and compared to other objects based on similar characteristics. A knowledge network is available online of pottery morphology for two pre-historic datasets based on the pottery of the Salado of central Arizona, USA, and the trading site of Casas Grandes in Chihuahua, Mexico.⁵

METHOD

DesignCAD 3D Max version 17.2 from the software company IMSI was used to reproduce the interior volume of ceramic vessels in three dimensions (Fig. 4B.1a–b). A pottery profile was imported into a graphics program—in this case, Adobe Illustrator—and the interior and exterior walls of the pot were traced, as well as the CAGD software scale bar for scaling the drawing to full size. The outline of the ceramic vessel was then rotated 360° around its centerline in order to produce an enclosed solid object. This procedure is known as a “sweep” in DesignCAD nomenclature.

Fig. 4B.1b illustrates the wall of a storage jar rotated around its centerline to produce a three-dimensional representation of the jar itself, not its contents. Since the desired measurement is the volume of the contents of the vessel, one more line needs to be added to the drawing. This is provided by a trace of the interior wall up to the point on the vessel wall at which the capacity is to be measured and a line from this point to the centerline that, when rotated about the centerline, creates an enclosed solid representing the contents of the vessel. DesignCAD 3D Max includes an application that calculates the volume of solid objects. The volume of the contents can be measured, as well as that of the vessel fabric itself. In addition to providing measurements of the contents, the virtual pots themselves

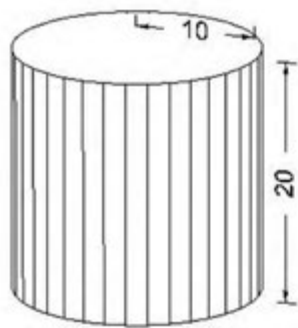
3. Senior and Birnic 1995; Karasik 2003.

4. Available at <http://prism.engineering.asu.edu/research/pilot.php>.

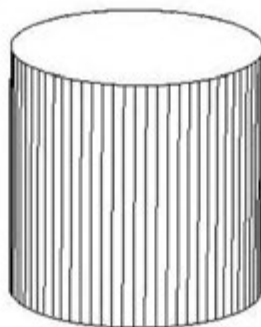
5. Simon et al. 2002.

Volume of a cylinder with $r = 10$ and $h = 20$ is 6283.19 cc

36 facets
Volume = 6297.83 cc



72 facets
Volume = 6287.18 cc



144 facets
Volume = 6284.18 cc

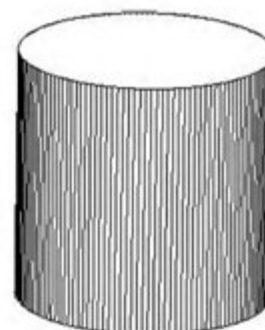


Fig. 4B.2. Estimating volume of cylinder using CAGD

can be moved about and stacked inside other enclosed spaces, representing a kiln or the hull of a trading ship, for example, thus modeling the carrying capacity of these features.

ACCURACY

The accuracy of the method is subject to numerous assumptions. The first is that the vessel was symmetrical about its vertical centerline when manufactured, which is rare, since deformation of the vessel during drying or firing is highly likely. However, as long as such asymmetries are minor, that the pot was wheel-thrown will result in a reasonably accurate estimate of its capacity based on its profile drawing. The second assumption is that the scale drawing accurately reflects the actual proportions of the vessel. Profile drawings of ceramic vessels have a long tradition in Old World archaeology, and great care is taken to ensure the accuracy of these drawings. The third assumption is that the CAGD application accurately calculates the volume of the rotated vessel profile. Again, this is not entirely true: while the volume of simple geometrical shapes can be accurately calculated using standard formulae,

complex shapes require algorithms that essentially estimate true volume by various strategies.⁶

An additional problem of the CAGD method is that the rotated shape is not a continuous arc, but rather a series of facets that approximate the rotated shape. Fig. 4B.2 illustrates how a solid is represented in CAGD as a simple geometric shape, namely, the cylinder. The actual volume of a cylinder can be calculated by the formula: Volume equals pi multiplied by the square of the radius multiplied by the height. The cylinder is represented in the example by prisms of ever greater numbers of facets. As the number of facets increases, the estimate of the volume approaches the true volume of the cylinder. There is a practical limit to the number of facets that can be generated, as complex shapes require ever-increasing amounts of computations to calculate the volume with ever-diminishing returns in terms of a more accurate estimation. In attempting to estimate the capacity of ceramic vessels, a “sweep” of 90 facets resulted in a balance between processing time and accuracy.

6. Lee and Requicha 1982.

CONCLUSIONS

Commercially-available CAGD software allowed pottery plates to be used to estimate the capacity of wheel-thrown ceramic vessels with reasonable accuracy. Even the capacity of incomplete vessels could be estimated as long the complete profile from base to rim was available. Tables 4B.1–4B.3 (Figs. 4B.3–4B.13) present the calculated volume based on neck and rim measurements of a selection of vessel types (in liters, listed in the neck or rim column). The vast majority come from Iron IIC Strata IC–IA, most from Stratum IB.

SOFTWARE AND HARDWARE CONFIGURATION

Applications:	DesignCAD 3D Max Version 17.2 Adobe Illustrator CS2 Version 12.0.1
Operating System:	Windows XP Home Edition Version 2002
Hardware:	Pentium4 2.4GHz CPU, 1.25 GB Ram, 300GB HD

Table 4B.1: Capacity of bowls, kraters, and cooking pots (in liters)

Sample No. *	Fig.	Chapter 4A Fig.	Corpus type	Reg. No.	Locus	Rim	Neck
1.	4B.3:1	4A.1:15	IIBL 1	IVNW.9.43.1	9003	0.43	
2.	4B.3:2	4A.1:27	IIBL 1.2	IVNW.9.71.1	9003	0.29	
3.	4B.3:3	4A.2:8	IIBL 2.3	IVNW.25.71.1	25006	0.22	
4.	4B.3:4	4A.2:14	IIBL 3	IVNW.9.117.1A	9003	0.28	
5.	4B.3:5	4A.2:23	IIBL 3.1	IVNE.7.15.13	7006	0.54	
6.	4B.3:6	4A.2:30	IIBL 3.2	IVNW.40.68.9	40016	0.35	
7.	4B.3:7	4A.2:34	IIBL 3B	IVNW.9.99.1	9003	0.56	
8.	4B.3:8	4A.3:1	IIBL 4	IVNW.8.139.51	8002	0.63	
9.	4B.3:9	4A.3:13	IIBL 4.2	IVNW.8.141.15	8002	0.50	
10.	4B.3:10	4A.3:19	IIBL 4.3	IVNW.8.177.1	8012P	0.66	
11.	4B.3:11	4A.3:26	IIBL 5A	IVNE.25.99.1	25016P	0.31	
12.	4B.3:12	4A.3:30	IIBL 5.1A	IVNE.7.76.1	7011P	0.34	
13.	4B.3:13	4A.4:6	IIBL 7.1A	IVNW.9.13.2	9003	0.39	
14.	4B.3:14	4A.4:10	IIBL 8.1	IVNW.25.43.1	25004	0.98	
15.	4B.3:15	4A.4:14	IIBL 10A	IVNE.8.46.5	8002	0.69	
16.	4B.3:16	4A.4:18	IIBL 11.1	IVNW.8.157.51	8002	0.19	
17.	4B.3:17	4A.5:7	IIBL 18	IVNE.7.103.1	7011P	0.65	
18.	4B.3:18	4A.5:12	IIBL 19	IVNW.9.6.54	9003	0.73	
19.	4B.3:19	4A.5:13	IIBL 19.1A	IVNW.25.29.3	25006	2.22	
20.	4B.4:1	4A.12:4	IIBL 4	IVNW.8.100.14	8002	5.33	
21.	4B.4:2	4A.12:5	IIBL 4.1	IVNW.9.30.2	9003	11.90	
22.	4B.4:3	4A.12:7	IIBL 4.3	IVNW.8.124.6	8002	10.34	
23.	4B.4:4	4A.12:8	IIBL 4.5	IVNW.9.129.3	9003	27.61	
24.	4B.4:5	4A.12:9	IIBL 5	IVNW.7.53.1	7002	13.61	
25.	4B.4:6	4A.13:7	IIBL 7	IVNW.9.81.1	9003	13.09	
26.	4B.4:7	4A.13:8	IIBL 7.1	IVNW.9.14.1	9003	8.89	
27.	4B.5:1	4A.14:2	IIBL 6	IVNE.7.98.1	7011P		6.41
28.	4B.5:2	–	IIBL 6.2	IVNE.8.30.37	8002		5.76
29.	4B.5:3	4A.14:4	IIBL 7	IVNW.8.164.3	8002		4.51
30.	4B.5:4	4A.14:8	IIBL 8	IVNW.9.47.7	9003		3.65
31.	4B.5:5	4A.14:7	IIBL 11	IVNW.9.105.1	9003		0.23

* Scale 1:5

Table 4B.2: Capacity of storage jars, holemouth jars, amphorae, and jugs (in liters)

Sample No.*	Fig.	Chapter 4A Fig.	Corpus type	Reg. No.	Locus	Rim	Neck
32.	4B.6:1	4A.17:2	IISJ 1.2	IVNW.7.13.1	7004A		20.96
33.	4B.6:2	4A.17:3	IISJ 1.2	IVNW.8.239.1	8016		22.63
34.	4B.6:3	4A.17:4	IISJ 4	IVNW.8.231.2	8016		22.27
35.	4B.6:4	4A.18:1	IISJ 5	IVNE.7.70.2	7011P		22.94
36.	4B.7:1	4A.18:2	IISJ 5.5	IVNE.7.78.1	7011P		15.10
37.	4B.7:2	4A.18:3	IISJ 5.6	IVNW.42.47.1	42004		27.64
38.	4B.7:3	4A.19:1	IISJM 8	IVNW.8.243.1	8023		23.75
39.	4B.7:4	4A.19:2	IISJ 5.11	IVNW.8.45.1	8002		35.20
40.	4B.8:1	4A.21:3	IISJ 15	IVNE.8.38.1	8002		46.24
41.	4B.8:2	4A.20:2	IISJ 8	IVNW.8.93.1	8002		12.05
42.	4B.8:3	4A.20:1	IISJ 9.1	IVNW.8.178.53	8012P		6.51
43.	4B.8:4	4A.20:3	IISJ 9.2	IVNE.7.67.2	7011P		5.60
44.	4B.9:1	4A.20:4	IISJ 9.3	IVNE.25.54.1	25006		7.97
45.	4B.9:2	4A.20:5	IISJ 9.5	IVNW.8.56.9	8002		10.97
46.	4B.9:3	4A.22:5	IISJ 17	IVNE.25.42.3	25006		12.73
47.	4B.9:4	4A.21:3	IISJ 13	IVNW.40.22.5	40004P		10.73
48.	4B.10:1	4A.23:4	IIHMJ 1	IVNW.9.87.18	9003	5.65	
49.	4B.10:2	4A.23:5	IIHMJ 1	IVNE.7.67.1	7011P	4.04	
50.	4B.10:3	4A.23:6	IIHMJ 1.1	IVNW.40.28.15	40004P	4.90	
51.	4B.10:4	4A.24:1	IIAMP 1	IVNW.9.46.1	9003		6.95
52.	4B.10:5	4A.24:6	IIAMP 2	IVNW.9.73.1	9003		8.88
53.	4B.10:6	–	IIAMP 9	IIINE.8.39.54**	8004		17.48
54.	4B.11:1	4A.25:1	IIJUG 1	IVNW.8.202.7	8013		2.00
55.	4B.11:2	4A.25:2	IIJUG 1	IVNW.42.44.1	42004		4.77
56.	4B.11:3	4A.25:3	IIJUG 1.1	IVNE.8.123.1	8016P		2.75
57.	4B.11:4	4A.25:4	IIJUG 1.2	IVNW.9.117.6	9003		1.52
58.	4B.11:5	4A.25:9	IIJUG 8	IVNW.9.45.1	9003		1.87
59.	4B.11:6	4A.25:10	IIJUG 9	IVNW.9.87.1	9003		4.19
60.	4B.11:7	4A.25:11	IIJUG 10	IVNW.9.79.34	9003		7.74
61.	4B.12:1	4A.26:1	IIJUG 13	IVNE.8.37.1	8007	0.71	
62.	4B.12:2	4A.26:2	IIJUG 13.1	IVNW.9.162.51	9011	0.79	
63.	4B.12:3	4A.26:3	IIJUG 13.3	IVNE.8.64.5	8005	0.45	
64.	4B.12:4	4A.26:5	IIJUG 13.6	IVNW.9.64.1	9003	0.71	
65.	4B.12:5	4A.26:8	IIJUG 14A	IVNW.7.11.5	7006P	5.05	

* Scale 1:5, except Nos. 41–42 at 2:1

** Included because the only complete example of IIAMP 9 was found in Field III Stratum IA

Table 4B.3: Capacity of juglets, decanters, and bottles (in liters)

Sample No. *	Fig.	Chapter 4A Fig.	Corpus type	Reg. No.	Locus	Rim	Neck
66.	4B.12:6	4A.28:1	IIJUL 1	IVNW.25.92.51	25042P	0.17	
67.	4B.12:7	4A.28:7	IIJUL 1.1	IVNE.24.17.1	24004	0.15	
68.	4B.12:8	4A.28:11	IIJUL 1.4	IVNE.9.33.1	9002	0.14	
69.	4B.12:9	4A.28:17	IIJUL 3	IVNE.8.70.1	8015	0.30	
70.	4B.12:10	4A.28:21	IIJUL 4	IVNE.25.93.1	25016P	0.37	
71.	4B.12:11	4A.29:2	IIJUL 10	IVNE.8.44.29	8007	0.29	
72.	4B.12:12	4A.29:3	IIJUL 11	IVNW.25.78.1	25006	0.08	
73.	4B.12:13	4A.29:5	IIJUL 13	IVNE.7.103.7	7011P	0.06	
74.	4B.12:14	4A.29:6	IIJUL 13.1	IVNE.25.24.1	25006	0.19	
75.	4B.12:15	4A.29:9	IIJUL 15	IVNW.42.29.1	42003	0.40	
76.	4B.12:16	4A.29:11	IIJUL 19	IVNW.8.117.1	8002	0.01	
77.	4B.13:1	4A.27:3	IIDEC 1.2	IVNW.9.77.4	9003	2.26	
78.	4B.13:2	4A.27:5	IIDEC 1.2A	IVNE.25.55.1	25006	1.91	
79.	4B.13:3	4A.27:6	IIDEC 2	IVNE.8.68.1	8002	2.85	
80.	4B.13:4	4A.27:7	IIDEC 2.2	IVNW.42.45.1	42004	1.99	
81.	4B.13:5	4A.27:8	IIDEC 5.1	IVNW.9.53.1	9003		0.37
82.	4B.13:6	4A.30:1	IIBTL 1	IVNE.23.16.1	23001	1.10	
83.	4B.13:7	4A.30:8	IIBTL 3.1	IVNE.25.53.1	25006	0.12	
84.	4B.13:8	4A.30:3	IIBTL 1.2	IVNE.7.23.2	7006	0.73	
85.	4B.13:9	4A.30:5	IIBTL 2	IVNE.7.28.1	7004	1.36	

* Scale 1:5

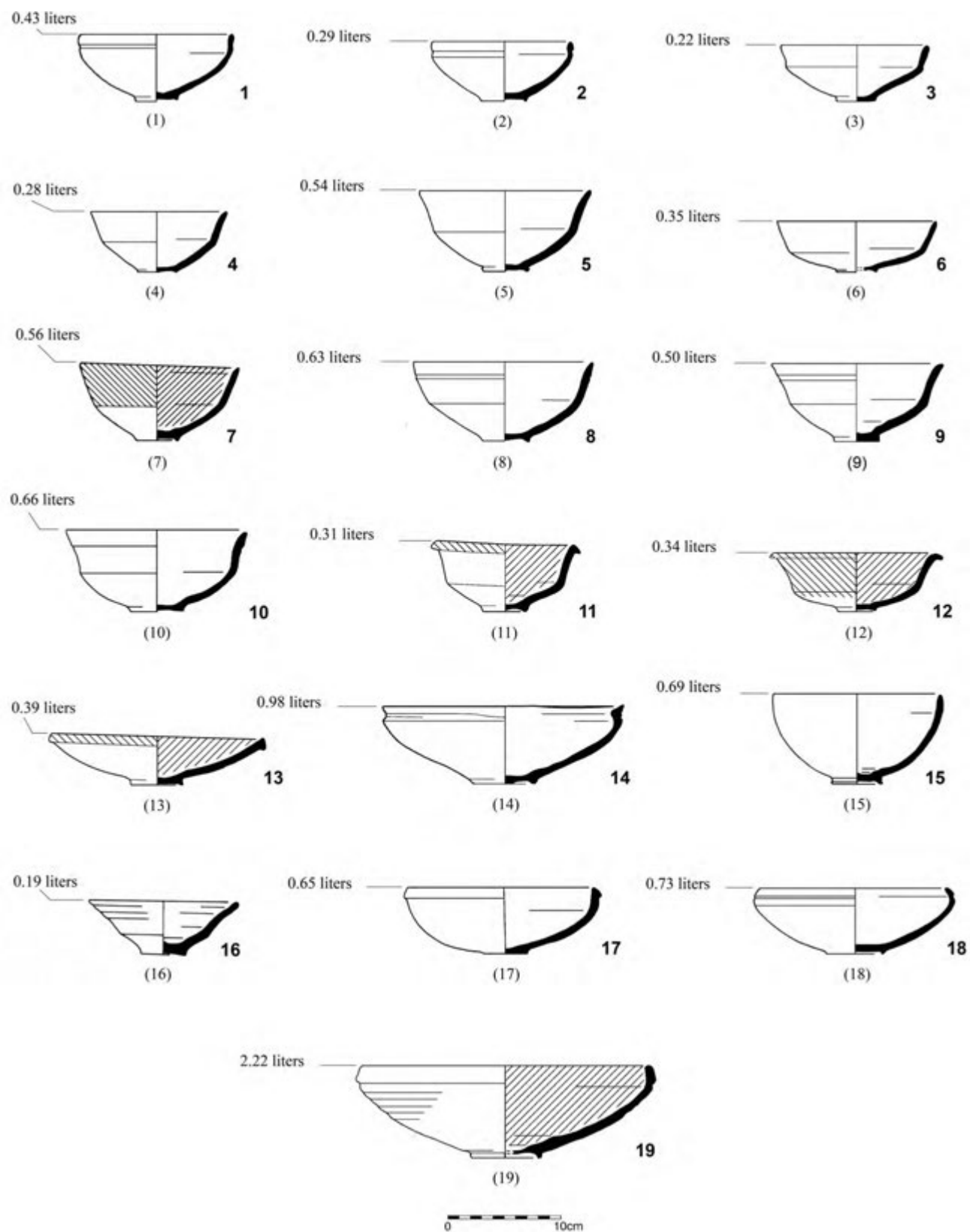


Fig. 4B.3. Bowls

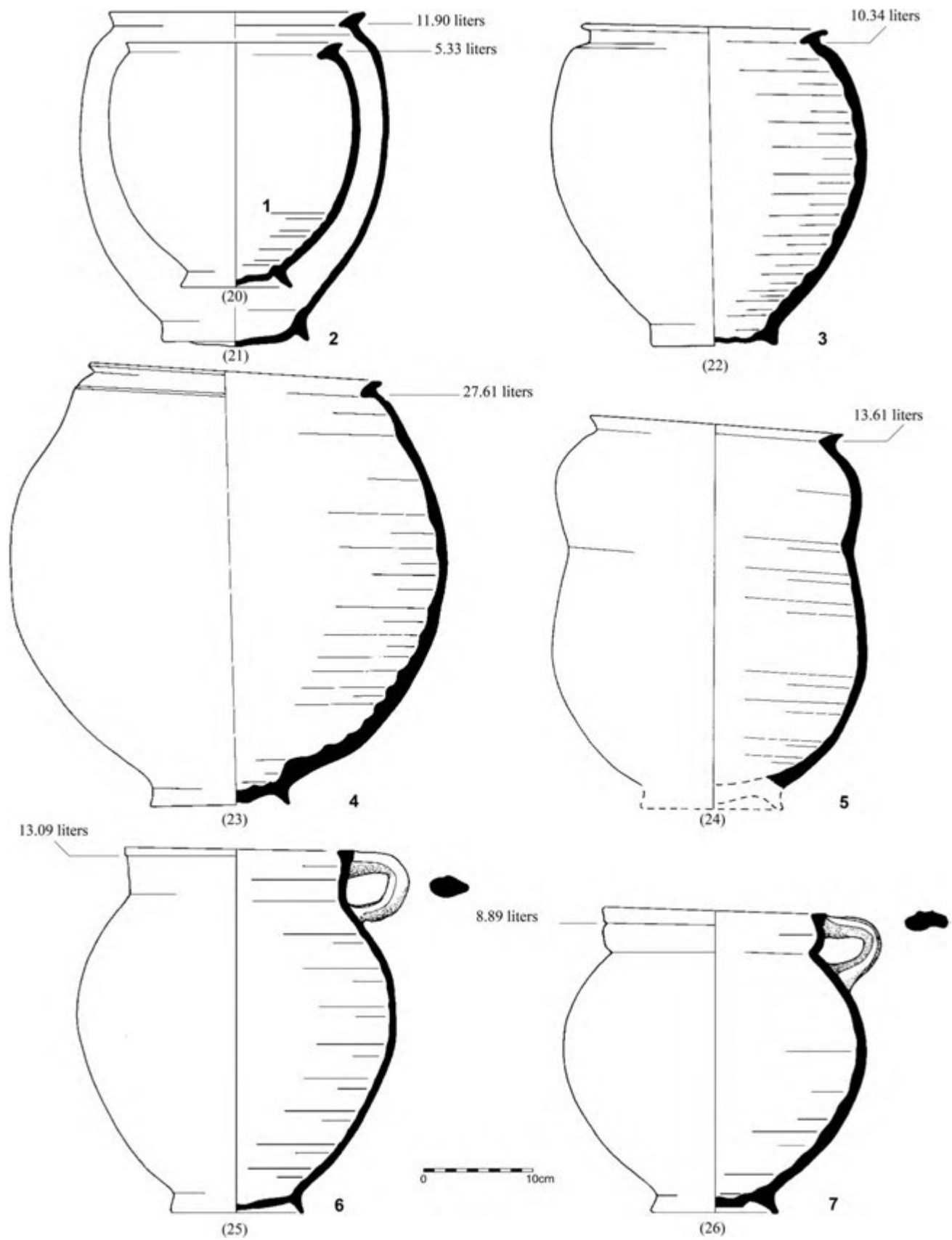


Fig. 4B.4. Kraters

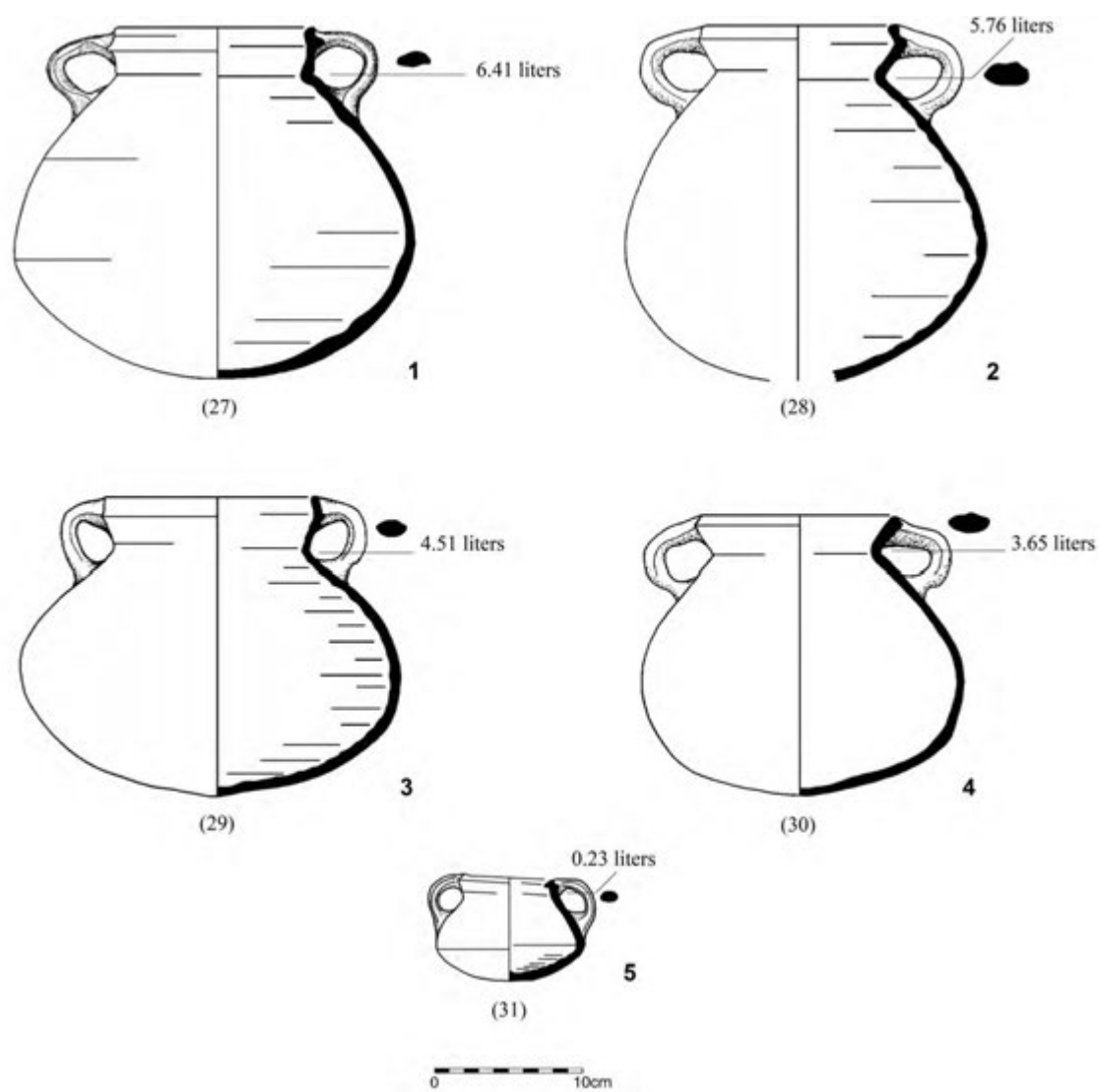


Fig. 4B.5. Cooking pots

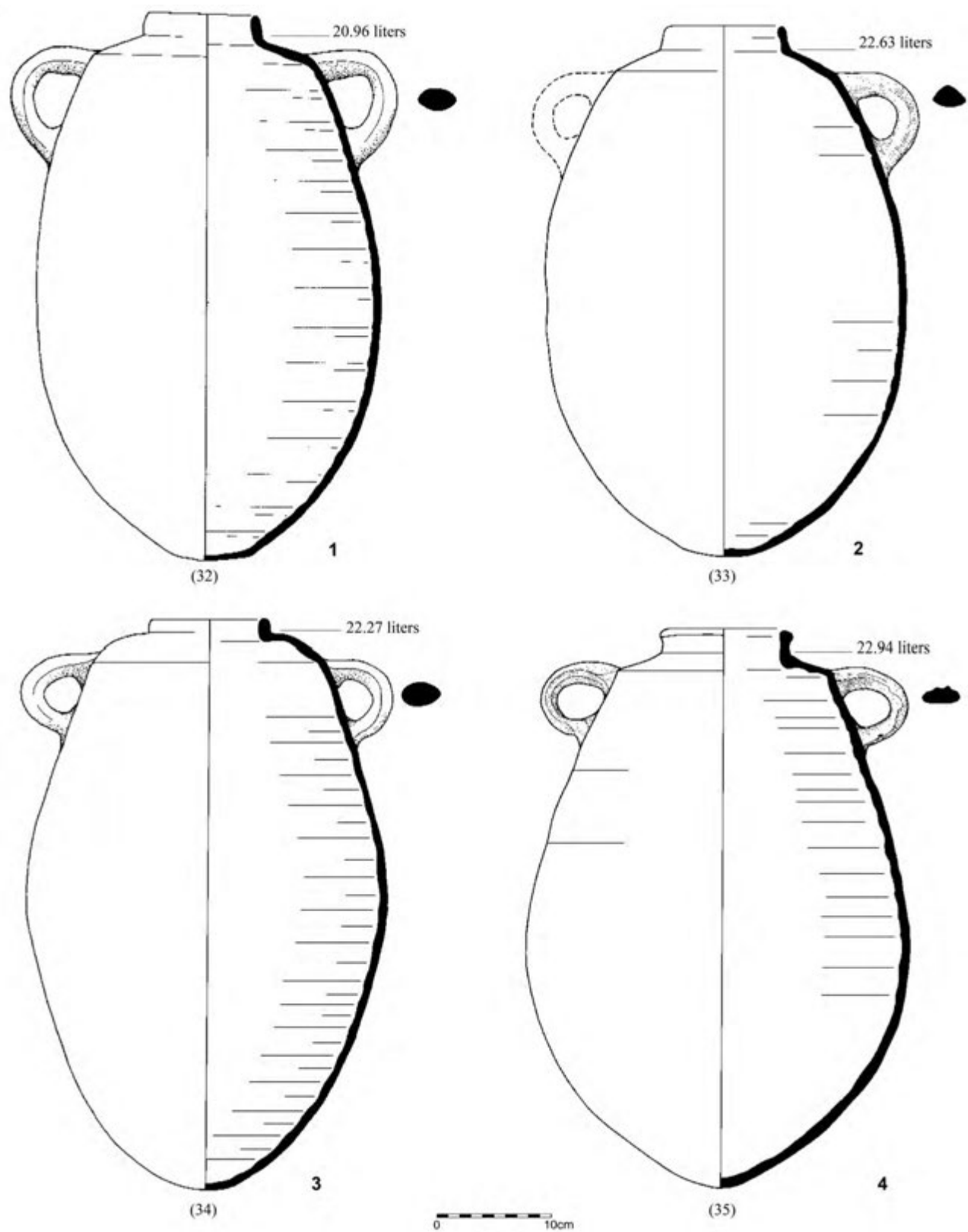


Fig. 4B.6. Storage jars

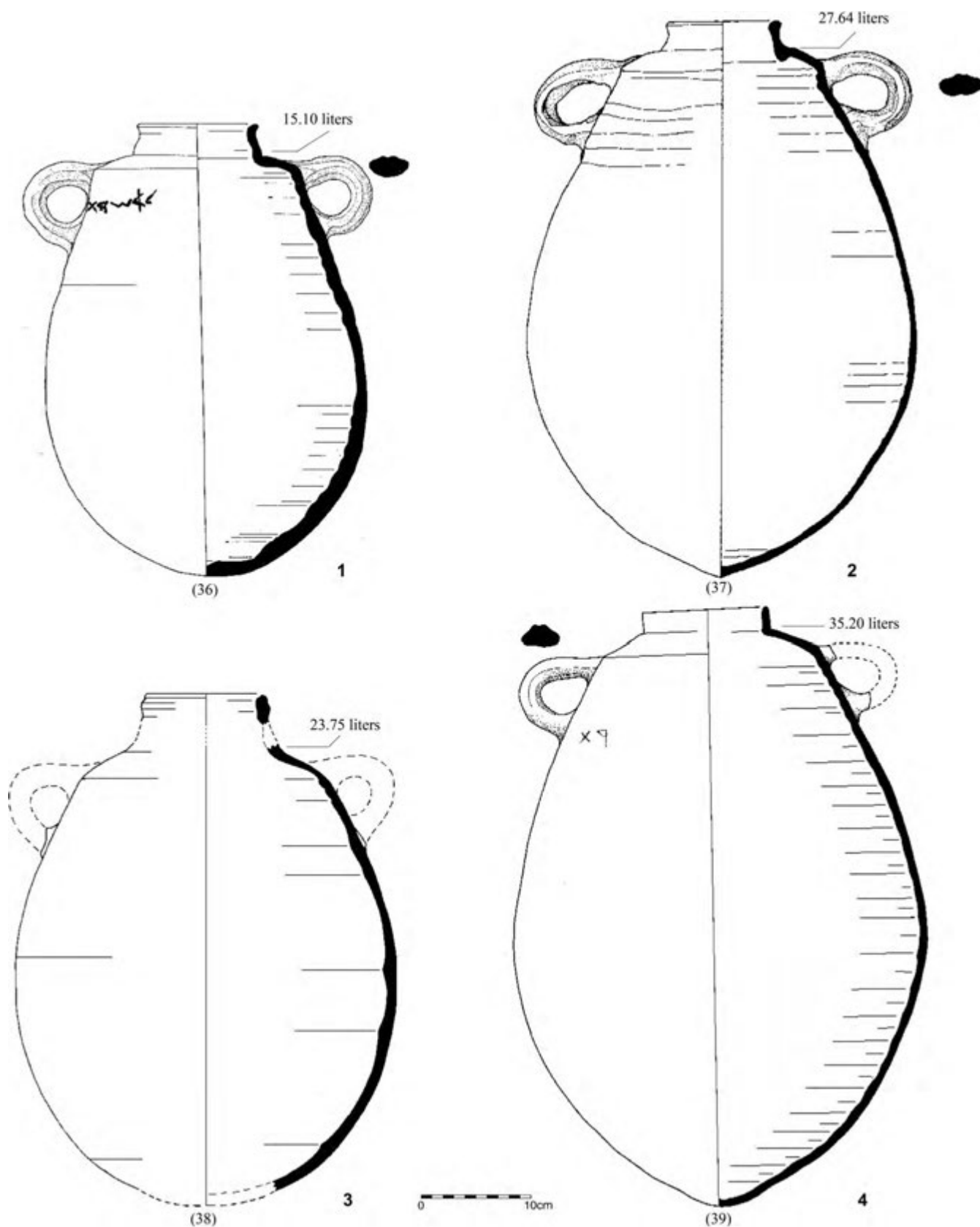


Fig. 4B.7. Storage jars

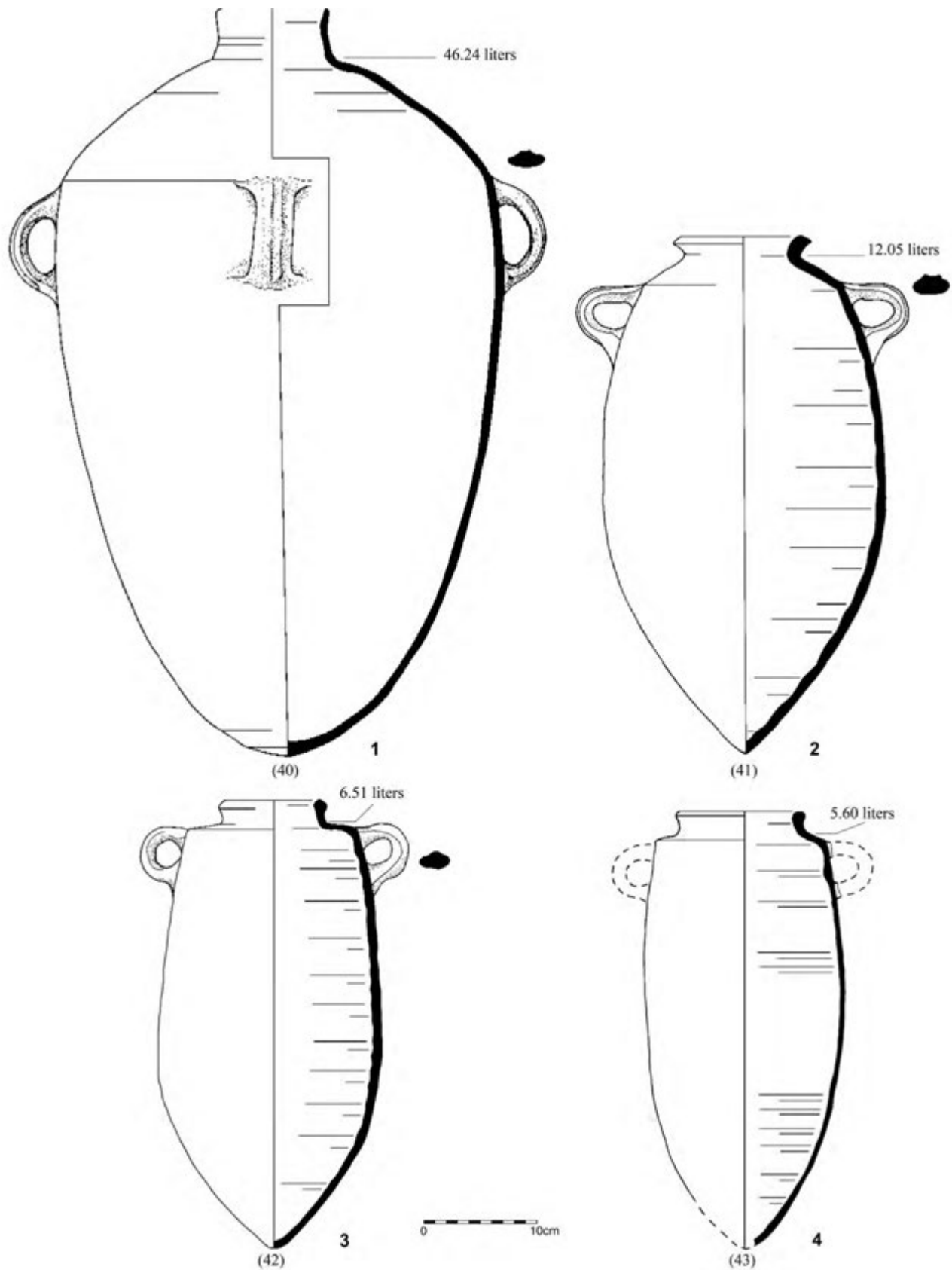


Fig. 4B.8. Storage jars

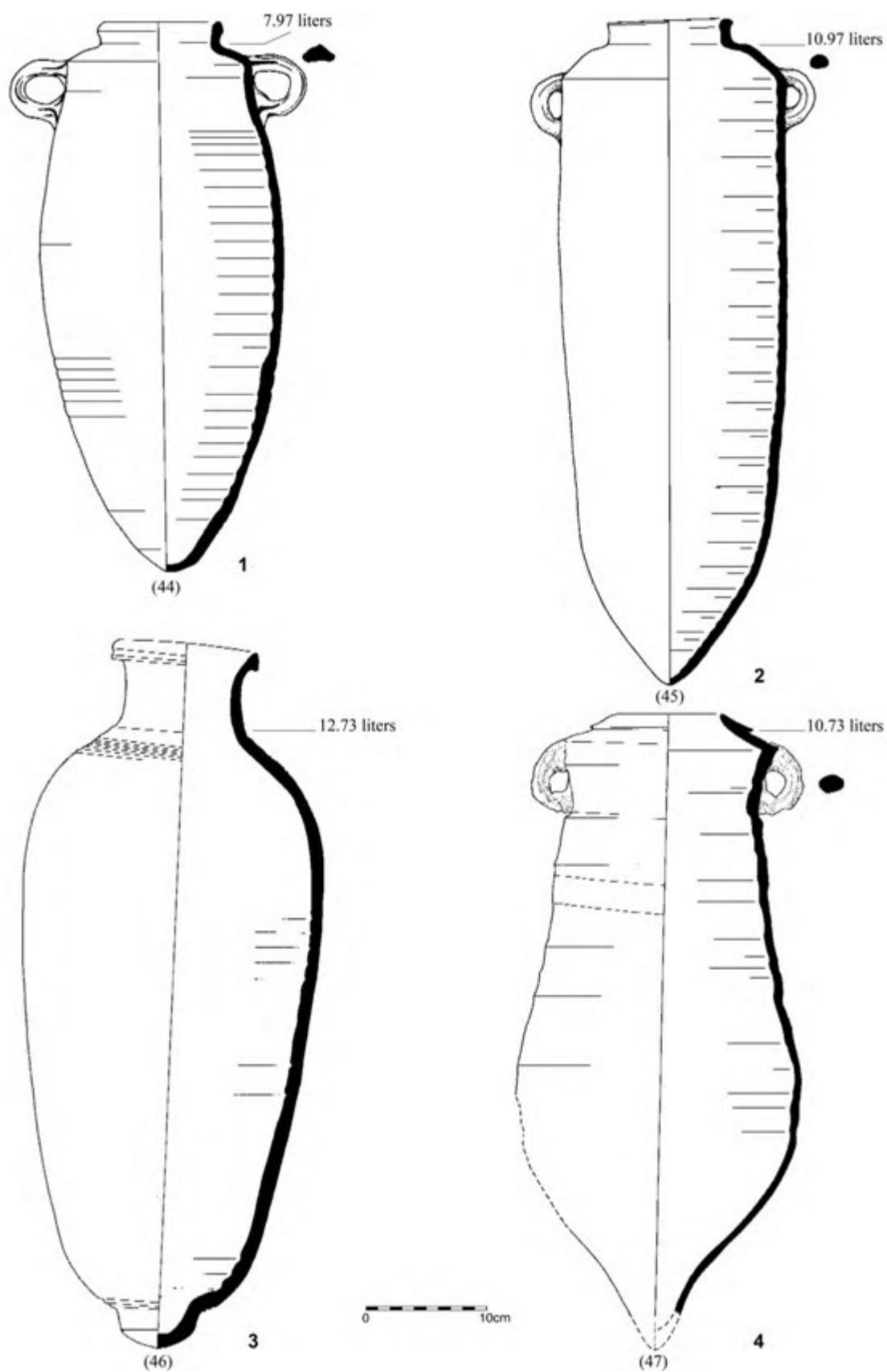


Fig. 4B.9. Storage jars

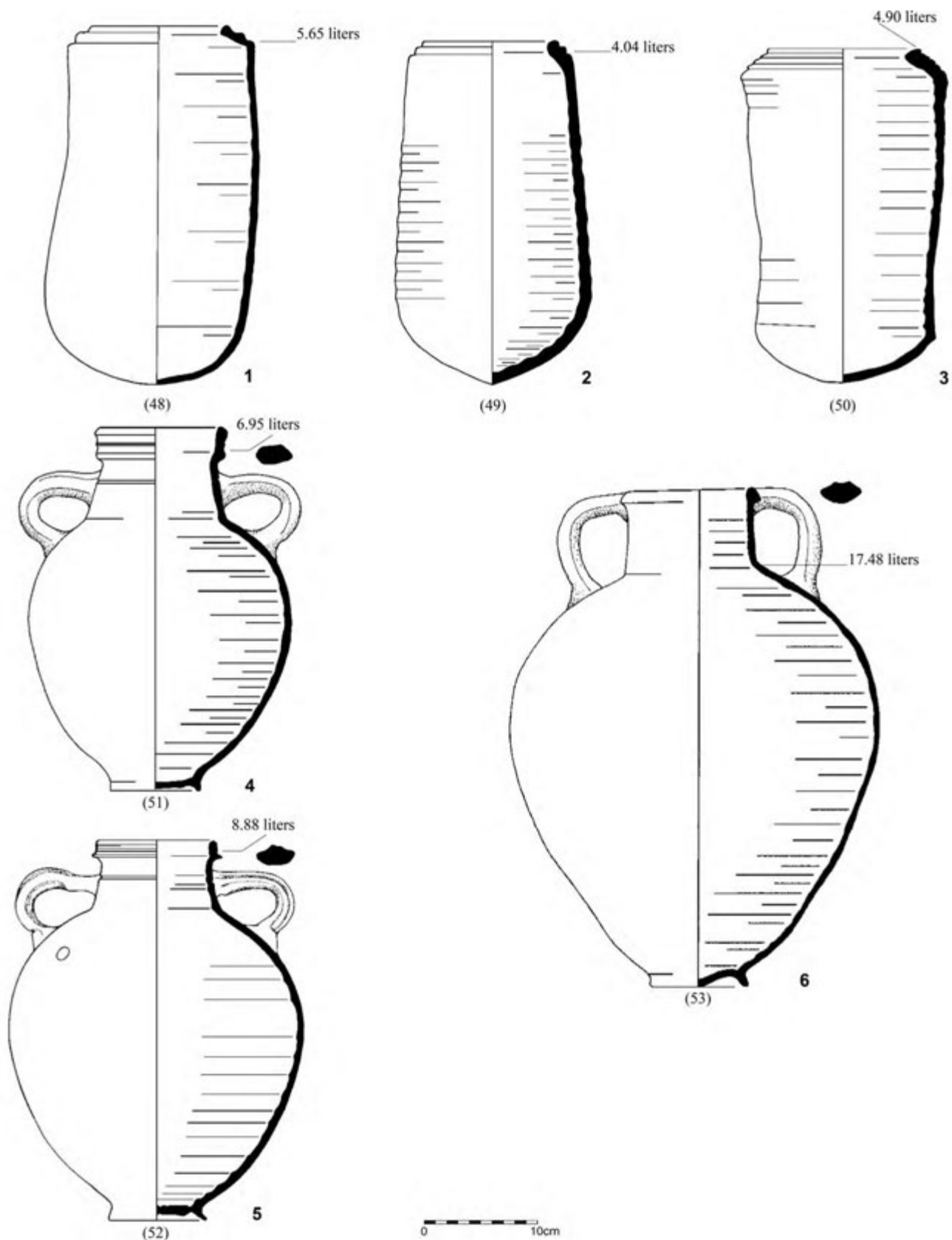


Fig. 4B.10. Holemouth jars and amphorae

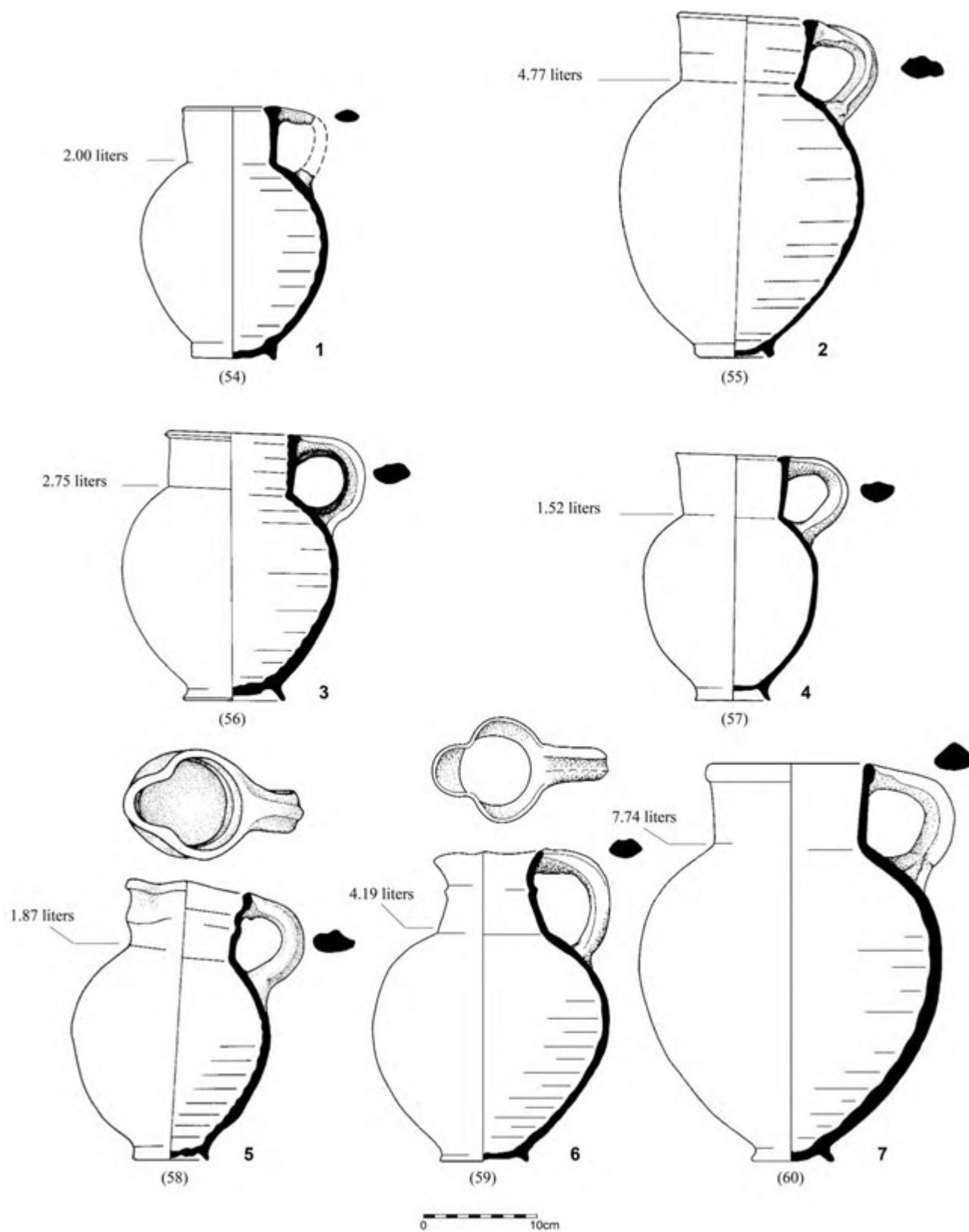


Fig. 4B.11. Jugs

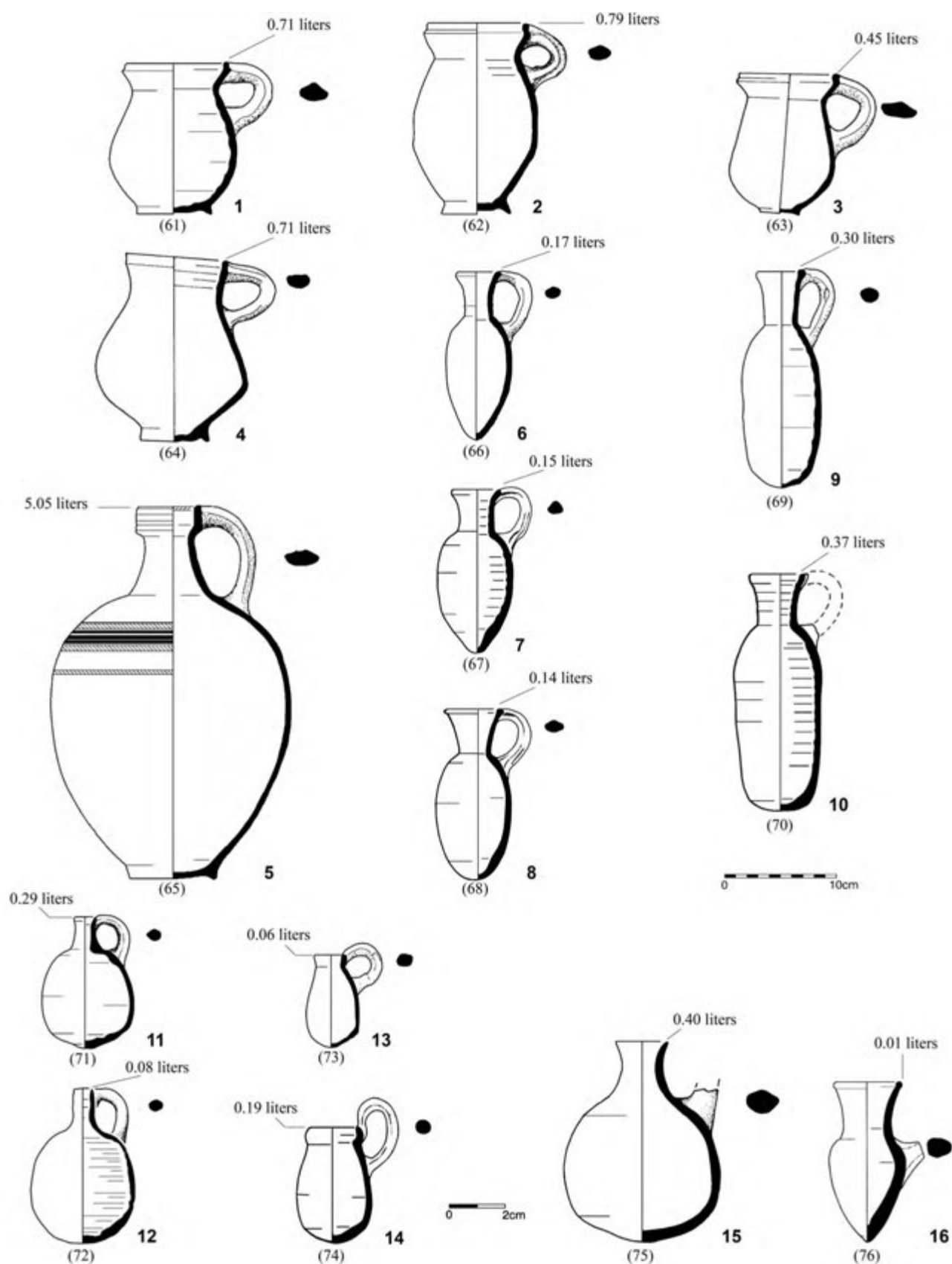


Fig. 4B.12. Jugs and juglets

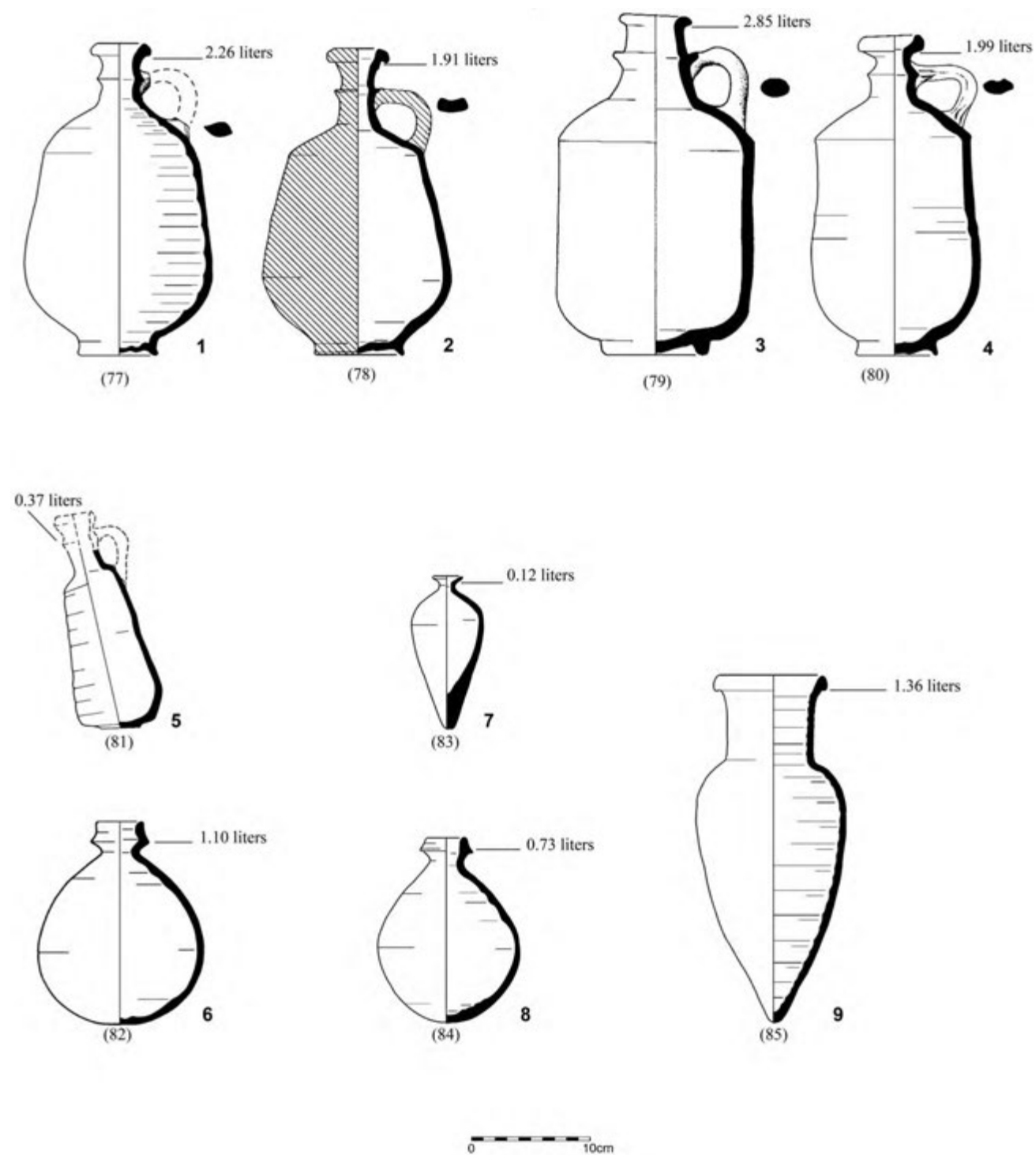


Fig. 4B.13. Decanters and bottles

2: VESSEL CAPACITY ANALYSIS

Seymour Gitin

The Iron Age IIC ceramic corpus from the elite zone in Field IV Lower comprises 9,437 forms, with a large percentage of whole and restored vessels.⁷ It represents a comprehensive assemblage of late Iron II pottery that provides a significant database for the analysis of the Ekron pottery itself (presented in Chapter 4A) and its function and relationship to particular architectural features (presented in Chapter 3).

The Ekron bowl corpus includes Judean types that can be compared to typical Iron IIC Philistine types. The IIBL 1 series, comprising 34% of the bowl corpus, is the most common type in Philistia, and its average capacity is 0.36 liters (Table 4B.1:1–2, Fig. 4B.3:1–2). The most common Judean types, IIBL 18 and IIBL 19, comprising only 1% of the Ekron bowl corpus, have a capacity of 0.65 and 0.73 liters, respectively (Table 4B.1:17–18, Fig. 4B.3:17–18). Thus, the average capacity of the most common Philistine bowl is 55% and 49% of the two most common Judean types. This difference in capacity suggests that Philistine and Judean bowls were used for different dietary and/or consumption customs.

The few excavation reports that offer vessel capacity studies for the southern Levant are limited in scope. Most deal with earlier periods and/or geographic regions other than those pertinent to the Ekron material, or primarily deal with storage jars, for example, the study on Early Bronze Age vessels from Bab edh-Dhra⁸ or on MB II vessels from Gesher,⁹ Hazor,¹⁰ or Palestine in general.¹¹ The most comprehensive capacity study was conducted by Raban, in which he examined the capacity of a large corpus of

storage jars from the Early Bronze Age through the Persian period.¹² Raban maintained that “international trade must be based on some quantitative [sic] standards. It was practically impossible for a customer to open each jar and measure its contents... [Given] that most commercial jars of the ancient Near East were unmarked, the only way to fix credentials was to preserve a standard volume for all containers.”¹³ Raban makes a strong case for the need to measure capacities of storage jars in order to determine the standards used for storing and transporting goods, but this approach was not adopted, and the uncertainty as to standard volume measurements in antiquity continues.

As for the value of Raban’s capacity measurements for comparisons with the Ekron pottery, these were based on “the height and maximum external diameter as most probable indicators for establishing correct volume... which the standard deviation in volumes of jars of [the] same type is plus or minus 10%, the one for height or maximum width is only plus or minus 5%.”¹⁴ Thus, although Raban’s study is extensive, the capacities of only two images can be equated with Ekron storage jar types: Raban 1980: Pl. 29:13 is the same type as Ekron oval storage jar IISJ 4 (Table 4B.2:34, Fig. 4B.6:3) and Raban 1980: Pl. 30:14 is only similar to the Ekron *lmk*-type IISJ 15 (Table 4B.2:40, Fig. 4B.8:1). The height of the former is approximately the same as that of the Ekron example, but it is somewhat narrower. Its capacity is 18.1 liters,¹⁵ whereas that of the Ekron example is 22.27 liters. As for the latter, it is smaller and somewhat narrower than the Ekron example, and its capacity is 19.3 liters,¹⁶ while that of the Ekron jar is more than double at 46.24 liters.

7. See the introduction in Chapter 4A for an explanation of how this number was established.

8. Schaub 1996: 237.

9. Garfinkel and Bonfil 1990.

10. Maeir 1997: 315–17 (capacities measured in millimeters by volume using sifted beach-sand and water).

11. Bonfil 1992: 26.

12. Raban 1980.

13. Raban 1980: 14.

14. Raban 1980: 14.

15. Raban 1980: 216.

16. Raban 1980: 214.

In their study of the capacities of a number of MB IIA types of grave goods from Gesher (including bowls, storage jars, jugs, and juglets), Garfinkel and Bonfil listed capacities (in liters) without discussing the procedure employed to obtain these measurement or comparative data from other corpora.¹⁷ Bonfil's later study of Middle Bronze Age pithoi from a number of sites in Palestine produced a general capacity of 60–90 liters.¹⁸

In Docter's analysis of 250 Phoenician and Levantine amphorae,¹⁹ he measured capacity with a computer program employing integral calculus—based on a vessel scale drawing, the radius is measured to the innerside of the wall at regular intervals, and the program calculates the capacity per segment.²⁰ The Phoenician amphorae come from Keisan, Megiddo, Tyre, Salamis, and Carthage, and the Levantine examples come mostly from Ashdod and from vessels salvaged from the sea.²¹ Two of the amphora types can be equated with the same types dated to the same period as those from Ekron. A Phoenician example from Keisan dated from the mid-7th–early 6th century (Docter 1988–90: 156, Fig. 1) is same type and approximately the same size as Ekron waisted storage jar IISJ 13 (Table 4B.2:47, Fig. 4B.9:4). Its capacity is 14.37 liters, 3.64 liters more than the Ekron example at 10.73 liters. The Israelite examples from Ashdod, one dated to the final years of the 8th century (Docter 1988–90: 162, Fig. 5) and the other to the first half of the 7th century (Docter 1988–90: 163, Fig. 6),²² represent the same type and are approximately the same size as Ekron IISJ 4 (Table 4B.2:34, Fig. 4B.6:3). Their average capacity of 22.17 liters is almost equal to that of the Ekron example at 22.27 liters.

Two different methods of computing vessel capacity are presented in *Beth-Shean I*, one by Karasik and Smilansky and the other by Steinbach.²³ Both methods are based on a pottery profile that has been drawn to

scale.²⁴ Although the Beth-Shean capacity studies are extensive and include a comprehensive ceramic corpus, they deal with Iron IIA–B forms from a northern site;²⁵ consequently, there are no parallels forms from Philistine Ekron with which to compare capacity. While it would be instructive to compare the capacities of various vessel classes, such as cooking pots, kraters, and storage jars, in order to examine the differences or similarities between Israelites and Philistines reflected in their diet, storage vessel function, and commercial activities, this is beyond the scope of the current study.

The most recently-published capacity study is based on two late Iron IIA and Iron IIB storage jar types and a number of pithoi from Tell eš-Šafi/Gath, Beersheba, and Lachish,²⁶ but again, it is only a database, with no comparative analysis. Other capacity

17. Garfinkel and Bonfil 1990.

18. Bonfil 1992: esp. p. 26.

19. Docter 1988–90.

20. Docter 1988–90: 169.

21. Zemer 1978.

22. See also Docter 1988–90:155–68.

23. Karasik and Smilansky 2006; Steinbach 2006.

24. Steinbach describes the different methods as follows (written communication, March 18, 2016): In the Karasik and Smilansky method, the profile is scanned as a JPG and then edited in Photoshop (or similar digital-imaging program) to leave a single one-pixel-thick line representing the inner and outer surfaces and a single point marking the centerline. Everything else in the image is eliminated. The metric-length scale of the drawing is calculated by determining the length (in millimeters) that every pixel represents in the scanned image. The JPG image and the scale value are inputted into a proprietary module of MATLAB developed by Karasik and Smilansky, and the results are outputted as three values (all in liters): net capacity; volume of body material; and effective volume up to the neck of the vessel. In the Steinbach method (see Chapter 4B:1), a scan of the pottery profile is imported into a vector-drawing program, such as Adobe Illustrator, in which the inner and outer profile of the vessel, the centerline, and the scale are traced as vector graphics (lines, curves, or polygons). The vector drawing is imported into DesignCAD 3D Max (or other three-dimensional computer-aided design application), in which the pottery profile is virtually spun around the centerline to create a three-dimensional model of the vessel. A built-in function of DesignCAD 3D Max calculates the volume of the vessel in cubic centimeters, which is then converted to liters. For further analysis of the accuracy of 3-D computer modeling for capacity studies, see Zapassky and Rosen 2006.

25. Mazar 2006: 313–84.

26. Zapassky 2016; for an explanation of the method and software used, see Zapassky, Finkelstein, and Beneson 2009: 57–58.

studies dealing with earlier periods, with regions outside the southern Levant, and/or vessel types with no parallels at Ekron are not pertinent to the current analysis. These include the study of the ʿUbaid material from Tell Madhur in Iraq,²⁷ of Early Bronze Age vessels from Ebla in Syria²⁸ and from Tell Arqa in northern Lebanon,²⁹ and of Middle Bronze Age material from Tell el-Daba^c in Egypt.³⁰

Lack of other ceramic assemblages with a sufficiently large and diversified sample comprised of

intact or fully reconstructable vessels from Philistia and adjacent Judah has restricted comparative research based on vessel capacity. It is hoped that the capacity measurements of a significant number and wide range of whole forms presented in this chapter will generate interest in establishing capacity studies at other archaeological projects, especially those involving Iron IIC Philistine assemblages, and thereby enlarge the database for comparative analysis across geographic and political regions.

27. Roaf 1989.

28. Mazzoni 1994.

29. Thalmann 2007.

30. D. Aston 2002.

CHAPTER 4C

POTTERY QUANTIFICATION DATA

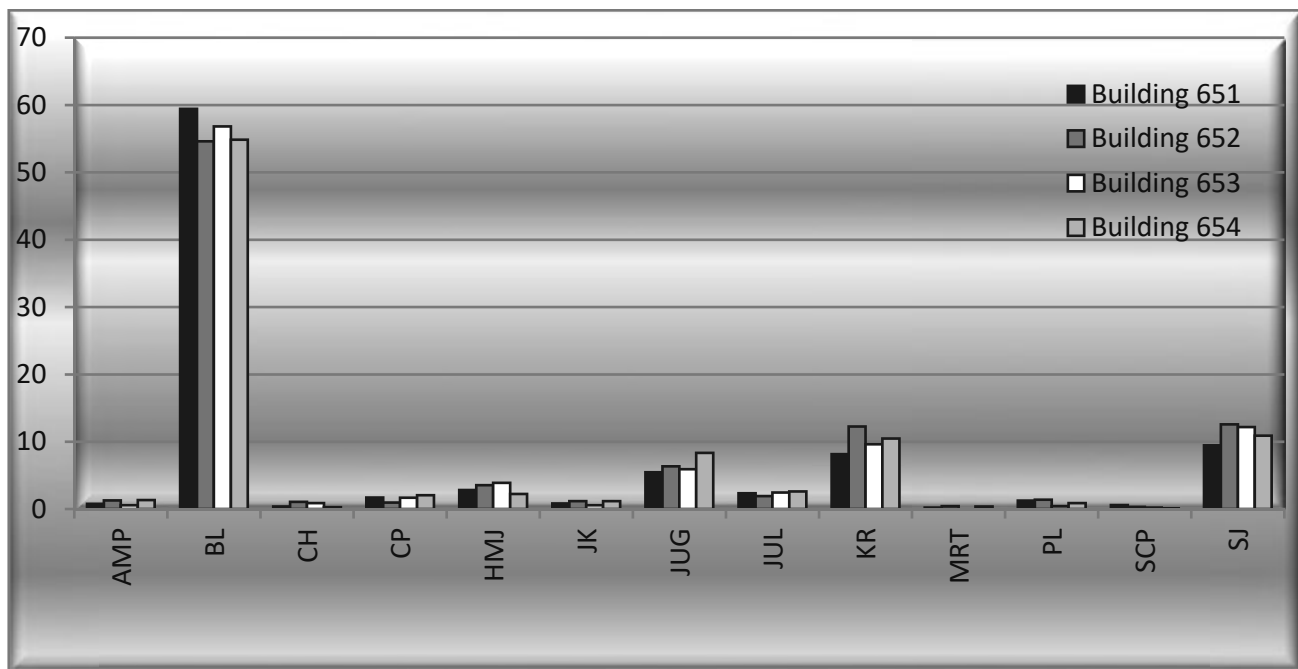
POTTERY TYPES IN ARCHITECTURAL UNITS AND SUB-UNITS
BY STRATUM

AREA 640, BUILDINGS 651–655, 658, STREET 656, AND ALLEY 657
AND TOPSOIL, BALK TRIM, AND CLEAN-UP

Seymour Gitin

Summary of minimum number and percentage of vessels by architectural unit and type

		Area 640		Bldg. 651		Bldg. 652		Bldg. 653		Bldg. 654		Bldg. 655		Street 656		Alley 657		Bldg. 658		Total
Type		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
AMP	Amphorae	1	1.00	37	0.78	12	1.29	5	0.56	32	1.35	3	1.39	2	0.50					92
BL	Bowls	63	50.00	2807	59.43	508	54.62	508	56.82	1302	54.86	124	57.41	221	56.38	2	40.00	87	48.33	5622
BLF	Bowls Fine ware											1	0.46							1
BSN	Basins					1	0.11							1	0.26					2
BTL	Bottles			10	0.21			2	0.22	8	0.33			1	0.26					21
CH	Chalices	1	1.00	18	0.38	10	1.08	8	0.89	8	0.29	4	1.85	2	0.50					51
CP	Cooking Pots			81	1.71	9	0.97	15	1.68	47	2.07	1	0.46	8	2.04			1	0.56	162
CAS	Cup-and-Saucers			1	0.02			1	0.12											2
DEC	Decanters			16	0.34	3	0.32	12	1.34	5	0.21	1	0.46	1	0.26					38
FB	Footbaths									1	0.04									1
FNL	Funnels			1	0.04															1
GBL	Goblets			6	0.13									1	0.26					7
HMJ	Holemouth Jars			134	2.84	33	3.55	35	3.91	54	2.24	5	2.31	20	5.10			16	8.89	297
JJ	Jar-Jugs													1	0.26					1
JK	Jar-Kraters			40	0.83	11	1.18	5	0.56	28	1.18			7	1.79			1	0.56	92
JUG	Jugs	5	4.00	259	5.48	59	6.34	53	5.93	197	8.36	17	7.88	25	6.38	1	20.00	22	12.22	638
JUL	Juglets			111	2.35	18	1.94	22	2.46	61	2.62	3	1.39	4	1.02	1	20.00	3	1.66	223
KR	Kraters	2	1.00	385	8.15	114	12.26	86	9.62	248	10.47	28	12.96	40	10.20			19	10.56	922
LKR	Large Kraters					4	0.43	1	0.12	4	0.13									9
LID	Lids			1	0.02					1	0.04									2
LMP	Lamps	1	1.00	7	0.15			5	0.56	13	0.55			2	0.50					28
MRT	Mortaria			11	0.23	4	0.43			9	0.38			3	0.77			1	0.56	28
PITH	Pithoi			1	0.02	1	0.11			3	0.13									5
PL	Plates			60	1.27	13	1.4	4	0.45	21	0.89			2	0.50			2	1.10	102
PYX	Pyxides			1	0.02									1	0.26					2
SCP	Scoops	32	25.00	28	0.59	3	0.32	2	0.22	3	0.13			1	0.26			1	0.56	70
SJ	Storage Jars	15	12.00	447	9.46	117	12.58	109	12.19	258	10.90	27	12.50	44	11.22			27	15.00	1044
STD	Stands			8	0.17	4	0.43			13	0.55			1	0.26					26
SV	Sieves															1	20.00			1
Misc.	Miscellaneous	6	5.00	254	5.38	6	0.64	21	2.35	53	2.28	2	0.93	4	1.02					346
Total		126	100.00	4724	100.00	930	100.00	894	100.00	2369	100.00	216	100.00	392	100.00	5	100.00	180	100.00	9836



Area 640 Stratum Pre-IC: Maximum and minimum number and percentage of vessels by type

Type		Max. No.	Max. %	Min. No.	Min. %
AMP	Amphorae	1	1.00	1	1.00
BL	Bowls	79	54.00	63	50.00
CH	Chalices	1	1.00	1	1.00
JUG	Jugs	5	3.00	5	4.00
KR	Kraters	2	1.00	2	1.00
LMP	Lamps	1	1.00	1	1.00
SCP	Scoops	37	25.00	32	25.00
SJ	Storage Jars	15	10.00	15	12.00
Misc.	Miscellaneous	6	4.00	6	5.00
Total		147	100.00	126	100.00

Area 640: Minimum number and percentage of vessels by Sub-unit

Sub-unit	Stratum Pre-IC	
	Min. No.	Min. %
a	96	76.00
b	30	24.00
Total	126	100.00

Area 640 Sub-unit a: Minimum number and percentage of vessels by type

Type		Stratum Pre-IC	
		Min. No.	Min. %
BL	Bowls	46	48.00
CH	Chalices	1	1.00
JUG	Jugs	4	4.00
KR	Kraters	2	2.00
LMP	Lamps	1	1.00
SCP	Scoops	31	33.00
SJ	Storage Jars	5	5.00
Misc.	Miscellaneous	6	6.00
Total		96	100.00

Area 640 Sub-unit b: Minimum number and percentage of vessels by type

Type		Stratum Pre-IC	
		Min. No.	Min. %
AMP	Amphorae	1	4.00
BL	Bowls	17	57.00
JUG	Jugs	1	4.00
SCP	Scoops	1	4.00
SJ	Storage Jars	10	35.00
Total		30	100.00

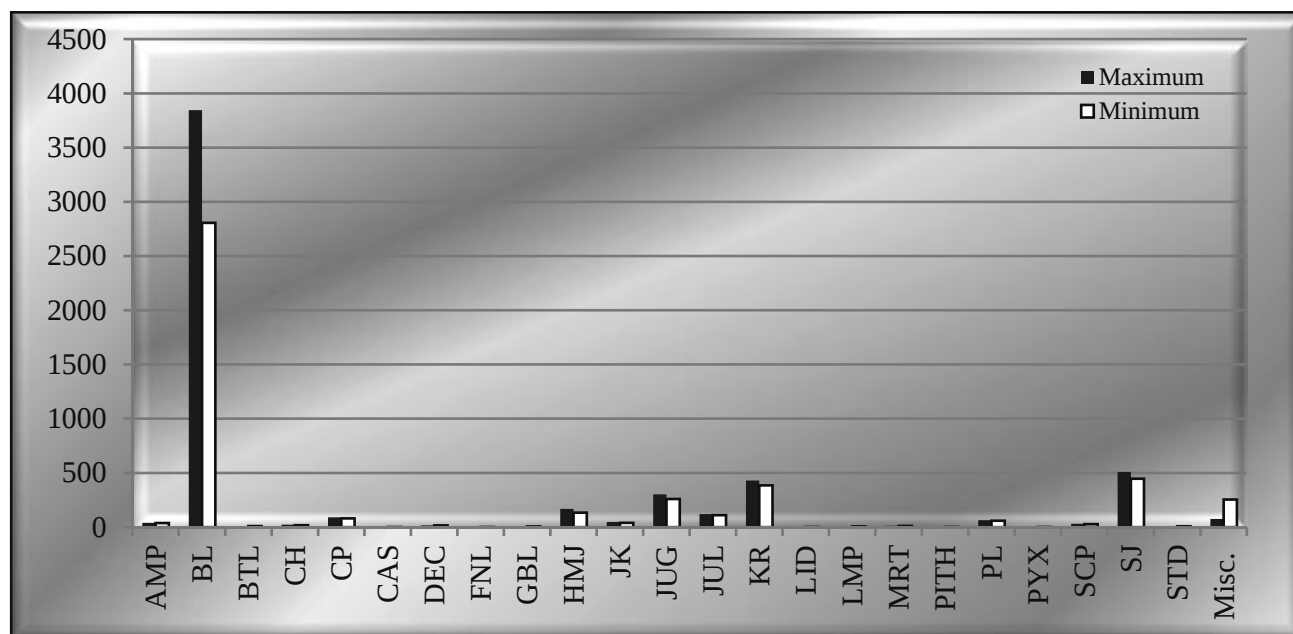
Area 640 Stratum Pre-IC: Minimum number of vessels by Sub-unit and type

Type	Sub-unit a	Sub-unit b	Total
AMP 3		1	1
BL ?	1		1
BL 1	4	6	10
BL 1A	4		4
BL 1B	1		1
BL 1.1	3	1	4
BL 1.2	1		1
BL 1.3	1		1
BL 1.4	1		1
BL 2.2	1		1
BL 2.3		1	1
BL 3B	4		4
BL 3.1		2	2
BL 4	1	1	2
BL 4.5	1		1
BL 5	1		1
BL 5.1A		1	1
BL 8		1	1
BL 8.3A	1	1	2
BL 8.8A	1		1
BL 9	5		5
BL 9A	2		2
BL 10	1	1	2
BL 10A	1	1	2
BL 11	1		1
BL 14	1		1
BL 14X.1A	3	1	4
BL 16.4	1		1
BL 28.1	2		2
BL 34A	1		1
BL 41	1		1

Type	Sub-unit a	Sub-unit b	Total
BLM 32B	1		1
CH 12	1		1
JUG ?	2		2
JUG 1.2		1	1
JUG 2.2	2		2
KR 15	1		1
KR 16	1		1
LMP 1	1		1
SCP 1	3		3
SCP 1.1	5		5
SCP 2	1		1
SCP 3	2		2
SCP 4	1		1
SCP 5	5		5
SCP 6	6		6
SCP 6.1	4		4
SCP 6.2	4	1	5
SJ 1		1	1
SJ 1.2		1	1
SJ 2		1	1
SJ 4	1	3	4
SJ 4.2		1	1
SJ 7		1	1
SJ 12.3	1	1	2
SJ 13	1		1
SJ 16A	1		1
SJ 16.1A	1		1
SJM 8		1	1
Misc.	6		6
Total	96	30	126

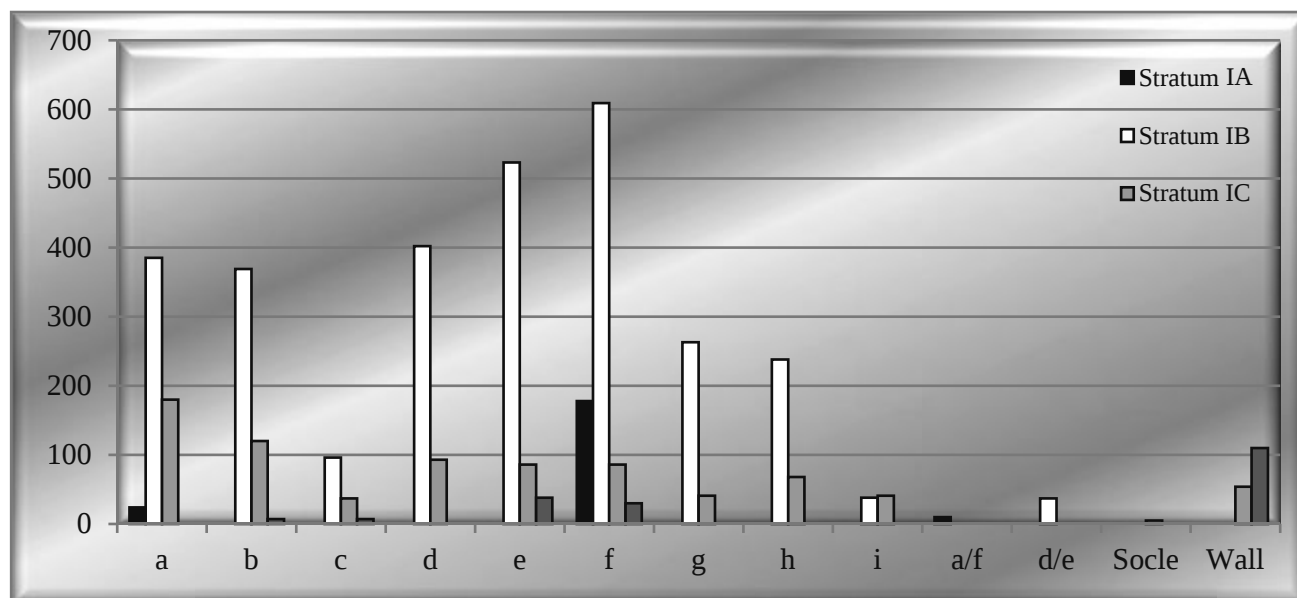
**Building 651 Strata IA, IB, IC, and ICb, and TS, BT, and Clnup:
Maximum and minimum number and percentage of vessels by type**

Type		Max. No.	Max. %	Min. No.	Min. %
AMP	Amphorae	40	0.69	37	0.78
BL	Bowls	3,846	66.18	2,807	59.43
BTL	Bottles	10	0.17	10	0.21
CH	Chalices	23	0.40	18	0.38
CP	Cooking Pots	90	1.55	81	1.71
CAS	Cup-and-Saucers	1	0.02	1	0.02
DEC	Decanters	16	0.28	16	0.34
FNL	Funnels	1	0.03	1	0.02
GBL	Goblets	6	0.10	6	0.13
HMJ	Holemouth Jars	168	2.89	134	2.84
JK	Jar-Kraters	47	0.79	40	0.85
JUG	Jugs	303	5.21	259	5.48
JUL	Juglets	120	2.07	111	2.35
KR	Kraters	430	7.40	385	8.15
LID	Lids	1	0.02	1	0.02
LMP	Lamps	7	0.12	7	0.15
MRT	Mortaria	13	0.22	11	0.23
PITH	Pithoi	1	0.02	1	0.02
PL	Plates	64	1.10	60	1.27
PYX	Pyxides	1	0.02	1	0.02
SCP	Scoops	31	0.53	28	0.59
SJ	Storage Jars	509	8.76	447	9.46
STD	Stands	8	0.14	8	0.17
Misc.	Miscellaneous	75	1.29	254	5.38
Total		5,811	100.00	4,724	100.00



Building 651: Minimum number and percentage of vessels by stratum and room/socle/wall

	Stratum IA		Stratum IB		Stratum IC		Stratum ICb		
Room	No.	%	No.	%	No.	%	No.	%	Total
a	24	11.00	385	13.00	180	22.19			589
b			369	12.00	120	14.80	7	3.65	496
c			96	3.00	37	4.56	7	3.65	140
d			402	14.00	93	11.47			495
e			523	18.00	86	10.60	38	19.79	647
f	178	84.00	609	21.00	86	10.60	30	15.62	903
g			263	9.00	41	5.06			304
h			238	8.00	68	8.38			306
i			38	1.00	41	5.06			79
a/f	10	5.00							10
d/e			37	1.00					37
Socle					5	0.62			5
Wall					54	6.66	110	57.29	164
Total	212	100.00	2,960	100.00	811	100.00	192	100.00	4,175



Building 651 Room a: Minimum number and percentage of vessels by stratum and type

		Stratum IA		Stratum IB		Stratum IC	
Type		No.	%	No.	%	No.	%
AMP	Amphorae			2	0.52	1	1.00
BL	Bowls	17	70.00	204	52.87	101	56.00
CH	Chalices			5	1.30		
CP	Cooking Pots			9	2.34	3	1.00
DEC	Decanters			2	0.52	1	1.00
GBL	Goblets			1	0.26		
HMJ	Holemouth Jars			16	4.17	12	7.00
JK	Jar-Kraters			4	1.04	4	2.00
JUG	Jugs	3	13.00	22	5.73	7	4.00
JUL	Juglets			11	2.86	7	4.00
KR	Kraters	3	13.00	43	11.20	6	3.00
MRT	Mortaria			1	0.26		
PL	Plates			6	1.56	7	4.00
SCP	Scoops			3	0.78	8	4.00
SJ	Storage Jars	1	4.00	54	14.07	16	9.00
Misc.	Miscellaneous			2	0.52	7	4.00
Total		24	100.00	385	100.00	180	100.00

Building 651 Room b: Minimum number and percentage of vessels by stratum and type

		Stratum IB		Stratum IC		Stratum ICb	
Type		No.	%	No.	%	No.	%
AMP	Amphorae	3	0.82				
BL	Bowls	224	60.87	95	78.00	3	44.00
CH	Chalices	3	0.82				
CP	Cooking Pots	3	0.82				
DEC	Decanters	1	0.27	1	1.00		
GBL	Goblets	1	0.27				
FNL	Funnels	1	0.27				
HMJ	Holemouth Jars	12	3.25	1	1.00		
JK	Jar-Kraters	2	0.54	2	2.00		
JUG	Jugs	23	6.25	5	4.00	1	14.00

Cont.: Building 651 Room b

		Stratum IB		Stratum IC		Stratum ICb	
Type		No.	%	No.	%	No.	%
JUL	Juglets	15	4.08	1	1.00	1	14.00
KR	Kraters	23	6.25	6	5.00	1	14.00
LID	Lids	1		1	1.00		
LMP	Lamps	1	0.27				
PL	Plates	1	0.27	2	2.00		
SCP	Scoops	2	0.54	1	1.00		
SJ	Storage Jars	49	13.32	5	4.00	1	14.00
STD	Stands	1	0.27				
Misc.	Miscellaneous	3	0.82				
Total		369	100.00	120	100.00	7	100.00

Building 651 Room c: Minimum number and percentage of vessels by stratum and type

		Stratum IB		Stratum IC		Stratum ICb	
Type		No.	%	No.	%	No.	%
BL	Bowls	66	69.00	21	56.77	2	28.56
CH	Chalices	1	1.00			1	14.29
HMJ	Holemouth Jars	6	7.00	1	2.70		
JK	Jar-Kraters	2	2.00				
JUG	Jugs	4	4.00	4	10.81		
JUL	Juglets	2	2.00				
KR	Kraters	6	6.00	1	2.70	1	14.29
MRT	Mortaria					2	28.57
PL	Plates			1	2.70		
SCP	Scoops	1	1.00	8	21.62		
SJ	Storage Jars	6	6.00	1	2.70	1	14.29
STD	Stands	1	1.00				
Misc.	Miscellaneous	1	1.00				
Total		96	100.00	37	100.00	7	100.00

Building 651 Room d: Minimum number and percentage of vessels by stratum and type

		Stratum IB		Stratum IC	
Type		No.	%	No.	%
AMP	Amphorae	4	1.00	3	3.00
BL	Bowls	227	56.47	45	49.00
BTL	Bottles	2	0.50		
CP	Cooking Pots	4	1.00	4	4.00
CH	Chalices			2	2.00
DEC	Decanters	1	0.25		
HMJ	Holemouth Jars	18	4.48	8	9.00
JK	Jar-Kraters	6	1.49	2	2.00
JUG	Jugs	26	6.47	5	5.00
JUL	Juglets	7	1.74		
KR	Kraters	48	11.94	7	8.00
MRT	Mortaria	1	0.25		
PL	Plates	5	1.24	2	2.00
PYX	Pyxis	1	0.25		
SCP	Scoops			1	1.00
SJ	Storage Jars	46	11.44	11	12.00
STD	Stands	3	0.74		
Misc.	Miscellaneous	3	0.74	3	3.00
Total		402	100.00	93	100.00

Building 651 Room e: Minimum number and percentage of vessels by stratum and type

		Stratum IB		Stratum IC		Stratum ICb	
Type		No.	%	No.	%	No.	%
AMP	Amphorae	4	0.77				
BL	Bowls	295	56.41	58	67.45	28	74.00
BTL	Bottles	1	0.19				
CAS	Cup-and-Saucers	1	0.19				
CH	Chalices	1	0.19	1	1.16		
CP	Cooking Pots	15	2.87			1	3.00
DEC	Decanters	3	0.57				
GBL	Goblets	2	0.38				

Cont.: Building 651 Room e

		Stratum IB		Stratum IC		Stratum ICb	
Type		No.	%	No.	%	No.	%
HMJ	Holemouth Jars	9	1.72	1	1.16		
JK	Jar-Kraters	6	1.15				
JUG	Jugs	37	7.07	5	5.81	1	3.00
JUL	Juglets	27	5.16	4	4.65		
KR	Kraters	55	10.52	7	8.14		
LMP	Lamps	1	0.19				
PL	Plates	8	1.53				
SJ	Storage Jars	53	10.13	9	10.47	8	20.00
STD	Stands	1	0.19				
Misc.	Miscellaneous	4	0.77	1	1.16		
Total		523	100.00	86	100.00	38	100.00

Building 651 Room f: Minimum number and percentage of vessels by stratum and type

		Stratum IA		Stratum IB		Stratum IC		Stratum ICb	
Type		No.	%	No.	%	No.	%	No.	%
AMP	Amphorae	2	1.00	6	0.99	1	1.00		
BL	Bowls	123	69.00	413	67.87	66	77.00	27	90.00
CP	Cooking Pots	1	1.00	12	1.98	1	1.00		
DEC	Decanters			2	0.33				
HMJ	Holemouth Jars	5	2.00	14	2.14				
JK	Jar-Kraters			4	0.66	1	1.00		
JUG	Jugs	13	7.00	37	6.10	1	1.00		
JUL	Juglets	1	1.00	10	1.65	2	2.00		
KR	Kraters	11	6.00	59	9.72	7	8.00		
LMP	Lamps							1	3.00
MRT	Mortaria	1	1.00						
PL	Plates			9	1.48				
SJ	Storage Jars	14	8.00	36	5.93	3	4.00	2	7.00
Misc.	Miscellaneous	7	4.00	7	1.15	4	5.00		
Total		178	100.00	609	100.00	86	100.00	30	100.00

Building 651 Room g: Minimum number and percentage of vessels by stratum and type

		Stratum IB		Stratum IC	
Type		No.	%	No.	%
AMP	Amphorae	5	1.90		
BL	Bowls	155	58.94	25	60.98
BTL	Bottles	3	1.14	1	2.44
CH	Chalices	1	0.38		
CP	Cooking Pots	8	3.04	3	7.32
DEC	Decanters	2	0.76		
GBL	Goblets	2	0.76		
HMJ	Holemouth Jars	5	1.90		
JK	Jar-Kraters	2	0.76		
JUG	Jugs	15	5.70	3	7.32
JUL	Juglets	6	2.28	2	4.88
KR	Kraters	29	11.03	1	2.44
LMP	Lamps				
MRT	Mortaria	2	0.76		
PL	Plates				
SJ	Storage Jars	27	10.27	6	14.62
STD	Stands	1	0.38		
Total		263	100.00	41	100.00

Building 651 Room h: Minimum number and percentage of vessels by stratum and type

		Stratum IB		Stratum IC	
Type		No.	%	No.	%
AMP	Amphorae	3	1.27		
BL	Bowls	148	62.18	55	81.00
BTL	Bottles	1	0.42		
CP	Cooking Pots	7	2.94		
DEC	Decanters			2	4.00
HMJ	Holemouth Jars	8	3.36		
JK	Jar-Kraters	1	0.42		
JUG	Jugs	15	6.30	4	6.00
JUL	Juglets	5	2.10	1	1.00

Cont.: Building 651 Room h

		Stratum IB		Stratum IC	
Type		No.	%	No.	%
KR	Kraters	23	9.66	3	5.00
LMP	Lamps	1	0.42		
MRT	Mortaria	3	1.27		
PL	Plates	2	0.84	1	1.00
SJ	Storage Jars	21	8.82	1	1.00
Misc.	Miscellaneous			1	1.00
Total		238	100.00	68	100.00

Building 651 Room i: Minimum number and percentage of vessels by stratum and type

		Stratum IB		Stratum IC	
Type		No.	%	No.	%
BL	Bowls	21	57.00	33	81.00
CH	Chalices	2	5.00		
CP	Cooking Pots	1	2.00		
HMJ	Holemouth Jars	1	3.00		
JK	Jar-Kraters	1	3.00		
JUG	Jugs	4	8.00	2	5.00
KR	Kraters	1	3.00	1	2.00
PL	Plates	3	8.00	2	5.00
SJ	Storage Jars	3	8.00	2	5.00
Misc.	Miscellaneous	1	3.00	1	2.00
Total		38	100.00	41	100.00

Building 651 Room a/f: Minimum number and percentage of vessels by stratum and type

		Stratum IA	
Type		No.	%
BL	Bowls	7	70.00
DEC	Decanter	1	10.00
PL	Plates	1	10.00
SJ	Storage Jars	1	10.00
Total		10	100.00

		Stratum IB	
Type		No.	%
BL	Bowls	34	91.90
BTL	Bottles	1	2.70
JUG	Jugs	1	2.70
Misc.	Miscellaneous	1	2.70
Total		37	100.00

Building 651 Socle: Minimum number and percentage of vessels by stratum and type

		Stratum IC	
Type		No.	%
BL	Bowls	3	60.00
JUL	Juglets	1	20.00
SCP	Scoops	1	20.00
Total		5	100.00

Building 651 Wall: Minimum number and percentage of vessels by stratum and type

		Stratum IC		Stratum ICb	
Type		No.	%	No.	%
BL	Bowls	42	78.00	78	70.00
CP	Cooking Pots			1	1.00
HMJ	Holemouth Jars	1	2.00		
JUG	Jugs	2	3.00	2	3.00
JUL	Juglets	1	2.00	1	1.00
KR	Kraters	1	2.00	5	4.00
LMP	Lamps			3	3.00
PL	Plates	2	4.00	6	5.00
SCP	Scoops	1	2.00		
SJ	Storage Jars	1	2.00	11	10.00
Misc.	Miscellaneous	3	5.00	3	3.00
Total		54	100.00	110	100.00

Building 651 Stratum IA: Minimum number of vessels by room and type

Type	Room a	Room a/f	Room f	Total
AMP 2			1	1
AMP 3			1	1
BL ?			2	2
BL 1		1	26	27
BL 1A			13	13
BL 1.1	3			3
BL 1.2	1		4	5
BL 1.3			1	1
BL 1.4		2	6	8
BL 2	1		1	2
BL 2.1			2	2
BL 2.3			1	1
BL 3	4	2	20	26
BL 3B			5	5
BL 3.1			4	4
BL 4	2	1	6	9
BL 4.1	4		7	11
BL 4.2	1		5	6
BL 4.3			1	1
BL 5A	1		1	2
BL 7			1	1
BL 7.1A			1	1
BL 8			2	2
BL 9			1	1
BL 9A			2	2
BL 10A			1	1
BL 11		1	1	2
BL 12.1			1	1
BL 14			1	1
BL 14.1			1	1
BL 18.2			1	1
BL 19.2			1	1

Type	Room a	Room a/f	Room f	Total
BL 28.1			2	2
BL Misc.			1	1
BLM 9			1	1
CP 6.1			1	1
DEC 1		1		1
HMJ ?			4	4
HMJ 2			1	1
JUG ?			3	3
JUG 1	3		4	7
JUG 2.2			3	3
JUG 13			2	2
JUG 13.3			1	1
JUL 4			1	1
KR 1			2	2
KR 1.2			1	1
KR 2.2	1			1
KR 4			3	3
KR 4.1			2	2
KR 4.2			3	3
KR 5	2			2
MRT 3			1	1
PL 2		1		1
SJ ?			3	3
SJ 4	1		1	2
SJ 5			2	2
SJ 5.1			3	3
SJ 5.6			2	2
SJ 7.1			2	2
SJ 12.3		1		1
SJ 15			1	1
Misc.			7	7
Total	24	10	178	212

Building 651 Stratum IB: Minimum number of vessels by room and type

Type	Room a	Room b	Room c	Room d	Room d/e	Room e	Room f	Room g	Room h	Room i	Total
AMP ?	1	1					1				3
AMP 1	1	1		2		1	1	2	1		9
AMP 1.1				2				2			4
AMP 2		1				2	1				4
AMP 3								1	2		3
AMP 4							2				2
AMP 5						1					1
AMP 6.1							1				1
BL ?	3	3	1	4	2	5	18	1	1		38
BL 1	28	27	9	24	3	36	46	20	28	4	225
BL 1A		3					2				5
BL 1B	1										1
BL 1.1	13	15	11	24	3	27	51	10	7	4	165
BL 1.2	6	9	4	8	1	13	17	5	7		70
BL 1.2B				1							1
BL 1.3	6	4	4	10	2	7	6	7	2		48
BL 1.4	3	3		6	2	19	16	16	12		77
BL 2	3	1	2	4	1	10	5	5	1		32
BL 2.1	2			5	2	3		1	1		14
BL 2.2							3	1			4
BL 2.3	1	1		1		5			2	1	11
BL 3	42	56	9	47	7	44	87	28	26	5	351
BL 3B	2	3	1	2		7	11	2	2		30
BL 3.1	4	10	1	5	2	14	15	2	3	1	57
BL 3.2	1	3				2		2			8
BL 4	22	22	9	28	1	25	25	12	21		165
BL 4D		1									1
BL 4.1	19	22	6	14	2	14	25	9	10		121
BL 4.2	6	6	4	5	1	10	6	6	3		47
BL 4.3	1	3		3		1	2	2	2		14
BL 4.5							1	1			2
BL 5				1		1		1			3

Cont.: Building 651 Stratum IB

Type	Room a	Room b	Room c	Room d	Room d/e	Room e	Room f	Room g	Room h	Room i	Total
BL 5A	1	1		3		4	7	2	1		19
BL 5B							2				2
BL 5D							1				1
BL 5.1	1			1		2			1		5
BL 5.1A		1						1			2
BL 5.3				1							1
BL 5.3A		3	2								5
BL 5.4A						1			1		2
BL 5.6A							1				1
BL 7	1					6	3	2			12
BL 7.1				1		2	1	1			5
BL 7.1A				2		10	3				15
BL 7.3A	1										1
BL 7.7A							1				1
BL 7.8A		2					1				3
BL 8	1					1	4				6
BL 8.1				1							1
BL 8.2							1	1			2
BL 8.3				2			1				3
BL 8.4				1							1
BL 8.5						1					1
BL 8.6A		1									1
BL 9	4	1		1			4		1	1	12
BL 9A	1	1									2
BL 9.1A							3			1	4
BL 10	7	7		4			2	1			21
BL 10A	6	5		2		5	2			2	22
BL 11	2			1		5	9	1	1		19
BL 11.1				1	1		2	1			5
BL 11.2	1						1				2
BL 11.3									1		1
BL 12							2	3			5

Cont.: Building 651 Stratum IB

Type	Room a	Room b	Room c	Room d	Room d/e	Room e	Room f	Room g	Room h	Room i	Total
BL 12.1				1	1		1	2			5
BL 13				1			2	1			4
BL 14	3	1	1	1		2	3	1			12
BL 14X.1A		1					2			1	4
BL 16.1							1				1
BL 17							1		2		3
BL 17.1	2	2	1			1	1				7
BL 18	2			2	1	2	3	4	2		16
BL 18A						2					2
BL 18.1								1			1
BL 18.2									1		1
BL 19				1		1					2
BL 19.1A				1							1
BL 20							2		1		3
BL 21			1	1			1				3
BL 21.1									1		1
BL 21.5A							1				1
BL 22							1				1
BL 26	1										1
BL 27									1		1
BL 27.5A							1				1
BL 28		1					1				2
BL 28.1				2			1		1		4
BL 28.2	1										1
BL 29A		1							1		2
BL 29.1		1									1
BL 30A		1									1
BL 30F	1										1
BL 35						1	1				2
BL 40A				1							1
BL 43								1			1
BL 43A				1	1	1	1	1	4		9

Cont.: Building 651 Stratum IB

Type	Room a	Room b	Room c	Room d	Room d/e	Room e	Room f	Room g	Room h	Room i	Total
BL 43B					1						1
BLF 2		1									1
BLM 2				1		1					2
BLM 9						1				1	2
BLM 13	1										1
BLM 14						2	1				3
BLM 26A						1					1
BLM 34A	1										1
BLM 37A	1										1
BLM 39A	1										1
BLM Misc.		1		1			1				3
BTL ?				1							1
BTL 1				1				1			2
BTL 1.2					1	1					2
BTL 1.3								1			1
BTL 4								1			1
BTL 7A									1		1
CAS 1						1					1
CH ?	4	1	1							1	7
CH 3A								1			1
CH 4A						1					1
CH 5	1										1
CH 9										1	1
CH 11		2									2
CP ?							1				1
CP 1	2								1		3
CP 1.1							1				1
CP 1.2		1									1
CP 1.7							1				1
CP 2						2		1			3
CP 6	4	1				6	1	4	1	1	18
CP 6.1	2			3		1	1		1		8

[illegible]

Cont.: Building 651 Stratum IB

Type	Room a	Room b	Room c	Room d	Room d/e	Room e	Room f	Room g	Room h	Room i	Total
HMJ 5.2				2							2
HMJ 5.3							5				5
HMJ 5.4	1					1					2
HMJ 6									1		1
JK ?	2	1					1	1			5
JK 1	2	1	1	1		4	3		1		13
JK 1.1			1	1		1					3
JK 1.4										1	1
JK 5				1		1					2
JK 6				1				1			2
JK 9				1							1
JUG ?	4	3		4		2	3	1	3	1	21
JUG 1	4	4	1	7	1	7	11	1	3		39
JUG 1.1	1			2							3
JUG 1.2	7	6	2	3		8	9	6	4	1	46
JUG 1.3						4			1		5
JUG 1.4			1	1		1	2				5
JUG 2.2	4	1		1		1		1	1		9
JUG 2.3		1									1
JUG 3								1			1
JUG 5						1					1
JUG 6						1		1			2
JUG 8						1					1
JUG 9						1					1
JUG 10		1				1					2
JUG 13	1	2		1		4	2	1	1	1	13
JUG 13.1	1	2		4			5				12
JUG 13.2		1		1		3	1		1		7
JUG 13.3				1			2		1		4
JUG 13.4						1		1			2
JUG 13.6						1					1
JUG 14		2		1			2	1			6

Cont.: Building 651 Stratum IB

Type	Room a	Room b	Room c	Room d	Room d/e	Room e	Room f	Room g	Room h	Room i	Total
KR 6				2			1				3
KR 7	2	1	1	2		2	4	2	4		18
KR 7.1		2				1	1	1	1		6
KR 7.3							1				1
KR 7.4							2				2
KR 8						1	1	1			3
KR 9						1					1
KR 10						2	1				3
KR 10.1	2										2
KR 11	3	2		3			2		1		11
KR 15	3			2		1	1				7
KR Misc.							1				1
LID 2		1									1
LMP ?		1				1					2
LMP 1									1		1
MRT 1								1	2		3
MRT 2				1				1	1		3
MRT 3	1										1
PL ?	1			1						1	3
PL 1				1		7	1				9
PL 2	2			1		1	3		1	2	10
PL 2B		1									1
PL 3	1			1			4				6
PL 3A				1			1		1		3
PL 5A	1										1
PL 7A	1										1
PYX ?				1							1
SCP ?	2	1									3
SCP 1.1	1		1								2
SCP 5		1									1
SJ ?	1	1		4		3	4		1		14
SJ 1						2			1	1	4

Cont.: Building 651 Stratum IB

Type	Room a	Room b	Room c	Room d	Room d/e	Room e	Room f	Room g	Room h	Room i	Total
SJ 1.1		3						1	1		5
SJ 1.3		1		1							2
SJ 1.4				1		2	1		2	1	7
SJ 2	1			2							3
SJ 3	1	1		1							3
SJ 4	4			1		2	2	1			10
SJ 4.3		1									1
SJ 5	9	1		2		7	5	1		1	26
SJ 5.1	3	5		5		4	5				22
SJ 5.2		2		1							3
SJ 5.3	1	1		1							3
SJ 5.4	3	3	1	5							12
SJ 5.5	3	7		3			3	1			17
SJ 5.6	2			4		8	4	3			21
SJ 5.7	4					15		7	2		28
SJ 5.8		2				1	1	4	1		9
SJ 5.9	2					2			2		6
SJ 5.11				2		1		1	3		7
SJ 5.12		2						1			3
SJ 5.13	1		1	1					1		4
SJ 5.14				2							2
SJ 5.15	1					1					2
SJ 6.2							1		1		2
SJ 7	5	2		1		1	3	1	1		14
SJ 7.1	3	4		1		1	2	2	2		15
SJ 7.3	4	3	2	1							10
SJ 8								1			1
SJ 9.1								1			1
SJ 9.2						1					1
SJ 9.3		1									1
SJ 9.4									1		1
SJ 9.5								1			1

Cont.: Building 651 Stratum IB

Type	Room a	Room b	Room c	Room d	Room d/e	Room e	Room f	Room g	Room h	Room i	Total
SJ 11		2									2
SJ 11.1		1									1
SJ 12.1		3									3
SJ 12.2				1							1
SJ 12.3				1			2		1		4
SJ 13	1	2	1				1				5
SJ 15	3	1		3		1					8
SJ 15.2				1							1
SJM ?			1	1							2
SJM 1						1					1
SJM 11							2	1	1		4
SJ Misc.	2										2
STD 1		1				1					2
STD 1.2				1							1
STD 2				1							1
STD 2.1								1			1
STD 2.2				1							1
STD 4.1			1								1
Misc.	3	3	1	4	1	4	7			1	24
Total	385	369	96	402	37	523	609	263	238	38	2,960

Building 651 Stratum IC: Minimum number of vessels by room/wall+socle and type

Type	Room a	Room b	Room c	Room d	Room e	Room f	Room g	Room h	Room i	Wall+ Socle	Total
AMP 3	1					1					2
AMP 4				1							1
AMP 6.1				2							2
BL ?		1			2	2	3		2	1	11
BL 1	16	10	2	5	8	9	3	5	5	1	64
BL 1A	2				1	3			1		7
BL 1.1	7	11	4	8	3	8		2	1	6	50
BL 1.2	3	2	1	3	3	6	1	3		4	26
BL 1.3	5	1	1	1	1			2		3	14
BL 1.4		1		1	2		1	4		4	13
BL 2	1				3	2				1	7
BL 2.1	2		1		3	1					7
BL 2.2										1	1
BL 2.3					2						2
BL 3	9	19	3	10	8	13	7	16	10	11	106
BL 3B	2	3		1		1	1	2	3	1	14
BL 3.1	1	5	1		3	2	3	1	1	1	18
BL 3.2		1		2				1			4
BL 4	16	5	1	4	4		3	5	2		40
BL 4.1	13	12	3	3	2	3	1	3	3	1	44
BL 4.2	4	2			1	1		2			10
BL 4.3		1						2			3
BL 5.3		1									1
BL 5.3A	1										1
BL 5.4A		1									1
BL 5A		3		1				1		1	6
BL 7	1				1						2
BL 7.1A	1	4						1			6
BL 7.3A						1					1
BL 7.7A		1				1					2
BL 7.8A					1						1
BL 8				2		3	1				6

Cont.: Building 651 Stratum IC

Type	Room a	Room b	Room c	Room d	Room e	Room f	Room g	Room h	Room i	Wall+ Socle	Total
BL 8.3				2							2
BL 9	1				1	1			1	1	5
BL 9A	1				3	2			1	2	9
BL 9.1A	1	1							1		3
BL 10	2	2	1	1							6
BL 10A	1	6			2	2		1		2	14
BL 10B					1						1
BL 11						3	1	2	1	1	8
BL 11.1						1					1
BL 12	2										2
BL 12.1	2										2
BL 12.3					1						1
BL 14				1							1
BL 14.1	2										2
BL 16.3A	1										1
BL 17			1					1			2
BL 17.1		1									1
BL 18					1						1
BL 21			1								1
BL 22						1					1
BL 28	1		1								2
BL 33A								1			1
BL 55	2										2
BLM 24A		1									1
BLM 26					1						1
BLM 30B										1	1
BLM Misc.	1									1	2
BTL 1							1				1
CH ?				2							2
CH 1					1						1
CP 1.2				1							1
CP 2				1							1

[illegible]

Cont.: Building 651 Stratum IC

[illegible]

Cont.: Building 651 Stratum IC

Type	Room a	Room b	Room c	Room d	Room e	Room f	Room g	Room h	Room i	Wall+ Socle	Total
SCP 8	1										1
SJ ?					1			1		1	3
SJ 1							1		1		2
SJ 1.1		1									1
SJ 1.4	1						3				4
SJ 2	2				1						3
SJ 4		1			1						2
SJ 5				1		1					2
SJ 5.1	2				1	1					4
SJ 5.3				1							1
SJ 5.4	2	1		3							6
SJ 5.6	2			1	1						4
SJ 5.7	1										1
SJ 5.8		1	1		2						4
SJ 5.11				1							1
SJ 5.12				1							1
SJ 5.14				1							1
SJ 7	1					1			1		3
SJ 7.1				1							1
SJ 7.3		1									1
SJ 9					1						1
SJ 9.1					1						1
SJM 10	2										2
SJM 11							2				2
SJ Misc.	3			1							4
Misc.	7			3	1	4		1	2	4	22
Total	180	120	37	93	86	86	41	68	41	59	811

Building 651 Stratum ICb: Minimum number of vessels by room/wall and type

Type	Room b	Room c	Room e	Room f	Wall	Total
BL ?					2	2
BL 1	1		7	3	13	24
BL 1A					1	1
BL 1.1		1	2	2	7	12
BL 1.2			1	1	1	3
BL 1.3			1	1	1	3
BL 1.4	1			1	2	4
BL 2			2	2	1	5
BL 2.1			2	1		3
BL 2.2					1	1
BL 2.3			1			1
BL 3			6	2	12	20
BL 3B				4	3	7
BL 3.1			2	1	3	6
BL 3.2			1			1
BL 4				1	4	5
BL 4.1		1		1	6	8
BL 4.2			1	2	1	4
BL 7.1A			1			1
BL 8				1	2	3
BL 9				1	4	5
BL 9A					2	2
BL 10A				2	6	8
BL 12					1	1
BL 15			1			1
BL 18	1					1
BL 21					1	1
BL Misc.				1	3	4
BLM 9					1	1
CH 10		1				1
CP ?			1			1
CP 1.7					1	1
JUG 1					1	1

Cont.: Building 651 Stratum ICb

Type	Room b	Room c	Room e	Room f	Wall	Total
JUG 1.2			1			1
JUG 2.3	1					1
JUG 13					1	1
JUL 1					1	1
JUL 4	1					1
KR ?					1	1
KR 4		1			1	2
KR 4.1					2	2
KR 4.2					1	1
KR 6	1					1
LMP ?				1	2	3
LMP 1					1	1
MRT 3		2				2
PL 1					2	2
PL 2					3	3
PL 3					1	1
SJ ?	1		1			2
SJ 1			3	1	1	5
SJ 1.2					1	1
SJ 1.4					1	1
SJ 2					2	2
SJ 4					2	2
SJ 5					1	1
SJ 5.1				1		1
SJ 5.4					1	1
SJ 5.6			2			2
SJ 5.7			1			1
SJ 5.12			1			1
SJ 7					1	1
SJ 7.3		1			1	2
Misc.					3	3
Total	7	38	30	107	192	374

Building 651 TS, BT, and Clnup: Minimum number of vessels by room and type

Type	Room a	Room a/d	Room f	Room h/g	Room h	Room i	Misc.	Total
AMP 2						1		1
AMP 6.1						1		1
AMP 13A	1							1
BL ?			1	1				2
BL 1		9	2	4	2	3		20
BL 1A			1					1
BL 1.1			6	1		4		11
BL 1.2			2	2		1		5
BL 1.3			1					1
BL 1.4			5	3	2	3		13
BL 2	1							1
BL 2.1				2		1		3
BL 2.3		1		1		1		3
BL 3	1	6	10	14	2	1		34
BL 3B		1		1	1			3
BL 3.1				2	2			4
BL 4		9	4	13	2	3		31
BL 4.1	1	3	5	4	1	5		19
BL 4.2				1				1
BL 4.4A			1					1
BL 5			2					2
BL 5A		1	1	1				3
BL 5.1				1				1
BL 5.3A						1		1
BL 7.1A				3				3
BL 7.8A				2				2
BL 8			2	1				3
BL 8.2		1						1
BL 8.6			1					1
BL 9			1					1

Cont.: Building 651 TS, BT, and Clnup

Type	Room a	Room a/d	Room f	Room h/g	Room h	Room i	Misc.	Total
BL 10		1			1			2
BL 10A		1	1			1		3
BL 11			1			1		2
BL 14			3					3
BL 14X.1A			1					1
BL 15			1					1
BL 16						1		1
BL 17			1		1	1		3
BL 17.1	1							1
BL 18	1		1	1				3
BL 28.1		2						2
BL 28.2	1							1
BTL 3.1						1		1
CH 9A							1	1
CP 1				1				1
CP 1.2			1					1
CP 6				1				1
CP 6.1				2		1		3
CP 7.5			1					1
CP 7.7			1					1
HMJ ?			1	1				2
HMJ 1		1		1		2		4
HMJ 1.1		2		2		1		5
HMJ 3						1		1
HMJ 3.1				2				2
HMJ 5				1				1
HMJ 5.3			1					1
JK 1			1	1				2
JK 5						1		1
JUG ?				1				1
JUG 1			1	2		2		5

Cont.: Building 651 TS, BT, and Clnup

Type	Room a	Room a/d	Room f	Room h/g	Room h	Room i	Misc.	Total
JUG 1.2		1	1	3	1			6
JUG 1.3				1				1
JUG 13		1	1					2
JUG 14				2				2
JUL ?				2	1			3
JUL 2.1						1		1
JUL 4				1				1
KR ?			1	1		1		3
KR 1.1		1						1
KR 1.2					1			1
KR 2.2			1					1
KR 3		1				1		2
KR 4			2	3		3		8
KR 4.1		3				2		5
KR 4.2			1			2		3
KR 4.3		1						1
KR 5				1				1
KR 7				1				1
KR 7.3			1					1
KR 9					1			1
KR 10.1		1						1
KR 11				1				1
KR 15		1		1	1			3
KR Misc.						1		1
PITH 1			1					1
PL 1					1	1		2
PL 2	1							1
SCP 9							1	1
SJ ?		1	3	2				6
SJ 2			1					1
SJ 4			1		1	2		4

Cont.: Building 651 TS, BT, and Clnup

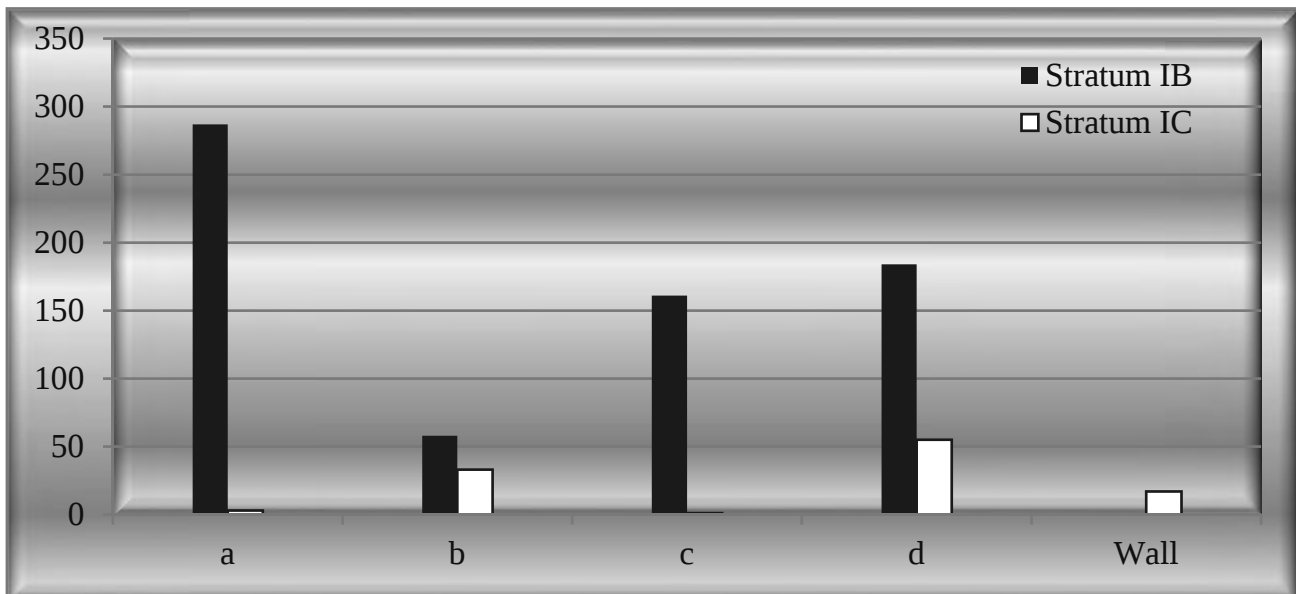
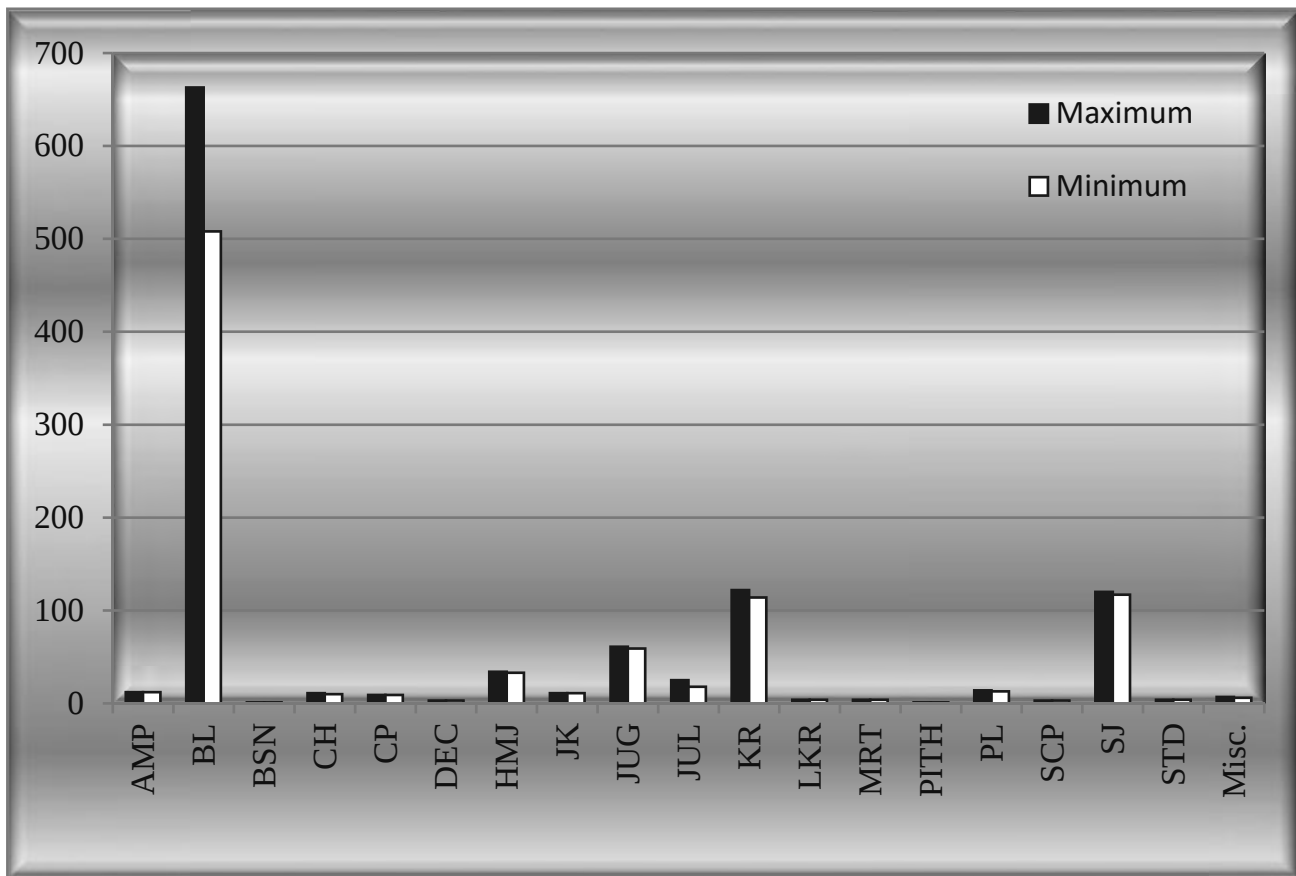
Type	Room a	Room a/d	Room f	Room h/g	Room h	Room i	Misc.	Total
SJ 5			5	4		3		12
SJ 5.1			3			2		5
SJ 5.4		2		2				4
SJ 5.6		2	2			2		6
SJ 5.7				4	2			6
SJ 5.8				1				1
SJ 5.9				1				1
SJ 5.13					1			1
SJ 7		1	1	1		2		5
SJ 7.1			1	1				2
SJ 11						2		1
SJ Misc.				1				1
SJM 11					1			1
STD 2.1		1						1
Misc.		64		1		2	136	203
Total	8	55	87	107	89	65	138	549

**Building 652 Strata IB and IC and TS and Clnup:
Maximum and minimum number and percentage of vessels by type**

Type		Max. No.	Max. %	Min. No.	Min. %
AMP	Amphorae	12	1.08	12	1.29
BL	Bowls	663	59.78	508	54.62
BSN	Basins	1	0.09	1	0.11
CH	Chalices	11	0.99	10	1.08
CP	Cooking Pots	9	0.81	9	0.97
DEC	Decanters	3	0.27	3	0.32
HMJ	Holemouth Jars	34	3.07	33	3.55
JK	Jar-Kraters	11	0.99	11	1.18
JUG	Jugs	61	5.50	59	6.34
JUL	Juglets	25	2.25	18	1.94
KR	Kraters	122	11.00	114	12.26
LKR	Large Kraters	4	0.37	4	0.42
MRT	Mortaria	4	0.37	4	0.42
PITH	Pithoi	1	0.09	1	0.11
PL	Plates	14	1.26	13	1.4
SCP	Scoops	3	0.27	3	0.32
SJ	Storage Jars	120	10.82	117	12.8
STD	Stands	4	0.36	4	0.22
Misc.	Miscellaneous	7	0.63	6	0.65
Total		1,109	100.00	930	100.00

Building 652: Minimum number and percentage of vessels by stratum and room/wall

	Stratum IB		Stratum IC		
Room	No.	%	No.	%	Total
a	287	42.00	3	3.00	290
b	58	8.00	33	30.00	91
c	161	23.00	1	1.00	162
d	184	27.00	55	50.00	239
Wall			17	16.00	17
Total	690	100.00	109	100.00	799



Building 652 Room a: Minimum number and percentage of vessels by stratum and type

Type		Stratum IB		Stratum IC	
		No.	%	No.	%
AMP	Amphorae	2	0.70	1	33.00
BL	Bowls	155	54.01	1	33.00
CH	Chalices	7	2.44		
CP	Cooking Pots	2	0.70		
DEC	Decanters	1	0.35		
HMJ	Holemouth Jars	8	2.79		
JK	Jar-Kraters	4	1.39		
JUG	Jugs	24	8.36		
JUL	Juglets	6	2.09		
KR	Kraters	32	11.15		
MRT	Mortaria	1	0.35		
PL	Plates	5	1.73		
SJ	Storage Jars	39	13.59	1	34.00
Misc.	Miscellaneous	1	0.35		
Total		287	100.00	3	100.00

Building 652 Room b: Minimum number and percentage of vessels by stratum and type

Type		Stratum IB		Stratum IC	
		No.	%	No.	%
AMP	Amphorae	1	2.00		
BL	Bowls	27	46.00	19	58.00
CP	Cooking Pots	1	2.00	1	3.00
HMJ	Holemouth Jars	6	10.00	4	12.00
JK	Jar-Kraters	1	2.00	1	3.00
JUG	Jugs	3	5.00	1	3.00
JUL	Juglets	1	2.00		
KR	Kraters	11	19.00	2	6.00
MRT	Mortaria	1	2.00		
PL	Plates	1	2.00		
SJ	Storage Jars	5	8.00	4	12.00
Misc.	Miscellaneous			1	3.00
Total		58	100.00	33	100.00

Building 652 Room c: Minimum number and percentage of vessels by stratum and type

		Stratum IB		Stratum IC	
Type		No.	%	No.	%
AMP	Amphorae	2	1.24		
BL	Bowls	90	55.91	1	100.00
CP	Cooking Pots	2	1.24		
DEC	Decanters	1	0.62		
HMJ	Holemouth Jars	1	0.62		
JK	Jar-Kraters	1	0.62		
JUG	Jugs	8	4.97		
JUL	Juglets	8	4.97		
KR	Kraters	15	9.32		
MRT	Mortaria	1	0.62		
PITH	Pithoi	1	0.62		
PL	Plates	3	1.86		
SJ	Storage Jars	26	16.15		
STD	Stands	1	0.62		
Misc.	Miscellaneous	1	0.62		
Total		161	100.00	1	100.00

Building 652 Room d: Minimum number and percentage of vessels by stratum and type

Type		Stratum IB		Stratum IC	
		No.	%	No.	%
AMP	Amphorae	4	2.17	1	1.82
BL	Bowls	108	58.70	31	56.36
CH	Chalices	1	0.54	1	1.82
CP	Cooking Pots	1	0.54	1	1.82
DEC	Decanters	1	0.54		
HMJ	Holemouth Jars	3	1.63	3	5.45
JK	Jar-Kraters	2	1.09		
JUG	Jugs	9	4.89	1	1.82
JUL	Juglets	2	1.09		
KR	Kraters	31	16.85	7	12.73
LKR	Large Kraters	3	1.63	1	1.82
PL	Plates	3	1.63		
SCP	Scoops	2	1.09	1	1.82
SJ	Storage Jars	13	7.07	7	12.72
STD	Stands	1	0.54	1	1.82
Total		184	100.00	55	100.00

Building 652 Wall: Minimum number and percentage of vessels by type

Type		Stratum IC	
		No.	%
BL	Bowls	7	41.00
HMJ	Holemouth Jars	3	17.00
JK	Jar-Kraters	1	6.00
JUG	Jugs	2	12.00
KR	Kraters	1	6.00
SJ	Storage Jars	2	12.00
Misc.	Miscellaneous	1	6.00
Total		17	100.00

Building 652 Stratum IB: Minimum number of vessels by room and type

Type	Room a	Room b	Room c	Room d	Total
AMP 1	1	1	2	1	5
AMP 5	1				1
AMP 9				3	3
BL ?	6	1	6	2	15
BL 1	21	3	6	14	44
BL 1A	4				4
BL 1.1	13	4	10	20	47
BL 1.2	5	1	10	8	24
BL 1.3	2		1	4	7
BL 1.4	1	1			2
BL 2	4	1		1	6
BL 2.1		1	1	2	4
BL 2.3				2	2
BL 3	29	8	20	19	76
BL 3B	1		3	1	5
BL 3.1	6	1	5	6	18
BL 3.2			1		1
BL 4	7	3	4	5	19
BL 4.1	8		4	5	17
BL 4.2	3		2	2	7
BL 4.3	1				1
BL 5A	1		2	1	4
BL 5B				1	1
BL 5.1				1	1
BL 5.1A	1			1	2
BL 5.3	2				2
BL 5.3A			2		2
BL 5.4A	1			2	3
BL 7	1				1
BL 7.1A	4		1		5
BL 7.6	1				1
BL 8	1		1		2

Type	Room a	Room b	Room c	Room d	Total
BL 8.3	2				2
BL 8.4	1				1
BL 9	1				1
BL 9A	1				1
BL 10	8	1	2	3	14
BL 10A	3		3		6
BL 11	1			3	4
BL 13	2				2
BL 14	2		1	3	6
BL 14X.1A	2				2
BL 14X.3A	1				1
BL 16	2		1		3
BL 16.1A	1				1
BL 16.4?	1				1
BL 17.1	2				2
BL 18		1		1	2
BL 22	1				1
BL 25C			1		1
BL 27.1		1			1
BL 29.1			1		1
BL 29.2A			1		1
BL 38				1	1
BLM 8	1				1
BLM 37			1		1
CH ?	3				3
CH 1	1				1
CH 3A	3				3
CH 11				1	1
CP ?			1		1
CP 1.2	1				1
CP 6.1	1				1
CP 6.3		1		1	2

Cont.: Building 652 Stratum IB

Type	Room a	Room b	Room c	Room d	Total
CP 10			1		1
DEC 1	1			1	2
DEC 1.2			1		1
HMJ ?	1			1	2
HMJ 1	2	1		1	4
HMJ 1.1	1	1			2
HMJ 1.3	2	1		1	4
HMJ 2	1				1
HMJ 5.2			1		1
HMJ 5.3	1				1
HMJ 5.4		2			2
HMJM 4		1			1
JK ?	1				1
JK 1		1		1	2
JK 1.1	3				3
JK 5			1		1
JK 6				1	1
JUG ?	2		2	2	6
JUG 1	5	1	2	3	11
JUG 1.1	3				3
JUG 1.2	3				3
JUG 1.3				1	1
JUG 2.2	5		2		7
JUG 6				1	1
JUG 13	1	1	1	1	4
JUG 13.1	2				2
JUG 13.2	2		1		3
JUG 13.3		1			1
JUG 14	1			1	2
JUL ?	1		2	1	4
JUL 1	1		2		3
JUL 1.1			1		1

Type	Room a	Room b	Room c	Room d	Total
JUL 1.3	1				1
JUL 1.4		1			1
JUL 2			1		1
JUL 3	1		1		2
JUL 4	1		1		2
JUL 10				1	1
JUL 16B	1				1
KR ?		1			1
KR 1	3		2		5
KR 1.1	1			1	2
KR 1.2				2	2
KR 2	5	1			6
KR 3	2		1	1	4
KR 3.2		1			1
KR 4	3	1	4	7	15
KR 4.1	5		4	4	13
KR 4.2	2		1	1	4
KR 4.3			1	2	3
KR 4.4	1			2	3
KR 5				4	4
KR 6	1	4			5
KR 7	1	3	1	2	7
KR 7.1	1				1
KR 7.2				3	3
KR 7.3			1		1
KR 11	5			1	6
KR 13	1				1
KR 15	1			1	2
LKR 3				3	3
MRT ?			1		1
MRT 3	1	1			2
PITH 2			1		1

Cont.: Building 652 Stratum IB

Type	Room a	Room b	Room c	Room d	Total
PL ?	1				1
PL 1	1		2		3
PL 2				1	1
PL 3				1	1
PL 3A	1			1	2
PL 6A		1			1
PL 7A			1		1
PL 7B	1				1
PL 7C	1				1
SCP 7				1	1
SCP 8				1	1
SJ ?	2		2	2	6
SJ 1				1	1
SJ 1.1	4	1			5
SJ 1.3			1		1
SJ 1.4	2	1	1	1	5
SJ 3			1		1
SJ 4	1	1			2
SJ 4.1	1				1
SJ 5			1		1
SJ 5.2	1				1
SJ 5.4	2		5	2	9

Type	Room a	Room b	Room c	Room d	Total
SJ 5.5	2		4		6
SJ 5.6	3	1	3	2	9
SJ 5.7	2		1	2	5
SJ 5.8		1			1
SJ 5.9	1				1
SJ 5.11			1		1
SJ 5.12	1				1
SJ 5.13				1	1
SJ 7			1		1
SJ 7.1	1		2	1	4
SJ 7.3			1		1
SJ 12	2				2
SJ 12.3	4				4
SJ 15	1				1
SJM 1	5		1		6
SJM 3	1				1
SJM 11	1				1
SJ Misc.	2		1	1	4
STD 1				1	1
STD 2			1		1
Misc.	1		1		2
Total	287	58	161	184	690

Building 652 Stratum IC: Minimum number of vessels by room/wall and type

Type	Room a	Room b	Room c	Room d	Wall	Total
AMP 1				1		1
AMP 5	1					1
BL ?		1		1		2
BL 1				7	1	8
BL 1.1		1		7	1	9
BL 1.2		2		2		4
BL 1.4				1		1
BL 3	1	7		8	2	18
BL 3B		1		1	1	3
BL 4		1		1		2
BL 4.1		1	1			2
BL 4.5		1				1
BL 5A					1	1
BL 9		1		1		2
BL 9 A		1				1
BL 10		1				1
BL 21.1					1	1
BL 23A				1		1
BL 25C				1		1
BLM 4		1				1
CH 9				1		1
CP 1.2				1		1
CP 6		1				1
HMJ 1		1		1	1	3
HMJ 1.1		2			1	3
HMJ 6.2				1		1
HMJM 4		1		1	1	3
JK ?		1				1
JK 1					1	1
JUG 1.2					1	1
JUG 2.2				1		1
JUG 4.1					1	1
JUG 14		1				1

Cont.: Building 652 Stratum IC

Type	Room a	Room b	Room c	Room d	Wall	Total
KR 1		1				1
KR 1.1		1				1
KR 4.1				2		2
KR 4.2				2		2
KR 5				1	1	2
KR 6				1		1
KR 7.3				1		1
LKR 4				1		1
SCP ?				1		1
SJ 1.4					1	1
SJ 5.4				2		2
SJ 5.5				1		1
SJ 5.14		1				1
SJ 7.1					1	1
SJ 7.3				1		1
SJ 12.1		1				1
SJ 13				1		1
SJ 15.3		1				1
SJM 1	1			2		3
SJ Misc.		1				1
STD 1				1		1
Misc.		1			1	2
Total	3	33	1	55	17	109

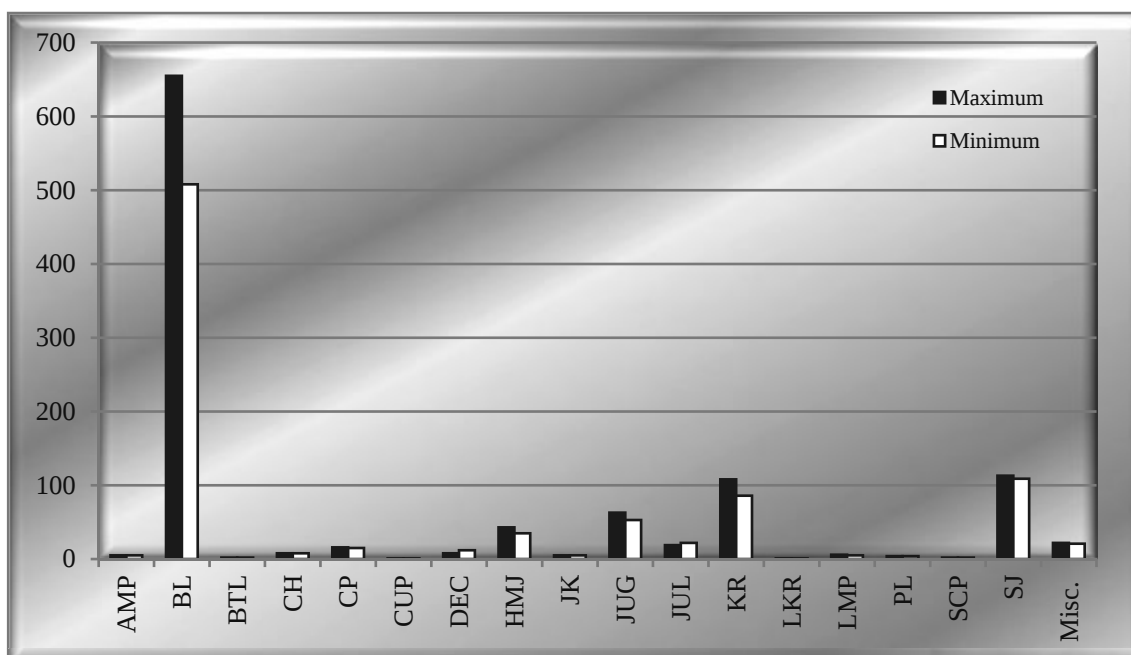
Building 652 TS and Clnup: Minimum number of vessels by room and type

Type	Room d	Room a/c	Room a/b/d	Total
AMP 3		1		1
BL 1		3	2	5
BL 1.1		5	6	11
BL 1.2		1		1
BL 1.4	3	1		4
BL 2.3	1			1
BL 3	3	12	4	19
BL 3.1		1	1	2
BL 4	1	6	2	9
BL 4.1		3	1	4
BL 4.2		1		1
BL 5A		1	1	2
BL 7			1	1
BL 7.1A		1		1
BL 10			1	1
BL 10A		1		1
BL 14		1		1
BL 16.2		1		1
BL 17.1		2		2
BL 28		1		1
BL 29.1		1		1
BSN 1			1	1
CH 11			1	1
CP 1.2	1			1
HMJ 1		1	2	3
HMJ 1.1		1		1
HMJ 5.2			1	1
JK 5			1	1
JUG ?	1		1	2
JUG 1		4	2	6

Type	Room d	Room a/c	Room a/b/d	Total
JUG 1.2		2		2
JUG 1.3		1		1
JUL 12		1		1
KR 1.1			1	1
KR 3			2	2
KR 4			1	1
KR 4.1	1		1	2
KR 4.4	1		1	2
KR 5			5	5
KR 7			1	1
KR 7.3	1			1
MRT 1		1		1
PL 7A		1		1
SJ ?	1			1
SJ 1.4		1		1
SJ 4		1		1
SJ 5		1		1
SJ 5.1		3	1	4
SJ 5.3		1		1
SJ 5.4			3	3
SJ 5.6		1		1
SJ 5.7			1	1
SJ 5.12		1		1
SJ 7			2	2
SJ 7.1			2	2
SJ 7.3			1	1
STD 2			1	1
Misc.		1	1	2
Total	14	65	52	131

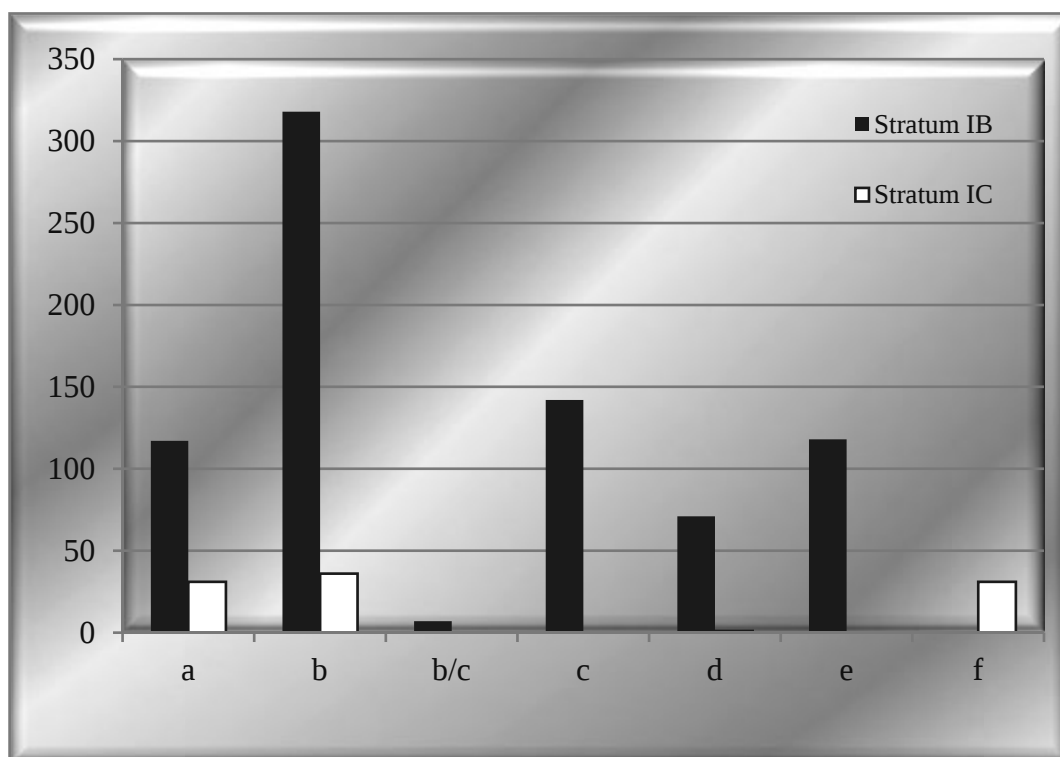
Building 653 Strata IB and IC and TS: Maximum and minimum number and percentage of vessels by type

Type		Max. No.	Max. %	Min. No.	Min. %
AMP	Amphorae	5	0.46	5	0.56
BL	Bowls	655	60.59	508	56.82
BTL	Bottles	2	0.19	2	0.22
CH	Chalices	8	0.74	8	0.89
CP	Cooking Pots	16	1.48	15	1.68
CUP	Cups	1	0.09	1	0.12
DEC	Decanters	8	0.74	12	1.34
HMJ	Holemouth Jars	43	3.98	35	3.91
JK	Jar-Kraters	5	0.46	5	0.56
JUG	Jugs	63	5.83	53	5.93
JUL	Juglets	19	1.76	22	2.46
KR	Kraters	108	9.99	86	9.62
LKR	Large Kraters	1	0.09	1	0.12
LMP	Lamps	6	0.56	5	0.56
PL	Plates	4	0.37	4	0.45
SCP	Scoops	2	0.19	2	0.22
SJ	Storage Jars	113	10.44	109	12.19
Misc.	Miscellaneous	22	2.04	21	2.35
Total		1,081	100.00	894	100.00



Building 653: Minimum number and percentage of vessels by stratum and room

	Stratum IB		Stratum IC		
Room	No.	%	No.	%	Total
a	117	15.14	31	31.00	148
b	318	41.14	36	37.00	354
b/c	7	0.91			7
c	142	18.36			143
d	71	9.18	1	1.00	72
e	118	15.27			118
f			31	31.00	31
Total	773	100.00	99	100.00	872



Building 653 Room a: Minimum number and percentage of vessels by stratum and type

Type		Stratum IB		Stratum IC	
		No.	%	No.	%
AMP	Amphorae	2	2.00		
BL	Bowls	58	49.00	20	66.00
CH	Chalices	3	3.00		
CP	Cooking Pots	6	5.00	1	3.00
DEC	Decanters	1	1.00		
HMJ	Holemouth Jars	7	6.00		
JUG	Jugs	13	11.00	4	13.00
JUL	Juglets	2	2.00	1	3.00
KR	Kraters	7	6.00	1	3.00
LMP	Lamps	2	2.00		
PL	Plates			1	3.00
SJ	Storage Jars	16	13.00	2	6.00
Misc.	Miscellaneous			1	3.00
Total		117	100.00	31	100.00

Building 653 Room b: Minimum number and percentage of vessels by stratum and type

Type		Stratum IB		Stratum IC	
		No.	%	No.	%
AMP	Amphorae			1	3.00
BL	Bowls	201	63.41	25	69.00
BTL	Bottle	1	0.32		
CH	Chalices	2	0.63		
CP	Cooking Pots	4	1.26		
DEC	Decanters	5	1.26	1	3.00
HMJ	Holemouth Jars	4	1.26	1	3.00
JK	Jar-Kraters	3	0.95		
JUG	Jugs	10	3.15		
JUL	Juglets	7	2.20	1	3.00
KR	Kraters	39	12.30	3	8.00
LKR	Large Kraters	1	0.32		
LMP	Lamps	2	0.63		
PL	Plates			1	3.00

Cont.: Building 653 Room b

		Stratum IB		Stratum IC	
Type		No.	%	No.	%
SCP	Scoops	2	0.63		
SJ	Storage Jars	34	10.73	3	8.00
Misc.	Miscellaneous	3	0.95		
Total		318	100.00	36	100.00

Building 653 Room b/c: Minimum number and percentage of vessels by stratum and type

		Stratum IB	
Type		No.	%
BL	Bowls	6	86.00
SJ	Storage Jars	1	14.00
Total		7	100.00

Building 653 Room c: Minimum number and percentage of vessels by stratum and type

		Stratum IB	
Type		No.	%
BL	Bowls	61	42.66
CP	Cooking Pots	2	1.40
DEC	Decaners	3	2.10
HMJ	Holemouth Jars	19	13.92
JUG	Jugs	8	5.59
JUL	Juglets	4	2.80
KR	Kraters	9	6.29
LMP	Lamps	1	0.38
PL	Plates	1	0.38
SJ	Storage Jars	17	11.89
Misc.	Miscellaneous	17	12.59
Total		142	100.00

Building 653 Room d: Minimum number and percentage of vessels by stratum and type

		Stratum IB		Stratum IC	
Type		No.	%	No.	%
BL	Bowls	34	49.00	1	100.00
CH	Chalices	1	1.00		
CP	Cooking Pots	2	3.00		
DEC	Decanters	1	1.00		
JUG	Jugs	7	10.00		
KR	Kraters	14	20.00		
PL	Plates	1	1.00		
SJ	Storage Jars	11	15.00		
Total		71	100.00	1	100.00

Building 653 Room e: Minimum number and percentage of vessels by stratum and type

		Stratum IB	
Type		No.	%
AMP	Amphorae	2	2.00
BL	Bowls	74	62.00
BTL	Bottles	1	1.00
CH	Chalices	2	2.00
DEC	Decanters	1	1.00
HMJ	Holemouth Jars	2	2.00
JK	Jar-Kraters	2	2.00
JUG	Jugs	6	5.00
JUL	Juglets	3	3.00
KR	Kraters	8	7.00
SJ	Storage Jars	17	13.00
Total		118	100.00

Building 653 Room f: Minimum number and percentage of vessels by stratum and type

		Stratum IC	
Type		No.	%
BL	Bowls	22	71.00
CUP	Cups	1	3.00
JUG	Jugs	1	3.00
JUL	Juglets	4	13.00
KR	Kraters	3	10.00
Total		31	100.00

Building 653 TS in Rooms a, b, c: Minimum number and percentage of vessels by type

		TS	
Type		No.	%
BL	Bowls	6	27.00
HMJ	Holemouth Jars	2	9.00
JUG	Jugs	4	18.00
KR	Kraters	2	9.00
SJ	Storage Jars	8	37.00
Total		22	100.00

Building 653 Stratum IB: Minimum number of vessels by room and type

Type	Room a	Room b	Room b/c	Room c	Room d	Room e	Total
AMP ?	1						1
AMP 1						1	1
AMP 9						1	1
AMP 12A	1						1
BL ?		1		6		1	8
BL 1	13	32		4	5	11	65
BL 1A		1					1
BL 1.1	4	41	1	13	7	15	81
BL 1.1A		1					1
BL 1.2	1	14		6	2	4	27
BL 1.3	1	3		1		1	6
BL 1.4	1	10			1	3	15
BL 2	2	3			1	3	9
BL 2.1		4		3			7
BL 2.2		2					2
BL 2.3				1			1
BL 3	13	23	2	15	7	10	70
BL 3.1	2	10	1	4	3	4	24
BL 4	10	10		2	1	6	29
BL 4.1	4	11		1	2	4	22
BL 4.2		8		1		3	12
BL 4.3		1		1		1	3
BL 4.5						1	1
BL 5A		5	1	2		1	9
BL 5B		1					1
BL 5.1						1	1
BL 5.3						1	1
BL 5.3A		1					1
BL 5.4A	1	2			2		5
BL 7.1A	1						1
BL 7.6A				1			1
BL 7.7A		1					1
BL 8		1					1

Cont.: Building 653 Stratum IB

Type	Room a	Room b	Room b/c	Room c	Room d	Room e	Total
BL 9A	1	1					2
BL 9.1A					1		1
BL 10	1	4	1			1	7
BL 10A	1	5			1		7
BL 12.1		1			1		2
BL 14		1					1
BL 17	1					1	2
BL 18	1	2				1	4
BL 28.1						1	1
BLM 4		1					1
BTL 1						1	1
BTL 4		1					1
CH ?	2	1			1	2	6
CH 5		1					1
CH 5A	1						1
CP ?				1			1
CP 1.2	1	1					2
CP 6	2	3			1		6
CP 6.1					1		1
CP 8	2						2
CP 12.1	1						1
CP 26				1			1
DEC ?					1		1
DEC 1				3		1	4
DEC 1.2		4					4
DEC 1.2A		1					1
DEC 2	1						1
HMJ ?		1					1
HMJ 1	2	2		10		1	15
HMJ 1.1	2	1		6		1	10
HMJ 2				2			2
HMJ 3.1	1						1
HMJ 5.2	1			1			2

Cont.: Building 653 Stratum IB

Type	Room a	Room b	Room b/c	Room c	Room d	Room e	Total
HMJ 8.1	1						1
JK 1		3					3
JK 5						2	2
JUG ?	1	2		6	1		10
JUG 1	7			1		4	12
JUG 1.1	1				2		3
JUG 1.2	2	5			2		9
JUG 2.2	1					1	2
JUG 5	1						1
JUG 13		1			2		3
JUG 13.1		1					1
JUG 13.5						1	1
JUG 14				1			1
JUG 14.1		1					1
JUL ?	1	2		1		1	5
JUL 1		1					1
JUL 1.1		1		1			2
JUL 1.2		1					1
JUL 4	1	1		1		1	4
JUL 5						1	1
JUL 13.1		1					1
JUL 24				1			1
KR ?		1		3			4
KR 1	1				1	1	3
KR 1B		1					1
KR 1.1					1		1
KR1.2		2		1			3
KR 1.2A		1					1
KR 1.5	1						1
KR 2	1	1					2
KR 2.2		1					1
KR 3					1	1	2
KR 4		8		1	1	1	11

Cont.: Building 653 Stratum IB

Type	Room a	Room b	Room b/c	Room c	Room d	Room e	Total
KR 4.1	1	4		2	3	2	12
KR 4.2	1	3		1	1		6
KR 4.3	1	1			3		5
KR 4.4		1		1	1		3
KR 4.5	1				1		2
KR 4.6						1	1
KR 5					1		1
KR 7		8				2	10
KR 7.1		2					2
KR 7.2		5					5
LKR 4		1					1
LMP ?		1					1
LMP 1	2			1			3
LMP 2		1					1
PL 5A				1			1
PL 6A					1		1
SCP ?		2					2
SJ ?	2	5		9		1	17
SJ 1.1	1						1
SJ 1.4						1	1
SJ 2					1		1
SJ 4	2						2
SJ 4.1		2					2
SJ 5			1			2	3
SJ 5.1	1	1					2
SJ 5.2				1			1
SJ 5.3						2	2
SJ 5.4		3			1		4
SJ 5.5					1		1
SJ 5.6	3	3		1		2	9
SJ 5.7	1	4			3		8
SJ 5.8					2		2
SJ 5.9	2	2					4

Cont.: Building 653 Stratum IB

Type	Room a	Room b	Room b/c	Room c	Room d	Room e	Total
SJ 5.11						3	3
SJ 5.13		1					1
SJ 5.14		2					2
SJ 5.15		1				1	2
SJ 6.1		1				3	4
SJ 7	2	1			1		4
SJ 7.1	1						1
SJ 9.1					1		1
SJ 9.3		1					1
SJ 9.6				1			1
SJ 10		1		1			2
SJ 10.1		1				1	2
SJ 11.1		1		3			4
SJ 12.1	1						1
SJ 12.2					1		1
SJ 13		1					1
SJ 17		1					1
SJM		1		1		1	3
SJM 10		1					1
Misc.		3		17			20
Total	117	318	7	142	71	118	773

Building 653 Stratum IC: Minimum number of vessels by room and type

Type	Room a	Room b	Room d	Room f	Total
AMP 1		1			1
BL ?	1				1
BL 1	4	4	1	6	15
BL 1.1	2	4		2	8
BL 1.2		2		1	3
BL 1.3		1			1
BL 2		1		1	2

Type	Room a	Room b	Room d	Room f	Total
BL 2.3	1				1
BL 3	5	5		3	13
BL 3.1		2			2
BL 4	3	2		3	8
BL 4.1		1		1	2
BL 4.2		1		1	2
BL 5A	1				1

Cont.: Building 653 Stratum IC

Type	Room a	Room b	Room d	Room f	Total
BL 5.5A				1	1
BL 7.1A	1				1
BL 7.8A	1				1
BL 10				1	1
BL 14	1			1	2
BL 18				1	1
BL 30A		1			1
BL 32A		1			1
CP 8	1				1
CUP 1				1	1
DEC 1		1			1
HMJ 1		1			1
JUG 1.2				1	1
JUG 13	1				1
JUG 13.3	3				3
JUL ?		1		1	2
JUL 1				1	1

Type	Room a	Room b	Room d	Room f	Total
JUL 1.1				1	1
JUL 3	1				1
JUL 4				1	1
KR 2				2	2
KR 2.1				1	1
KR 2.2		1			1
KR 4		1			1
KR 4.1		1			1
KR 7	1				1
PL 3A	1				1
PL 5A		1			1
SJ 5.5	2				2
SJ 6.1		1			1
SJ 7		1			1
SJ 15.4		1			1
Misc.	1				1
Total	31	36	1	31	99

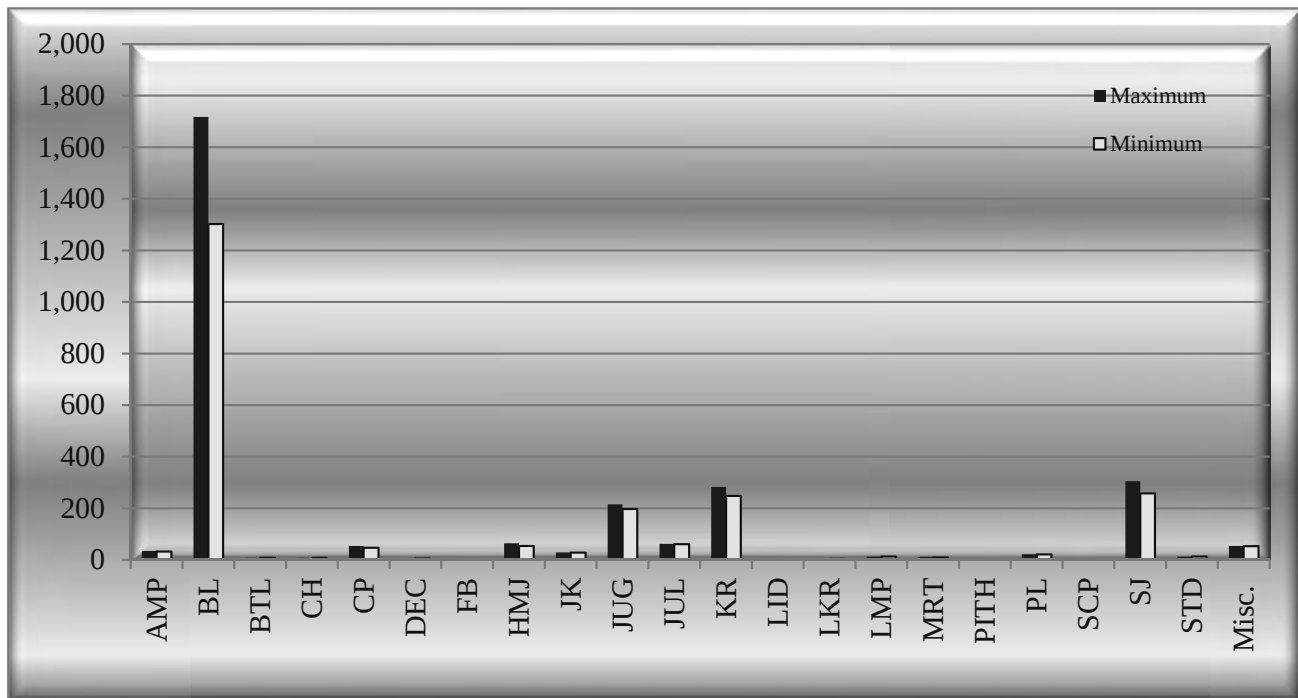
Building 653 TS in Rooms a, b, c: Minimum number of vessels by type

Type		Total
BL 1	1	1
BL 1.1	1	1
BL 1.3	1	1
BL 2	1	1
BL 3.1	1	1
BL 4.2	1	1
HMJ 1	1	1
HMJ 1.1	1	1
JUG ?	1	1
JUG 1	1	1
JUG 13.1	1	1

Type		Total
JUG 2.2	1	1
KR 4.2	1	1
KR 7	1	1
SJ ?	1	1
SJ 5.3	2	2
SJ 5.4	1	1
SJ 5.6	2	2
SJ 7	1	1
SJ 7.2	1	1
Total	22	22

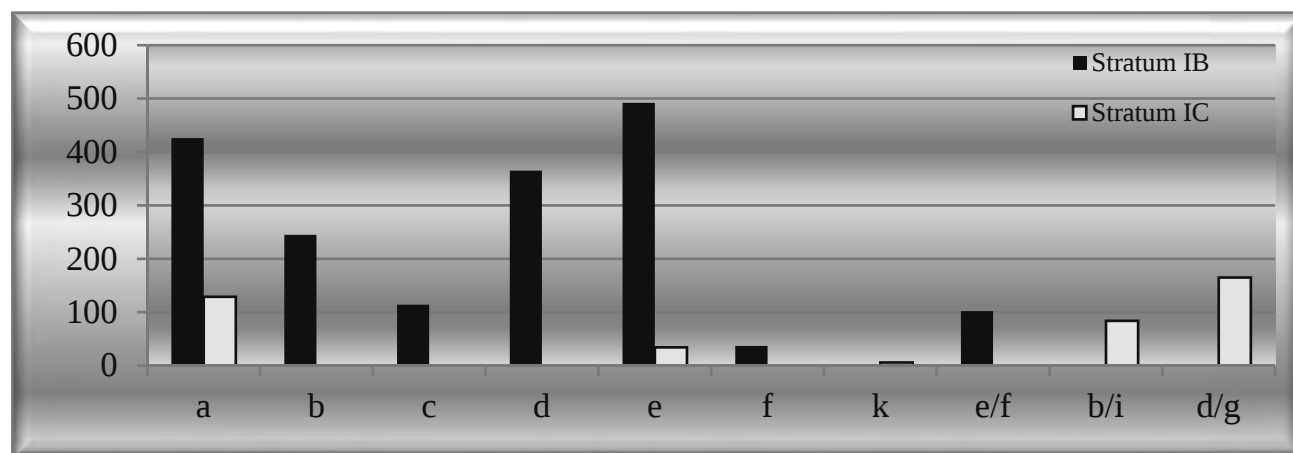
Building 654 Strata IB, IC, and ICb and TS: Maximum and minimum number and percentage of vessels by type

Type		Max. No.	Max. %	Min. No.	Min. %
AMP	Amphorae	34	1.17	32	1.35
BL	Bowls	1,717	59.00	1,302	54.95
BTL	Bottles	8	0.27	8	0.34
CH	Chalices	8	0.27	8	0.34
CP	Cooking Pots	54	1.86	47	1.98
DEC	Decanters	5	0.17	5	0.21
FB	Footbaths	1	0.03	1	0.04
HMJ	Holemouth Jars	64	2.20	54	2.28
JK	Jar-Kraters	29	1.00	28	1.18
JUG	Jugs	215	7.39	197	8.32
JUL	Juglets	62	2.13	61	2.57
KR	Kraters	283	9.73	248	10.47
LID	Lids	1	0.03	1	0.04
LKR	Large Kraters	3	0.10	4	0.17
LMP	Lamps	13	0.45	13	0.55
MRT	Mortaria	12	0.41	9	0.38
PITH	Pithoi	4	0.14	3	0.13
PL	Plates	22	0.76	21	0.89
SCP	Scoops	3	0.10	3	0.13
SJ	Storage Jars	305	10.48	258	10.89
STD	Stands	13	0.45	13	0.55
Misc.	Miscellaneous	54	1.86	53	2.24
Total		2,910	100.00	2,369	100.00



Building 654: Minimum number and percentage of vessels by stratum and room/socle/wall

	Stratum IB		Stratum IC		Stratum ICb		
Room	No.	%	No.	%	No.	%	Total
a	426	24.00	129	30.00			555
b	245	14.00					245
c	114	6.00					114
d	365	20.00					365
e	492	28.00	34	8.00			526
f	37	2.00					37
k			6	2.00			6
e/f	102	6.00					102
b/i			84	19.00			82
d/g			165	39.00			165
g/h/i					39	92.86	39
Socle			6	1.00			6
Wall			3	1.00	3	7.14	6
Total	1,781	100.00	427	100.00	42	100.00	2,250



Building 654 Room a: Minimum number and percentage of vessels by stratum and type

Type		Stratum IB		Stratum IC	
		No.	%	No.	%
AMP	Amphorae	1	0.23	2	2.00
BL	Bowls	231	54.23	70	55.00
BTL	Bottles	1	0.23	1	1.00
CP	Cooking Pots	16	3.76	1	1.00
DEC	Decanters	2	0.47	1	1.00
HMJ	Holemouth Jars	5	1.18	2	1.00
JK	Jar-Kraters	11	2.58	2	1.00
JUG	Jugs	34	7.98	14	11.00
JUL	Juglets	11	2.58	2	2.00
KR	Kraters	38	8.92	11	9.00
LID	Lids			1	1.00
LMP	Lamps	4	0.94	1	1.00
MRT	Mortaria	4	0.94		
PL	Plates	5	1.18	3	1.00
SCP	Scoops	1	0.23		
SJ	Storage Jars	55	12.91	15	12.00
STD	Stands	3	0.70		
Misc.	Miscellaneous	4	0.94	2	1.00
Total		426	100.00	128	100.00

Building 654 Room b: Minimum number and percentage of vessels by stratum and type

		Stratum IB	
Type		No.	%
AMP	Amphorae	6	2.46
BL	Bowls	137	55.92
BTL	Bottles	3	1.22
CP	Cooking Pots	3	1.22
CH	Chalices	4	1.63
DEC	Decanters	1	0.41
HMJ	Holemouth Jars	3	1.22
JK	Jar-Kraters	3	1.22
JUG	Jugs	16	6.53

		Stratum IB	
Type		No.	%
JUL	Juglets	5	2.04
KR	Kraters	28	11.43
LMP	Lamps	6	2.46
PL	Plates	3	1.22
SCP	Scoops	1	0.41
SJ	Storage Jars	22	8.98
STD	Stands	1	0.41
Misc.	Miscellaneous	3	1.22
Total		245	100.00

Building 654 Room c: Minimum number and percentage of vessels by stratum and type

		Stratum IB	
Type		No.	%
AMP	Amphorae	2	1.75
BL	Bowls	72	63.17
CH	Chalices	2	1.75
HMJ	Holemouth Jars	2	1.75
JUG	Jugs	16	14.04

		Stratum IB	
Type		No.	%
JUL	Juglets	10	8.77
KR	Kraters	4	3.51
SJ	Storage Jars	4	3.51
Misc.	Miscellaneous	2	1.75
Total		114	100.00

Building 654 Room d: Minimum number and percentage of vessels by stratum and type

		Stratum IB	
Type		No.	%
AMP	Amphorae	4	1.10
BL	Bowls	201	55.07
BTL	Bottles	3	0.82
CH	Chalices	1	0.27
CP	Cooking Pots	8	2.19
HMJ	Holemouth Jars	6	1.64
JK	Jar-Kraters	5	1.37
JUG	Jugs	35	9.59
JUL	Juglets	11	3.01

		Stratum IB	
Type		No.	%
KR	Kraters	42	11.51
LMP	Lamps	2	0.55
PITH	Pithoi	1	0.27
PL	Plates	6	1.64
MRT	Mortaria	2	0.55
SJ	Storage Jars	30	8.22
STD	Stands	4	1.10
Misc.	Miscellaneous	4	1.10
Total		365	100.00

Building 654 Room e: Minimum number and percentage of vessels by stratum and type

		Stratum IB		Stratum IC	
Type		No.	%	No.	%
AMP	Amphorae	12	2.44		
BL	Bowls	238	48.38	17	49.00
CP	Cooking Pots	11	2.24		
FB	Footbaths	1	0.20		
HMJ	Holemouth Jars	22	4.47		
JK	Jar-Kraters	2	0.41		
JUG	Jugs	35	7.11	2	6.00
JUL	Juglets	13	2.64		
KR	Kraters	69	14.02	3	9.00
MRT	Mortaria	1	0.20	1	3.00
SJ	Storage Jars	63	12.80	3	9.00
STD	Stands	1	0.20		
Misc.	Miscellaneous	24	4.89	8	24.00
Total		492	100.00	34	100.00

Building 654 Room f: Minimum number and percentage of vessels by stratum and type

		Stratum IB	
Type		No.	%
BL	Bowls	18	48.00
CP	Cooking Pots	2	5.00
HMJ	Holemouth Jars	1	3.00
JUG	Jugs	5	14.00
JUL	Juglets	1	3.00
KR	Kraters	3	8.00
SJ	Storage Jars	7	19.00
Total		37	100.00

Building 654 Room e/f: Minimum number and percentage of vessels by stratum and type

		Stratum IB	
Type		No.	%
BL	Bowls	46	44.00
CP	Cooking Pots	2	2.00
HMJ	Holemouth Jars	4	4.00
JK	Jar-Kraters	2	2.00
JUG	Jugs	5	5.00
JUL	Juglets	3	3.00
KR	Kraters	24	24.00
SJ	Storage Jars	15	15.00
STD	Stands	1	1.00
Total		102	100.00

Building 654 Room k: Minimum number and percentage of vessels by stratum and type

Type		Stratum IC	
		No.	%
BL	Bowls	4	66.66
JUG	Jugs	1	16.67
KR	Kraters	1	16.67
Total		6	100.00

Building 654 Room b/i: Minimum number and percentage of vessels by stratum and type

Type		Stratum IC	
		No.	%
BL	Bowls	54	64.30
BLM	Bowls Misc.	1	1.19
BLV	Bowl Votives	1	1.19
CP	Cooking Pots	2	2.38
HMJ	Holemouth Jars	3	3.57
JUG	Jugs	7	8.33
JUL	Juglets	1	1.19
KR	Krater	6	7.14
PL	Plates	1	1.19
SJ	Storage Jars	6	7.14
Misc.	Miscellaneous	2	2.38
Total		84	100.00

Building 654 Room d/g: Minimum number and percentage of vessels by stratum and type

Type		Stratum IC	
		No.	%
AMP	Amphorae	2	1.00
BL	Bowls	112	67.00
CH	Chalices	1	1.00
DEC	Decanters	1	1.00
HMJ	Holemouth Jars	6	4.00
JUG	Jugs	14	7.00
JUL	Juglets	1	1.00
JK	Jar-Kraters	1	1.00
KR	Kraters	12	7.00
PITH	Pithoi	1	1.00
SCP	Scoops	1	1.00
SJ	Storage Jars	8	5.00
STD	Stands	3	2.00
Misc.	Miscellaneous	2	1.00
Total		165	100.00

Building 654 Room g/h/i: Minimum number and percentage of vessels by stratum and type

Type		Stratum ICb	
		No.	%
AMP	Amphorae	1	2.56
BL	Bowls	20	51.28
JK	Jar-Kraters	1	2.56
JUG	Jugs	3	7.69
JUL	Juglets	1	2.56
KR	Kraters	2	5.14
PL	Plates	2	5.14
Misc.	Miscellaneous	1	2.56
SJ	Storage Jars	8	20.51
Total		39	100.00

Building 654 Socle: Minimum number and percentage of vessels by stratum and type

		Stratum IC	
Type		No.	%
BL	Bowls	4	67.00
SJ	Storage Jars	2	33.00
Total		6	100.00

Building 654 Wall: Minimum number and percentage of vessels by stratum and type

		Stratum IC	
Type		No.	%
BL	Bowls	2	67.00
JUG	Jugs	1	33.00
Total		3	100.00

Building 654 Wall: Minimum number and percentage of vessels by stratum and type

		Stratum ICb	
Type		No.	%
BL	Bowls	3	100.00
Total		3	100.00

Building 654 TS in Rooms a, b, and d: Minimum number and percentage of vessels by type

		TS	
Type		No.	%
BL	Bowls	38	64.00
CP	Cooking Pots	2	3.00
JUG	Jugs	2	3.00
KR	Kraters	6	10.00
MRT	Mortaria	2	3.00
PITH	Pithos	1	2.00
SJ	Storage Jars	10	15.00
Total		61	100.00

Building 654 TS in Rooms b, c, and d: Minimum number and percentage of vessels by type

		TS	
Type		No.	%
AMP	Amphorae	2	3.00
BL	Bowls	31	54.00
JK	Jar-Kraters	1	2.00
JUG	Jugs	7	12.00
JUL	Juglets	2	3.00
KR	Kraters	2	3.00
LKR	Large Kraters	1	2.00
PL	Plates	1	2.00
SJ	Store Jars	10	17.00
MISC.	Miscellaneous	1	2.00
Total		58	100.00

Building 654 Stratum IB: Minimum number of vessels by room and type

Type	Room a	Room b	Room c	Room d	Room e	Room e/f	Room f	Total
AMP ?			1		2			3
AMP 1	1	3	1	3	6			14
AMP 1.1		1			1			2
AMP 2				1				1
AMP 3		2						2
AMP 6					1			1
AMP 10					2			2
BL ?		3		3	27			33
BL 1	25	17	7	19	22	10	3	103
BL 1A	1			1	3			5
BL 1.1	23	21	11	15	22	6	2	100
BL 1.2	12	4	3	16	15	2		52
BL 1.3	8	3	4	6	7	2	1	31
BL 1.4	5	3		1	1	1		11
BL 2	7	3	4	2	2			18
BL 2.1	7	3	4	1	5			20
BL 2.2		1		2				3
BL 2.3	1			1	2			4
BL 3	46	21	14	45	36	8	7	177
BL 3.1	9	2	4	6	6	2		29
BL 3B	2	3	1	4	3			13
BL 4	20	14	7	18	25	5	1	90
BL 4.1	14	11	5	12	14	5		61
BL 4.2	7	7	1	9	7			31
BL 4.3		1		3	2			6
BL 4.5					1			1
BL 5	3				1			4
BL 5.1		1						1
BL 5.1A	3							3
BL 5A	4	2	1	2	5			14
BL 5.3A			1	1	1			3
BL 5.4A					1			1
BL 5.6A					1			1
BL 7				1	1	1		3

Cont.: Building 654 Stratum IB

Type	Room a	Room b	Room c	Room d	Room e	Room e/f	Room f	Total
BL 7.1A	4				1			5
BL 7.5A		1						1
BL 7.6A		1						1
BL 7.8A		1						1
BL 7.9A				2				2
BL 8	1			1	2	1	1	6
BL 8.3				1				1
BL 8.6		1	1		1			3
BL 9	1			3	1	1		6
BL 9.1A	1			1				2
BL 10	3	3	1	4	1			12
BL 10A		5	1	1	2			9
BL 11	1				1			2
BL 11.2						1		1
BL 12					1			1
BL 12.1							1	1
BL 12.3	1							1
BL 13	1				1			2
BL 14	2	2		2	1			7
BL 14X.1A				1				1
BL 16	4							4
BL 17			1		4			5
BL 17.1	1	1		1	3			6
BL 17.3				2				2
BL 18	3			4	2			9
BL 18.3			1					1
BL 19.2	1			1				2
BL 20	2							2
BL 20.1				1				1
BL 22	1							1
BL 25.1					1			1
BL 26	1			1				2
BL 26A	1							1
BL 26B				1				1

Cont.: Building 654 Stratum IB

Type	Room a	Room b	Room c	Room d	Room e	Room e/f	Room f	Total
BL 27.2					2			2
BL 27.3					1			1
BL 28	1						1	2
BL 28.1				2	1			3
BL 28.2					1			1
BL 29.1		1		1				2
BL 32B		1						1
BL 37A						1		1
BL 40	1							1
BL 43A	1						1	2
BL Misc.				1				1
BLF 6				1				1
BLM 2	1			1				2
BLM 5	1							1
BLM 14					1			1
BTL 1		1						1
BTL 1.1				2				2
BTL 1.2		1						1
BTL 2	1							1
BTL 4				1				1
BTL 6		1						1
CH ?		1	1					2
CH 3A				1				1
CH 5A		1	1					2
CH 6A		1						1
CH 9		1						1
CP ?	1				3	1	1	6
CP 1.3					1			1
CP 5	1							1
CP 6	7	1		1	2			11
CP 6.1	3			4				7
CP 6.2		1						1
CP 6.3	1			1	3	1	1	7
CP 7.1	1							1

Cont.: Building 654 Stratum IB

Type	Room a	Room b	Room c	Room d	Room e	Room e/f	Room f	Total
CP 7.2					1			1
CP 12		1		2	1			4
CP 14	2							2
DEC ?	1							1
DEC 1.2	1							1
DEC 2		1						1
FB 2					1			1
HMJ ?	1	1			5			7
HMJ 1	2	1	1	4	8	1	1	18
HMJ 1.1			1	1	6	3		11
HMJ 1.3					1			1
HMJ 2	1				1			2
HMJ 3		1						1
HMJ 5.2				1				1
HMJ 5.3	1							1
HMJ 6.3					1			1
JK ?	1	1			1			3
JK 1	3			3		1		7
JK 1.2	3					1		4
JK 2.2				1				1
JK 4.1		2						2
JK 5	1			1				2
JK 5.1	1							1
JK 6	1				1			2
JK 7	1							1
JUG ?	2	3	1	5	12	1		24
JUG 1	11	3	5	10	2	1		32
JUG 1.1	2	1		1	1			5
JUG 1.2	1	1	1	7	2		5	17
JUG 1.3			1					1
JUG 2.2	5	3		5	3	1		17
JUG 5						2		2
JUG 6	1							1
JUG 8				1	1			2

Cont.: Building 654 Stratum IB

Type	Room a	Room b	Room c	Room d	Room e	Room e/f	Room f	Total
JUG 9					2			2
JUG 9.1	1							1
JUG 13	8	1	6	4	5			24
JUG 13.1		2			2			4
JUG 13.2	1				1			2
JUG 13.3			1					1
JUG 13.6		1						1
JUG 14			1	1	1			3
JUG 26					1			1
JUGM 1	1				2			3
JUGM 2.3	1	1		1				3
JUL ?	5		2	3	7	1		18
JUL 1	3	1		3	1		1	9
JUL 1.1			1		1			2
JUL 1.3		1						1
JUL 2		1	1					2
JUL 2.1			1	1				2
JUL 3	1		1					2
JUL 4	1	2	2	2	3	1		11
JUL 5			2					2
JUL 10				2				2
JUL 13	1							1
JUL13.2						1		1
JULV					1			1
KR ?	2	1		3	10	1		17
KR 1	1	1	1	1	2	2		8
KR 1.1	1	1		2	4	1		9
KR 1.2				2	2	2		6
KR 2	2	1						3
KR 2.2					3			3
KR 3	3	3		2	3	1		12
KR 3.1					1			1
KR 4	6	3	1	6	5	3		24
KR 4.1	6	3	1	7	11	3		31

Cont.: Building 654 Stratum IB

Type	Room a	Room b	Room c	Room d	Room e	Room e/f	Room f	Total
KR 4.2	5	5		3	4	2		19
KR 4.3	1	3		3	5	2		14
KR 4.4	4				14	3		21
KR 4.5	1							1
KR 5	1	1		5	1	3		11
KR 6				1				1
KR 7	3	3		2	1			9
KR 7.1		1			2	1	1	5
KR 7.4							1	1
KR 8	1							1
KR 10.1	1						1	2
KR 11		1						1
KR 14		1						1
KR 15			1	5				6
LKR 3					1			1
LMP ?		6						6
LMP 1	1			1				2
LMP 3	1							1
LMP 4	2			1				3
MRT 2	3							3
MRT 3	1			2	1			4
PITH 1				1				1
PL ?				3				3
PL 2		1						1
PL 2.1				1				1
PL 2A				1				1
PL 3A	4	1						5
PL 6A	1	1						2
PL 7				1				1
SCP ?		1						1
SCP 8	1							1
SJ ?	1			3	15		1	20
SJ 1		1						1
SJ 1.1	3	1		1	1			6

Cont.: Building 654 Stratum IB

Type	Room a	Room b	Room c	Room d	Room e	Room e/f	Room f	Total
SJ 1.3					1	3	1	5
SJ 1.4	1							1
SJ 2					1	2		3
SJ 2A					1			1
SJ 3				1				1
SJ 4	1				2	1		4
SJ 4.1					1			1
SJ 4.2	1			1				2
SJ 5	2			1	4			7
SJ 5.1	3	1		1	1			6
SJ 5.2				1				1
SJ 5.3	2	1		1	1	1		6
SJ 5.4	3	2		4	6	1		16
SJ 5.5	6		1	1	2			10
SJ 5.6	2	3		5	4			14
SJ 5.7	5	3			1		1	10
SJ 5.8	2		1	1	1		1	6
SJ 5.9					1			1
SJ 5.11				1	1			2
SJ 5.13	2							2
SJ 5.12		1			1			2
SJ 5.14	1			1	1			3
SJ 5.15				1	2			3
SJ 6.1	1				1			2
SJ 6.2					2	1		3
SJ 6.3					1			1
SJ 7	5	2			2		1	10
SJ 7.1	4	1		2	3	1	1	12
SJ 7.3	2			1	2	3	1	9
SJ 9	2				1			3
SJ 9.1	1							1
SJ 9.2	1							1
SJ 10					1			1
SJ 10.1	1	1						2

Cont.: Building 654 Stratum IB

Type	Room a	Room b	Room c	Room d	Room e	Room e/f	Room f	Total
SJ 12.1		1		1				2
SJ 12.3	1			1				2
SJ 13	1							1
SJ 14		1						1
SJ 15		1	1		1			3
SJ 15.2					1			1
SJ 15.4	1		1			1		3
SJ 15.5						1		1
SJM 1		1						1
SJM 11		1		1				2
STD ?				2				2
STD 1	1	1			1	1		4
STD 1.2				1				1
STD 2				1				1
STD 2.1	2							2
Misc.	4	3	2	4	24			37
Total	426	245	114	365	492	102	37	1,781

Building 654 Stratum IC: Minimum number of vessels by room/socle/wall and type

Type	Room a	Room e	Room k	Room b/i	Room d/g	Socle	Wall	Total
AMP 1	2				2			4
BL ?		2		2				4
BL 1	6	1		6	11			24
BL 1A					1			1
BL 1.1	9	1		5	14	1		30
BL 1.2	4	1	1	2	9			17
BL 1.3	1	1			3			5
BL 1.4	1				3			4
BL 2				2	5			7
BL 2.1	1							1
BL 3	17	6	2	14	33	1		73
BL 3B				2	5			7

Cont.: Building 654 Stratum IC

Type	Room a	Room e	Room k	Room b/i	Room d/g	Socle	Wall	Total
BL 3.1	3	1		3	1			8
BL 4	6			7	4	1		18
BL 4.1	7			2	4			13
BL 4.2	3	2		1				6
BL 5A	1				1			2
BL 5.1							1	1
BL 5.1A					1			1
BL 7.1A	1							1
BL 7.8A						1		1
BL 8				3				3
BL 8.4	2							2
BL 9A				1				1
BL 10		2		2	1			5
BL 10A	3			1	3			7
BL 13	1				1			2
BL 14							1	1
BL 16	1							1
BL 17			1		2			3
BL 18	1				4			5
BL 19.2				1				1
BL 24A	2							2
BL 26					1			1
BL 28.1					1			1
BL 29.2A					1			1
BL 43A					1			1
BLM 2					1			1
BLM 6				1				1
BLM 37	1							1
BL Misc.					1			1
BLV 4B				1				1
BTL 1	1							1
CH ?					1			1
CP 6	1			1				2
CP 8				1				1

Cont.: Building 654 Stratum IC

Type	Room a	Room e	Room k	Room b/i	Room d/g	Socle	Wall	Total
DEC 1					1			1
DEC 1.1	1							1
HMJ 1					2			2
HMJ 2	1							1
HMJ 4	1							1
HMJ 5.2				1	3			4
HMJ 5.4				1	1			2
HMJ 6.1				1				1
JK 1.1	1				1			2
JK 6	1							1
JUG ?		1		1	3		1	6
JUG 1	4		1	3	3			11
JUG 1.2	4			1	3			8
JUG 1.3		1						1
JUG 1.4				1				1
JUG 2.2	1				3			4
JUG 7	1							1
JUG 8					1			1
JUG 13	2			1	1			4
JUG 13.1	2							2
JUL ?				1				1
JUL 2	2							2
JUL 3					1			1
KR 1.1	1	1			2			4
KR 2					1			1
KR 2.1					1			1
KR 3					1			1
KR 3.1				1				1
KR 4	2			2	3			7
KR 4.1	2		1		1			4
KR 4.2	3							3
KR 5				1				1
KR 7	1	1			2			4
KR 7.1	1			1				2

Cont.: Building 654 Stratum IC

Type	Room a	Room e	Room k	Room b/i	Room d/g	Socle	Wall	Total
KR 7.4				1				1
KR 15					1			1
LKR 1	1	1						2
LID 1	1							1
LMP 1	1							1
PITH 1					1			1
PL ?	1							1
PL 2	1			1				2
PL 3A	1							1
SCP ?					1			1
SJ ?				1				1
SJ 1.1	1	1		1		1		4
SJ 1.4	1							1
SJ 4					1			1
SJ 5	2				2			4
SJ 5.4	2			1				3
SJ 5.5	3	1		1		1		6
SJ 5.6				1				1
SJ 5.12	1							1
SJ 7	1							1
SJ 7.1	1							1
SJ 7.3	1				1			2
SJ 11				1				1
SJ 12		1						1
SJ 12.1					1			1
SJ 12.3	1							1
SJ 15.4					1			1
SJ 15.5	1							1
SJM 1					1			1
SJM 7					1			1
STD ?					2			2
STD 1.2					1			1
Misc.	2	9		2	2			15
Total	129	34	6	84	165	6	3	427

Building 654 Stratum ICb: Minimum number of vessels by room/wall and type

Type	Room g	Room h	Room i	Wall	Total
AMP 1			1		1
BL1		1	1	1	3
BL1.1		2	2		4
BL 1.2		1	1	1	3
BL 1.4			1		1
BL 3		2		1	3
BL 3.1			1		1
BL 4			1		1
BL 4.1			2		2
BL 5.3A			1		1
BL 8		1			1
BL 10A			1		1
BL16		1			1
BL 18	1				1
JK 5		1			1
JUG 1			1		1
JUG 13			1		1
JUG 13.1			1		1
JUL 11		1			1
KR 7.1			2		2
PL?	1				1
PL 3A		1			1
SJ 1		2			2
SJ 1.3		1			1
SJ 1.4		3			3
SJ 4		1			1
SJ 15.5		1			1
Misc.			1		1
Total	2	19	18	3	42

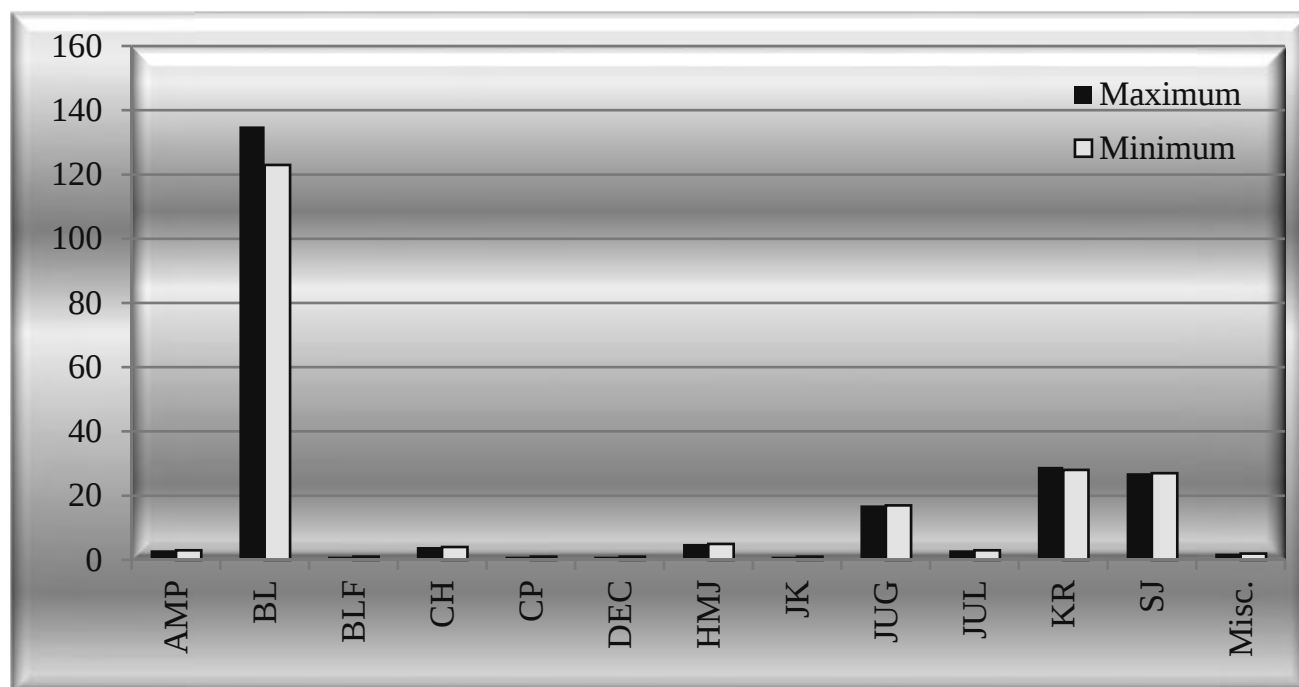
Building 654 TS: Minimum number of vessels by room and type

Type	Rooms a, b, d	Rooms b, c, d	Total
AMP 1		1	1
AMP 9		1	1
BL 1	3	2	5
BL 1.1	2	4	6
BL 1.2	3		3
BL 1.3	3		3
BL 1.4	1		1
BL 2.1		1	1
BL 2.2	1		1
BL 3	9	8	17
BL 3.1	1		1
BL 3B	1		1
BL 4	4	8	12
BL 4.1	2	2	4
BL 4.2		1	1
BL 5A		1	1
BL 7.1A	1		1
BL 7.6A		1	1
BL 8.3		1	1
BL 9		1	1
BL 11.1	1		1
BL 16.5A		1	1
BL 18	1		1
BL 18.2	2		2
BL 22	1		1
BL 27	1		1
BL 28	1		1
BL 32C		1	1
CP 6.1	2		2
JK 1		1	1
JUG 1	1	2	3
JUG 1.2	1	1	2

Type	Rooms a, b, d	Rooms b, c, d	Total
JUG 1.3		1	1
JUG 2.2		1	1
JUG 13		1	1
JUGM 2.3		1	1
JUL 4		1	1
JUL 12.1		1	1
KR 1	1	1	2
KR 1.1	1		1
KR 2.2	1		1
KR 4	1	1	2
KR 4.2	1		1
KR 6	1		1
LKR 3		1	1
MRT 2	2		2
PITH 1	1		1
PL 4		1	1
SJ 1.4		2	2
SJ 3		1	1
SJ 4.2	1		1
SJ 5.1		1	1
SJ 5.3		1	1
SJ 5.4	1	1	2
SJ 5.5	1		1
SJ 5.6	3		3
SJ 5.7	1		1
SJ 5.14		1	1
SJ 7	1	2	3
SJ 7.1	1		1
SJ 12.1		1	1
SJ 13.3	1		1
Total	61	58	119

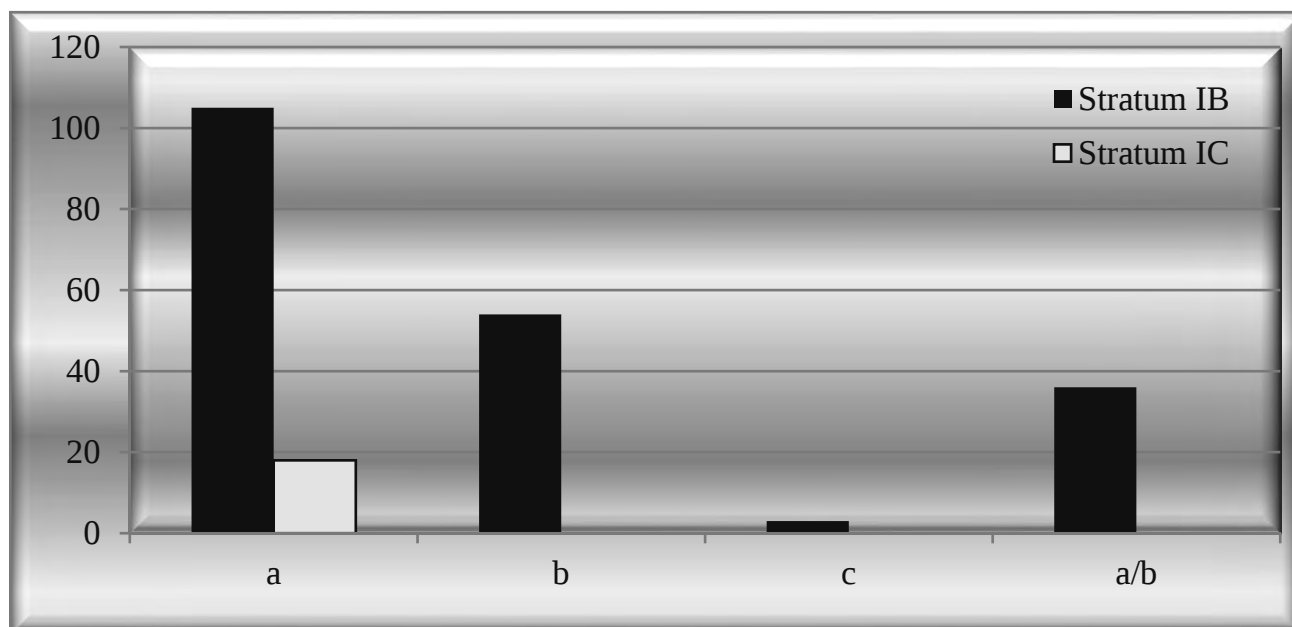
Building 655 Strata IB and IC: Maximum and minimum number and percentage of vessels by type

Type		Max. No.	Max. %	Min. No.	Min. %
AMP	Amphorae	3	1.31	3	1.39
BL	Bowls	135	58.95	123	57.36
BLF	Bowls Fine ware	1	0.44	1	0.46
CH	Chalices	4	1.75	4	1.85
CP	Cooking Pots	1	0.44	1	0.46
DEC	Decanters	1	0.44	1	0.46
HMJ	Holemouth Jars	5	2.18	5	2.31
JK	Jar-Kraters	1	0.44	1	0.05
JUG	Jugs	17	7.41	17	7.88
JUL	Juglets	3	1.31	3	1.39
KR	Kraters	29	12.66	28	12.96
SJ	Storage Jars	27	11.79	27	12.50
Misc.	Miscellaneous	2	0.44	2	0.93
Total		229	100.00	216	100.00



Building 655: Minimum number and percentage of vessels by stratum and room

Room	Stratum IB		Stratum IC	
	No.	%	No.	%
a	105	53.00	18	100.00
b	54	27.00		
c	3	2.00		
a/b	36	18.00		
Total	198	100.00	18	100.00



Building 655 Room a: Minimum number and percentage of vessels by stratum and type

		Stratum IB		Stratum IC	
Type		No.	%	No.	%
AMP	Amphorae	2	1.90		
BL	Bowls	63	60.00	17	94.00
BLF	Bowls Fine ware	1	0.95		
CH	Chalices	1	0.95		
CP	Cooking Pots				
DEC	Decanters	1	0.95		
HMJ	Holemouth Jars	1	0.95		
JUG	Jugs	8	7.62		
JUL	Juglets	1	0.95	1	6.00
KR	Kraters	12	11.44		
SJ	Storage Jars	14	13.34		
Misc.	Miscellaneous	1	0.95		
Total		105	100.00	18	100.00

Building 655 Room b: Minimum number and percentage of vessels by stratum and type

		Stratum IB	
Type		No.	%
AMP	Amphorae	1	2.00
BL	Bowls	28	52.00
CH	Chalices	1	2.00
CP	Cooking Pots	1	2.00
HMJ	Holemouth Jars	3	5.00
JUG	Jugs	7	13.00
JUL	Juglets	1	2.00
KR	Kraters	7	13.00
SJ	Storage Jars	4	7.00
Misc.	Miscellaneous	1	2.00
Total		54	100.00

Building 655 Room c: Minimum number and percentage of vessels by stratum and type

		Stratum IB	
Type		No.	%
BL	Bowls	1	33.33
CH	Chalices	1	33.33
HMJ	Holemouth Jars	1	33.34
Total		3	100.00

Building 655 Room a/b: Minimum number and percentage of vessels by stratum and type

		Stratum IB	
Type		No.	%
BL	Bowls	14	39.00
JK	Jar-Kraters	1	3.00
JUG	Jugs	2	5.00
KR	Kraters	10	28.00
SJ	Storage Jars	9	25.00
Total		36	100.00

Building 655 Stratum IB: Minimum number of vessels by room and type

Type	Room a	Room a/b	Room b	Room c	Total
AMP 1	2				2
AMP 8			1		1
BL ?	1		2		3
BL 1	9	1	1		11
BL 1.1	2		4		6
BL 1.2	6		2		8
BL 1.3			1		1
BL 1.4	1				1
BL 2	1		1		2
BL 2.3	1		1		2
BL 3	9	1	6	1	17
BL 3.1	2	1	1		4
BL 3.2			1		1
BL 4	15	2	2		19
BL 4.1	3	3	3		9
BL 4.2	1	2			3
BL 4.3	2				2
BL 4.4A	1				1
BL 5	1				1
BL 5A	1				1
BL 5.5A			1		1
BL 7.3A			1		1
BL 7.8A		1			1
BL 10	1				1
BL 10A			1		1
BL 14	1				1
BL 14.1	2	1			3
BL 17		1			1
BL 18	1				1
BL 28	2				2
BL 31A		1			1

Type	Room a	Room a/b	Room b	Room c	Total
BLF 1	1				1
CH ?			1		1
CH 4B				1	1
CH 9	1				1
CP 6.3			1		1
DEC 2.2	1				1
HMJ ?			1		1
HMJ 1	1		2	1	4
JK 1.1		1			1
JUG ?	1		2		3
JUG 1	2	1	1		4
JUG 1.2	3	1			4
JUG 13			1		1
JUG 13.1	2				2
JUG 14			2		2
JUGM 2.3*			1		1
JUL 4	1		1		2
KR 1.1			1		1
KR 1.2Y		2			2
KR 2	1				1
KR 3	2	1			3
KR 4	3	3			6
KR 4.1	1		1		2
KR 4.2	1	1	1		3
KR 4.3		2	2		4
KR 4.4			1		1
KR 7	2				2
KR 11		1			1
KR 15	2		1		3
SJ ?	1		1		2
SJ 1			1		1

* Inadvertently included in count although this is a Strata III-II Residual Form A

Cont.: Building 655 Stratum IB

Type	Room a	Room a/b	Room b	Room c	Total
SJ 1.1		1			1
SJ 1.3		1			1
SJ 4		1			1
SJ 5	1				1
SJ 5.1		1			1
SJ 5.2		1			1
SJ 5.3	1				1
SJ 5.4	1				1
SJ 5.5	1				1
SJ 5.6	3	1			4

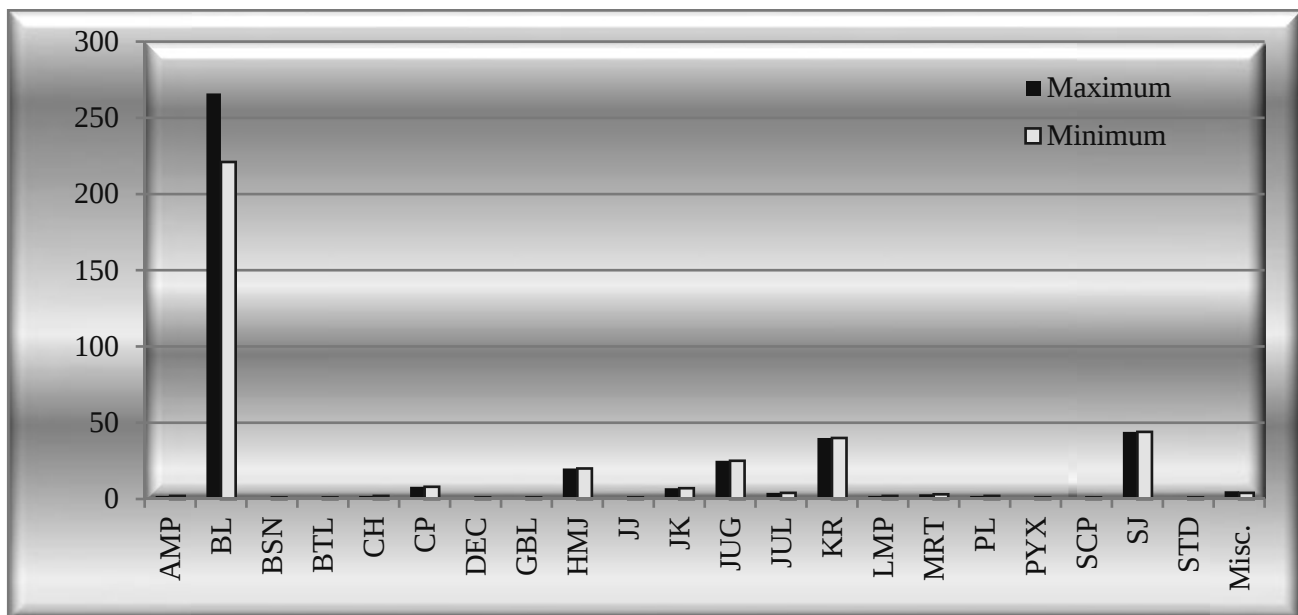
Type	Room a	Room a/b	Room b	Room c	Total
SJ 5.7	2				2
SJ 5.11			1		1
SJ 7	2	2			4
SJ 7.1		1			1
SJ 12.1			1		1
SJ 15	1				1
SJM 6	1				1
Misc.	1		1		2
Total	105	36	54	3	198

Building 655 Stratum IC: Minimum number of vessels by room and type

Type	Room a
BL 1	1
BL 1.1	2
BL 1.2	1
BL 3	9
BL 4.1	1
BL 4.10A	1
BL 9.2	1
BLM 25	1
JUL 4	1
Total	18

Street 656 Strata IB and IC: Maximum and minimum number and percentage of vessels by type

Type		Max. No.	Max. %	Min. No.	Min. %
AMP	Amphorae	2	0.46	2	0.50
BL	Bowls	266	60.73	221	56.38
BSN	Basin	1	0.23	1	0.26
BTL	Bottles	1	0.23	1	0.26
CH	Chalices	2	0.46	2	0.50
CP	Cooking Pots	8	1.83	8	2.04
DEC	Decanters	1	0.23	1	0.26
GBL	Goblets	1	0.23	1	0.26
HMJ	Holemouth Jars	20	4.56	20	5.10
JJ	Jar-Jugs	1	0.23	1	0.26
JK	Jar-Kraters	7	1.60	7	1.79
JUG	Jugs	25	5.70	25	6.38
JUL	Juglets	4	0.91	4	1.02
KR	Kraters	40	9.12	40	10.20
LMP	Lamps	2	0.46	2	0.50
MRT	Mortaria	3	0.68	3	0.77
PL	Plates	2	0.46	2	0.50
PYX	Pyxides	1	0.23	1	0.26
SCP	Scoops	1	0.23	1	0.26
SJ	Storage Jars	44	10.05	44	11.22
STD	Stands	1	0.23	1	0.26
Misc.	Miscellaneous	5	1.14	4	1.02
Total		438	100.00	392	100.00



Street 656: Minimum number and percentage of vessels by stratum

	Stratum IB		Stratum IC		Total
	No.	%	No.	%	
	174	100.00	218	100.00	392
Total	174	100.00	218	100.00	392

Street 656: Minimum number and percentage of vessels by stratum and type

Type		Stratum IB		Stratum IC	
		No.	%	No.	%
AMP	Amphorae	1	1.00	1	0.46
BL	Bowls	84	48.00	138	63.30
BSN	Basin			1	0.46
BTL	Bottles			1	0.46
CH	Chalices	2	1.00		
CP	Cooking Pots	3	2.00	5	2.29
DEC	Decanters	1	1.00		
GBL	Goblets			1	0.46
HMJ	Holemouth Jars	17	9.00	3	1.38
JJ	Jar-Jugs			1	0.46
JK	Jar-Kraters	2	1.00	5	2.29
JUG	Jugs	11	6.00	14	6.42
JUL	Juglets	2	1.00	2	0.92
KR	Kraters	20	11.00	20	9.17
LMP	Lamps	2	1.00		
MRT	Mortaria	1	1.00	2	0.92
PL	Plates	1	1.00	1	0.46
PYX	Pyxides	1	1.00		
SJ	Storage Jars	21	12.00	23	10.55
STD	Stands	1	1.00		
Misc.	Miscellaneous	4	2.00		
Total		174	100.00	218	100.00

**Street 656 Stratum IB: Minimum number of vessels
by type**

Type	No.	Type	No.	Type	No.
AMP	1	CP 6	3	KR 4.4	1
BL 1	8	DEC 1.2	1	KR 7	1
BL 1.1	10	HMJ ?	3	KR 7.1	1
BL 1.2	4	HMJ 1	4	KR 11	1
BL 1.3	4	HMJ 1.1	6	LMP 4	1
BL 2	1	HMJ 1.3	1	LMP 5	1
BL 2.1	1	HMJ 3.1	2	MRT 1	1
BL 3	12	HMJ 10.3	1	PL 1	1
BL 3.1	5	JK 1	2	PYX	1
BL 3.2	1	JUG ?	1	SCP 11	1
BL 3B	2	JUG 1	3	SJ 1.1	1
BL 4	7	JUG 1.2	1	SJ 1.3	3
BL 4.1	11	JUG 13	2	SJ 1.4	1
BL 4.2	2	JUG 13.1	2	SJ 5.4	2
BL 4.3	1	JUGM 1*	1	SJ 5.5	2
BL 5A	3	JUGM 2.3*	1	SJ 5.6	3
BL 9A	2	JUL 3	1	SJ 5.7	1
BL 10A	3	JUL 4	1	SJ 7.1	2
BL 14	1	KR ?	1	SJ 7.3	2
BL 17.1	1	KR 2	1	SJ 12.1	1
BL 18	1	KR 2.1	2	SJ 12.3	1
BL 28.2	1	KR 3	2	SJ 13	1
BL 37	1	KR 4	3	SJ Misc.	1
BL Misc.	1	KR 4.1	3	STD 2	1
CH ?	1	KR 4.2	2	Misc.	4
CH 1	1	KR 4.3	2	Total	174

**Street 656 Stratum IC: Minimum number of vessels
by type**

Type	No.	Type	No.	Type	No.
AMP 1	1	BL 27	1	JUL 4	1
BL ?	2	BL 29.1	1	KR 1	1
BL 1	13	BL 29.2A	1	KR 1.2Y	1
BL 1.1	19	BL 37	1	KR 2	1
BL 1.2	2	BL 43A	2	KR 2.2	2
BL 1.3	2	BL Misc.	1	KR 4	2
BL 1.4	5	BLM 2	2	KR 4.1	4
BL 2	3	BLM 37	1	KR 4.3	1
BL 2.1	1	BSN	1	KR 7	5
BL 3	17	BTL 1	1	KR 7.1	3
BL 3.1	5	CP 1	2	MRT 1	1
BL 3B	2	CP 6	1	MRT 2	1
BL 4	22	CP 6.1	1	PL ?	1
BL 4.1	7	CP 7.2	1	SJ 1.4	1
BL 4.2	6	GBL 2.1	1	SJ 5	4
BL 4.3	1	HMJ 1	1	SJ 5.1	3
BL 5	2	HMJ 6	1	SJ 5.2	1
BL 5.1	1	HMJ 8.1	1	SJ 5.3	1
BL 5A	1	JJ 1	1	SJ 5.4	1
BL 7	1	JK ?	1	SJ 5.6	1
BL 7.1	2	JK 1	3	SJ 5.7	2
BL 7.1A	2	JK 1.1	1	SJ 5.8	3
BL 8.3	1	JUG ?	2	SJ 5.12	2
BL 10	3	JUG 1	5	SJ 7.1	1
BL 10A	2	JUG 1.1	1	SJ 7.3	2
BL 17.3	1	JUG 2.2	1	SJ 13	1
BL 18	3	JUG 13.1	2	Total	218
BL 18.2	1	JUG 14	3		
BL 24A	1	JUL ?	1		

* Inadvertently included in count although this is a Strata III-II Residual Form A

Alley 657 Strata IB and ICb: Maximum and minimum number of vessels by type

Type		Max. No.	Max. %	Min. No.	Min. %
BL	Bowls	2	40.00	2	40.00
JUG	Jugs	1	20.00	1	20.00
JUL	Juglets	1	20.00	1	20.00
SV	Sieves	1	20.00	1	20.00
Total		5	100.00	5	100.00

Alley 657: Minimum number and percentage of vessels by stratum

	Stratum IB		Stratum ICb		Total
	No.	%	No.	%	
	1	100.00	4	100.00	5
Total	1	100.00	4	100.00	5

Alley 657: Minimum number and percentage of vessels by stratum and type

Type		Stratum IB		Stratum ICb	
		No.	%	No.	%
BL	Bowls			2	50.00
JUG	Jugs			1	25.00
JUL	Juglets	1	100.00		
SV	Sieves			1	25.00
Total		1	100.00	4	100.00

Alley 657 Stratum IB: Minimum number of vessels by type

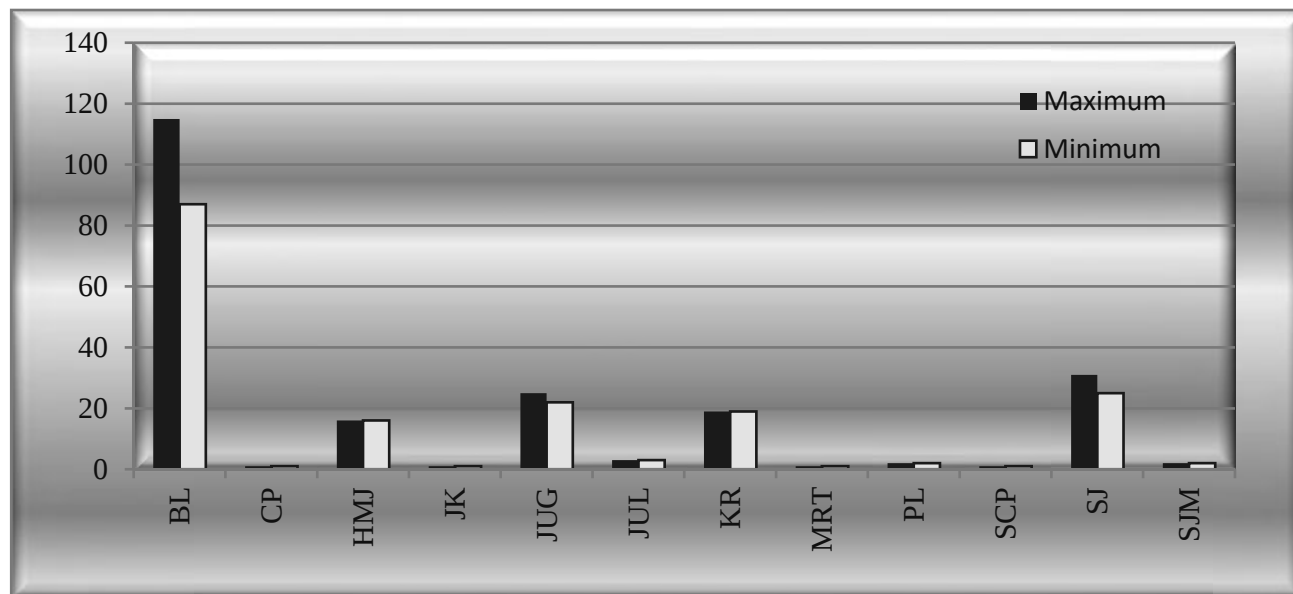
Type	No.	Total
JUL 16 A	1	1
Total	1	1

Alley 657 Stratum ICb: Minimum number of vessels by type

Type	No.	Total
BL 1.3	1	1
BL 28.1	1	1
JUG ?	1	1
SV 1	1	1
Total	4	4

Building 658 TS Stratum IA?: Maximum and minimum number and percentage of vessels by type

Type		Max. No.	Max. %	Min. No.	Min. %
BL	Bowls	115	53.00	87	48.33
CP	Cooking Pots	1	0.46	1	0.56
HMJ	Holemouth Jars	16	7.37	16	8.89
JK	Jar-Kraters	1	0.46	1	0.56
JUG	Jugs	25	11.52	22	12.22
JUL	Juglets	3	1.38	3	1.66
KR	Kraters	19	8.76	19	10.56
MRT	Mortaria	1	0.46	1	0.56
PL	Plates	2	0.92	2	1.10
SCP	Scoops	1	0.46	1	0.56
SJ	Storage Jars	31	14.29	25	13.89
SJM	SJ Miscellaneous	2	0.92	2	1.11
Total		217	100.00	180	100.00



Building 658 TS Stratum IA?: Minimum number of vessels by type

Type	Total	Type	Total	Type	Total
BL ?	1	HMJ ?	2	KR 4.2	1
BL 1	18	HMJ 1	7	KR 4.3	2
BL 1.1	8	HMJ 1.1	1	KR 4.4	1
BL 1.2	5	HMJ 2	3	KR 5	1
BL 1.3	2	HMJ 3.2	1	KR 7	2
BL 1.4	1	HMJ 5.3	1	MRT 3	1
BL 2	1	HMJ 5.4	1	PL 1	1
BL 2.3	1	JK 1	1	PL 2	1
BL 3	12	JUG ?	4	SCP 10	1
BL 3.1	3	JUG 1	3	SJ ?	2
BL 3B	2	JUG 1.1	1	SJ 1	1
BL 4	9	JUG 1.2	5	SJ 2	1
BL 4.1	6	JUG 2	1	SJ 4	1
BL 4.2	1	JUG 2.2	2	SJ 5	4
BL 7.1A	1	JUG 13	1	SJ 5.1	3
BL 8	1	JUG 13.1	3	SJ 5.3	1
BL 9	2	JUG 13.2	1	SJ 5.4	2
BL 9A	1	JUG 14	1	SJ 5.6	1
BL 10	2	JUL ?	2	SJ 5.7	2
BL 10A	1	JUL 1	1	SJ 5.11	1
BL 12.1	1	KR ?	1	SJ 7	2
BL 16.2	1	KR 1	1	SJ 7.1	1
BL 18	2	KR 2	1	SJ 7.3	2
BL 27.5A	1	KR 2.2	1	SJ 9.2	1
BL 43B	1	KR 3	1	SJM 11	1
BLM	3	KR 4	4	SJ Misc.*	1
CP 6.3	1	KR 4.1	3	Total	180

* Inadvertently included in SJM count although this is a Strata III-II Residual Form A

CHAPTER 5

IRON AGE II CERAMIC SMALL FINDS, FAIENCE SEALS, IVORY OBJECTS, AND ASTRAGALI

David Ben-Shlomo

This chapter presents a selection of the Iron Age II small finds. The finds within each category are arranged by type, with some categories discussed in detail and others more briefly.¹

ZOOMORPHIC TERRACOTTAS

Head Spouts

Cat. No. 5.1: Obj. No. 1608, Bucket No. IVNW.8.248, construction Fill 8023, Open Area 640b, Stratum Pre-IC.

Complete horned head spout and neck fragment (Fig. 5.1:1).

Length: 4.5 cm; height: 4.5 cm; width: 2.6 cm.

This horned head spout with a “squashed” nose-spout is red-slipped. Based on the arched breakage mark at the neck, it was probably a kernos spout. It may depict the head of a ram or goat, similar to a head spout found at Timnah (Tel Batash).²

Cat. No. 5.2: Obj. No. 1504, Bucket No. IVNW.24.120, construction Surface/Debris 24021P, Open Area 640a, Stratum Pre-IC.

Unhorned head spout fragment (Fig. 5.1:3).

Length: 3.7 cm; height: 3.3 cm; width: 3.4 cm.

The spout is white-slipped and has a cross and eyes painted on the head and snout in black and red.

Cat. No. 5.3: Obj. No. 4332, Bucket No. IVNW.43.15, Debris 43003, Alley 657, Stratum IB.

Horned head spout and neck fragment, snout and horns broken off (Fig. 5.1:2).

Length: 4.6 cm; height: 4.5 cm; width: 4.4 cm.

The spout is red-slipped and decorated with a white cross painted on the forehead.

Cat. No. 5.4: Obj. No. 3890, Bucket No. IVNW.27.12, Debris 27003, Building 651, Stratum IB?—Iron Age/Byz/Rom.

Horned head spout and neck fragment (Fig. 5.1:4).

Length: 5.2 cm; height: 5.3 cm; width: 3.3 cm.

The spout probably depicts a ram or goat, based on the very long serrated dewlap applied to the neck.

Cat. No. 5.5: Obj. No. 3758, Bucket No. IVNE.26.29, Debris 26002, Building 653, Room a, Stratum IB.

Horned head spout fragment with snout (Fig. 5.1:5).

Length: 3.5 cm; height: 2.8 cm; width: 4.3 cm.

Cat. No. 5.6: Obj. No. 3760, Bucket No. IVNW.10.30, Destruction Debris 10005, Buildings 651 Room d and Building 652 Room a, Stratum IB.

Horned head spout with long applied eyes, wheelmade. Length: 7 cm; height: 5.5 cm; width: 4.6 cm; spout diameter: 1.1 cm.

Other fragments of zoomorphic vessels from Iron II contexts include Obj. No. 4108 (Bucket No. IVNW.26.39, pebble Layer 26011, Building 651, Room a, Stratum IB/C); Obj. No. 4213 (Bucket No. IVNW.42.66, Debris 42013, Building 655, Rooms a–b, Stratum IB/C); Obj. No. 3931 (Bucket No. IVNW.43.15, Debris 43003, Alley 657, Stratum IB); and Obj. No. 3787 (Bucket No. IVNW.27.17, Debris 27006, Alley 657, Stratum IB/C/Rom/Byz [mixed]).

1. Detailed reports on all the objects from Ekron, including contextual, technological, chronological, and stylistic analyses, will appear in *Ekron* 14/1–2.

2. *Timnah II*: 210, Pl. 8:1.

Kernoi

Two kernos fragments were found in Area IVNW.26 in Stratum IB/C Building 651, Room a: Obj. No. 3790 (Bucket No. IVNW.26.32, Debris 26013) and Obj. No. 3813 (Bucket No. IVNW.26.3, Fill 26015P).

Figurines

Cat. No. 5.7: Obj. No. 3491, Bucket No. IVNE.23.89, construction Fill 23022, Building 654, Rooms e–f, Stratum IB/C.

Figurine (Fig. 5.2:1).

Length: 1.7 cm; height: 3.4 cm; width: 2.3 cm.

The head, neck, and part of the body of the figurine are preserved.

Cat. No. 5.8: Obj. No. 11338, Bucket No. IVNW.24.87, construction Fill 24014, Building 651, Room f, Stratum IB.

Body fragment of figurine; soot marks.

Length: 4.2 cm; height: 3.9 cm; width: 2.1 cm.

The body fragment has traces of the legs and neck and a pinched back, possibly representing the applied legs of a rider.

Cat. No. 5.9: Obj. No. 1937, Bucket No. IVNE.7.39, Destruction Debris 7007, Building 654, Room a, Stratum IB.

Quadruped figurine; soot marks (Fig. 5.2:2).

Length: 3 cm; height: 1.8 cm; width: 1.3 cm.

The figurine is made of poorly levigated and fired clay. The head and legs are broken off.

Cat. No. 5.10: Obj. No. 4495, Bucket No. IVNW.42.93, Debris 42022, Building 655, Room a, Stratum IB/C. Schematic bird figurine applied on krater rim (Fig. 5.2:3).

Figurine: 2×2.5 cm; krater rim: length: 12.2 cm; height: 3.0 cm; width: 4.3 cm; reconstructed diameter: 27 cm.

with smooth edges and sometimes a perforation in the center (**Cat. Nos. 5.11–5.12**). Either hand-size or perforated to facilitate grip, these tools were probably used for burnishing or smoothing leather-hard clay vessels. Most examples come from Iron II contexts. Parallels, usually described as burnishing tools or polishers, have been excavated in the Iron II potters' workshops in Strata F and C at Sarepta,³ potter's Cave 4034 at Lachish,⁴ and Ashdod Iron I–II Strata VIII and VI,⁵ among others. Iron I parallels come from Ekron Field IV Lower⁶ and Shiloh Stratum V.⁷ Potter's tools apparently did not change significantly in these periods.

Cat. No. 5.11: Obj. No. 4046, Bucket No. IVNW.42.62, construction Surface 42011, Building 651, Room a, Stratum IB/C.

Potter's rib (Color Photo 5.1:1).

Length: 9.8 cm; width: 4 cm; thickness: 0.7 cm.

Complete hand-size roughly oval sherd with smooth edges.

Cat. No. 5.12: Obj. No. 4225, Bucket IVNW.42.77, Debris 42003, Building 651, Room a, Stratum IB/C.

Potter's rib (Fig. 5.2:4).

Length: 11 cm; width: 7.3 cm; thickness: 0.5 cm; diameter of perforation: 1–1.5 cm.

Complete semicircular perforated potter's rib; the straight side was the working edge, and was smooth and worn; the rounded side was unworked. The object was perforated in the center with a thumb-size hole before firing.

Other possible potter's tools are Obj. No. 1898 (Bucket No. IVNW.8.289, Destruction Debris 8003, Building 654, Room h, Stratum IB) and a worked sherd, Obj. No. 3413 (Bucket No. IVNW.24.70, Debris 24005, Building 651, Room f, Stratum IB).

POTTER'S TOOLS

Potter's tools can be difficult to identify, especially when they are not found in the context of a potter's workshop. Some of the objects are more readily identifiable, such as the potter's rib, an oval or rounded sherd

3. *Sarepta*: Fig. 29:6–7; *Sarepta I*: Pls. 29:6, 30:20, 38:12.

4. *Lachish IV*: Pl. 49:15; Magrill and Middleton 1997: Fig. 1.

5. *Ashdod II–III*: Figs. 44:25, 58:21–23.

6. Ben-Shlomo and Dothan 2016: 452–53, Color Photo 6.1:3–4.

7. Brandl 1993a: 231–32, Fig. 9.6:1–4.

FAIENCE SEALS

The only two complete conical seals were found, both in a Stratum IB destruction debris layer in Building 654 Room a.

Cat. No. 5.13: Obj. No. 2043, Bucket No. IVNE.7.53, Destruction Debris 7002, Building 654, Room a, Stratum IB.

Conical stamp seal (Color Photo 5.1:2).

Height: 2 cm; base diameter: 1.6 cm.

Made of greenish faience, the seal has a narrow perforation under the pointed apex (the hole is not centered). It depicts a schematic *ankh* sign (the loop of which is detached) with a large uraeus facing it, both relatively deeply engraved.

The seal combines schematically-depicted Egyptian motifs; while both the *ankh* and the uraeus are very common on scarabs and seals, compositions made up solely of these two motifs are rare.⁸ This composition may derive from the well-known motif of Horus, the falcon god, holding a uraeus in his hand.⁹ Although found in a 7th century context, the shape of the seal and the motifs may indicate a somewhat earlier dating (Iron IIA?). Imitations of Egyptian motifs, also identified as Phoenician-style seals, are common in the Iron IIB and the 7th century.¹⁰

Cat. No. 5.14: Obj. No. 2057, Bucket No. IVNE.7.70, Surface 7011P, Building 654, Room a, Stratum IB.

Conical stamp seal (Color Photo 5.1:3).

Height: 2 cm; base diameter: 1.6 cm.

Made of greenish faience, the seal has a perforation below the pointed apex. It depicts a winged and bearded seated sphinx figure wearing the crown of Upper Egypt; the tail of the sphinx is upraised. The sphinx is either sitting on a platform or overlying a hieroglyphic sign (perhaps an arched *nb* sign).¹¹ The

seal is very similar in shape to **Cat. No. 5.13**, and its composition also includes Egyptian or possibly Phoenician-style motifs.

CLAY BULLAE

Cat. No. 5.15: Obj. No. 3634, Bucket No. IVNE.7.139A, Debris 7023, Building 654, Room i, Stratum IC.

Complete oval clay bulla (Color Photo 5.1:4).¹²

Length: 2.3 cm; width: 1.9 cm; thickness: 1 cm; impression: 3×0.8 cm and 0.5 cm deep; more complete of the two string imprints: length: 1.9 width: 0.3 cm.

The flattened side was deeply imprinted with an oval scarab seal. The other rough side has two string imprints. Thumb impressions are preserved on the edges of the bulla. The poorly preserved deep impression depicts an oval object on the left containing signs in a frame, representing a cartouche or stela. Of the two figures on the right, the larger standing figure closer to the cartouche has raised arms, perhaps in prayer. The smaller figure at the rear, also facing the cartouche, has similarly raised arms, and may be seated.

A close parallel appears on a faience scaraboid seal in a private collection.¹³ Other possible parallels come from Beth-Shemesh, including scarabs dated to the Egyptian 22nd Dynasty depicting figures with a schematic cartouche/stela motif, excavated in Tombs 1 and 4.¹⁴ A somewhat similar impression of two figures facing a standing object appears on a bulla from Ashdod Stratum XII.¹⁵ Such seals depicting possibly praying figures facing a cartouche are mostly dated to the late Iron I–Iron IIA/B (although **Cat. No. 5.15** was found in a 7th century context).

Cat. No. 5.16: Obj. No. 3263, Bucket No. IVNE.25.31, Destruction Debris 25007, Building 653, Room e, Stratum IB.

Bulla fragment (Color Photo 5.1:5).

Length: 1.8 cm; width: 1.3 cm; seal impression: length: 1.4; width: 0.8 cm; more complete of the two string imprints: length: 1.9; width: 0.5 cm.

8. For other depictions of this composition, see the seal from Jericho in Keel 1995: Abb. 236 and the possible example from Gezer in *Gezer I–III* (PEF): Pl. CCVIII:25.

9. Keel, Keel-Leu, and Schroer 1989: 267.

10. Keel 1995: 58.

11. For a similar depiction from Lachish, see Keel and Uehlinger 1998: 269, Ill. 268b; see also *Gezer I–III* (PEF): Pl. CCVIII:14.

12. See also Ben-Shlomo 2006: 142, Fig. 12.

13. Keel-Leu 1991: 82, No. 99.

14. Mackenzie 1912–1913: Pls. 29:A1, 40:1; Rowe 1936: Pl. XXV:40, 45–46.

15. *Ashdod V*: 83, Fig. 38:2, Pl. 48:1.

This fragment of a folded bulla has a string imprint running through it and another string impression on the top, indicating the string tied around the bulla. The flattened top bears a shallow fragmentary scarab impression with circles, spirals, and loops in the style of MB IIC Hyksos scarabs. Iron IIC bullae with MB IIC scarab impressions are known from the City of David in Jerusalem.¹⁶ A similar clay bulla from Shiloh was interpreted as a sealing for a wooden box.¹⁷ These MB IIC-style seals found in Iron II contexts indicate that scarabs were kept for centuries and repeatedly reused for stamping sealings and bullae.

IVORIES

Only two ivory objects—an inlay and a bowl—were found in clear Iron II contexts, but these may be residual, as indicated by the earlier parallels.

Cat. No. 5.17: Obj. No. 1510, Bucket No. IVNW.24.128, surface Debris 24021P, Open Area 640a, Stratum Pre-IC.

Inlay (Fig. 5.2:6).

Length: 21.7 cm; width: 3.4–3.6 cm; thickness: 0.3 cm.

Based on its findspot in Stratum Pre-IC and parallels, this large panel may have originated in the Iron I. It has a rounded edge in section, a semicircular cut on one edge, and at least one perforation. The rear is also carefully worked. A similar inlay comes from Megiddo Iron I Stratum VIIA.¹⁸

Cat. No. 5.18: Obj. No. 1445, Bucket No. IVNW.8.205, Debris 8013, Building 651, Room g, Stratum IB/C.

Bowl (Fig. 5.2:5).

Height: 4 cm; width: 3.4 cm; thickness: 0.8 cm.

This simple ivory bowl has a rounded hemispherical body and it probably had a thick rounded base; there are remains of paint on the bowl. Since possible parallels for this rare item come from various periods, for example, from the Late Bronze Age “Mycenaean” tomb at Dan¹⁹ and from late Iron II Stratum II at

Megiddo,²⁰ the bowl cannot be dated solely on the basis of parallels.

CERAMIC POMEGRANATES

Cat. No. 5.19. Obj. No. 1904, Bucket No. IVNE.7.20, Destruction Debris 7006, Building 654, Room b, Stratum IB.

Ceramic pomegranate (Fig. 5.3:1).²¹

Height 4.9 cm; width 4.0 cm.

This red-slipped ceramic pomegranate was probably attached to the center of a bowl, as the breakage marks on its lower part indicate. It has four symmetrical indentations, a short neck, and a notched calyx. Only one virtually complete example of this rare vessel is known, a pomegranate bowl found in Iron II Tomb 6 at Tel Ḥalif. The Ḥalif pomegranate, however, was perforated through to the bowl.²²

PILLAR FIGURINES

Cat. No. 5.20. Obj. No. 2022, Bucket No. IVNE.7.27, Destruction Debris 7002, Building 654, Room d, Stratum IB.

Figurine fragment (Fig. 5.3:2).

Length: 8.7 cm; width: 3.5 cm; thickness: 1.9 cm.

The pillar figurine is represented by a body fragment from the front of the torso. The imprint of an attached arm is clearly visible. An applied hand with five incised fingers is preserved, as is one small applied breast. The fill of the body is folded clay. Although this is not a typical Judean pillar figurine with an arm supporting a large breast, it is also not a typical Phoenician hollow figurine, an example of which is known from Temple Complex 650 in Field IV Upper.²³

Cat. No. 5.21: Obj. No. 4186, Bucket No. IVNW.27.54, Robber Trench 27017, Iron II/Rom/Byz (mixed).

Figurine fragment (Fig. 5.3:3).

Height: 8.4 cm; upper torso width: 5.2 cm; pillar width: 3.0 cm.

16. Avigad 1997: 31–40.

17. Brandl 1993b: 209, Fig. 8.6. For a general description of the function of bullae, see Brandl 2001: 268, Fig. 17.

18. Loud 1939: Pl. 34:164.

19. *Dan II*: 141, Fig. 2.101:200.

20. *Megiddo I*: Pl. 99:13.

21. See also Dothan and Ben-Shlomo 2007: 7, 9, Fig. 10:1.

22. Borowski 2007.

23. Gitin 2003b: 287, Fig. 4.

The torso fragment of pillar figurine includes one hand holding a breast.

Other examples of pillar figurines come from Ekron,²⁴ the eastern Philistine sites of Gath²⁵ and Timnah,²⁶ and sites close to the border of eastern Philistia.²⁷ The scarcity of these figurines at sites along the coast in western Philistia may be due to their greater distance from Judah than Ekron and Gath.²⁸ The examples excavated at Iron Age II Ashdod²⁹ may in fact come from Persian period contexts.

LOOMWEIGHTS

Of the total of 162 usually unfired donut-shaped perforated loomweights from Iron II contexts in Temple Auxiliary Buildings 651–654, 135 came from two buildings in the northeastern quadrant: 77 from Building 654 (4 from Room a, 39 from Room b, 6 from Room c, 9 from Room d, and 19 from Rooms e/f) and 58 from Building 653 (2 from Room a, 44 from Room b, 2 from Room c, and 10 from Room e). These two buildings contained a number of basins and a complex drainage system, installations that may have been connected to textile production, which would explain the presence

of so many loomweights. Of the remaining 27, 18 came from Building 651 and 9 from Building 652.³⁰

Cat. No. 5.22. Obj. No. 1864, Bucket No. IVNE.8.10, Destruction Debris 8002, Building 654, Room b, Stratum IB.

Complete clay loomweight (Fig. 5.3:4).

Height: 6.1 cm; diameter: 9.2 cm; perforation diameter: 1.7 cm.

Unfired donut-shaped clay loomweight with a perforation.³¹

WORKED ASTRAGALI

A group of eight astragali were excavated in the same context.³²

Cat. No. 5.23. Obj. No. 9651, Bucket No. IVNE.10.37, Destruction Debris 10013, Building 652, Room c, Stratum IB.

Worked astragalus (Fig. 5.3:5).

Length: 3.0 cm; height: 1.7 cm; width: 1.3 cm.

A sheep/goat astragalus (left side), slightly worked at the edges.

24. Obj. No. 2107, a fragment from Locus IVNW.41022; Obj. Nos. 6159 and 7184 from Field IV Upper; Obj. Nos. 1010, 1250, and 3364 from Field III; Obj. No. 6559 from the Field I Northeast Acropolis Summit.

25. Ben-Shlomo 2010: Fig. 3.36.

26. *Timnah II*: 208.

27. For examples from Beth-Shemesh and Gezer, see Kletter 1996: 28–30; 2001: 185–88.

28. Kletter 2001: 185–88.

29. For example, *Ashdod II–III*: Fig. 65:4–5.

30. See Chapter 1 for the stratigraphic and findspot details. The loomweights from Ekron will be published in full in *Ekron* 14/1–2.

31. This is the most common Iron II loomweight type at Ekron (Shamir 2007: 44, Table 1, Fig. 2, Type G).

32. See Chapter 1 text associated with n. 22.

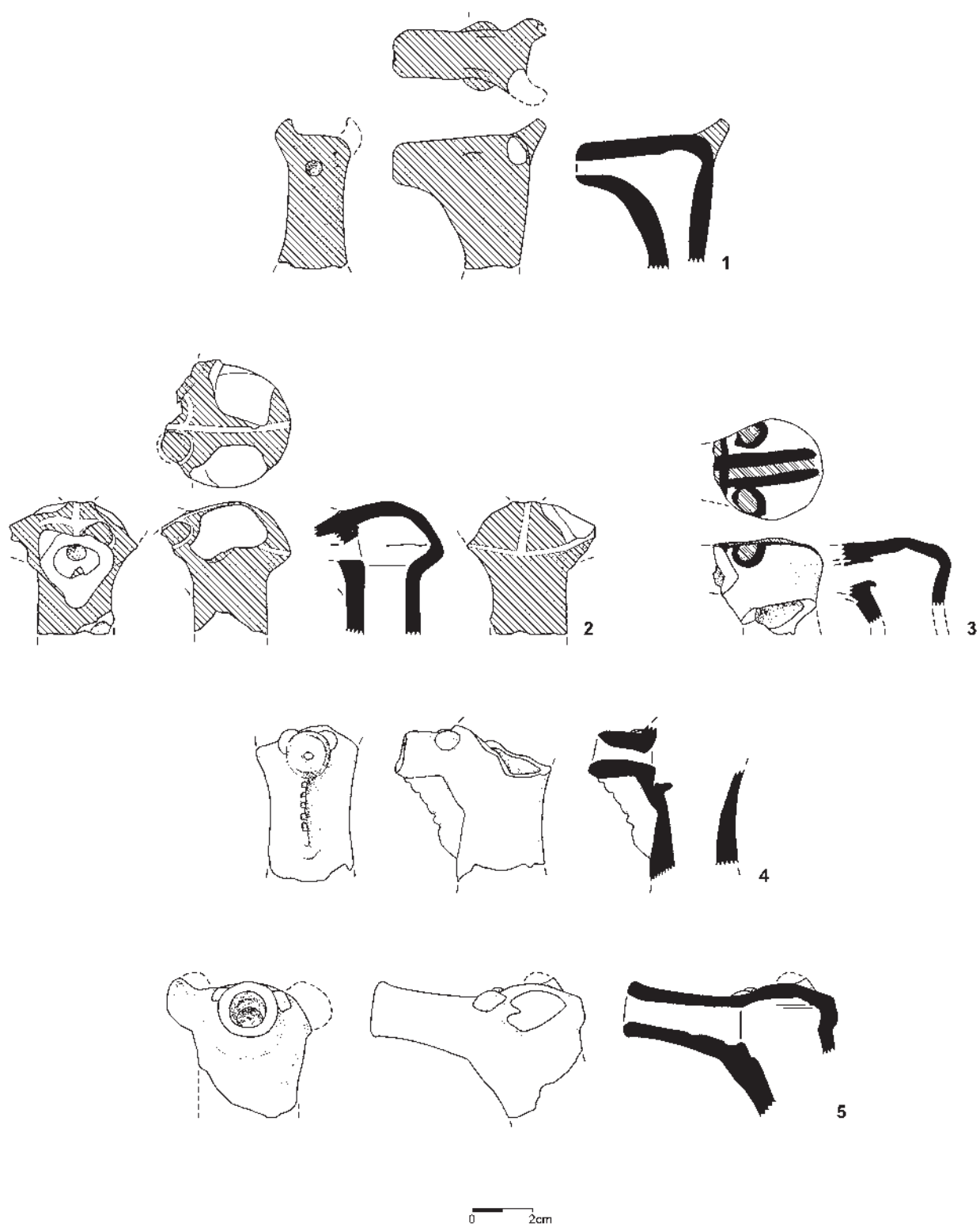


Fig. 5.1. 1-5: Zoomorphic head spouts (Cat. Nos. 5.1, 5.3, 5.2, 5.4, 5.5)

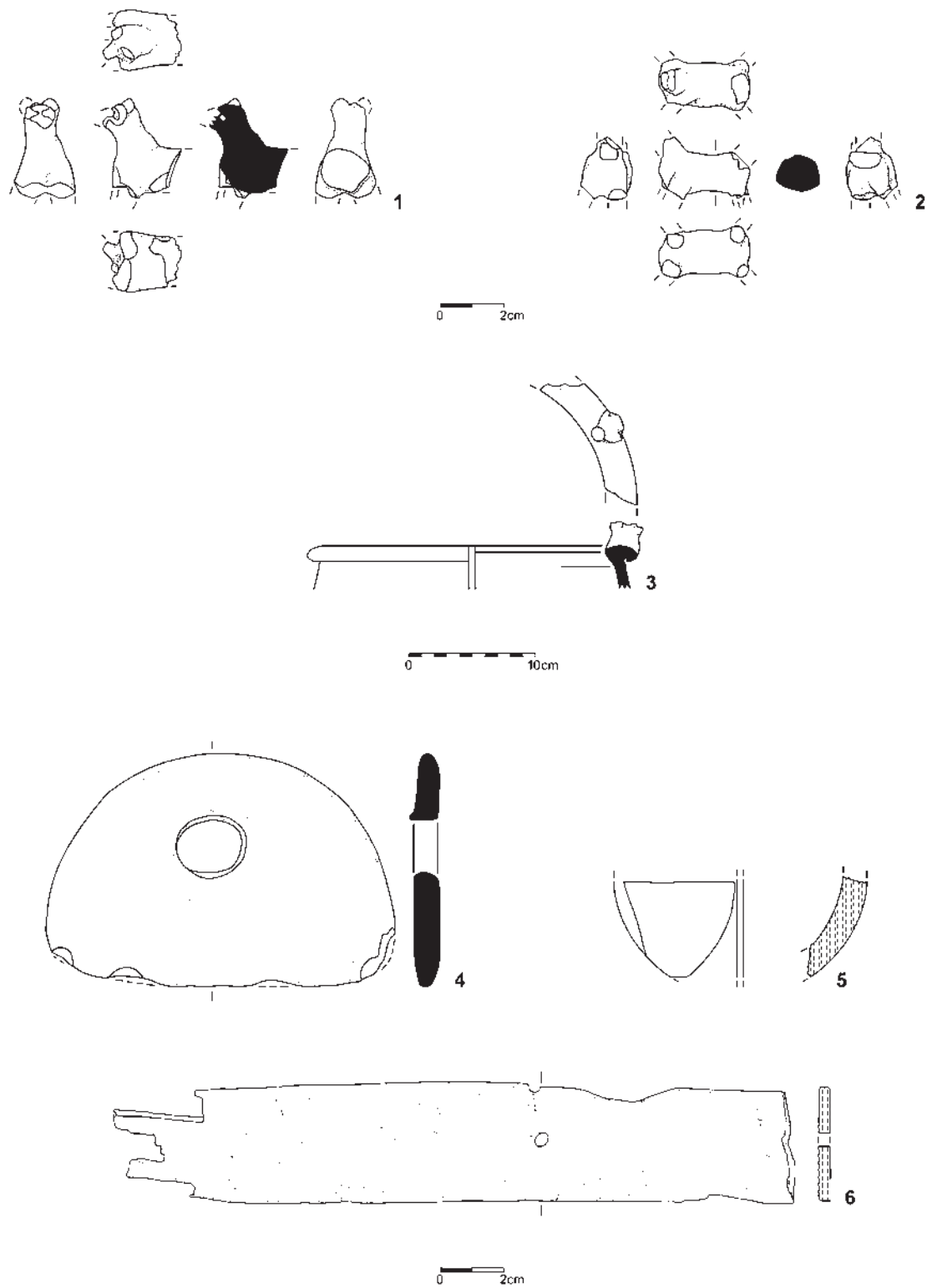


Fig. 5.2. 1-3: Zoomorphic figurines (Cat. Nos. 5.7, 5.9, 5.10); 4: Potter's tool (Cat. No. 5.12); 5: Ivory bowl (Cat. No. 5.18); 6: Ivory inlay (Cat. No. 5.17)

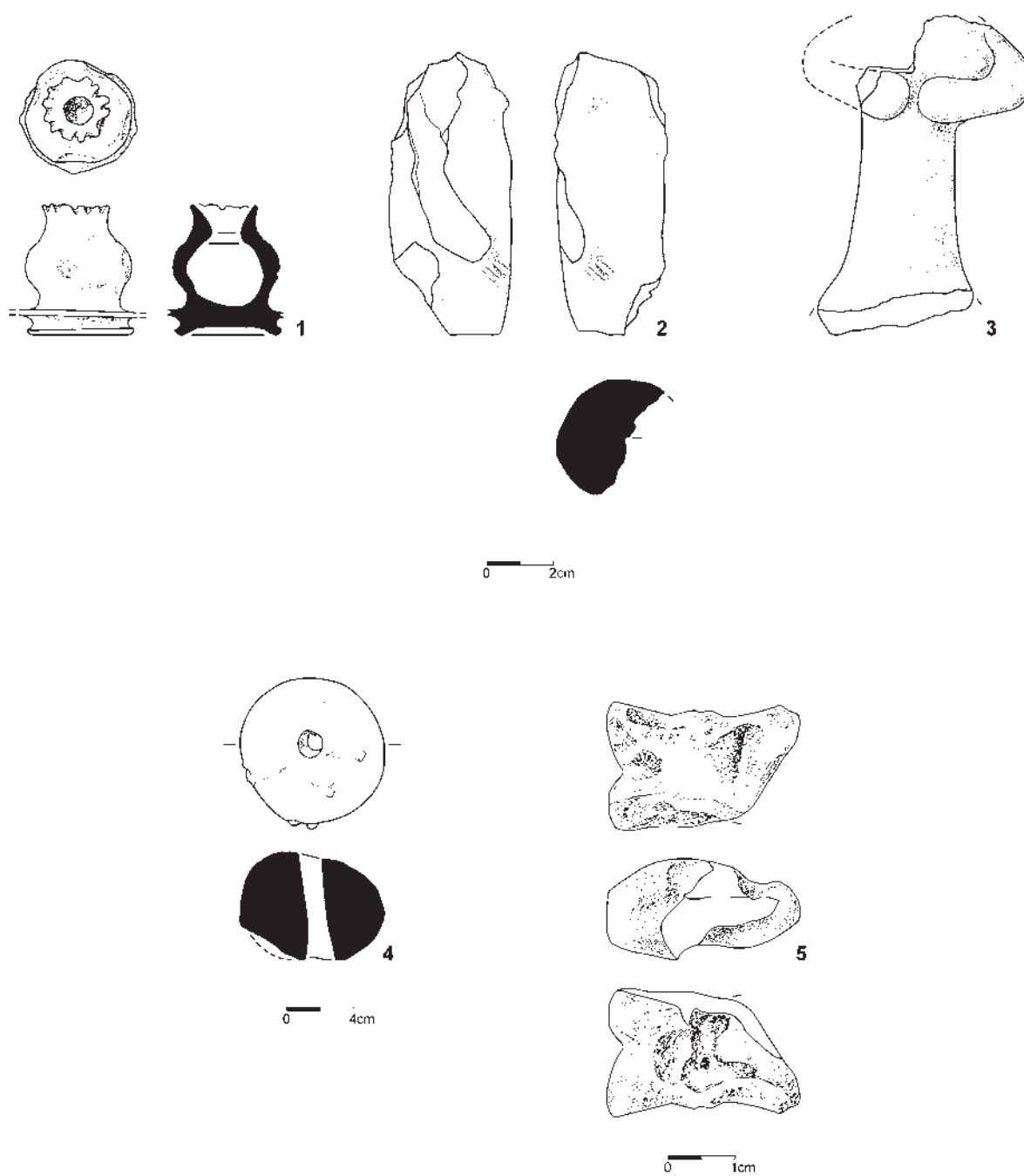


Fig. 5.3. **1:** Ceramic pomegranate (Cat. No. 5.19); **2-3:** Pillar figurines (Cat. Nos. 5.20, 5.21); **4:** Clay loomweight (Cat. No. 5.22); **5:** Worked astragalus (Cat. No. 5.23)

CHAPTER 6

THE JEWELRY FROM IRON AGE II CONTEXTS

Amir Golani

INTRODUCTION

A total of 477 jewelry objects were recovered in Field IV Lower, the majority in two jewelry hoards associated with Iron Age II strata uncovered in the 1985 and 1988 excavation seasons.¹ As the contents of these two hoards have been published elsewhere,² this chapter presents the other 29 jewelry objects found in stratified Iron II contexts (Table 6.1).³ These include four objects from general debris, 12 from destruction debris, four from surface debris, one from a surface, two from surface make-up loci, one from a wall, four from fills, and one from a drain.⁴ Seven objects from unstratified

contexts (balk trim and clean-up) are not included in this report.

Table 6.1: Jewelry objects by stratum

Stratum	No. of objects
IB	14
IB/C	6
IC	2
IC/IVA	1
IC/Pre-IC/IVA	1
Pre-IC	4
Pre-IC/IVA	1
Total	29

1. Gitin and Golani 2001.
2. A. Golani 1996; A. Golani and Sass 1998; see Photo 1.30 and Color Photo 1.1.
3. A study summarizing the jewelry from all the excavation fields will be published by this author in *Ekron* 14/1–2. The type designations and definitions of the jewelry are based on a typological scheme developed in A. Golani 1996 and expanded in A. Golani 2013.
4. The degree of reliability of the findspots is noted in the tables on a scale of **1** to **6**, **1** being the most secure and reliable and **6** the least (for a full discussion, see A. Golani 1996: 18–19). **1** designates objects found *in situ* on a sealed floor or in the destruction debris above a floor dated to the last phase of that floor. Although the provenience and dating of an object from a sealed destruction debris layer on a floor may be considered relatively secure, the possibility remains that the object may have come from within a mudbrick in the destruction debris. **2** designates objects found sealed in a floor make-up that cannot be dated later than the last use of the floor. **3** designates objects found in a mudbrick wall, in the contents of an installation sealed by a mudbrick wall, or in a fill or pit sealed by a floor. **4** designates objects found on a surface or in a destruction layer, fill, debris, burial, installation, or wall covered by another locus but not sealed by it. The provenience and dating

EARRINGS

The five partially preserved earrings represent four primary types. A fragment of a Type I.1 copper-alloy small lunate earring with a solid crescentic body and a tapered and bent-over hoop comes from Stratum IB/C (Table 6.2:1, Fig. 6.1:1). Such earrings are common in silver in the two jewelry hoards from Field IV Lower.⁵ This earring type is very common throughout the

are questionable, and the object is tentatively dated by the latest pottery in the locus. **5** designates objects found in a fill, debris, installation, or wall that is neither sealed nor covered but merely below one or two loci. The provenience and dating are uncertain, and it is tentatively dated by the latest pottery in the locus. **6** designates objects of uncertain provenience or dating found in topsoil, clean-up of erosion/wash, or other possible contamination of a locus.

5. A. Golani and Sass 1998: 64, Fig. 10:1.

Table 6.2: Earrings

No.	Obj. No.	Material	Type	Locus	Stratum	Reliability	Fig.
1.	3074	Copper alloy	I.1: Earring-solid lunate	Drain IVNE.6005	IB/C	1	6.1:1
2.	602	Silver	I.2a: Earring-solid lunate	Fill IVNW.9012A/ Surface IVNW.9014P	IC/IVA*	4	6.1:2
3.	577	Silver	II.1a: Earring-solid lunate with fixed attachment	Fill IVNW.9012A	IC	4	6.1:3
4.	1190	Silver	III.2: Earring-solid lunate with pendant	Destruction Debris IVNW.8010	IB	1	
5.	1290	Silver	III.2: Earring-solid lunate with pendant	Wall IVNW.8011	IB/C	1	6.1:4

* Some of the pottery buckets excavated as part of Stratum IVA Surface IVNW.9014P had mixed material from the locus immediately above it, Stratum IC Fill IVNW.9102A.

ancient world, first appearing in Sumer in the middle of the third millennium BCE,⁶ from where it spread westward through the Levant, introduced locally in the Middle Bronze Age, for example, at Tell el-ʿAjjul,⁷ and contemporaneously in Assyria.⁸ By the Hellenistic period, they are no longer in evidence.⁹

The Type I.2a plain silver earring with a short hoop is a larger and heavier variation of the solid lunate form with a wide lunate and a more rounded general outline. The inner arc of the crescent has a small rise in the center (Table 6.2:2, Fig. 6.1:2). Although examples are attested at the end of the Iron I, as in Tomb 239 at Tell el-Farʿah (South),¹⁰ this form is more common during the Iron II, for example, in Achzib Tomb 1,¹¹ Tell en-Naşbeh Tomb 3,¹² Megiddo Stratum III,¹³ and Beth-Shemesh Tomb 8.¹⁴ While the example from Ekron originates in a mixed Strata IC–IVA context, identical silver earrings were found in the Stratum IB jewelry hoards,¹⁵ suggesting that this item most probably originated in Stratum IC.

The lower part of a silver Type II.1a hollow drop-shaped earring attachment has an elongated hoop with the ends meeting on one side and a hollow ball-, drop-, or pear-shaped attachment soldered to the hoop bottom (Table 6.2:3, Fig. 6.1:3). The hoop and attachment are usually decorated, in this case with lines and triangles of granules soldered around the circumference and a larger granule affixed to the bottom of the attachment. Such elaborate earrings, usually in silver, are known from the late Iron II, for example, in Ketef Hinnom Tomb 25,¹⁶ and continue into the Persian period, for example, in tombs at Kāmid el-Lōz.¹⁷ The Ekron Stratum IB jewelry hoards contain complete examples.¹⁸

Two fragments of silver Type III.2 earrings with basket-shaped pendants are attested (Table 6.2:4–5, Fig. 6.1:4). Usually made of silver or less frequently of gold or copper alloy, they consist of a solid-cast or hollow cube with two parabolic wire handles springing crosswise from its upper corners. The top of the handles has a small suspension ring hanging from another suspension ring attached to a wire earring hoop, slightly thickened at the bottom. The more common solid cube examples have a small pyramid of granules on the cube and below the handles.

6. *Ur II*: 241, Pl. 138.

7. *Ancient Gaza IV*: Pl. 18:85.

8. Maxwell-Hyslop 1971: 240.

9. Kraay and Moorey 1968: 196; see *SCE IV/2*: 385 for a survey of the development of this earring type.

10. *Beth-pelet I*: Pl. 30:125.

11. *Achziv Northern Cemetery*: Fig. 24:1, 25.

12. *TN I*: Pl. 112:28.

13. *Megiddo I*: Pl. 86:16.

14. Mackenzie 1912–1913: Pl. 59:7–9.

15. A. Golani 1996: 26; A. Golani and Sass 1998: Fig. 10:2.

16. Barkay 1986: 27.

17. *Kāmid el-Lōz 2*: Pls. 4:12–13, 12:24–25, 14:15–16, 20:2, 21:2–3; *Kāmid el-Lōz 3*: Pl. 9.

18. A. Golani 1996: 28–30; A. Golani and Sass 1998: 64, Fig. 10:6.

Table 6.3: Small rings

No.	Obj. No.	Material	Type	Locus	Stratum	Reliability	Fig.
1.	581	Silver	I.1: Ring-small	Debris IVNW.9009	IB	4	6.2:1
2.	1156	Silver	I.2a: Ring-small	Fill IVNW.25044	IB	4	6.2:2
3.	580	Silver	I.2a: Ring-small	Fill IVNW.9012A	IC	4	6.2:3

This earring pendant type is well known in various forms from the 7th–5th centuries at sites associated with Phoenician culture throughout the Mediterranean basin,¹⁹ and may be interpreted as a Phoenician product.²⁰ Compared to the quantities found in the western Mediterranean and on Cyprus,²¹ relatively few examples have been found in Phoenicia (on the coastal plains of northern Israel and Lebanon), attested primarily from the very end of the 8th through the beginning of the 7th century. A silver example comes from Sarafand Tomb 20 in Lebanon, dated to the end of the 8th–7th centuries,²² and silver and copper alloy pendants are known from Achziv Tombs ZR XXI and ZR XII, dated to the 8th–5th centuries,²³ and Tell el-Far'ah (S) Tomb 201, dated to the 10th–8th centuries.²⁴ Several gold examples were found at Tarsus in an anthropoid sarcophagus dated to the 5th century,²⁵ although these may well have been heirlooms.²⁶ The Ekron Stratum IB jewelry hoards contained complete examples of Type III.2 earrings in silver.²⁷

SMALL RINGS

Of the three small rings, one is of primary Type I.1 small rings (Table 6.3:1, Fig. 6.2:1). These plain small rings, round in section, have tapering or squared-off (cut) ends. They may have functioned as earrings, finger, nose, or hair rings, and are usually made of

copper alloy, although gold, silver, and iron examples are also known.²⁸

The two Type I.2a open-ended small rings are decorated with grooves along the shank that create the impression of strung beads with a fluted decoration (Table 6.3:2–3, Fig. 6.2:2–3). This decoration was made by casting, cutting, or impressing grooves into the wire before it was bent into shape, a technique known as beading. Usually made of silver or gold, such rings are known locally as early as the 16th/15th centuries at Tell el-ʿAjjul.²⁹ They are common from the late Middle Bronze Age into the Late Bronze Age, after which they no longer appear.³⁰ The two examples from Ekron should probably be regarded as intrusive and originating from earlier Middle or Late Bronze Age occupation strata at the site.³¹

LARGE RINGS

The complete example of a Type I.2 large ring made of thick wire, round in section and with tapered ends (Table 6.4:1, Fig. 6.3:1), may have been cast or hammered into shape. This simple and common form is usually made of copper alloy.

PENDANTS

Five types of pendants are made of various materials. One is a Type II.2a pyramidal-triangular stone pendant with a stringing hole drilled from two sides near the apex (Table 6.5:1, Fig. 6.4:1). This common form

19. A. Golani 1996: 33–36.

20. A. Golani 2010.

21. Quillard 1979: 50–54; Pisano 1987: 79.

22. Culican 1978: 138, Fig. 5.

23. *Akhziv Cemeteries*: Figs. 4.4.16:1, 4.10:17.

24. *Beth-pelet I*: Pl. 41:275.

25. de Ridder 1911: 119, Nos. 658–659, Pl. 1:2.

26. Culican 1958: 94.

27. A. Golani and Sass 1998: 63, 67–68, Fig. 11:2–3.

28. A. Golani 2016: 481, n. 19.

29. Negbi 1970: 26, Pl. 3:10, Cat. No. 96, designated ribbed earrings.

30. Maxwell-Hyslop 1971: 114.

31. Gittlen 1992.

Table 6.4: Large rings

No.	Obj. No.	Material	Type	Locus	Stratum	Reliability	Fig.
1.	1529	Copper alloy	I.2: Ring-large, open	Debris IVNW.24015.1/ Debris IVNW.24024/ Surface IVNW.24025P	IC/Pre-IC/ IVA*	4	6.3:1

* Some of the pottery buckets excavated as part of Stratum IVA Surface IVNW.24025P had mixed material from the loci above it, Stratum Pre-IC Debris IVNW.24024 and Stratum IC Debris IVNW.24015.1.

Table 6.5: Pendants

No.	Obj. No.	Material	Type	Locus	Stratum	Reliability	Fig.
1.	3552	Gabbro (norite)	II.2a: Pendant	Destruction Debris IVNE.26007	IB	5	6.4:1
2.	905	Ivory	III.1: Pendant	Destruction Debris IVNW.25006	IB	4	6.4:2
3.	2017	Bone	III.2: Pendant	Destruction Debris IVNE.7002	IB	1	6.4:3
4.	4210	Bear canine	III.3: Pendant	Debris IVNW.42013	IB/C	1	6.4:4
5.	2293	<i>Cypraea annulus</i>	III.4: Pendant	Surface Make-up IVNW.40004.1	IB/C	1	6.4:5
6.	2514	<i>Cypraea turdus</i>	III.4: Pendant	Surface IVNE.7011P	IB	1	6.4:6

appears in various types of stone and was sometimes used as an engraved seal.³²

The complete Type III.1 ivory pendant in the form of an elongated club or stick, rounded or oval in cross-section, is perforated at one end and has a slightly wider lower end (Table 6.5:2, Fig. 6.4:2).³³

A fragment of a Type III.2 plaque pendant made of bone consists of a semicircular tab decorated with incised rings and dots (Table 6.5:3, Fig. 6.4:3). Bone plaque pendants occur in three primary shapes—rectangular, oval, and circular to drop-shaped. The most common shape is rectangular, with the pendant hung from a perforation on a semicircular tab at one of the short ends, as in the example from Ekron. Examples of rectangular pendants with semicircular tabs are known from 8th–7th century contexts at Lachish,³⁴ and from 10th–9th century Tombs 120 and 521 at the same site.³⁵ Type III.2 plaque pendants are usually found

together with Type III.1 club pendants throughout the Iron II.

A complete bear canine tooth perforated at the base for suspension (Table 6.5:4, Fig. 6.4:4) represents an example of the use of animal teeth or tusks as pendants and amulets well known from prehistoric to modern times. In Egyptian religious symbolism, wild boar tusk amulets were worn as protection against the evil eye, and miniaturized depictions of tusks in stone, faience, and glass are a common Egyptian amulet form.³⁶ In the early 20th century, boar tusks were used as a prophylactic to avert the evil eye from horses.³⁷

Two Type III.4 cowrie shell pendants have a ground-down or cut dorsum (Table 6.5:5–6, Fig. 6.4:5–6). These species of cowrie—*Cypraea turdus* and *Cypraea annulus*—originate in the Red Sea.³⁸

32. Keel, Shuval, and Uehlinger 1990.

33. See the discussion on Type III.1 pendants in A. Golani 2016: 484, nn. 51–60.

34. *Lachish III*: Pl. 57:28.

35. *Lachish III*: Pls. 37:15, 17, 55:27–28, 37:3, 56:23.

36. Petrie 1914: 13.

37. *Gezer I–III* (PEF): 29.

38. See the discussion on the origin and use of Type III.4 cowrie shell pendants in A. Golani 2016: 484, nn. 61–66.

Table 6.6: Egyptian-style pendant

No.	Obj. No.	Material	Locus	Stratum	Reliability	Fig.
1.	2318	Faience, light blue	Debris IVNW.23010	Pre-IC	2	6.5:1

Table 6.7: Beads

No.	Obj. No.	Material	Type	Locus	Stratum	Reliability	Fig.
1.	1909	Silver	I.3: Bead	Destruction Debris IVNW.39002	IB	4	6.6:1
2.	2033	Carnelian	II.1: Bead	Debris IVNW.40008	Pre-IC	4	6.6:2
3.	1588	Rock crystal	II.2: Bead	Debris IVNW.8023	Pre-IC	1	6.6:3
4.	3034	Faience, off-white	III.1: Bead	Destruction Debris IVNE.23001	IB	1	6.6:4
5.	4013	Faience, light blue	III.2: Bead	Surface IVNE.27004	IB/C	1	6.6:5
6.	2160	Glass, gray	III.2: Bead	Debris IVNW.40008/ Surface IVNW.40009P	Pre-IC/ IVA*	4	6.6:6
7.	1580	Glass, light brown and white trail decoration	III.6a: Bead	Debris IVNW.8023	Pre-IC	1	6.6:7
8.	4538	Faience?, light green	III.10: Bead	Destruction Debris IVNE.9002	IB	5	6.6:8
9.	2056	Terracotta	IV.1: Bead	Surface IVNE.7011P	IB	1	6.6:9
10.	2090	Terracotta	IV.1: Bead	Debris IVNE.8015	IB	4	6.6:10
11.	1968	Ostrich-egg shell	VI.1: Bead	Fill IVNW.41012	IB/C	4	6.6:11

* Some of the pottery buckets excavated as part of Stratum IVA Surface Surface IVNW.40009P had mixed material from the locus above it, Stratum Pre-IC Debris IVNW.40008, which in turn included some Stratum I material.

EGYPTIAN-STYLE PENDANT

A single fragment of an Egyptian-style openwork faience amulet is attested (Table 6.6:1, Fig. 6.5:1).³⁹

BEADS

The 11 beads are made of various materials. The Type I.3 silver bead was made of two rectangular strips slightly bent in the middle, one placed on the other and joined at their ends, with an eye-like hole left open in the middle (Table 6.7:1, Fig. 6.6:1). No other examples of this distinctive technique and form

are known locally. Exact parallels in silver, however, are common in several 7th century tombs at the Phoenician necropolises of Ain Dalhia Kebira and Djebila near Tangier,⁴⁰ and these beads were apparently incorporated into necklaces. That this form has been found only at Phoenician sites far removed from the Phoenician mainland may indicate that although no examples have been found in Phoenicia itself, it is a Phoenician type.

Of the stone beads, one is a Type II.1 standard circular carnelian bead and one a Type II.2 oblate circular bead in rock crystal (Table 6.7:2–3, Fig. 6.6:2–3). Siliceous beads found in Stratum Pre-IC through

39. Herrmann 2006: Cat. No. 103, Pl. 28:103.

40. Ponsich 1967: Pl. XX:3, Fig. 26: upper right (Tomb 34); Fig. 61: center (Tomb 27); Pl. XLV:31 (Tomb 31).

Table 6.8: Fibulae

No.	Obj. No.	Material	Type	Locus	Stratum	Reliability	Fig.
1.	630	Copper alloy	I.1a: Garment fastener-fibula	Destruction Debris IVNW.9003	IB	4	6.7:1
2.	2058	Copper alloy	I.2a: Garment fastener-fibula	Surface IVNE.7011P	IB	1	6.7:2

Stratum IB include a faience Type III.1 flat disc bead (Table 6.7:4, Fig. 6.6:4), two Type III.2 oblate circular beads made of faience and glass, respectively (Table 6.7:5–6, Fig. 6.6:5–6), a Type III.6a thick long cylindrical glass bead with a spiral decoration (Table 6.7:7, Fig. 6.6:7), and a Type III.10 scaraboid bead, apparently made of faience (Table 6.7:8, Fig. 6.6:8). Two Type IV.1 long truncated convex bicone beads are made of clay (Table 6.7:9–10, Fig. 6.6:9–10). Although terracotta is an inexpensive readily-available material that can easily be formed into any shape, clay beads are not common.⁴¹

One Type VI.1 flat disc bead is cut from an ostrich-egg shell (Table 6.7:11, Fig. 6.6:11).⁴² With the exception of the Type I.3 silver winged bead (Table 6.7:1), none of the beads are culturally or chronologically significant.

FIBULAE

The Type I.1a arched-bow fibula with a plain or colored bead on each arm (Table 6.8:1, Fig. 6.7:1) is one of the most common and distinctive local Iron II fibula types, first occurring at the beginning of the 9th century.⁴³ The bow on the local forms becomes increasingly angular in the course of the 9th century.⁴⁴ Later examples from the end of the 7th century tend to have grooved beads on the arm and a slightly swollen bow. Mazzoni has proposed that the dating of this form be lowered on the basis that it appears no earlier than the

end of the 8th century in Syria, and should therefore be regarded as primarily a late Iron Age type.⁴⁵

The Type I.2a triangular-bow fibula with ribbed and beaded moldings (Table 6.8:2, Fig. 6.7:2) is comparable to the vast majority of triangular fibulae from the Near East.⁴⁶ Mazzoni views this form as typical of the Persian period, to which she dates nearly all the Syrian examples.⁴⁷ The appearance of this type in 8th century contexts throughout Cisjordan may point to this region as the origin of the form, from where it spread northward. According to Stronach, local forms of this type differ from contemporary Assyrian examples in their larger size and vertically incised rib decoration.⁴⁸

CONCLUSIONS

The jewelry associated with Stratum I is typical of the Iron II. Although many of the items, primarily the beads, are not culturally or chronologically significant, several are characteristic of the Iron II and some of the very end of this period. The Type I.2a silver earring (Table 6.2:2, Fig. 6.1:2), the Type III.1 ivory pendant (Table 6.5:2, Fig. 6.4:2), and the fibulae (Table 6.8:1–2, Fig. 6.7:1–2) are characteristic of the Iron II, and the Type I.3 silver bead (Table 6.7:1, Fig. 6.6:1) and Type II.1a silver earring (Table 6.2:3, Fig. 6.1:3) are associated with the end of the Iron II, the latter continuing into the Persian period.

41. A. Golani 2016: 488, n. 83.

42. See Bednarik 1997 for the techniques used to produce flat disc beads from ostrich-egg shells.

43. Stronach 1959: Near Eastern Type II.4; Mazzoni 1992: Type 3.

44. Stronach 1959: 191–92.

45. Mazzoni 1992: 237.

46. Stronach 1959: Near Eastern Type III.7; Mazzoni 1992: Type 5c.

47. Mazzoni 1992: 244–46.

48. Stronach 1959: 197–200.

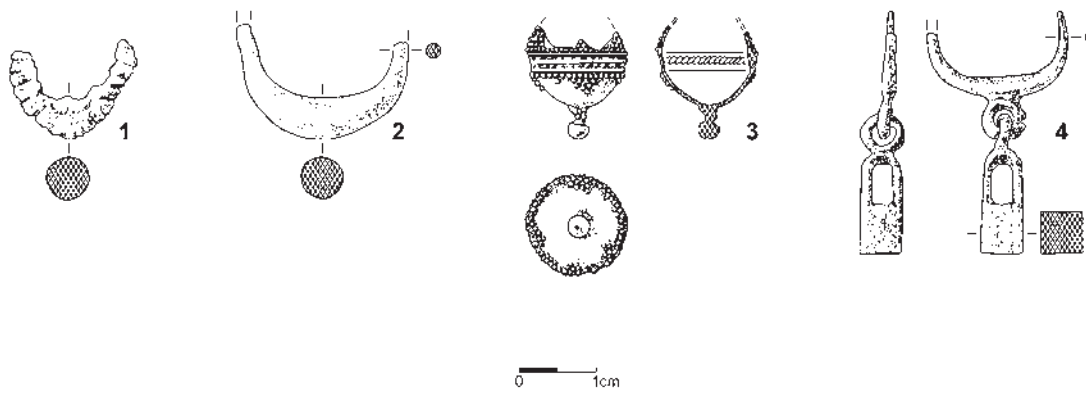


Fig. 6.1. Earrings: 1-3 = Table 6.2:1-3; 4 = Table 6.2:5

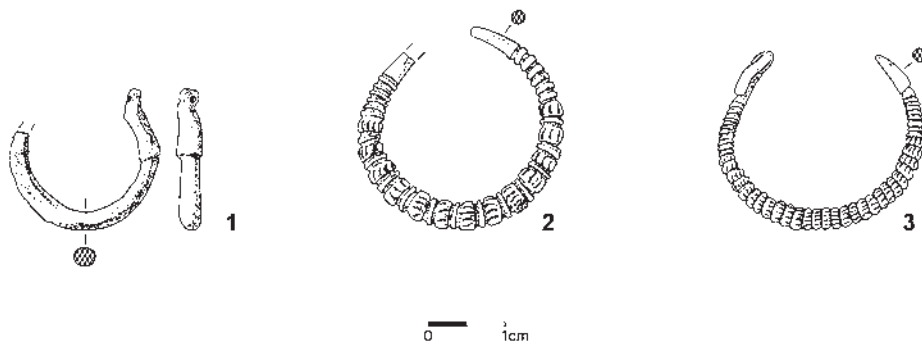


Fig. 6.2. Small rings: 1-3 = Table 6.3:1-3

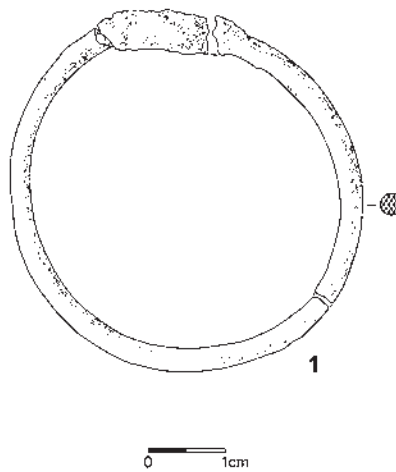


Fig. 6.3. Large ring: 1 = Table 6.4:1

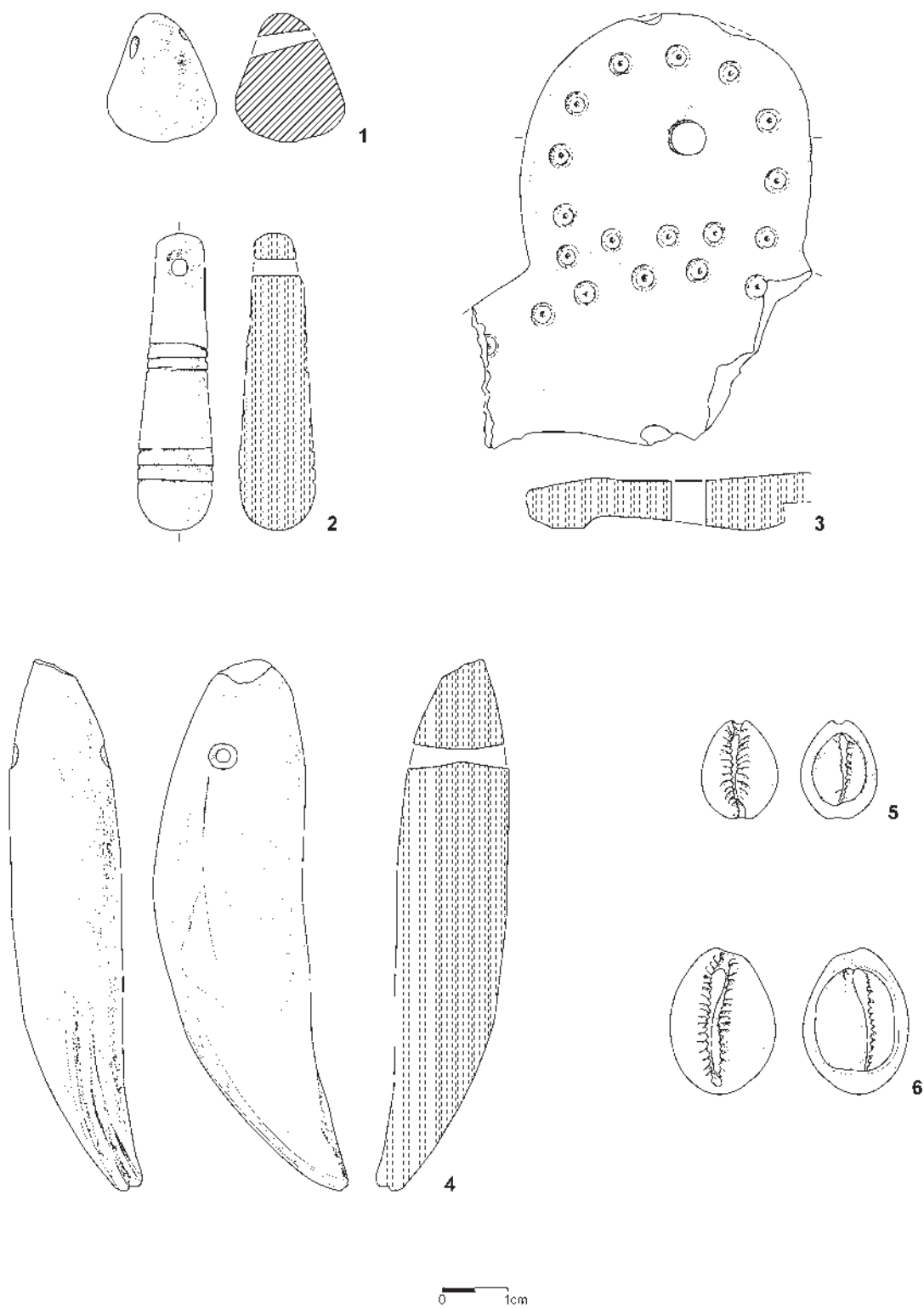


Fig. 6.4. Pendants: 1-6 = Table 6.5:1-6

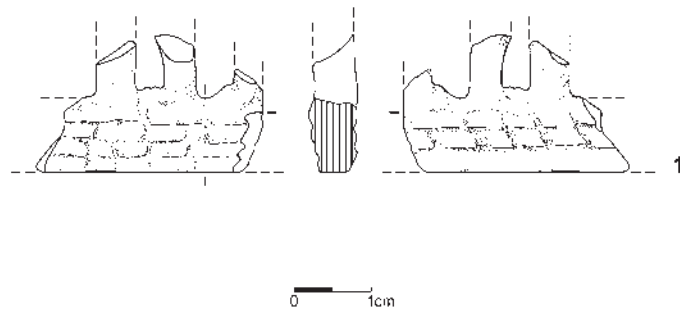


Fig. 6.5. Egyptian-style pendant: 1 = Table 6.6:1

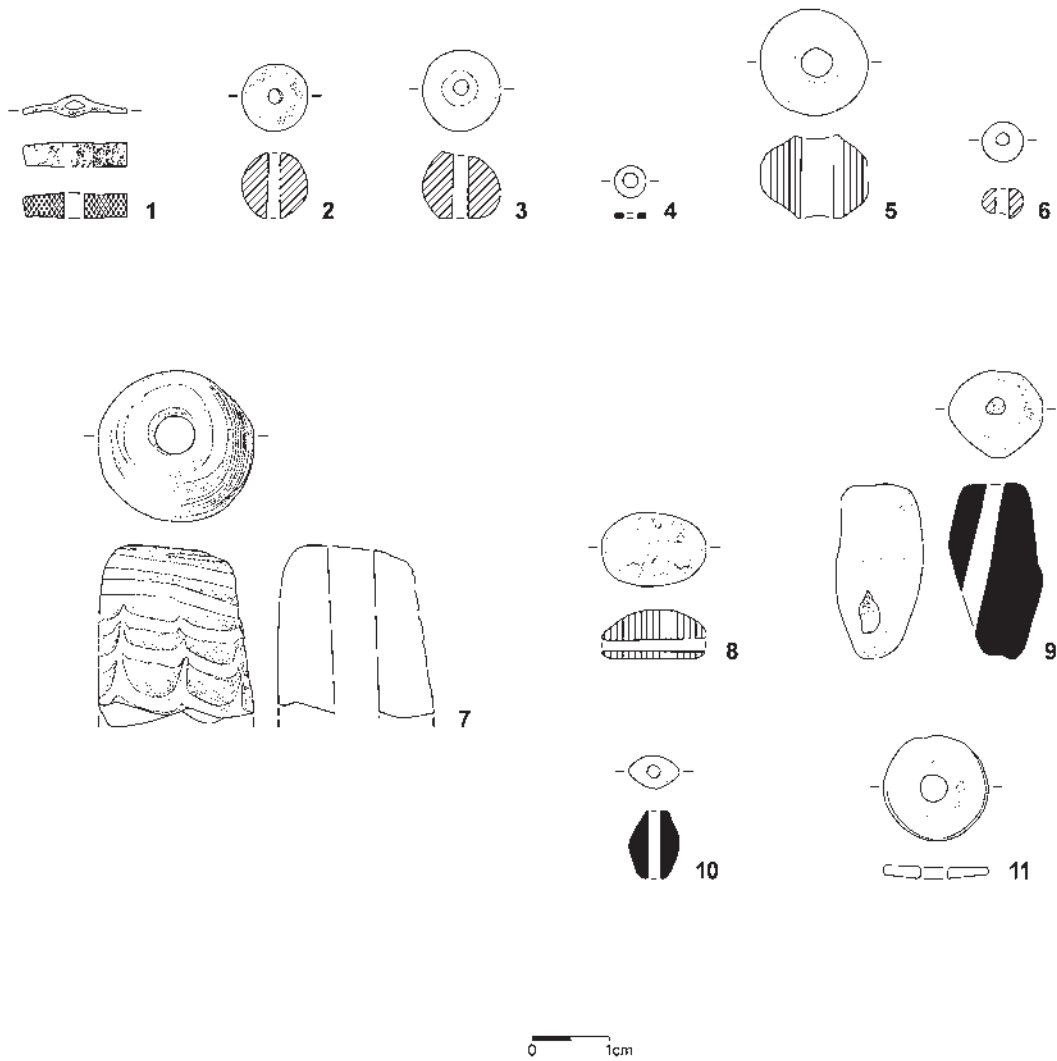


Fig. 6.6. Beads: 1-11 = Table 6.7:1-11

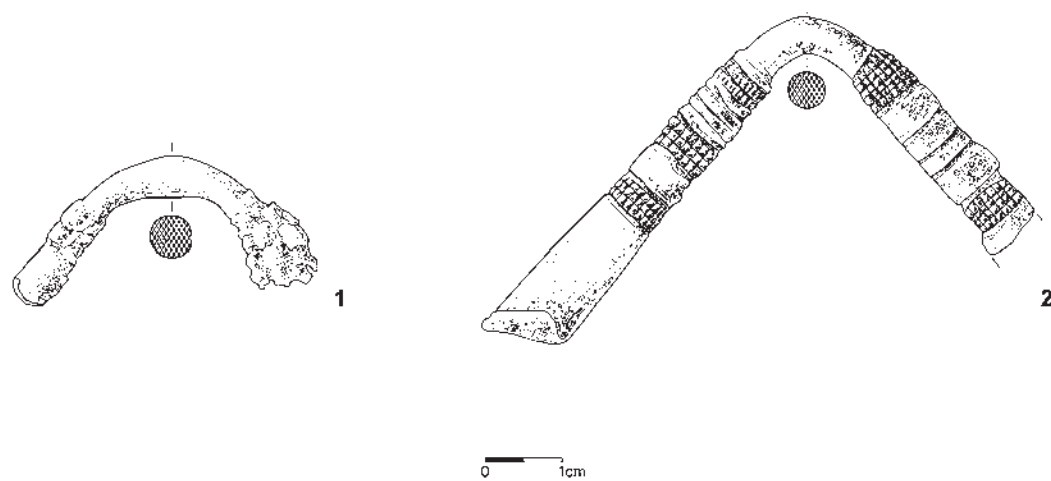


Fig. 6.7. Fibulae: **1-2** = Table 6.8:1-2

CHAPTER 7

THE IRON AGE II METAL ARTIFACTS

Alexandra S. Drenka and David Ben-Shlomo

Of the limited assemblage of metal artifacts from the Iron Age II in Field IV Lower, a selection of five complete and representative items is presented in this chapter. Among the other metal objects are pins, nails, hooks, and various tools and weapons.¹

Cat. No. 7.1: Obj. No. 3962, Bucket No. IVNW.11.16, Destruction Debris 11002, Street 656, Stratum IB. Complete bronze bell (Color Photo 7.1:1). Length: 2.6 cm; thickness: 0.2 cm; diameter: 1.8 cm; rod thickness: 0.5 cm, oval in cross-section; convex knob diameter: 0.7 cm.

A breakage mark in the interior center of the bell indicates a clapper. Bronze bells of similar size come from Lachish Level III² and Timnah (Tel Batash) Stratum II.³

Cat. No. 7.2: Obj. No. 3440, Bucket No. IVNE.7.157, Debris/Fill 7034, Building 654, Room a, Strata IVB–IC (mixed). Complete bronze spatula (Color Photo 7.1:2). Length: 16.1 cm; maximum width: 1.1 cm; thickness: 0.2 cm; spoon length: 5.8 cm.

With a long curved handle and an elongated wide spoon, this tool may have been used for mixing colors or powders. Rare parallels include an ear spoon found on the surface at Megiddo.⁴

Cat. No. 7.3: Obj. No. 2182, Bucket No. IVNE.8.127, Surface Make-up 8016.1, Building 654, Room b, Stratum IB.

Almost complete iron plow head (Color Photo 7.1:4; see also Photo 1.41).

Length: 16.4 cm; width: 28.2 cm; thickness: 1.2 cm; socket length: 4 cm; diameter: 3.2 cm.

This large two-pronged iron plow head is tapered, with a socket for the handle welded to the head. Although iron plows are rare in the Iron Age, another two-pronged plow head was found at Ekron in a cache of iron objects in a Stratum IB sealed context in Field III.⁵ This cache also contained a single-headed iron plowshare,⁶ parallels for which come from Lachish Level III.⁷ Similar plows come from various later contexts.⁸

Cat. No. 7.4: Obj. No. 2943, Bucket No. IVNE.23.31, Destruction Debris 23005, Building 654, Rooms e/f, Stratum IB.

Complete bronze nipper/tweezers (Color Photo 7.1:3). Length: 15.2 cm; head diameter: 4.2 cm; thickness: 0.8 cm; longer tong: width: 0.8 cm; thickness: 0.3 cm.

Probably a nipper or large tweezers, the tool is rectangular in cross-section, with one end rounded and the other cut straight and oval in cross-section. Somewhat similar tweezers come from Megiddo Stratum V.⁹

1. The entire assemblage of metal objects from Ekron will be published in full in *Ekron* 14/1–2.

2. *Lachish III*: Pl. 54:19.

3. *Timnah II*: 222–23, Photo 151, Pl. 39:10, with references to other Iron II examples from Megiddo and Tel 'Ira.

4. *Megiddo I*: Pl. 85:11; see Petrie 1927: Pl. LXXIV:98 for a common Roman period unguent spoon from Oxyrhynchos.

5. Cache IIISE.14009, Obj. No. 354.

6. Cache IIISE.14009, Obj. No. 355.

7. Sass 2004: Fig. 28.31:1–4.

8. Petrie 1927: 55, Pl. LXVII:53. Iron rakes with two, three, or four prongs—a common tool for breaking the soil—are probably all dated to the Roman period.

9. *Megiddo I*: Pl. 84:21.

Cat. No. 7.5: Obj. No. 4116, Bucket No. IVNE.8.214, Clean-up 8053, topsoil.

Complete miniature metal (bronze?) barrel-shaped object (Color Photo 7.1:5).

Height: 4.3 cm; thickness: 0.3–0.4 cm; rim diameter: 3.0 cm; base diameter: 3.4 cm; depth of interior: 3.9 cm; diameter of perforations: ca. 0.3 cm.

This small object is relatively heavy, suggesting that the metal composition may include iron or lead. The base is flat, square in cross-section. Two perforations opposite each other in the upper part of the object suggest that it was suspended. Parallels are unknown.

CHAPTER 8

AN IRON AGE II COWROID AND THREE SCARABS*

Baruch Brandl

INTRODUCTION

The four Iron Age II glyptic finds described in this chapter are presented in stratigraphic order from earliest to latest, accompanied by as many as possible of the known excavated parallels and references to discussions on specific issues. Unprovenanced parallels from collections are cited only when they are essential to the discussion.

All four glyptic finds were made of glazed steatite.¹ Due to the chemical conditions in the deposits in which they were found, however, the glaze for the most part survived only in the incised decoration on the base, sides, and flat areas of the beetle's head. The original glaze colors, most probably blue or green, faded and changed to yellow hues.²

The classification of the cowroid (**Cat. No. 8.1**) follows Keel's typology.³ Scarab shape details⁴ for **Cat. Nos. 8.2–8.3** follow Rowe's classification,⁵ and for **Cat. No. 8.4**, Hölbl's classification,⁶ with later modifications.⁷ The Egyptian hieroglyphics as des-

ignated in Gardiner's Sign List are given in square brackets in the descriptions.⁸ The Iron II seals from Ekron were either imported from Egypt or produced in one of the Phoenician centers along the Mediterranean coast. Egyptian Dynasty dating is also given for the Egyptian seals.

DESCRIPTION AND DISCUSSION

Cat. No. 8.1. Cowroid (Obj. No. 2048, Bucket No. IVNW.40.53, Surface 40009P/Scoop Debris 40008, Building 350 Room d/Open Area 640a, Stratum IVA/Stratum Pre-IC [mixed]) (Fig. 8.1).

Material: Glazed steatite; completely covered with cracked yellowish-grayish glaze.

Dimensions: Length: 15.75 mm; width: 10.5 mm; height: 5.5 mm.

Method of manufacture: Carving, abrading, drilling, incising, and glazing.

Workmanship: Mediocre. The frame around the base design is clumsy.

Technical details: Perforated, drilled from both sides. Linear and hollowed-out engraving with hatching.

Preservation: Complete.

Seal shape: Cowroid of Keel's Type I, "Kauroide mit ganz glattem Rücken."⁹

Base design: Three hieroglyphic signs are depicted in a horizontal oval frame: the very large *hpr* ("become" or "to be" [L 1]¹⁰) sign in the center is flanked by two

* The objects were drawn by Carmen Hersch and photographed by Ilan Sztulman and Zev Radovan, and the figures were scanned and composed by Silvia Krapiwko, all under the supervision of the author.

1. For the different methods used in ancient Egypt for glazing steatite objects, see Tite and Bimson 1989.

2. See also Keel 1995: 153, § 406.

3. Keel 1995: 78–81.

4. For diagrams showing the parts of a beetle, see Rowe 1936: Pl. 23; Keel 1995: 20, Fig. 1, the latter more detailed, with the terms given in four languages (German, English, French, and Italian); for a diagram showing the parts of a scarab, see Schulz 2007: 3.

5. Rowe 1936: Pls. 32–35 = Keel 1995: Ills. 44, 46–67.

6. Hölbl 1986 I: 172–74 (Typentafel I: 10) = Keel 1995: 58, § 119.

7. Brandl 2001: 266–68; Keel 2003: 136–37.

8. Gardiner 1973, with additional information in Allen 2000: 423–52.

9. Keel 1995: 78–79, §§ 185–188.

10. See also Keel 1995: 171, § 454; Allen 2000: 434.

antithetic *m3ꜥt* (“truth” [H 6]¹¹) or *m3ꜥty* (“righteous”¹²) signs.

This combination also appears on a scarab from Tomb 1701 at Matmar with a *terminus ad quem* of the 7th century BCE.¹³ The same combination appears on one face of an unprovenanced bifacial oval plaque in a rope-shaped horizontal oval frame from Tell esh-Sheikh Zuweid.¹⁴ Likewise, it occurs as a register on several non-Egyptian scarabs: on one in the National Museum in Cagliari, Sardinia;¹⁵ on one scaraboid and one scarab from Bothros 1 at Kition, Cyprus, dated to between 600 and 450 BCE;¹⁶ and on a 7th century scarab from Tomb 68 at Achzib.¹⁷

Typology: Design cowroid.

Origin: Could be Egyptian, but base design and workmanship indicate that it is most probably Phoenician.

Context and dating: Surface 40009P comprises a thin layer of pottery on Stratum IVA Surface 40009 with a *terminus ante quem* of ca. 975 BCE; it was covered by Stratum Pre-IC Scoop Debris 40008 dated to the very end of the 8th century. The pottery and other finds from Surfaces 40009 and 40009P and the dense layer of Scoop Debris 40008 above them were mixed and included sherds dating to the 7th century.

The cowroid should be dated to the 7th century also on the basis of the above-mentioned parallels from Matmar and Achzib. The ratio of length to width of 1.5:1 is typical of some Egyptian 18th Dynasty cowroids and of those of the 26th Dynasty.¹⁸

Cat. No. 8.2. Scarab (Obj. No. 1300, Bucket No. IVNW.8.201, mudbrick Wall 8011, Building 651, Stratum IB/C (Fig. 8.2).

Material: Glazed steatite; traces of yellowish glaze in all the incisions and above and below the legs; grayish surfaces.

Dimensions: Length: 15 mm; width: 11.25 mm; height: 6.5 mm.

Method of manufacture: Carving, abrading, drilling, incising, and glazing.

Workmanship: Good to excellent.

Technical details: Perforated, drilled from both sides. Linear and hollowed-out engraving with hatching.

Preservation: Complete.

Scarab shape: According to Rowe’s typology, HC 6 (13th–ca. 25th Dynasty or later), EP 65 (19th Dynasty), Side 23 (19th Dynasty).

Base design: A vertical oval serves as a frame, with 10 hieroglyphic signs in four horizontal registers.

The uppermost register is made up of a winged solar disc or the *Bḥdt(y)*, “the Behdetite,”¹⁹ an epithet of the winged solar Horus.²⁰ The wings have pronounced feathers, and two pendant uraei hang from the sides of the disc.²¹ The second register has a horizontal oval encircling the prenomen of Thutmose III, *Mn-ḥpr-Rꜥ*. The third register is made up of the phonogram *nh* (“live” [S 34]²²) flanked by two antithetic winged falcons, each protecting a solar disc,²³ and the fourth (and lowest) comprises an isolated *nbw*, the ideogram for “gold” [S 12].²⁴ The arrangement of the four registers on this scarab resembles that on a scarab from Sheikh Zuweid.²⁵

Typology: The scarab belongs to the general group of seals and scarabs bearing royal names, and more specifically, to the group of scarabs bearing the prenomen of Thutmose III.²⁶

Origin: Phoenician, based on the following:

11. See also Keel 1995: 173, § 462; Allen 2000: 433.

12. Gardiner 1973: 567.

13. Brunton 1948: 78, Pl. 62:32.

14. Petrie and Ellis 1937: Pl. 6:48.

15. Matthiae Scandone 1975: 59 (E 17), Pl. 14:E17.

16. Clerc 1976: 76–77 (Kit. 819), 101–2 (Kit. 1043).

17. Brandl 1997: 66–67 (Achsib No. 136).

18. Keel 1995: 78–79, §§ 186, 188. A parallel for a cowroid of similar proportions from Tel Taanach, now at Kibbutz Beth-Alpha, comes from Tomb 7 in Cemetery 7 at Shellal, Egypt (Reisner 1910: 66, Pl. 71a–b:3, right). The latter was originally dated to the New Kingdom, but a scarab found with it (Reisner 1910: 66, Pl. 71a–b:3, left) supports a 7th century BCE date.

19. Behdet is a place name identified with Tell el-Balamun, the northernmost town of Egypt, or alternatively, with Edfu in Upper Egypt (Gardiner 1973: 564).

20. Keel 1995: 170 § 450.

21. Brandl 1993c: 139–40, No. 15.

22. See also Allen 2000: 441; Keel 1995: 169, § 449.

23. Compare with the upper register on a scarab from Tomb ZR 36 at Achzib dated by the excavator to 945–713 BCE (Keel 1997: 41–42 [Achsib No. 61]).

24. See also Allen 2000: 441 and Keel 1995: 172, § 458.

25. Petrie and Ellis 1937: 9, Pl. 6:13 = Jaeger 1982: 145 § 1095, n. 435.

26. Jaeger 1982.

1. The *Mn-hpr-R^c* scarab from Sheikh Zuweid with four registers was interpreted as non-Egyptian²⁷ and seems to be Phoenician product.
2. The scarab from Tomb ZR 36 at Achzib with a top register paralleling the third register on the Ekron scarab seems to be Phoenician rather than Egyptian, due to the asymmetry in its second register.
3. The scarab is related to a group on which a pharaoh is depicted sitting on a throne under a solar disc surrounded by four protecting falcons, identified as Egypto-Palestinian,²⁸ or associated with the sub-group in which the winged solar disc is depicted with pronounced feathers and two hanging uraei. The distribution pattern of this sub-group does not support the suggestion that the scarab was produced in Philistia, but rather has a Phoenician origin.²⁹

That the ideogram *nbw* is incised in straight lines shows that this scarab, like others with the same ideogram form, is definitely a non-Egyptian product—such a rendering of the ideogram does not exist on Egyptian scarabs.³⁰ Likewise, only one scarab belonging to this sub-group has been excavated in Egypt, at Tell el-Yehudiyah, and it has the same misleading carving of the ideogram *nbw*.³¹

Context and dating: Mudbrick Wall 8011 separated Rooms e and g in Stratum IB/C Building 651, dated to the 7th century. As there is a gap in occupation in Field IV Lower between Strata IVA and IC, the scarab, like the residual pottery forms, must have originated in the Iron IIA–B occupation of Strata III–II, dated to the 10th–8th centuries, which existed only in Field I on

the Northeast Acropolis.³² The scarab must therefore have been in use prior to 700 BCE, and based on the typological parallels, should be dated to the 9th–8th centuries, as follows:

1. The Sheikh Zuweid scarab was found in Locus HL397 in Stratum H beneath a Stratum G structure built of Mesopotamian bricks,³³ subsequently identified as an Assyrian structure built by Sargon II.³⁴
2. The scarab from Achzib Tomb ZR 36 was found with an assemblage in which the “bulk of pottery vessels clearly belongs to the 9th–8th centuries BCE.”³⁵
3. Although the “Pharaoh as sun/or sun god” group of scarabs was originally dated to between the 11th and 9th centuries³⁶ or to the 10th–9th centuries³⁷ (the beginning of the 22nd Dynasty of 945–ca. 875 BCE³⁸), and was subsequently dated to the 10th century,³⁹ the contexts of the excavated parallels are clearly later, namely, 900–850 BCE for the scarab from Tell Tayinat and 800–750 BCE for that from Amathus.⁴⁰

Cat. No. 8.3. Scarab (Obj. No. 1015, Bucket No. IVNW.25.57, Fill 25017, Building 651, Room f, Stratum IB) (Fig. 8.3).

Material: Glazed steatite; traces of yellowish glaze in all incisions and above and below legs; grayish surfaces.

Dimensions: Length: 14.5 mm; width: 11 mm; height: 6.5 mm.

Method of manufacture: Carving, abrading, drilling, incising, and glazing.

Workmanship: Good.

Technical details: Perforated, drilled from both sides. Linear and hollowed-out engraving.

Preservation: Broken; most of the base or plinth and the left side of the scarab are missing.

Scarab shape: According to Rowe's typology: HC 6 (ca. 13th–ca. 25th Dynasty or later), EP 122 (25th Dynasty), Side 27 (ca. 13th Dynasty–26th Dynasty).

27. See n. 14.

28. Keel 1982, interpreting the pharaoh as a full sun; Keel subsequently identified the pharaoh as a sun god (1994: 53–134). As for the production center, Keel and Uehlinger have suggested that it was in Philistia (1992: 153–56, § 83; 1998: 136–39, § 83; see also Keel 1995: 37, § 68).

29. Keel, however, included scarabs from Tell Tayinat in the Amuq Valley in southeastern Turkey and from Amathus in Cyprus in a Philistine sub-group that also contained the scarab excavated at Tel Zeror (1994: 80–81, Nos. 19–20, 126, Ills. 18a–b).

30. This has led to the misidentification of the *nbw* ideogram as a pedestal (Giveon 1985: 126–27, Gezer No. 53).

31. Petrie and Garrow Duncan 1906: 15, Pl. 11:212 = Petrie 1925: 29, Pl. 19:1560.

32. See the explanations in Chapters 2 and 4A.

33. Petrie and Ellis 1937: 7, Pls. 10–11.

34. Reich 1981; 1984.

35. *Akhziv Cemeteries*: 90.

36. Keel 1982: 444.

37. Keel 1982: 445; 1994: 91.

38. Keel 1982: 468; Keel 1994: 117–18.

39. Keel and Uehlinger 1992: 153; 1998: 137.

40. Keel 1994: 80–81, Nos. 19–20.

Rowe's dating of EP 122, however, should be emended to the 26th Dynasty. The only scarab with this feature in Rowe's catalogue was found in a Persian period tomb at Gezer ("Philistine" Tomb 4), and bears the nomen of the 4th Dynasty Pharaoh *Mn-k3w-Rc* (Mycerinos), whose name was added on scarabs of the Saite Dynasty,⁴¹ rather than the name of a vassal of the 25th Dynasty Pharaoh Shabaka.

Base design: A vertical oval that serves as a frame has a depiction of part of a scorpion. The design has been reconstructed on the basis of the most common possibility, namely, two scorpions in a *tête-bêche* composition, although a combination of a scorpion and a cobra⁴² or a fish⁴³ cannot be ruled out.

Scarabs and bifacial oval plaques with two scorpions in a *tête-bêche* composition are known from excavations in Egypt, Nubia, and Canaan, and most have been dated to the New Kingdom period. Examples from Egypt come from Thebes at Medinet Habu⁴⁴ and the Ramesseum,⁴⁵ and from Nubia from Tomb 72 in Cemetery 40 near Siali,⁴⁶ Tomb 1 in Cemetery 126 near Maharaqa,⁴⁷ and Tomb 117 in Cemetery 154 at Wadi el-Arab south of Nag^c Abdalla.⁴⁸ Examples from Canaan come from Sheikh Zuweid,⁴⁹ Tell el-Far'ah (South) Tomb 960,⁵⁰ Tell Jemmeh,⁵¹ Beth-Shean (a bifacial oval plaque),⁵² and Achzib Tomb 979.⁵³

Typology: Design scarab.⁵⁴ The scarab belongs to the category of "scarabs bearing Hieroglyphs,

Flowers, &c." (with two scorpions),⁵⁵ "scarabs with animals and human figures" (with scorpions),⁵⁶ or "Invertebres—scorpion."⁵⁷

Origin: Egyptian.

Context and dating: Fill 25017 served as the construction level for and was sealed by Stratum IB Surface 25016 in Building 651 Room f, dated to the last quarter of the 7th century (625–600 BCE), a context close in dating to the production date of the scarab. Since the motif of two scorpions appears on Egyptian seals from the end of the Old Kingdom/beginning of the First Intermediate Period⁵⁸ into the 7th century,⁵⁹ the dating of this scarab from Ekron can be deduced only on the basis of its physical features. It dates to the 26th Egyptian Dynasty/7th century, the only time span that fits with the dates given for all three scarab features in Rowe's typology.

Cat. No. 8.4. Scarab (Obj. No. 508, Bucket No. IVSW.8.19, Topsoil 8001) (Fig. 8.4).

Material: Glazed steatite; traces of yellow glaze in all incisions and above and below legs; grayish surfaces.

Dimensions: Length: 16 mm; width: 11 mm; height: 7 mm.

Method of manufacture: Carving, abrading, drilling, and incising.

Workmanship: Mediocre.

Technical details: Perforated, drilled from both sides. Linear engraving.

Preservation: Complete, except for small scar on head. *Scarab shape:* The features fit Type 10 in Hölbl's typology of steatite scarabs from the first half of the first millennium BCE.⁶⁰ This type has been designated "... clypeus shaped like a lotus flower..."⁶¹ and "Die Lotos-Kopfschild-Gruppe."⁶²

41. *Gezer I–III* (PEF): 293, Fig. 154:15 = Rowe 1936: No. 884 = Keel 1995: 230, § 625, Ill. 530.

42. Petrie and Garrow Duncan 1906: Pl. 33:29A.

43. Newberry 1906: 194, No. 25, Pl. 42:25.

44. Teeter 2003: 89, No. 136, Pl. 40:136.

45. Quibell 1898: Pl. 30:31.

46. Reisner 1910: 242–43 (Northern Chamber), Pl. 71a–b:25 (the 11th scarab).

47. Firth 1927: 172, Scarab c, Pl. 36:174.

48. Emery and Kirwan 1935: 147 (Tomb 117, No. 2), Pl. 32:31.

49. Petrie and Ellis 1937: Pl. 6:45.

50. *Beth-pelet II*: Pl. 55:310 = Rowe 1936: No. 738.

51. *Ancient Gaza III*: Pl. 4:194 = Rowe 1936: No. 739.

52. Beth-Shean 1940: 85, Pl. 38:6.

53. Brandl 1997: 62–63, Achsib No. 126.

54. Although the scorpion was the emblem of the goddess Selqet (von Känel 1984), its dual depiction suggests that the function of the scarab was to protect its owner from being bitten by scorpions.

55. Newberry 1906: Pl. 42:31.

56. Petrie 1925: 25, Pl. 14:930.

57. Matouk 1977: 165, 354, 399, Nos. 900–902, 1319–1323.

58. For example, on a sealing from 'Ayn Aşil made by a button-seal (Giddy and Jeffreys 1980: 264, 266; Grimal 1980: 267–68, Pl. 60:E57 = Keel 1995: 268–69, Ill. 586).

59. For example, on a scarab from Achzib Tomb 979 (Brandl 1997: 62–63, Achsib No. 126).

60. Hölbl 1986 I: 172–74, 178–79, Typentafel I: 10; 1986 II: Pl. 103:3 = Keel 1995: 58, § 119, Ill. 70.

61. Brandl 2001: 266, No. 1.

62. Keel 2003.

Base design: A horizontal oval that serves as a frame contains four hieroglyphic signs in a single row. The central part of the row has the phonogram *nh*, “live” [S 34],⁶³ in a vertical rectangle on the left, and the phonogram *nfr*, “good” [F 35],⁶⁴ on the right. The vertical phonogram *nb*, “lord” or “every” [V 30],⁶⁵ appears twice, serving as a space filler at each end of the row.

This combination has no exact parallel, but the components and their arrangement are found among other scarabs of the same group:

1. The phonogram *nh* in a vertical oval appears on scarabs excavated in Tomb 13 at Bassit,⁶⁶ at Timnah⁶⁷ and in Tomb 229 at Far‘ah (S),⁶⁸ as well as on three scarabs from Sheikh Zuweid that may belong to the same group.⁶⁹ The same component appears on a scarab that may be from Sardinia in the National Museum at Cagliari⁷⁰ and on five other unprovenanced scarabs.⁷¹
2. The phonogram *nfr* as a dominant component appears on two scarabs from Far‘ah (S): one from Tomb 220⁷² and the other from Tomb 229.⁷³
3. Two vertical *nb* phonograms with hatching, together with the phonogram *nh*, appear on the above-mentioned scarab in the National Museum in Cagliari. This is actually the closest parallel to Ekron scarab. A scarab from Tomb 202 at Amathus, now in the Cyprus Museum, with the phonogram *nh* in a vertical oval and two *nb* phonograms with hatching, although the latter are horizontal, may belong to the same group.⁷⁴

63. See also Keel 1995: 169, § 449; Allen 2000: 441.

64. See also Keel 1995: 172, § 459; Allen 2000: 430.

65. See also Keel 1995: 171, § 458.

66. *Bassit*: 13, 23, 74–75, 178, Fig. 20:7, Pl. 12:10 (erroneously printed as item 12); Lagarce 1993.

67. Brandl 2001: 266–68, No. 1 = Keel 2003: 127–28, No. 1.

68. *Beth-pelet I*: Pl. 39:438 = Keel 2003: No. 25.

69. Petrie and Ellis 1937: Pl. 6:9, 25, 27 = Brandl 2001: 267, nn. 9–10 = Keel 2003: 135–36, Nos. 28–30.

70. Matthiae Scandone 1975: 59 (E 18), Pl. 14 (E 18) = Hölbl 1986 I: 172–74, 178–79 (Typentafel I: 10); 1986 II: Pl. 103:3 = Brandl 2001: 267 = Keel 2003: No. 24.

71. Brandl 2001: 267 (Scarab Base) = Keel 2003: Nos. 2–5, 8.

72. *Beth-pelet I*: Pl. 35:386 = Keel 2003: No. 23.

73. *Beth-pelet I*: Pl. 39:440 = Keel 2003: No. 22.

74. Myres and Ohnefalsch-Richter 1899: 135, No. 4541, Pl. 8:4541.

The above-mentioned scarab from Bassit also has a horizontal hatched *nb* phonogram.⁷⁵

Typology: Design scarab.

Origin: Phoenician. This scarab belongs to one of several sub-groups of later imitations of Second Intermediate Period scarabs produced throughout the Iron II along the extended Phoenician coast, designated the “pseudo-Hyksos group” or “archaisierender Skarabäus der Spätzeit.”⁷⁶ Two scarabs from Phoenicia belonging to the same sub-group come from Family Tomb N.1 at Achzib⁷⁷ and Urn 32 at Tyre-Al Bass.⁷⁸ The scarab from Bassit may represent the northernmost extent of the distribution of this sub-group.⁷⁹

Context and dating: Given that the scarab was found in Topsoil 8001, its association with Stratum IB/C of the 7th century is based on the typological analysis. It is of a type in use from the late 8th century (for example, the scarabs from Megiddo and Lachish found in strata destroyed by the Assyrians in 732 and 701 BCE, respectively) through the 7th century (for example, at Tel Batash Stratum II), in both Israel and Judah.⁸⁰ Another scarab of this type was found in a 7th century context in Tomb 333 in the Cemetery of Sanam in Nubia,⁸¹ together with a scarab bearing the nomen of 25th Dynasty Pharaoh Taharqa.⁸² The two above-mentioned Phoenician scarabs support this time span: the scarab from Achzib Family Tomb N.1 comes from Phase 3, dated to the “end of 9th–7th centuries BCE,”⁸³ and that from Urn 32 at Tyre-Al Bass comes from Period IV, dated to “ca. second half of the VIII—beginning of the VII century B.C.”⁸⁴ At Bassit, Tomb 13 in which the scarab was found is dated to 630–600 BCE.⁸⁵

75. See n. 66.

76. See Brandl 2001: 267, n. 12.

77. Cowie 2004: 181, No. 4.

78. Gamer-Wallert 2004: 398, 407–8, Figs. 259:9, 268.

79. See n. 66.

80. See Brandl 2001: 267 (Scarab Base), n. 11.

81. Griffith 1923: 131, Pl. 45:34 = Keel 2003: No. 19. Keel erroneously associated this scarab with Tomb 411 (2003: 143–44), the contents of which are discussed separately by Münster in the same article.

82. Griffith 1923: 113–14, 148, Pl. 43:2.

83. *Achziv Northern Cemetery*: 22.

84. Aubet 2004: 459, 465, Figs. 306, 312.

85. *Bassit*: 13 (table).

CONCLUSIONS

The seals can be divided into two groups in terms of origin: three are apparently Phoenician (**Cat. Nos. 8.1–8.2, 8.4**) and one is clearly Egyptian (**Cat. No. 8.3**). The glyptic material thus points to Ekron's strong association with the extended Phoenician coast during the Iron IIB–C. As for dating, the seals can also be divided into two groups: the first is represented by one scarab from the 9th–8th centuries (**Cat. No. 8.2**) and the second by one scarab from the late 8th–7th

centuries (**Cat. No. 8.4**) and one scaraboid and one scarab from the 7th century (**Cat. Nos. 8.1, 8.3**).

Given the gap in occupation in Field IV Lower for most of the 10th until the end of the 8th century, the earlier scarab must have been transferred from a Field I Stratum III or II context, most probably in material used for construction fills. Although the seals were found in mixed or post-depositional contexts, in light of the well-defined stratigraphic sequence at the site, it can be assumed that they were originally in use in the stratum associated with their chronological attribution.



Fig. 8.1. Cowroid, probably Phoenician, 7th century (Cat. No. 8.1)



Fig. 8.2. Scarab, Phoenician, 9th–8th centuries (Cat. No. 8.2)

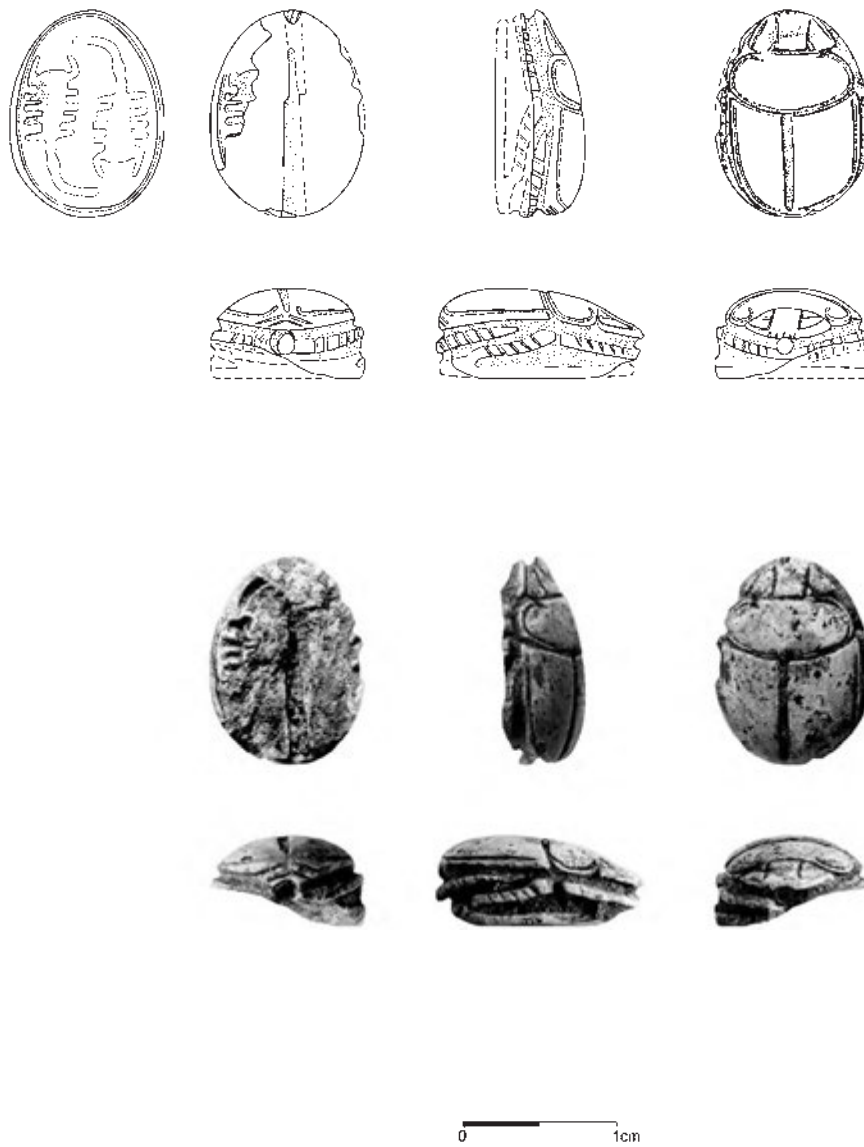


Fig. 8.3. Scarab, Egyptian, 26th Dynasty/7th century (Cat. No. 8.3)



Fig. 8.4. Scarab, Phoenician, late 8th–7th centuries (Cat. No. 8.4)

CHAPTER 9

IRON AGE II AND ROMAN PERIOD STONE TOOLS AND VESSELS

Ianir Milevski

INTRODUCTION

The excavations in Field IV Lower produced a total of 620 stone tools and vessels from MB II Stratum XI, Iron I Strata VIIIB through IVA, Iron II Strata Pre-IC and IC through IA, and the Roman period, with ca. 42% of the stone objects deriving from Stratum IC–A of the 7th–6th centuries BCE. Of these, 93 unstratified objects are not included in the analysis. The principal assemblages belong to the Iron Age craft tradition; the MB II is represented by a few finds, as is the Early Roman period chalk vessel industry. This chapter represents a preliminary report primarily on the Iron II assemblage of 264 stone tools and vessels (Table 9.1).¹

The frequency of the objects by stratum, irrespective of their actual dating, is presented in Table 9.1. Tables 9.2–9.9 present the stone objects found in Stratum IB/C Buildings 651, 652, 653, and 654, dated to the 7th century. These buildings, together with Building 655, represent the Temple Auxiliary Buildings for Temple Complex 650 in the adjacent Field IV Upper.² A few stone objects were also found in Street 656 and Alley 657 to its north, as well as in Stratum IA Building 658. The low number of objects found in Building 655 is probably because only ca. 10% of the building was excavated. It can also be assumed that with only ca. 50% of Building 653 excavated, the building would have yielded more stone objects than those presented in this chapter. Table 9.10 presents a list of all the stone objects found in Stratum IC–A by architectural unit. The typology for the Iron Age

assemblages generally follows Wright 1992, Hovers 1996, and Milevski 1998, and for the Roman period objects, Cahill 1992.

THE ASSEMBLAGE FROM STRATUM IB/C (Tables 9.2–9.9, Figs. 9.1–9.3:1–5)

The Iron II assemblage is composed mainly of objects from the 7th century Stratum IB/C occupation and destruction levels in Buildings 651, 652, 653, and 654. Since the assemblages from the Strata Pre-IC and IA are not well represented, they are not discussed in this chapter.

The frequencies of tools in Stratum IB/C are similar to those in the Iron I assemblages,³ with lower and upper grinding stones (Fig. 9.1) representing ca. 50% of all the objects. Mortars (N=27) and rubbing stones (N=23) (Fig. 9.2:1–2) are relatively numerous in Stratum IB, respectively representing over 13% and 11% of the objects in this stratum. The other principal tool type in Stratum IB/C is the hammerstone (N=18). A few of these tools are clearly cubic or spherical in shape; most are made of flint nodules.

Vessels from secure contexts are very rare in the Temple Auxiliary Buildings (Tables 9.2–9.10). The only vessel found in Building 654 (Tables 9.8–9.9) is a footed bowl made of limestone (Fig. 9.2:3). An imported 25th–26th Dynasty (8th–7th century) Egyptian alabastron made of calcite found in Street 656 (Fig. 9.3:3) is similar to an example from Temple Complex 650.⁴ It has a short neck and vestigial handles.⁵

1. The full report and discussion on the ground stone industry at the site will be published by this author in *Ekron* 14/1–2.
2. For a discussion on the Temple Auxiliary Buildings, see Chapter 1; the data from Field IV Upper will be published in *Ekron* 10.

3. Milevski 2016.
4. Obj. No. 7145, Reg. No. IVNW.93.032.
5. For dating and parallels, see Petrie 1937: Pl. XXXVII:949; B. Aston 1994: 106, Figs. 218b, 219.

In Building 651, the majority of the objects (N=34) come from Rooms a and d, the northern part of the building (Tables 9.2–9.3). The second largest group of objects (N=15) was found in Rooms f and g in the center of the building. No stone objects were found in Room c in the southern part of the building, and only a few in Rooms b, e, h, and i. Room a yielded the highest number of objects (N=23), indicating its possible function associated with food preparation.⁶ The tools in Rooms a and b come from construction, occupation, and destruction contexts in similar frequencies.

A pommel made of calcite (Fig. 9.3:4) was found in Room g, a parallel for which comes from Megiddo Stratum III (late Iron II).⁷ A lid made of an unknown soft stone (Fig. 9.3:5) was also found in Room g. Except for this object, all of the tools in Room g come from destruction contexts. Tool types are randomly distributed in the rooms. In Building 651, ca. 21% (N=17) of the objects were found within the walls, showing a high degree of secondary use of tools in construction.

In Building 652, ca. 39% of the objects were found in Room a (Tables 9.4–9.5). Apart from one lower grinding stone in secondary use in a wall, the tool types represented are upper grinding stones, mortars, rubbing stones, hammerstones, and pounders, almost all found in destruction levels. In Building 653, the objects from the rooms were evenly distributed, with ca. 39% found in secondary use in walls (Tables 9.6–9.7). Lower and upper grinding stones represented ca. 50% of all the objects.

Building 654 yielded the largest assemblage of stone objects (N=108), the majority represented by lower and upper grinding stones (N=57) (Fig. 9.1) (Tables 9.8–9.9). They come mainly from the southern and eastern rooms of the building, with the highest concentration in Room a. Numerous mortars (N=17) were also found in several of the rooms in Building 654. Among the rarer finds is a palette from Room a (Fig. 9.3:2). Room b yielded the most varied assemblage of artifacts, including a basin or tub (Fig. 9.2:4) and a roller (Fig. 9.3:1).⁸

STONE OBJECTS FROM THE ROMAN PERIOD (Table 9.1, Fig. 9.3:6–7)

The Roman period assemblage derives from robber trenches and topsoil in Areas IVNW.27 and IVNW.43. These finds (listed only in Table 9.1) are probably related to Roman period Building 950 in adjacent Field IV Upper.⁹ The objects found in the trenches do not constitute a homogeneous assemblage, as they also contain tools from earlier occupation strata. The main forms come from Area IVNW.41 and comprise chalk industry vessels of the Early Roman period,¹⁰ mainly cups (Fig. 9.3:6–7).

PRELIMINARY CONCLUSIONS

The following observations regarding the stone objects from the Temple Auxiliary Buildings in Field IV Lower may contribute to an understanding of their function. The vast majority of these objects are tools; vessels are very rare.

Building 651 had a significant concentration of food preparation implements, especially grinding stones and mortars, mainly in its northern part. While Building 654 also had numerous grinding stones and mortars, concentrated mainly in Rooms a and e, Rooms a and b yielded several cultic and other inscriptions on restorable storage jar sherds, perhaps indicating a less mundane function for these rooms. In addition, the silver hoards found in Rooms b and c may be associated with the economic activities of the priesthood or other temple officials,¹¹ which would point to the unique multi-functional character of this building. As for Building 652, it also shows a concentration of activities, with similar stone objects found in Room a as those in Building 651. Building 653 had a disparate distribution of objects. No general statements can be made regarding Building 655 due to the very meager assemblage.

All of the above would fit the identification of these structures as Temple Auxiliary Buildings.

6. See, however, the analysis in Chapters 1 and 3.

7. *Megiddo I*: Pl. 107:11.

8. The latter may have been used in conjunction with stone Basin IVNE.23002 in adjacent Room e (see the discussion on Building 654 in Chapter 1).

9. Building 950 will be published in full in *Ekron* 10.

10. See Cahill 1992; Magen 2002.

11. For the contexts of the inscriptions and silver hoards, see Chapter 1.

Abbreviations used in tables:

HS: hammerstone; LGS: lower grinding stone; MLT: multi-use tool; MRT: mortar; PND: pounder; PS: perforated stone; PST: pestle; REC: recycled tool; RS: rubbing stone; UGS: upper grinding stone; VES: vessel

Table 9.1: Stone tools by stratum

Stratum	LGS	UGS	MRT	PST	RS	PS	HS	PND	MLT	REC	VES	Other	Total
Roman	2	2	1			1				1	3	1	11
IA	2	2	2										6
IB	44	54	27	1	23	3	16	10	1		10	8	197
IC	10	10	2	1	4	1	2			1		2	33
Pre-IC	10	12	1	1	1		3						28
Total	71	79	33	3	28	5	23	10	1	2	13	12	275

Table 9.2: Stone tools and vessels from Building 651 Stratum IB/C by architectural unit

Unit	LGS	UGS	MRT	RS	HS	PND	VES	Other	Total
Room a	7	5	2	3	3	1	1		23
Room b	2	2						1	5
Room c									
Room d	6	2	1		2				11
Room e	1	1			1				3
Room f		3		1	2	1	1		8
Room g	1	2	1				1	2	7
Room h		1		1					2
Room i	1	1		1					3
Walls	4	7	2	1		1			15
Unknown		1			1				2
Total	22	25	6	7	8	3	3	3	79

Table 9.3: Context and type of stone tools and vessels from Stratum IB/C Building 651 by architectural unit

Unit	Construction	Occupation	Destruction	Wall	Total
Room a	2 LGS, 1 UGS, 1 MRT, 2 RS	3 LGS, 3 UGS, 1 HS, 1 bowl	2 LGS, 3 UGS, 1 MRT, 2 HS, 1 PND		23
Room b	1 UGS	2 LGS, 1 UGS, 1 lid			5
Room c					
Room d	4 LGS, 2 UGS, 1 MRT	1 LGS, 2 HS	1 LGS		11
Room e		1 LGS, 1 UGS, 1 HS			3
Room f	2 UGS, 1 HS	1 UGS, 1 PND	1 HS, 1 RS, 1 bowl		8
Room g		1 lid	1 LGS, 2 UGS, 1 MRT, 1 PS, 1 bowl		7
Room h		1 UGS	1 RS		2
Room i		1 LGS, 1 UGS	1 RS		3
8006				1 UGS, 1 RS	2
25013				1 LGS, 1 PND	2
25020				1 MRT	1
25029				1 LGS	1
25030				1 UGS, 1 MRT	2
25048				1 LGS	1
26006				1 LGS, 1 UGS	2
26020				1 UGS	1
26032				1 UGS	1
42006				1 UGS	1
43011				1 UGS	1
Unknown				1 UGS, 1 HS	2
Total	17	24	21	17	79

Table 9.4: Stone tools from Building 652 Stratum IB/C by architectural unit

Unit	LGS	UGS	MRT	RS	HS	PND	Total
Room a		4		1	2		7
Room c			1			1	2
Room d			2	1	1		4
Wall	1					1	2
Unknown			1	2			3
Total	1	4	4	4	3	2	18

Table 9.5: Context and type of stone tools from Stratum IB/C Building 652 by architectural unit

Unit	Construction	Destruction	Wall	Total
Room a		4 UGS, 1 RS, 2 HS		7
Room c		1 MRT, 1 PND		2
Room d		2 MRT, 1 RS, 1 HS		4
9003			1 LGS, 1 PND	2
Unknown	1 RS	1 MRT, 1 RS		3
Total	1	15	2	18

Table 9.6: Stone tools from Building 653 Stratum IB/C by architectural unit

Unit	LGS	UGS	MRT	RS	PST	HS	PND	MLT	Total
Room a	1	1			1				3
Room b	1					1			2
Room c				1				1	2
Room f		2	1	1					4
Walls	4	1	1	1					7
Total	6	4	2	3	1	1		1	18

Table 9.7: Context and type of stone tools from Stratum IB/C Building 653 by architectural unit

Unit	Construction	Destruction	Wall	Total
Room a		1 LGS, 1 UGS, 1 PST		3
Room b	1 HS	1 LGS		2
Room c		1 RS, 1 MLT		2
Room f	2 UGS, 1 MRT, 1 RS			4
25012			3 LGS, 1 MRT	4
25018			1 LGS, 1 UGS, 1 RS	3
Total	5	6	7	18

Table 9.8: Stone tools and vessels from Building 654 Stratum IB/C by architectural unit

Unit	LGS	UGS	MRT	RS	HS	PND	MLT	VES	Other	Total
Room a	4	5	3	4	3				1	20
Rooms a/b	2	2								4
Room b		2	4	2	1	3			2	14
Room c						1		1	1	3
Room d	1	1	2							4
Room e	9	7	4	3	1	2				26
Rooms e/f		4			1				1	6
Room f			1							1
Room g				1						1
Room h		1		1						2
Room i	1	1	1							3
Walls	5	8	1	1	1				2	18
Unknown	4		1	1						6
Total	26	31	17	13	7	6		1	7	108

Table 9.9: Context and type of stone tools and vessels from Stratum IB/C Building 654 by architectural unit

Unit	Construction	Occupation	Destruction	Socle	Wall	Total
Room a		1 LGS, 4 UGS, 3 HS, 1 RS, 1 palette	3 LGS, 1 UGS, 3 MRT, 3 RS			20
Rooms a/b	1 UGS		2 LGS, 1 UGS			4
Room b		2 UGS, 1 MRT, 1 HS, 2 PND, 1 RS	1 MRT, 1 PND, 1 RS, 1 roller, 1 basin	2 MRT		14
Room c			1 PND, 1 grooved stone, 1 bowl			3
Room d		1 LGS, 2 MRT, 1 UGS				4
Room e	1 LGS, 2 UGS, 1 HS	5 LGS, 1 UGS, 3 MRT, 1 PND, 1 RS	3 LGS, 4 UGS, 1 MRT, 1 PND, 2 RS			26
Rooms e/f	4 UGS		1 HS, 1 stopper			6
Room f		1 MRT				1
Room g		1 RS				1
Room h		1 UGS, 1 RS				2

Cont.: Table 9.9

Unit	Construction	Occupation	Destruction	Socle	Wall	Total
Room i		1 LGS, 1 UGS, 1 MRT				3
7021					1, LGS, 3 UGS, 1 MRT, 1 RS, 1 PALETTE	7
7028					1 UGS	1
7030					1 LGS, 2 UGS	3
7041					2 LGS, 1 UGS	3
8031					1 HS	1
23025					1 LGS, 1 UGS	2
24030					1 PS	1
Unknown				4 LGS, 1 MRT, 1 RS		6
Total	9	39	34	8	18	108

Table 9.10: Stone tools and vessels from Strata IC–IA by architectural unit

Building	Room	Context	Obj. No.	Type	Stratum	Locus	Bucket No.
651			1950	HS	Topsoil	23001	IVNW.23.23
651	a	Occupation	4089	Bowl	IB/C	42011	IVNW.42.62
651	a	Occupation	3544	HS	IB/C	42002	IVNW.42.12
651	a	Destruction	3614	HS	IB/C	42003	IVNW.42.25
651	a	Destruction	4181	HS	IB/C	42003	IVNW.42.77
651	a	Destruction	4196	LGS	IB/C	26017	IVNW.26.44
651	a	Occupation	4198	LGS	IB/C	26013	IVNW.26.46
651	a	Construction	4275	LGS	IB/C	26025	IVNW.26.66
651	a	Occupation	2313	LGS	IB/C	41015	IVNW.41.95
651	a	Occupation	3530	LGS	IB/C	42002	IVNW.42.19
651	a	Destruction	3937	LGS	IB/C	42003	IVNW.42.53
651	a	Construction	3938	LGS	IB/C	42003	IVNW.42.53
651	a	Construction	3615	MRT	IB/C	26015P	IVNW.26.31
651	a	Destruction	3936	MRT	IB/C	42008	IVNW.42.54
651	a	Destruction	4182	PND	IB/C	42003	IVNW.42.77
651	a	Construction	10131	RS	IB/C	26025	IVNW.26.74

Cont.: Table 9.10

Building	Room	Context	Obj. No.	Type	Stratum	Locus	Bucket No.
651	a	Construction	10145	RS	IB/C	26025	IVNW.26.74
651	a	Destruction	4180	RS?	IB/C	42003	IVNW.42.77
651	a	Destruction	3958	UGS	IB/C	26017	IVNW.26.40
651	a	Destruction	1967	UGS	IB	41010	IVNW.41.42
651	a	Occupation	2314	UGS	IB/C	41015	IVNW.41.95
651	a	Destruction	3935	UGS	IB/C	42008	IVNW.42.54
651	a	Occupation	4036	UGS	IB/C	42011	IVNW.42.60
651	a	Occupation	4321	UGS	IB/C	42020	IVNW.42.106
651	a/d		5928	UGS?	Topsoil	26003	IVNW.26.11
651	b	Occupation	1620	LGS	IB/C	24026.1	IVNW.24.160
651	b	Occupation	7984	LGS?	IB	41007P	IVNW.41.34
651	b	Occupation	1954	Lid	IB/C	40004.1	IVNW.40.39
651	b	Occupation	1952	UGS	IB/C	40004	IVNW.40.27
651	b	Construction	2169	UGS	IB/C	41023	IVNW.41.66
651	d	Occupation	3532	HS	IB/C	10006	IVNW.10.15
651	d	Occupation	3531	HS	IB/C	10006	IVNW.10.16
651	d	Occupation	4388	LGS	IB/C	10006	IVNW.10.46
651	d	Construction	4389	LGS	IB/C	10010	IVNW.10.49
651	d	Construction	4384	LGS	IB/C	10010	IVNW.10.57
651	d	Construction	10192	LGS	IB/C	26030	IVNW.26.71
651	d	Destruction	3693	LGS?	IB	26014	IVNW.26.36
651	d	Construction	10141	LGS?	IB/C	26030	IVNW.26.71
651	d	Construction	4379	MRT	IB/C	10010	IVNW.10.57
651	d	Construction	4373	UGS	IB/C	10010	IVNW.10.54
651	d	Construction	4436	UGS	IB/C	10010	IVNW.10.69
651	e	Occupation	3459	HS	IB	9007	IVNW.9.151
651	e	Occupation	650	LGS	IB	9007P	IVNW.9.150
651	e	Occupation	1240	UGS	IC	25019.1	IVNW.25.102
651	f	Destruction	1141	Bowl	IB	24005	IVNW.24.37
651	f	Construction	1422	HS	IC	25028	IVNW.25.826
651	f	Occupation	7946	PND?	IB	24005	IVNW.24.60
651	f	Destruction	1013	RS	IB	25010	IVNW.25.45
651	f	Occupation	9774	UGS	IB	24011	IVNW.24.92

Cont.: Table 9.10

Building	Room	Context	Obj. No.	Type	Stratum	Locus	Bucket No.
651	f	Construction	1275	UGS	IC	25018.1	IVNW.25.117
651	f	Construction	2649	UGS	IC	25018.1	IVNW.25.129
651	g	Destruction	7822	Bowl	IB	8002	IVNW.8.99
651	g	Destruction	10077	LGS	IB	8002	IVNW.8.158
651	g	Occupation	1310	Lid	IB/C	8012.1	IVNW.8.196
651	g	Destruction	1130	MRT	IB	8002	IVNW.8.92
651	g	Destruction	1050	PS	IB	8002	IVNW.8.74
651	g	Destruction	880	UGS	IA/B	25004	IVNW.25.22
651	g	Destruction	10149	UGS	IB	8002	IVNW.8.118
651	h	Destruction	10222	RS	IB	8003	IVNW.8.97
651	h	Occupation	10008	UGS	IB	8020P	IVNW.8.295
651	i	Occupation	2049	LGS	IB/C	7006.1	IVNW.7.19
651	i	Destruction	1948	RS	IB	23006.1	IVNW.23.18
651	i	Occupation	2050	UGS	IB/C	7006.1	IVNW.7.19
651		Wall	1280	PND	IB	25013	IVNW.25.107
651		Wall	1264	LGS	IB	25013	IVNW.25.107
651		Wall	4719	LGS	IB/C	26006	IVNW.26.100
651		Wall	1265	MRT	IB	25020	IVNW.25.106
651		Wall	3474	RS	IB/C	8006	IVNW.8.218
651		Wall	2644	UGS	IB/C	8006	IVNW.8.218
651		Wall	10100	LGS	IC	25029	IVNW.25.139
651		Socle	10035	LGS	IB/C	25048	IVNW.25.267
651		Wall	1393	MRT	IC	25030	IVNW.25.140
651		Wall	1377	UGS	IC	25030	IVNW.25.140
651		Wall	10138	UGS	IB/C	26020	IVNW.26.70
651		Wall	10142	UGS	IB/C	26032	IVNW.26.91
651		Wall	10147	UGS	IB/C	26006	IVNW.26.94
651		Wall	4545	UGS	IB/C	42006	IVNW.42.138
651		Wall	3918	UGS	IB/C	43011	IVNW.43.28
652	d/b/a/c	Destruction	4532	RS	IB	9002	IVNE.9.169
652	a	Destruction	4024	HS	IB	10014	IVNE.10.51
652	a	Destruction	4114	HS	IB	10014	IVNE.10.51
652	a	Destruction	3659	RS	IB	10014	IVNE.10.39

Cont.: Table 9.10

Building	Room	Context	Obj. No.	Type	Stratum	Locus	Bucket No.
652	a	Destruction	3660	UGS	IB	10014	IVNE.10.39
652	a	Destruction	3661	UGS	IB	10014	IVNE.10.39
652	a	Destruction	4113	UGS	IB	10014	IVNE.10.51
652	a	Destruction	3029	UGS	IB	9004	IVNE.9.60
652	b/d	Construction	3505	MRT	IB/C	9022	IVNE.9.76
652	c	Destruction	3509	MRT	IB	10006	IVNE.10.14
652	d	Destruction	2981	HS	IB	9002	IVNE.9.40
652	d	Destruction	3030	MRT	IB	9002	IVNE.9.9
652	d	Destruction	3031	MRT	IB	9002	IVNE.9.9
652	d	Destruction	2966	PND	IB	9002	IVNE.9.24
652	d	Destruction	2982	RS	IB	9002	IVNE.9.38
652	d/b	Construction	7828	RS	IB/C	9007.1	IVNE.9.58
652		Wall	3062	LGS	IB/C	9003	IVNE.9.63
652		Wall	10005	PND	IB	9003	IVNW.9.29
653	a	Destruction	3853	LGS	IB	26002	IVNE.26.14
653	a	Destruction	3548	PST	IB	26002	IVNE.26.12
653	a	Destruction	3581	UGS	IB	26002	IVNE.26.14
653	b	Construction	3375	HS	IB	25016.1	IVNE.25.119
653	b	Destruction	7812	LGS	IB	25006	IVNE.25.117
653	c	Destruction	3251	MLT	IB	24002	IVNE.24.85
653	c	Destruction	3349	RS	IB	24002	IVNE.24.119
653	f	Construction	3517	MRT	IC	25025	IVNE.25.136
653	f	Construction	3498	RS	IC	25025	IVNE.25.135
653	f	Construction	3496	UGS	IC	25025	IVNE.25.135
653	f	Construction	3499	UGS	IC	25025	IVNE.25.135
653		Wall	3504	LGS	IB	25018	IVNE.25.129
653		Wall	3520	LGS	IB	25012	IVNE.25.140
653		Wall	3521	LGS	IB	25012	IVNE.25.140
653		Wall	3524	LGS?	IB	25012	IVNE.25.140
653		Wall	3523	MRT	IB	25012	IVNE.25.140
653		Wall	3528	RS	IB	25018	IVNE.25.129
653		Wall	3503	UGS	IB	25018	IVNE.25.124
654		Socle	3910	LGS	IB	7042	IVNE.7.188

Cont.: Table 9.10

Building	Room	Context	Obj. No.	Type	Stratum	Locus	Bucket No.
654		Socle	3911	LGS	IB	7042	IVNE.7.188
654		Socle	3915	LGS	IB	7042	IVNE.7.188
654		Socle	3916	LGS	IB	7042	IVNE.7.188
654			7987	MRT	Topsoil	8001	IVNE.8.146
654		Socle	3914	RS	IB	7042	IVNE.7.158
654	a	Occupation	2095	HS	IB	7011P	IVNE.7.91
654	a	Occupation	2094	HS	IB	7011P	IVNE.7.91
654	a	Occupation	2142	HS	IB	7011	IVNE.7.115
654	a	Destruction	2271	LGS	IB	7007	IVNE.7.39
654	a	Destruction	10083	LGS	IB	7007	IVNE.7.39
654	a	Occupation	2273	LGS	IB	7011	IVNE.7.97
654	a	Destruction	3676	LGS	IB	7017B	IVNE.7.163
654	a	Destruction	1970	MRT	IB	7007	IVNE.7.43
654	a	Destruction	1971	MRT	IB	7007	IVNE.7.43
654	a	Destruction	1973	MRT	IB	7007	IVNE.7.48
654	a	Occupation	2097	Palette	IB	7011P	IVNE.7.91
654	a	Destruction	1969	RS	IB	7007	IVNE.7.43
654	a	Destruction	1972	RS	IB	7007	IVNE.7.48
654	a	Destruction	3537	RS	IB	7019B	IVNE.7.131A
654	a	Occupation	3005	RS	IB	7019A	IVNE.7.144
654	a	Destruction	2042	UGS	IB	7008	IVNE.7.50
654	a	Occupation	2267	UGS	IB	7011	IVNE.7.97
654	a	Occupation	2272	UGS	IB	7011	IVNE.7.97
654	a	Occupation	2274	UGS	IB	7011	IVNE.7.101
654	a	Occupation?	3663	UGS	IC	7020	IVNE.7.162
654	a/b	Destruction	3583	LGS	IB	7017B	IVNE.7.120A
654	a/b	Destruction	4126	LGS	IB	7017B	IVNE.7.223
654	a/b	Construction	7989	UGS	IB	7020B	IVNE.7.138
654	a/b	Destruction	4125	UGS	IB	7017B	IVNE.7.223
654	b	Destruction	1873	Basin	IB	8002	IVNE.8.10
654	b	Occupation	3582	HS	IB	8016	IVNE.8.140
654	b	Destruction	1899	MRT	IB	7006	IVNE.7.14
654	b	Socle	2437	MRT	IB	8003	IVNE.8.129

Cont.: Table 9.10

Building	Room	Context	Obj. No.	Type	Stratum	Locus	Bucket No.
654	b	Socle	2438	MRT	IB	8003	IVNE.8.129
654	b	Occupation	3688	MRT	IB	8016.1	IVNE.8.142
654	b	Destruction	1853	PND	IB	8002	IVNE.8.7
654	b	Occupation	3687	PND	IB	8016.1	IVNE.8.142
654	b	Occupation	7945	PND?	IB	8016P	IVNE.8.123
654	b	Destruction	2041	Roller	IB	7006	IVNE.7.14
654	b	Destruction	1892	RS	IB	8002	IVNE.8.38
654	b	Occupation	2024	RS	IB	8016P	IVNE.8.88
654	b	Occupation	3685	UGS	IB	8016.1	IVNE.8.142
654	b	Occupation	3686	UGS	IB	8016.1	IVNE.8.142
654	c	Destruction	1869	Bowl	IB	8005	IVNE.8.12
654	c	Destruction	2132	Grooved stone	IB	8015	IVNE.8.121
654	c	Destruction	1868	PND	IB	8005	IVNE.8.12
654	d	Occupation	3527	LGS	IB	7019B	IVNE.7.131A
654	d	Occupation	2099	MRT	IB	7012P	IVNE.7.102
654	d	Occupation	10245	MRT	IB	8014P	IVNE.8.57
654	d	Occupation	3543	UGS	IB	7019B	IVNE.7.130A
654	e	Destruction	3018	PND	IB	24007	IVNE.24.26
654	e	Construction	3139	HS	IB	24007.1	IVNE.24.76
654	e	Occupation	3495	LGS	IB/C	23007	IVNE.23.76
654	e	Occupation	3511	LGS	IB/C	23007	IVNE.23.76
654	e	Occupation	3671	LGS	IB/C	23018	IVNE.23.77
654	e	Occupation	3672	LGS	IB/C	23018	IVNE.23.77
654	e	Occupation	3673	LGS	IB/C	23018	IVNE.23.77
654	e	Destruction	10036	LGS	IB	24006	IVNE.24.67
654	e	Destruction	9715	LGS	IB	24006	IVNE.24.73
654	e	Construction	10252	LGS	IB	24007.1	IVNE.24.76
654	e	Destruction	9885	LGS	IB	24006	IVNE.24.107
654	e	Occupation	3489	MRT	IB/C	23007	IVNE.23.76
654	e	Occupation	3490	MRT	IB/C	23007	IVNE.23.76
654	e	Occupation	3526	MRT	IB/C	23024	IVNE.23.99
654	e	Destruction	3113	MRT	IB	24006	IVNE.24.67
654	e	Occupation	3016	PND	IB	24007	IVNE.24.26

Cont.: Table 9.10

Building	Room	Context	Obj. No.	Type	Stratum	Locus	Bucket No.
654	e	Occupation	3669	RS	IB/C	23018	IVNE.23.77
654	e	Destruction	3001	RS	IB	24006	IVNE.24.23
654	e	Destruction	3148	RS	IB	24006	IVNE.24.73
654	e	Occupation	3670	UGS	IB/C	23018	IVNE.23.77
654	e	Construction	3497	UGS	IB/C	23012.1	IVNE.23.84
654	e	Construction	3500	UGS	IB/C	23012.1	IVNE.23.84
654	e	Destruction	3114	UGS	IB	24006	IVNE.24.66
654	e	Destruction	3149	UGS	IB	24006	IVNE.24.73
654	e	Destruction	9712	UGS	IB	24006	IVNE.24.73
654	e	Destruction	3387	UGS	IB	24006	IVNE.24.103
654	e/f	Destruction	3103	HS	IB	23005	IVNE.23.48
654	e/f	Destruction	2989	Stopper	IB	23005	IVNE.23.31
654	e/f	Construction	3508	UGS	IB/C	23022	IVNE.23.88
654	e/f	Construction	3519	UGS	IB/C	23022	IVNE.23.88
654	e/f	Construction	3515	UGS	IB/C	23022	IVNE.23.89
654	e/f	Construction	3516	UGS	IB/C	23022	IVNE.23.89
654		Wall	3854	LGS	IB/C	23025	IVNE.23.125
654	f	Occupation	3518	MRT	IB/C	23014	IVNE.23.93
654		Wall	3782	UGS	IB/C	23025	IVNE.23.125
654	g	Occupation	3681	RS	IC	8039	IVNE.8.169
654	h	Occupation	3691	RS	IC	7026.1	IVNE.7.150
654	h	Occupation	3696	UGS?	IC	7026.1	IVNE.7.150
654	i	Occupation	3658	LGS	IC	7025P	IVNE.7.143
654	i	Occupation	3773	MRT	IC	8035	IVNE.8.172
654	i	Occupation	3657	UGS	IC	7025P	IVNE.7.143
654		Wall	3810	HS	IC	8031	IVNE.8.170
654		Wall	3934	PS	IB	24030	IVNE.24.167
654		Wall	4179	UGS	IB/C	7028	IVNE.7.238
654		Wall	3665	GS?	IC	7021	IVNE.7.164
654		Wall	3666	LGS	IC	7021	IVNE.7.164
654		Wall	3903	LGS	IB	7030	IVNE.7.178
654		Wall	3919	LGS	IB	7041	IVNE.7.189
654		Wall	3920	LGS	IB	7041	IVNE.7.189

Cont.: Table 9.10

Building	Room	Context	Obj. No.	Type	Stratum	Locus	Bucket No.
654		Wall	3674	MRT	IC	7021	IVNE.7.164
654		Wall	3785	Palette	IC	7021	IVNE.7.164
654		Wall	3667	RS	IC	7021	IVNE.7.164
654		Wall	3664	UGS	IC	7021	IVNE.7.164
654		Wall	3668	UGS	IC	7021	IVNE.7.164
654		Wall	3902	UGS	IB	7030	IVNE.7.178
654		Wall	3905	UGS	IB	7030	IVNE.7.178
654		Wall	3913	UGS	IB	7041	IVNE.7.189
655	a	Destruction	3690	LGS	IB	42004	IVNW.42.32
655	a	Construction	4387	LGS	IB/C-IVA	42026	IVNW.42.123
655	a	Destruction	3580	MRT	IB	42004	IVNW.42.26
655	a	Destruction	3779	MRT	IB/C	42004	IVNW.42.38
655	a	Destruction	3774	Potter's wheel	IB/C	42004	IVNW.42.49
655	a	Destruction	3698	UGS	IB	42004	IVNW.42.32
656	Street	Destruction	3632	Amphora	IB	26005	IVNE.26.15
656	Street	Destruction	3778	UGS	IB	27002	IVNE.27.6
657	Alley	Occupation	4045	Bowl	IB/C	43013	IVNW.43.49
657	Alley	Destruction	3895	HS	IB	43003	IVNW.43.27
657	Alley	Occupation	4386	LGS	IB/C	27023	IVNW.27.72
657	Alley	Destruction	3784	LGS	IB	43003	IVNW.43.9
657	Alley	Occupation	4033	LGS	IB/C	43013	IVNW.43.46
657	Alley	Occupation	4271	MRT	IB/C	43013	IVNW.43.351
657	Alley	Occupation	4261	PS	IB/C	27008	IVNW.27.37
657	Alley	Destruction	3793	RS	IB	43004	IVNW.43.13
657	Alley	Occupation	4429	Socket	IB/C	27008	IVNW.27.70
657	Alley	Occupation	4377	UGS	IB/C	27008	IVNW.27.79
657	Alley	Occupation	4371	UGS	IB/C	43022	IVNW.43.85
658		Wall	2038	LGS	IA	41002	IVNW.41.27
658		Wall	2039	LGS	IA	41002	IVNW.41.27
658		Wall	10174	MRT	IA	24007	IVNW.24.73
658		Wall	2037	MRT	IA	41002	IVNW.41.27
658		Wall	1953	UGS	IA	40002	IVNW.40.35

Fig. 9.1. Iron II stone tools

No.	Obj. No.	Type	FieldQuadrant.Locus (Stratum)	Building	Room	Material
1.	3673	Lower grinding stone	IVNE.23018 (IB/C)	654	e	Kurkar
2.	3920	Lower grinding stone	IVNE.7041 (IB)	654	Wall	Basalt
3.	2274	Upper grinding stone	IVNE.7011P (IB)	654	a	Vesicular basalt

Fig. 9.2. Iron II stone tools and vessels

No.	Obj. No.	Type	FieldQuadrant.Locus (Stratum)	Building	Room	Material
1.	3696	Rubbing stone	IVNE.7026.1 (IC)	654	h	Vesicular basalt
2.	3681	Rubbing stone	IVNE.8039 (IC)	654	g	Vesicular basalt
3.	1869	Footed bowl	IVNE.8005 (IB)	654	c	Limestone
4.	1873	Basin/tub	IVNE.8002 (IB)	654	b	Sandstone?

Fig. 9.3. Stone tools and vessels: Iron II (1–5) and Roman period (6–7)

No.	Obj. No.	Type	FieldQuadrant.Locus (Stratum)	Building	Room	Material
1.	2041	Roller	IVNE.7006 (IB)	654	b	Limestone
2.	2097	Palette	IVNE.7011P (IB)	654	a	?
3.	3632	Alabastron	IVNE.26005 (IB)	Street 656		Calcite
4.	1050	Pommel	IVNW.8002 (IB)	651	g	Calcite
5.	1310	Lid	IVNW.8012.1 (IB)	651	g	Soft stone
6.	4102/1	Cup	IVNW.27010 (Roman)			Chalk
7.	4102/2	Cup	IVNW.27010 (Roman)			Chalk

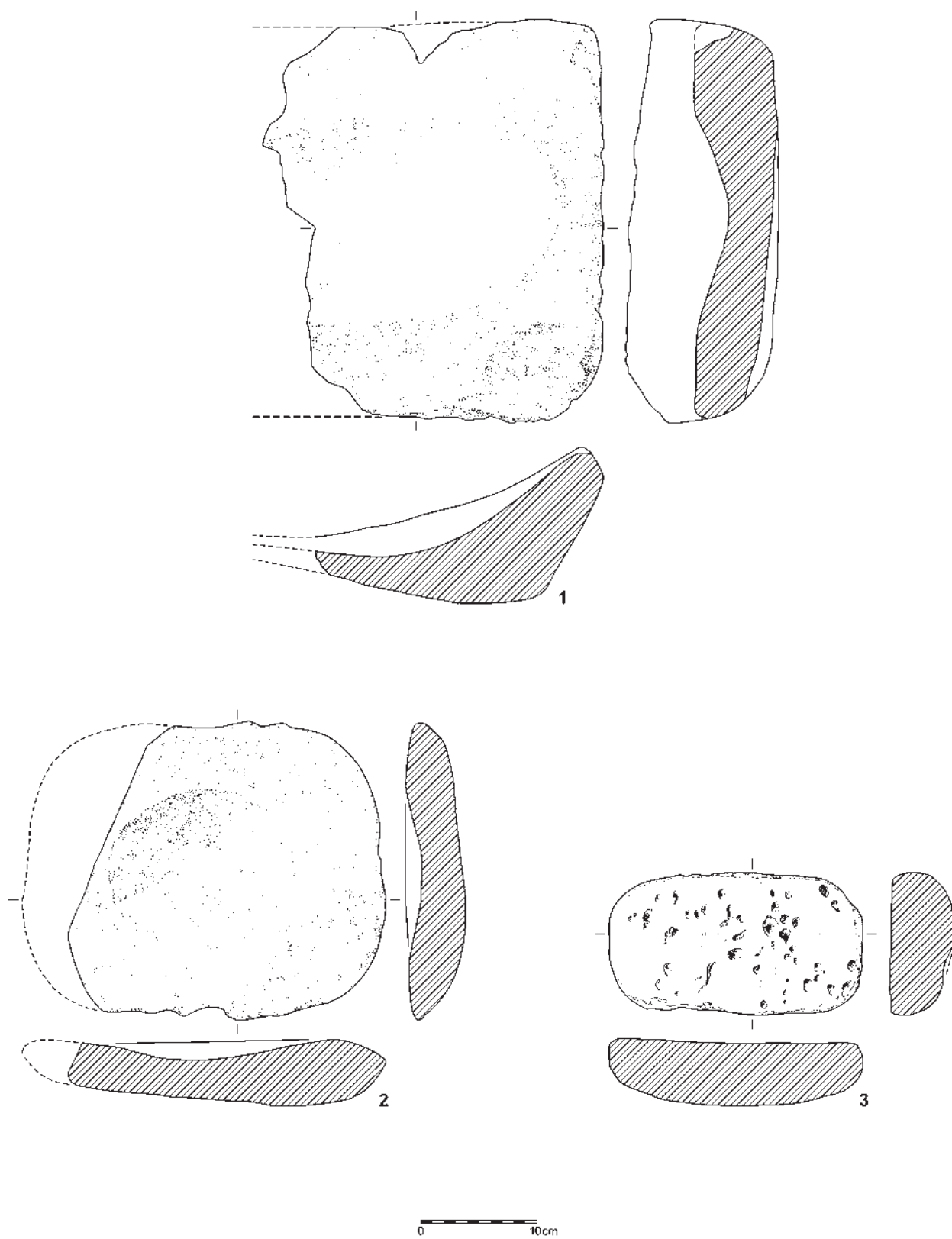


Fig. 9.1. Iron II stone tools

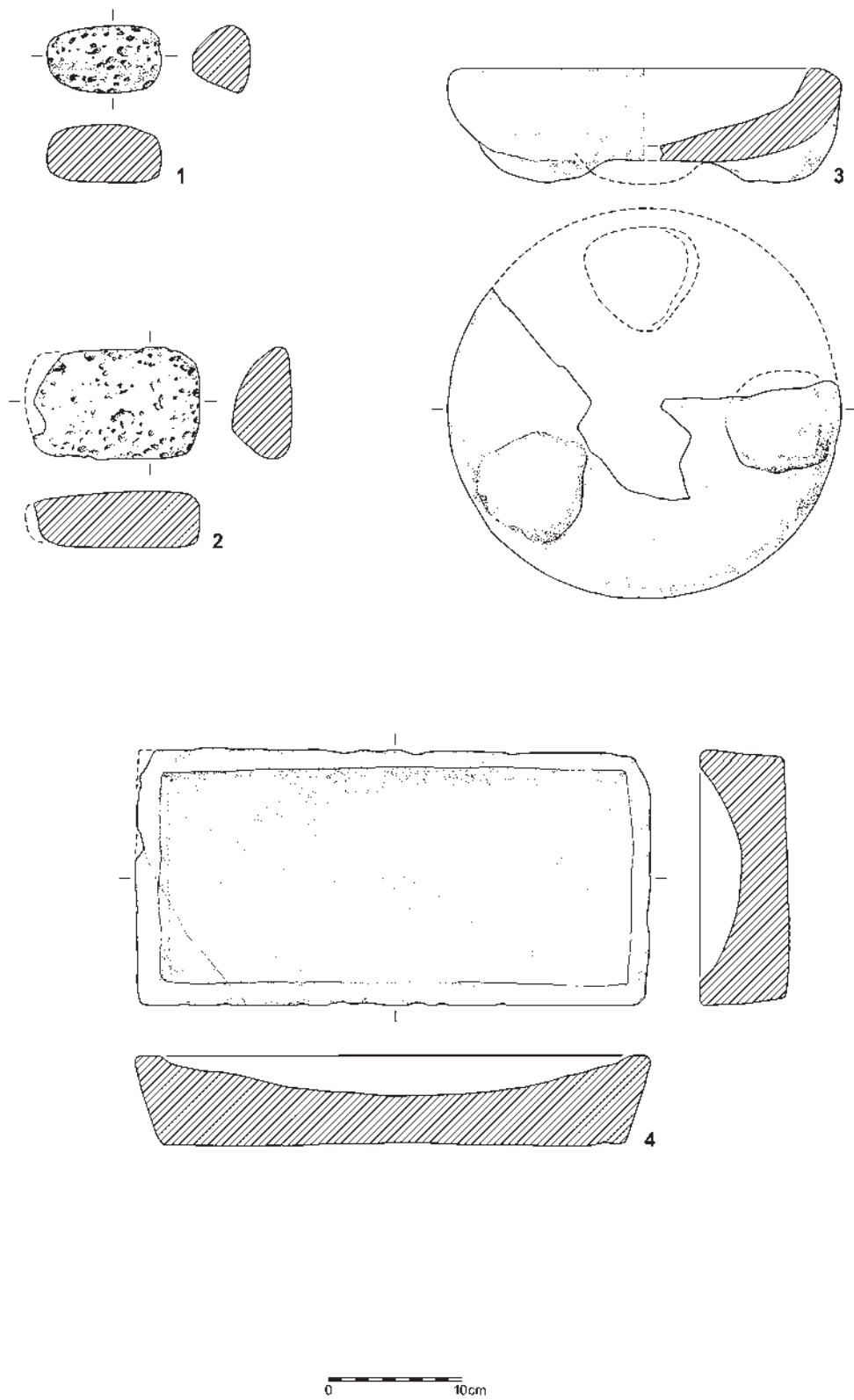


Fig. 9.2. Iron II stone tools and vessels

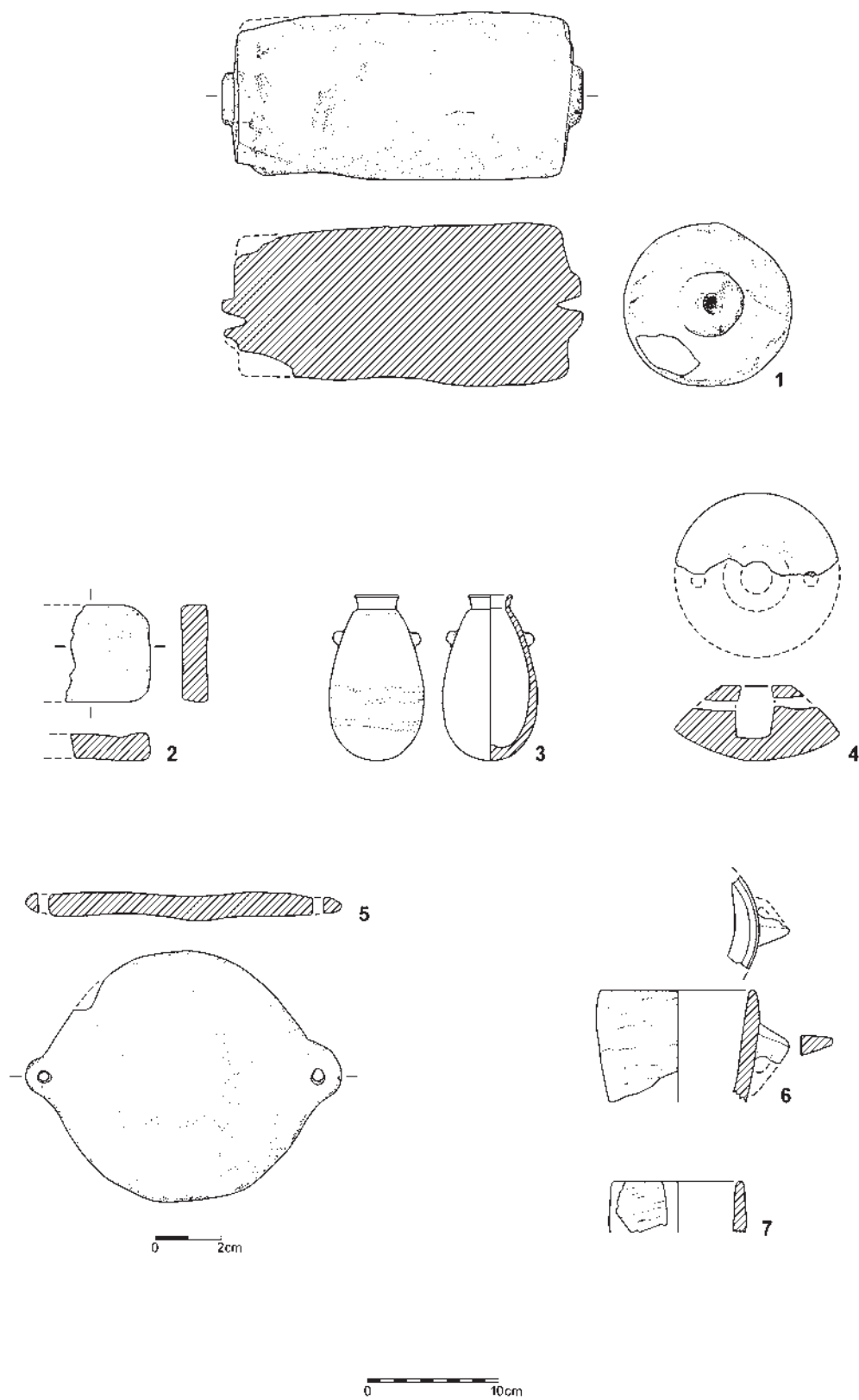


Fig. 9.3. Stone tools and vessels: Iron II (1–5) and Roman period (6–7)

CHAPTER 10

THE IRON AGE II FAUNAL REMAINS*

Edward F. Maher and Brian Hesse**

Thousands of bones representing the remains of over 50 individual animals were found in 7th century BCE Stratum IB/C Temple Auxiliary Buildings 651–655 and the adjacent Street 656 and Alley 657, located immediately to the south of Ekron’s cultic center, Temple Complex 650, in the elite zone of the city.¹ The zooarchaeological analysis of this sample augments our understanding of the use of animals by an elite group linked to the local worship system.²

SPECIES IDENTIFICATION

A total of 3,391 bones were recovered from the Temple Auxiliary Buildings, of which 1,215 (35.8%) could be identified (Table 10.1). The assemblage is dominated by ovicaprines,³ and sheep outnumber goats by a ratio

of 2.04:1. Cattle were also common. At least three species of birds are present, with 10 additional bones classified as an unidentified avian group. Geese and ducks represented alternative sources of protein (meat and eggs), as did the deer and gazelle that were hunted,

Table 10.1: Abundance and diversity of species (NISP = Number of Identified Specimens; MNI = Minimum Number of Individuals)

Species	NISP	NISP %	MNI	MNI %
Ovicaprine (<i>Ovis/Capra</i>)	672	55.31	21	40
Sheep (<i>Ovis aries</i>)	92	7.57	6	11
Goat (<i>Capra hircus</i>)	45	3.70	5	9
Cattle (<i>Bos taurus</i>)	312	25.68	9	17
Pig (<i>Sus scrofa</i>)	42	3.46	3	6
Deer (Cervidae)	9	0.74	1	2
Fallow deer (<i>Dama dama</i>)	5	0.41	1	2
Donkey (<i>Equus asinus</i>)	5	0.41	1	2
Gazelle (<i>Gazella</i> sp.)	2	0.16	1	2
Dog (<i>Canis familiaris</i>)	1	0.08	1	2
Small bird (Class Aves)	17	1.40	1	2
Goose (<i>Anser</i> sp.)	10	0.82	1	2
Duck (<i>Anas</i> sp.)	2	0.16	1	2
Pigeon (<i>Columba</i> sp.)	1	0.08	1	2
Small-size mammal	20			
Medium-size mammal	1102			
Large-size mammal	249			
Unidentified	805			
Total identified	1215			
Total assemblage	3391	100	53	100

* Maher expresses his gratitude to the W. F. Albright Institute of Archaeological Research Fellowship Committee for granting him a George A. Barton Fellowship in support of his research conducted in Jerusalem (2000–2001). Special thanks go to James Phillips, Lawrence Keeley, David Reese, and Liora Horwitz for their advice, which significantly improved the manuscript. The authors are grateful to the faculty of the Department of Evolution, Systematics, and Ecology at the Hebrew University of Jerusalem, Givat Ram, for granting access to the comparative faunal collection.

** Edward Maher and Brian Hesse conducted independent analyses of the fauna and Maher synthesized the data.

1. See Chapter 1 for a full discussion of the Temple Auxiliary Buildings; Temple Complex 650 will be published in *Ekron* 10.

2. The methods of analysis used in this chapter are described in detail in Maher and Hesse 2016.

3. This term is used when the bones can be determined to belong to sheep or goat, but not which species.

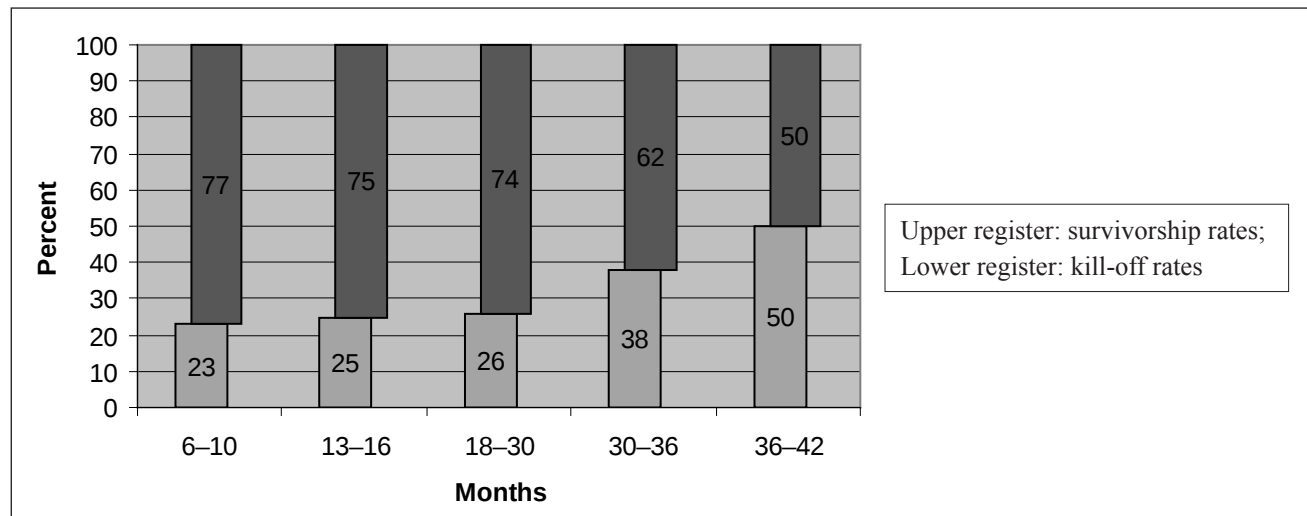


Fig. 10.1. Sheep and goat mortality rates based on long-bone fusion

but their overall proportion is rather small. Cervidae represents a species of deer that could not be identified more accurately. Regardless, the data show that game animals were occasionally hunted.

Pigs appear in low numbers (less than 4% of the identifiable fauna), which underscores the evidence that the raising and consumption of pork was not common at this particular point in Philistine social history. This differs greatly from the consumption patterns of the Philistines in earlier times in the Iron I, when hogs represented a significant portion of the identifiable faunal assemblage.⁴ Culinary customs are usually taken as an important cultural and ideological identifier, and some have proposed models to explain declining pork consumption.⁵ Currently, there is no scholarly consensus as to what factor/s motivated the dietary shift.

MORTALITY PROFILES

Determining an animal's age at death is an important analytical tool for estimating different modes of animal utilization and management. The schedule of culling sheep and goats from the herd⁶ shows that juveniles

under 10 months were culled (Table 10.2, Fig. 10.1). Ovicaprines aged 13–16 months and 18–30 months were culled, comprising one quarter of the assemblage from each age category, and the kill-off rate increases for animals aged 30–36 months. Meat-producing economies usually slaughter young animals (particularly males) once they achieve their optimal weight, after which their increase in bulk is disproportionate to the amount of fodder required. Slaughter schedules seek to find this balance. Sheep and goats are usually killed in their second or third year of life, with only a few males surviving into their later years to breed.⁷ Based on epiphyseal fusion data, the mortality profile for sheep and goats indicate that they were primarily killed for meat.

Tooth wear analysis⁸ was also used for estimating sheep/goat kill-off rates (Fig. 10.2). Data for ovicaprine dental attrition is based on a sample of 30 individuals, and the age categories correlated to coded age ranges. Stages A, B, and C indicate animals aged 0–2 months, 2–6 months, and 6–12 months, respectively. The remaining age stages are recognized in terms of years: D for 1–2 years; E, 2–3 years; F, 3–4 years; G, 4–6 years; H, 6–8 years; and I, 8–10 years. Dental attrition scores identified young animals aged less than one year, which accords with the epiphyseal fusion data. The peak kill-off coincides with Stage F (3–4 years);

4. Hesse 1990: 217; Lev-Tov 2000: 119; Maher and Hesse 2016.

5. For example, Deiner and Robkin 1978; Hesse 1990; Zeder 1996.

6. See the guidelines for determining culling schedule in Silver 1969.

7. Payne 1973: 281.

8. Based on Payne 1973.

Table 10.2: Sheep and goat bone fusion data

Bone	Quantity	Rate of fusion	Age group
Fused acetabulum	1	Greater than 6–10 months	6–10 months
Fused scapula	3	Greater than 6–8 months	6–10 months
Unfused scapula	7	Less than 6–8 months	6–10 months
Fused distal humerus	19	Greater than 10 months	6–10 months
Unfused distal humerus	4	Less than 10 months	6–10 months
Fused proximal radius	17	Greater than 10 months	6–10 months
Unfused proximal radius	1	Less than 10 months	6–10 months
Fused proximal phalanges	24	Greater than 13–16 months	13–16 months
Unfused proximal phalanges	8	Less than 13–16 months	13–16 months
Fused distal metapodial	3	Greater than 18–28 months	18–30 months
Fused distal tibia	17	Greater than 18–24 months	18–30 months
Unfused proximal ulna	9	Less than 30 months	18–30 months
Fused proximal ulna	6	Greater than 30 months	18–30 months
Fused proximal femur	5	Greater than 30–36 months	30–36 months
Unfused proximal femur	1	Less than 30–36 months	30–36 months
Fused calcaneum	3	Greater than 30–36 months	30–36 months
Unfused calcaneum	3	Less than 30–36 months	30–36 months
Fused distal radius	2	Greater than 36 months	30–36 months
Unfused distal radius	2	Less than 36 months	30–36 months
Fused proximal humerus	2	Greater than 36–42 months	36–42 months
Unfused proximal humerus	3	Less than 36–42 months	36–42 months
Fused distal femur	1	Greater than 36–42 months	36–42 months

animals aged 2–3 years (Stage E) are also relatively abundant. As indicated by the fusion data, tooth wear analysis also demonstrates that sheep and goats were primarily used for meat. Animals of advanced age were also present, and would have represented sources for secondary products and herd maintenance.

Assessing cattle mortality is difficult, as there are relatively few proximal and distal ends (Table 10.3,

Fig. 10.3). The fusion data indicate that no calves were killed, and that cull patterns for cattle begin only after animals were aged at least 18 months. Interpreting the data beyond this age is problematic, since only three bones belong to the latest age class. Generally speaking, it can be determined that beef was consumed, and older cattle were used for traction work and providing dairy products.

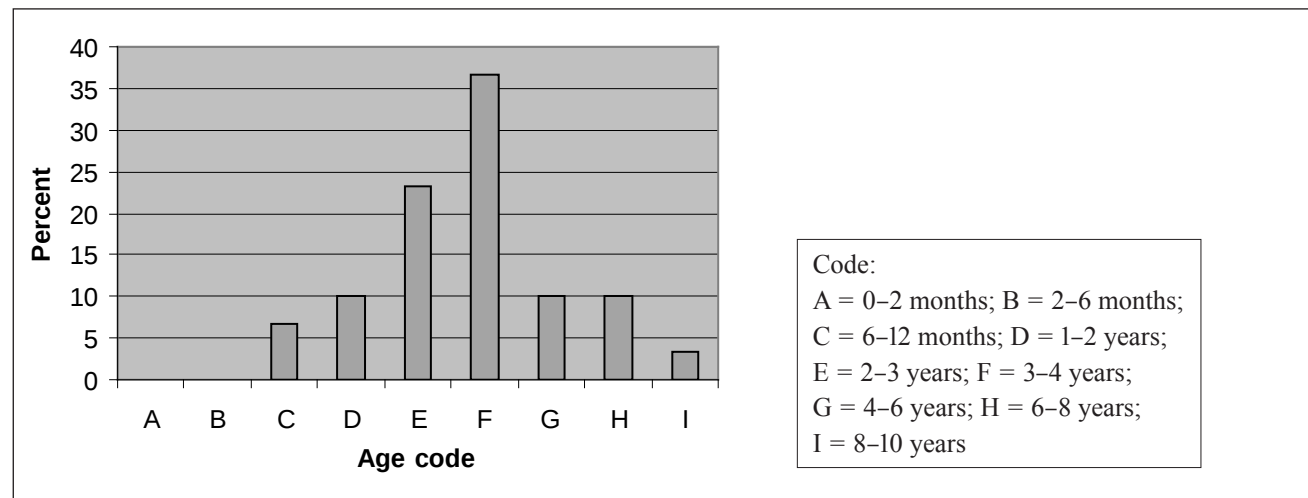


Fig. 10.2. Sheep and goat dental attrition

Table 10.3: Cattle bone fusion data

Bone	Quantity	Rate of fusion	Age group
Fused distal humerus	5	Greater than 12–18 months	12–18 months
Fused proximal radius	3	Greater than 12–18 months	12–18 months
Fused proximal phalanges	18	Greater than 18 months	12–18 months
Fused distal metapodial	8	Greater than 24–36 months	24–36 months
Unfused distal metapodial	1	Less than 24–36 months	24–36 months
Fused distal metatarsal	1	Greater than 27–36 months	24–36 months
Unfused distal metacarpal	1	Less than 24–30 months	24–36 months
Fused distal tibia	3	Greater than 24–30 months	24–36 months
Fused calcaneum	1	Greater than 36–42 months	36–48 months
Unfused calcaneum	1	Less than 36–42 months	36–48 months
Unfused proximal humerus	1	Less than 42–48 months	36–48 months

BODY-PART DISTRIBUTION

The study of the distribution of body parts was limited to sheep, goats, and cattle, since they were the most abundant and economically important animals. How skeletal parts are differentially represented can help to determine whether animals were brought into an area whole (and presumably alive) or as meaty portions. Following Redding, the method assumes if the entire

animal was present, non-meat-bearing limb bones of sheep, goats, and cattle would be around twice as abundant as those bearing meat.⁹ Redding's approach considers normal element occurrences in the living animal. The sheep/goat ratio of 0.5:1 (Table 10.4) indicates that mainly meaty portions were brought into the Temple Auxiliary Buildings; the 0.88:1 ratio for cattle

9. Redding 1994: 287.

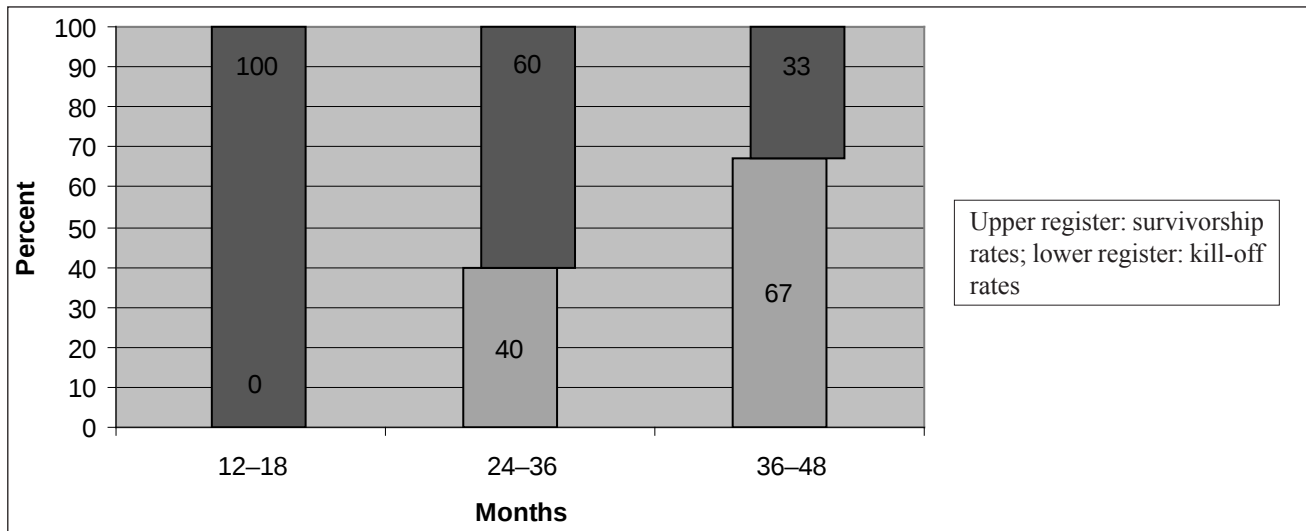


Fig. 10.3. Cattle mortality rates based on long-bone fusion

demonstrates the same pattern, as both ratios fall well short of Redding's expected signature ratio of 2:1 for the presence of complete animals.

One way to test whether animals were brought back to an area whole follows Butler et al., who assumed that similar MNI counts derived from cranial and post-cranial remains would indicate the animal's articulated state (intact) and dissimilar MNI counts illustrate different modes of arrival of animal parts (meat parcels).¹⁰ Applying this approach uncovers discrepancies in MNI counts between head and body parts. For sheep and goats, an MNI count of 9 was recorded for mandibles (cranial) and 21 for humeri (post-cranial); the MNI counts for cattle (mandible = 4 and humerus = 9) demonstrate the same pattern. This supports the premise that these animals were more commonly introduced into the Temple Auxiliary Buildings as joints of meat rather than as whole living specimens.

CULTURALLY-MODIFIED BONES

A total of 34 bones, representing 1% of the faunal assemblage, were burnt. Color codes for these bones are based on the *Munsell Soil Color Charts*, which provide a standardized, replicable method of describing color range.¹¹ Four color classes were identified that

10. Butler et al. 1977: 342.

11. Shipman, Foster, and Schoeninger 1984: 309.

Table 10.4: Quantities of meat-bearing and non-meat-bearing limb bones

Bone	Sheep/Goat	Cattle
Meat-bearing		
Scapula	34	11
Humerus	71	18
Ulna	10	3
Radius	40	3
Pelvis	21	11
Femur	25	9
Patella	2	1
Tibia	33	8
Total	236	64
Non-meat-bearing		
Carpal	0	3
Metacarpal	6	5
Tarsal	27	13
Metatarsal	6	3
Metapodial	36	0
1st phalanx	32	15
2nd phalanx	8	12
3rd phalanx	3	5
Total	118	56
Non-meat:meat ratio	0.5:1	0.88:1

provide evidence for burning: five bones were dark brown (7.5 YR 3/4), 20 black (10YR 2/1), four gray (5YR 5/1), and five white (2.5 YR 8/1). Nicholson and Shipman, Foster, and Schoeninger have demonstrated the effect of different firing temperatures on color experimentally, and that brown and black bones are associated with cooler temperatures than white and gray bones.¹²

Of the 34 burnt animal bones, 15 were recovered from destruction and associated debris (Area IVNW.8, Locus 8002, *n*=6 [see also below], Locus 8012, *n*=5; IVNW.24, Locus 24005, *n*=1; IVNE.11, Locus 11003, *n*=3). Based on their color resulting from burning, most of these bones (derived from limb and axial elements) were exposed to relatively high temperatures (with five white, four gray, and six black). A total of 19 burnt animal remains were also recovered from six non-destruction debris layers (IVNW.9, Locus 9010, *n*=4; IVNW.24, Locus 24011, *n*=3; IVNW.26, Locus 26021, *n*=4; IVNW.41, Locus 41010, *n*=1 [see also below]; IVNW.42, Locus 42002, *n*=6, Locus 42003, *n*=1). Based on their color, the burnt faunal assemblage from non-destruction loci was exposed to relatively lower temperatures (five dark brown, 14 black), most of which are fragments of meat-bearing forelimbs (*n*=11) and meat-bearing hindlimbs (*n*=7). The burnt bones associated with destruction debris layers can be associated with the 604 BCE Neo-Babylonian conquest of Ekron, when most of the city was razed to the ground.¹³ The burnt bones deriving from non-destruction debris loci may be unrelated to Ekron's fall and possibly linked to activities routinely performed in the Temple Auxiliary Buildings.

Although insufficient in number to be considered a cache, eight sheep/goat astragali were excavated in the same findspot (IVNW.8.120, destruction Debris 8002, Obj. Nos. 11313A–H). Four are from the right side of the body and four from the left, demonstrating a matching set that required at least four animals. All but one display color variations: two were burnt black, three burnt white, and two others tinted blue/green. It is unlikely that the coloration of the last two resulted from burning, since such alterations are more likely

due to iron phosphate in the soil.¹⁴ The sole ovicaprine astragalus from Area IVNW.8 that was not discolored had been hollowed out and filled with a metal “plug” (Obj. No. 11313A). Although the function of the astragali found at many Near Eastern archaeological sites is unknown, Gilmour postulates that they “served both sacred and secular purposes.”¹⁵ This assumption is shared by Reese, who suggests that they were used as gaming pieces or for oracular purposes (astragalomancy), in which the orientation and spatial arrangement of thrown astragali was thought to be governed by divine intervention.¹⁶ Others have speculated that they played an important role in funerary rites.¹⁷

Two modified bone fragments fashioned into leaf-shaped points were found in debris layers (Obj. No. 1965 from IVNW.41.38, Debris 41010, and Obj. No. 3941 from IVNW.43.7, Debris 43002). Obj. No. 1965 has a preserved length of 5.38 cm and Obj. No. 3941 has a preserved length of 4.22 cm. The former has burn marks. With no shortage of alternative materials from which to manufacture weapons, their production from bone is unexpected. A similar bone point found at Lachish dates to the siege of Neo-Assyrian King Sennacherib in 701 BCE.¹⁸ A bone modification workshop for arrowhead production dating to the late 9th century BCE has been identified at Tell eš-Šafi/Gath.¹⁹

Cut marks on the animal bones were plotted according to their anatomical location and orientation. Recorded using Binford's system,²⁰ these marks indicate different stages of butchery (dismemberment, skinning, and filleting). Although the sample from the Temple Auxiliary Buildings is small (*N*=29), it can nevertheless serve as a baseline for understanding how animals were disarticulated. The most common butchery stage is dismemberment (*N*=27). Marks on two bones show that animal skins were occasionally taken as intact items. There is no evidence for filleting, which may indicate the absence of meat distribution, but this suggestion is tentative given the size of the sample under consideration.

12. See Nicholson 1993; Shipman, Foster, and Schoeninger 1984.

13. Gitin 1998b: 276, *n*. 2.

14. Nicholson 1993: 423.

15. Gilmour 1997: 167.

16. Reese 2000: 398.

17. Minniti and Peyronel 2005: 20.

18. Ayalon 1999: 33, Fig. 33.

19. Horwitz et al. 2006.

20. Binford 1981.

A small number of animal bones had been chewed and digested by either terrestrial or avian predators. Many of these modifications are recorded on the remains of small-animal species that would not have had any economic importance to Ekron's inhabitants. It is suggested that the predators that consumed these animals evacuated their remains in the Temple Auxiliary Buildings when Ekron was abandoned shortly before the Neo-Babylonian attack in 604 BCE.²¹

PATHOLOGY

Three cattle phalanges—all of which may have belonged to the same individual—exhibited signs of pathology. The condition of these phalanges can best be described as a form of exostoses, a bony growth that slightly alters the morphology of the element. Cattle used for traction commonly develop skeletal deformities of the feet, which may explain the condition of the phalanges.

CONCLUSIONS

Over 3,000 animal bones were collected from the Temple Auxiliary Buildings dating to the 7th century

BCE. Given the high social status of the occupants, their animal stock was quite routine and ordinary, comprising mainly domestic sheep, goats, and cattle, representing the most economically important species. Low quantities of pig bones indicate limited pork consumption, in sharp contrast to earlier periods of the Philistine settlement at Ekron. The presence of domestic birds and hunted wild game demonstrates the occasional use of alternative sources of protein. Sheep, goats, and cattle were used for meat, and cattle also for secondary purposes, such as traction. Nearly all the cut marks indicate dismemberment, which, in accordance with the ratio of non-meaty to meat-bearing limb bones, demonstrates that these animals were butchered elsewhere and then brought into the Temple Auxiliary Buildings as joints of meat.

Special faunal finds include a small collection of sheep/goat astragali, one of which was filled with a metal "plug," the purpose of which is unknown. Two leaf-shaped bone points were found in the northwestern part of the complex of Temple Auxiliary Buildings. The motivation behind this choice of material is not known, although fashioning weapons from bones would have been fast and would not have required specialized tools. They may represent a response to the Neo-Babylonian invasion that Ekron's inhabitants knew was imminent at the end of the 7th century BCE.

21. Maher 2006/2007.

CHAPTER 11

THE FISH BONES FROM IRON AGE I STRATA VII–IV AND IRON AGE II STRATA PRE-IC, IC, IB, AND IA*

Omri Lernau

INTRODUCTION

This chapter focuses on the two main periods of Philistine occupation at Tel Miqne-Ekron: the Iron Age I (Strata VII–IV, second quarter of the 12th–first quarter of the 10th century BCE) and the Iron Age II (Stratum I, 7th century BCE). In the Iron I, Field IV Lower comprised large public buildings in the northwestern quadrant and domestic buildings in the northeastern quadrant; the Iron II is represented by an extensive complex of Temple Auxiliary Buildings.¹ Treating the data from the two periods together allows for a comparison and evaluation of three different calculation methods for analyzing the relationship between the fish bones and their findspots. Although the assemblage of fish remains from Field IV Lower is rather small, the rigorous excavation methods that enabled precise determinations of the locations of the finds in association with living surfaces/floors provide a unique opportunity to analyze the relationship between these remains and discrete architectural units and to study its implications.

MATERIALS AND METHODS

Bones were either collected by hand or by means of sifting excavated sediment through sieves with a 5 mm grid. Many of the bones were covered with a tough calcareous crust that had to be removed mechanically.

The bones were identified to the lowest taxon possible by comparing them to a reference collection of modern fish bones. Measurements were taken with a Mituyotu caliper based on the methodology in Morales and Rosenlund 1979, and these allowed for estimating the size of the original fish (standard body length in cm) using allometric formulas obtained from Desse, Desse-Berset, and Rocheteau 1987, Van Neer 1989, and Desse and Desse-Berset 1996, or from the reference collection. Although sizes are given in this chapter as exact numbers, the methodology allows for only approximate estimates with a large margin for error. Nevertheless, their accuracy meets the requirements of this analysis. Information about the fish follows Bentuvia 1953; 1971; 1986; Abraham, Blanc, and Yashouv 1966; M. Goren 1974; 1983; Latif 1974; Bauchot and Hureau 1986; Chao 1986; Lythgoe and Lythgoe 1992; Nelson 1994; D. Golani 1996; D. Golani and Darom 1997; Froese and Pauly 2009.

Excavation loci are divided into three types based on provenance and dating reliability (Table 11.1). In the following discussion, bones found in loci of Types 1 and 2 are usually grouped together, since these loci represent living surfaces and associated materials.

Values for Minimum Number of Individuals (MNI) were calculated by counting the most common element for each taxon, the spatial and temporal distribution of the bones, and the estimated size of the fish—differences of at least 15% in estimated sizes were regarded as different individuals.

GENERAL DESCRIPTION

The assemblage consisted of 1,429 fish bones (Table 11.2). The state of preservation, subjectively assessed

* Including a minimal number of fish bones from Middle Bronze Age II Stratum XI, post-Iron II Stratum Post-I, and the Roman/Byzantine period.

1. For the Iron I, see Gitin, Garfinkel, and Dothan 2016; for the Iron II, see Chapter 1.

Table 11.1: Locus type definitions and number of fish bones per type

Locus type	Definition	No. of loci with fish bones	No. of fish bones	No. of identified fish bones
Type 1	Living surface with material culture remains and floor make-up within 10 cm below the surface	148	878	372
Type 2	Material culture directly on top of a floor or within an accumulation above the floor that is presumed to be associated with the living surface.	116	341	110
Type 3	Material culture more than 10 cm below floor level	62	210	103
Total		326	1429	585

for each bone on a scale of 1–6, was excellent for ca. 21%, good for 43%, and poor for 36% of the bones. Of the 981 recognizable skeletal elements, 585 (59.6%) were taxonomically identified. Around a third of the assemblage comprised fragments, mainly of elongated structures like spines and broken vertebrae, for which the skeletal element—a prerequisite for taxonomic identification—could not be determined. Some 40% of the recognizable skeletal elements (396 bones) could not be identified, mainly severely abraded and broken fragile bones (like cleithra), posterior vertebrae, and cranial fragments.

The taxonomic identifications of the assemblage from locus Types 1–3 are presented by Number of Identified Specimens (NISP) in Table 11.3.

Table 11.2: Composition of fish bone assemblage (locus Types 1–3)

No. of bones for analysis	1429
Skeletal elements	
Recognizable	981
Unidentified recognizable skeletal elements	396
Unrecognizable (fragments)	448
Taxonomic identifications	585
To the level of family only	195
To the level of genus/species	390
Percentage of taxonomically identified bones (585 of 981)	59.6%

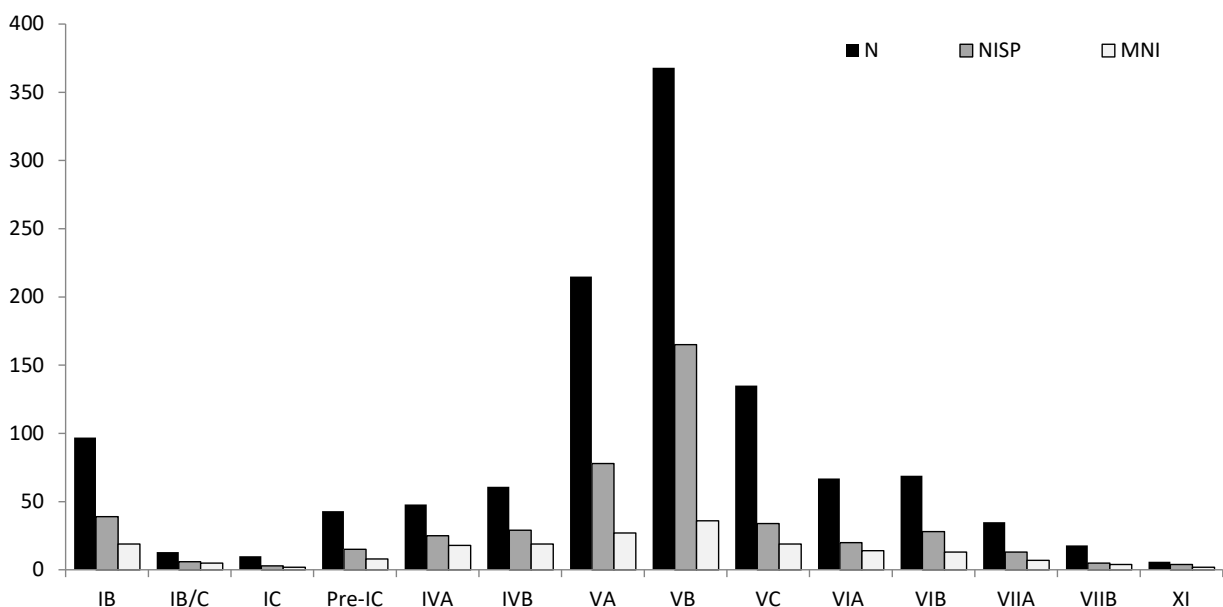
**Fig. 11.1.** Temporal distribution of fish bones by stratum and sub-stratum from locus Types 1–2

Table 11.3: Taxonomic identifications

Family	Genus/species	NISP	Total NISP for family
Marine			
Sparidae	Family only	56	149
	<i>Sparus aurata</i>	89	
	<i>Pagrus caeruleostictus</i>	2	
	<i>Diplodus sp.</i>	2	
Mugilidae	Family only	66	84
	<i>Mugil sp.</i>	4	
	<i>Mugil cephalus</i>	13	
	<i>Liza sp.</i>	1	
Serranidae	Family only	51	79
	<i>Epinephelus sp.</i>	23	
	<i>Epinephelus aeneus</i>	1	
	<i>Epinephelus marginatus</i>	1	
	<i>Epinephelus costae</i>	1	
	<i>Mycteroperca rubra</i>	2	
Sciaenidae	Family only	10	15
	<i>Argyrosomus regius</i>	3	
	<i>Sciaena sp.</i>	2	
Balistidae	<i>Balistes carolinensis</i>	5	5
Carangidae	Family only	3	3
Morinidae	Family only	1	1
Scombridae	<i>Euthynnus alleteratus</i>	1	1
Cartilaginous fish	Sharks	1	1
Freshwater (imported)			
Centropomidae	<i>Lates niloticus</i>	235	235
Bagridae	Family only	2	2
Freshwater (local)			
Cichlidae	Family only	5	6
	<i>Tilapia sp.</i>	1	
Clariidae	<i>Clarias gariepinus</i>	4	4
Unidentified		844	844
Total no. of bones		1429	1429

Table 11.4 presents the estimated total MNI and NISP of families of fish represented in locus Types 1–2, Table 11.5 their temporal distribution by stratum, and Table 11.6 and Fig. 11.1 by stratum phase.²

Table 11.4: Estimated NISP and MNI for families of fish from locus Types 1–2

Family	NISP	MNI
Centropomidae	182	90
Sparidae	129	42
Serranidae	65	27
Mugilidae	77	18
Scieanidae	11	10
Balistidae	5	2
Cichlidae	4	2
Carangidae	3	2
Clariidae	2	2
Bagridae	2	2
Moronidae	1	1
Sharks	1	1
Total	482	199

Table 11.5: Temporal distribution of fish bones by strata from locus Types 1–2

Stratum	Dating (century BCE)	N	NISP	MNI
Roman/Byzantine		2	1	1
I	7th	171	67	37
IV	Second half of the 11th–first quarter of the 10th	121	61	43
V	First half of the 11th	727	280	85
VI	Last quarter of the 12th–early 11th	139	51	29
VII	Second/third quarters of the 12th	53	18	11
XI	17th–first half of the 16th	6	4	2
Total		1219	482	208

Table 11.6: Temporal distribution of fish bones by stratum and sub-stratum from locus Types 1–2

Stratum	N	NISP	MNI
Roman/Byzantine	2	1	1
Post-I	1	1	1
IA/B	4	2	1
IB	97	39	19
IB/C	13	6	5
IB–IVA	1		
IC	10	3	2
Pre-IC	43	15	8
IC–IVA	2	1	1
IVA	48	25	18
IVA/B	6	5	4
IVA–VA	1		
IVA–VIB	1		
IVB	61	29	19
IVB–VA	4	2	2
VA	215	78	27
VA–B	3	1	1
VA–VIB	1	1	1
VB	368	165	36
VB–C	5	1	1
VC	135	34	19
VIA	67	20	14
VIA–B	2	2	1
VIB	69	28	13
VIB–VIIA	1	1	1
VIIA	35	13	7
VIIIB	18	5	4
XI	6	4	2
Total	1219	482	208

The total calculated MNI comprises ca. 43% of all the identified bones from locus Types 1–2 (208 of 482). This proportion can be used for an approximate estimate of the overall taphonomic conditions on the tell: the higher the ratio of MNI to NISP, the worse the taphonomic environment—in other words, under ideal taphonomic conditions, all the “original” bones would

2. Since Scombridae remains were found only in locus Type 3, this family is not listed in the Table 11.4.

be retrieved, in which case this proportion would be very low.³

IDENTIFIED FISH FROM LOCUS TYPES 1–3

Marine Fish

Family Sparidae (porgy/sea bream)

The most common marine fish represented at Ekron, as in many of the other assemblages excavated at sites in Israel, are porgy, with 149 bones (10.4% of the identifiable bones) and an MNI of 42. Eighty-nine bones were further identified to the species *Sparus aurata* (Linnaeus, 1758), “Gilt-head Sea Bream.” Two bones belonged to the species *Pagrus caeruleostictus* (Valenciennes, 1830), “Bluespotted Seabream,” and two to the genus *Diplodus*. Estimated sizes of the porgy based on 62 measured bones range from 12–41 cm, with an average of 27 cm.

Twenty species of family Sparidae inhabit the Mediterranean. Very common along the Mediterranean coast, these moderate-size fish occur mostly in warm inshore waters and occasionally in brackish bays and estuaries. The young are found in shallow waters and adults in deeper waters. Porgy are among the most palatable fish in the region.

S. aurata is common along the coast of the Mediterranean, in particular the Bardawil littoral of the northern coast of the Sinai Peninsula. It can reach a maximum size of ca. 50 cm, but averages around 30–35 cm when caught. It is a sedentary fish, living solitarily or in small groups above littoral or sandy bottoms down to depths of ca. 150 m. The fish is carnivorous, feeding on mollusks (mainly mussels), crustaceans, and small fish. The dietary habits of *S. aurata* and some of its relatives in the family of porgy have resulted in an evolutionary development of distinct features that are especially useful for its zooarchaeological identification: grinding mussels and other calcareous materials requires massive jaws with large and flattened molar teeth, which are both durable and easy to identify. The fish is today, as in the

past, popular for consumption, and is a relatively easy catch in shallow coastal waters. These are two of the reasons for its abundance in the archaeological record, although this is partly also attributable to the sturdiness of its jaw bones.

Family Mugilidae (mullet)

Eighty-four bones (6% of the identifiable bones) belong to family Mugilidae, with a total estimated MNI of 18. Seventeen bones could be further identified to the genus *Mugil*, most probably *Mugil cephalus* (Linnaeus, 1758), “Flathead Grey Mullet.” One bone matched the genus *Liza*. Estimated sizes of the mullet based on 24 measured bones vary from 22–45 cm, with an average of 32 cm.

Seven species of the family inhabit shallow waters, lagoons, and estuaries along the Mediterranean coast. The species under consideration are catadromous fish: the young migrate from the sea up-river, grow in freshwater, and return to the sea as adults to breed. *M. cephalus* can reach a maximum size of ca. 80 cm. It feeds on plankton and decayed organic substances on the bottom; feeding primarily on plant material, grey mullet typically move in dense schools, rendering them easy to capture in nets. These fish were known in ancient Egypt, their migrations up the Nile River believed to presage the approaching flooding.⁴ As in the past, mullet are regarded as an excellent food fish today.

Seventy-nine bones (5.5% of the identifiable bones) belong to family Serranidae, with a total estimated MNI of 27. Twenty-six bones belong to several species of the genus *Epinephelus*, among them *Epinephelus aeneus* (Geoffroy Saint-Hilaire, 1817), “White Grouper”; *Epinephelus costae* (Steindachner, 1878), “Golden Grouper”; and *Epinephelus marginatus* (Lowe, 1834), “Dusky Grouper.” Two bones belonged to *Mycteroperca rubra* (Bloch, 1793), “Mottled Grouper.” Estimated sizes of the sea bass, derived from 15 measured bones, range from 31–88 cm, with an average of 63 cm.

Sea bass are large, solitary, predatory fish. Eleven species are found in the shallow warm waters of the eastern Mediterranean, among them some of the best local edible fish. The white grouper can grow to a

3. Under the extraordinarily favorable taphonomic conditions at the offshore underwater site of ‘Atlit Yam, the calculated MNI for 3,736 bones of *Balistes carolinensis* (gray triggerfish) was 88 (2.3%) (Galili et al. 2004).

4. Gamer-Wallert 1970: 66–67.

maximum length of 120 cm and weigh 25 kg. Adults are found on rocky and sandy bottoms to a maximum depth of 200 m. Younger smaller fish are found among rocks in shallow waters. The white grouper feeds on small fish, cephalopods, and crustaceans, and may be caught with spears, fishing rods, long lines, or trawls. Other groupers identified in this assemblage inhabit similar habitats.

Family Sciaenidae (drum/croaker)

Fifteen bones (1% of the identifiable bones) belonged to family Sciaenidae, with a total estimated MNI of 10. Three bones could be further identified to the species *Argyrosomus regius* (Asso, 1801), “Meagre.” Two bones were identified to the level of the genus *Sciaena*, probably *Sciaena umbra* (Linnaeus, 1758), “Brown Meagre.” Estimated sizes of the drum based on 6 measured bones range from 29–69 cm, with an average of 44 cm.

The Mediterranean supports three drum species that belong to different genera, all important food fish. These carnivorous medium to large fish inhabit shallow offshore waters feeding on small fish, crustaceans, and mollusks. The meagre feeds on small fish and crustaceans, attaining a maximum size of ca. 200 cm. Small or medium-size fish are found along the coast, where they may be caught with simple fishing gear, including nets and lines. Larger specimens live further from the shore, requiring more advanced fishing techniques. Brown meagre, a smaller fish, is usually found on rocky and sandy bottoms.

Family Balistidae (triggerfish)

Five bones (0.4% of the identifiable bones) belong to family Balistidae, for a total MNI of 2. They are of the species *Balistes carolinensis* (Gmelin, 1789), “Grey Triggerfish.” The triggerfish may attain a maximum size of ca. 60 cm. Its first dorsal spine is large and very strong, equipped with a locking mechanism that serves to hold it firmly inside crevices between rocks. Small schools or pairs of young *B. carolinensis* are found among rocks and rich vegetation in shallow waters (4–15 m deep), while larger individuals move deeper and inhabit coarse sandy and silty bottoms near isolated rocks or shipwrecks. The commercial value of this fish today is low, probably due to its tough skin, although the meat is tasty. Apart from the Pre-Pottery

Neolithic A offshore underwater site of ʿAtlit Yam, where triggerfish comprised more than 97% of the large assemblage of fish bones,⁵ they are rare at excavated sites in Israel.

Family Carangidae (jack and pompon)

Three bones (0.2% of the identifiable bones) belong to family Carangidae; they could be identified only to the level of the family. Estimated sizes of the fish based on measurements of two bones are 37 and 90 cm.

This marine family has 10 representatives in the eastern Mediterranean, some of which may attain considerable sizes of up to 200 cm. They are fast-swimming predators in the open sea.

Family Moronidae (temperate bass)

One bone of family Moronidae belongs to the species *Dicentrarchus labrax* (Linnaeus, 1758), “European Seabass.” This and a second species of Moronidae—*Dicentrarchus punctatus* (Bloch, 1792), “Spotted Seabass”—are found along the Mediterranean coast. They inhabit shallow waters, brackish lagoons, and sometimes move up-river, and feed on crustaceans and smaller fish. *D. labrax* may attain a maximum size of 80 cm and *D. punctatus* of 50 cm. *D. labrax*, a clever and cautious fish, may be caught with spears, fishing rods, lines, and beach seines; its flesh is highly prized.

Sub-class elasmobranchii (sharks and rays)

One shark centrum was found. Elasmobranchii have cartilaginous skeletons that decompose after death, leaving only durable teeth and centra, the latter consisting of the calcified but not ossified central portions of vertebrae. They are usually white, flat, and round, and given their aesthetic quality, may be used for adornment. The many species of sharks and rays in the Mediterranean are difficult to tell apart on the basis of centra.

Freshwater Fish—Imported

Family Centropomidae (Latidae) (snook/lates fish)

A total of 235 bones (16.5% of the identifiable bones) belong to family Centropomidae, further identified

5. Galili et al. 2004; see also n. 3.

to the species *Lates niloticus* (Linnaeus, 1758), “Nile Perch.” This is the most common fish in the assemblage, with an estimated MNI of 90. Estimated sizes of the Nile perch based on 83 measured bones range from 37–200 cm, with an average of 84 cm.

The distribution of *Lates niloticus* is today limited to the African continent.⁶ A freshwater fish and the largest fish in the Nile River, it may reach over 200 cm in size and weigh 175 kg. The adult Nile perch inhabits deep oxygenated waters and shelters in rock crevices, and it is a voracious predator of smaller fish.⁷ Its tasty meat is as prized today as it has always been. The ancient Egyptian town of Latopolis (Esna) was named after this fish, and was dedicated to its worship. Ancient Egypt exported great quantities of processed, presumably smoked, Nile perch, mainly during the Bronze and Iron Ages, throughout the eastern Mediterranean as far as Cyprus, Turkey, and beyond.⁸

Family Bagridae (bagrid catfish)

Two bones belong to this family of Nilotic catfish imported from the Nile Valley. They belong to the genus *Bagrus*, either *Bagrus bajad* (Forsskal, 1775), “Black Nile Catfish,” or *Bagrus docmak* (Forsskal, 1775), “Semutundu.”

Freshwater Fish—Local

Family Cichlidae (cichlid)

Six bones (0.4% of the identifiable bones) belong to family Cichlidae, with a total estimated MNI of 2. One bone could be further identified to the genus *Tilapia*, probably *Tilapia zillii* (Gervais, 1848), “Red-belly Tilapia, Common St. Peter’s Fish.”

Family Cichlidae includes some 600 rather small tropical species in a wide range of forms and adaptations. Tilapia are small to medium-size fish very common in many of the local rivers, lakes, ponds, and streams, particularly among stones and abundant vegetation, and are a popular food fish to this day. Of the seven cichlid species in Israel today, four are large enough to have nutritional and commercial value. *T. zillii* is the most common of these, reaching a

maximum size of 30–40 cm. Their breeding behavior is unique in that the fish shelters its fertilized eggs and sometimes its young offspring in its mouth. A popular table fish today, tilapia have been introduced into various parts of the world where they are raised on fish farms and are important in commercial and subsistence fisheries.

Family Clariidae (air-breathing catfish)

Two vertebrae belonging to family Clariidae were further identified to the local catfish *Clarias gariepinus* (Burschell, 1822), “North African Catfish.” Measurements of the two vertebrae gave size estimates of 53 cm and 57 cm, respectively.

The North African catfish is the largest freshwater fish in Israel today, reaching a maximum size of 150 cm and weight of 20 kg. An inhabitant of lakes, large sluggish rivers, and slow-water streams, it occurs locally in coastal rivers and in the Sea of Galilee, as well as in other waters of the Jordan River system. It occurs throughout the Levant, as well as in the Nile River in Egypt and in most areas of Africa (Boulenger, 1907).

A typical feature of the Clariid family is an accessory air-breathing organ above the gills that allows it to survive in harsh conditions such as poor oxygenation or desiccation. It can even cross dry land, crawling from one stagnant pool to another by means of its strong pectoral spines. An omnivorous fish, the North African catfish feeds on any available organic food source, including other fish, frogs, reptiles, birds, small mammals, snails, crustaceans, plant seeds, and fruit. It may be caught by rod and hook or in nets.

The North African catfish continues to be an important food fish species to this day. Remains of North African catfish have been recovered at many sites excavated in Israel.

The assemblages from Late Bronze Age Lachish and Megiddo and Field IV Lower at Iron Age Ekron have comparably low proportions of North African catfish (at 2.3%,⁹ 3.6%,¹⁰ and 0.5%, respectively), while Iron II Ashkelon has a much higher proportion, at 18.6% of the identified bones.¹¹ This might be

6. Greenwood 1976.

7. Greenwood 1976.

8. Van Neer et al. 2004.

9. Lernau and Golani 2004.

10. Lernau 2006.

11. Lernau 2011.

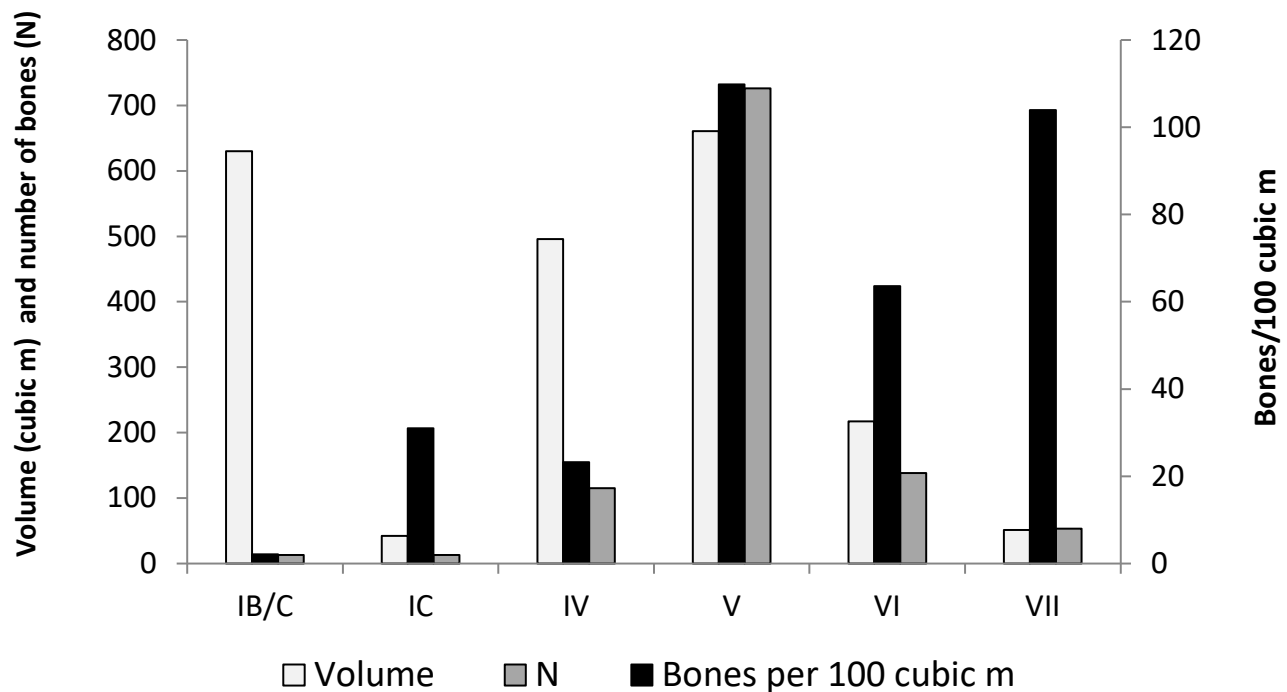


Fig. 11.2. Number of fish bones per volume of sediment (bones/100 cubic m) by stratum

explained by the evidence of a wetter climate in the area prior to the 2nd century CE,¹² with North African catfish inhabiting streams and swamps in the vicinity of Ashkelon.¹³

Regarding the possible origin of the catfish found at Ekron, genetic analysis of catfish remains from Sagalassos in Turkey, outside of their natural distribution area, showed that they were imported from the Nile Valley, probably together with the Nile perch found at the same site.¹⁴ It is therefore possible that the North African catfish consumed at Ekron in fact originated in the Nile Valley.

TEMPORAL DISTRIBUTION

The data in Tables 11.5–11.6 and Fig. 11.1 suggest that there was a marked change in fish consumption in Field IV Lower over time. There was a gradual rise in consumption in the Iron I to peak in Stratum V. In the Iron II, consumption peaks in Stratum IB. This,

however, might be the result from a simple bias caused by different volumes of excavated sediment in each stratum. The volumes of excavated sediment and fish bone concentrations are presented in Table 11.7 and Fig. 11.2.

Table 11.7: Number of fish bones per volume of excavated sediment by stratum

Stratum	Volume of sediment (cubic m)	N	Bones per 100 cubic m
IB/C	630	13	2.1
IC	42	13	31.0
IVA–B	496	115	23.2
VA–C	661	726	109.8
VIA–B	217	138	63.6
VIIA–B	51	53	103.9

Both the volume of excavated sediment and the concentration of bones therein vary significantly from stratum to stratum. The differences in total number (n), NISP, and MNI between Strata VII, VI, and V as

12. Orland et al. 2009.

13. Lerna 2011.

14. Arndt et al. 2003.

presented in Fig. 11.1, for example, were indeed biased due to the differences in the volumes of excavated sediment. The concentration of bones in the excavated sediment might be a better indication of the extent of fish consumption at Ekron in different periods: it was significantly higher in Iron I Strata VII–V than in Iron II Stratum IC–B.

The volume of excavated sediment from a given stratum contains material from both living surfaces and from fills and walls. The concentration of bones on living surfaces reflects relatively short “windows-of-time” within a stratum, better representing the consumption of fish in that particular time-span. Using available measurements of loci, the bones from well-defined living surfaces were isolated and concentrations of the bones per 100 sq m of surface for each stratum were calculated (Fig. 11.3). Although the general pattern resembles the simple numbers count result presented in Fig. 11.1, with a gradual rise in the abundance of fish to a peak in Iron I Stratum V, there is also an important difference: the largest concentration of bones is in Iron II Stratum I (Table 11.8b).

The largest two categories of fish consumed at Ekron are marine fish from the Mediterranean and imported freshwater fish from the Nile Valley (Tables 11.8a–11.8b, Figs. 11.4–11.5). The temporal distribution

Table 11.8a: Concentration of bones per volume of excavated sediment (bones per cubic m) by stratum

Stratum	All bones	Imported <i>Lates niloticus</i>	Local marine fish
I B/C	2.1	0.5	0.5
IC	31.0	2.4	7.1
IVA–B	23.2	4.4	7.1
VA–C	109.8	11.6	30.1
VIA–B	63.6	13.4	9.2
VIIA–B	103.9	29.4	3.9

Table 11.8b: Concentration on bones from living surfaces (bones per sq m) by stratum

Stratum	All bones	Imported <i>Lates niloticus</i>	Local marine fish
I	122	16.7	29.8
IVA–B	32.2	4.6	10.9
VA–C	62.3	6.7	9.1
VIA–B	40.6	10.4	8.6
VIIA–B	31.3	11.6	1.2

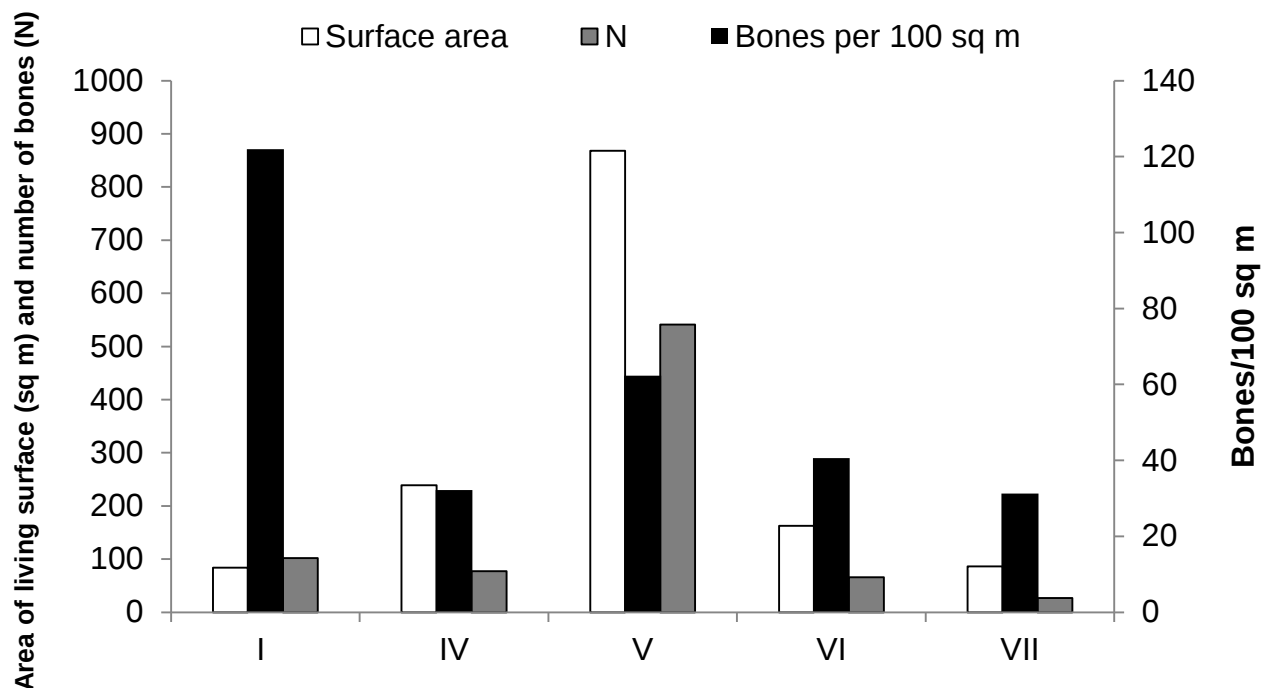


Fig. 11.3. Number of fish bones per area of excavated surface (bones/100 sq m) by stratum

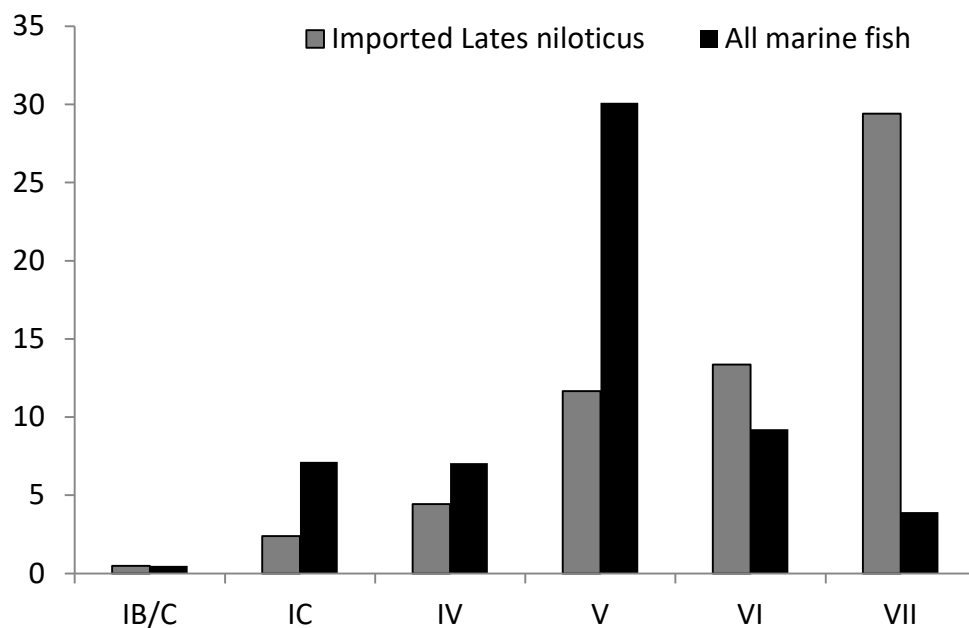


Fig. 11.4. Concentration of bones of imported and local marine fish per volume of sediment by stratum

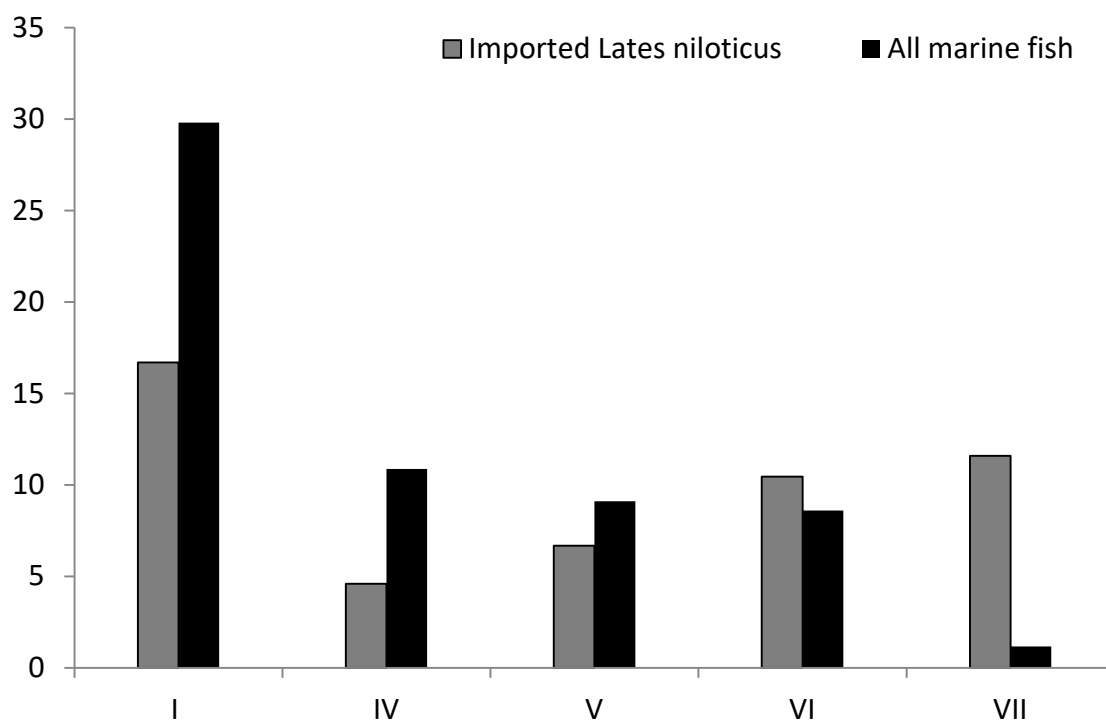


Fig. 11.5. Concentration of bones of imported and local marine fish per area of excavated surface by stratum

results by stratum based on plotting concentration per volume of sediment presented in Fig. 11.4 indicates a clear difference between the two categories, with the import of Nilotic fish from Egypt in the Iron I at its highest in Stratum VII and decreases over time.

Consumption of Mediterranean fish peaks in Stratum V, most noticeably to almost three times as much as Nilotic freshwater fish in Stratum VB. In the Iron II, consumption was highest in Stratum IC, with triple the number of marine vis-à-vis Nilotic fish. The results for

Stratum IB/C that indicate extremely low consumption of both categories of fish are based on a very small sample. The results based on the data from living surfaces suggests a different pattern, with consumption of both categories of fish remaining relatively constant from Stratum VI–IV in the Iron I and increasing dramatically in Iron II Stratum I (Tables 11.8a–11.8b, Fig. 11.5).

Of the three different methods for calculating the distribution of fish over time—simple counts, concentration of bones in volume of excavated sediment, and concentration of bones on living surfaces—only the last, which seems to be the most dependable, suggests that the consumption of both marine and imported Nilotic fish peaked during the last stages of Philistine occupation at the site. At the time, Ekron was a major center of olive oil production, and the higher consumption of imported Nilotic fish might be an indication of bilateral commercial activities with Egypt. This is one of two possible explanations for these data (see below).

Table 11.9: Distribution of bones from locus Types 1–2 in Stratum VI

Building/ Open Area	Room	N	Identified bones
351	a	32	<i>Lates niloticus</i> ; Sciaenidae; Mugilidae
352		6	<i>Lates niloticus</i>
353	a	2	<i>Lates niloticus</i> ; Sparidae
	c	6	<i>Lates niloticus</i> ; Sparidae
354	a	21	<i>Lates niloticus</i>
355E	a	2	Mugilidae
355W	a	21	<i>Lates niloticus</i> ; Sparidae
	c	1	
356	c	2	
		10	<i>Lates niloticus</i> ; Sparidae
358		16	<i>Lates niloticus</i> ; Serranidae; sharks
359		1	Bagridae
Total		120	

SPATIAL DISTRIBUTION

Iron I Strata VI–IV in Buildings 350–357 and Open Areas 359–360 (Tables 11.9–11.11)

Four domestic buildings in the northeast quadrant of Field IV Lower were in use throughout Strata VI–IV: Buildings 353, 354, 355W, and 355E. The northwest quadrant contained several domestic buildings and three open areas in Stratum VIB–A (Buildings 351, 352, 356, 357, 359, and 360 and Open Areas 358, 361, and 362), replaced by the large monumental public Building 350 of Strata VC–IVA, with Open Area 361 continuing in use to its north.¹⁵

The distribution of the 880 fish bones (including identified and unidentified bones) from locus Types 1 and 2 are presented by stratum in Tables 11.9–11.11.

Table 11.10: Distribution of bones from locus Types 1–2 in Stratum V

Building	Room	N	Identified fish
350	a	14	<i>Lates niloticus</i> ; Serranidae; Sparidae
	b	291	<i>Lates niloticus</i> ; Serranidae; Carangidae; Sparidae; Sciaenidae; Cichlidae; Mugilidae; Balistidae
	c	57	<i>Lates niloticus</i> ; Serranidae; Sparidae; Sciaenidae
	d	185	<i>Lates niloticus</i> ; Serranidae; Carangidae; Sparidae; Sciaenidae; Mugilidae
	e	17	<i>Lates niloticus</i> ; Mugilidae
	f	1	
353	a	32	<i>Lates niloticus</i> ; Sparidae; Sciaenidae
354	a	32	<i>Lates niloticus</i> ; Sparidae; Mugilidae
355E		2	<i>Lates niloticus</i>
355W		9	<i>Lates niloticus</i> ; Sciaenidae
Total		643	

15. For the monumental and cultic nature of Building 350, see Gitin, Garfinkel, and Dothan 2016.

Table 11.11: Distribution of bones from locus Types 1–2 in Stratum IV

Building	Room	N	Identified fish
350	a	7	<i>Lates niloticus</i> ; Sparidae
	b	9	<i>Clarias gariepinus</i> ; <i>Lates niloticus</i> ; Sparidae
	c	1	<i>Lates niloticus</i>
	d	27	<i>Lates niloticus</i> ; Sparidae; Moronidae; Mugilidae; Balistidae
	e	12	Sciaenidae
353	a	18	<i>Lates niloticus</i> ; Sparidae
	a1	4	<i>Lates niloticus</i>
	a2	1	
	b	1	
	b1	1	
	c	2	<i>Lates niloticus</i> ; Sparidae
354	a	7	<i>Lates niloticus</i> ; Sparidae
355E	a	16	<i>Lates niloticus</i> ; Sparidae; Cichlidae
355W		11	<i>Lates niloticus</i> ; Sparidae; Sciaenidae
Total		117	

The bones were unevenly distributed in the various buildings, rooms, open areas, and strata. Table 11.12 presents the distribution of 804 fish bones from Strata VIB–IVA in several selected rooms that contained 10 or more bones. As indicated in the Iron II section below, there was a good correlation in Stratum IB between the identification of room function based on pottery quantification analyses and the fish remains. Although a similar quantitative analysis has not been conducted for the Iron I pottery, the fish bones from Strata VI–IV may perhaps be taken to indicate rooms used for eating. On this basis, it can be suggested that Buildings 353, 354, and 355W each had one space that served for eating and/or preparing food for the duration of the strata under consideration.

Possible cultic significance of fish

The presence of *bamot* in Building 350 Rooms b and d, indicating their cultic function, impacts on the interpretation of the fish remains found in these rooms. The larger *bamah* in central Room d was in use from Stratum VC–A; the smaller but better preserved *bamah* in Room b, which opened directly into Room d, was constructed and in use only in Stratum VA. In Stratum VB, Room b contained the largest concentration of fish bones excavated in Field IV Lower both in terms of number (288) and variety (eight families of marine and freshwater fish). Most of the bones (281)

Table 11.12: Distribution of fish bones from selected rooms in Strata VIB–IVA

Building	Room	VIB	VIA	VC	VB	VA	IVB	IVA	Total
350	a			8	2	4		7	21
	b			3	288	*		9	300
	c				38	19		1	58
	d			26*	15*	144*	5	22	212
	e			10		7	5	7	29
351	a	16	16						32
353	a		2	12	9	11	15	3	52
354	a	21	1	12	4	16	4	3	61
355E	a	2			16				18
355W	a	4	17						21
Total		43	36	71	372	201	29	52	804

* Room contained *bamah*

were found within the beaten-earth floor of the room,¹⁶ the principal inclusions in which were large amounts of ash, bones, charcoal, pottery, and patches of phytoliths, and a medium quantity of seeds. Only 15 bones were found in Building 350 central Room d in Stratum VB; in Stratum VA, the situation was reversed: Room d yielded 144 fish bones of six different varieties, while none at all were found in Room b.

These data raise the question of the significance of fish in the cultic ceremonies apparently conducted in Building 350. Ten of the 13 varieties of fish found at Ekron were represented in this building (Table 11.13). The domestic buildings in the northeast quadrant each contained only 3–5 varieties of fish, mainly the Nile perch, porgy, and mullet, the most common fish at the site. This could imply that offerings included all the available varieties of fish in the city, both common and rare. If fish were used for ritual purposes in Philistine cult,¹⁷ it might be suggested that the cultic function of the various spaces in Building 350 differed in Stratum VC, VB, and VA. A comparison between the distribution of fish vis-à-vis fauna other than fish in Building 350 may also be relevant to the cultic function of this building.

Table 11.13: Varieties of fish in monumental Building 350 and domestic Buildings 353–355

Building	Varieties of fish
350	<i>Lates niloticus</i> ; Sparidae; Serranidae; Mugilidae; Sciaenidae; Balistidae; Cichlidae; <i>Clarias gariepinus</i> ; Moronidae; Carangidae
353	<i>Lates niloticus</i> ; Sparidae; Sciaenidae
354	<i>Lates niloticus</i> ; Sparidae; Mugilidae
355E	<i>Lates niloticus</i> ; Sparidae; Mugilidae; Cichlidae
355W	<i>Lates niloticus</i> ; Sparidae; Sciaenidae

16. Surface IVNW.8034 (see Gitin, Garfinkel, and Dothan 2016: 31).

17. Although it has been suggested that the name of the Philistine deity Dagon may have originated from the Hebrew word for fish, *dag*, this possibility has been discounted on etymological grounds (Singer 1992: esp. 433, 436).

Comparison of the distribution of bones of mammals and birds and of fish

Since the data for the distribution of the bones of mammals and birds (including fowl) are grouped by stratum, building, and room¹⁸ rather than by sub-stratum and locus type, the fish bones are similarly grouped in the following discussion.

Table 11.14 presents the relative distribution of bones of fauna other than fish and of fish in domestic Buildings 353, 354, 355E, 355W in Iron I Strata VI–IV as a percentage of all the bones in each category found in a given building in a given stratum. The largest rooms contained by far the highest percentages of bones of both categories—mammals and birds (M+B) and fish—in each building, with the exception of Building 353 in Stratum V, in which the highest percentage of fish bones, but not of M+B bones, was found in the largest room. This correlation supports the interpretation that the function of the rooms included the preparation and/or consumption of food.

Table 11.15 presents the data in the same form for Building 350, which shows a different distribution pattern. As mentioned above, the fish remains were concentrated mainly in Rooms b and d in Stratum V, both of which contained cultic *bamot*. Room d was the central large space in this building and Room b a small adjacent room. On the other hand, bones of fauna other than fish were significantly concentrated in Room e closer to the entrance of the building. Assuming that the *bamot* in Rooms d and b indeed functioned as installations for offerings to the gods, this combined pattern suggests that Room e was used to slaughter sacrificial animals for parts then used as offerings in Room d and that fish were prepared in the smaller Room b and used as offerings in both Rooms b and d.

Fish bones associated with installations

Ten fish bones were found in four hearths and tabuns or in their immediate vicinity (two of the installations in rooms and two in open areas) (Table 11.16). Although the number of bones directly related to these probable food-preparation facilities was small, there were considerable numbers of fish bones in the general area of the four installations. A total of 27 installations—hearths, tabuns, and firepits—were excavated on living

18. See Maher and Hesse 2016.

Table 11.14: Distribution of M+B and fish bones in domestic buildings

Building	Room	Stratum VI		Stratum V		Stratum IV	
		% M+B	% Fish	% M+B	% Fish	% M+B	% Fish
353	a	53.8	60	0.8	91	79	50
	a1	21.2				9	21
	a2					1	5
	b	4		95.8	9	5	19
	c	21	40	3.4		6	5
Total %		100	100	100	100	100	100
354	a	49	100	78.4	100	99	100
	a2			1.3			
	b	12		6.5			
	c	39		13.8		1	
Total %		100	100	100	100	100	100
355E	a					92.5	100
	a1					0.7	
	a2					6.8	
Total %						100	100
355W	a	84.4	95			67	100
	a1					33	
	b	12					
	c	3.6	5				
Total %		100	100			100	100

Table 11.15: Distribution of M+B and fish bones in Building 350

Building	Room	Stratum V		Stratum IV	
		% M+B	% Fish	% M+B	% Fish
350	a	1.8			7.5
	b	3.7	46.9	0.7	9.7
	c	1	10.6		8.6
	d	9.7	38.9	16.2	61.3
	e	65.2	3.6	78.4	12.9
	f	18.6		4.2	
Total %		100	100	100	100

Table 11.16: Fish bones associated with probable food-preparation installations

Stratum	Building	Open Area	No. of bones in or in vicinity of installation	Total no. of bones
VA	350 Room d		1	141
VB		361	1	10
VC		361	1	60
VIB	354 Room a		7	20
Total			10	231

surfaces in Iron I Strata VI–IV, 24 located in rooms and three in open areas, most of them in the domestic buildings in the northeast quadrant. Fish bones were found in substantial numbers in 17 of these locations. Thus, the average number of bones found in spaces that contained installations probably used for food preparation was 19.8 and only 7.8 in spaces without such facilities.

Another difference between locations with and without probable food-preparation installations is related to the body parts represented and the estimated sizes of the fish (Table 11.17). A head of a fish is almost devoid of meat, while the skeleton of the posterior meat-bearing parts consists mainly of vertebrae and fin elements. The proportion of head-bones of the total number of fish bones was 47% (313 out of 660). This proportion was higher for locations with hearths and tabuns (51%) than for locations without them (44%), suggesting that more fish-heads were left in the food-preparation locations. This datum becomes more significant when the sizes of the fish, which could be estimated for 108 of the 660 bones, is

Table 11.17: Proportions of head bones of fish in locations with and without probable food-preparation installations

	Locations with hearths and tabuns	Locations without hearths and tabuns	
Average estimated sizes of all fish	58 cm	44 cm	
No. of fish bones	231	444	660
No. of head bones	117	196	313
% of head bones	51%	44%	47%
Fish size ≥ 30 cm			
No. of all fish bones	28	41	69
No. of head bones	15	11	26
% of head bones	54%	27%	38%
Fish size < 30 cm			
No. of all fish bones	8	31	39
No. of head bones	5	26	31
% of head bones	63%	83%	80%

taken into consideration. The average estimated sizes of the fish found in locations with hearths and tabuns was larger than in the locations without them (58 cm and 44 cm, respectively). In the latter, the proportion of head-bones of small fish was very high (83%) compared to larger fish (27%). A possible explanation is that smaller fish were prepared for consumption with their head as a single portion and larger fish without the head as several pre-cut portions. This interpretation of the data supports the functional difference between locations with and without hearths and tabuns, in that people may have preferred not to eat in spaces in which cooking installations produced smoke.

Iron II Stratum IB: Temple Auxiliary Buildings 651 and 654 (Table 11.18)

In Stratum IB, bones were found only in two of the Temple Auxiliary Buildings and in the alley to their north. Of the total of 73 bones, 59 were found in Building 651, and 24 of these, also representing the largest variety of families, came from Building 651 Room e.

Table 11.18: Distribution of bones in Stratum IB in Buildings 651 and 654

Building	Room	N	Identified fish
651	a	5	Serranidae (1)
	b	2	<i>Lates niloticus</i> (1)
	d	2	<i>Lates niloticus</i> (1); Serranidae (1)
	e	24	<i>Lates niloticus</i> (6); Sparidae (5); Serranidae (4); Mugilidae (1)
	f	22	<i>Lates niloticus</i> (4); Serranidae (2)
	g	3	
	h	1	Sparidae (1)
654	a	14	<i>Lates niloticus</i> (2)
		73	

Since no tabuns or hearths were found in Temple Auxiliary Buildings 651–655,¹⁹ it can be assumed that the food consumed in these buildings was prepared

19. See Chapter 1.

elsewhere, as indicated by the quantitative analysis of the ceramic finds in relation to their spatial distribution in Buildings 651–654.²⁰ The results of this analysis regarding the functions of various rooms are supported by the fish bone evidence: fish remains were present in all the rooms that apparently contained eating areas and absent in those that apparently did not contain such areas, with the single exception of Building 651 Room e. This room in fact yielded both the largest number and the greatest variety of fish remains in the Temple Auxiliary Buildings. The pottery quantification analysis of the vessels found in the destruction layer above the floors of this room indicate that it served exclusively for storage. The relatively large number of fish bones found in this room, therefore, could have come from vessels used for storing processed fish.

ORIGIN OF FISH AT EKRON

Based on the taxonomic identification of 482 bones found in locus Types 1 and 2 and their presumed origin, marine fish represent the largest group, followed by freshwater fish imported from the Nile Valley; local fish from coastal rivers are represented by only a few bones (Table 11.19).

Table 11.20 and Fig. 11.6 present the distribution of the bones of Mediterranean and Nile Valley fish by stratum.

As mentioned above, the analysis of temporal distribution according to living surface probably better represents actual consumption of fish at the site. One interesting finding is that although imported fish were less plentiful than Mediterranean marine fish, their abundance was nevertheless significant. Although the abundance of imported fish might depend on direct cultural or economic relations between Ekron and Egypt (see above), the following scenario may be more likely. The export of fish from Egypt to the eastern Mediterranean coast was constant and intensive throughout the Iron Age.²¹ This trade was probably conducted by boat, so that imported fish were consistently available in the markets of the coastal ports alongside local marine fish. Traders from Ekron could have purchased the fish in local coastal markets, and

20. See Chapter 3.

21. Van Neer et al. 2004.

Table 11.19: Origin of fish

	Origin	NISP
Marine fish	Mediterranean	
Sparidae		129
Mugilidae		77
Serranidae		65
Sciaenidae		11
Balistidae		5
Carangidae		3
Moronidae		1
Sharks		1
Freshwater fish: imported	Nile Valley	
<i>Lates niloticus</i>		182
Bagridae		2
Freshwater fish: local	Coastal rivers	
Cichlidae		4
<i>Clarias gariepinus</i>		2
Total		482

Table 11.20: Temporal distribution of fish bones by origin

Stratum	Mediterranean	Nile Valley	Total
IB	18	29	47
IC	4		4
Pre-IC	12	3	15
IVA	16	8	24
IVB	19	14	33
VA	47	33	80
VB	135	29	164
VC	18	17	35
VIA	7	13	20
VIB	13	17	30
VIIA	1	13	14
VIIIB	1	4	5
XI		4	4

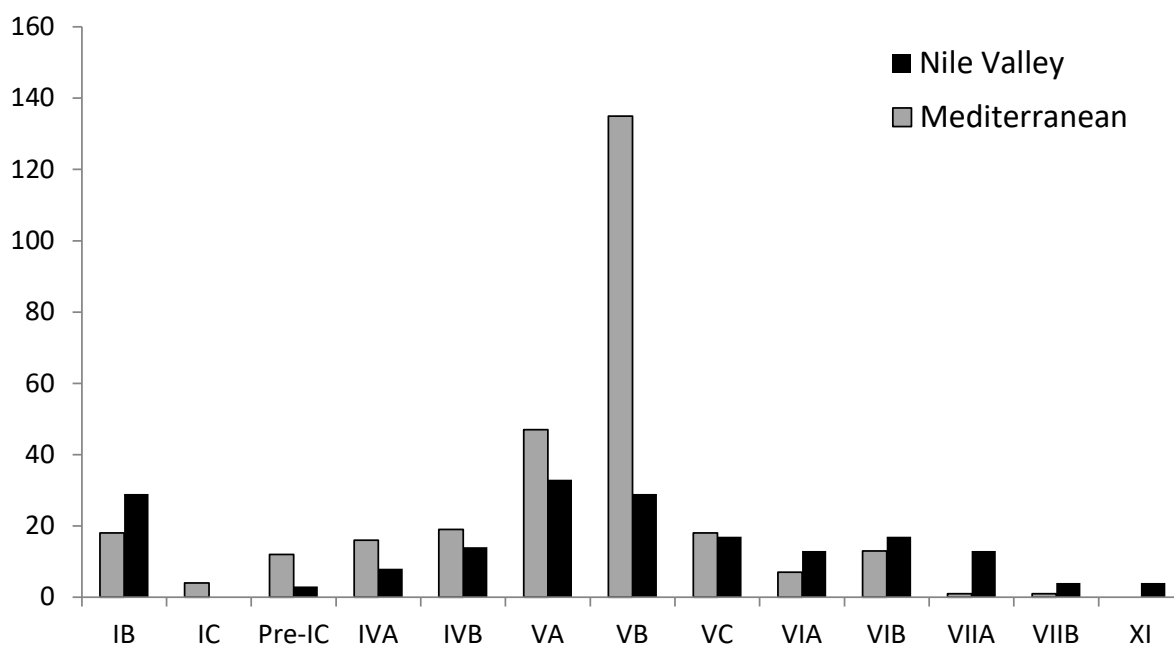


Fig. 11.6. Temporal distribution of bones by origin of fish

special trade connections between Ekron and the Nile Valley would therefore not have been required. Thus, the abundance of both imported and local fish would have depended on their availability on the coast rather than on special relations with Egypt. In addition, the rise and fall in fish consumption could also have been a function of the strength of the local administration. Trade in fish calls for a well-organized network involving coastal fishermen, the processing of marine fish, importing traders, the transportation of the fish to a given site, and their distribution to local markets, especially if marine fish were sold fresh in these markets.

CONCLUSIONS

Several qualitative and quantitative conclusions can be drawn from the well-stratified, albeit rather small assemblage of fish bones recovered at Ekron. The bones belong to 14 different families, 10 marine families from the Mediterranean and two local and two imported freshwater families. The most common identified species was Nile perch imported from Egypt, followed by three local marine fish (porgy, grouper, and mullet). The temporal distribution of the fish was assessed using three different methods. According to the simple count of numbers of bones per stratum,

there was a steady rise in the consumption of fish in the Iron I from Stratum VIIB to Stratum VB, declining in Stratum IV. In the Iron II, consumption peaked in Stratum IB. The pattern was quite different when concentrations of bones per 100 cubic meters of excavated sediment were examined, thereby avoiding the bias of differing amounts of sediment removed from the various strata. Based on this calculation, there was a high consumption of fish in the Iron I in Strata VII, VI, and V, with an abrupt decline in Stratum IV. In the Iron II, fish consumption was low in Stratum IC and even less in Stratum IB. These calculations included sediment from floors and other living surfaces, as well as from fills and walls. In the third method, only bones found on living surfaces (bones per sq m) were counted, resulting in a distribution that suggests a more or less equal consumption of fish from Iron I Strata VII–IV and a two–threefold rise in the later Iron II Stratum I. The last method of calculation seems better to represent actual consumption of fish at Ekron over time.

When the abundance of marine fish, presumably caught by local fishermen along the coast, was compared with that of the imported fish from Egypt, the resulting patterns were again different depending on method of calculation. The simple plotting of numbers of bones demonstrated a similar pattern of abundance

for both local and imported fish through all the periods of occupation. The same generally applied to the plotting of concentrations of bones only from living surfaces. This might be explained, as mentioned above, by inferring that traders from Ekron bought these fish from fishmongers along the coast, and the imported fish do not represent direct commercial ties between Ekron and the Nile Valley, but rather their availability in local coastal markets. An alternative explanation for the rise in the number of imported fish in the Iron II could be related to an increase in olive oil trade with Egypt.

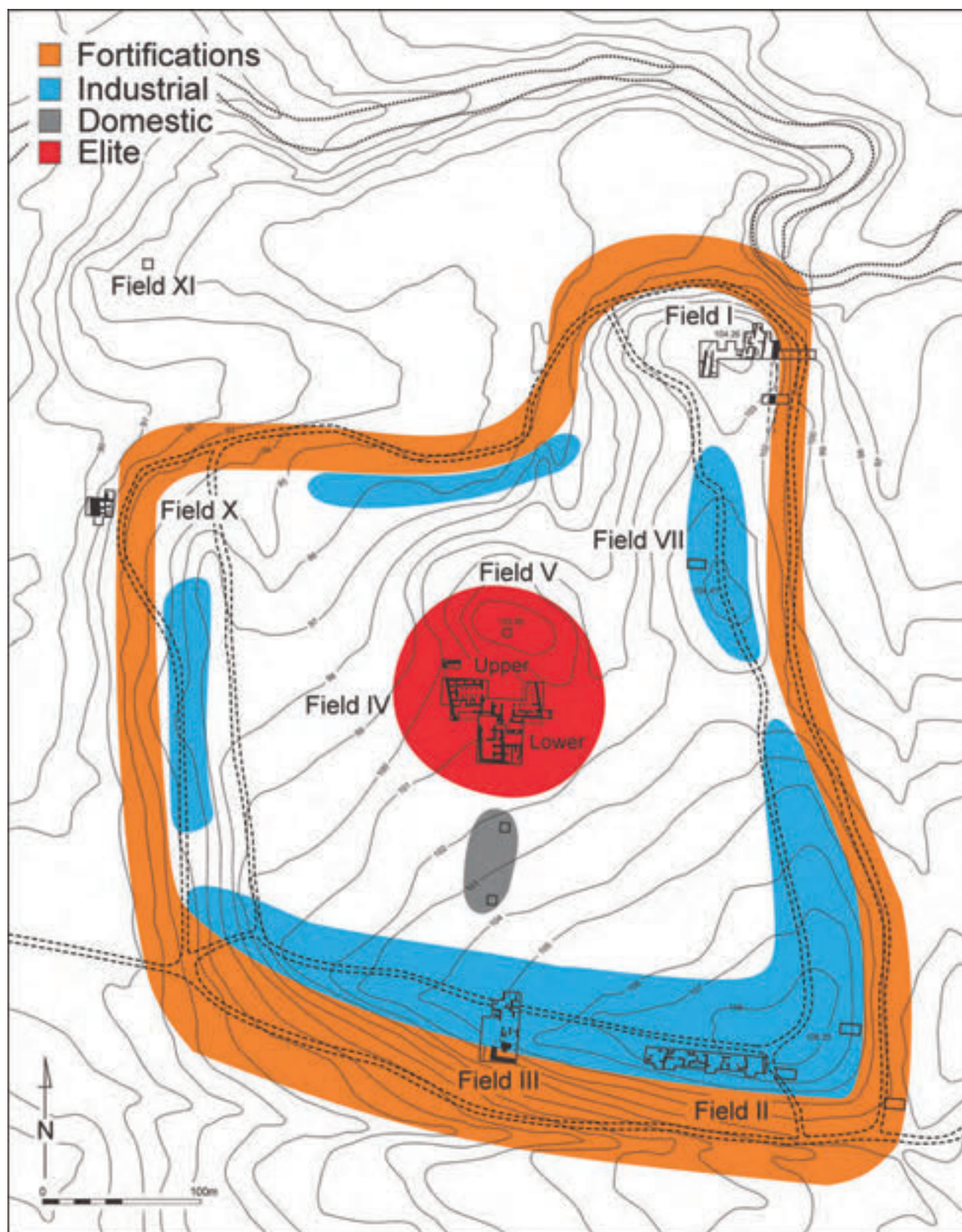
A different pattern emerged when the calculation was based on volume of sediment: according to this method, in the Iron I, marine fish became gradually more abundant to peak in Stratum V and subsequently declined; the abundance of imported fish was greatest in the early phases (Stratum VII) and gradually decreased over time. While the calculation based on living surface concentrations makes most sense, the present assemblage is not large enough to draw definitive conclusions. Future analysis of the fish bones from other parts of the tell might help to determine which method of calculation is the most representative of consumption.

Bones of fish were found in all Iron II Stratum IB rooms that the pottery quantification analysis suggested contained eating areas.²² In the Iron I Strata VI–IV buildings, most of the bones were found in rooms in the domestic buildings, some of which contained hearths or tabuns. It can be assumed that the rooms with hearths or tabuns were used for food preparation and those without for eating, a suggestion supported by the analysis of the skeletal elements represented and the estimated sizes of the fish: the locations with hearths or tabuns had relatively more head bones of larger fish, presumably discarded where the food had been prepared.

Fish bones were also found in relatively higher numbers in monumental public Building 350 in association with the Stratum V *bamot*. Building 350 also produced the largest variety of fish, including rare species at the site. This raises the issue of the possible cultic significance of fish for the local Philistine population. The distribution of the bones of fauna other than fish in Building 350 in Stratum V differed from that of the fish. While the former were found in a room close to the entrance of the building, the fish bones were concentrated near the *bamah* in the large central hall and the second *bamah* in a small adjacent room.

22. See Chapter 3.

COLOR FIGURES



Color Fig. 1.1. Tel Miqne-Ekron zones of occupation

Building 651 Stratum IB

Pottery types by functional category

Category 1 Storage (Stationary): FNL; JK 1, 1.1, 1.4, 5, 6, 9; SCP 1.1; SJ 1.4, 2, 3, 5–6.2, 15, 15.2; SJ Misc.; SJM 1, 11; STD 1–2.2, 4.1

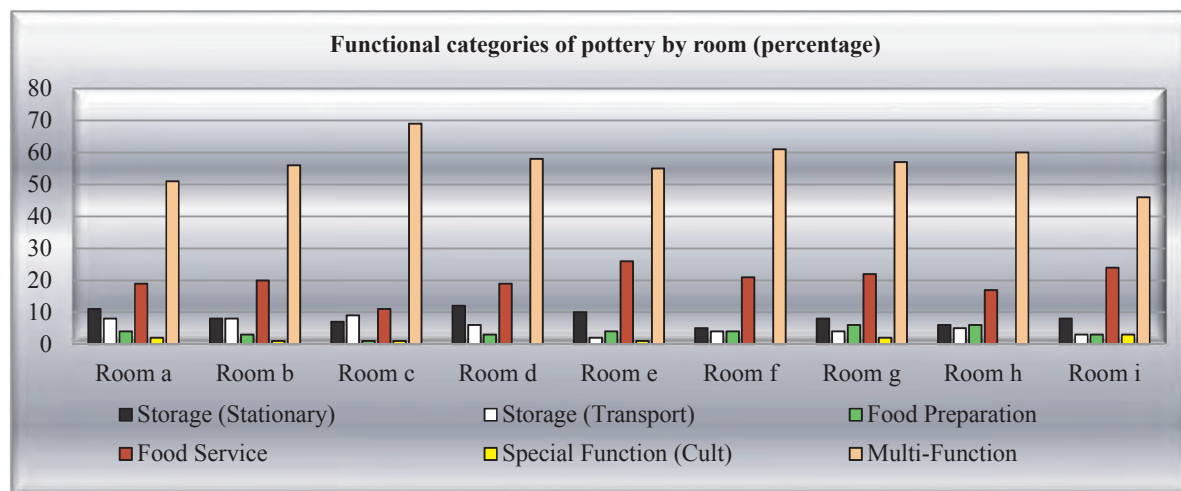
Category 2 Storage (Transport): HMJ 1–5.4; SJ 7–9.5, 11–13

Category 3 Food Preparation: CP 6–8, 11–12; KR 5–5.6, 7–11; MRT 1–3

Category 4 Food Service: AMP 1–6.1; BL 1B, 3B, 5–5.6A, 7–8.6A, 10–14, 18–19.1A, 27.5A, 29A–30F, 35, 43–43B; BLM 2, 9, 13–14; BLF 2; BTL 1–1.3, 4, 7A; DEC 1–2.2, 5.1; JUG 1–3, 5–6, 8–10, 13–14A; JUL 1–4, 11; LID 2; PL 1–2B; PYX

Category 5 Special Function (Cult): CAS 1; CH 3A–5; GBL 1–2, 4; JUL 19; LMP 1

Category 6 Multi-Function: BL 1, 1.1–3, 3.1–4.5; BLM Misc. BLM Mis; KR 1–4.6, 15



Pottery by functional category, number [N], and percentage by room

Room a		
Cat. 1 Storage (Stationary)	[44]	11%
Cat. 2 Storage (Transport)	[29]	8%
Cat. 3 Food Preparation	[16]	4%
Cat. 4 Food Service	[71]	19%
Cat. 5 Special Function (Cult)	[6]	2%
Cat. 6 Multi-Function	[198]	51%

Room b		
Cat. 1 Storage (Stationary)	[31]	9%
Cat. 2 Storage (Transport)	[30]	8%
Cat. 3 Food Preparation	[12]	3%
Cat. 4 Food Service	[72]	20%
Cat. 5 Special Function (Cult)	[3]	1%
Cat. 6 Multi-Function	[203]	56%

Room c		
Cat. 1 Storage (Stationary)	[7]	7%
Cat. 2 Storage (Transport)	[9]	9%
Cat. 3 Food Preparation	[1]	1%
Cat. 4 Food Service	[10]	11%
Cat. 5 Special Function (Cult)	[1]	1%
Cat. 6 Multi-Function	[66]	69%

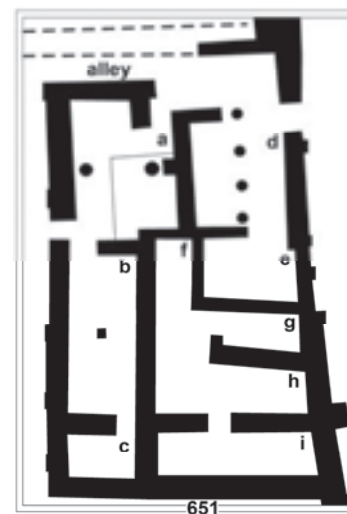
Room d		
Cat. 1 Storage (Stationary)	[47]	12%
Cat. 2 Storage (Transport)	[23]	6%
Cat. 3 Food Preparation	[12]	3%
Cat. 4 Food Service	[77]	19%
Cat. 5 Special Function (Cult)	[0]	0%
Cat. 6 Multi-Function	[233]	58%

Room e		
Cat. 1 Storage (Stationary)	[53]	10%
Cat. 2 Storage (Transport)	[12]	2%
Cat. 3 Food Preparation	[22]	4%
Cat. 4 Food Service	[137]	26%
Cat. 5 Special Function (Cult)	[5]	1%
Cat. 6 Multi-Function	[285]	55%

Room f		
Cat. 1 Storage (Stationary)	[30]	5%
Cat. 2 Storage (Transport)	[22]	4%
Cat. 3 Food Preparation	[24]	4%
Cat. 4 Food Service	[127]	21%
Cat. 5 Special Function (Cult)	[0]	0%
Cat. 6 Multi-Function	[374]	61%

Room g		
Cat. 1 Storage (Stationary)	[22]	8%
Cat. 2 Storage (Transport)	[11]	4%
Cat. 3 Food Preparation	[15]	6%
Cat. 4 Food Service	[57]	22%
Cat. 5 Special Function (Cult)	[4]	2%
Cat. 6 Multi-Function	[151]	57%

Room h		
Cat. 1 Storage (Stationary)	[15]	6%
Cat. 2 Storage (Transport)	[12]	5%
Cat. 3 Food Preparation	[15]	6%
Cat. 4 Food Service	[40]	17%
Cat. 5 Special Function (Cult)	[1]	0%
Cat. 6 Multi-Function	[143]	62%



Room i		
Cat. 1 Storage (Stationary)	[4]	8%
Cat. 2 Storage (Transport)	[1]	3%
Cat. 3 Food Preparation	[1]	3%
Cat. 4 Food Service	[9]	24%
Cat. 5 Special Function (Cult)	[1]	3%
Cat. 6 Multi-Function	[17]	46%

Color Fig. 3.1

Building 652 Stratum IB

Pottery types by functional category

Category 1 Storage (Stationary): JK 1, 1.1, 5, 6; LKR 3; PITH 3; SCP 7, 8; SJ 1.4, 3, 5–5.13, 15; SJ Misc.; SJM 1, 3, 11; STD 1–2

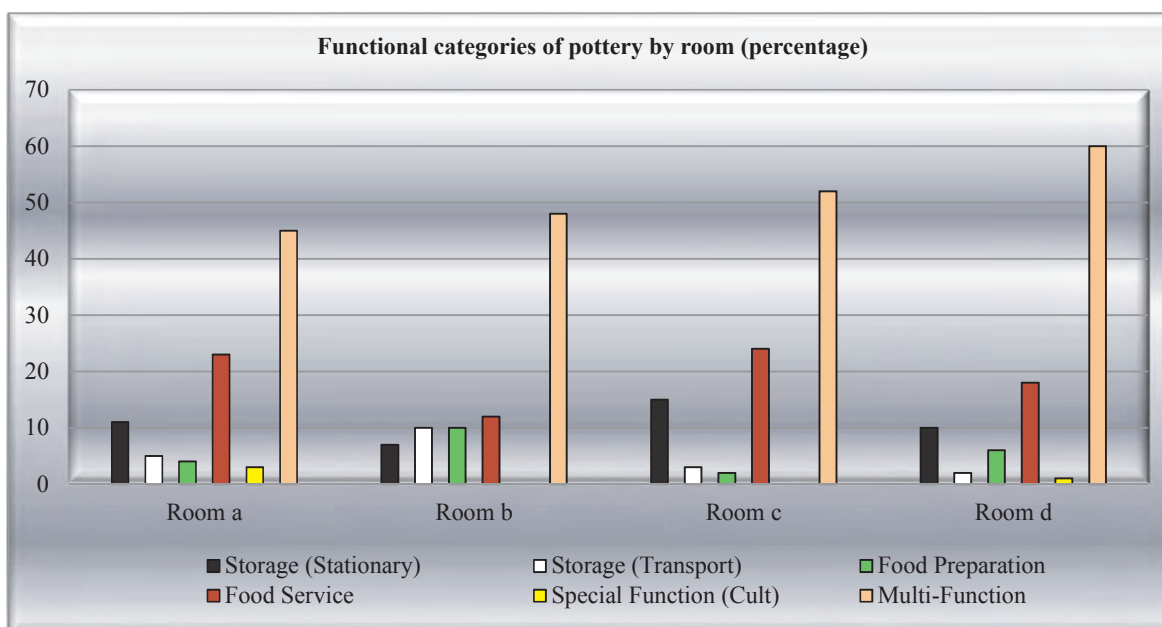
Category 2 Storage (Transport): HMJ 1–2, 5.2–5.4; HMJM 4; SJ 7–7.3, 12, 12.3

Category 3 Food Preparation: CP 6, 6.3, 10; KR 5, 7.3, 11, 13; MRT 3

Category 4 Food Service: AMP 1, 5, 9; BL 3B, 5A–5.4A, 7–8.4, 10–11, 13–14, 18, 29.1, 29.2A, 38; DEC 1, 1.2; JUG 1–1.3, 2.2, 6, 13–14; JUL 1–4, 10; PL 1, 2

Category 5 Special Function (Cult): CH 1, 3A

Category 6 Multi-Function: BL 1, 1.1–3, 3.1–4.3; KR 1–4.4, 15



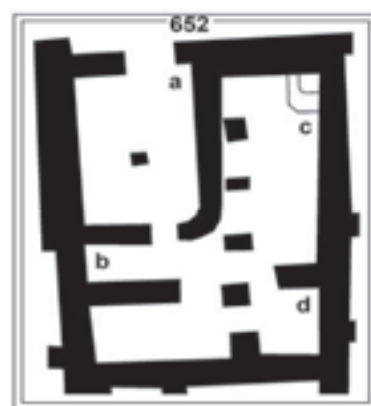
Pottery by functional category, number [N], and percentage by room

Room a		
Cat. 1 Storage (Stationary)	[30]	11%
Cat. 2 Storage (Transport)	[15]	5%
Cat. 3 Food Preparation	[11]	4%
Cat. 4 Food Service	[67]	23%
Cat. 5 Special Function (Cult)	[7]	3%
Cat. 6 Multi-Function	[130]	45%

Room d		
Cat. 1 Storage (Stationary)	[19]	10%
Cat. 2 Storage (Transport)	[4]	2%
Cat. 3 Food Preparation	[11]	6%
Cat. 4 Food Service	[34]	18%
Cat. 5 Special Function (Cult)	[1]	1%
Cat. 6 Multi-Function	[111]	60%

Room b		
Cat. 1 Storage (Stationary)	[4]	7%
Cat. 2 Storage (Transport)	[6]	10%
Cat. 3 Food Preparation	[6]	10%
Cat. 4 Food Service	[7]	12%
Cat. 5 Special Function (Cult)	[0]	0%
Cat. 6 Multi-Function	[28]	48%

Room c		
Cat. 1 Storage (Stationary)	[24]	15%
Cat. 2 Storage (Transport)	[5]	3%
Cat. 3 Food Preparation	[4]	2%
Cat. 4 Food Service	[38]	24%
Cat. 5 Special Function (Cult)	[0]	0%
Cat. 6 Multi-Function	[84]	52%



Color Fig. 3.2

Building 653 Stratum IB

Pottery types by functional category

Category 1 Storage (Stationary): JK 1, 5; LKR 4; SCP; SJ 1.4–2, 5–6.1; SJM; SJM 10

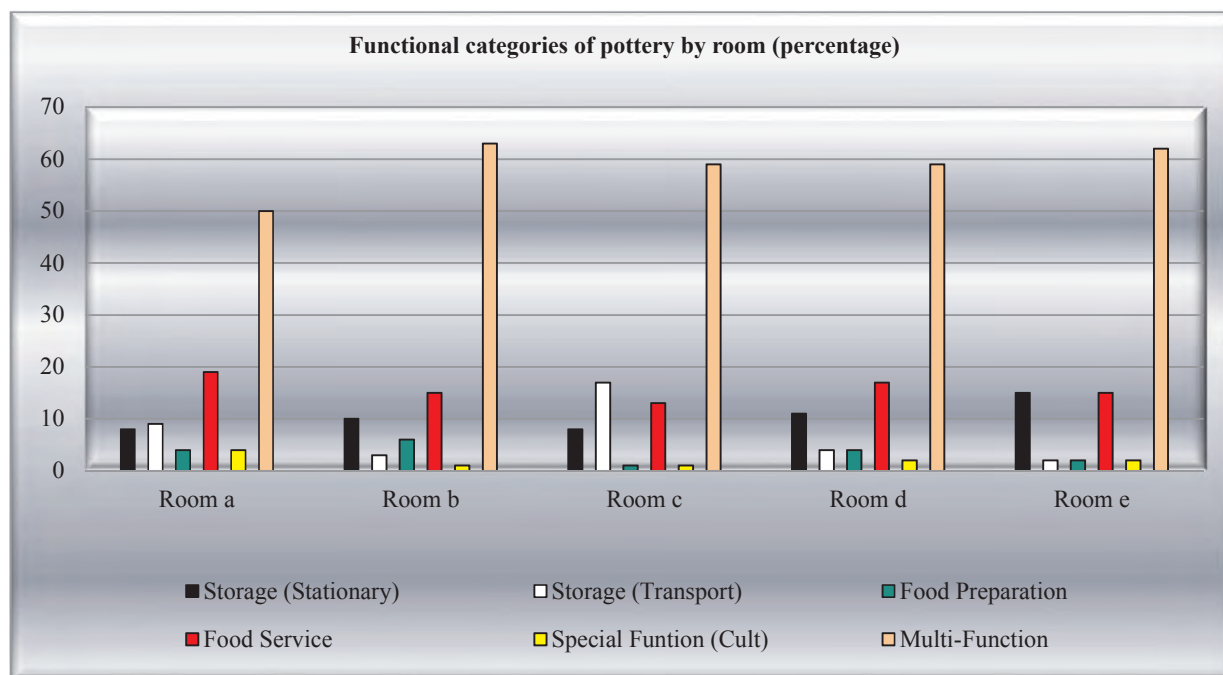
Category 2 Storage (Transport): HMJ 1–3.1, 5.2, 8.1; SJ 7–7.1, 9.1–13, 17

Category 3 Food Preparation: CP 6, 6.1, 8, 12.1, 26; KR 5, 7–7.2

Category 4 Food Service: AMP 1, 9; BL 5A–5.4A, 7.1A–8, 10, 10A, 12.1, 14, 18; BLM 4; BTL 1.4; DEC 1–2A; JUG 1–2.2, 5, 13–14.1; JUL 1–1.2, 4–5, 13.1, 24

Category 5 Special Function (Cult): CH 5, 5A; LMP 1–2

Category 6 Multi-Function: BL 1, 1.1–4.5; KR 1–4.6



Pottery by functional category, number [N], and percentage by room

Room a

Cat. 1 Storage (Stationary)	[9]	8%
Cat. 2 Storage (Transport)	[11]	9%
Cat. 3 Food Preparation	[5]	4%
Cat. 4 Food Service	[22]	19%
Cat. 5 Special Function (Cult)	[5]	4%
Cat. 6 Multi-Function	[58]	50%

Room b

Cat. 1 Storage (Stationary)	[31]	10%
Cat. 2 Storage (Transport)	[11]	3%
Cat. 3 Food Preparation	[18]	6%
Cat. 4 Food Service	[48]	15%
Cat. 5 Special Function (Cult)	[4]	1%
Cat. 6 Multi-Function	[201]	63%

Room c

Cat. 1 Storage (Stationary)	[12]	8%
Cat. 2 Storage (Transport)	[24]	17%
Cat. 3 Food Preparation	[1]	1%
Cat. 4 Food Service	[18]	13%
Cat. 5 Special Function (Cult)	[1]	1%
Cat. 6 Multi-Function	[85]	59%

Room d

Cat. 1 Storage (Stationary)	[8]	11%
Cat. 2 Storage (Transport)	[3]	4%
Cat. 3 Food Preparation	[3]	4%
Cat. 4 Food Service	[12]	17%
Cat. 5 Special Function (Cult)	[1]	2%
Cat. 6 Multi-Function	[42]	59%

Room e

Cat. 1 Storage (Stationary)	[18]	15%
Cat. 2 Storage (Transport)	[3]	2%
Cat. 3 Food Preparation	[2]	2%
Cat. 4 Food Service	[18]	15%
Cat. 5 Special Function (Cult)	[2]	2%
Cat. 6 Multi-Function	[73]	62%



Color Fig. 3.3

Building 654 Stratum IB

Pottery types by functional category

Category 1 Storage (Stationary): JK 1, 1.2, 4.1–6; LKR 3; PITH 1; SCP 8; SJ 1.4, 2–3, 5–6.3, 15–15.5; SJM 1, 11; STD 1–2.1

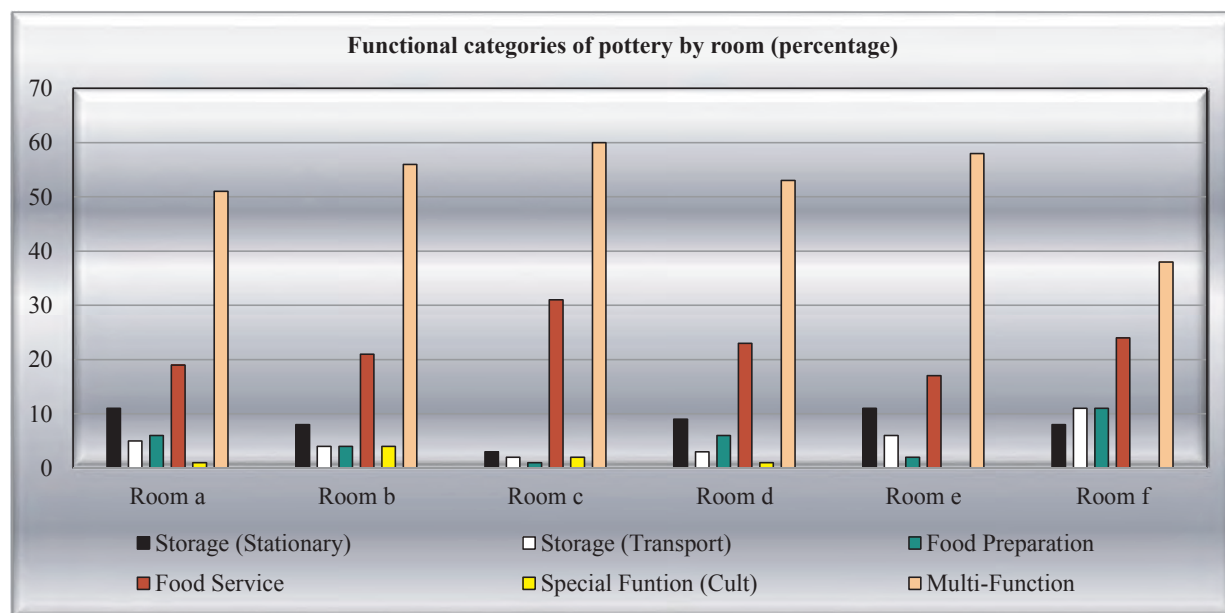
Category 2 Storage (Transport): HMJ 1–3, 5.2–6.3; SJ 7–7.3, 9–10.1, 12.1–14

Category 3 Food Preparation: CP 5–7.2, 12, 14; KR 5, 7–8, 10.1, 11, 14–15; MRT 2–3

Category 4 Food Service: AMP 1–3, 6, 10; BL 3B, 5–5.6A, 7–8.6, 10–14, 18–19.2, 20.1, 29.1, 37A, 40, 43A; BLF 6; BLM 2, 5, 14; BTL 1–2, 4, 6; DEC 1.2, 2; JUG 1–2.2, 5–6, 8–9.1, 13–14; JUL 1–5, 10, 13, 13.2; PL 2, 2A

Category 5 Special Function (Cult): CH 3A, 5A, 6A; JULV; LMP 1, 3–4

Category 6 Multi-Function: BL 1, 1.1–3.1, 4–4.5; BL Misc.; KR 1–4.5; Misc.



Pottery by functional category, number [N], and percentage by room

Room a		
Cat. 1 Storage (Stationary)	[46]	11%
Cat. 2 Storage (Transport)	[23]	5%
Cat. 3 Food Preparation	[27]	6%
Cat. 4 Food Service	[79]	19%
Cat. 5 Special Function (Cult)	[4]	1%
Cat. 6 Multi-Function	[219]	51%

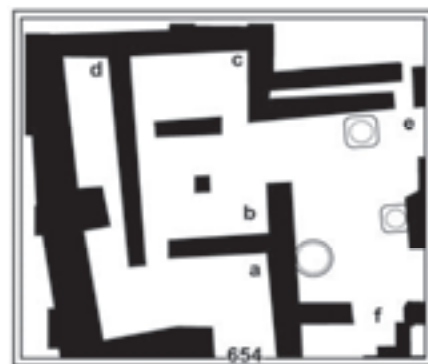
Room d		
Cat. 1 Storage (Stationary)	[32]	9%
Cat. 2 Storage (Transport)	[11]	3%
Cat. 3 Food Preparation	[22]	6%
Cat. 4 Food Service	[85]	23%
Cat. 5 Special Function (Cult)	[3]	1%
Cat. 6 Multi-Function	[193]	53%

Room b		
Cat. 1 Storage (Stationary)	[19]	8%
Cat. 2 Storage (Transport)	[9]	4%
Cat. 3 Food Preparation	[10]	4%
Cat. 4 Food Service	[52]	21%
Cat. 5 Special Function (Cult)	[9]	4%
Cat. 6 Multi-Function	[138]	56%

Room e		
Cat. 1 Storage (Stationary)	[53]	11%
Cat. 2 Storage (Transport)	[31]	6%
Cat. 3 Food Preparation	[12]	2%
Cat. 4 Food Service	[83]	17%
Cat. 5 Special Function (Cult)	[2]	0%
Cat. 6 Multi-Function	[283]	58%

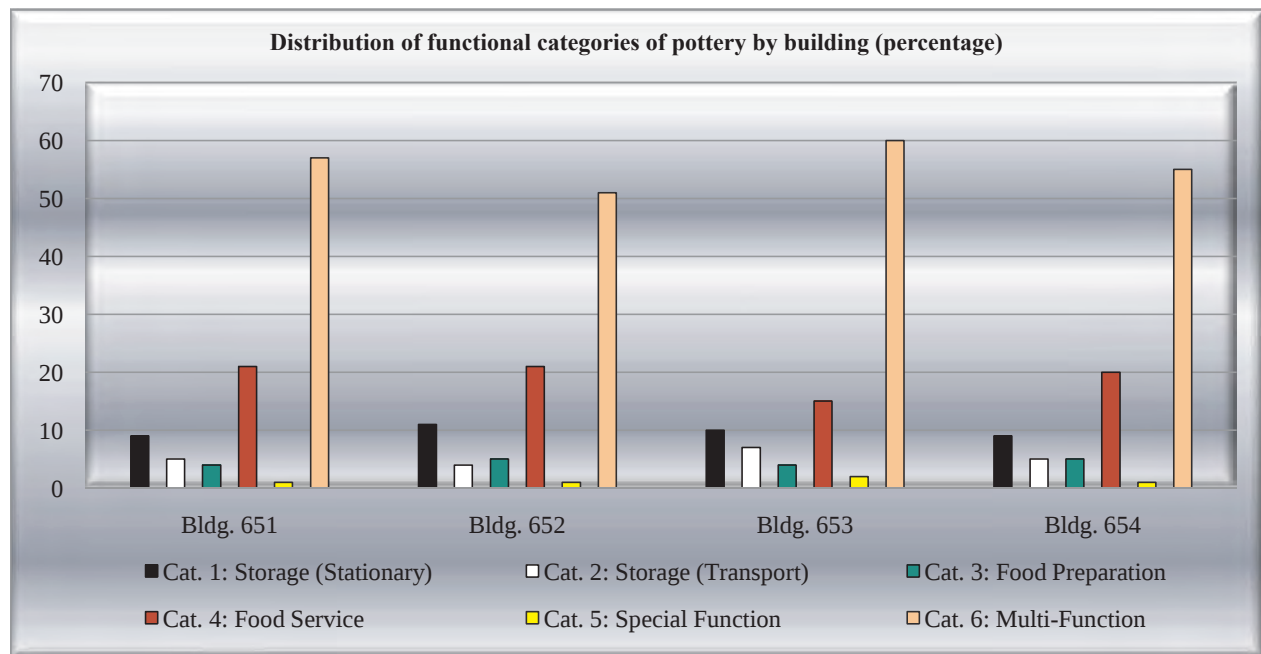
Room c		
Cat. 1 Storage (Stationary)	[4]	3%
Cat. 2 Storage (Transport)	[2]	2%
Cat. 3 Food Preparation	[1]	1%
Cat. 4 Food Service	[35]	31%
Cat. 5 Special Function (Cult)	[2]	2%
Cat. 6 Multi-Function	[69]	60%

Room f		
Cat. 1 Storage (Stationary)	[3]	8%
Cat. 2 Storage (Transport)	[4]	11%
Cat. 3 Food Preparation	[4]	11%
Cat. 4 Food Service	[9]	24%
Cat. 5 Special Function (Cult)	[0]	0%
Cat. 6 Multi-Function	[14]	38%



Color Fig. 3.4

Buildings 651–654 Stratum IB



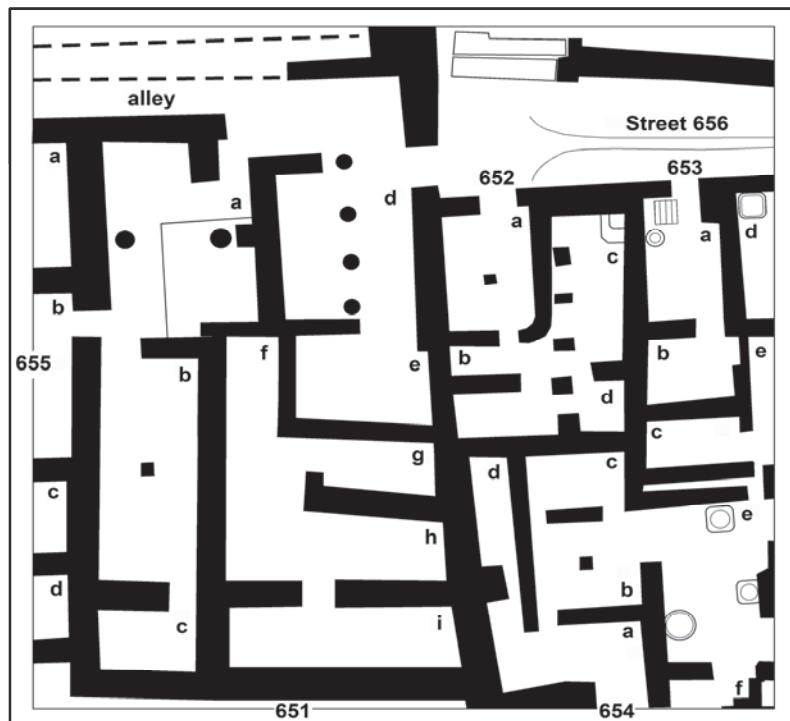
Pottery by functional category, number [N], and percentage by building

Building 651		
Cat. 1 Storage (Stationary)	[253]	9%
Cat. 2 Storage (Transport)	[149]	5%
Cat. 3 Food Preparation	[118]	4%
Cat. 4 Food Service	[600]	21%
Cat. 5 Special Function (Cult)	[21]	1%
Cat. 6 Multi-Function	[1670]	57%

Building 652		
Cat. 1 Storage (Stationary)	[77]	11%
Cat. 2 Storage (Transport)	[30]	4%
Cat. 3 Food Preparation	[32]	5%
Cat. 4 Food Service	[146]	21%
Cat. 5 Special Function (Cult)	[8]	1%
Cat. 6 Multi-Function	[353]	52%

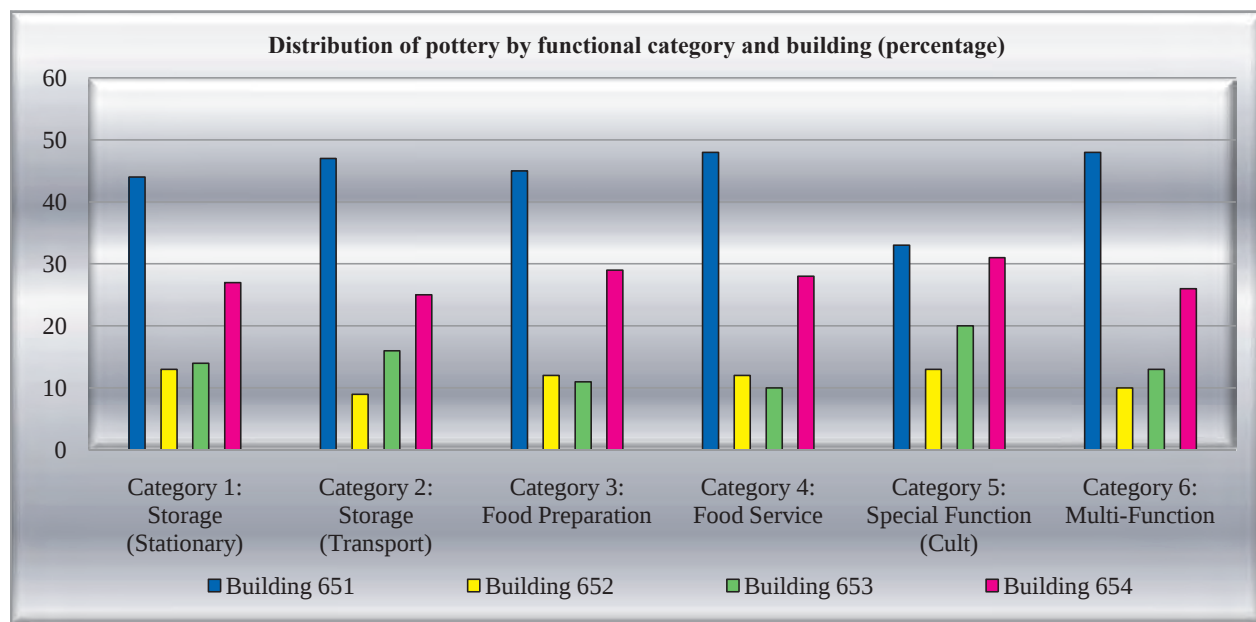
Building 653		
Cat. 1 Storage (Stationary)	[78]	10%
Cat. 2 Storage (Transport)	[52]	7%
Cat. 3 Food Preparation	[29]	4%
Cat. 4 Food Service	[118]	15%
Cat. 5 Special Function (Cult)	[13]	2%
Cat. 6 Multi-Function	[459]	60%

Building 654		
Cat. 1 Storage (Stationary)	[157]	9%
Cat. 2 Storage (Transport)	[80]	5%
Cat. 3 Food Preparation	[76]	5%
Cat. 4 Food Service	[343]	20%
Cat. 5 Special Function (Cult)	[20]	1%
Cat. 6 Multi-Function	[916]	55%



Color Fig. 3.5

Buildings 651–654 Stratum IB



Pottery by functional category, number [N], and percentage by building

Category 1 Storage (Stationary)			
Building 651	[253]	44%	
Building 652	[77]	13%	
Building 653	[78]	14%	
Building 654	[157]	27%	

Category 2 Storage (Transport)			
Building 651	[149]	47%	
Building 652	[30]	9%	
Building 653	[52]	16%	
Building 654	[80]	25%	

Category 3 Food Preparation			
Building 651	[118]	45%	
Building 652	[35]	12%	
Building 653	[29]	11%	
Building 654	[76]	29%	

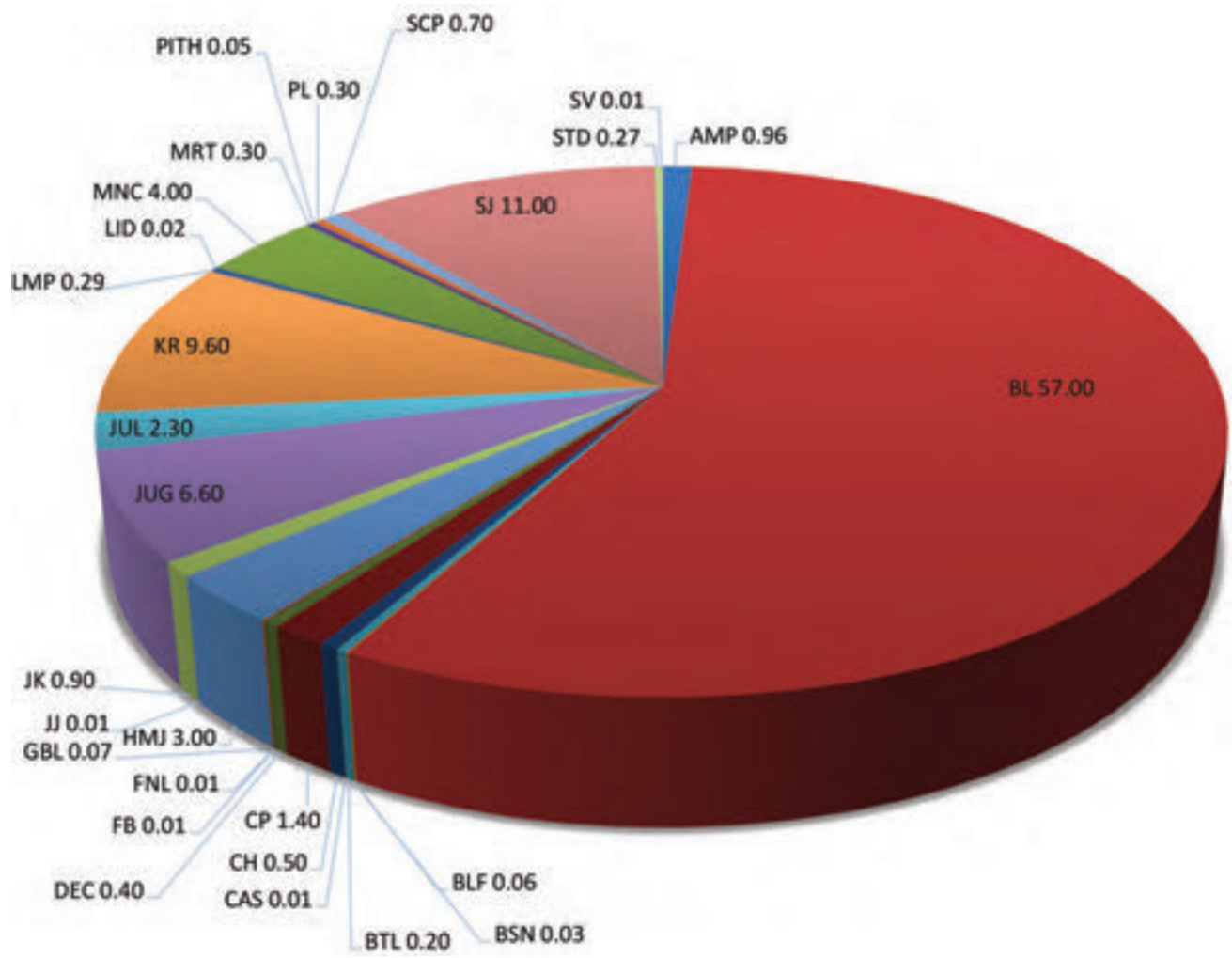
Category 4 Food Service			
Building 651	[600]	48%	
Building 652	[146]	12%	
Building 653	[118]	10%	
Building 654	[343]	28%	

Category 5 Special Function (Cult)			
Building 651	[21]	33%	
Building 652	[8]	13%	
Building 653	[13]	20%	
Building 654	[20]	31%	

Category 6 Multi-Function			
Building 651	[1670]	48%	
Building 652	[353]	10%	
Building 653	[459]	13%	
Building 654	[916]	26%	



Color Fig. 3.6



Color Fig. 4A.1. Percentages of vessel classes in the Ekron Field IV Lower corpus

COLOR PHOTOS



Color Photo 1.1. Hoard of 59 silver pieces after cleaning (Obj. Nos. 2069–2080, 2083–2087; see also Photo 1.30)

Color Photo 4A.1

	Vessel	Figure	Stratum		Vessel	Figure	Stratum
1.	IIBL 1	Like 4A.1:10	IB	11.	IIBLM 14	4A.7:5	IB
2.	IIBL 1.1	Like 4A.1:19	IB	12.	IIBL 18	4A.5:7	IB
3.	IIBL 2.1	Like 4A.2:5	IB	13.	IIBL 35	4A.6:13	IB
4.	IIBL 1B	4A.1:35	ICb?	14.	IIMRT 1	4A.7:20	IB
5.	IIBL 3	4A.2:20	IB	15.	IISCP 1.1	4A.8:2	IC
6.	IIBL 4.3	4A.3:18	IB	16.	IISCP 6	4A.9:3	Pre-IC
7.	IIBL 4.5	4A.3:20	IB	17.	IICH 3A	4A.11:1	IB
8.	IIBL 7	4A.4:1	IB	18.	IICH 4A	4A.11:2	IB
9.	IIBL 10	4A.4:14	IB	19.	IICH 10	4A.11:8	III-II?
10.	IIBL 11	Like 4A.4:17	IB				

Color Photo 4A.2

	Vessel	Figure	Stratum		Vessel	Figure	Stratum
1.	IIKR 4.1	4A.12:5	IB	5.	IICP 6.3	Like 4A.14:3	IB
2.	IIKR 5	4A.12:9	IB	6.	IICP 7.1	4A.14:6	IB
3.	IIKR 7	4A.13:7	IB	7.	IICP 8	4A.14:8	IB
4.	IICP 6.2	Like 4A.14:2	IB				

Color Photo 4A.3

	Vessel	Figure	Stratum		Vessel	Figure	Stratum
1.	IISJ 1.2	4A.17:2	ICb	6.	IISJ 15	4A.21:3	IB
2.	IISJ 5.6	4A.18:3	IB	7.	IISJ 17	4A.22:5	IB
3.	IISJ 8	4A.20:2	IB	8.	IJK 1.4	4A.16:2	IB
4.	IISJ 9.3	Like 4A.20:4	IB	9.	IHMJ 1	4A.23:4	IB
5.	IISJ 9.5	4A.20:5	IB	10.	IHMJ 1.1	Like 4A.23:8	IB



Color Photo 4A.1



Color Photo 4A.2



Color Photo 4A.3

Color Photo 4A.4

	Vessel	Figure	Stratum		Vessel	Figure	Stratum
1.	IIAMP 1	4A.24:1	IB	7.	IIJUL 2.1	4A.28:12	IB
2.	IIJUG 9	4A.25:10	IB	8.	IIJUL 3	4A.28:17	IB
3.	IIJUG 14A	4A.26.8	IB	9.	IIJUL 10	4A.29:2	IB
4.	IIJUG 13.1	4A.26:2	IB	10.	IIJUL 13.1	4A.29:6	IB
5.	IIJUG 13.4	4A.26:4	IB	11.	IIJUL 24	4A.29:10	IB
6.	IIJUL 1	4A.28:1	IB				

Color Photo 4A.5

	Vessel	Figure	Stratum		Vessel	Figure	Stratum
1.	IIDEC 2.2	4A.27:7	IB	6.	IISTD 1	Like 4A.31:1	IB
2.	IIDEC 2	4A.27:6	IB	7.	IISTD 2.1	4A.31:3	IB
3.	IIBTL 1	4A.30:2	IB	8.	IILMP 1	4A.31:8	IB
4.	IIBTL 4	4A.30:7	IB	9.	IILMP 4	4A.31:14	IB
5.	IIGBL 1	4A.7:16	IB				



Color Photo 4A.4



Color Photo 4A.5



Color Photo 5.1. **1:** Potter's tool (Cat. No. 5.11); **2-3:** Faience seals (Cat. Nos. 5.13, 5.14); **4-5:** Clay bullae (Cat. Nos. 5.15, 5.16)



Color Photo 7.1. 1: Bronze bell (Cat. No. 7.1); 2: Bronze spatula (Cat. No. 7.2); 3: Bronze nipper/tweezers (Cat. No. 7.4); 4: Iron plow head (Cat. No. 7.3); 5: Barrel-shaped miniature bronze? object (Cat. No. 7.5)

BIBLIOGRAPHIC ABBREVIATIONS

AASOR	Annual of the American Schools of Oriental Research
AIA	Archaeological Institute of America
AIAR	W. F. Albright Institute of Archaeological Research
<i>AJA</i>	<i>American Journal of Archaeology</i>
<i>ANET</i>	J. B. Pritchard, <i>Ancient Near Eastern Texts Relating to the Old Testament</i> (3rd ed.). Princeton: Princeton University Press, 1969
ASOR	American Schools of Oriental Research
BARIntSer	British Archaeological Reports International Series. Oxford: Archaeopress
<i>BASOR</i>	<i>Bulletin of the American Schools of Oriental Research</i>
BSAE	British School of Archaeology in Egypt
<i>E-I</i>	<i>Eretz-Israel</i>
HUC	Hebrew Union College
IAA	Israel Antiquities Authority
<i>IEJ</i>	<i>Israel Exploration Journal</i>
IES	Israel Exploration Society
<i>JAS</i>	<i>Journal of Archaeological Science</i>
JRASS	Journal of Roman Archaeology Supplementary Series
JSOTSS	Journal for the Study of the Old Testament Supplement Series. Sheffield: Sheffield Academic Press
<i>NEA</i>	<i>Near Eastern Archaeology</i>
<i>NEAEHL</i>	<i>The New Encyclopedia of Archaeological Excavations in the Holy Land</i> , ed. E. Stern. Jerusalem: IES, 1993 (vols. 1–4), 2008 (vol. 5)
OBO	Orbis Biblicus et Orientalis. Freiburg: Universitätsverlag
OBO.SA	Orbis Biblicus et Orientalis Series Archaeologica. Freiburg: Universitätsverlag
OI	Oriental Institute, University of Chicago
PEF	Palestine Exploration Fund
<i>PEFA</i>	<i>Palestine Exploration Fund Annual</i>
<i>PEQ</i>	<i>Palestine Exploration Quarterly</i>
<i>QDAP</i>	<i>Quarterly of the Department of Antiquities in Palestine</i>
<i>RB</i>	<i>Revue Biblique</i>
SIMA	Studies in Mediterranean Archaeology. Göteborg: Åströms
<i>U-F</i>	<i>Ugarit-Forschungen</i>

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