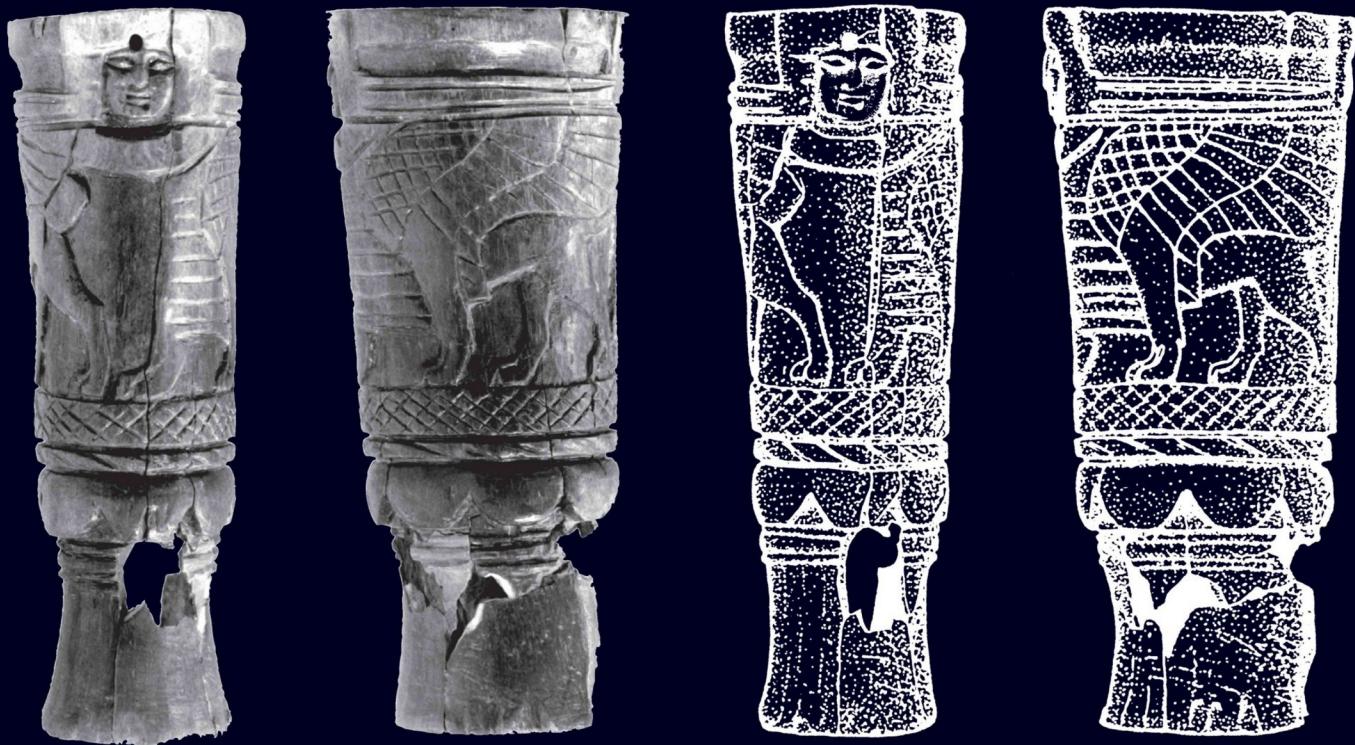


Peter M. Fischer

Tell Abu al-Kharaz in the Jordan Valley



Volume III:
The Iron Age

Verlag der
Österreichischen Akademie
der Wissenschaften



OAW

PETER M. FISCHER · TELL ABU AL-KHARAZ III

ÖSTERREICHISCHE AKADEMIE DER WISSENSCHAFTEN
DENKSCHRIFTEN DER GESAMTAKADEMIE, BAND LXXVI

Contributions to the Chronology
of the Eastern Mediterranean

Edited by Manfred Bietak
and Hermann Hunger

Volume XXXIV

Verlag der
Österreichischen Akademie
der Wissenschaften

Wien 2013



OAW

ÖSTERREICHISCHE AKADEMIE DER WISSENSCHAFTEN
DENKSCHRIFTEN DER GESAMTAKADEMIE, BAND LXXVI

Peter M. Fischer

TELL ABU AL-KHARAZ
IN THE JORDAN VALLEY

VOLUME III:
THE IRON AGE

including special studies by
Teresa Bürge and Eva Maria Wild



Vorgelegt von w. M. MANFRED BIETAK in der Sitzung am 11. Oktober 2012

Veröffentlicht mit Unterstützung des Austrian Science Fund (FWF): PUB 75-G19



Spezialforschungsbereich SCIEM 2000
„Die Synchronisierung der Hochkulturen im östlichen Mittelmeerraum
im 2. Jahrtausend v. Chr.“
der Österreichischen Akademie der Wissenschaften
beim Fonds zur Förderung
der Wissenschaftlichen Forschung



Special Research Programme SCIEM 2000
“The Synchronisation of Civilisations in the Eastern Mediterranean
in the Second Millennium B.C.”
of the Austrian Academy of Sciences at the Austrian Science Fund

Cover-illustration:
Peter M. Fischer /
Richard Holmgren

Diese Publikation wurde einem anonymen, internationalen
peer-review Verfahren unterzogen.

This publication had been anonymously reviewed by international peers.

British Library Cataloguing in Publication data.
A Catalogue record of this book is available from the British Library.

Die verwendete Papiersorte ist aus chlorfrei gebleichtem Zellstoff hergestellt,
frei von säurebildenden Bestandteilen und alterungsbeständig.

Alle Rechte vorbehalten

ISBN 978-3-7001-7332-8

Copyright © 2013 by Österreichische Akademie der Wissenschaften, Wien

Layout: Berger Crossmedia, Wien
Druck: Druckerei Ferdinand Berger & Söhne GesmbH, Horn

<http://hw.oeaw.ac.at/7332-8>
<http://verlag.oeaw.ac.at>

Printed and bound in the EU

CONTENTS

Abbreviations, Translations and Selected Glossary.....	7
PREFACE	9
CHAPTER 1 INTRODUCTION AND VADE MECUM.....	13
CHAPTER 2 STRATIGRAPHY, ARCHITECTURE AND FINDS.....	31
CHAPTER 3 THE POTTERY: TYPO-CHRONOLOGICAL CONCLUSIONS	389
CHAPTER 4 RADIOCARBON DATING	457
I. Radiocarbon Dates from Tell Abu al-Kharaz by E.M. Wild and P.M. Fischer	457
II. Reflections on the Radiocarbon Dates from Pella by P.M. Fischer.....	461
CHAPTER 5 DISCUSSION AND CONCLUSIONS	465
I. The People and their Land: Environment, Subsistence, Settlement and Ethnicity.....	465
II. Written Sources, Administration and Politics	481
III. Economy, Exchange of Goods and Communication Routes.....	482
IV. Architectural Features and Installations.....	483
V. Chronology	501
A. Relative chronology	501
1. Local chronology	501
2. Regional synchronization by P.M. Fischer and T. Bürge	501
3. Interregional synchronization	512
B. Absolute chronology and chronological conclusions	515
APPENDIX 1 FIGURINES	517
T. Bürge	
APPENDIX 2 THE SPHINX HANDLE	531
APPENDIX 3 COSMETIC PALETTES OF STONE.....	535
APPENDIX 4 NOTES ON THE GLYPHTIC MATERIAL AND OSTRAKA	539
BIBLIOGRAPHY	545

ABBREVIATIONS, TRANSLATIONS AND SELECTED GLOSSARY

AAS	Atomic-Absorption Spectroscopy	MB	Middle Bronze Age
Ass	Assyrian	MC	Middle Cypriote
b	Rounded/straight-sided bowl	N	Find number
BCE	Before common era	o.d.	Occupation debris
bic	Jug, biconical	OxA	Oxford Accelerator Unit (radiocarbon)
bid	Bichrome-decorated	pf	Pilgrim flask
bjl	Black Juglet	Phoen	Phoenician
BP	Before present	post (in tables)	Intrusive pottery; numbered if there are few sherds; X if there are many
BoR	Black-on-Red (Cypro-Geometric pottery)	pre (in tables)	Residual pottery; numbered if there are few sherds; X if there are many
Byz.	Byzantine	pyx	Pyxis
c	Chalice	rb	Ring base
cb	Carinated bowl	rob	Rounded base
edb	Concave disk base	rrb	Raised ring base
CE	Common era	SEM	Scanning Electron Microscopy
CG	Cypro-Geometric pottery	sj	Storage jar
Coll	Colluvial soil	sk	Spouted krater
cm	Centimetres	sp	Spout
con (in tables)	Contemporaneous pottery (pottery from the presented phase)	spj	Spouted jug
cj	Cooking jug	spja	Spouted jar
cp	Cooking pot	spjl	Spouted juglet
d.	Diameter	spsj	Spouted storage jar
db	Disk base	stj	Strainer jug
dec	Monochrome-decorated	T	Trench
dt	Decanter	tabun	Oven, dome-shaped, clamped down, not mobile
EB	Early Bronze Age	<i>tananeer</i>	Ovens (plural of <i>tannur</i>)
fb	Flat base	<i>tannur</i>	Oven, straight-sided, higher than <i>tabun</i> , on surface, mobile
fig	Figurine	<i>tawabeen</i>	Ovens (plural of <i>tabun</i>)
g	Goblet	Th	Thickness
H	Height	tri	Tripod bowl
h	Handle	ud	Undiagnostic sherds
HA	Humic acids	VERA	Vienna Environmental Research Accelerator (radiocarbon)
hm	Hole-mouth jar	W	Wall (or Width)
ic	Incense cup	Wt	Weight in g(ram)
i.d.	Indeterminate		
IA	Iron Age		
j	Jug, globular/ovoid		
ja	Jar		
jl	Juglet		
k	Krater		
l	Lamp		
L	Locus (or Length)		
LB	Late Bronze Age		
LC	Late Cypriote		
LH	Late Helladic		
LM	Late Minoan		
LR	Late Roman		
m	Metres		

PREFACE

This volume, *Tell Abu al-Kharaz III: The Iron Age*, is the third in a series of three. The first volume published was *Tell Abu al-Kharaz II: The Middle and Late Bronze Ages* (FISCHER 2006a) and the second was *Tell Abu al-Kharaz I: The Early Bronze Age* (FISCHER 2008). Another related published volume which should be mentioned in this context is *The Chronology of the Jordan Valley during the Middle and Late Bronze Ages: Pella, Tell Abu al-Kharaz, and Tell Deir 'Alla* (FISCHER 2006b).

The general information in the "Introduction" to *Volumes I and II* is equally applicable to this volume. Nevertheless, some information will be repeated in the corresponding chapter of this volume in order to facilitate the understanding of the characteristics of the site and the excavations without consulting one of the previously published volumes. This information covers the topography, surveys, the possible Biblical identity, aims of the project, excavation and recording techniques, nomenclature and legends, various teams, and previously published reports and special studies on which much of this publication is based. However, *Volumes I and II* should be consulted in order to gain access to specialists' studies on copper and bronze objects, and additional information on the climate, flora and fauna, which in addition to analyses of Bronze Age material by means of AAS also include material from the Iron Age.

It should be highlighted that the present volume is not a complete final report on the Iron Age occupation of Tell Abu al-Kharaz. A number of special studies are in preparation and there are additional topics which will be dealt with in the future. Amongst these are additional osteological and botanical investigations, and petrographic, pottery production and provenance studies. These will appear in the form of supplementary publications. Again, I have felt that the inclusion of these not yet finished studies would delay the publication of the other material and have therefore proceeded with the present volume although their absence may attract some criticism. However, I find it more important to provide access to the material from Tell Abu al-Kharaz by the archaeological community as soon as the major part of the Iron Age studies is completed.

In the Preface of the previous volumes I have emphasized the difficulty of meeting the expectations of all readers as far as the description of the find material is concerned. It is unavoidable that some may argue that the present report is generally too detailed; others, who have a special interest in specific topics, may argue that it is not detailed enough. I have, however, tried to keep the report balanced in order to provide maximum information within the financial constraints, which have had a serious effect on the – already quite substantial – extent of the present publication. One example is the photographic record: although this volume contains more than a hundred photographs, these represent only a small selection of the tens of thousands of photographic documentations (including films) which were taken over the years.

Several surveyors and draughtspersons have provided plans, sections and object drawings over a period of 24 years. It was my intention to keep this documentation as uniform as possible by giving the same instructions to all those responsible for producing them. However, it turned out impossible to fully standardize the plans, sections and object drawings, because every draughtsperson has an individual style. This has resulted in some variation in the design of the drawings produced over this long period.

I would like to take the opportunity to thank again all those people who contributed to the successful execution of the project. I am very much indebted to them. Amongst the people who supported *The Swedish Jordan Expedition* were R.H. Prince Raad Bin Zeid and Princess Majda Raad and their family. My deepest appreciation goes to them for their genuine interest in the excavations and their strong backing and encouragement over the years. Amongst others who strongly supported the project are the various Directors General of the Department of Antiquities of Jordan: Dr. Adnan Hadidi, Dr. Ghazi Bisheh, Dr. Safwan Tell, Dr. Fawwaz Al-Khreyshah and Dr. Ziad Al-Saad. The latter was the first Director General to provide a much needed guard for the protection of the site. For this he deserves particular thanks. The support of the Directors General included the loan of vehicles, personal and financial assistance in the early

years of the expedition, and a smooth bureaucracy which is unparalleled anywhere in the Near East and a token of genuine Jordanian hospitality. I am also very much indebted to H.E. the former Swedish Ambassador in Jordan, Lars Lönnback, who initiated the Swedish excavations in Jordan; the late Professor em. Paul Åström, my good friend and former teacher, who supported the project with advice and whose intervention resulted in additional funding from the Royal Swedish Academy of Letters, History and Antiquities; Professor em. Basil Hennessy, the former director of the Australian Expedition to Pella, and Dr. Stephen Bourke, the present director of the Australian excavations at Pella, who together made it possible to use the dig house at Pella.

Amongst others who facilitated the project is the staff of the Swedish embassy in Amman including the Swedish ambassadors (in chronological order) H.E. Christian Bausch, Agneta Bohman, Klas Gierow and Charlotta Sparre. Many thanks also go to the personnel of the foreign archaeological institutes in Amman: the American Center of Oriental Research (ACOR), the British Institute at Amman for Archaeology and History (BIAAH) and the Protestant Institute of Archaeology, Research Unit of the German Archaeological Institute, Amman.

The Yarmouk University in Irbid supported our project in many ways, for instance with logistics and personnel. Professor Zeidan Kafafi, whose interest in our work facilitated the renting of the Deir 'Alla Dig House in 1995 and who gave frequent invitations to give lectures at Yarmouk University, and Professor Ziad Al-Saad, who showed genuine hospitality during our visit to Yarmouk University over the years, should be thanked in particular.

I would like to express my great gratitude to the expedition's architects and draughtspersons, Mr. Elias Markou from Nicosia, Cyprus, between 1989 and 1993, and Mr. Muwafaq Al-Bataineh from Yarmouk University in Irbid, from 1995 to 2012. The latter is still assisting me in the excavations of the *New Swedish Cyprus Expedition at Hala Sultan Tekke*. Muwafaq provided most of the plans, sections, and object drawings of this volume. He also produced the computerized reconstructions of several structures. He should be thanked especially for his accurate work. Others who contributed their drawing skills were Teresa Bürge, Rainer Feldbacher, Lamia Khoury, Nawal Hawarri and Richard Holmgren; the latter assisted in producing plans and sections during the 1994 season of excavation. Rainer Feldbacher scanned a number of plans and sections of this volume for which I am grateful.

My sincere thanks go to Teresa Bürge, recipient of a DOC Fellowship of the Austrian Academy of Sciences at the Institute for Oriental and European Archaeology (OREA), Department for Egypt and the Levant. I wish to thank her for her arduous and time-consuming work on the digitalization of the plans, sections and object drawings, and the production of additional figures including the tricky compilation of Phases IX–XV in Figure 451. She spent much time in correcting the digitalized material for the publication, to check the tables, to establish the pottery statistics, to calculate the vessel volumes and in proof reading including the check of references and cross-references. In addition, she participated in the report on the stratigraphy of Area 9 East, the description of the finds, the interpretation of the remains (see Chapter 2) and the listing of parallels (see Chapter 5). For all her devoted work over the years, which made it possible to publish this volume without further delay, I am much obliged. The manuscript has been checked from a linguistic aspect by Bernard Vowles, whom I thank for his help and suggestions, and his genuine interest in archaeology in general. I would also like to thank Professor Jean-Paul Thalmann, the excavator of Tell Arqa in Lebanon, for providing the program which helped to measure the volumes of various vessel types. I am also grateful to Dr. David Reese for his helpfulness to classify some of the molluscs.

Another person to whom I am very grateful is Mr. Hikmat Ta'ani, who has worked with me for 23 years. Our collaboration started in 1989 when Hikmat became the representative of the Department of Antiquities of Jordan in connection with *The Swedish Jordan Expedition's* excavations at Tell Abu al-Kharaz and, later, Tell 'Ain 'Abda (in 1995). He joined the expedition as the Department's representative and also participated in every single season after his early retirement. Hikmat, who is beyond any doubt one of Jordan's most experienced field archaeologists, also attended to most of the logistical matters, the employment of the labourers and their salaries and all the necessary contacts with the local people and authorities - the latter supported by Muwafaq. I feel honoured to have Hikmat and Muwafaq as my collaborators and friends. Hikmat and Muwafaq are also still assisting me in the project at Hala Sultan Tekke in connection with the *New Swedish Cyprus Expedition* at Hala Sultan Tekke.

Financial support over the years was thankfully received from many different sources, which are specified below. There are two persons whose efforts in raising the necessary funding should be particularly mentioned: the first is Professor em. Carl-Gustaf Styre-

nus, the former director of the Museum of Mediterranean and Near Eastern Antiquities, who very kindly acted as an intermediary in my contacts with BITS (now part of Sida), the Swedish Government Agency for International Technical and Economic Cooperation. BITS provided the major funds for the expedition during 1989–1996, which is hereby gratefully acknowledged. The second is my tutor and friend, the late Professor em. Paul Åström, whose intervention resulted in the necessary funding from the Royal Swedish Academy of Letters, History and Antiquities during the entire duration of the project and especially after the BITS-funded period of the project, i.e. during the years 1997 and 1998. In order to study the Iron Age occupation of the site the Royal Swedish Academy of Letters, History and Antiquities continued to support the expedition generously after Paul's premature death in 2008, i.e. from 2008 to 2012. Professor Manfred Bietak (via SCiem 2000) provided most welcome financial support for radiocarbon dating at the VERA-laboratory, University of Vienna, for which I am most grateful. I am also thankful to Professor Eva Maria Wild who undertook the radiocarbon analyses without delay.

Additional funding came from the following sources (in chronological order): the Bank of Sweden Tercentenary Foundation, Stockholm; the Gyllenstierna Kräpperup's Foundation, Nyhamnsläge; Anna Ahrenberg's Foundation of Science, Gothenburg; Wilhelm and Martina Lundgren's Foundation of Science, Gothenburg; the European Commission; the Museum for Mediterranean and Near Eastern Antiquities, Stockholm; the Austrian Academy of Sciences and the Austrian Science Fund; the Mediterranean Archaeological Trust; the Institute for Aegean Prehistory; and the Österreichische Nationalbank (Anniversary Fund, project number: 13149).

The generous funds provided by The Shelby White – Leon Levy Program for Archaeological Publications made it possible to publish this volume within a reasonable time, for which the author is greatly obliged. I am much grateful to the Austrian Science Fund (PUB 75-G19) which supported the publication with a generous contribution, and the Austrian Academy of Sciences Press which published this volume.

Over a period of almost a quarter of a century numerous colleagues have given me the benefit of their opinion on the excavated material. Considerations of space prevent me from naming them all but I wish to express here my sincere thanks to everybody who has contributed with any opinion to this volume. However, I would like to thank some colleagues in specific: Dr. Stephen Bourke who forwarded parallels from the nearby Pella, Dr. Francisco J. Núñez Calvo who forwarded his most valuable opinion on the Phoenician-related material, Dr. Stefano Anastasio who advised on the Assyrian-related material, and Professor em. Amihai Mazar who provided much information concerning Beth-Shean and Rehov.

Last but not least, I wish to thank all the participants in the *Swedish Jordan Expedition*, who came from all over the world and who are listed in the Preface under the each individual season, for their excellent and self-sacrificing work, accomplished under sometimes difficult conditions, which greatly contributed to the successful execution of the project.

Last but not least – this had been said before but it cannot be repeated often enough: I would like to thank my understanding family. Without the kind support of my family this volume would have been published in half the time!

Gothenburg/Vienna, June 2013
Peter M. Fischer

CHAPTER 1 INTRODUCTION AND VADE MECUM

Peter M. Fischer

A more detailed version of this chapter can be found in *Tell Abu al-Kharaz II: The Middle and Late Bronze Ages* (FISCHER 2006a) or in *Tell Abu al-Kharaz I: The Early Bronze Age* (FISCHER 2008a). The most essential information is repeated here in order to provide crucial background to this volume without the need to consult either of those published earlier.

TOPOGRAPHY

Tell Abu al-Kharaz, “The Mound of the Father of the Beads”, lies in the ancient landscape of Gilead in the Central Jordan Valley¹ and is located just above the Valley’s eastern border, north of the perennial Wadi al-Yabis,² about 4 km east of the Jordan River (see Fig. 1). According to the Palestine Grid Coordinate System the coordinates of the summit are E 206 196.54 and N 200 623.07.

The summit of Tell Abu al-Kharaz lies 116.00 m below mean sea level (according to the locally established grid system: VV/WW30/31; see below). The valley floor at this latitude lies approximately 250 m below mean sea level. The isolated, impressive mound of Tell Abu al-Kharaz lies approximately 300–400 m east-south-east of the smaller hillock of Tell al-Maqbarah (see below), which lies close to the main road west of it. This road runs along the Transjordanian Jordan Valley from north to south. The area occupied by the tell is approximately 300 m (north-south) by 400 m (east-west), i.e. 12 ha. The tell is to some extent of the “shelved type” (PORTUGALI 1982: 171–172, Fig. 1), i.e. later remains only partially cover remains from earlier occupations.

The view from the summit of the tell includes, from north-west to south-west, the hills around Nazareth, Mount Tabor, Beth-Shean and the eastern Jezreel Valley, the Samarian hills and the area some kilometres north of Tell es-Sa‘idiyah. The view to the east

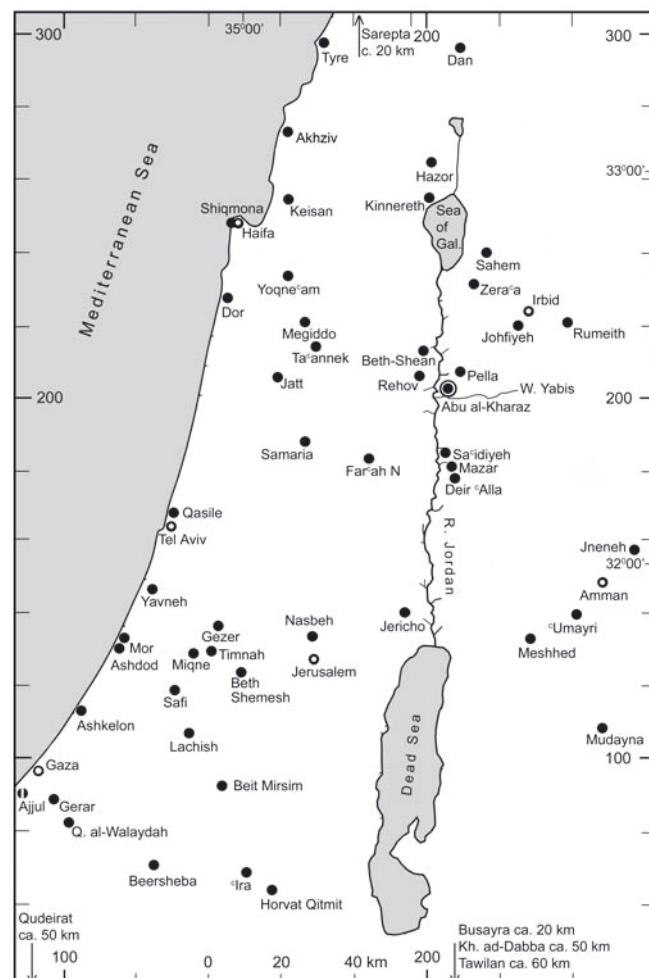


Fig. 1 Map of the location of Tell Abu al-Kharaz including selected sites with Iron Age occupation

is restricted by the rising hillocks of western Gilead, which are the outcrops of the Transjordanian plateau further east.

¹ The extent of the region of biblical Gilead, east of the Jordan River, is not exactly defined. It covers approximately today’s North-West Jordan from the Wadi Yarmouk (the Syrian border) in the north to, in the south, the Wadi Mojib (River Arnon) east of the Dead Sea (cf. OTROSSEN 1969: 9 and map). There are various definitions of the term “Central Jordan Valley”. In this publication the area around

Tell Abu al-Kharaz is considered to be the Central Jordan Valley; for a discussion see e.g. MAEIR 1997: 10–13.

² The name of this wadi has fairly recently been changed to Wadi el-Raiyan; however, the traditional name, Wadi al-Yabis, will be retained in the archaeological reports from Tell Abu al-Kharaz in order to avoid confusion when consulting references and older literature.

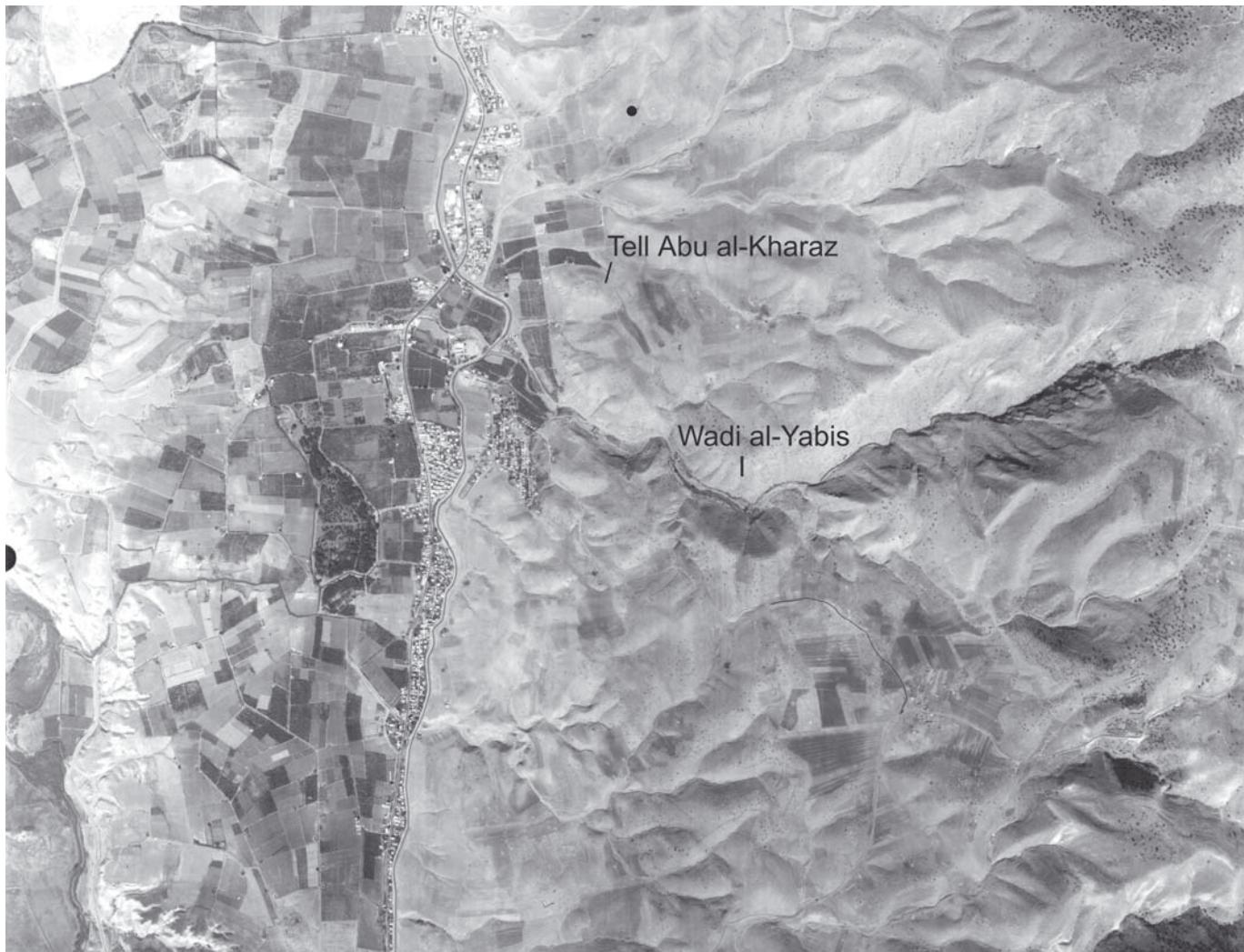


Fig. 2 Aerial photograph of the Central Jordan Valley taken in 2000



Fig. 3 Tell Abu al-Kharaz from the north-west. Rocky façade facing the Jordan Valley to the right



Fig. 4 Southern slope of Tell Abu al-Kharaz. Jordan Valley in the background



Fig. 5 View from the summit of the site, looking north-west. Area 7 in the foreground; Jordan Valley, Jezreel Valley and Mount Tabor in the background



Fig. 6 View from the summit of the site, looking south-west; Jordan Valley and Westbank in the background



Fig. 7 View from the summit of the site. Eastern foothills leading up to the Transjordanian plateau in the background

Tell Abu al-Kharaz lies along the ancient north-south trade route which connects the Sea of Galilee and the Dead Sea, just south of the point where this road crosses the extension of the important road linking, among other sites, Beth-Shean and Megiddo with the Mediterranean Sea in the Mount Carmel area. The distance between Tell Abu al-Kharaz and the Mediterranean Sea along this north-west/south-east trading route is approximately 80 km. Approximately 6 km to the north of Tell Abu al-Kharaz is Tabaqat Fahil (Pella of the Decapolis). Beth-Shean (Scythopolis of the Decapolis) is approx. 15 km to the north-west, on the western side of the River Jordan.

The site of Tell Abu al-Kharaz is located at a strategically important point, where the Wadi al-Yabis emerges from the eastern hills into the Jordan Valley. Irrigation systems, ancient as well as modern, can be seen everywhere in the fertile surrounding land. A large area in all directions can be supervised from the top of the site, which makes it the most easily defended settlement mound within quite a large area. The steep slopes are a natural obstacle to prospective invaders, especially the rocky western slopes facing the Jordan Valley. The relatively flat summit of the hill is oriented approximately east and west. From the summit "plateau" the ground at first drops gently to the west until reaching the rocky escarpment mentioned. In the northerly, easterly and southerly directions the immediate descent from the summit is somewhat steeper. The plateau on the summit measures about 120 m in the east-west and about 90 m in the north-south direction. Traces of stone walls, which follow the natural course of the tell, were visible on the surface on the upper part of the tell during the initial survey in February 1989 (the later Area 10). Longitudinal (east-west) and transverse walls could also be traced, especially to the south and east of the tell (the later Area 9). Traces of additional encircling walls can still be seen lower down the southern slope (below Area 9).

The outlines of a square building of about 10 m × 10 m could be observed close to the summit of the tell:³ crop marks of a variable growth of briars and weeds, indicating the outlines of this building, could easily be seen during the author's survey in February, but were almost invisible during the excavation campaign in October–November 1989, when vegetation was scanty.

There are at least two explanations of the Arabic name of the site: firstly – and this is maybe the more

likely – in the appearance of Tell Abu al-Kharaz as seen from a distance, for example from the much lower Tell al-Maqbarah (see below): the entire mound is covered with blocks of bright stones, which are remains of ancient buildings and which resemble beads when seen from a distance; secondly, less probably, it may be named after beads of particular faience which are quite frequently discovered, as was verified during our surface surveys.

There has certainly been a connection between Tell Abu al-Kharaz and the much lower, smaller and quite flat mound of Tell al-Maqbarah nearby. Tell al-Maqbarah will therefore be described briefly. Tell al-Maqbarah, "The Mound of the Cemetery", is approximately 1 ha in area. The coordinates of the "summit" are approximately E 205 800 and N 200 750. Its summit elevation is minus 194.60 m. Traces of mudbrick and stone constructions, together with a considerable quantity of sherds, were evident during our surface survey in the winter of 1989. Unfortunately about a third of the hill was demolished by a bulldozer at two levels between the writer's survey in February 1989 and the start of the excavations at Tell Abu al-Kharaz in October the same year. The upper cut terrace, about 2 m from surface level, revealed scattered skeletal remains of a female and a possible tomb, but no accompanying pottery. It is not unlikely that the upper part of this tell was used as a burial place during Islamic periods, which might serve as a plausible explanation of the Arabic name. This is common practice in the area (cf. for example the cemetery on top of Jordan's largest tell, Tell al-Hussein, south of Irbid; or Tell al-Kefrein, north of the Dead Sea). A deep bulldozer cut reached Late Bronze Age levels: a characteristic intact juglet from this period was found in the autumn of 1989 when the excavations started at Tell Abu al-Kharaz. Trial soundings at the remaining part of Tell al-Maqbarah in 1992 (PALUMBO *et al.* 1993) exposed settlement layers, mainly from the Iron Age although artefacts from earlier periods were also discovered. The entire tell was unfortunately flattened by a bulldozer after 1992 and has been used for farming since, and today nothing is visible of this small tell.

SURVEYS IN THE AREA⁴

The Transjordanian part of the Jordan Valley, including the Wadi al-Yabis area, has been visited in the past

³ This building was partly excavated in 1996 and 1997 (INGEMARSDOTTER 1997: 137–142; FISCHER 1998a: 221–222). It is of Iron Age and later date.

⁴ For the bibliography for every excavated site in Jordan see HOMÈS-FREDERICQ and HENNESSY 1986; HOMÈS-FREDERICQ *et al.* 2010; and HOMÈS-FREDERICQ and HENNESSY 1989 for a summary of elder field reports.

by travellers and scholars who have described the inland scenery of the region and evidence of earlier human activity. Surveys have been published by – *inter alia* – MERRILL (1881), ROBINSON (1889), STEUERNAGEL (1925 and 1926), McCOWN (1930), ABEL (1967), AUGUSTINOVIC and BAGATTI (1952), and KHOURY (1988).

The American scholar Nelson Glueck was the first, in the 1940s, to start a series of surveys of Tell Abu al-Kharaz/Tell al-Maqbarah. He saw the sites for the first time on December 12th–13th, 1942, when he visited the domains of Mohammed Zeinati. In order to date both tells he collected artefacts during a survey which took a couple of years (GLUECK 1951: 261–275; 476, 477). GLUECK (*ibidem*: 266) recorded pottery which he assigned to the following periods: Early Bronze Age I–II, Early Bronze Age IV–Middle Bronze Age I, Middle Bronze Age II, Iron Age I–II, Roman and Byzantine. He stated that the sherds of the Early Bronze Age and the Iron I and II predominate, and this was to some extent confirmed by the Swedish excavations; however, he did not recognize the Late Bronze Age remains, plenty of which were exposed later by our expedition. He also maintained that the sherd repertoire of Tell Abu al-Kharaz was identical with that of Tell al-Maqbarah, which may be correct but difficult to prove under the present circumstances.

Further surveys of the area were performed by MELLAART (1962), DE CONTENSON (1960 and 1964), MITTMANN (1970), YASSINE *et al.* (1988), MABRY *et al.* (1988), MABRY and PALUMBO (1989), PALUMBO *et al.* (1990), and our team in 1989. The dating of the surface sherds differs to some extent between the different surveys. The team led by YASSINE, IBRAHIM and SAUER (1988: 167), for example, recorded pottery from the following periods from Tell Abu al-Kharaz: Early Bronze Age, possible Early/Middle Bronze Age, Late Bronze Age I and II, Iron Age I and II, Early Roman, Late Byzantine and Ayyubid/Mamluk; and from Tell al-Maqbarah: Early Bronze Age, Late Bronze Age II, Iron Age I and II, Early Roman and possibly Umayyad. They recognized correctly, for instance, the presence of Late Bronze Age I and II sherds at Tell Abu al-Kharaz, which Glueck did not identify as such in his report, advancing at that time and also later the theory that there was an occupational lacuna during most of the Middle and Late Bronze Ages in much of Transjordan (contrary to the findings of our excavations; see also SAUER 1986). However, there was almost complete agreement between Glueck and later scholars as regards the overall nature of Tell Abu al-Kharaz: it was considered a multiperiod site with remains mainly from a period extending from the Early

Bronze to the Iron Ages. There were also indications of occupation from Roman to Islamic periods, in particular on the upper part of the tell. The summarized and roughly quantified results of our survey in 1989 showed that the most abundant pottery was from the Early Bronze Age I and II, followed by pottery from the late Middle and Late Bronze Age and the entire Iron Age, and then by Late Roman/Byzantine and Islamic, mainly Abbasid, pottery. This picture has been to a large extent verified by the subsequent excavations.

THE POSSIBLE BIBLICAL IDENTITY OF TELL ABU AL-KHARAZ

GLUECK (1951: 268–275) devoted special attention to the discussion of whether Tell Abu al-Kharaz or Tell al-Maqlub, located further east along the Wadi al-Yabis, was the biblical site of Jabesh Gilead (mentioned in the Old Testament in I Sam. 11:1–13; 31:10–13; II Sam. 2:5–6; 21:12; I Chron. 10:11–12; Judges 21:8–14). He followed the common practice of the past of discussing the Biblical identity of sites in the “Holy Land” which had been surveyed or which were under excavation. Jabesh Gilead is cited frequently in the Old Testament, for example in connection with King Saul’s and King David’s battles against the Philistines and Ammonites, which may correspond approximately to the 11th/10th centuries BCE. In the light of his conclusions a positive identification of Tell Abu al-Kharaz with Jabesh Gilead was made. He expresses some valid points, but it is obvious that only further archaeological or historical evidence could support his theory (see the extended discussion in Chapter 5: Written Sources, Administration and Politics).

THE AIMS OF THE PROJECT

There are numerous field projects, including our project at Tell Abu al-Kharaz, which have started with surveys and excavations with certain objectives but where findings during the course of the project have resulted in spin-off activities which have modified the original aims. Therefore the original aims will be presented, followed by new objectives which have arisen as a consequence of the excavations.

The original aims of the project were:

1. to locate by means of surveys a site where connections with other cultures of the Eastern Mediterranean are likely to have existed
2. to find a site which in addition to satisfying aim no. 1 has a long sequence of occupation in order to provide material for chronological studies

3. to study the various occupational periods of this site in order to shed light on the life style of its inhabitants and their habitat
4. to establish a reliable absolute chronology of the various periods of the site based on radiocarbon dating, and, if possible, dendrochronology and other methods
5. to establish a reliable relative chronology of the various periods of the site based on parallels from other Eastern Mediterranean cultures
6. to establish this site's local, regional and international interactions
7. to investigate the site by means of limited excavations aiming to obtain maximum information allowed by the constraints of time and finance, i.e. the thorough and complete stratigraphical investigation of small areas spread over the occupied area of the tell
8. to leave as much as possible of the site untouched in order to make it possible for future generations to apply new methods during the course of renewed excavations
9. to preserve important archaeological remains
10. to launch field schools during the campaigns
11. to seek international cooperation in regard to participants and scholars and the processing of special groups of finds or any other specialist study
12. to submit instantly preliminary reports after each season; to present special studies of important finds in international journals without delay after their discovery; and to submit popular reports on the project to international journals which also reach a wider lay public (see list of publications at the end of this chapter).

Additional aims formulated as the project progressed were:

1. the study of the intercultural relationship between Tell Abu al-Kharaz and Egyptian cultures during the first part of the Early Bronze Age because of the presence of Egyptian-imported finds at the site (see FISCHER 2008a)
2. the study of Chocolate-on-White Ware and its sub-groups from the late Middle and the Late Bronze Ages, which turned out to be very well represented at Tell Abu al-Kharaz, and to contribute to the solution of the enigma of the provenance of this fine table ware (see FISCHER 2006a, b)

3. the petrographic study of Early, Middle and Late Bronze Age wares
4. the integration of the Early Bronze Age finds into ARCANE,⁵ which is an international project financed by the European Science Foundation (ESF). Its aim is to establish a reliable chronology for the cultures of the Eastern Mediterranean and the Near East during the fourth and third millennia BCE
5. the integration of the project into SCiem2000⁶ in order to synchronize the site, in relative and absolute terms, with other cultures in the Eastern Mediterranean during the second millennium BCE
6. the study of the Iron Age sequence, and the Iron Age chronology.

The Selection of the Areas of Excavation

Area 1 (1989, 1995, 1996)

Back in the 1940s Glueck observed traces of a “fortification wall”, which “once had completely surrounded the flattish top of the hill”, with a possible Iron Age I/II date (GLUECK 1951: 263–266). He also suggested the possible presence of a stone glacis built against it (southern slope). Verification of the presence of a defence system and its date was considered to be one of the main tasks of the 1989 campaign. In order to investigate the architecture, which was visible on the surface (FISCHER 1991: 69), trial soundings were taken in the south-west corner of the plateau of the upper tell (*idem*: 1991). The soundings included, with ample margins, areas to the north and south of the visible architecture (1989: Trench I – Grid QQ30,⁷ Trench II – PP30, Trench V – PP31, Trench VI – NN31). The presence of city walls from different periods (Early Bronze to Iron Age) and a casemate system from the Late Bronze Age was verified. The area was later extended to the north along a steep slope in order to investigate the architecture inside the defence system (1995: Trenches XXVI–XXVIII; 1996: Trenches XXIX and XXX (the trenches from 1995 and 1996 are in MM/NN/PP28/29/30; *idem*: 1997a, b).

Area 2 (1989, 1991–1993, 1995, 1997)

Trial soundings below the west part of the upper tell plateau on the slope leading to the rock ribbed western façade of the Tell, which faces the Jordan Valley, were made in order to establish the occurrence and duration of occupation of the lower part of the tell (1989:

⁵ The author is a member of the steering committee of ARCANE.

⁶ The author was responsible for Jordan and Palestine.

⁷ See the description of the grid system below.

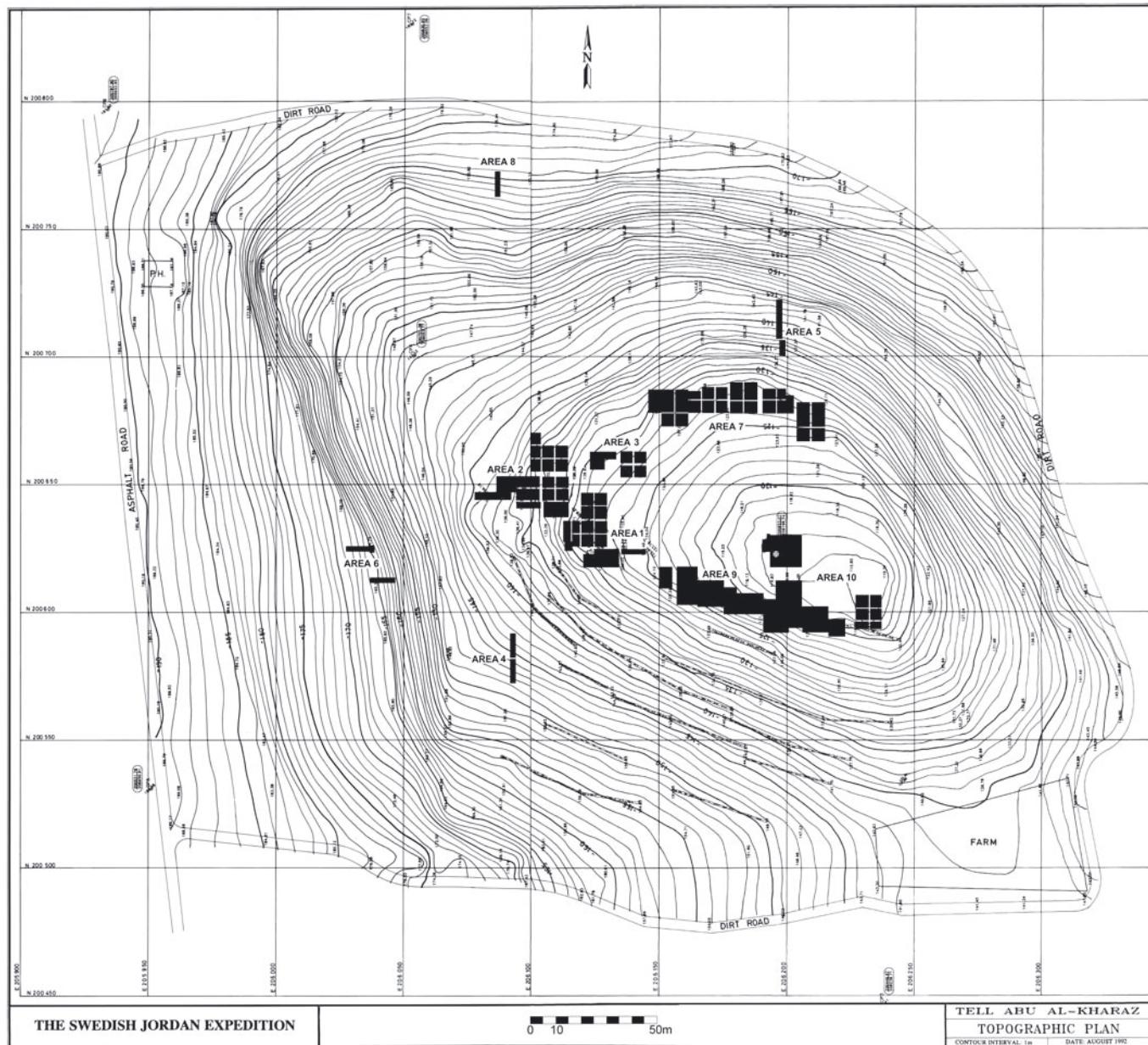


Fig. 8 Tell Abu al-Kharaz: Topographical map with areas and opened trenches included

Trench III – MM29, Trench IV – LL29, *idem*: 1991). Area 2 was later extended in order to expose more of the partly excavated Late Bronze Age temple, which was discovered in 1989, and to date the entire occupational sequence of this part of the tell (1991–1993: Trench VII – MM28, Trench VIII – LL28, Trench IX – KK28, Trench X – JJ28; 1997: Trenches XXXIV, XXXVII and XXXVIII, all in LL/MM26/27, *idem*: 1993a, b, 1994a, b, 1995a, b, 1998a, b).

Area 3 (1992, 1998)

This area lies to the north of Area 1 and to the east of Area 2. The main objective of the excavation in this

area, which lies on the path from the northern ascent of the tell to the summit plateau, was to compare the stratigraphy there with the results obtained in Area 2 and in due course to connect Areas 1–3 (1992: Trench XI – QQ27, Trench XII – PP27, *idem*: 1994a, b; 1998: Trench XLIII – NN/PP27, *idem*: 1999a).

Area 4 (1993)

Trial trenches were opened on the southern, gently sloping, part of the tell outside the defence walls in order to verify a possible glacis or occupational remains outside the city walls (1993: Trench XIII – KK34; Trench XIV – KK35, *idem*: 1995a).

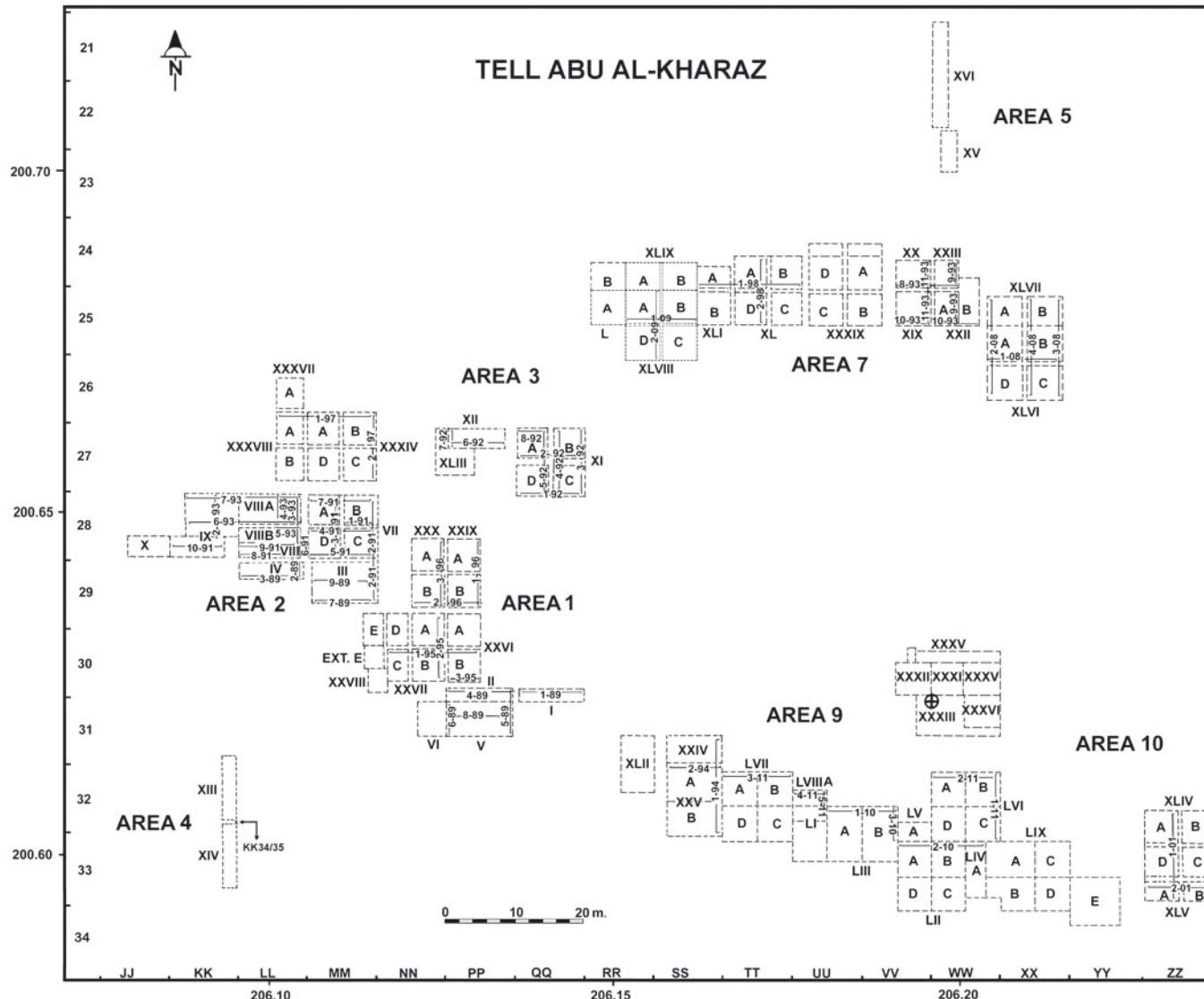


Fig. 9 The site's grid system in relation to the Palestinian Grid System. The summit (in Trench XXXIII), areas of excavation, the trenches (Roman numerals), the sub-trenches (capitals) and the drawn sections (shown in consecutive numbers followed by the year of excavation) are indicated

Area 5 (1993)

Trial trenches were opened on the northern steep slope with emphasis on occupation and/or tombs (1993: Trench XV – WW22/23, Trench XVI – WW21/22, *idem*: 1995a).

Area 6 (1993)

Trial trenches were opened on the steep rocky western slope, which faces the Jordan Valley, in order to investigate two caves, which may have been used for burials (1993: Trench XVII – EE30, Trench XVIII – FF31, *idem*: 1995a).

Area 7 (1993, 1994, 1997, 1998, 2008, 2009)

Regular trenches were opened on the quite flat northern part of the tell, which lies just below the upper plateau. It was assumed that this rather flat part of the tell was convenient for building activities, which has been confirmed and which has led to a decision to extend the area towards the west. The aim was to investigate the occupational sequence in this part of the tell (1993 and 1994: Trench XIX – VV25, Trench XX – VV24, Trench XXII – WW25, Trench XXIII – WW24, *idem*: 1995a, b, 1996a, b; 1997: Trench XXXIX – VV/UU24/25, *idem*: 1998a, b; 1998: XL and XLI – SS/TT24/25, *idem*: 1999a; 2008: Trenches

XLVI and XLVII in WW/XX25/26, FISCHER and FELDBACHER 2009; 2009: Trench XLVIII – L in RR/SS24–26, *iidem*: 2010).

Area 8 (1993)

A trial trench was opened just below the tell to the north-west with the emphasis on occupation and/or tombs (1993: Trench XXI – KK16, FISCHER 1995a).

Area 9 (1994, 1995, 1998, 2009–2012)

The main objective of the investigations on the southern edge of the upper plateau of the tell was the search for the continuation of the defence system in Area 1. This part of the tell is the most vulnerable sector of the site. It was assumed that it must therefore have been particularly well fortified. In addition, the area was opened in order to find early Iron Age remains (1994: Trenches XXIV – SS31 and XXV – SS32, *idem*: 1996a, b; 1998: Trench XLII – RR31/32, *idem*: 1999a; 2009–2012: Trenches LII–LIXE – TT–YY32–34, FISCHER and FELDBACHER 2010, 2011; FISCHER 2012a; FISCHER and BÜRGE 2012; *iidem*: forthcoming a–d).

Area 10 (1996, 1997, 2001)

During the survey in February 1989 crop marks pointed to an almost square building, approximately 10 m × 10 m in area, around the summit of the tell (FISCHER 1991: 69). The statistics of the collected surface sherds pointed to an occupation mainly from the Iron Age and later. The aim of the investigation of this area⁸ was to confirm the results of the survey and to establish the occupational sequence of what was thought to represent the area of most recent occupation at Tell Abu al-Kharaz. The parts of the “White Building” exposed in 1996 were further exposed in 1997 (1996: Trenches XXXI–III, *idem*: 1997a, b; 1997: Trenches XXXV and XXXVI, all in VV/WW30/31, *idem*: 1998a, b). During the 2001 season of excavation the south-eastern corner of the plateau was investigated in order to expose what appeared to be a casemate system (2001: Trenches XLIV and XLV, both in ZZ32/33, *idem*: 2005).

Measuring, Recording and Presentation, and Excavation Techniques

Electronic distance measuring equipment (total station) is nowadays used at almost all excavations in the area. However, during the late 1980s these devices were only sporadically in use, at least in Near Eastern

excavations. Our reliable equipment, which we used during every season at Tell Abu al-Kharaz from 1989 onwards, consists of Wild’s electronic theodolite Theomat T 1000 and Distomat DI 1000, giving the measured spot in all dimensions.⁹ The equipment incorporates a data storage unit, Wild’s GRM 10 REC module. The measuring accuracy was ±5 mm/km. The instrument was used for the following purposes: the topographical survey and maps, including the establishment of the grid system; the staking out of the trenches according to the grid system; the measurement of small finds, loci, architectural remains and strata in all dimensions (cf. FISCHER 1986a: 499–503).

Since all loci (and finds) with their position in relation to predating and postdating loci are plotted in the plans (and sections), a separate “Harris matrix” is not provided. We considered our detailed plans superior to a standard “Harris matrix”, which would have been much easier and less time-consuming to produce compared to our plans which include the exact positions of all loci (and finds) in all dimensions. This can be exemplified as follows: a specific locus is plotted in a well-defined spot on a plan which represents a certain phase of occupation. By comparing the plans of the previous and following phases of occupation one can easily disclose which locus/loci precede this specific locus and which locus/loci follow stratigraphically. The entire modus operandi is supported by detailed information in the adjoining tables where the loci and walls are described. In a “Harris matrix” only interrelated numbers can be seen without any precise meaning or possibility of interpretation unless much more recorded material is congregated and studied simultaneously.

The production of the plans and sections was very much facilitated by the total station. However, the devoted work of our surveyors, in particular Muwafaq Al-Bataineh and Elias Markou supported by Teresa Bürge, played the main part in enabling the topographic maps, plans, sections and object drawings, which document the remains of the Iron Age of Tell Abu al-Kharaz, to be included in the present volume.

The documentation is distributed as follows:

- 3 topographical maps including a general overview which shows the position of all the trenches and sections
- 41 plans of the seven phases of Iron Age occupation which were exposed in six areas, namely Areas 1, 2, 3, 7, 9 and 10

⁸ Area 10 includes the entire flat summit plateau of the tell.

⁹ This total station can only be handled by two persons.

- 57 drawings of the sections in the six areas
- 7 overviews, which correspond to the seven Iron Age phases, with each overview showing a specific phase of occupation in all areas, and one general overview where all the other overviews are compiled
- 153 plates of object drawings and 54 plates of pottery typology in addition to other drawings and photographs.

All altitudes of finds, loci, architectural remains etc. on the plans and sections are indicated in metres below the summit of Tell Abu al-Kharaz, which is equal to the site's Zero Level (which in absolute figures is actually 116.00 m below mean sea level).¹⁰

A number of Electromagnetic Very Low Frequency (VLF) detectors were utilized throughout the excavations.¹¹ VLF detectors have been used by the author in excavations since the second half of the 1970s. The advantages of such instruments in conjunction with conventional and careful excavation are well-documented (FISCHER 1980a: 479–484; 1980b: *passim*). The detectors can be used for the discovery of metal objects that are otherwise very difficult or sometimes impossible to find (e.g. small beads encrusted with soil; lead objects which often look like stones; very corroded objects which often cannot be distinguished from "soil" with the naked eye etc.). These devices indicated the presence of artefacts and allowed the definition of size and shape before the object was brought to light: extreme care could therefore be taken during excavation, obviating possible damage to the object, when the size and its depth were known in advance. The detectors also made it possible to discover non-metallic objects and features, for example ceramics, ash, minerals and changes in soil type and structure, which allowed a more precise differentiation between differ-

ent features and strata prior to excavation. It was the policy of the author during the entire project never to start to excavate a new stratum or a new locus before the surface had been surveyed with a VLF detector. An electrical resistivity survey was performed in 1991 in Area 2 by I. Hedley (see below) and a magnetometer was used sporadically.¹²

The size of a regular trench was 10 m × 10 m when so allowed by the topography. Each trench was subdivided into four sub-trenches, which were often (but not always) separated from each other by baulks, usually 0.5 m wide. Wider baulks were left between the trenches because of erosion and looting when excavations continued in the following year. As soon as the stratigraphy of an area was established baulks were used only occasionally. Conventional excavation techniques, including the use of sieves and dry-sieving¹³ and the use of vacuum cleaners, were complemented with the sampling of soil from each stratum and from essential loci for flotation of plant remains.

All pottery was collected. Charcoal samples from all strata and crucial loci were taken for radiocarbon accelerator dating. All bones, teeth and shells were collected for classification and various analyses. Other samples collected included additional organic remains, minerals, pigments, and man-made items. A portable petrographic laboratory (*ad modum* Y. Goren) was used occasionally in advance of the conventional petrographic analysis in the laboratory.

Laptop computers together with a database software were utilized. Each day's records (loci, strata, finds etc.) were filed in the database, facilitating relatively fast processing and searching. Various databases were used during the progress of the excavations.¹⁴ A number of analogue cameras were used for

¹⁰ An example: a find on a plan has the height of -12.34 m. This means that the find was discovered 12.34 m below the summit of the tell, but its absolute level would then be -128.34 m mean sea level (-116 m minus 12.34 m). The advantage with this system is obvious: more exact measurements in the future may change the figure for the absolute height of the summit of the site but this will not have any effect on the measurements of our findings since they have been carried out in relation to the height of the summit.

¹¹ These devices are erroneously also called "metal detectors". The VLF detectors which were used during the project are superior in all respects to simple "metal detectors" because they can indicate a number of different materials in addition to finds of metal, the nature of which can also be indicated.

¹² The use of these devices within the area of occupation of the tell was of limited value. They usually indicated architectural remains from the most recent occupational phase

(down to approximately 1–2 m), i.e. normally remains from the Iron Age, but the deeper structures were not indicated.

¹³ Wet-sieving was not possible due to shortage of water.

¹⁴ The database, which was modified by the author, is based on a program which was originally developed by Scandinavian PC Systems in 1988 (Register I). The program was used virtually unchanged during the first years of the project except for an update to Register III in 1992. It turned out that this software is not compatible with modern databases, for instance, Microsoft Access-based databases or "Stony Brook Modula-2", the latter of which was used by the author during the project at Tell el-‘Ajjul in 1999 and 2000 (FISCHER and SADEQ 2000; 2002). In order to make the various databases compatible all information was transferred into an Excel-based database which is the currently used database: although quite simple it has the advantage of easy handling in principle by all participants, i.e. also by persons not used to the programming of databases.

the photographic documentation from 1989 to 1998: i.e. on all occasions when a find or a context was photographed, shots were taken with black-and-white film, colour film and slides, but after 1998 only digital cameras were used. Following sporadic use of video equipment in earlier seasons, the 2001 and 2008–2012 seasons were recorded thoroughly on video.

A conventional diary for the recording of the findings during the field work was kept by each trench-master, who was in charge of a sub-trench of 4 m × 4 m. Each diary includes – on a day-by-day basis – all field observations, rough sketches, a register of the containers and bags, discussions and working hypotheses, photos taken etc.

Finds were classified using a four-class system:

Find class 1 (defined as such in the field): this group includes all finds with N numbers on the plans and sections;¹⁵ these finds are usually complete or almost complete objects of any material. The find spot is recorded with the total station and the find is plotted on the relevant plan as N.... with the altitude below the site's summit. These finds are drawn, and the description is in the catalogue of finds in the chapter "Stratigraphy" and elsewhere. This find group is also listed for registration and storage by the Department of Antiquities of Jordan.

Find class 2 (usually defined as such after cleaning and during pottery/find reading, or occasionally already in the field): these are all finds with a hyphen and a number in connection with a certain locus (L), e.g. ...L108-4 means find number 4 in Locus 108. This find group includes diagnostic sherds and/or restored vessels of major importance. The find spot is recorded with the total station and the object is occasionally plotted on the relevant plan with the altitude below the site's summit. These finds are all drawn, and the description is in the Catalogue of Finds.

Find class 3¹⁶ (defined as such after cleaning and during pottery/find reading): e.g. diagnostic sherds which can provide the shape of a vessel, sherds with pot marks or decoration, or other incomplete finds. They are counted and described within each locus. They are occasionally drawn if they derive from a crucial locus. They do not appear on the plans.

Find class 4 (defined as such during pottery readings or cleaning procedures): e.g. non-diagnostic sherds, often body sherds without decoration or other

non-diagnostic finds. They are counted and described within each locus but they are not drawn and not on the plans.

Nomenclature

Grid system: the entire area including Tell Abu al-Kharaz and Tell al-Maqbarah was divided into 10 m × 10 m squares (62 × 44 squares), labelled from A–Z, AA–ZZ and a–l in the west-east direction, and from 1–44 in the north-south direction (see FISCHER 1991: 71, fig. 2).

Area: Area plus numerals means a collection of adjoining trenches.

T = Trench: a trench with a specific Roman number is defined by a 10 m × 10 m square (the maximum size of a certain trench) whenever the topography allows. The numbering is consecutive regardless of area or year of excavation. A 10 m by 10 m Trench is divided into four sub-trenches labelled T "Roman number" with the suffixes A–D. Extensions have the suffix E.

N = N and a running find number regardless of area or year of excavation is used for all Class 1 finds (see above). In the plans the N... numbers appear together with their altitudes below 0-point (summit).

(-) = Altitudes are given in metres. All altitudes of finds and structures are given in relation to the summit of Tell Abu al-Kharaz which is considered as the prime fix point of the site at ±0.00 m (but actually -116.00 m mean sea level).

L (with encircled numerals on the plans) = Locus: i.e. a limited feature within a stratum, for example, a pit, a hearth, a work bench, a spot of ash etc, but not walls (see below); loci are labelled by serial numerals within each Area.

W = Wall; walls have their own serial number system with the prefix W ... within the entire tell area regardless of area or year of excavation, i.e. they are separate from the serial and area-dependent numbers of the loci.

S = Stratum; this term is not used in the final report. Stratum should only be considered as a term of convenience which was used during the field work and in the preliminary reports. Stratum is equivalent with a level of occupation within each trench or sub-trench regardless of the area and numbered as it was exca-

¹⁵ A few, important, objects received N... numbers during pottery reading and not directly in the field. These objects are usually not plotted on the plans and sections.

¹⁶ It has been mentioned that the finds of Find Classes 3 and

4 are not measured with the total station. However, they are always associated with a specific locus, the extension and level of which is always measured with the total station.

vated. In the alphanumerical code (see below), which was used in the preliminary reports, the numeral after the Roman trench number is the stratum number (without prefix "S"). Almost all excavations at Tell Abu al-Kharaz took place on slopes with an intricate stratigraphy quite different from that in flat areas. This means that the stratum numbers from different areas or trenches or even sub-trenches cannot be compared with each other in the preliminary reports: certain "strata" may be missing in some trenches because of, for example, varying erosion or a particular topography. The numbering system was slightly modified in the preliminary excavation reports from the 1995 season of excavation and onwards, in that it was decided that Stratum 1 and sub-divisions into A, B etc. would be reserved for the periods from the Iron Age onwards, Stratum 2 and sub-divisions into A, B etc. for the Middle and Late Bronze Ages, and Stratum 3 and sub-divisions into A, B etc. for the Early Bronze Age. The stratum number is omitted from the alphanumerical code in this publication in order to avoid confusion.

Alphanumerical code: This code was completed in order to fit our database and to contain as much information as possible in the alphanumerical code alone. Example of Find Class 1: K 93 (T)VIIIB L412 N832, i.e. (Tell Abu al-) Kharaz – 1993 (year of excavation) – Trench VIII subdivision B – Locus 412 – (Find) Number 832; example of Find Class 2: K 94 (T)XXIIB L104-4, i.e. that this find is the fourth find of its kind in Locus 104; the code for the Find Classes 3 and 4 ends with the locus number, i.e. these finds are subordinate to a certain locus.

Legends

The pattern for the various soil types and features in the drawings of the plans and sections can be seen in Fig. 10.

The colour symbols for the various colours of the pottery can be seen in Fig. 11. In the description of single vessels colour tables, for instance Munsell's which in fact refers to the colours of unfired soil, are not used: our tests have shown that different people may use different colour codes to designate the same fabric, slip or decoration (FISCHER 1999b: 4). When the slip of open vessels is described it is always on both the exterior and the interior unless otherwise stated. The pattern of the burnish on the vessel is always horizontal, and the decoration is always matt unless otherwise stated.

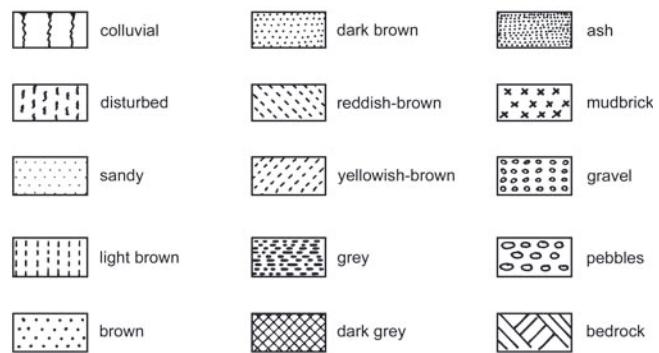


Fig. 10 The soil types

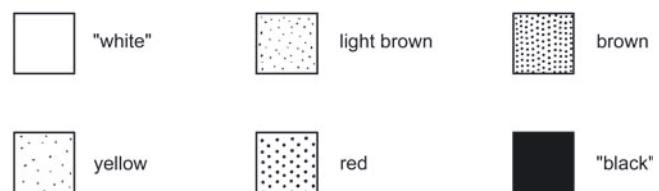


Fig. 11 The colours of the pottery

Vessel volumes

The volumes of all vessels of which the profile is complete or almost complete were measured. The results are based on a programme which was originally provided by J.-P. Thalman in 2003 and then continuously modified.¹⁷ The measured volumes are the total volumes of the vessels, i.e. from the bottom of the vessels to the uppermost part of the rim.¹⁸ The volumes of partially complete profiles are estimated and recorded in italics. The relevant figures in litres can be found in Chapter 3 "The Pottery: Typo-Chronological Conclusions".

The Annual Excavation Teams

1989, October – November
 Peter M. Fischer, director
 Hikmat Ta'ani, representative of the Department of Antiquities; area supervisor
 Jörgen Ernstson, area supervisor
 Lotta Holm, area supervisor
 Elias Markou, architect and draughtsperson
 Tony Bergstrand, photographer
 Badri Madri Abu Issa, logistics

¹⁷ I wish to thank J.-P. Thalman for making his programme available.

¹⁸ The total volume of a vessel is not equivalent with the usable volume of a vessel which was filled with a liquid.

Hassan Rahmi Abu Sami, logistics 30 local workers ¹⁹	25 local workers
Ghazi Bisheh, Director General of the Department of Antiquities of Jordan ²⁰	Safwan K. Tell, Director General of the Department of Antiquities of Jordan
Sultan Shreidah, District Director of the Department of Antiquities of Jordan	Sultan Shreidah, District Director of the Department of Antiquities of Jordan
1991, September – November	1993, October – November
Peter M. Fischer, director	Peter M. Fischer, director
Hikmat Ta'ani, representative of the Department of Antiquities; area supervisor	Hikmat Ta'ani, representative of the Department of Antiquities; area supervisor
Richard Holmgren, trench master	Anna Berggren, trench master
Linda Mol, trench master	José Gallart, trench master
Anica Tanevska, trench master	Margrét Hermanns-Audardóttir, trench master
Eva Toivonen-Skage, trench master	Richard Holmgren, trench master, photographer and draughtsperson
Jonas Robertsson, assisting trench master (part-time ²¹)	Torbjörn Jansson, trench master
Elias Markou, architect	Linda Mol, trench master
Lamia Khoury, draughtsperson	Jessica Randén, trench master
Sara Fritsch, conservator	Lilian Weman, trench master (part-time)
Ian Hedley, geophysicist	Elias Markou, architect and draughtsman
Badri Madri Abu Issa, logistics	Badri Madri Abu Issa, logistics
Hassan Rahmi Abu Sami, logistics	Hassan Rahmi Abu Sami, logistics
25 local workers	Aladin Yousif Hasan, logistics
Safwan K. Tell, Director General of the Department of Antiquities of Jordan	20 local workers
Sultan Shreidah, District Director of the Department of Antiquities of Jordan	Safwan K. Tell, Director General of the Department of Antiquities of Jordan
1992, October – November	Sultan Shreidah, District Director of the Department of Antiquities of Jordan
Peter M. Fischer, director	
Hikmat Ta'ani, representative of the Department of Antiquities; area supervisor	
Mohammed Darwish, trench master	
José Gallart, trench master	
Richard Holmgren, trench master, photographer, draughtsperson	
Torbjörn Jansson, trench master	
Hussein Mahmoud Ali, assistant trench master	
Laila Quutami, assistant trench master	
Elias Markou, architect and draughtsperson	
Ismail Melhem, participating part-time	
Nedal Hindawi, participating part-time	
Abbas Khammash, surveyor	
Badri Madri Abu Issa, logistics	
Hassan Rahmi Abu Sami, logistics	
	Faisal Al-Qudah, acting Director General of the Department of Antiquities of Jordan
	Sultan Shreidah, District Director of the Department of Antiquities of Jordan

¹⁹ Throughout all seasons the majority of the workers came from Tabaqat Fahil and Mashare'a; some came from the area between Mashare'a and Yabis. The numbers of workers are average numbers during a season.

²⁰ Directors General or the District Directors of the Department of Antiquities of Jordan did not participate in the

excavations but kindly provided the permits and other logistics.

²¹ "Part-time" is mentioned only in connection with the field work. Other personnel participated before, during and after the excavations, for example, during preservation and conservation work, in connection with special studies etc.

1995, September – October	Ghazi Bisheh, Director General of the Department of Antiquities of Jordan
Peter M. Fischer, director	Sultan Shreidah, District Director of the Department of Antiquities of Jordan
Hikmat Ta'ani, representative of the Department of Antiquities; area supervisor	
Susan Gomzi, trench master	
Christopher König, trench master	
Dieter Vieweger, trench master	
Sara Viklund, trench master	
Abdulah Ahmed Khrasat, assisting trench master	
Muwafaq Al-Bataineh, architect	
Lamia Khoury, draughtsperson	
Hussein Debajeh, photographer	
Ahmad Faris Juddeh, logistics Deir Alla	
Umm Salem, logistics, Deir Alla	
25 local workers	
Ghazi Bisheh, Director General of the Department of Antiquities of Jordan	
Sultan Shreidah, District Director of the Department of Antiquities of Jordan	
1996, March – April	Ghazi Bisheh, Director General of the Department of Antiquities of Jordan
Peter M. Fischer, director	Wajeeh Karassneh, District Director of the Department of Antiquities of Jordan
Hikmat Ta'ani, representative of the Department of Antiquities; area supervisor	
Susan Gomzi, trench master	
Kristian Göransson, trench master	
Helena Ingemarsdotter, trench master	
Jennifer Randolph, trench master	
Muwafaq Al-Bataineh, architect	
Lamia Khoury, draughtsperson	
Hussein Debajeh, photographer	
Hassan Rahmi Abu Sami, logistics	
25 local workers assisted by Michael Fischer and Björn Dahlöf	
Ghazi Bisheh, Director General of the Department of Antiquities of Jordan	
Sultan Shreidah, District Director of the Department of Antiquities of Jordan	
1997, April – May	Representatives from the Museum for Mediterranean and Near Eastern Antiquities, Stockholm, Sweden:
Peter M. Fischer, director	Sanne Houby-Nielsen, director
Hikmat Ta'ani, representative of the Department of Antiquities; area supervisor	Suzanne Unge Sörling, curator
Anna Ekström, trench master	
Salameh Faiad, trench master	
Stina Orsenmark, trench master	
Monika Stolfer, trench master	
Anica Tanevska, trench master	
Muwafaq Al-Bataineh, architect	
Nawal Hawari, draughtsperson	
Hussein Debajeh, photographer	
Friedrich Zink, conservator	
Abu Haider, logistics	
25 local workers	Fawwaz Al-Khreyshah, Director General of the Department of Antiquities of Jordan

Wajeeh Karassneh, District Director of the Department of Antiquities of Jordan	Mats Pehrson, trench master
2008, September – October	Paul Täuber, trench master
Peter M. Fischer, director	Assistant trench masters (part-time) were I. Fischer, L. Längström, R. Lundh, S. Lundh, J. Martinell, S. Martinell, L. Nyström and M. Werngren.
Rainer Feldbacher, assistant field director	Samir Esbeihat, logistics
Hikmat Ta'ani, area supervisor	Deeb Jawahreh, logistics
Muwafaq Al-Bataineh, architect and draughtsperson	Musa Mohammed Ahmad, logistics
Ismaeel Melhem, representative of the Department of Antiquities	10 local workers
Michaela Rinner, trench master	Ziad Al-Saad, Director General of the Department of Antiquities of Jordan
Martina Schmidl, trench master	Nasser Khasawneh, District Director of the Department of Antiquities of Jordan
Christine Wenger, trench master	
Salim Suleiman Musa, transportation	
Khalid Mohammad Dheeb, logistics	
12 local workers	
Fawwaz Al-Kraysheh, Director General of the Department of Antiquities of Jordan	
Ismaeel Melhem, District Director of the Department of Antiquities of Jordan	
2009, September – October	
Peter M. Fischer, director	
Rainer Feldbacher, assistant field director	
Hikmat Ta'ani, area supervisor	
Muwafaq Al-Bataineh, architect and draughtsperson	
Khalid Janaideh, representative of the Department of Antiquities	
Eva Björkander-Mannheimer, trench master	
Michaela Rinner, trench master	
Simone Schedl, trench master	
Sheba Schilk, trench master	
Katarina Nordström, assistant trench master	
Musa Mohammed Ahmad, transportation	
Khalid Mohammad Dheeb, logistics	
15 local workers	
Fawwaz Al-Kraysheh, Director General of the Department of Antiquities of Jordan	
Ismaeel Melhem, District Director of the Department of Antiquities of Jordan	
2010, September – October	
Peter M. Fischer, director	
Rainer Feldbacher, assistant field director	
Hikmat Ta'ani, area supervisor	
Muwafaq Al-Bataineh, architect and draughtsperson	
Mohammed Es-Shalabi, representative of the Department of Antiquities	
Jeremy Azzopardi, trench master	
David Blattner, trench master	
Teresa Bürge, trench master	
Linda Franz, trench master	
Amanda Gustafsson, trench master	
Natalie Monschein, trench master	
	Fares Al-Hmoud, acting Director General of the Department of Antiquities of Jordan
	Nasser Khasawneh, District Director of the Department of Antiquities of Jordan
2011, September – October	
Peter M. Fischer, director	
Teresa Bürge, assistant field director	
Hikmat Ta'ani, area supervisor	
Muwafaq Al-Bataineh, architect and draughtsperson	
Ziad Ghnaimat, representative of the Department of Antiquities	
Sara Ahmed, trench master	
David Blattner, trench master	
Corinna Böhm, trench master	
Rainer Feldbacher, trench master (part-time)	
Frank Luckscheiter, trench master	
Sebastian Scherzer, trench master	
Annika Pihl, assistant trench master (part-time)	
Samir Esbeihat, logistics	
Deeb Jawahreh, logistics	
12 local workers	
	Fares Al-Hmoud, acting Director General of the Department of Antiquities of Jordan
	Nasser Khasawneh, District Director of the Department of Antiquities of Jordan
2012, September – October	
Peter M. Fischer, director	
Teresa Bürge, assistant field director	
Hikmat Ta'ani, area supervisor	
Muwafaq Al-Bataineh, architect and draughtsperson	
Rakan Mohammad Odat, representative of the Department of Antiquities	
David Blattner, trench master	
Jessica van der Does, trench master	
Katharina Heiß, trench master	
Salim Al-Razzaz, trench master	
Klara Sauter, trench master	
Samir Esbeihat, logistics	
12 local workers	
	Fares Al-Hmoud, acting Director General of the Department of Antiquities of Jordan

Nasser Khasawneh, District Director of the Department of Antiquities of Jordan

PUBLICATIONS

The following publications are related to the Iron Age occupation of Tell Abu al-Kharaz and form the basis of the present volume (all by FISCHER, P.M., unless otherwise stated):

1991

Tell Abu al-Kharaz. The Swedish Jordan Expedition 1989. First Season Preliminary Report from Trial Soundings. *Annual of the Department of Antiquities of Jordan* 35: 67–104.

1993

Tell Abu al-Kharaz. The Swedish Jordan Expedition 1991. Second Season Preliminary Excavation Report. *Annual of the Department of Antiquities of Jordan* 37: 279–305.

Tell Abu al-Kharaz, Jordan Valley, in Archaeology of Jordan. *American Journal of Archaeology* 97, 3: 477–478.

1994

Tell Abu al-Kharaz, Jordan Valley, in Archaeology of Jordan. *American Journal of Archaeology* 98, 3: 536–537.

Tell Abu al-Kharaz. The Swedish Jordan Expedition 1992. Third Season Preliminary Excavation Report. *Annual of the Department of Antiquities of Jordan* 38: 127–145.

1995

Tell Abu al-Kharaz. The Swedish Jordan Expedition 1993. Fourth Season Preliminary Excavation Report. *Annual of the Department of Antiquities of Jordan* 39: 93–119.

Tell Abu al-Kharaz, Jordan Valley, in Archaeology of Jordan. *American Journal of Archaeology* 99, 3: 514–515.

1996

Tell Abu al-Kharaz. The Swedish Jordan Expedition 1994. Fifth Season Preliminary Excavation Report. *Annual of the Department of Antiquities of Jordan* 40: 101–110.

Tell Abu al-Kharaz, Jordan Valley, in Archaeology of Jordan. *American Journal of Archaeology* 100, 3: 520–521.

The Mound of the Father of the Beads: Excavating in the Jordan Valley. *Minerva* 7, 5: 30–33.

Svenska Jordanienexpeditionen 1989–1996. Tell Abu al-Kharaz i det Bibliska Landskapet Gilead. *Medusa* 17, 3: 27–34.

1997

Tell Abu al-Kharaz. The Swedish Jordan Expedition 1995 and 1996. Sixth and Seventh Season Preliminary Excavation Report. *Annual of the Department of Antiquities of Jordan* 41: 129–144.

Tell Abu al-Kharaz, Jordan Valley, in Archaeology of Jordan. *American Journal of Archaeology* 101, 3: 508.

Tell Abou al-Kharaz, la Yabesh biblique? *Le Monde de la Bible* 104: 25–26; see also: *Le Monde de la Bible* 101: 47.

Arkeologisk Expedition i Jordanien. *Populär Arkeologi* 15, 1: 35–38.

Tell Abu al-Kharaz: Occupation Throughout the Ages. The Faunal and Botanical Evidence. *Studies in the History and Archaeology of Jordan* 6: 159–165. Amman.

A Late Bronze to Early Iron Age Tomb at Sahem, Jordan. Abhandlungen des Deutschen Palästina-Vereins 21. Wiesbaden.

1998

Tell Abu al-Kharaz. The Swedish Jordan Expedition 1997. Eight Season Preliminary Excavation Report. *Annual of the Department of Antiquities of Jordan* 42: 213–223.

Tell Abu al-Kharaz, Jordan Valley, in Archaeology of Jordan. *American Journal of Archaeology* 102, 3: 586–587.

1999

Tell Abu al-Kharaz, in Archaeology in Jordan. *American Journal of Archaeology* 103: 498.

2000

A Synthesis of Ten Campaigns at Tell Abu al-Kharaz, Jordan Valley: The Early, Middle, Late Bronze and Iron Ages, 447–470, in: MATTHIAE, P., ENEA, A., PEYRONEL, L. and PINNOCK, E. (eds.), *Proceedings of the First International Congress on the Archaeology of the Ancient Near East, Rome, May 18th–23rd 1998*. Rome.

2001

Contributions to the Archaeology and History of the Bronze and Iron Ages in the Eastern Mediterranean.

Studies in Honour of Paul Åström, edited by P.M. FISCHER. Vienna.

The Iron Age at Tall Abu al-Kharaz, Jordan Valley: The Third Major Period of Occupation. A Preliminary Synthesis. *Studies in the History and Archaeology of Jordan VII*. Amman: 305–316.

2005

The Euro-Mediterranean Archaeology Camp Project at Tell Abu al-Kharaz, Jordan (Results from the Excavations in 2001). *Museum for Mediterranean and Near Eastern Antiquities. Focus on the Mediterranean*. Stockholm: 117–132.

2006

Copper and Bronze Objects from Tell Abu al-Kharaz and Sahem, Jordan. Some Reflections on the Results of Atomic-Absorption Spectrometry, in MAEIR A.M. and DE MIROSCHEJJI, P. (eds.), *I Will Speak the Riddles of Ancient Times. Archaeological and Historical Studies in Honor of Amihai Mazar on the Occasion of His Sixtieth Birthday*. Winona Lake.

Tell Abu al-Kharaz in the Jordan Valley. Volume II: The Middle and Late Bronze Ages. Austrian Academy of Sciences Press. Vienna.

The Chronology of the Jordan Valley during the Middle and Late Bronze Ages: Pella, Tell Abu al-Kharaz and Tell Deir 'Alla, edited by P.M. FISCHER, contribution by S. BOURKE, P.M. FISCHER and G. VAN DER KOOLJ. Austrian Academy of Sciences Press. Vienna.

2008

Tell Abu al-Kharaz in the Jordan Valley. Volume I: The Early Bronze Age. Austrian Academy of Sciences Press. Vienna.

Five Thousand Years at Tell Abu al-Kharaz. *Near Eastern Archaeology* 71, 4: 196–213.

2009

Textile Production at Tall Abu al-Kharaz, Jordan Valley, 109–117, in: E. KAPTIJN and L.P. PETIT (eds.), *A Timeless Vale. Festschrift in Honour of Gerrit van der Kooij*, Leiden University Press.

The Sphinx Handle from Tall Abu al-Kharaz: Further Evidence, 215–226, in: P. BIENKOWSKI (ed.), *Studies on Iron Age Moab and neighbouring Areas in Honour of Michele Daviau* (Ancient Near Eastern Studies). *Festschrift in Honour of Michele Daviau*. Peeters.

FISCHER, P.M. and FELDBACHER, R. Tall Abu al-Kharaz. The Swedish Jordan Expedition: Prelimi-

nary Report on the Eleventh Season of Excavation at Tall Abu al-Kharaz, 2008. *Annual of the Department of Antiquities of Jordan* 53: 139–151.

2010

Tell Abu al-Kharaz, in Archaeology of Jordan, 2008 and 2009 Seasons, *American Journal of Archaeology* 114, 3: 512–514.

FISCHER, P.M. and FELDBACHER, R. Tall Abu al-Kharaz. The Swedish Jordan Expedition 2009. Twelfth Season Preliminary Excavation Report. *Annual of the Department of Antiquities of Jordan* 54: 447–460.

2011

FISCHER, P.M. and FELDBACHER, R. Tall Abu al-Kharaz. The Swedish Jordan Expedition 2010. Thirteenth Season Preliminary Excavation Report. *Annual of the Department of Antiquities of Jordan* 55: 377–390.

2012

The Swedish Jordan Expedition 2009 and 2010 at Tall Abu al-Kharaz: Twelfth and Thirteenth Season Preliminary Results from the Early Iron Age Occupation in Area 9. Appendices by T. Bürge, and A. Gustafsson & J. Azzopardi. *Opuscula* 5: 165–185.

FISCHER, P.M. and BÜRGE, T. Tell Abu al-Kharaz, in Archaeology of Jordan, 2010 and 2011 Seasons. *American Journal of Archaeology* 116, 4: 699–701.

In press

FISCHER, P.M. and BÜRGE, T. Tall Abu al-Kharaz. The Swedish Jordan Expedition 2011. Fourteenth Season Preliminary Excavation Report. *Annual of the Department of Antiquities of Jordan* 56.

FISCHER, P.M. and BÜRGE, T. Tall Abu al-Kharaz. The Swedish Jordan Expedition 2012. Fifteenth Season Preliminary Excavation Report. *Annual of the Department of Antiquities of Jordan* 57.

FISCHER, P.M. and BÜRGE, T. The Swedish Jordan Expedition 2011 and 2012 at Tall Abu al-Kharaz: Fourteenth and Fifteenth Seasons Preliminary Results. *Opuscula. Annual of the Swedish Institutes in Athens and Rome* 6.

FISCHER, P.M. and BÜRGE, T. Influences of the Sea Peoples in Transjordan: The Early Iron Age at Tell Abu al-Kharaz. *Zeitschrift des Deutschen Palästina Ver eins* 129, 2.

CHAPTER 2 STRATIGRAPHY, ARCHITECTURE AND FINDS

Peter M. Fischer

AREA 1

General information

There were two reasons for starting excavations in this specific area in 1989: one was to determine the – at that time – unknown occupational sequence of Tell Abu al-Kharaz because no previous excavations had been carried out at the site, and the other was that architectural remains were visible on surface.

The area lies in the south-western section of the upper part of the tell between Areas 2 and 9 (Figs. 8–9). It is situated in a fairly vulnerable part of the city, since the south-western descent from the city via Area 1 towards the Wadi al-Yabis and further down to the valley floor slopes only moderately in comparison to the approaches to the city from other directions, and is therefore more exposed to assailants (Fig. 4). The topographic situation was also the reason why defence structures were expected and finally verified: there is an array of city walls built upon each other and partially reused in later periods. These walls were built – as has been demonstrated during the course of the project – at various times over a period of some 4000 years, from the Early Bronze Age until Islamic times (FISCHER 2006a, 2008a). It should be mentioned that there is no stratigraphical connection between Area 1 and the closest areas, namely Areas 2, 3 and 9. Area 1 is separated from Area 2 by a short steep slope. The distance to Area 3 is approximately 10 m and that to Area 9 approximately 15 m. The main reason for not connecting these areas was the situation at the site between the excavation seasons: the entire tell is privately owned. Consequently surveillance by the Department of Antiquities or any other agency was impossible, which resulted in extensive looting around the margins of the exposed areas between the excava-

tion seasons, destroying connecting stratigraphical evidence.²²

The excavated portions of Area 1 lie in Grids MM–QQ / 28–31. From east to west they slope approximately 5 m, and from north to south they are fairly flat. The total size of the opened area is 386 square metres but it is only partly excavated (vertically). Parts of stone walls, mainly from the Iron Age but also from the Late Bronze Age, are visible on the surface. These run approximately north-east to south-west and north-west to south-east. The surface pottery is a mixture of all the periods found at Tell Abu al-Kharaz, although the Iron Age and the Early Bronze Age are the best represented here.

The excavations started in 1989 with Trenches I, II, V and VI. They were extended in 1995 towards the north and north-west (Trenches XXVIA–B, XXVIIA–E and XXVIII) and in 1996 towards the north (Trenches XXIXA–B and XXXA–B). The oldest Iron Age sub-phases were badly preserved because their stone-built constructions were used to supply building material for more recent Iron Age structures.

PHASE XII, AREA 1²³ (Figs. 21–23)

Architecture and features

The oldest three sub-phases from the northern part of Area 1, Trenches XXIX and XXX, were poorly preserved. There are only minor portions of walls, partly reused from earlier periods, and badly damaged stone pavements, together with a number of loci which contain Iron Age material. The rudimentary walls are W377 and 378 and the somewhat later walls W374 and 375. Loci from which diagnostic pottery could be retrieved are: L278, 283, 284, 285, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 300, 303 and

²² Areas 7 and 9 were less affected by looting than the other areas. The situation improved in 2010 after fruitful negotiations with the new Director General of the Department of Antiquities of Jordan, Dr. Ziad Al-Saad, when a guard was appointed by the Department with the permission of the landowner. The helpfulness of Dr. Ziad and Mr. Muwafaq Al-Bataineh from the Yarmouk University in Irbid in con-

nnection with the negotiations is hereby gratefully acknowledged.

²³ No plan is shown because the information which could be retrieved from one is extremely limited: there are just scattered bits and pieces of the disturbed architectural remains left; see instead the tables with the descriptions of the loci and walls.

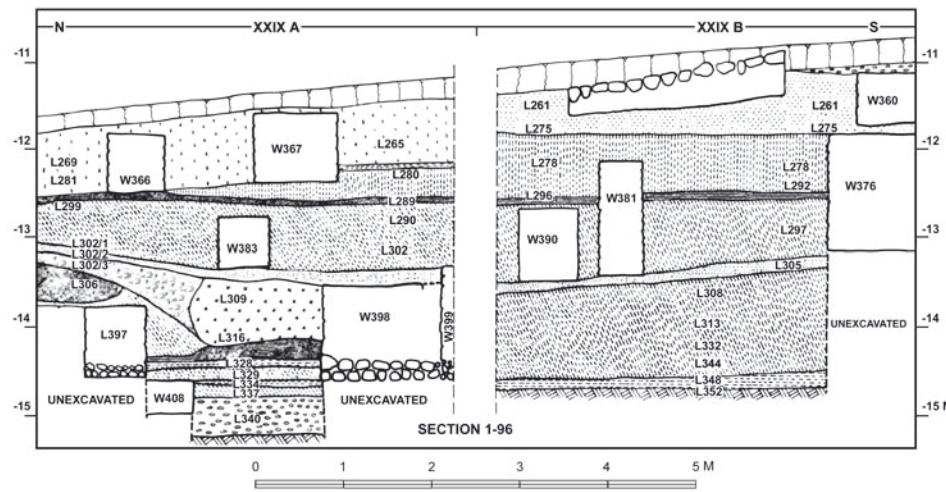


Fig. 12 Section 1-96. Area 1, east section Trenches XXIXA and B

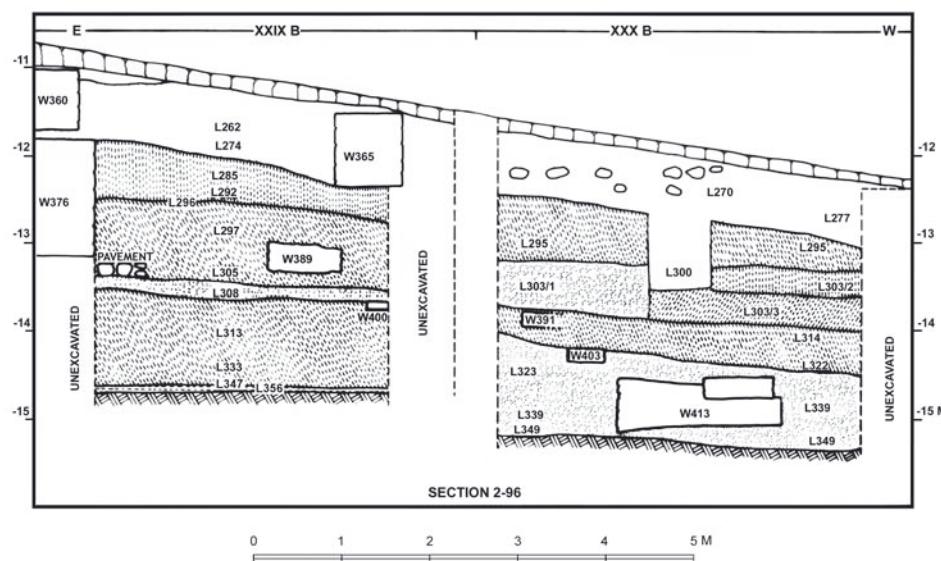


Fig. 13 Section 2-96. Area 1, south section Trenches XXIXB and XXXB

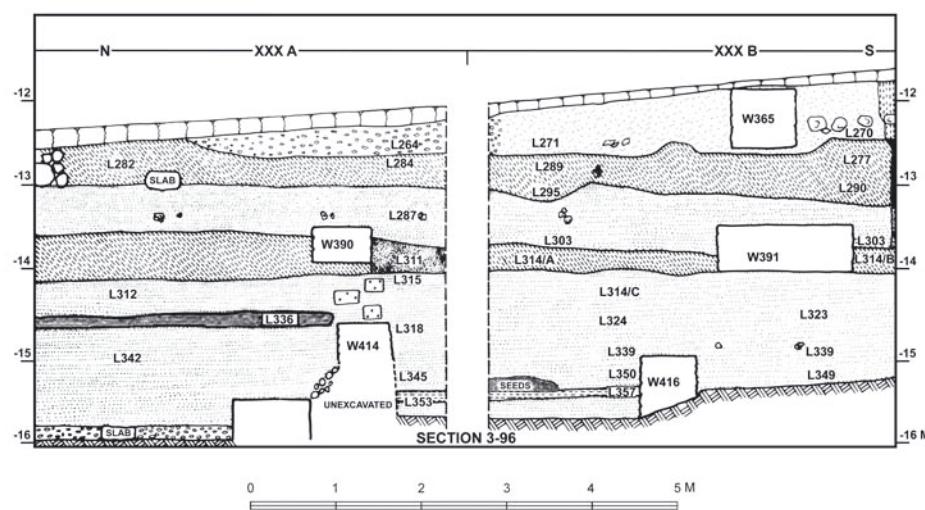


Fig. 14 Section 3-96. Area 1, east section Trenches XXXA and B

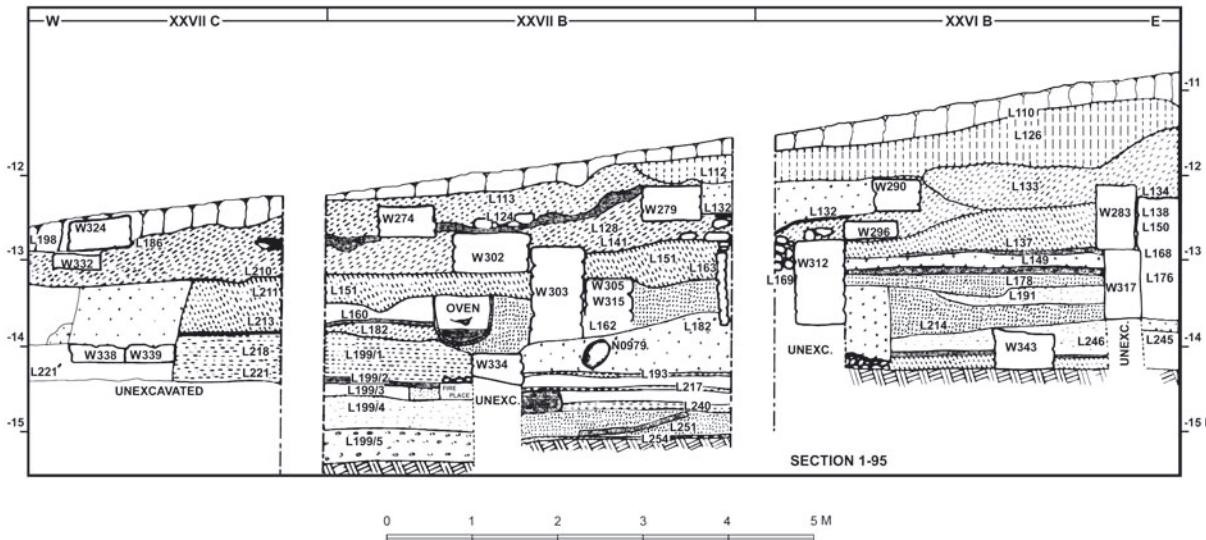


Fig. 15 Section 1-95. Area 1, north section Trenches XXVIIC and B, XXVIB

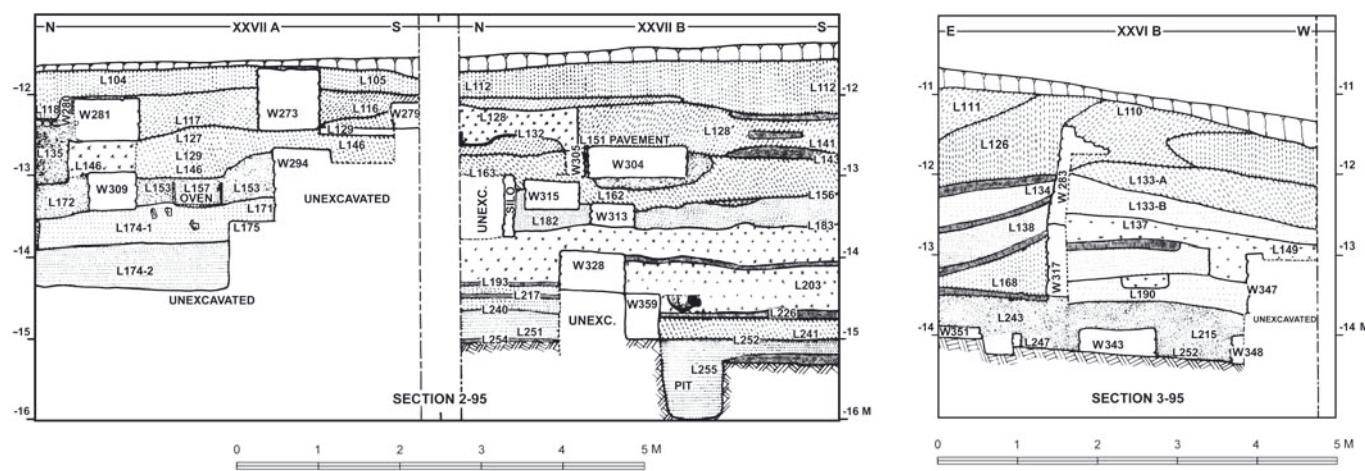


Fig. 16 Section 2-95. Area 1, east section Trenches XXVIIA and B

Fig. 17 Section 3-95. Area 1, south section
Trench XXVIB

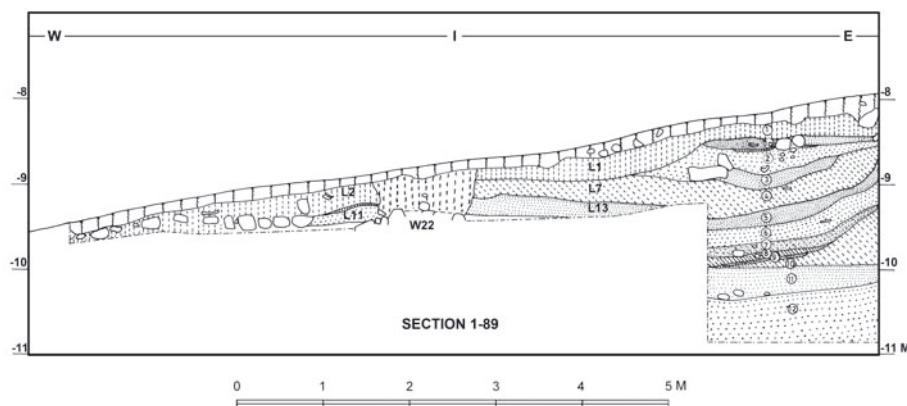


Fig. 18 Section 1-89, Area 1, north section Trench I

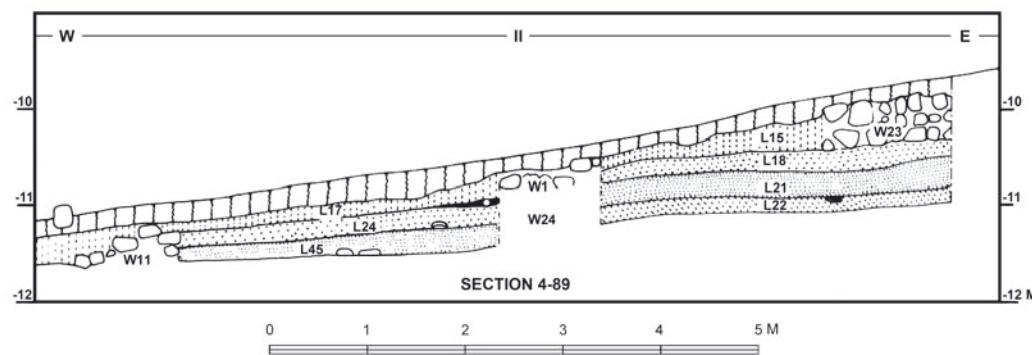


Fig. 19 Section 4-89. Area 1, north section Trench II

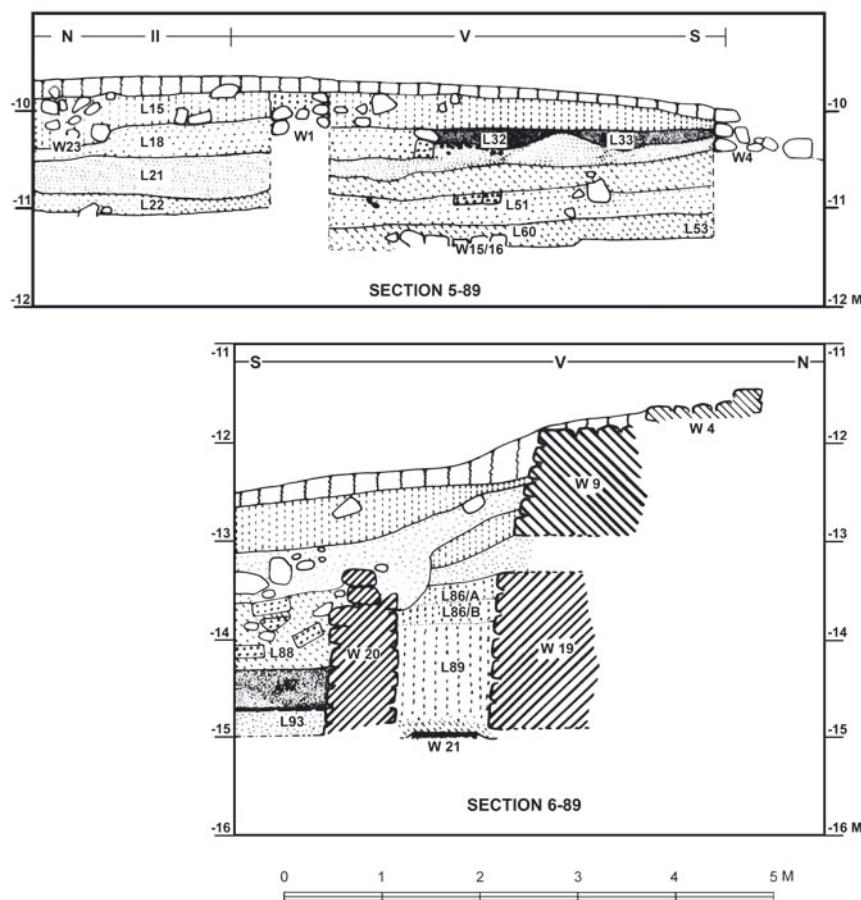


Fig. 20 Sections 5-89 and 6-89. Area 1, east section Trenches II and V (upper) and west section Trench V (lower)

304; and inside walls or their foundations yielding finds are: W370, 374, 375, 377 and 378. Other features are postholes and fire places. Small finds include, in addition to pottery and amorphous pieces of iron, an arrowhead of iron, and stone tools, amongst them three mortars.

Interpretation of the material evidence

Any detailed interpretation would be highly speculative. The chronological value of the three sub-phases is dubious because of numerous disturbances from later Iron Age occupation.

Wall No.	Width (m) average dimensions	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
374	0.5	0.4	2			disturbed
375	0.5	0.3	2			disturbed
377	0.5	0.5	3			disturbed
378	0.5	0.25	1			disturbed
381	0.5	1.3	9			reused from MB/LB

Table 1 Description of the walls of Phase XII, Area 1

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
278	fill above destruction layer	11	5 b, 1 k, 4 j, 2 jl, 1 stj, 10 sj, 4 cp, 1 dec, 283 ud			partly disturbed
283	fill above destruction layer	9	1 sj, 4 cp, 66 ud			partly disturbed
284	fill above destruction layer	1	3 b, 1 j, 5 sj, 1 ep, 72 ud			partly disturbed
285	fill above destruction layer	2	2 b, 4 k, 5 sj, 2 ep, 135 ud			partly disturbed
287	fill, destruction debris	59	-1 tri, -3 k/hm, -4 hm, 41 b, 1 cb, 1 g, 22 k, 17 j, 8 jl, 1 dt, 2 ja, 77 sj, 21, 38 cp, 2 dec, 1 bid pf, 1522 ud			partly disturbed
288	fill above destruction layer	7	-1 cp, -3 b, 3 b, 5 j, 9 ja, 5 ep, 2 dec, 201 ud			partly disturbed
289	ash, destruction debris, o.d.	6	3 b, 2 k, 7 j, 8 sj, 4 cp, 1 BoR jl, 193 ud			disturbances, import from Cyprus
290	fill below destruction layer	13	-1 cb, 7 b, 1 cb, 2 k, 4 j, 2 ja, 12 sj, 6 cp, 232 ud			partly disturbed
291	ash, destruction debris, o.d.	7	5 j, 1 ja, 11 sj, 1 l, 3 cp, 110 ud			partly disturbed
292	fill above destruction layer	6	-1 k, -2 cp, -3 b, 7 b, 6 k, 3 j, 6 sj, 1 ep, 1 Ass b, 9 dec, 361 ud			partly disturbed, Assyrian-type bowl
293	fill above destruction layer	20	1 jl, 1 ja, 7 ud			partly disturbed
294	stone pavement, partly preserved	1	1 j, 1 dec, 24 ud			partly disturbed
295	fill above destruction layer	19	-1 b, 8 b, 1 k, 1 jl, 3 j, 15 ja, 3 sj, 7 cp, 335 ud			partly disturbed
296	ash, destruction debris, o.d.	6	2 sj, 1 cp, 62 ud			partly disturbed
297	fill below destruction layer	175	-1 b, -2 k, 2 b, 9 k, 11 j, 1 jl, 15 sj, 1 ep, 4 dec, 358 ud			partly disturbed
298	ash, destruction debris, o.d.	8	2 b, 2 k, 2 j, 1 jl, 4 sj, 1 dec, 196 ud			partly disturbed
300	pit, d. 0.7	47	-2 ep, -3 k, 1 b, 1 k, 6 j, 4 cp, 132 ud			starts higher up
303	fill above destruction layer	469	-1 sj, -2 j, -3 eb, -5 cb, -6 k, -7 sj, 14 b, 7 k, 2 jl, 21 j, 1 ja, 17 sj, 2 hm, 23 cp, 1 dec, 835 ud		-8	partly disturbed
304	pit, d. 0.8	1	4 b, 2 k, 6 sj, 1 cp, 101 ud			partly disturbed
W370	inside wall		1 k, 3 sj, 32 ud			
W374	from foundation	11	-1 b, -2 jl, -3 k, 1 b, 1 k, 5 sj, 1 ep, 71 ud			
W375	from foundation	10	71 ud			
W377	inside wall		1 b, 1 k, 1 j, 1 cp, 79 ud			
W378	inside wall	125	-1 eb, -2 b, 231 ud			

Table 2 Description of the loci of Phase XII, Area 1

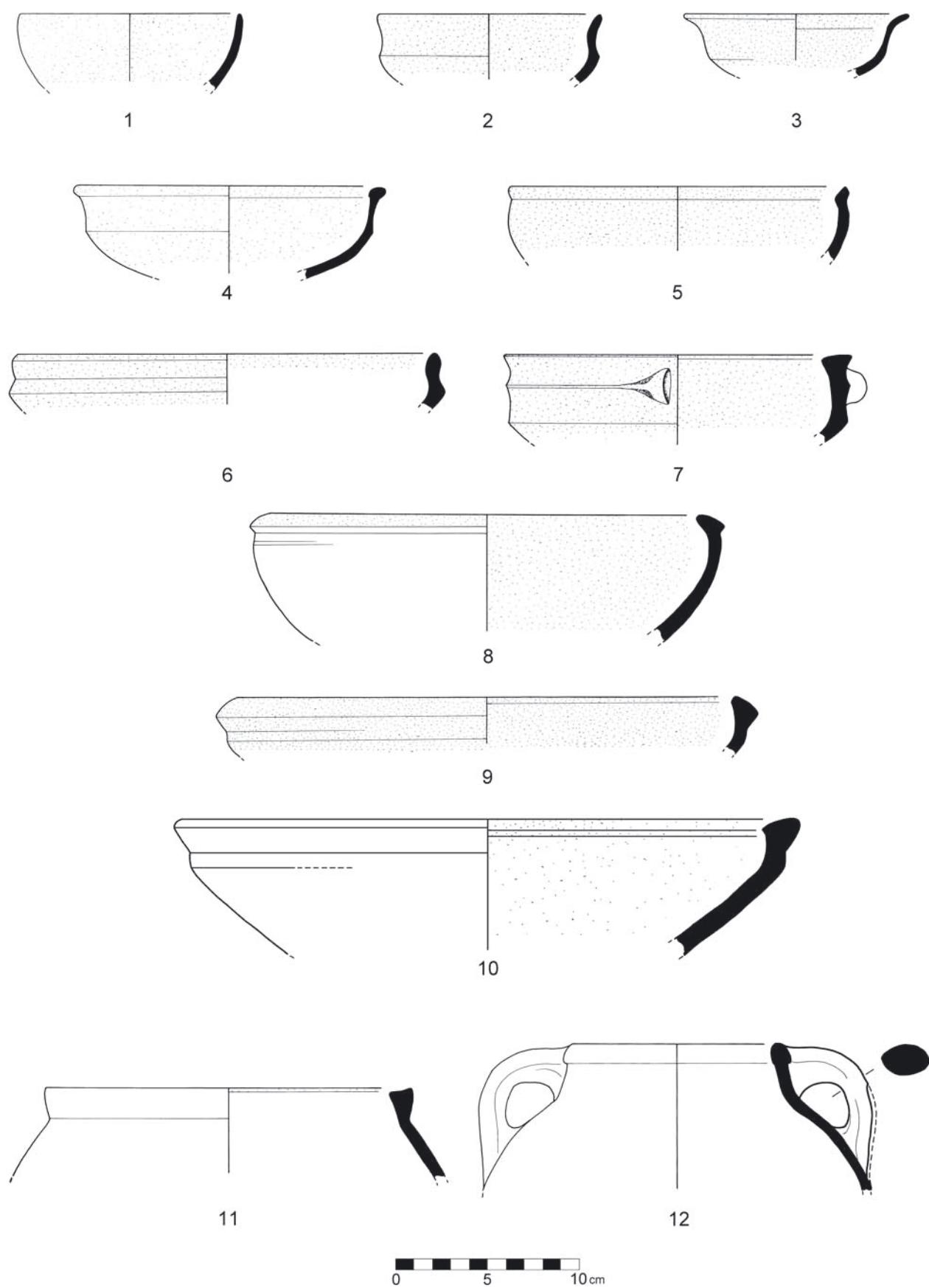


Fig. 21 Pottery from Phase XII, Area 1

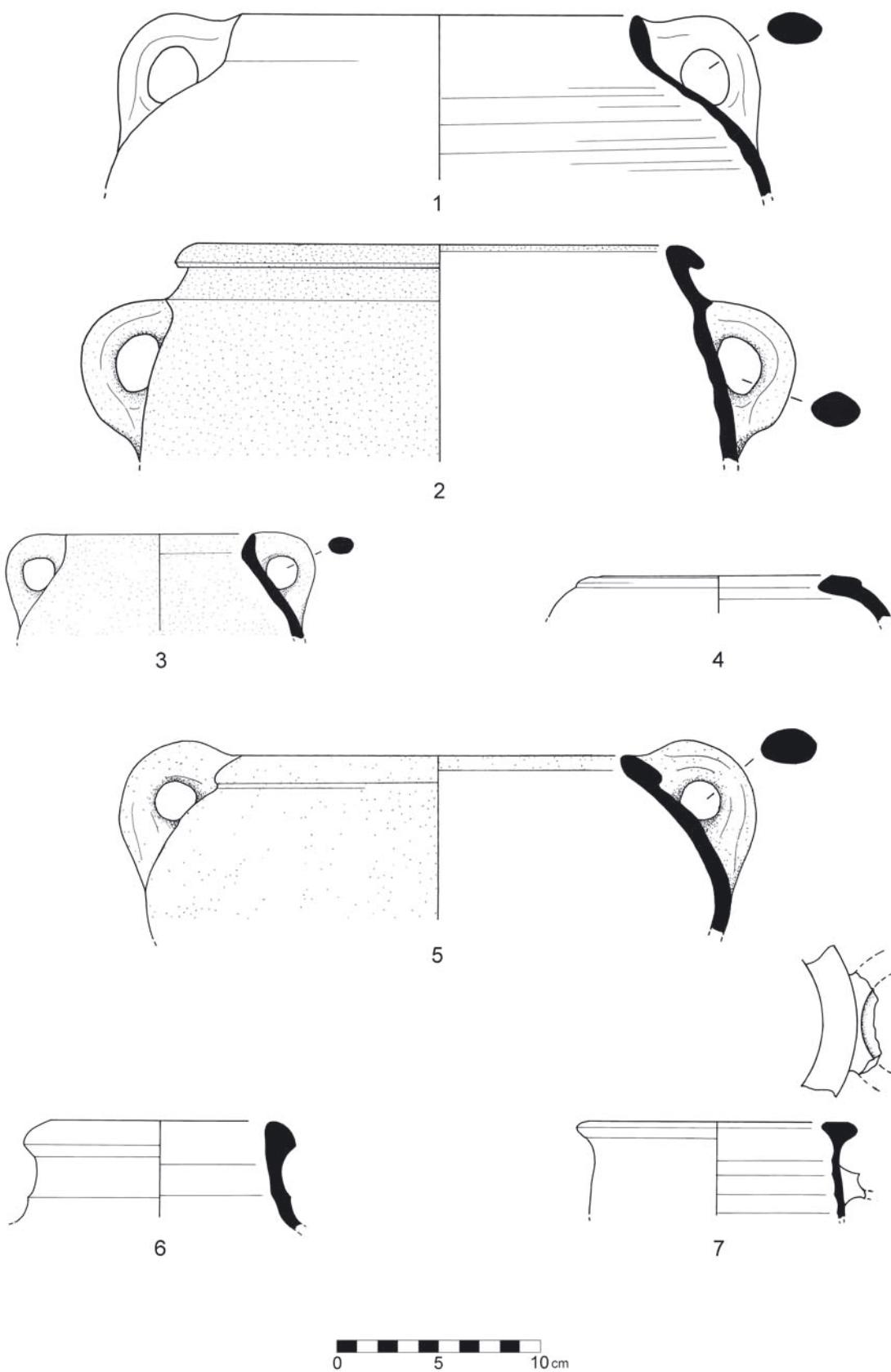


Fig. 22 Pottery from Phase XII, Area 1

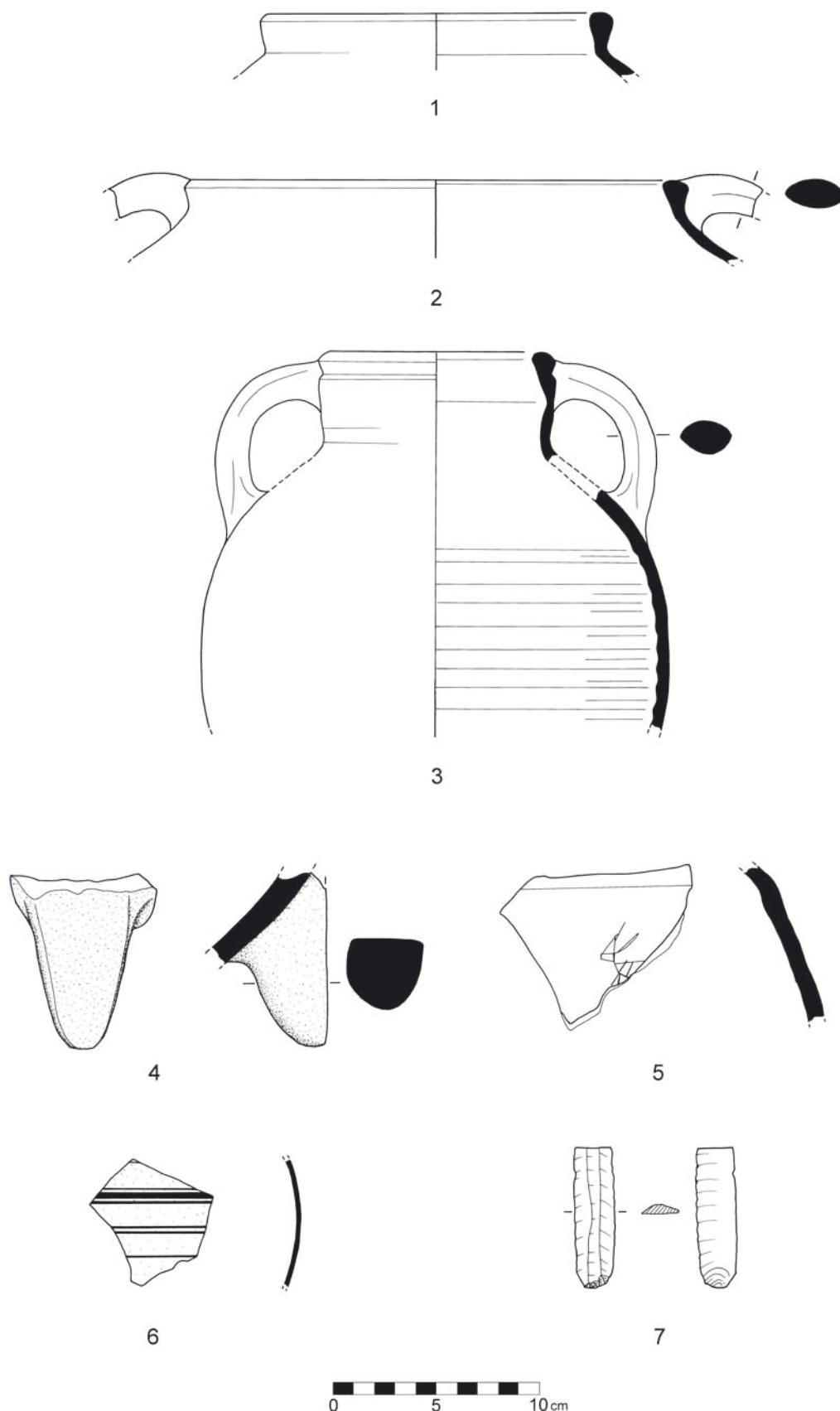


Fig. 23 Pottery and one lithic from Phase XII, Area 1

**Legend for the illustrated pottery from Phase XII,
Area 1**

Fig.	Locus No.	Description
21:1	W374 -1	Bowl, hard-fired, light brown fabric, medium-fine, dark brown slip, burnished interior and exterior.
21:2	303 -3	Carinated bowl, hard-fired, light brown fabric, fine, self slip, red wash interior and exterior.
21:3	288 -3	S-bowl, hard-fired, yellowish-brown fabric, medium fine, mainly black inclusions, yellowish-brown wash.
21:4	W378 -1	Carinated bowl, medium-hard-fired, yellowish-brown fabric, light grey core, medium-coarse, mainly grey inclusions, red slip.
21:5	295 -1	Bowl, hard-fired, yellowish-brown fabric, medium-coarse, mainly black inclusions, self slip, red wash exterior.
21:6	290 -1	Carinated bowl, medium-hard-fired, yellowish-brown fabric, medium-coarse, mainly grey inclusions, yellow slip, red wash.
21:7	303 -5	Carinated bowl, hard-fired, brownish-red fabric, medium-fine, light red slip, red wash, plastic "trumpet" decoration.
21:8	292 -3	Bowl, hard-fired, yellowish-brown fabric, coarse, grey and black inclusions, yellow slip, red wash.
21:9	W378 -2	Bowl, hard-fired, yellowish-brown fabric, light brown core, fine, thick red burnished slip.
21:10	297 -1	Bowl, medium-hard-fired, brown fabric, coarse, mainly grey inclusions, red slip, burnished interior and exterior.
21:11	300 -3	Krater, hard-fired, light brown fabric, coarse, mainly grey inclusions, reddish-brown wash.
21:12	297 -2	Krater, medium-hard-fired, yellowish-brown fabric, coarse, grey inclusions, yellowish-brown slip.

**Legend for the illustrated pottery from Phase XII,
Area 1**

Fig.	Locus No.	Description
22:1	W374 -3	Krater, medium-hard-fired, yellowish-brown fabric, coarse, mainly grey inclusions, yellow slip.
22:2	292 -1	Krater, hard-fired, brownish-red fabric, thick grey core, medium-coarse, mainly grey inclusions, self slip, red wash.
22:3	W374 -2	Juglet/small krater, hard-fired, fine fabric but a few large inclusions, red slip.
22:4	287 -4	Hole-mouth jar, hard-fired, light brown fabric, fine, light yellow slip.
22:5	287 -3	Krater/hole-mouth jar, hard-fired, yellowish-brown fabric, thick grey core, coarse, mainly grey inclusions, self slip, red wash.

22:6	303 -1	Storage jar, hard-fired, light brown fabric, coarse, multicoloured inclusions, light yellowish-brown slip.
22:7	303 -7	Storage jar, hard-fired, reddish-brown fabric, thick grey core, fine, red slip.

**Legend for the illustrated pottery and one lithic from
Phase XII, Area 1**

Fig.	Locus No.	Description
23:1	288 -1	Cooking pot, hard-fired, reddish-brown fabric, grey core, mainly white inclusions, self slip.
23:2	300 -2	Cooking pot, hard-fired, brownish-red fabric, grey core, coarse, mainly white inclusions, self slip.
23:3	292 -2	Cooking pot, hard-fired, reddish-brown fabric, thick grey core, quartz inclusions, self slip.
23:4	287 -1	Tripod bowl (stump leg), hard-fired, orange fabric, thick dark grey core, coarse, mainly white inclusions, self slip.
23:5	303 -6	Krater, hard-fired, light brown fabric, coarse, multicoloured inclusions, pinkish-yellow slip, incised decoration of possible deer.
23:6	303 -2	Jug, hard-fired, light brown fabric, fine, light yellow slip, burnished, brown decoration.
23:7	303 -8	Lithic, blade, trapezoidal section.

PHASE XIII, AREA 1 (Figs. 24, 25)

Architecture and features

Fairly well preserved structures from this phase were found only in the south-western part of Area 1, Trenches XXVII and XXVIII. Walls 333 and 344 correspond to the Iron Age city wall which was built upon the city wall from the Middle/Late Bronze Age, of which considerable portions were reused. Wall 345 protrudes from the city wall as a kind of buttress. There is an approximately 1.2 m wide opening in W333. A stone-paved space (L201, 204, 206, 209', 210') is bordered by W327/302, which is built perpendicularly to the city wall, and W329/300, which runs parallel to the city wall at a distance of approximately 4 m. To the north is another wall, W330, parallel to W327/302.

Small finds include four arrowheads of iron (N985, N987, N990, N992), a knife of iron (N991), a ring of bronze (N1005), a mace head of white limestone (N988) and a millstone of porous basalt.

Interpretation of the material evidence

The builder of the Iron Age city wall took advantage of the well-constructed city walls from the MB/LB

and built upon them. The small opening in the city wall is interesting: it is so far the only opening in the arrays of city walls from the Iron Age. It may represent a small gate or, less likely, a kind of observation window. The function of the stone-paved room might have been a room for soldiers who guarded the gate: the five weapons of iron may point to that.



Fig. 24 Plan of Phase XIII, Area 1

Legend for the illustrated pottery from Phase XIII, Area 1

Fig.	Locus No.	Description
25:1	below -1 W361	Bowl, hard-fired, yellowish-brown fabric, medium-coarse, mainly grey inclusions, red slip on rim and interior.
25:2	209° -1	Cooking pot, hard-fired, brown fabric, dark grey core, coarse, quartz inclusions, self slip.
25:3	209° -2	Cooking pot, hard-fired, brownish-red fabric, thick dark grey core, coarse, mainly white inclusions, self slip.

Additional finds from Phase XIII, Area 1 (listed, not illustrated)

Locus No.	Description
210'	N985 Arrowhead, iron, parts of wooden shaft preserved, L 6.4, W 1.2, Th 0.4, L of shaft 0.9 cm.
204	N987 Arrowhead, iron, L 7.0, W 1.6, Th 0.9 cm.
204	N988 Mace head, limestone, L 6.4, max. d. 5.8 cm.
204	N990 Arrowhead, iron, L 6.9, W 1.8, Th 1.0 cm.
206	N991 Knife, iron, L 17, W 2.6, Th 0.9 cm.
210'	N992 Arrowhead, iron, L 6.8, W 2.0, Th 0.8 cm.

PHASE XIV, AREA 1 (Figs. 26–42)

Architecture and features

This is the best preserved Iron Age phase in Area 1. In the central part of Area 1 is a square compound, approx. 9 m × 9 m in size, which is built against the city wall (W333, 344, 345) and which was destroyed in a conflagration. A bench was built against the south-eastern outer wall, where there is also a 0.3 m wide sewer for drainage, L113'). Finds from this part include a spindle whorl of alabaster (N947), a mill-stone (N948), a Black Juglet (N939; Figs. 30, 33:13 and 458:3) and additional tools of clay (loom weight) and stone (pestle). There is a gate in the south-western part of the centrally placed courtyard (L210). The

Wall No.	Width (m) average dimensions	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
327/302	0.6	0.4	2			
329/300	0.6	0.3	2			
330	1.3+	0.6	3			
333	1.55	0.9	7			city wall
344	1.55	0.9	7			city wall
345	1.55	0.35	2			possible buttress

Table 3 Description of the walls of Phase XIII, Area 1

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
201	fill above stone pavement L204		6 ud			
204	stone pavement		3 ud		N987, N988, N990	
205	surface, o.d.		5 ud			
206	in stone pavement		4 ud		N991	
207	pit, d. 0.4		11 ud			
209'	surface, o.d.		-1 cp, -2 cp			
210'	surface, o.d.		3 b, 3 cp, 2 ud		N985, N992	connected with city gate
W277	below wall	2	2 sj, 16 ud			
W279	below wall	1	2 sj, 31 ud			
W360	below wall	1	3 b, 1 k, 2 j, 3 sj, 3 cp, 66 ud			
W361	below wall	4	-1 b, 3 b, 10 sj, 2 cp, 153 ud			

Table 4 Description of the loci of Phase XIII, Area 1

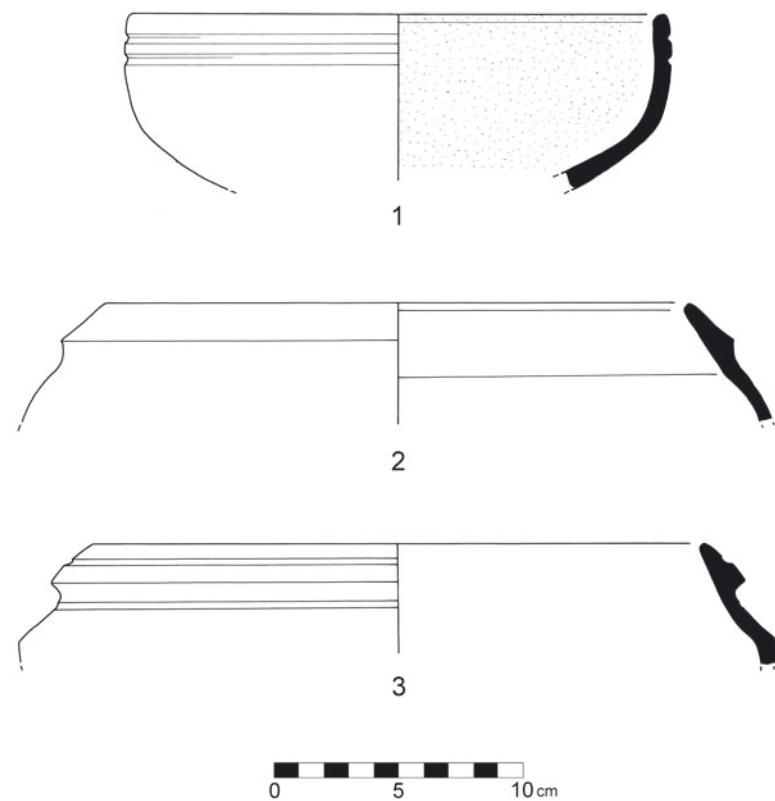


Fig. 25 Pottery from Phase XIII, Area 1

1.2 m wide gate appears to be an opening in the city wall, but it is in fact built on top of the older city wall (MB/LB, see above). The older wall was used to approach the gate. The space between the outer walls of the square structure (W277, 279, 273) and the inner walls which enclose the courtyard (W326, 274, 293) is 1.6 m wide and partly stone-paved (L124, 105, 116, 123, 129). There is a small room to the south (L113 with the bead N949) from which the stone-paved space could be reached. Another entrance to the courtyard is from the north-west.

The central courtyard (L106, 119, 129', 140) once contained a loom standing in the north-eastern corner close to the entrance to the stone-paved room: there are many spindle whorls and loom weights. Other objects are cooking pots and other vessels, for example a Black Juglet, cooking pots and a krater standing on three loop-handles, mortars and pestles, knives and arrowheads of iron (N941–944, N952, N967). A sewer (L200, 202) is placed along the north-western interior wall of the courtyard.

An elaborated cosmetic palette of limestone derives from the courtyard (N954; Figs. 39:3, 453:10, 465:3; see Appendix 3). It was found slightly damaged and has been exposed to fire. The convex side is divided into three zones. There are two double, trumpet-like, ledge handles which are usually found as a plastic decoration on ceramic vessels from the second part of the Iron Age. The other side is flat, with a deep depression in the centre, half the diameter of the object. The flat side is decorated with a geometrical pattern displaying from the outer perimeter a plain band, followed by an engraved rope pattern, a plain concentric circle, two concentric circles with 15 plain and 15 cross-hatched patterns (each showing 3×4 square fields) between them, a plain band flanked by two concentric circles and another rope decoration.

A fairly large cistern (W283, 317; L111, 126, 134, 138, 168', 150, 176'), minimum 5 m wide and 2 m deep, is to the east of the compound at a distance of roughly 5 m (L110, 112, 125). Finds from the area around the cistern are pestles (one is N970), a stone mortar (N971) and a broken-off “handle” of a bronze object. There is also a badly preserved “wall” (W290).

To the north of the compound is a stone-paved, somewhat irregular, room bordered by W370, 365, 276, 278, 281, 280, 273. It is some 7 m long and 5 m wide (L270, 277, 104, 118, 135, 108). There is a clay container supported by stones to the east (L107) and a bench with a millstone to the south. This room could be approached both from the south via a corridor and from the east through an opening in W365. The area further north is not so well preserved. There are the

scanty remains of additional walls (W379, 372) which once bordered two spaces: one was stone-paved (L272, 283) and the other had a surface of gravel (L264, 282, 268).

There is another compound, only partly exposed, to the east (W275, 360, 361, 367, 366, 380; and loci L261, 275, 265, 280, 269, 281). A *tabun*, a storage jar (N1012), a juglet (N1010) and two iron arrowheads (N1007, N1008) are amongst the finds in the northern portion of the eastern compound.

An alley, which was closed at certain locations, zig-zags between the two compounds (L109, 262, 274, 271, 286, 273, 266, 279, 267): door sockets and stone thresholds were found there. Other installations and objects from the passage are: two *tawabeen*, millstones, a stone weight (reused mortar?), a jug (N1009) and a lamp (N1011).

The south-easternmost part of Area 1 contains the continuation of the city wall (here numbered W4). Three walled spaces which are separated by a partly stone-paved area from the central compound of Area 1 were built against the city wall. One is enclosed by W11, 1, 2 (with a 0.5 m entrance) and W4 (L14, 17, 20, 24, 35, 45). Amongst the finds are a complete jar (N2), a carinated bowl (N16; Fig. 28), a jug (N17) and a stone bowl (N14). Other finds are 25 loom weights of unfired clay (N15) and a bronze-iron fibula with elaborate decoration (N43). Two 5 mm large carnelian beads were still attached to the needle of the fibula.

The next space to the east could be entered through the entrance in W2 (L19, 23, 27, 34). It is bordered by W2, 1, 5 and 4. Finds were storage jars (N24, N27, N29), additional cooking pots (N30, N31), an iron blade (N25) and a flint blade (N33). A worked shell was found close to the foundation of W2 (N67; Figs. 39:4, 465:5; see Appendix 3). The almost circular, yellowish-white, alabaster-like shell was highly polished. It has three holes and several pattern-drilled depressions.

The next room (L32), bordered by W1, 5 and 4, contains three roof-supporting stone slabs. They were found centred in the room about 2 m south-east of and parallel to W5. A hearth (L33) was in the southern room between two of the roof supports. A complete cooking pot (N28) was exposed *in situ* on a bed of stones in the centre of the hearth. Another one was partly exposed in the eastern section (N45). To the north-east of these three spaces is a corridor-like room bordered by W1 and W3/23 (L10, 15, 16, 18, 21, 22). It contained some tools of stone (N8, N9). The area outside the city wall W4 produced numerous other finds but they may belong to different periods.

Interpretation of the material evidence

The two compounds are separated from each other by a zigzag alley. The western compound shows certain similarities with structures from Area 7. The Area 7 structures, similar in size, were interpreted as towers from two successive periods but built within a relatively short time. This compound, which lies attached to the city wall and close to a gate, also seems to be a tower, most likely with more than one storey, viz. the excavated portion of the building is the basement. It might have been inhabited by the guards and their families until it was destroyed by fire.

The stone-paved room to the north of the tower might also have been used by the city guards and their families because they are connected. There is unambiguous evidence of textile production in the courtyard. The zigzagging pathway to the east was used for the preparation of food, judging from millstones and a *tabun*. The water cistern to the south-east lay conveniently close. The finds from inside and just outside the cistern are shown on a separate plate because it is

possible that the cistern was in use after this phase (Fig. 42). Not very much can be said about the partially exposed eastern compound except that it seems to be of a domestic nature.

The most southerly compound of Area 1, which is built against the city wall, is again of domestic nature. There is evidence of textile production and the preparation of food.

Some of the finds are of particular interest. Our cosmetic palette (N954) has parallels from other Iron Age II sites. The palette had a double function: it was – as the name implies – used for grinding and mixing cosmetics or medicines which would have been placed in the central depression but it also functioned as a lid with handles for a (perishable) container when turned upside down (see reconstruction in Fig. 465:4). The incised pattern may have had only a decorative function, although other functions such as that of a kind of a numeric schedule, maybe an almanac, are a possibility. The worked shell (N67) may have been used as a “budget version” of the cosmetic palettes of stone (see also Fig. 465:5, and Appendix 3).

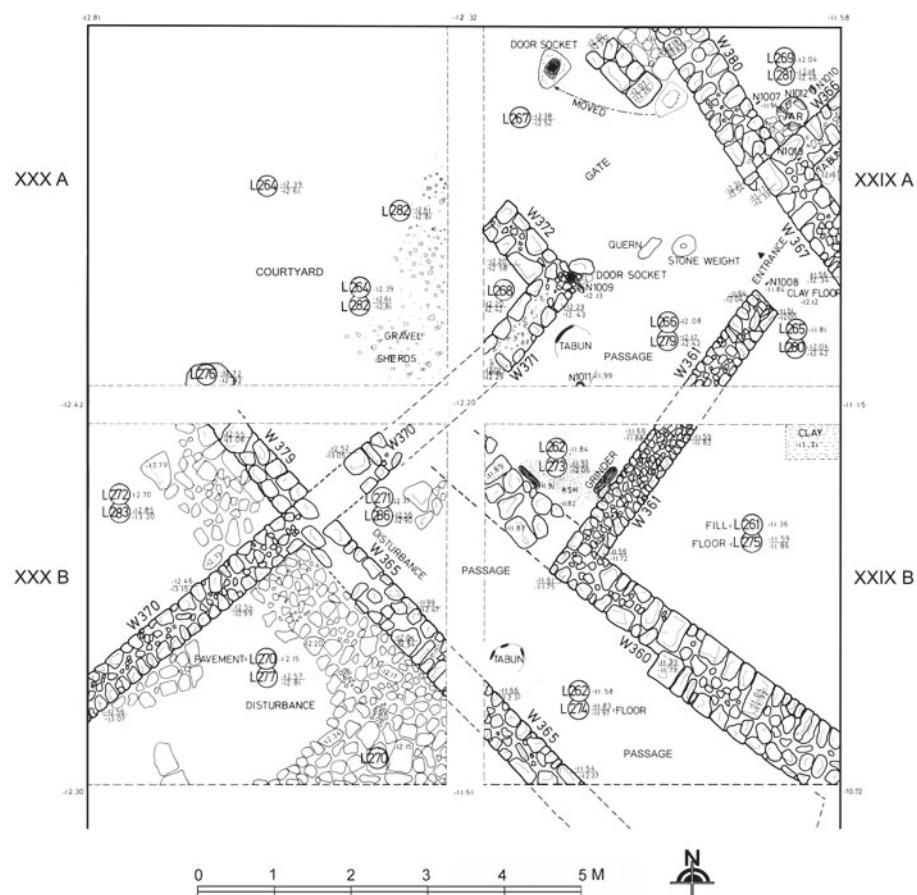


Fig. 26B Plan of Phase XIV, Area 1, northern part

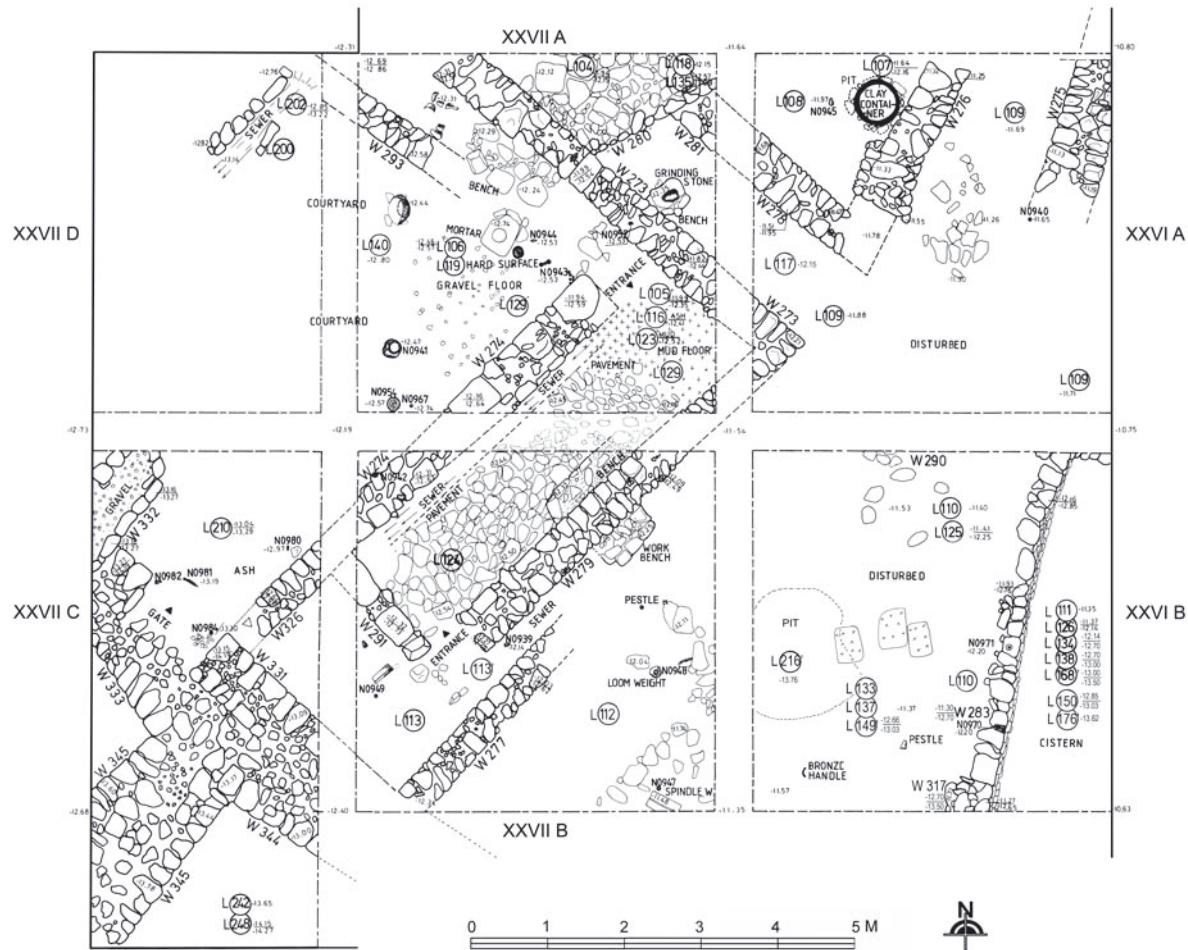


Fig. 26C Plan of Phase XIV, Area 1, central part

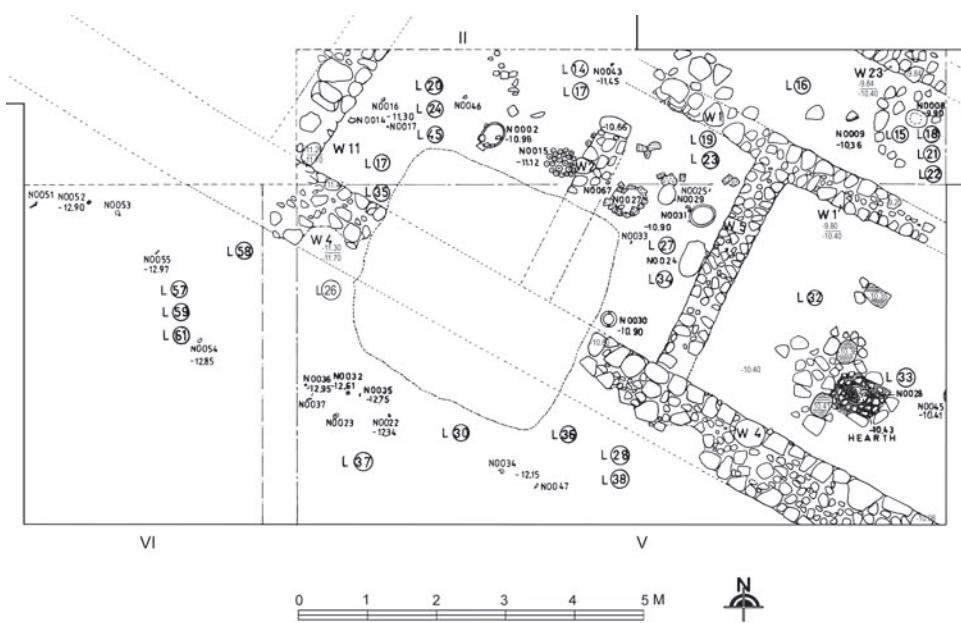


Fig. 26D Plan of Phase XIV, Area 1, southern part

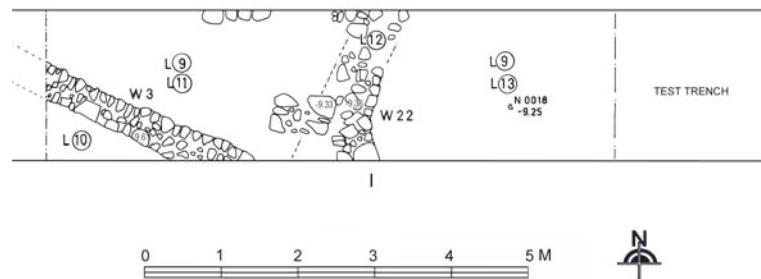


Fig. 26E Plan of Phase XIV, Area 1, south-eastern part

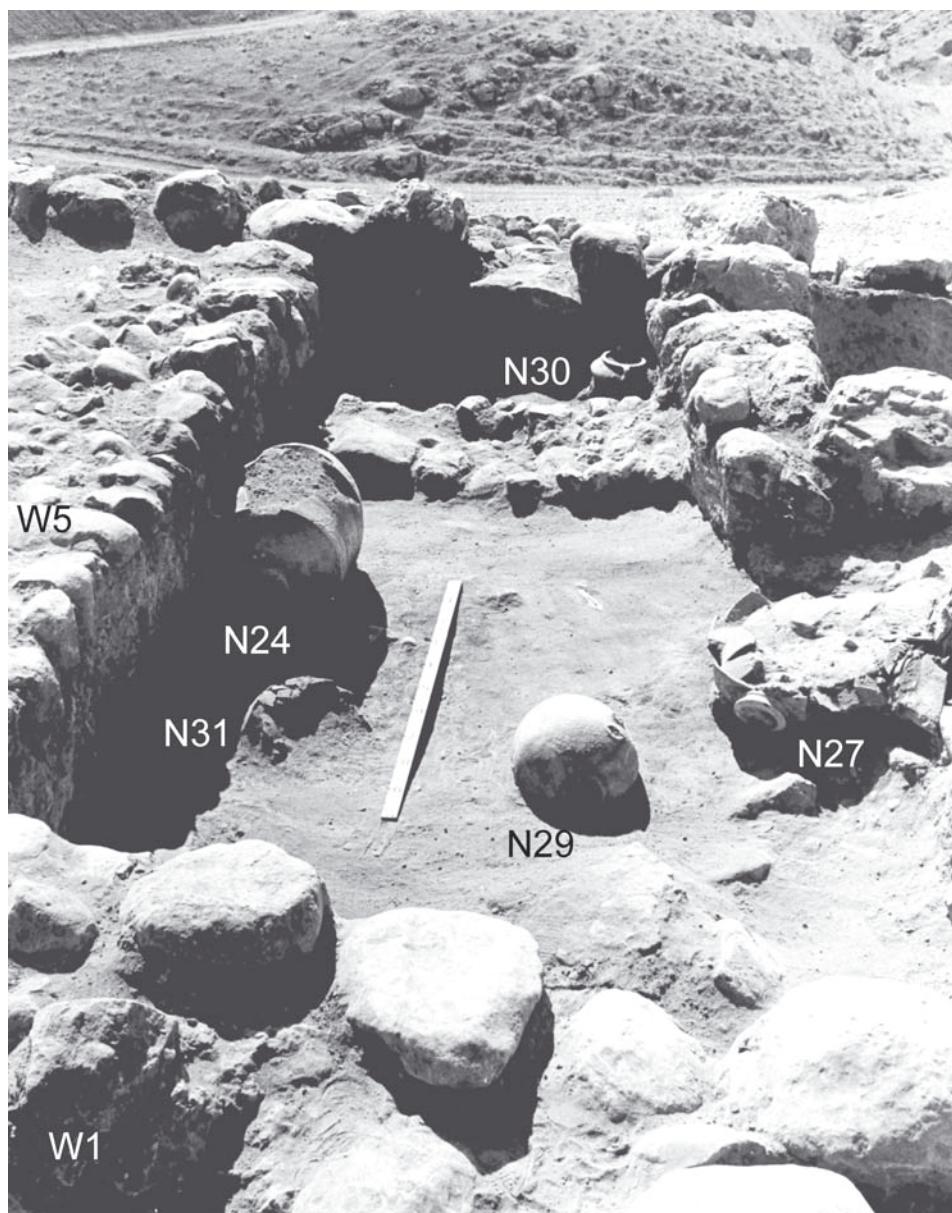


Fig. 27 Phase XIV, southern part of Area 1 looking south



Fig. 28 Phase XIV, Area 1. Carinated bowl N16



Fig. 29 Phase XIV, Area 1. Juglet N53



Fig. 31 Phase XIV, Area 1. Jar N24



Fig. 30 Phase XIV, Area 1. Black Juglet N939



Fig. 32 Phase XIV, Area 1. Cooking pot N30

Wall No.	Width (m) average dimensions	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
1	0.5	0.6	3			
2	x	0.1-2	1			demolished
3/23	0.5	0.6	3			
4	>1	0.4	2			
5	0.5	0.6	3			
11	0.75	0.5	3			
22	0.75	0.3	1			
273	0.4	0.6	2			
274/326	0.3-0.5	0.65	3			
275	0.75	0.4	2			
276	0.5-0.75	0.4	2			
277	0.5	0.6	3			
278/281	0.6	0.45	2			
279	0.6	0.4	2			
280	x	x				border of platform
283/317	0.3	2.0	6-8			wall of cistern
290	x	0.1	1			demolished
291	0.3	0.4	2			
293	0.3	0.3	1			
331/333/344	1.5-1.6	0.9	4			
332	x	0.1	1			partly exposed
345	1.5	0.3	1-2			
360	0.5-0.8	- 0.7	3-4			
361	0.5	0.4	2			
365/379	0.5	0.5-0.8	3-4			
366	0.5	0.7	3			
367	0.6	0.8	4			
370/371	0.5	0.5	2			
372	0.5	0.4	2			
380	0.6	0.65	3			

Table 5 Description of the walls of Phase XIV, Area 1

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	eon	post		
9	fill above floor	1	1 b, 1 cp			
10	fill above floor		1 b			
11	floor of room	1	3 b, 1 k, 4 cp			
13	floor of room	3	3 b, 1 k		N18	
14	fill above floor		N2 ja, -1 k			
15	fill above floor		-2 cb		N8, N9	
16	fill above floor		5 ud			
17	fill above floor		12 ud			
18	fill above floor		18 ud			

Table 6 Description of the loci of Phase XIV, Area 1

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
19	fill above floor		-1 k, -2 k			
20	fill above floor		2 ud			
21	fill above floor		5 ud			
22	floor of room		-1 e, 1 b, 2 cp			
23	floor of room		N24 sj, N27 sj, N30 cp, -1 ep, 1 cp			
24	floor of room		N16 cb, N17 j-dt, N46 cp, -2 k		N14, N15	
27	floor of room		4 ud		N27, N33	
28	fill outside city wall W4					mixture of periods
30	fill outside city wall W4		N22 jl, -1 cb		N23, N34	mixture of periods
32	floor of room		23 ud			
33	hearth		N28 cp, N45 cp, 3 ud			
34	floor of room		N29 ja, N31 ep, 4 ud			
35	floor of room		2 ud			
36	fill outside city wall W4		N47 cp		N47	mixture of periods
37	fill outside city wall W4		N37 b		N32, N35, N36	mixture of periods
38	fill outside city wall W4					mixture of periods
45	destruction debris		1 b		N43	some disturbances
57	fill outside city wall W4	N56	N53 jl, N57 cp, 2 ep, 1 sj		N51, N52, N54, N55	mixture of periods
58	fill outside city wall W4			2		mixture of periods
59	fill outside city wall W4					mixture of periods
61	fill outside city wall W4	1	1 ep			mixture of periods
104	stone pavement, o.d.	2	-1 k, 1 j, 3 cp, 94 ud	1?		
105	fill above ash layer	1	1 b, 1 sj, 36 ud	1		
106	fill just above floor		N941 ep, -1 k, 1 sj, 2 ep, 23 ud			
107	clay container, d. 0.4	7	-1 k, 3 b, 3 k, 2 j, 32 sj, 3 ep, 236 ud	5		
108	hard-packed soil with ash	1	N945 bj1, -1 k, 1 b, 1 k, 4 ja, 12 ep, 2 dec	5		
109	fill with ash	6	1 b, 1 k, 12 sj, 8 cp, 28 ud	2	N940	
110	disturbed area	22	-1 k, 3 b, 3 k, 2 jl, 2 j, 1 ja, 2 sj, 7 ep, 8 dec, 317 ud	6		
111	cistern, fill	1	1 j, 4 sj, 1 ep, 37 ud	1		
112	hard-packed soil with ash	6	-1 k, -2 sj, 2 b, 4 k, 2 jl, 1 dt, 15 sj, 1 l, 3 cp, 1 dec, 304 ud		N947, N948	
113	hard-packed soil with ash		-1 eb, 1 b, 1 sj, 39 ud		N942, N949	
113'	sewer		N939 bj1			
116	ash above floor		-1 j-dt, 10 ud			
117	fairly soft surface with pebbles	4	-1 cult vessel (?), -2 ep, 2 b, 1 k, 2 sj, 1 ep, 86 ud			
118	stone pavement, o.d.		4 ud			
119	hard surface	4	1 b, 1 cb, 1 k, 1 jl, 1 j, 2 sj, 92 ud		N943, N944	
123	clay floor		7 ud			
124	stone pavement, o.d.		6 ud			
125	disturbed area	42	15 j, 1 sj, 4 dec			
126	cistern, fill	20	1 b, 2 j, 1 ja, 3 cp, 1 dec, 22 ud			

Table 6 continued Description of the loci of Phase XIV, Area 1

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
129	fill below stone pavement	10	-1 k, -2 sj, -3 k, 1 k, 1 j, 12 sj, 2 cp, 1 pf, 96 ud			
129'	hard surface, floor				N954, N967	
133	disturbed area					mainly LB material
134	cistern, fill	75	-1 j-dt, -2 cp, -3 cp, -4 k, 1 b, 3 k, 4 jl, 22 j, 2 ja, 1 dec, 6 cp, 160 ud			
135	fill below stone pavement		-1 sj, 2 sj, 24 ud			
137	disturbed area					mainly LB and EB material
138	cistern, fill					mainly LB and EB material
140	fill below hard surface		-1 k, 24 ud			
149'	outside cistern, fill		-1 k, -2 ja			mainly LB and EB material
150	cistern, fill					mainly LB and EB material
168'	cistern, fill		-1 cb, -2 ja			mainly LB and EB material
176'	cistern, fill					mainly LB and EB material
200	fill below floor level		10 ud			
202	fill below floor level		4 ud			
210	hard-packed soil with ash	19	N982 bj, 3 b, 3 k, 2 cp, 22 ja, 2 sj		N984, -1	
216'	pit, d. 0.6, soft, soil/ash		-1 ep			
242	fill area, dump		8 ud			
248	fill area, dump		12 ud			
261	fill above floor, o.d.	1	1 b, 1 cp, 59 ud	3		
262	fill above floor, o.d.		3 ud			
264	floor, o.d.	1	1 b, 2 cp, 171 ud	8		
265	fill above floor, o.d.	5	1 sj, 64 ud		N1008	
266	fill above floor, o.d.	22	N1009 jl, N1011 l, -1 eb, 1 b, 1 k, 2 cp, 126 ud			
267	floor, o.d.		3 b, 1 cb, 1 jl, 1 hm, 5 sj, 2 cp, 67 ud			
268	floor, o.d.		3 ud			
269	fill above floor, o.d.	1	23 ud		N1007	
270	stone pavement, o.d.		2 ud			
271	disturbed portion		5 b, 2 ja, 2 cp, 71 ud			
272	disturbed portion	1	-1 k, 1 k, 5 ja, 1 dec, 34 ud			
273	floor, o.d.	1	23 ud			
274	floor, o.d.		3 b, 1 k, 17 sj, 6 cp, 121 ud			
275	floor, o.d.	1	2 j, 1 jl, 3 sj, 65 ud	3		
276	pit, d. 0.5		8 ud			
277	disturbed portion		3 b, 1 jl, 2 ja, 2 cp, 44 ud			
279	floor, o.d.	1	1 b, 2 k, 1 j, 1 hm, 2 sj, 100 ud			
280	floor, o.d.	5	2 b, 1 j, 1 ja, 7 sj, 2 cp, 53 ud			
281	floor, o.d.		N1010 jl, N1012 sj, 2 b, 8 sj, 120 ud			
282	fill below floor		1 k, 1 j, 1 sj, 1 dec, 110 ud			

Table 6 continued Description of the loci of Phase XIV, Area 1

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
283	disturbed portion		17 ud			
286	disturbed portion	6	1 b, 1 k, 2 j, 2 sj, 1 cp, 44 ud			
W2	find inside wall		1 k, 1 ep		N67	
W273	find inside wall		1 b, 1 k, 3 sj, 21 ud		N952	
W274	find inside wall		1 j, 1 sj, 4 ud			
W283	finds inside wall				N970, N971	
W291	finds inside wall	3	1 jl, 2 dec, 9 ud			
W366	finds inside wall	2	1 b, 1 j, 1 cp, 46 ud		N1013	
W367	finds inside wall	3	35 ud			
W380	finds inside wall			52		reused/rebuilt wall?

Table 6 continued Description of the loci of Phase XIV, Area 1

Legend for the illustrated pottery from Phase XIV, Area 1

Fig.	Locus No.	Description
33:1	266 -1	Carinated bowl, hard-fired, dark grey fabric, medium-fine, yellowish-brown slip; imported.
33:2	37 N37	Bowl, straight-sided, medium-hard-fired, light brown fabric, grey core, coarse, reddish-brown to yellowish-brown slip, slightly burnished.
33:3	113 -1	Carinated bowl, hard-fired, light brown fabric, coarse, mainly grey inclusions, light brown slip exterior, reddish-brown slip interior.
33:4	15 -2	Carinated bowl, medium-fine, light brown fabric, medium-coarse, multicoloured inclusions, red slip interior and exterior.
33:5	24 N16	Carinated bowl, hard-fired, light brown fabric, grey core, medium-coarse, mainly white inclusions, red burnished interior and rim (very worn); see also Fig. 28.
33:6	22 -1	Chalice, hard-fired, light brown fabric, coarse, grey inclusions, red slip.
33:7	30 -1	Carinated bowl, medium-hard-fired, brown fabric, medium-coarse, multicoloured inclusions, red decoration exterior.
33:8	266 N1009	Juglet, hard-fired, reddish-brown fabric, grey core, medium-coarse, multicoloured inclusions, red slip, vertically burnished; marked step on shoulder.
33:9	281 N1010	Juglet with trefoil mouth, medium-hard fired, light brown fabric, fine, self slip.
33:10	30 N22	Juglet, hard-fired, light brown fabric, medium fine, light brown slip, red band decoration.

33:11 57 N53 Juglet, hard-fired, orangish-brown fabric, medium-coarse, multicoloured inclusions, self slip; see also Fig. 29.

33:12 210 N982 Black Juglet, hard-fired, brown fabric, fine, black slip, vertically burnished.

33:13 113' N939 Black Juglet, medium-hard-fired, brownish-grey fabric, black slip, vertically burnished; see also Figs. 30 and 458:3.

33:14 24 N17 Jug-decanter, hard-fired, light red fabric, medium-fine, self slip interior and exterior.

33:15 116 -1 Jug-decanter, hard-fired, light yellowish-brown fabric, fine, a few small grey inclusions, matt red slip.

Legend for the illustrated pottery from Phase XIV, Area 1

Fig.	Locus No.	Description
34:1	112 -1	Krater, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, yellow slip.
34:2	14 -1	Krater, hard-fired, reddish-brown fabric, coarse, mainly white inclusions, light brown slip.
34:3	19 -1	Krater, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, yellow slip.
34:4	129 -3	Krater, hard-fired, brown fabric, coarse, mainly white inclusions, brownish-red slip.
34:5	19 -2	Krater, hard-fired, reddish-brown fabric, coarse, mainly white inclusions, light brown slip.
34:6	106 -1	Krater, hard-fired, dark grey fabric, coarse, multicoloured inclusions, dark grey slip.

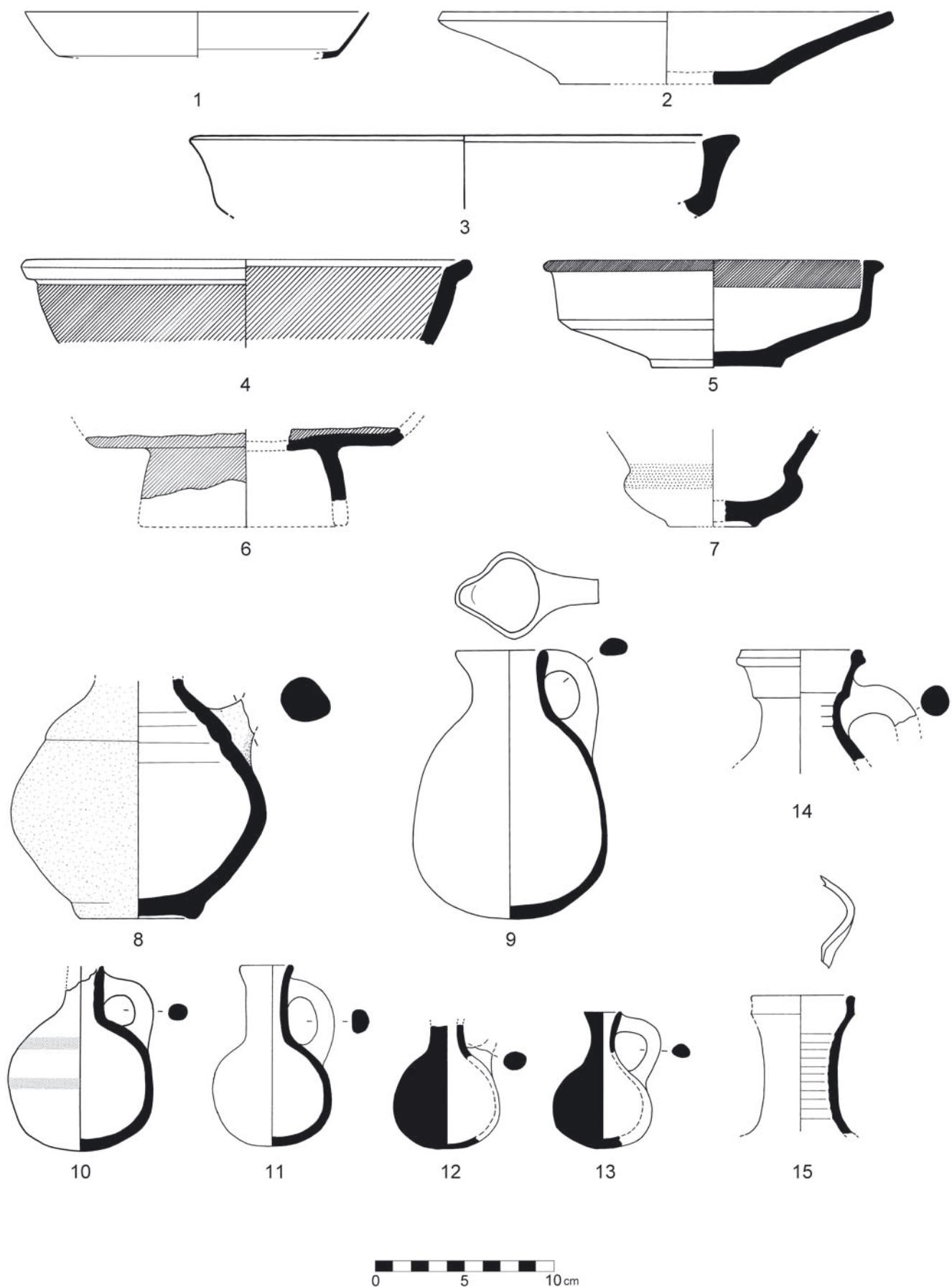


Fig. 33 Pottery from Phase XIV, Area 1

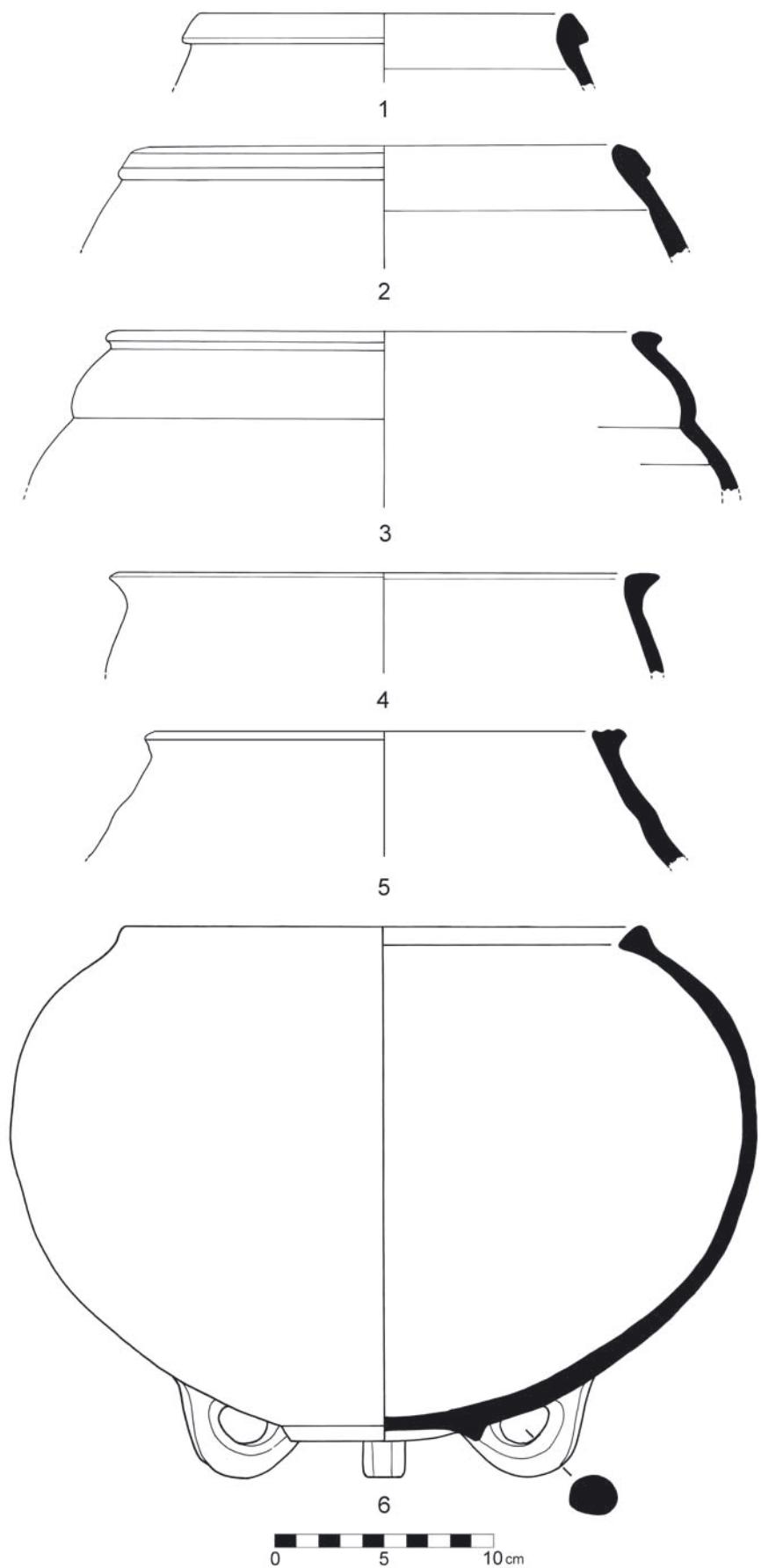


Fig. 34 Pottery from Phase XIV, Area 1

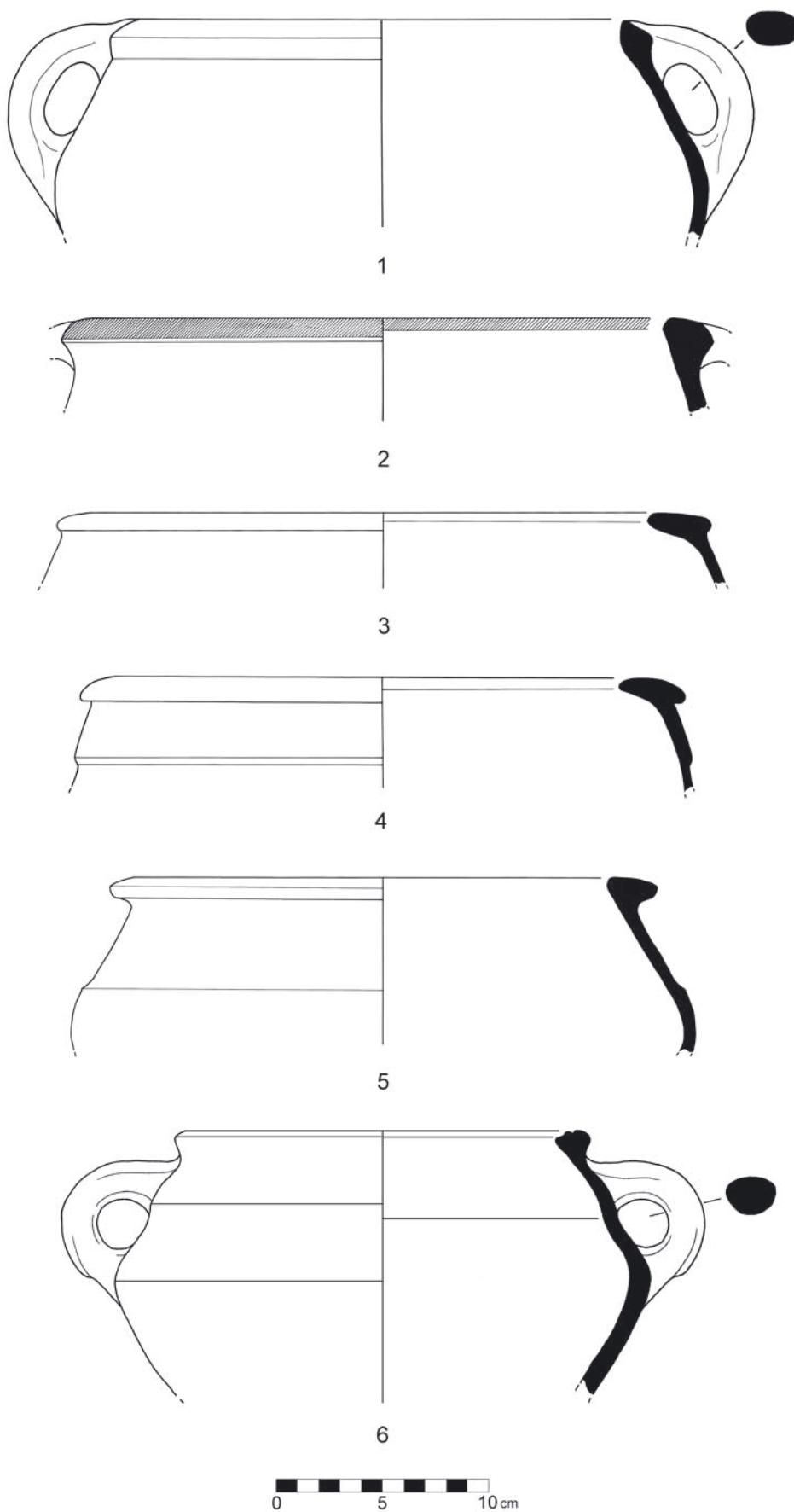


Fig. 35 Pottery from Phase XIV, Area 1

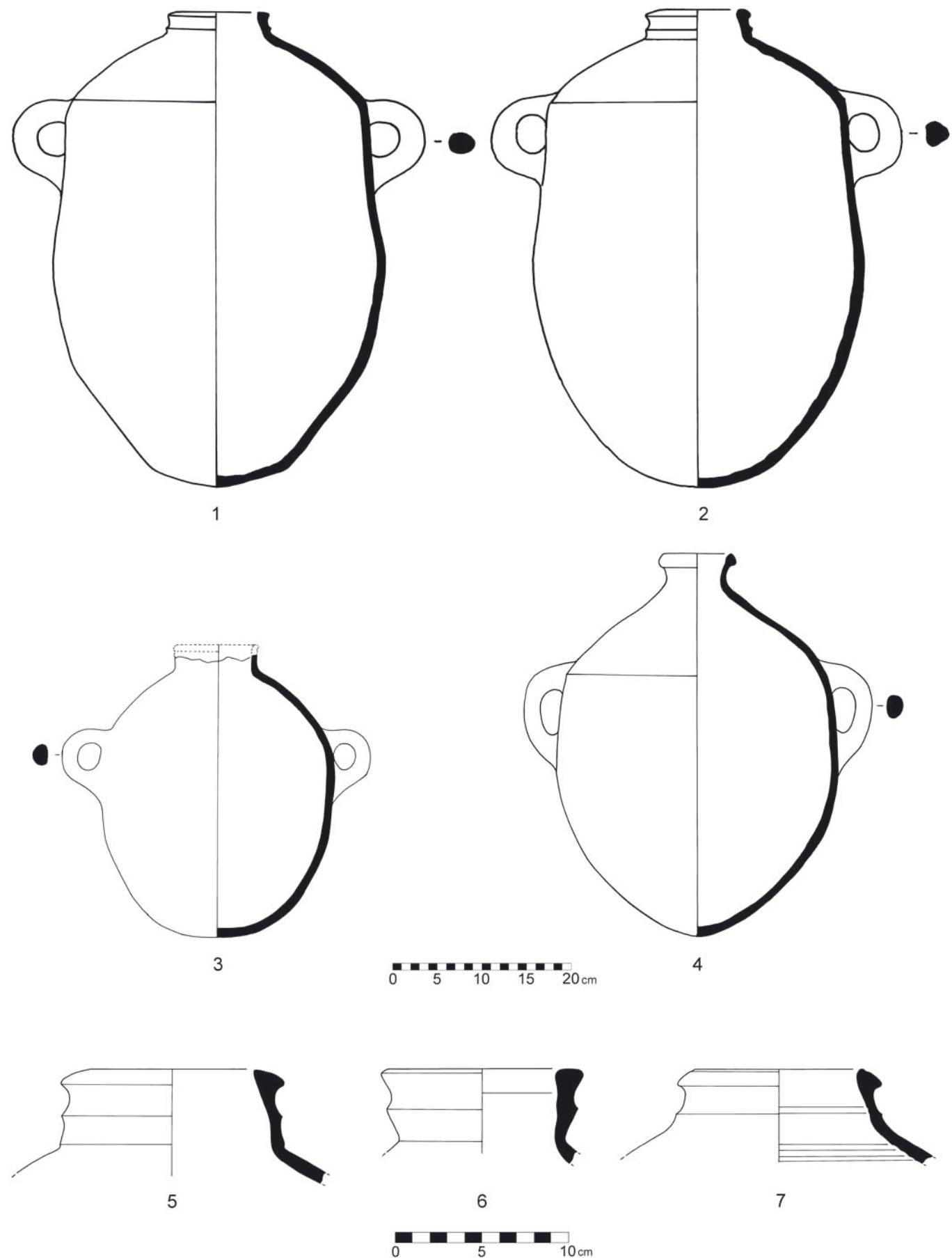


Fig. 36 Pottery from Phase XIV, Area 1

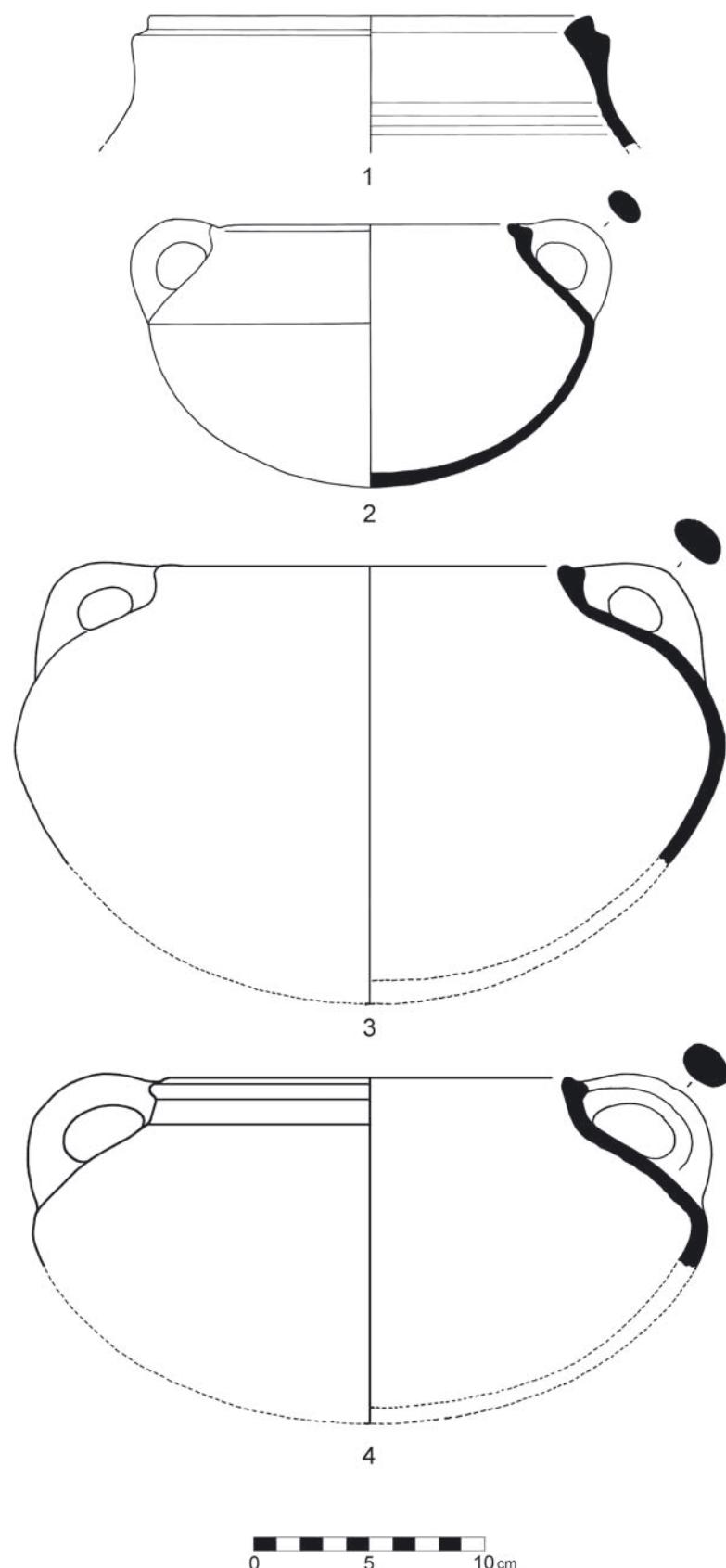


Fig. 37 Pottery from Phase XIV, Area 1

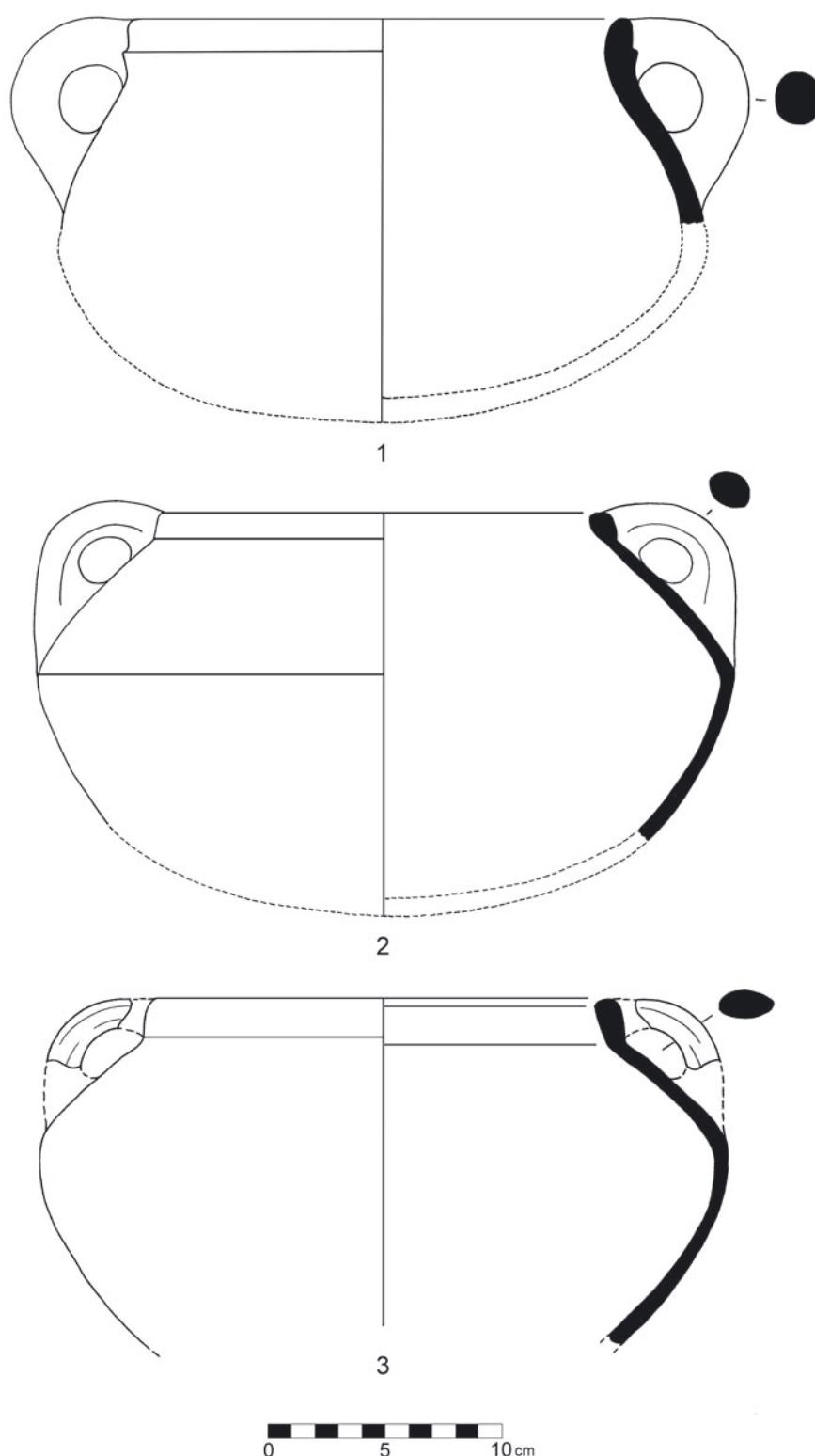


Fig. 38 Pottery from Phase XIV, Area 1

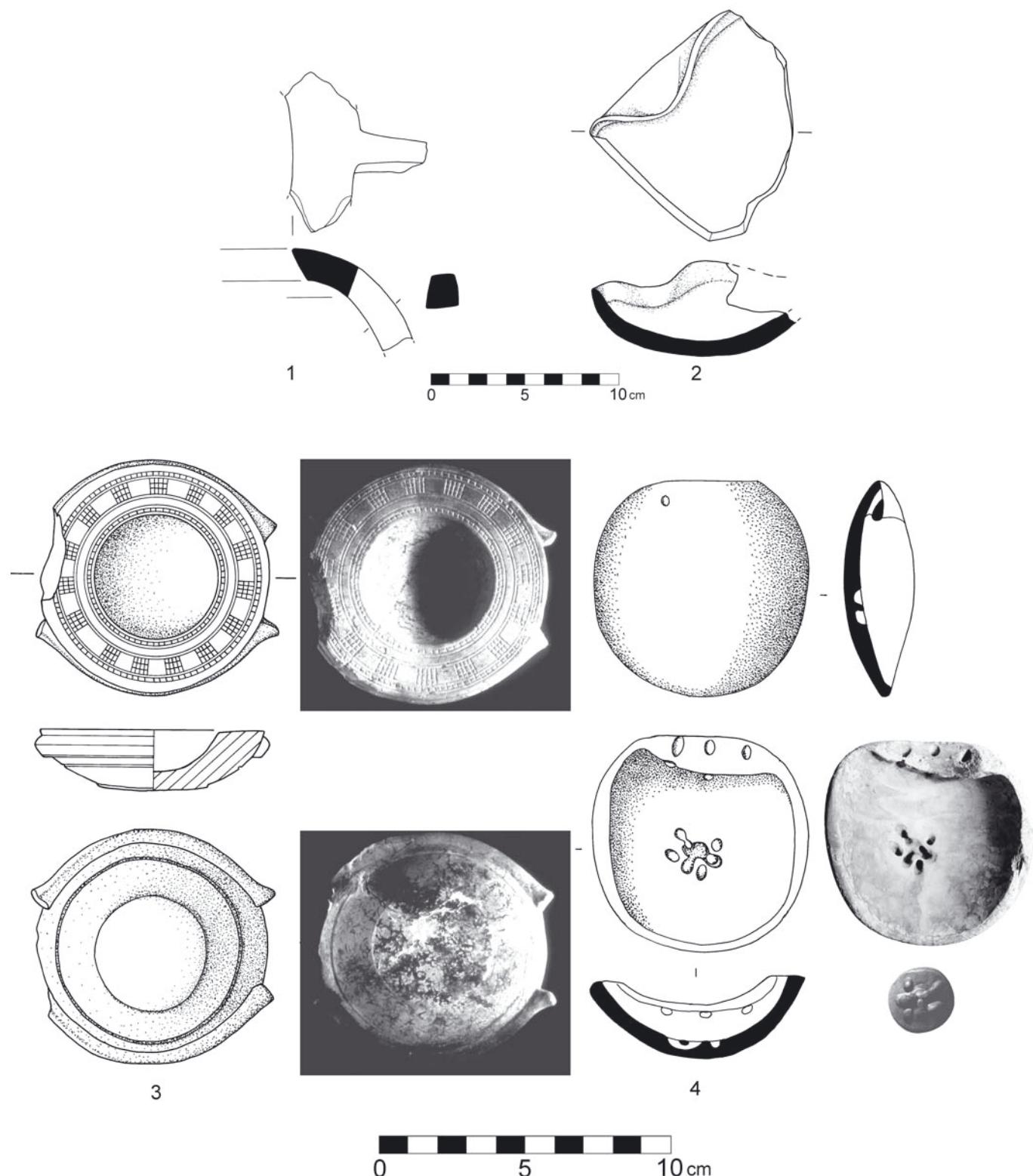


Fig. 39 Pottery and other finds from Phase XIV, Area 1

Legend for the illustrated pottery from Phase XIV,
Area 1

Fig.	Locus	No.	Description
35:1	272	-1	Krater, hard-fired, brown fabric, coarse, multicoloured inclusions, self slip.
35:2	24	-2	Krater, hard-fired, reddish-brown fabric, coarse, mainly white inclusions, light brown slip.
35:3	108	-1	Krater, hard-fired, grey fabric, medium-coarse, multicoloured inclusions, self slip.
35:4	129	-1	Krater, hard-fired, reddish-brown fabric, coarse, mainly white inclusions, light brown slip.
35:5	104	-1	Krater, hard-fired, light brown fabric, medium-coarse, mainly white inclusions, reddish-brown slip.
35:6	140	-1	Krater, hard-fired, light brown fabric, coarse, mainly grey inclusions, yellowish-brown fabric, red wash.

Legend for the illustrated pottery from Phase XIV,
Area 1

Fig.	Locus	No.	Description
36:1	23	N24	Storage jar, hard-fired, light greyish-brown fabric, medium-coarse, multicoloured inclusions, self slip; see also Fig. 31.
36:2	23	N27	Storage jar, hard-fired, light greyish-brown fabric, medium-coarse, multicoloured inclusions, self slip.
36:3	34	N29	Jar, hard-fired, light brown fabric, greyish-brown core, pinkish-brown slip.
36:4	14	N2	Jar, hard-fired, yellowish-brown fabric, medium-fine, small black inclusions, orangish-brown slip.
36:5	135	-1	Storage jar, hard-fired, light brown fabric, medium-coarse, mainly grey inclusions, yellowish-brown slip.
36:6	129	-2	Storage jar, hard-fired, brown fabric, thick grey core, coarse, mainly white inclusions, light brown slip.
36:7	112	-2	Storage jar, hard-fired, light brown fabric, coarse, multicoloured inclusions, light brown slip.

Legend for the illustrated pottery from Phase XIV,
Area 1

Fig.	Locus	No.	Description
37:1	117	-2	Cooking pot, hard-fired, brown fabric, thick grey core, coarse, white and quartzite inclusions, self slip.
37:2	23	N30	Cooking pot, medium-hard-fired, dark brown fabric, coarse, mainly white inclusions, self slip; see also Fig. 32.
37:3	24	N46	Cooking pot, medium-hard-fired, dark brown fabric, coarse, mainly white inclusions, self slip.
37:4	33	N28	Cooking pot, brown fabric, grey core, coarse, white inclusions, self slip.

Legend for the illustrated pottery from Phase XIV,
Area 1

Fig.	Locus	No.	Description
38:1	23	-1	Cooking pot, medium-hard-fired, dark brown fabric, coarse, mainly white inclusions, self slip.
38:2	34	N31	Cooking pot, medium-hard-fired, dark brown fabric, coarse, mainly white inclusions, self slip.
38:3	106	N941	Cooking pot, hard-fired, brown fabric, thick grey core, coarse, white and quartzite inclusions, self slip.

Legend for the illustrated pottery and other finds
from Phase XIV, Area 1

Fig.	Locus	No.	Description
39:1	117	-1	Cult vessel (?), fenestrated, hand-made, brown fabric, medium-coarse, grey and white inclusions, light brown slip, red paint on exterior and rim.
39:2	266	N1011	Lamp, medium-hard-fired, light brown fabric, thick grey core, medium-coarse, mainly grey inclusions, yellowish-brown slip.
39:3	129	N954	Cosmetic palette, limestone, burnished, incised decorations; see also Figs. 453:10 and 465:3.
39:4	W2	N67	Shell, polished, worked/pierced; see also Fig. 465:5.

Legend for the illustrated finds from Phase XIV,
Area 1

Fig.	Locus	No.	Description
40:1	57	N55	Tool (shuttle?), bone.
40:2	45	N43	Fibula, bronze bow, iron needle.
40:3	30	N23	Loom weight, unfired clay, Wt 750 g.
40:4	113	N942	Loom weight, unfired clay, Wt 248 g.
40:5	37	N36	Spindle whorl, grey stone (residual(?), most likely Early Bronze Age) Wt 45 g.
40:6	129	N967	Spindle whorl, limestone, Wt 34 g.
40:7	W273	N952	Spindle whorl, limestone, Wt 28 g.
40:8	109	N940	Spindle whorl, alabaster, Wt 7 g.
40:9	112	N947	Spindle whorl, limestone, Wt 25 g.
40:10	210	-1	Pestle, limestone.
40:11	15	N8	Mortar, limestone.
40:12	57	N51	Bowl, basalt.
40:13	13	N18	Bowl, basalt.

Legend for the illustrated finds from Phase XIV,
Area 1

Fig.	Locus	No.	Description
41:1	57	N52	Pounder, limestone.
41:2	37	N32	Pestle, basalt.
41:3	57	N54	Pounder, limestone
41:4	15	N9	Tool (millstone?), stone.
41:5	27	N33	Lithic, blade, triangular section.
41:6	37	N35	Lithic, blade, trapezoidal section.

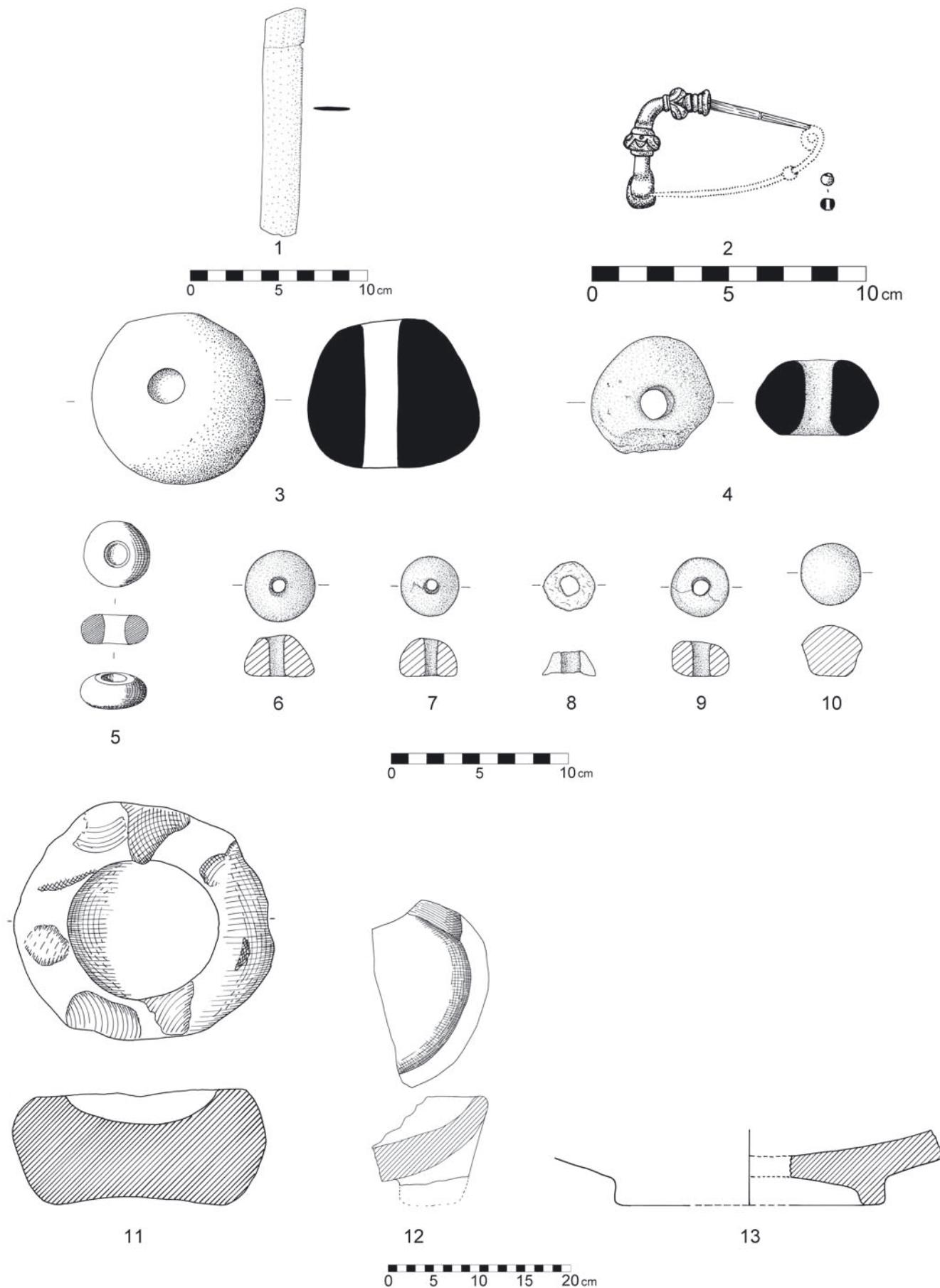


Fig. 40 Finds from Phase XIV, Area 1

Legend for the illustrated pottery from the area of the cistern of Phase XIV, Area 1

Fig. Locus No. Description

- 42:1 168' -1 Carinated bowl, medium-hard-fired, light brown fabric, medium-coarse, mainly white and black inclusions, red slip interior and exterior.
- 42:2 134 -4 Krater, medium-hard-fired, brown fabric, medium-coarse, multicoloured inclusions, self slip.
- 42:3 149' -1 Krater, medium-hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, self slip.
- 42:4 134 -1 Jug-decanter, hard-fired, brown fabric, medium-coarse, multicoloured inclusions, red slip; ridge on neck and incised lines on shoulder.

- 42:5 149' -2 Jar, hard-fired, medium-coarse, light brown fabric, multicoloured inclusions, self slip.
- 42:6 168' -2 Jar, medium-hard-fired, light grey fabric, medium-coarse, some white inclusions, self slip.
- 42:7 134 -2 Cooking pot, medium-hard-fired, brown fabric, coarse, mainly white inclusions, self slip.
- 42:8 134 -3 Cooking pot, medium-hard-fired, brown fabric, coarse, mainly white inclusions, self slip.
- 42:9 110 -1 Krater, medium-hard-fired, yellowish-brown fabric, coarse, mainly grey inclusions, brown slip.
- 42:10 216' -1 Cooking pot, hard-fired, brown fabric, dark grey core, medium-coarse, white inclusions, self slip.

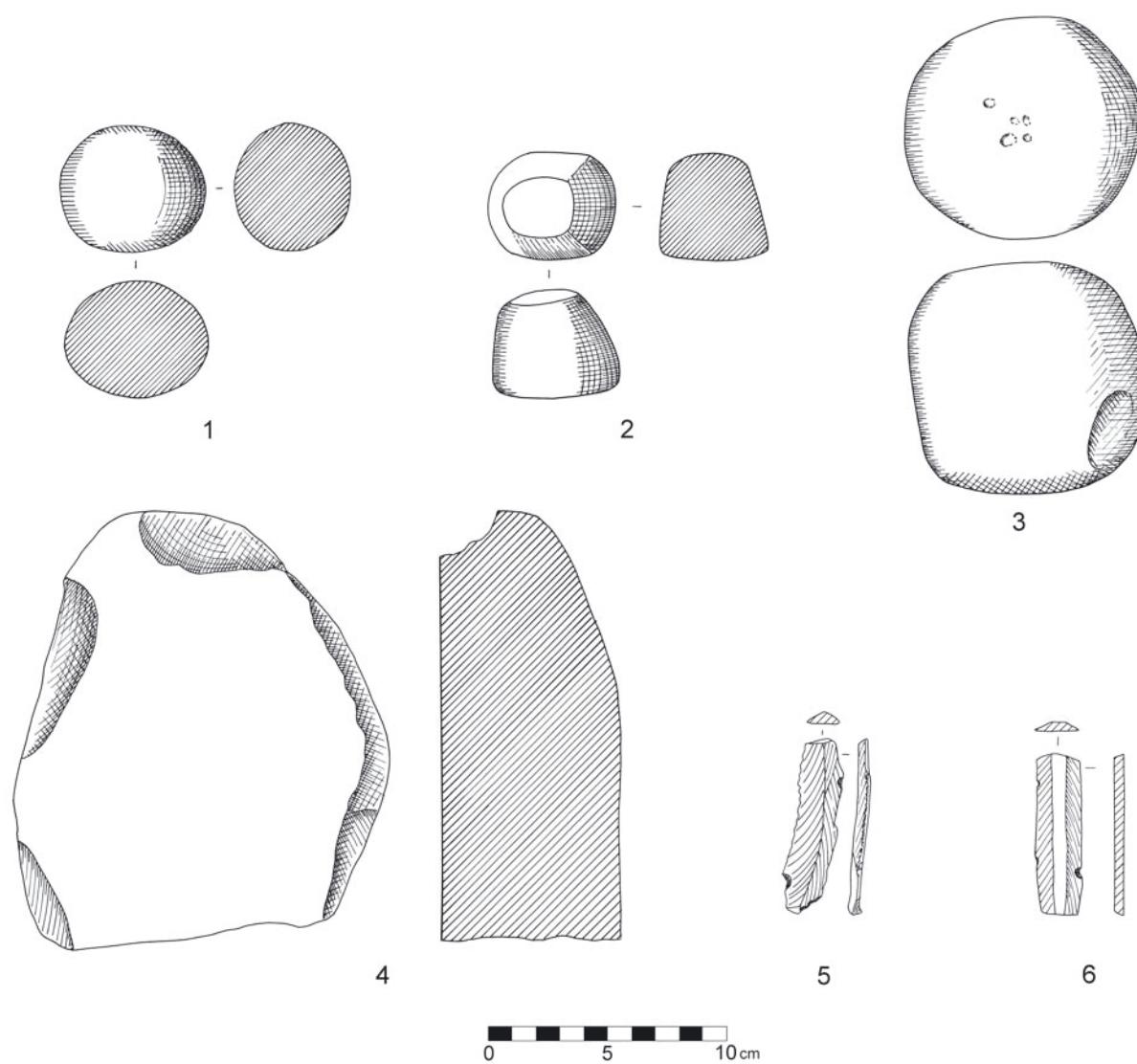


Fig. 41 Finds from Phase XIV, Area 1

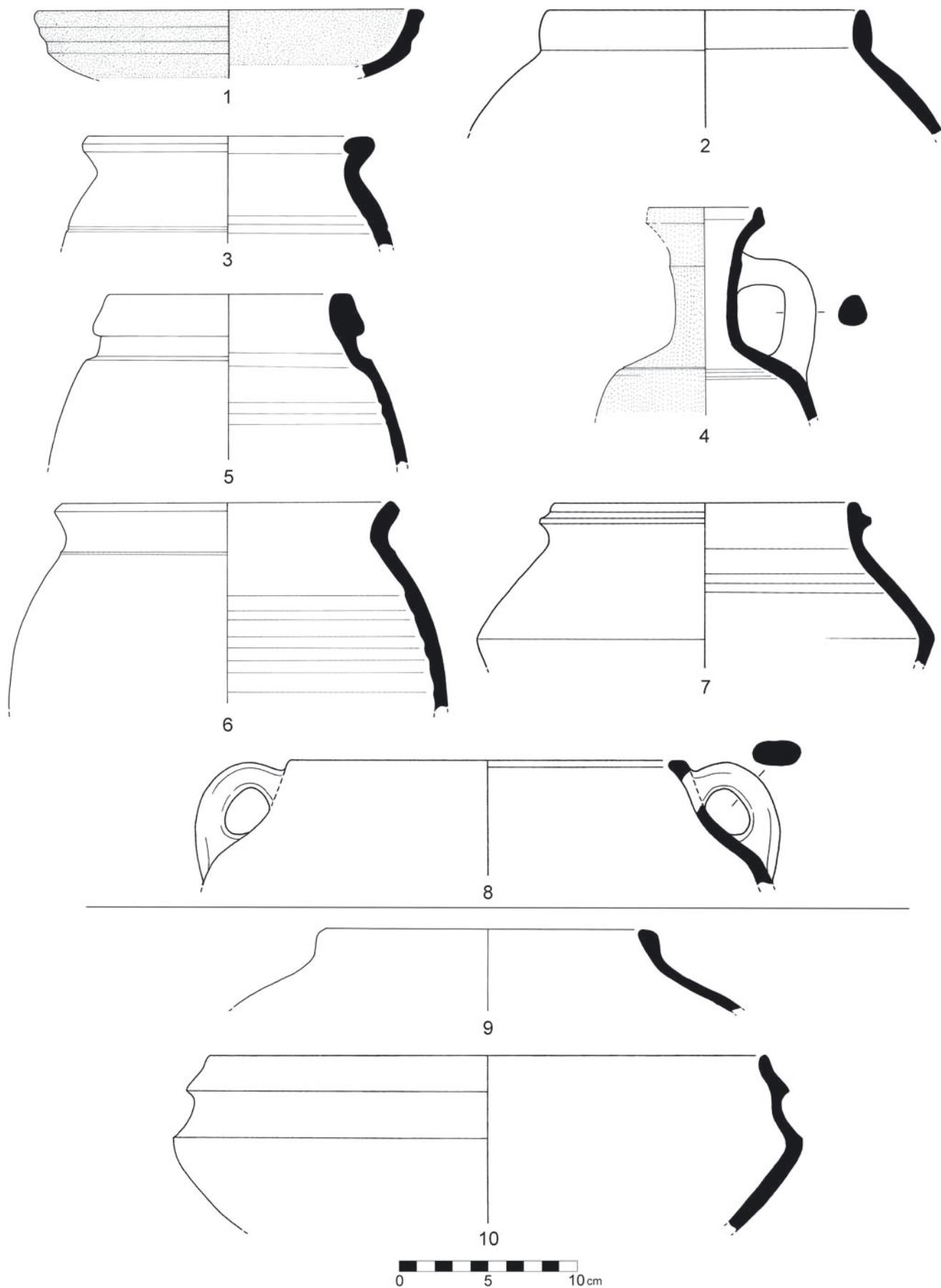


Fig. 42 Pottery from the area of the cistern of Phase XIV, Area 1

Additional finds from Phase XIV, Area 1 (listed, not illustrated)

Locus No.	Description
24 N14	Bowl, stone.
24 N15	25 loom weights, unfired clay, dimensions average 10.0×6.0 ; d. of holes average 2.0 cm, Wt average 330 g.
27 N25	Iron blade, very thin, broken, L 5.0, W 1.3, Th 0.14 cm.
30 N34	Door socket, pierced due to wear, d. of hole 3.0 cm.
37 N35	Lithic, blade, brownish-grey stone, triangular section, L 6.5, W 1.9, Th 0.3 cm.
33 N45	Cooking pot, medium-hard-fired, dark brown fabric, coarse, mainly white inclusions, self slip.
36 N47	Cooking pot, medium-hard-fired, dark brown fabric, coarse, mainly white inclusions, self slip.
57 N56	Chocolate-on-White (residual), rounded shallow bowl, with raised base-ring, wheel-made, light greyish-brown fabric, medium-coarse, yellowish-white slip, brown decoration of band on rim, once burnished, max. d. 16.9, d. base 6.8, d. stem 4.8, H 6.5 cm.
57 N57	Cooking pot, medium-hard-fired, dark brown fabric, coarse, mainly white inclusions, self slip.
119 N943	Loom weights, unfired clay. 9 pieces; dimensions not recorded due to bad preservation.
119 N944	Arrowheads, iron, L 7.9, W 2.4, Th 0.9 cm.
108 N945	Black Juglet, hard-fired, very dark grey fabric, fine, black slip, vertically burnished.
112 N948	Millstone, basalt, L 31.5, W 11.3 cm.
113 N949	Bead, stone (serpentine?), d. 1.1, H 0.3 cm.
W283 N970	Millstone, basalt, L 22.0, W 13.5, H 5.7 cm.
W283 N971	Mortar, limestone, L 24.5, W 20.0, H 13 cm.
210 N984	Lid, stone, d. 3.5, H 2.6 cm.
269 N1007	Arrowhead, iron, very corroded, L 4.7, W 1.5, Th 0.8 cm.
265 N1008	Arrowhead, iron, very corroded, L 6.4, W 1.8, Th 0.7 cm.
281 N1012	Storage jar, fragments.
W366 N1013	Arrowhead, iron, very corroded, L 5.3, W 1.5, Th 0.6 cm.

PHASE XV, AREA 1 (Figs. 43–48)

There are two portions in Area 1 which are not connected stratigraphically: one in the western part of Area 1 and another in the southern part. Nevertheless, the position of the architectural remains and small finds just below colluvial soil together with corresponding pottery types were taken as indication that they are contemporaneous (here described as Phase XV/1 and XV/2).

PHASE XV/1, AREA 1 (Fig. 43)

Architecture and features

The only preserved structures from this occupational phase, which lay directly under colluvial soil,

were found in the most western part of Area 1. They are represented by three walls: W357, W325 and W323/324. The first two of these are each approximately 0.8 m wide, and form the corner of a structure which resembles the most recent tower in Area 7 which was also built on top of the previous tower but angled somewhat relative to the older tower: this is also the case here because the structure is turned some degrees to the west. The rather smaller inner wall W324 runs parallel to W357. The enclosed space, 2.5 m wide, is partly stone-paved.

Finds are scarce. There is a broken arrowhead (N980). Most of the pottery from this stratum consists of Iron Age II shapes but there are also some intrusive sherds, mainly of Abbasid origin. No other important finds were made.

Interpretation of the material evidence

The only partially preserved structure is certainly another, more recent, tower which was built shortly after the destruction of the previous one.

The preliminary dating of this phase points to the late part of the Iron Age, but it is likely that the foundation walls were also used during post-Iron Age peri-

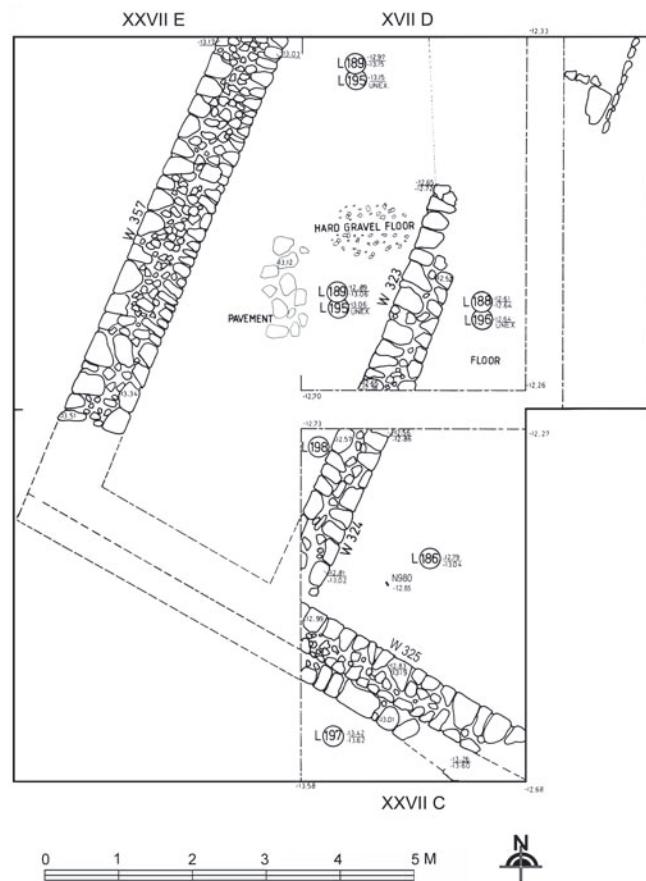


Fig. 43 Plan of Phase XV/1, Area 1

Wall No.	Width (m) average dimensions	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
323/324	0.6	0.3	1-2			
325	0.8	0.4	1-2			
357	0.8	0.4	1-2			

Table 7 Description of the walls of Phase XV/1, Area 1

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
186	hard surface	8	1 jl, 4 j, 6 ja, 1 hm, 1 stj, 3 dec, 42 ud		N980	
188	fill above floor		3 ud			
189	fill above floor		6 ud			
195	pavement level		2 ud			
196	hard surface		3 ud			
197	fill	3	1 k, 1 ja, 1 cp			
198	hard surface		8 ud			

Table 8 Description of the loci of Phase XV/1, Area 1

ods. This phase may be contemporary with the finds from the south-eastern part of Area 1 (TI, II, and V) because the architectural remains and the finds were found just below colluvial soil, which corresponds to the situation in the south-eastern part of Area 1.

Find from Phase XV/1, Area 1 (listed, not illustrated)

Locus No.	Description
186	N980 Arrowhead, iron, fragmentary and very corroded.

tabun (L3) and a stone paving (L5) and a number of small finds in L6. These include a spouted juglet decorated with red bands (N6), another knife-shaved juglet and some stone tools. An iron scraper (N1) belongs to the same deposit. A test trench, 2 m square, was opened in the eastern part of Trench I. The excavated material, which seems to represent a fill, is all from the Iron Age (no periodization possible).

Interpretation of the material evidence

The square structure from Trench V is undoubtedly a cistern. It must have been used as a trash container for quite a long period judging by the pottery from inside the cistern: Iron Age, Byzantine and Islamic sherds were found. The structures in Trench I are associated with the preparation of food. This part of Area 1 is most likely contemporaneous with the western exposure in Area 1 (TXXVII).

The scarab of blue faience (N38, Figs. 47:12 and 466:3; see also Appendix 4) is of the Egyptian Naukratis-type (personal communication G. Hölbl, University of Vienna). He suggests a date from 620/600 to shortly after 550 BCE (see also EGGLER and KEEL 2006: 278).

PHASE XV/2, AREA 1 (FIGS. 44–48)

Architecture and features

There is a square structure on Trench V (L29, 31). It measures internally about 2.5 m × 2.5 m and is surrounded by a supporting wall (W6) some 0.5 m thick. The min. depth from the top of the wall to the bottom was 1.0 m. It is coated on the inside with lime mortar, including clay and fine quartz sand of a weak structure and strength which keeps water very well, as we could observe after falls of rain. A blue faience scarab was found just to the north of the square structure (N38).

The two superficial layers of Trench 1 contained a

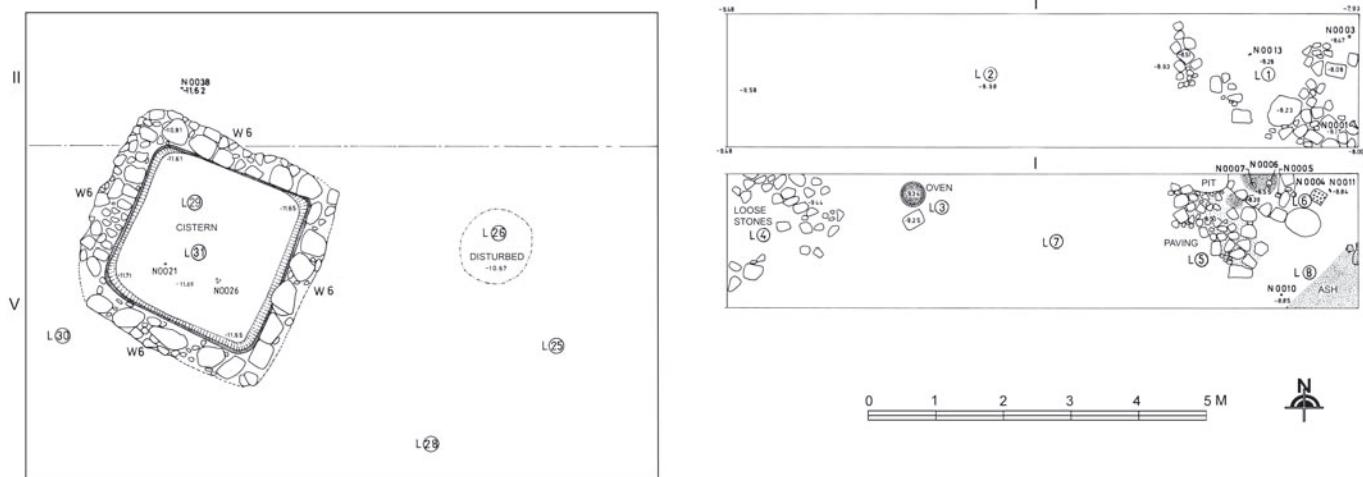


Fig. 44 Plan of Phase XV/2, Area 1

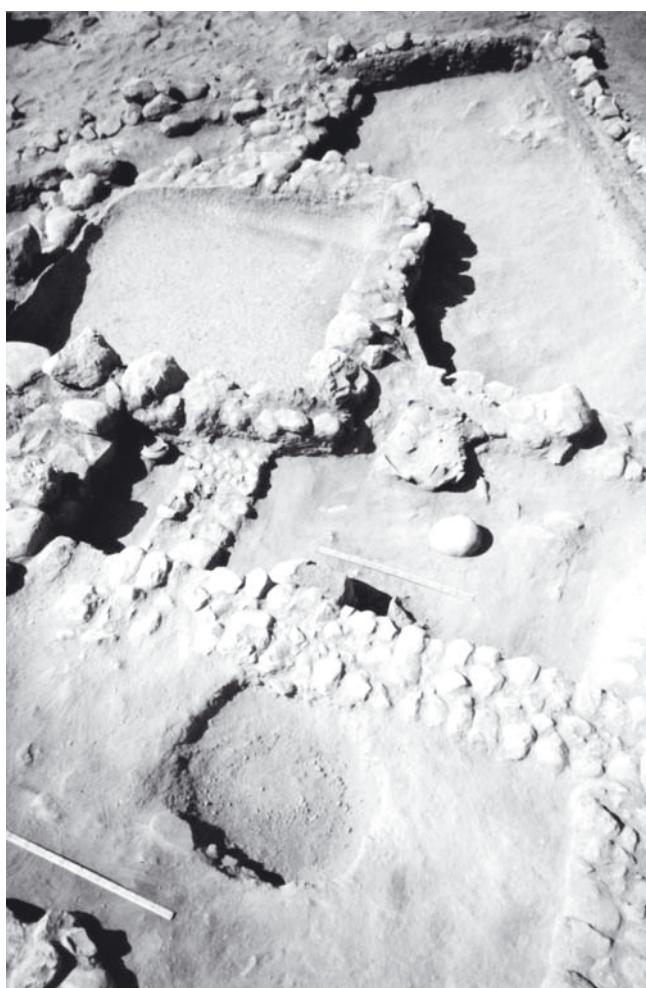


Fig. 45 Phase XV/2 Area 1. Overview over area around cistern in southern part of Area 1



Fig. 46 Phase XV/2 Area 1. Cistern in southern part of Area 1

Wall No.	Width (m) average dimensions	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
6 (cistern)	0.5	1.0	3			supporting structure

Table 9 Description of the wall of Phase XV/2, Area 1

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
1	fill above hard surface		1 b, 1 k, 1 ja, 1 sj, 1 stj, 3 cp		N1, N3, N13	
2	fill above hard surface		-1 k, -2 cp, -3 b, 2 b, 1 k, 1 sj, 1 stj, 1 dt, 4 cp			
3	tabun, d. 0.4		-1 k, 1 cp			
4	stone-lined installation	2	1 b, 1 k, 1 ja, 3 cp			
5	pavement		N6 jl, 2 cp	1?	N5, N7	
6	working installation	2	2 b, 1 k,		N4	
7	surface		-1 jl, 1 dt, 1 jl	1	N10, N11	
8	ash layer		1 k, 1 cp			
29	cistern, stone-lined and plastered		-1 jl, 11 ud			mixture of periods
31	cistern, stone-lined and plastered		12 ud			mixture of periods
25	surface					
26	pit, d. 1.0					
28	surface					
30	close to foundation of cistern				N38	

Table 10 Description of the loci of Phase XV/2, Area 1

Legend for the illustrated pottery and other finds from Phase XV/2, Area 1

Fig.	Locus No.	Description	47:6	5	N7	Loom weight, unfired clay, d. 7.9, H 4.9 cm, Wt 280 g.
47:1	7 -1	Juglet, hard-fired, brown fabric, medium-fine, red slip, vertically knife-burnished.	47:7	5	N5	Pestle, dark grey stone.
47:2	5 N6	Juglet, hard-fired, yellowish-brown fabric, medium-coarse, multicoloured inclusions, self slip, red decoration.	47:8	6	N4	Pounder, light grey stone, spherical, d. 6.8 cm.
47:3	3 -1	Krater, hard-fired, light brown fabric, grey core, coarse, light brown slip, brown wash.	47:9	1	N13	Lithic, blade, triangular section.
47:4	2 -1	Krater, hard-fired, brown fabric, grey core, coarse, light brown slip.	47:10	7	N10	Bead, black stone.
47:5	2 -2	Cooking pot, hard-fired, reddish-brown fabric, grey core, coarse, white inclusions, self slip.	47:11	1	N3	Net weight (?), lead.
			47:12	30	N38	Scarab ("Naukratis scarab"), paste, light blue with lion above incised line; see also Fig. 466:3 and Appendix 4.
			47:13	29	-1	Juglet, hard-fired, brown fabric, medium-fine, light brown slip; comment: post-Iron Age from inside the cistern.

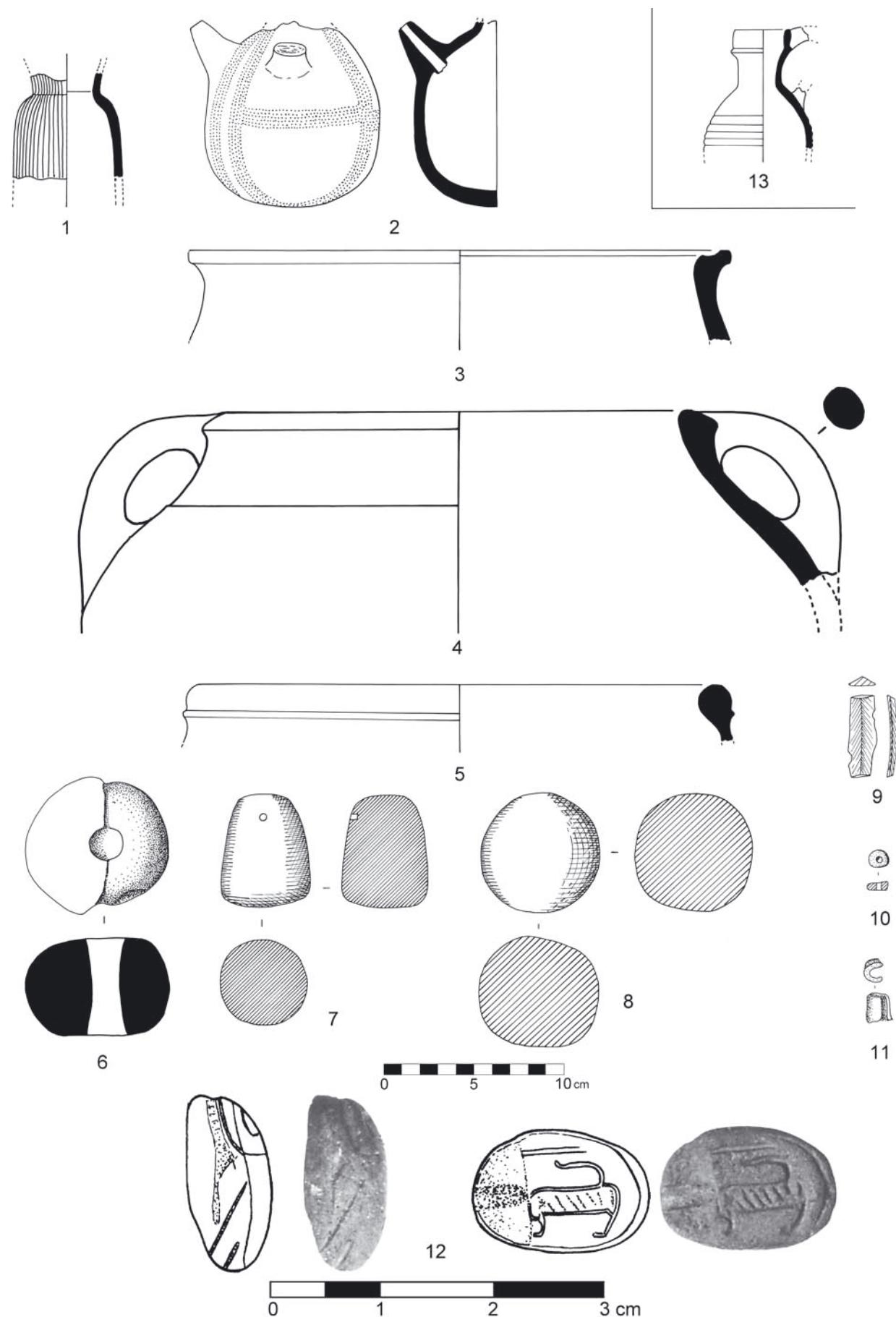


Fig. 47 Pottery and other finds from Phase XV/2, Area 1



Fig. 48 Phase XV/2 Area 1. Iron tool (scraper?) N1

Additional find from Phase XV/2, Area 1 (listed, not illustrated)

Locus No.	Description
7	N11 Arrowhead, iron (very corroded).

AREA 2

General information

Area 2 covers roughly 600 square metres. It is situated on the western slope of the tell, from which the upper plateau can be reached. It lies immediately north-west of Area 1 in Grids JJ-MM / 26–29 between the

upper plateau and the rocky western façade of the tell. This part of the tell is the most westerly excavated and closest to the Jordan Valley. The area was excavated in 1989, 1991–1993 and 1997. The following trenches belong to Area 2: III, IV, VIIA–D, VIIIA–B, IX, X, XXXIVA–D, XXXVIIA and XXXVIIIA–B. The area slopes quite steeply downwards from east to west, approximately 7 m in 35 m, and more moderately from south to north, 5 m in 30 m. Surface finds of a huge amount of building material of stone were clear evidence of man-made structures in this area. Outlines of walls which were visible on the surface²⁴ contributed to the decision to open a number of trenches in this part of the tell.

The uppermost occupational layers suffered substantially from erosion. There are remains dating to the Late Roman period which is represented, for instance, by several fairly complete vessels. It seems that the area was occupied by Late Roman squatters during two periods. Also the Iron Age layers suffered from erosion. It became clear during the excavations of the Bronze Age layers that the Iron Age settlers dug deep pits in order to retrieve building material for their own structures. In addition the construction of the fairly large cistern in the northern part of Area 2 (Trench XXXIVC) resulted in exposure of earlier material which can be found on the surface over the entire area.

The partly exposed “Area 2 North-west”²⁵ (Trenches XXXIV, XXXVII and XXXVIII), close

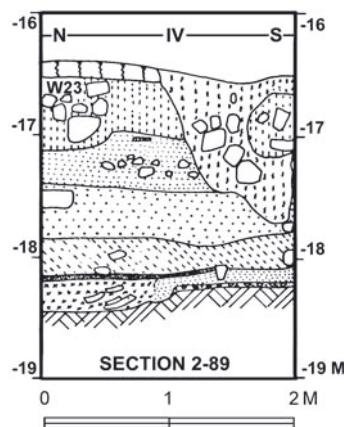


Fig. 49 Section 2-89. Area 2, east section Trench IV

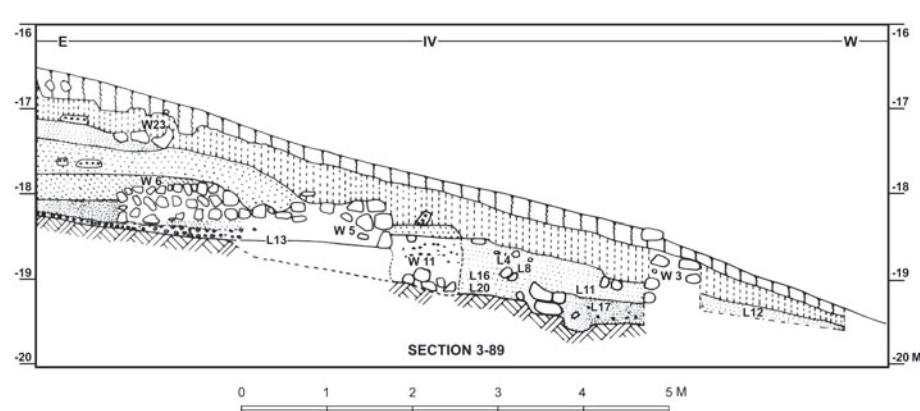


Fig. 50 Section 3-89. Area 2, south section Trench IV

²⁴ During my first survey in the winter of 1989, when the entire tell was covered with moderately high vegetation, I could recognize regular surface patterns with very low vegetation which pointed to stone walls just below the surface (FISCHER 1991; see also FISCHER 1980a and b).

²⁵ This area corresponds to “Defence System to the Northwest (Area 2)” in the volumes Kharaz I and II; FISCHER 2006a: 163–169; 2008a: 162–181.

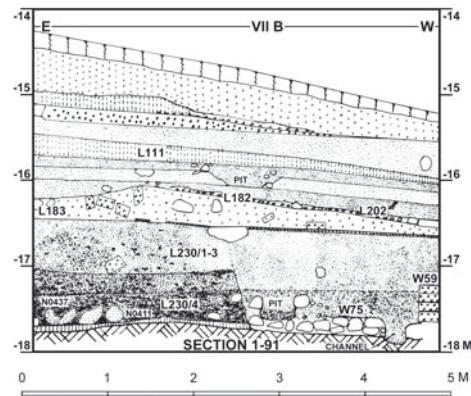


Fig. 51 Section 1-91, Area 2, south section
Trench VII B

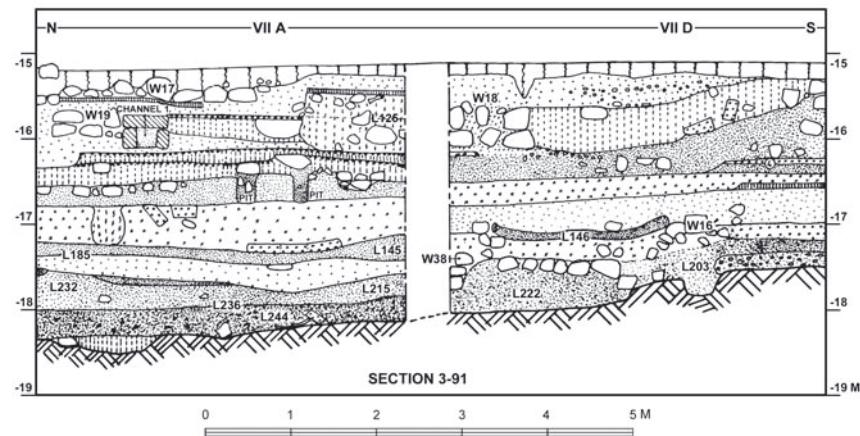


Fig. 53 Section 3-91, Area 2, east section Trenches VIIA and D

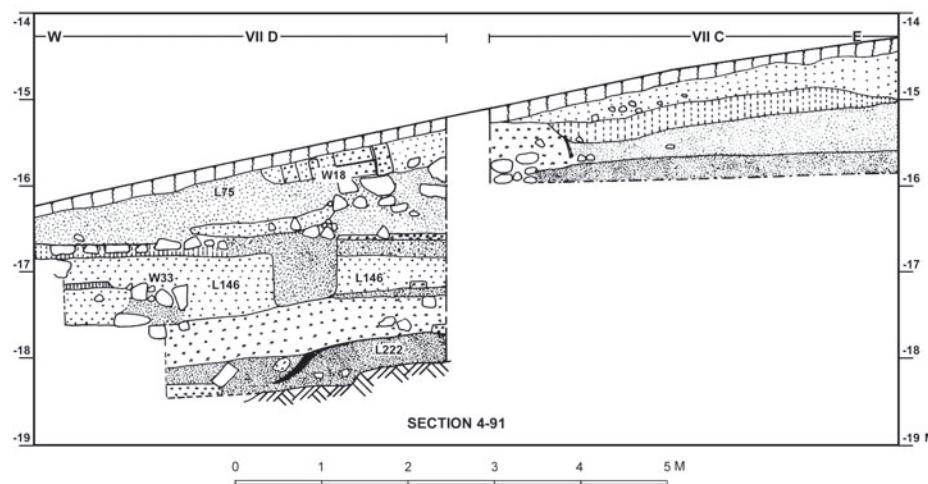


Fig. 54 Section 4-91, Area 2, north section Trenches VII D and C

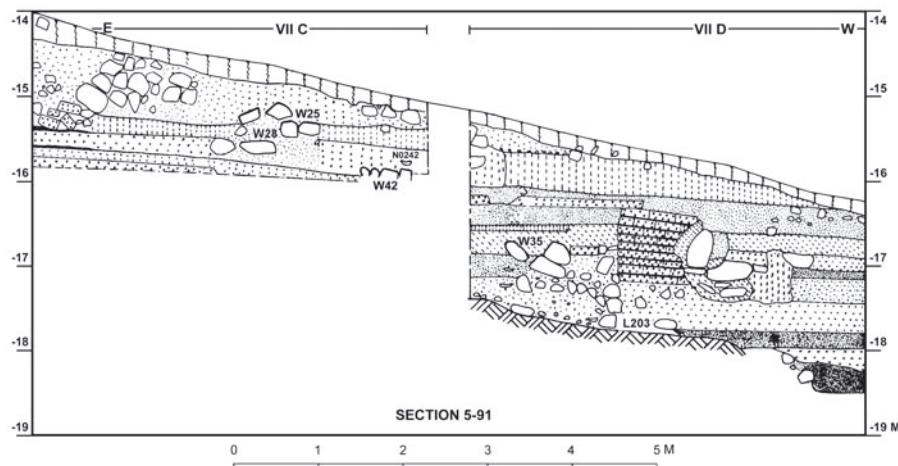


Fig. 55 Section 5-91, Area 2, south section Trenches VII C and D

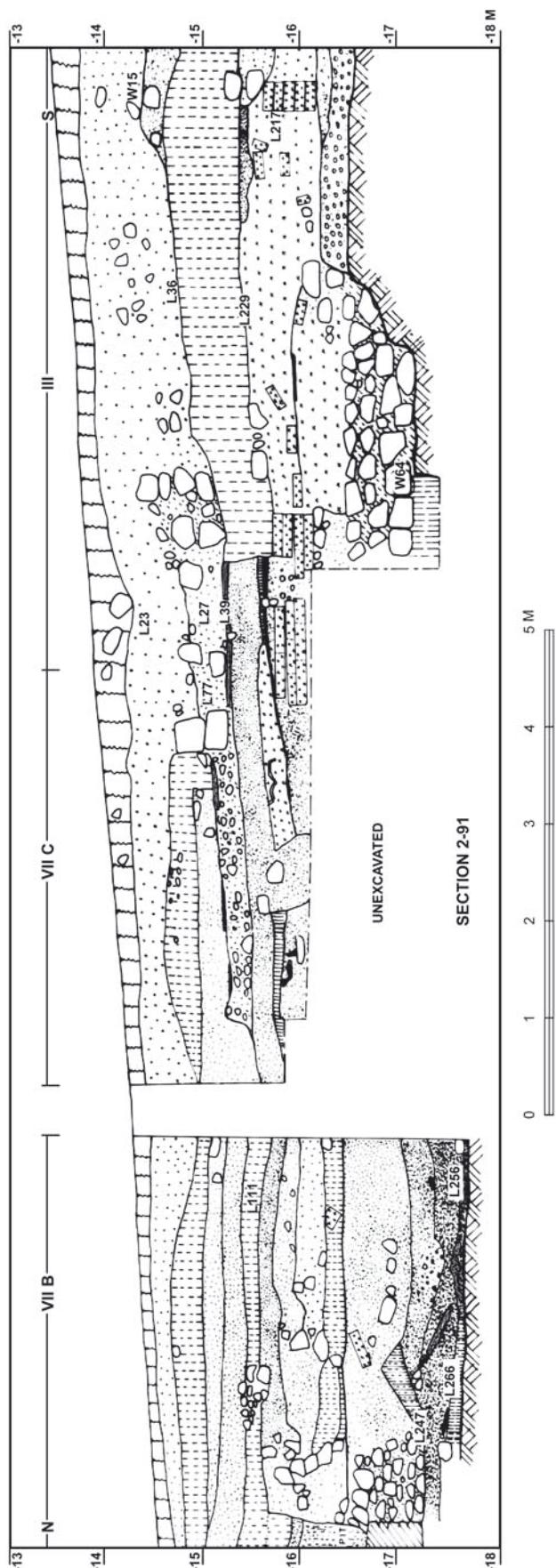


Fig. 52 Section 2-91. Area 2, east section Trenches VIIIB, VIIC and III

to the north-western edge of the tell, from which the steep northern slope descends, presents a problem, in that there is no connection with the southern, major, part of Area 2 in terms of architecture or common stratigraphical features. This problem is accentuated because of the above-mentioned large, bedrock-deep Iron Age cistern between these two parts of Area 2. As a result “Area 2 North-west” will therefore be treated separately.

PHASE XII, AREA 2 (Figs. 63, 64)

Architecture and features

This phase, which is not very well preserved, comprises some sub-phases which are difficult to separate. The rectangular structure (henceforth called tower) was originally built in this phase but reused, or at least partly reused, in later phases. It measures 8 m × 4 m (W23, 24/141, 150, 145). The inner space of the tower (L80, 300, 306) is filled with disintegrated mudbrick tiles and measures 4.4 m × 1.4 m. Almost no pottery or other finds were found within the filling of the tower. Two walls emerge from the northern corner of the tower: one to the north-west (W163) and another to the north-east (W149). No connection with any other construction was found, which suggests that the tower was a fairly isolated structure. Traces of ash were found in the north-east of the tower. East of the tower is a stone pavement (L108, 142, 160, 179, 294, 299, 301', 303', 307, 307', 319) within which a water channel was integrated (L145, 171). The channel turns from north-east to west. It is 30–40 cm wide and bordered by two parallel rows of stones. It does not seem to have been covered in ancient times. Its bottom is a stone paving of closely laid small stones. Some disturbed structures were found east of the tower (e.g. W26, 28).

Interpretation of the material evidence

The tower of Area 2 is approximately half the size of the tower in Area 7 (see below). There is no entrance to the inside of the tower, which indicates that the structure was compact and served as an observation platform, very likely reached by a ladder. Sub-phases which are difficult to separate due to erosion demonstrate that the tower was altered during the Iron Age. The channel is an outdoor construction obviously used to transport water to a lower-situated cistern, most likely the cistern in Trench XXXIVC. The paved area between the tower and the channel seems to be a road. An interpretation of the destroyed walls and features around the tower is not possible.

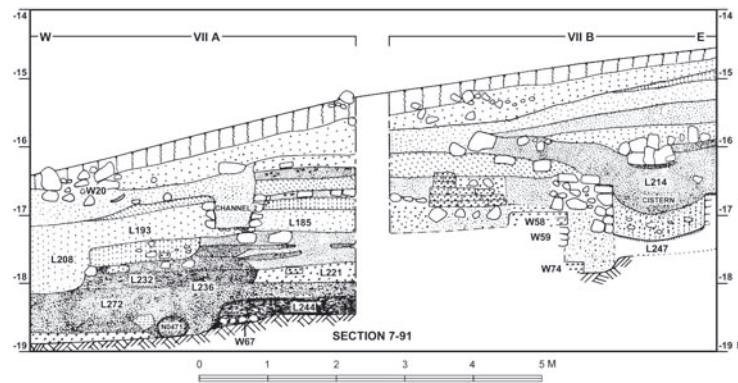


Fig. 56 Section 7-91. Area 2, north section Trenches VIIA and B

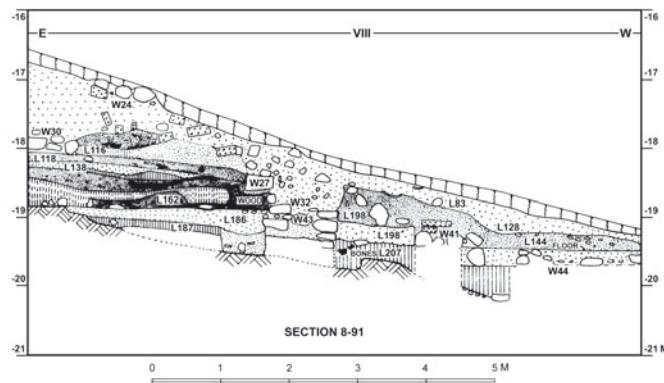


Fig. 57 Section 8-91. Area 2, south section Trench VIII

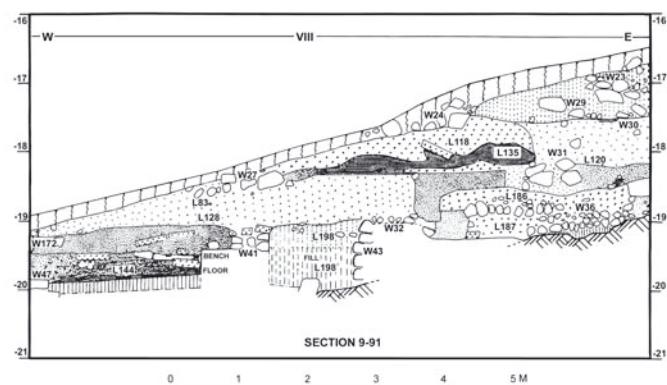


Fig. 58 Section 9-91. Area 2, north section Trench VIII

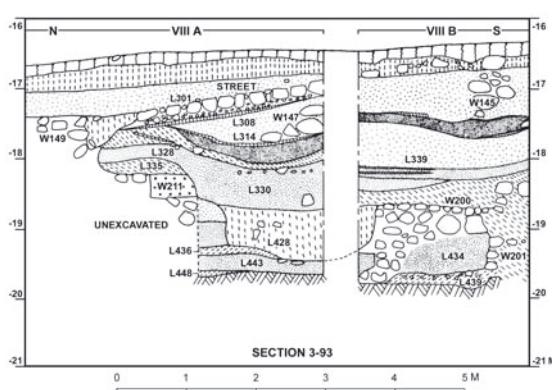


Fig. 59 Section 3-93. Area 2, east section Trenches VIIIA and B

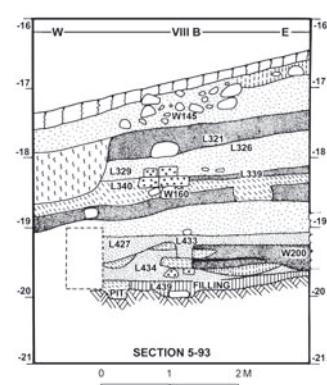


Fig. 60 Section 5-93. Area 2, north section Trench VIIIB

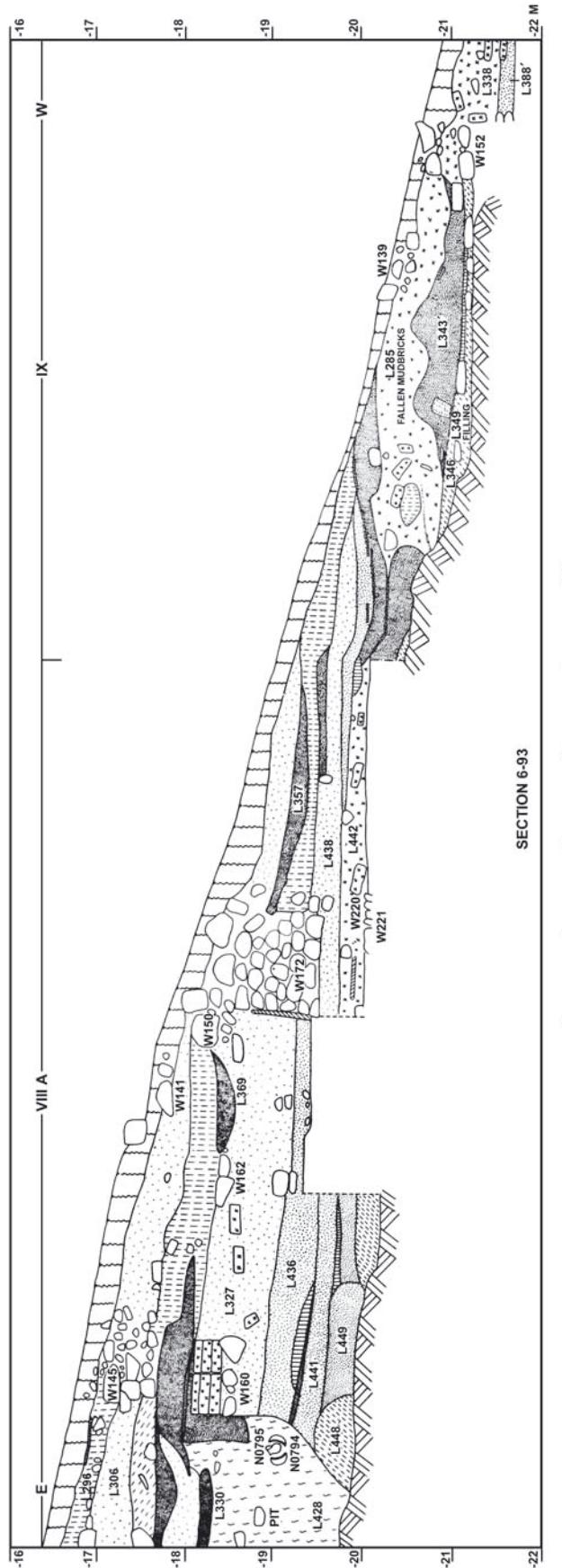


Fig. 61 Section 6-93. Area 2, south section Trenches VIIA and IX

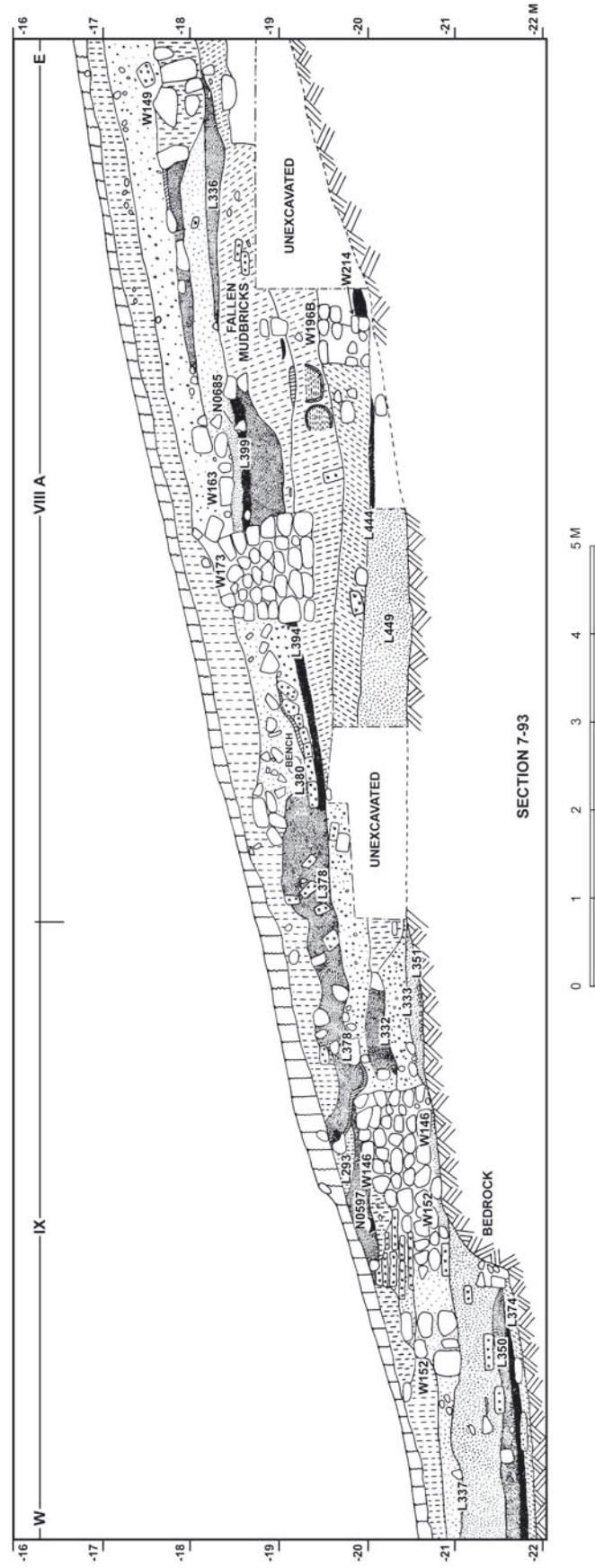


Fig. 62 Section 7-93. Area 2, north section Trenches IX and VIII A

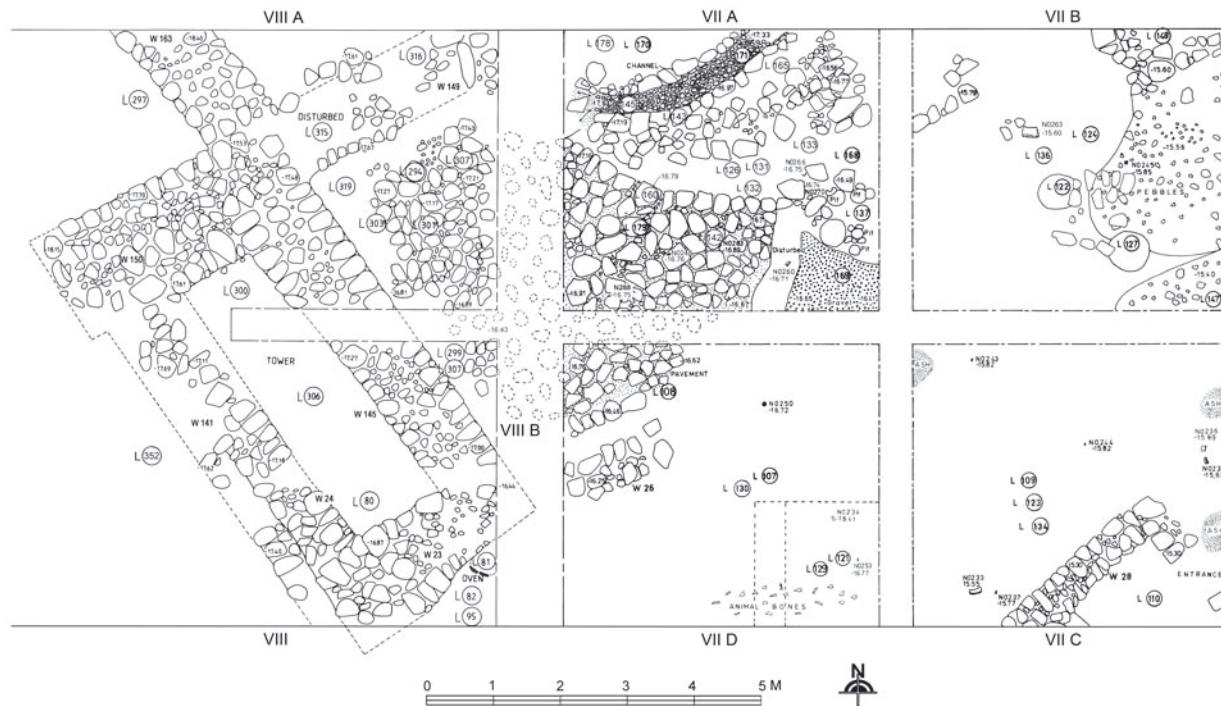


Fig. 63 Plan of Phase XII, Area 2

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
23	0.8	0.7	3			
24/141	0.7	0.7	3			
26	0.6-0.7	0.3	1-2			
28	0.6	0.4	2			
145	0.7	0.7	3			
149	0.7	0.2	1			
150	0.9	0.5	2-3			
163	0.7	0.3	1-2			

Table 11 Description of the walls of Phase XII, Area 2

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
80	fill	6				
81	tabun, d.?					
82	fill	1	1 b, 1 ud			
95	fill	3				
107	surface, o.d.	13	-2 b, -3 b, 6 b, 5 jl, 5 sj, 4 cp, 7 ud		N234, N250	
108	stone pavement					
109	surface, o.d.	10	-1 b, -7 k, 9 b, 1 k, 1 jl, 4 ja, 3 sj, 7 cp, 5 ud		N233, N235, N236, N237, N243, N244	

Table 12 Description of the loci of Phase XII, Area 2

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
110	fill		1 b, 2 k, 3 ja, 2 cp			
121	fill	2	1 jl, 1 sj, 1 cp			
122	pit					
123	fill	6	6 b, 1 dt, 1 ep			
124	fill	1	7 b, 1 sj, 1 ep			
126	fill		2 b, 3 ja, 1 sj, 1 cp			
127	pit		2 b, 1 j, 1 ja			
129	fill	5			N253	
130	fill	9	4 b, 2 k, 3 jl, 3 j, 5 sj, 6 cp, 1 dec, 8 ud			
131	fill		1 ja			
132	fill		8 ud			
133	fill	5	4 b, 3 jl, 2 j, 3 ja, 1 hm, 2 cp			
134	fill	7	5 b, 3 sj		2?	
136	surface, o.d.	7	5 b, 2 k, 2 bjl, 1 j, 1 hm, 6 sj, 2 cp, 2 dec		N263	
137	fill	1	1 jl			
142	fill above pavement					
143	stone lining	6	-1 ja, 3 b, 1 jl, 1 hm, 2 ja, 2 sj, 3 cp			
145	water channel	9	5 b, 1 j, 4 ja, 1 hm, 3 sj, 2 cp, 4 ud			
147	gravel surface					
148	stone setting					
160	fill above pavement	2	2 b, 4 k, 2 j, 1 sj		N248, N260	
165	stone lining	15	1 b, 1 j, 1 ep, 1 ud			
168	surface, o.d.	3	-1 jl, 1 b, 1 jl, 1 ep, 4 ja, 1 ud		N266, N270	
169	gravel surface	1	2 j, 1 cp			
170	fill		1 b, 1 jl			
171	water channel	7	3 b, 1 jl, 2 j, 1 ja, 1 ep, 2 ud			
178'	surface, o.d.	6	1 b, 1 k, 1 jl, 1 j, 1 ja, 3 ud			
179	pavement	6	1 k, 3 ud		N283, N288	
297	outside tower					
300	fill		4 ud			
301'	stone pavement					
303'	stone pavement					
306	fill					
307	stone pavement					
307'	stone pavement	3	27 ud			
315	disturbance in wall					
316	disturbance in wall	2	1 jl, 1 ep, 35 ud			
319	fill	4	7 ud			
352	outside tower	2	-1 k, 1 b, 1 ja, 1 cp, 3 h, 61 ud			
W28	inside wall	7	2 b, 1 cp			
W145	inside wall	4				

Table 12 continued Description of the loci of Phase XII, Area 2

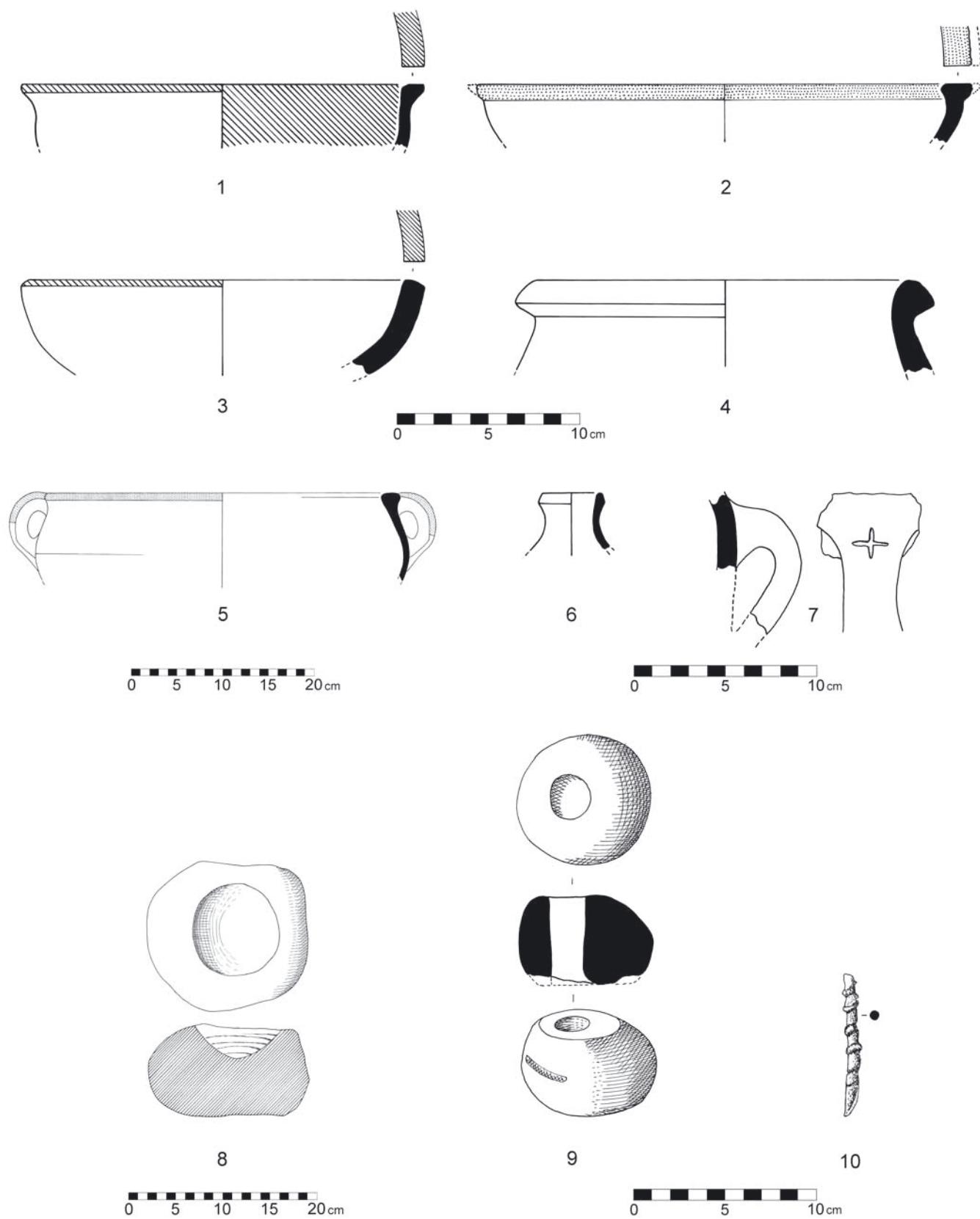


Fig. 64 Pottery and other finds from Phase XII, Area 2

Legend for the illustrated pottery and other finds from Phase XII, Area 2

Fig.	Locus No.	Description
64:1	109 -1	Bowl, hard-fired, greyish-brown fabric, medium-coarse, black inclusions, reddish-brown slip on rim and interior.
64:2	107 -3	Bowl, medium-hard-fired, grey fabric, medium-coarse, dark grey inclusions, light brown slip, light red decoration on rim.
64:3	107 -2	Bowl, medium-hard-fired, grey fabric, dark grey core, dark grey inclusions, light pinkish-brown slip, red decoration on rim.
64:4	109 -7	Krater, hard-fired, brown fabric, medium-coarse, mainly white and black inclusions, reddish-brown slip.
64:5	352 -1	Krater, medium-hard-fired, brown fabric, medium-coarse, multicoloured inclusions, light brown slip, red decoration on rim and handles.
64:6	168 -1	Juglet, medium-hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, self slip.
64:7	143 -1	Jar, handle, medium-hard-fired, orangish-brown fabric, grey core, coarse, multicoloured inclusions, self slip; incised cross on upper side of handle.
64:8	168 N270	Mortar, limestone.
64:9	107 N250	Loom weight, unfired clay, only partly preserved, weight not recorded.
64:10	179 N288	Drill, iron.

Additional finds from Phase XII, Area 2 (listed, not illustrated)

Locus No.	Description
109 N233	Bowl with ring base, basalt, fragmentarily preserved.
107 N234	Lithic, blade, trapezoidal section, L 6.8, W 3.1, Th 0.5 cm.
109 N235	Millstone, basalt, partly preserved, L 15.6, W 7.7, Th 2.5 cm.
109 N236	Millstone, basalt, partly preserved, L 18.5, W 13.0, Th 3.5 cm.
109 N237	Lithic, blade, triangular section, L 2.7, W 2.5, Th 3.0 cm.
109 N243	Toggle pin, twisted pin partly preserved, L 7.3, max. d. 0.9 cm.
109 N244	Lithic, blade, triangular section, L 5.8, W 2.7, Th 1.0 cm.
160 N248	Flint, tool, trapezoidal somewhat irregular shape, L 4.0, W 2.9, Th 0.7 cm.
129 N253	Lithic, blade, triangular section, L 4.8, W 2.7, Th 0.8 cm.
136 N263	Millstone, basalt, L 30.0, W 25.0, Th 10.0 cm.
160 N260	Pestle, stone, H 4.6, d. 5.0 cm.
168 N266	Pin, bronze, broken, L 3.2, d. 0.8 cm.
179 N283	Lithic, blade, trapezoidal section, L 5.5, W 2.3, Th 0.35 cm.

PHASE XIII, AREA 2 (Figs. 65–70)

Architecture and features

The remains of the stone foundations of the tower demonstrate that it was somewhat altered in comparison with the older phase. Some four metres to the east of the foundation of the tower, after passing over a stone pavement, another structure could be approached (W18, 19, 20). This structure houses a channel (L88). Its direction is straight north-east/south-west and it goes parallel with W19. It is incorporated into W18 and emerges into a shallow basin (L97). Both the channel and the basin were once covered by stones, the basin by a large stone slab. The channel, about 25 cm wide, is bordered by two parallel rows of stones. The bottom of both the channel and the basin consists of hard-packed clay. There is no continuation of the water system below the basin. A *tabun* is to the south-east of the channel (Fig. 67). In the far south-east are the rudimentary remains of another wall (W25) which runs parallel to W19, and to the south the destroyed W26'.

Interpretation of the material evidence

The tower is still in use in this phase. The channel represents a sewer between two structures which faces a partly stone-paved pathway. Figure 66 demonstrates the four building phases of the structures and the sewer (seen as excavated).

Legend for the illustrated pottery from Phase XIII, Area 2

Fig.	Locus No.	Description
69:1	75 -6	Bowl, medium-hard-fired, light greyish-brown fabric, medium-fine, small light grey inclusions, self slip, red wash interior and exterior.
69:2	85 -1	Bowl, medium-hard-fired, light brown fabric, grey core, medium-fine, light orangish-brown slip.
69:3	85 -8	Bowl, medium-hard-fired, light brown fabric, medium-fine, light brown slip.
69:4	75 -5	Bowl, medium-hard-fired, light brown fabric, medium-fine, grey inclusions, self slip, red wash interior.
69:5	85 -5	Carinated bowl, medium-hard-fired, light brown fabric, medium-fine, light greyish brown slip.
69:6	75 -7	Krater, medium-hard-fired, light brown fabric, grey core, medium-fine, grey inclusions, red slipped and burnished interior and exterior.
69:7	75 -8	Krater, hard-fired, light greyish-brown fabric, medium-coarse, grey inclusions, self slip.

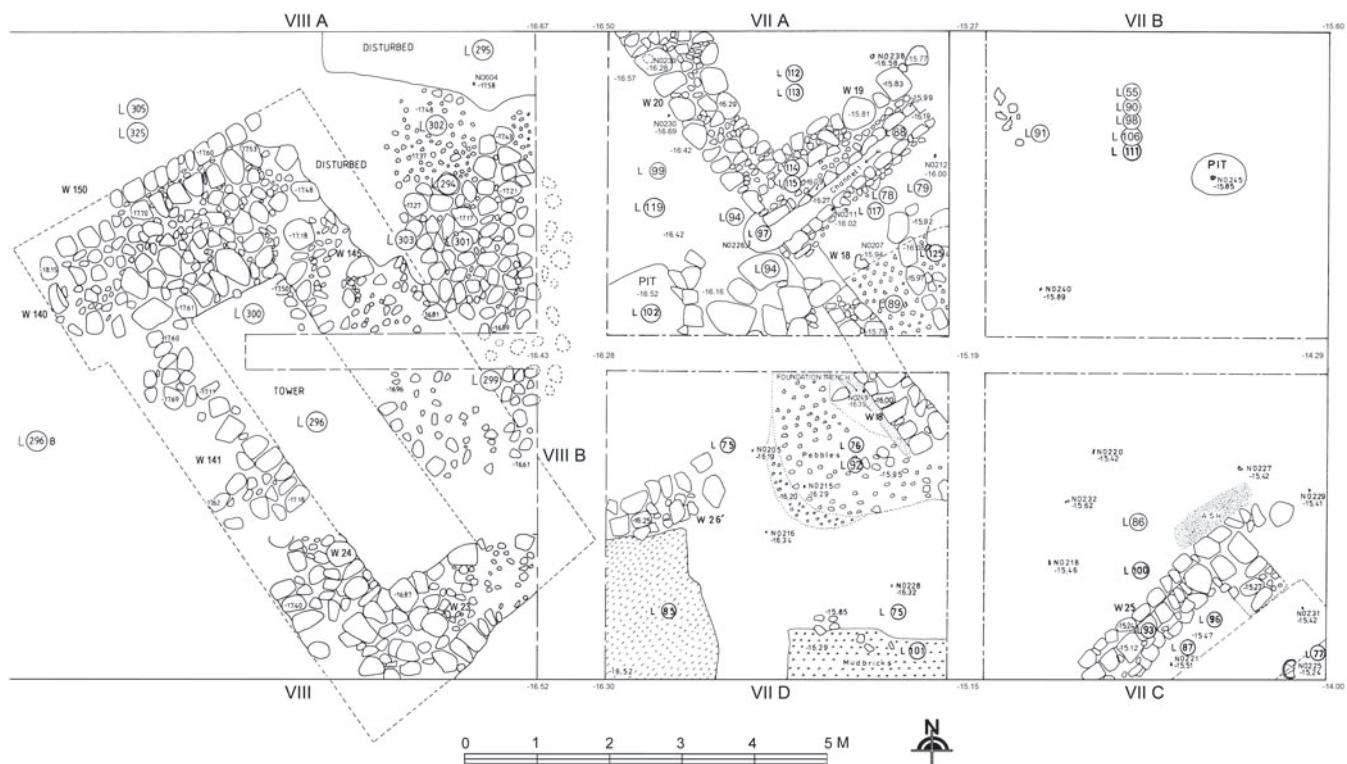


Fig. 65 Plan of Phase XIII, Area 2



Fig. 66 Tower in Phase XIII, Area 2

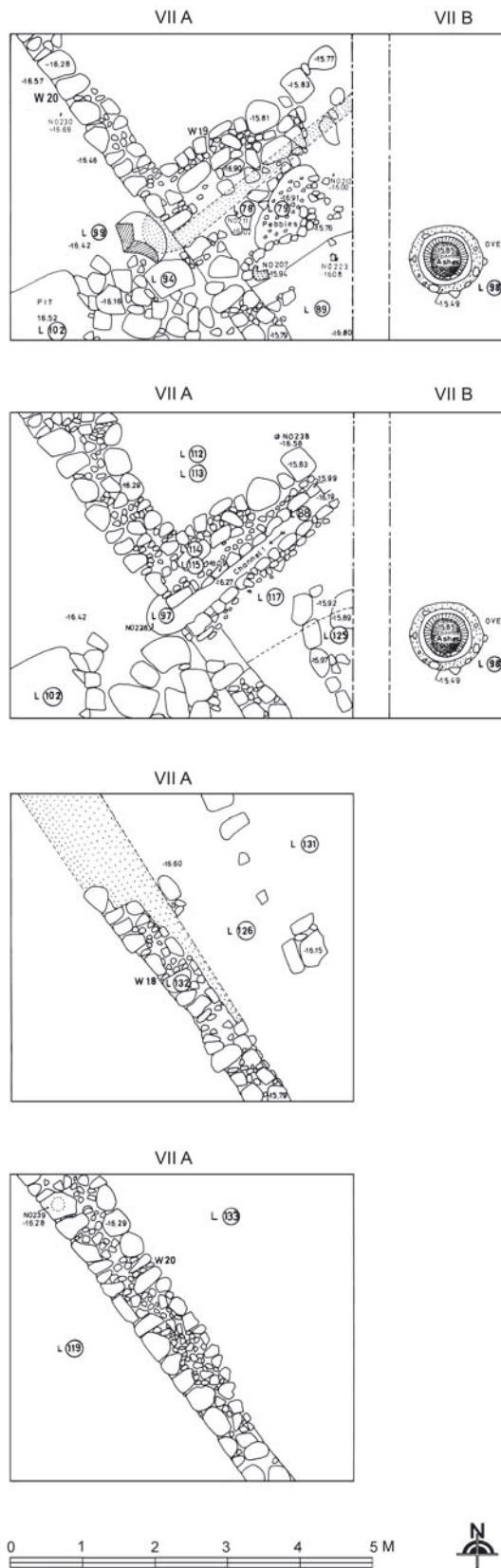


Fig. 67 Plans of building phases of the sewer area, Area 2

69:8	100	-2	Krater, medium-hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, light brown slip.
69:9	85	-2	Krater, hard-fired, light brown fabric, grey core, coarse, mainly white and grey inclusions, self slip.
69:10	85	-3	Krater, hard-fired, brown fabric, grey core, medium-coarse, multicoloured inclusions, self slip; rope pattern on exterior of rim.

Legend for the illustrated pottery and another find from Phase XIII, Area 2

Fig.	Locus No.	Description
70:1	75	-9 Juglet, hard-fired, light orangish-brown fabric, medium-fine, white inclusions, self slip.
70:2	100	-3 Juglet, hard-fired, light brown fabric, medium-coarse, grey and black inclusions, light pinkish-brown slip.
70:3	90	-1 Juglet, hard-fired, light brown fabric, fine, white slipped and burnished, reddish-brown decoration (import).
70:4	86	-3 Jar, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, self slip.
70:5	100	-1 Jar, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, self slip.
70:6	92	-1 Jar, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, self slip, red wash.
70:7	85	-4 Jar, hard-fired, greyish-brown fabric, grey core, medium-coarse, white and grey inclusions, light grey slip.
70:8	86	-4 Jar, hard-fired, greyish-brown fabric, grey core, medium-coarse, white and grey inclusions, light grey slip.
70:9	86	-5 Jar, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, self slip.
70:10	75	-3 Cooking pot, medium-hard-fired, greyish-brown fabric, medium-coarse, white inclusions, self slip.
70:11	87	N225 Cooking pot, hard-fired, reddish-brown fabric, coarse, white inclusions, self slip.
70:12	W20	N239 Door socket, limestone.

Additional finds from Phase XIII, Area 2 (listed, not illustrated)

Locus No.	Description
75	N215 Lithic, blade, trapezoidal section, L 3.7, W 1.5, Th 0.5 cm.
75	N216 Lithic, blade, triangular section, L 5.6, W 1.4, Th 1.2 cm.
75	N228 Lithic, blade, trapezoidal section, L 4.1, W 1.8, Th 0.8 cm.



Fig. 68 Sewer area, Area 2

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
18	0.5	0.4	2			
19	0.9	0.3	2			
20	0.7	0.3	1			
25	0.6-0.7	0.3	1			
26'	0.6-0.7	0.2	1			

Table 13 Description of the walls of Phase XIII, Area 2

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
55	fill	7	7 b, 4 k, 1 j, 2 sj, 5 ep	713		
75	surface, o.d.	9	-3 ep, -5 b, -6 b, -7 k, -8 k, -9 jl, 2 k, 1 ep, 1 j, 3 sj		N215, N216, N228	
76	fill		1 k, 1 ep		N205	
77	surface		1 ep			
78	fill		N207 ja			

Table 14 Description of the loci of Phase XIII, Area 2

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
79	surface	1	3 b, 1 jl, 1 ja, 3 ep, 6 ud		N211, N212	
85	surface, clay	5	-1 b, -2 k, -3 k, -4 ja, -5 cb, -8 b, 1 b			
86	surface, o.d.	3	-3 ja, -4 ja, -5 ja, 2 b, 1 k, 1 jl, 3 sj, 2 cp		N218, N220, N227, N229	
87	surface	1	N225 ep, 3 b, 3 sj, 1 ep		N221	
88	channel					
89	pebbles				N223	
90	fill		-1 jl			
91	heap of stones		-1 ep, 1 b, 1 k, 1 sj	4		
92	pebbles		-1 ja, 1 k		N249	
93	fill above wall					
94	area around basin					
96	surface	2	1 k, 1 ja, 1 sj, 3 cp	1	N231	
97	basin	3	1 j, 1 ja, 2 cp		N226	
98	fill		1 j			
98'	tabun, d. 1.0					
99	fill	2	2 b, 1 jl, 2 sj, 9 ud		N230	
100	surface, o.d.	2	-1 ja, -2 k, -3 jl, 1 b, 1 ja		N232	
101	desintegrated mudbricks	9				
102	pit, d. 1.0	1	2 b			
106	fill					
111	surface, o.d., pit d. 0.6	11	3 b, 1 jl, 5 sj, 5 cp		N240, N245	
112	fill	1	1 b, 2 jl	1		
113	surface	N238, 3	1 j, 3 ja, 1 sj, 1 cp			
114	fill around channel		14 ud			
115	fill around channel	4	1 b, 1 jl, 1 cp, 1 ud			
117	fill		1 jl, 2 cp			
119	surface	1	3 b, 2 jl, 3 j, 1 ja, 1 ep, 1 ud			
125	stone structure	3	1 b, 1 cp			
126	fill					
131	fill					
132	above W18					
133	fill					
294	stone pavement	3	1 ja, 1 sj, 1 ep			
295	disturbance	5	1 sj		N604	
296	fill					
299	stone pavement	4	5 ud			
301	stone pavement		1 sj, 8 ud			
302	pebbles	1	1 cp, 15 ud			
303	stone pavement		1 k, 1 j, 1 ep			
305	fill					
325	fill					
W20	inside wall				N239	

Table 14 continued Description of the loci of Phase XIII, Area 2

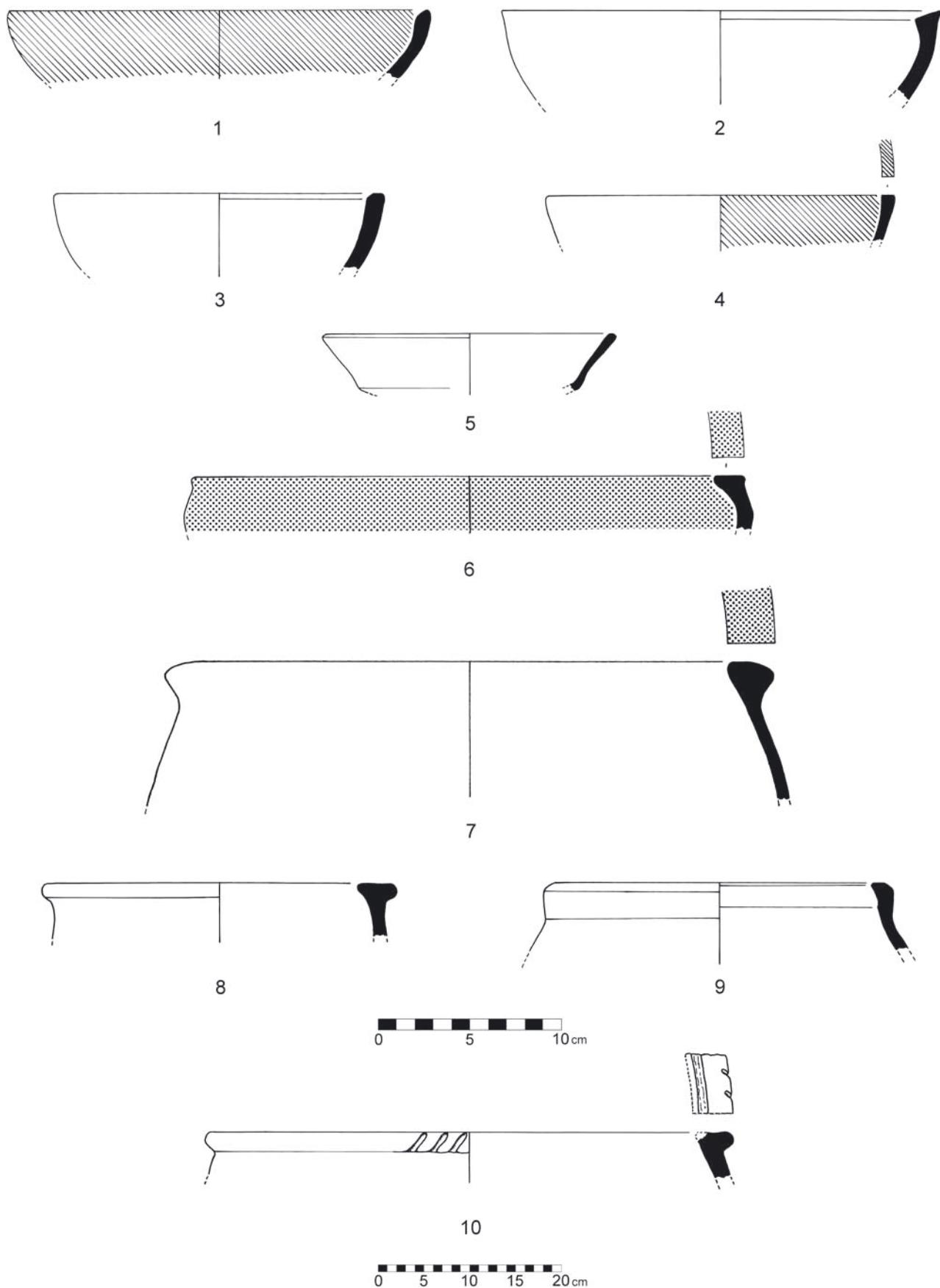


Fig. 69 Pottery from Phase XIII, Area 2

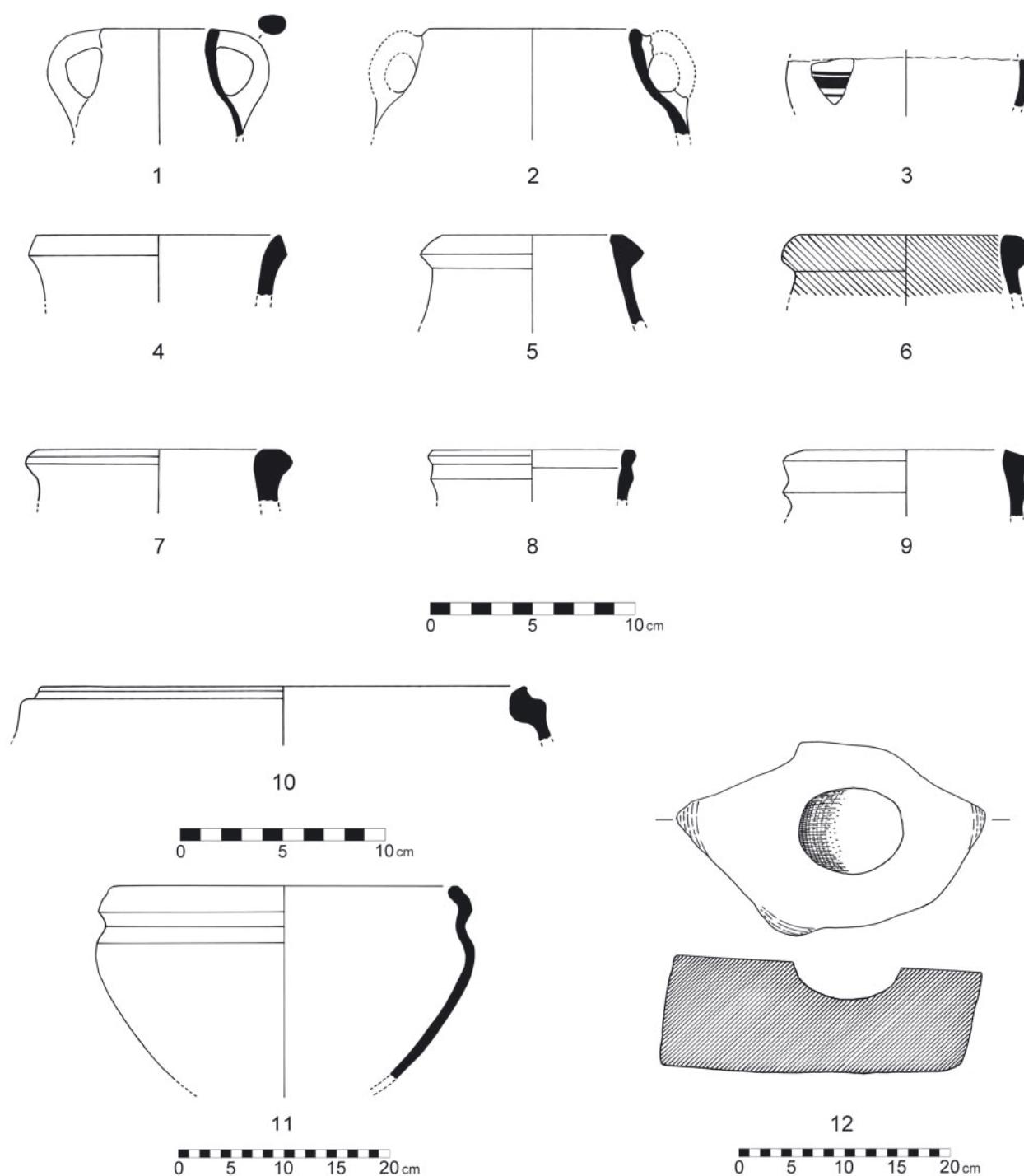


Fig. 70 Pottery and another find from Phase XIII, Area 2

- 76 N205 Lithic, blade, triangular section, L 6.6, W 1.6, Th 0.7 cm.
- 78 N207 Jar, fragmentary, hard-fired, yellowish-brown fabric, grey core, medium-coarse, multicoloured inclusions, self slip, partly burnished.
- 79 N211 Lithic (obsidian?), blade, trapezoidal section, L 1.3, W 0.6, Th 0.2 cm.
- 79 N212 Lithic, saw, triangular section, L 5.0, W 1.7, Th 0.7 cm.
- 86 N218 Lithic, blade, trapezoidal section, L 6.3, W 2.0, Th 0.5 cm.
- 86 N220 Lithic, blade, trapezoidal section, L 6.6, W 2.6, Th 1.5 cm.
- 86 N227 Spindle whorl, basalt, d. 4.9, H 1.8, d. of hole 0.7 cm.
- 86 N229 Lithic, blade, trapezoidal section, L 3.6, W 2.4, Th 0.7 cm.
- 87 N221 Lithic, blade, triangular section, L 4.7, W 2.5, Th 0.7 cm.
- 89 N223 Roof tile, terracotta, L 14.6, W 13.8, Th 3.1 cm.
- 92 N249 Millstone, basalt, fragmentary, L 11.2, W 10.1, Th 4.2 cm.
- 96 N231 Lithic, blade, trapezoidal section, L 3.6, W 1.5, Th 0.5 cm.
- 97 N226 Lithic, blade, trapezoidal section, L 2.1, W 2.0, Th 0.4 cm.
- 99 N230 Lithic, blade, trapezoidal section, L 7.9, W 3.5, Th 0.7 cm.
- 100 N232 Lithic, blade, trapezoidal section, L 6.4, W 2.2, Th 0.6 cm.
- 109 N233 Bowl with ring base, basalt, fragmentarily preserved.
- 111 N240 Pin, bronze, fragmentary and very corroded, L 3.3, d. 0.3 cm.
- 111 N245 Point, iron, triangular section, L 5.8, W 2.2, Th 0.9 cm.
- 113 N238 Chocolate-on-White II, jug, hard-fired, light orange-brown fabric, grey core, medium-coarse, white inclusions, yellowish-white slip, dark red decoration (see FISCHER 2006a: 162, figs. 187:3, 188 right).
- 295 N604 Lithic, blade, trapezoidal section, L 5.0, W 1.6, Th 0.7 cm.

thick layer of ash (L262) covers most of the internal space.

Interpretation of the material evidence

The three layers do not necessarily belong to three “periods”. They most likely represent destruction debris of the circular structure which was built just above levelled bedrock. The structure is a kiln for firing pottery. The few sherds from the kiln area fit best the pottery repertoire of Phases X–XII.

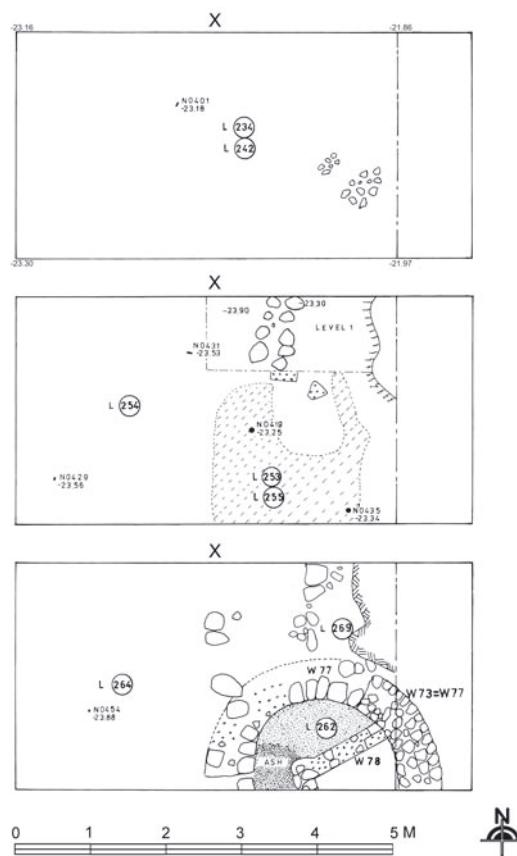


Fig. 71 Plans of the three layers of the kiln area, Area 2

THE KILN, AREA 2 (Figs. 71–73)

Architecture and features

A test trench, Trench X, was opened in the western part of Area 2 where erosion is most manifest. Nevertheless, roughly one metre of cultural debris remained. Three layers could be separated from surface down to bedrock (Fig. 71). An approximately 0.6 m wide circular stone wall (W73/77) surrounds the structure which is 3.2 m in diameter, thus giving an internal space with a diameter of roughly 2 m. The internal space is partly separated by a 1.4 m long and 0.3 m wide mudbrick wall (W78) thus leaving an opening to the west. A

Legend for the illustrated pottery from the kiln area, Area 2

Fig.	Locus No.	Description
73:1	242 -1	Bowl/chalice, hard-fired, light brown fabric, medium-fine, grey inclusions, light brown slip interior and exterior, red wash interior and exterior.
73:2	253 -1	Carinated bowl, medium-hard-fired, light brown fabric, medium-coarse, dark grey inclusions, pinkish-orange slip exterior and interior.



Fig. 72 Kiln, Area 2

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
73/77	0.6	0.5	3			
78	0.3	0.4		3		

Table 15 Description of the walls of the kiln area, Trench X, Area 2

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
234	just below colluvial soil, fill	10	-1 cb, 1 ep			
242	fill	15	-1 b/e, -2 cp, -3 ep, 2 k, 1 j, 2 sj, 3 cp		N401	
253	mudbricks, surface	6	-1 cb, 1 b, 1k, 1 ep		N419	
254	mudbricks	3	1 cb		N429, N431	
255	fill below L253	9	1 k, 1 ja, 4 cp		N435	
262	ash inside kiln	5				
264	fill outside kiln	24	-1 k, -2 cp, -3 cb, 4 b, 1 k, 1 jl, 1 sj, 2 cp, 1 dec		N454	
269	bedrock					

Table 16 Description of the loci in the kiln area, Trench X, Area 2

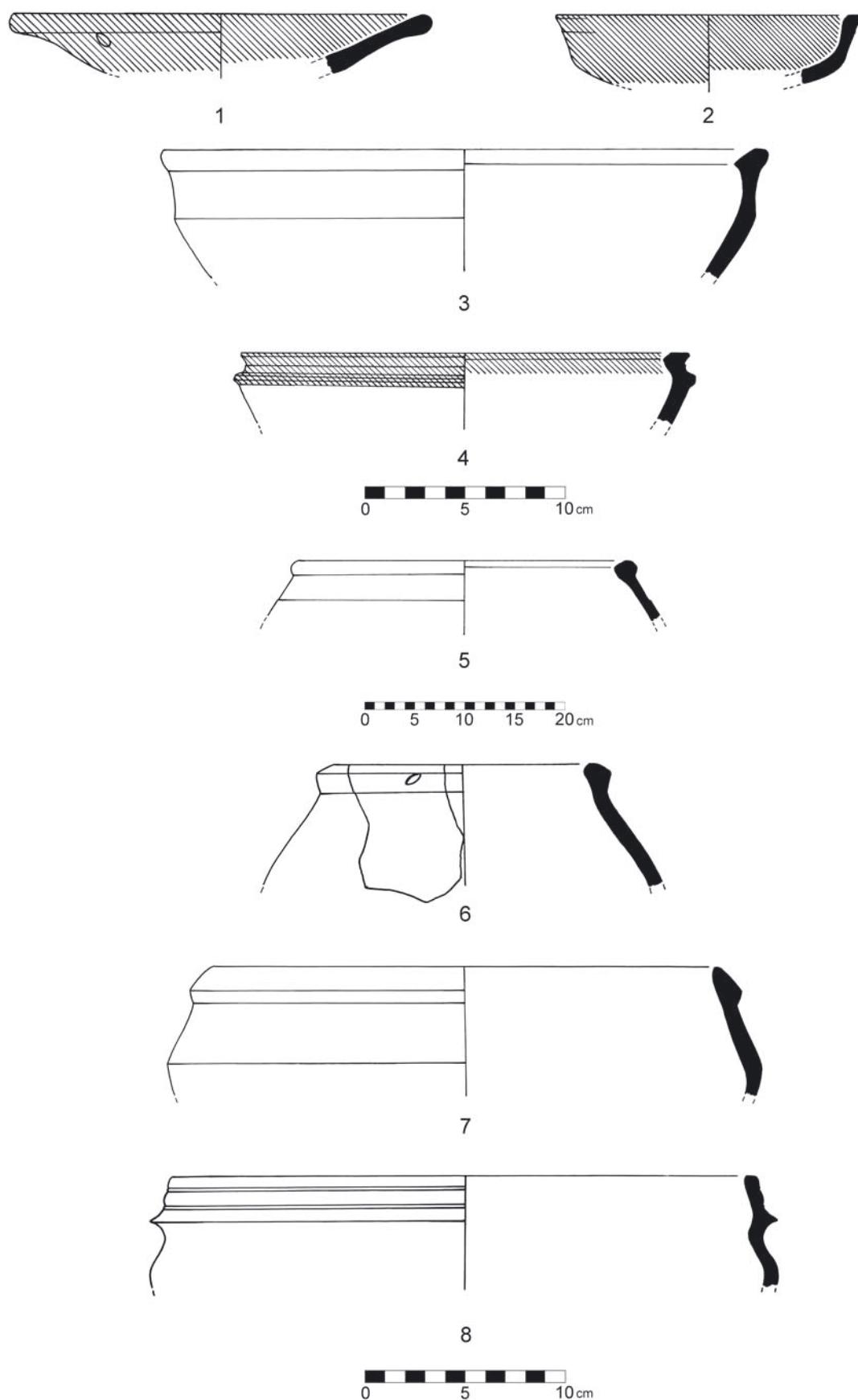


Fig. 73 Pottery from the kiln area, Area 2

73:3	234	-1	Carinated bowl, medium-hard-fired, brown fabric, yellowish-brown core, coarse, dark grey inclusions, self slip.
73:4	264	-3	Carinated bowl, hard-fired, light brown fabric, medium-coarse, mainly grey inclusions, self slip, brown wash on rim; marked ridge below rim.
73:5	264	-1	Krater, hard-fired, yellowish-grey fabric, coarse, mainly grey inclusions, light brown slip.
73:6	242	-3	Cooking pot, hard-fired, reddish-brown fabric, coarse, white inclusions, self slip.
73:7	264	-2	Cooking pot, hard-fired, reddish-brown fabric, coarse, white inclusions, self slip.
73:8	242	-2	Cooking pot, hard-fired, reddish-brown fabric, dark grey core, coarse, white inclusions, self slip.

Additional finds from the kiln area, Area 2 (listed, not illustrated)

Locus No.	Description
242	N401 Lithic, blade, fragmentary, description missing.
253	N419 Shell, pierced, d. 3.5 cm.
254	N429 Lithic, blade, triangular section, L 3.5, W 1.5, Th 0.4 cm.
254	N431 Lithic, blade, trapezoidal section, L 7.0, W 2.8, Th 0.5 cm.
255	N435 Loom weight, unfired clay, very fragmentary.
264	N454 Bead, glass, yellowish-white, d. 1.2 cm.

AREA 2 NORTH-WEST

This area lies close to the steep northern slope and approximately 100 m north-west of the summit.²⁶ The excavated part of this area comprises Trenches XXXIVA–D, XXXVIIA and XXXVIIIA and B, which cover 120 square metres. The dominating structure in the north-western part of the area is the Early Bronze Age city wall, which is 4.2 m wide and fairly close to the surface (FISCHER 2008a). The most superficial parts of this wall were found just below colluvial soil, a similar situation to that in Area 9 West. Just below the surface is a tower-like structure which was used during the Iron Age. It is at least 10 m × 8 m in size with walls more than 1 m wide. The almost square construction is orientated northwest-southeast and northeast-southwest and was built against the Early Bronze Age city wall. The foundation of this structure certainly goes back to the Late Bronze Age and maybe even to the later part of the Middle Bronze Age. This part of the tell contains the hitherto deepest exposed cultural layers of more than 6 m which include excep-

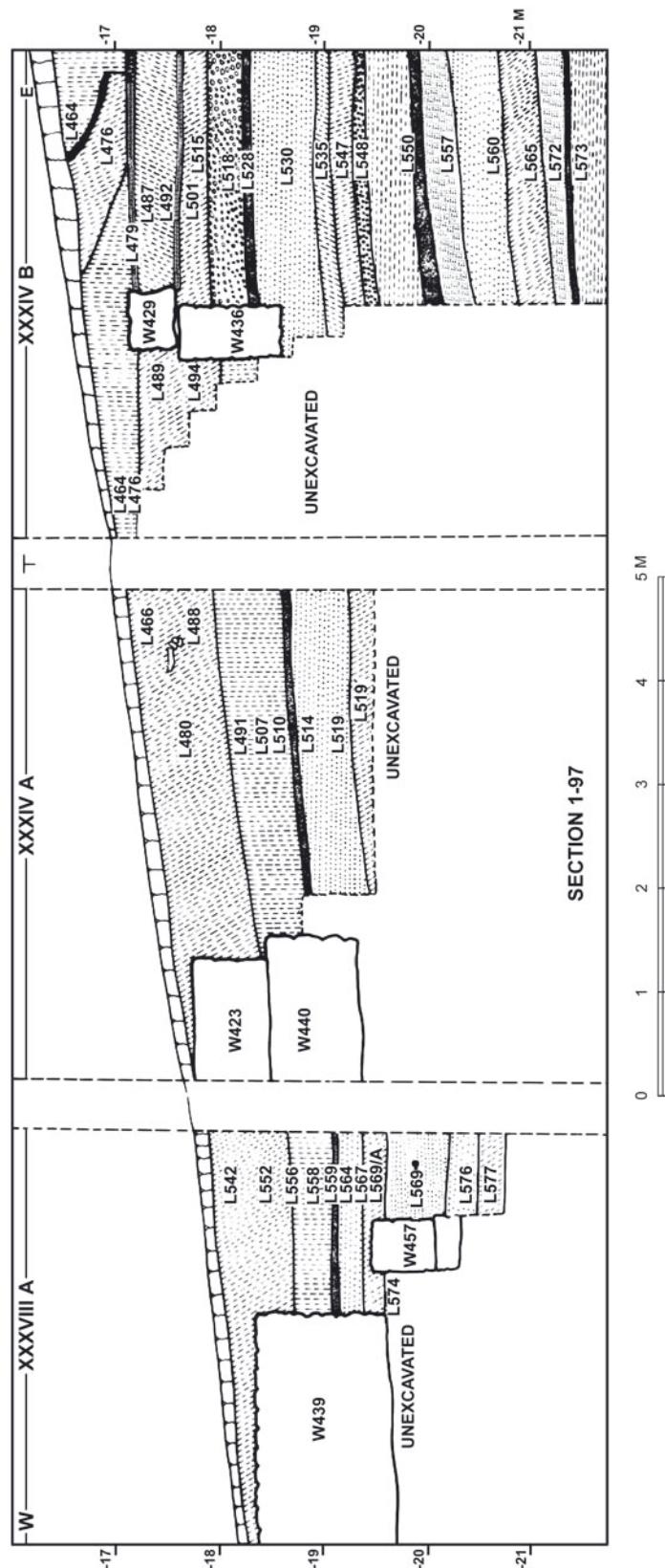


Fig. 74 Section 1-97. Area 2 North-west, north section
Trenches XXXVIIIA, XXXIVA and B

²⁶ This area corresponds to “Defence System to the North-west (Area 2)” in FISCHER 2006a and 2008a.

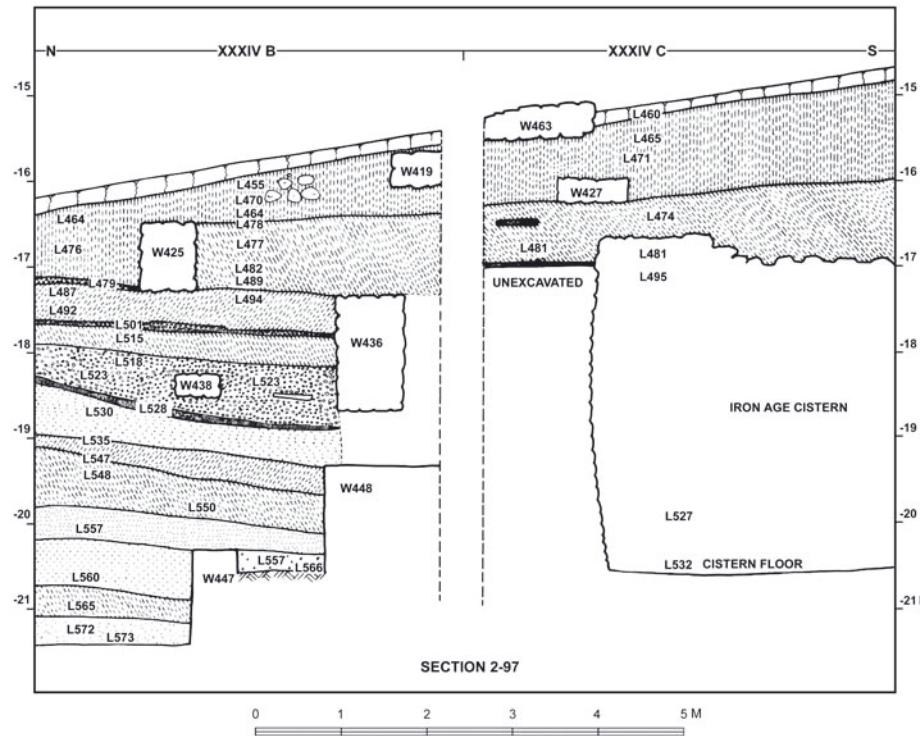


Fig. 75 Section 2-97. Area 2 North-west, east section Trenches XXXIVB and C

tionally well-preserved Early Bronze Age I remains at a depth of approximately 6 m.

The synchronization with the remainder of Area 2 to the south (and the other areas) is made problematic by the presence of an Iron Age cistern 4 m × 3 m wide and 4 m deep in Trench XXXIVC (Figs. 80, 81, 84, 86). The cistern, which once contained approximately 50 cubic metres of water, and the area with additional Iron Age finds surrounding it, cut through all strata, thereby separating this area from the rest of Area 2. Therefore this area is isolated and has no stratigraphical connection to any other area. Because of this situation and prior to any additional excavations, the northern part of Area 2 will be treated separately. The synchronism between this part and the remainder of Area 2 as well as with the overall phasing of the site is tentative and relies only on ceramic finds.

PHASE XI/1–3 (Figs. 76–79)

Architecture and features

These three sub-phases suffered considerably from later building activities. Trench XXXIVB is the only trench where the three sub-phases could be separated (Figs. 76–78); the situation in the other trenches does not allow an unambiguous division.

The attribution of the Iron Age foundation walls, the reused tower to the west, i.e. W440, 431 and an interconnecting wall to Sub-phase XI/1 is tentative (Fig. 76). Sub-phase XI/2 in Trench XXXIVB shows a roughly circular structure (L517) close to a stone-paved area (L503, 516, 520) with a *tabun* (L503') which is bordered by two walls running north-west to south-east (W432, 436; Fig. 77). Minor changes took place in Sub-phase XI/3 where the circular structure was replaced by a partly preserved wall (W430) and W429 replaced the older W436 (Fig. 78). The stone pavement (L499) was reused.

There is an “empty” space to the north-west in Trench XXXIVB, L489 and L494, most likely a disturbance which affected the walls to the south. This disturbance could not be isolated with any certainty.

Interpretation of the material evidence

The size of the square structure from Sub-phase XI/1 to the west which represents a tower is difficult to assess. However, it is at least 10 m × 8 m. A stone-paved pathway runs between the domestic (?) structure to the north-east and the tower which belongs to the defence system.

Nothing can be said about possible, most likely minor, changes in the design of the tower in Sub-phase

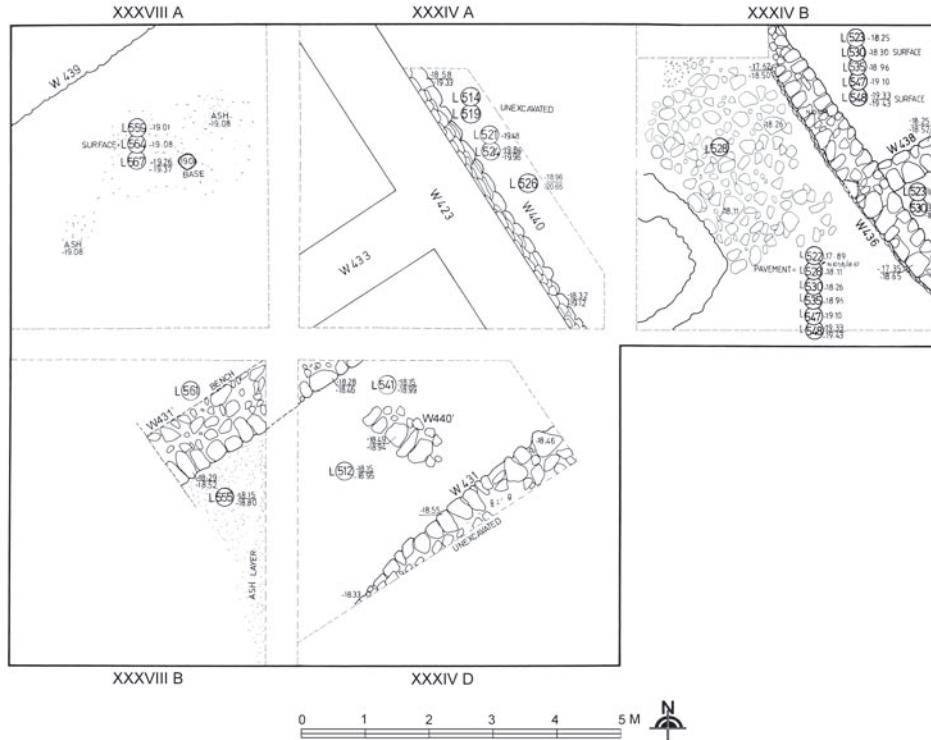


Fig. 76 Plan of Sub-phase XI/1, Area 2 North-west

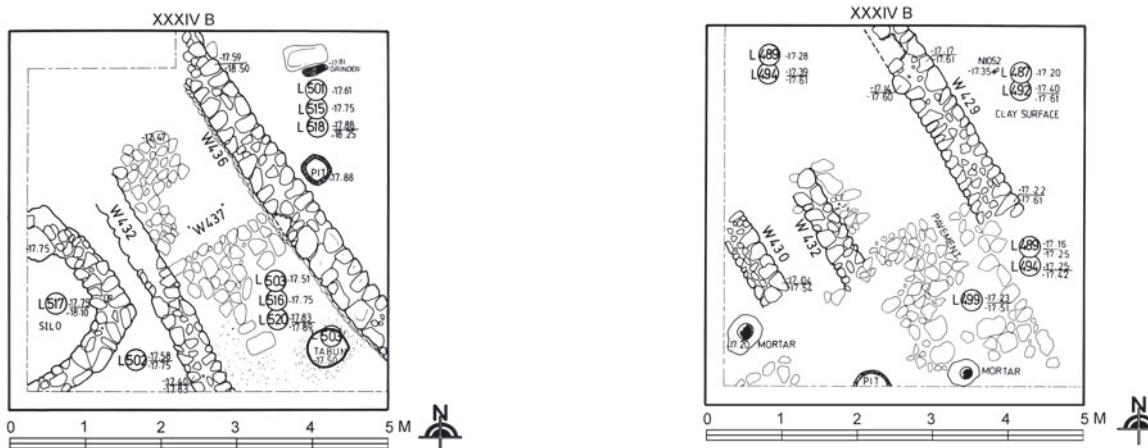


Fig. 77 Plan of Sub-phase XI/2, Area 2 North-west

Fig. 78 Plan of Sub-phase XI/3, Area 2 North-west

XI/2 except that it was reused in this phase and in the next Sub-phase XI/3. The circular structure of Sub-phase XI/2 is a silo which was built inside a structure connected to the tower. A stone-paved pathway runs between the tower compound and another domestic structure to the north-west. Judging from the *tabun*, it was used for the preparation of food. The space in the north-east which contains a pit was used for various activities, for example the grinding of seeds.

The silo was no longer in use in Sub-phase XI/3. The disturbed remains of a wall (W430) point to a walled space or shelter which contained a mortar and which was built against the tower. The upper part of W432 from Sub-phase XI/2 is now incorporated into the stone pavement which stretches from W430 to the demolished structure to the north-east (W429) which faces the stone-paved pathway on which another mortar (or a pivot stone for a door) was found.

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
423	1.0	0.95		7-9		MB-LB wall, reused
429	0.6	0.4	2			
430	0.4	0.5	3			
431	?	0.2	1			
432	0.4	0.4	2			
433	1.0	0.9		7-9		
434	1.0-1.2	0.7	3			
436	0.6	1.3	7			
438	0.5	0.3	1			
439	4.2	1.25	7			EB city wall, reused
440	1.0	0.9	4-5			
442	1.2	1.0	5-6			
444	1.0	1.0	5-6			
431'	0.9	0.2	1			
440'	?	0.4	1-2			

Table 17 Description of the walls of Sub-phases XI/1-3, Area 2 North-west

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
487	fill, o.d.				N1052 zoo- morphic rhyton	
489	fill, o.d.	2	-1 k, -2 cb, -3 j, 2 b, 6 k, 3 j, 1 ja, 1 sj, 25 ud			
492	clay surface	1	-1 cb, 1 c, 1 k, 1 j, 17 ud			
494	fill, o.d.	1	-1 b, -2 cb, -3 k, -4 cb, 3 b, 3 j, 9 sj, 2 dec, 159 ud			
499	pavement	1	2 b, 1 k, 1 j, 1 jl, 5 sj, 1 cp, 60 ud			
501	fill, o.d.	2	-1 cb, 2 b, 2 k, 2 j, 2 sj, 16 ud			
502	area outside silo	10	-1 k, 17 ud			
503	pavement, tabun d. 0.5	1	5 k, 2 sj, 52 ud			
512	below stone pavement	X			only EB-LB, mainly LB	
515	fill, o.d.		11 ud			
516	below pavement	5	1 b, 1 k, 1 j, 6 sj, 1 pf, 2 ep, 134 ud			
517	silo, d. 2.5	3	1 j, 3 ud			
518	surface, o.d.	1	2 b, 3 k, 2 j, 50 ud			
520	below pavement		1 pf, 4 ep, 34 ud			
521	fill outside tower	X			mainly EB-LB sherds	
522	fill above pavement	109	3 b, 4 k, 2 sj, 3 pf, 35 ud		mainly EB sherds	
523	fill above surface	3	4 k, 2 j, 1 l, 1 cp, 1 dec, 64 ud			
524	fill outside tower	X			mainly EB-LB sherds	

Table 18 Description of the loci of Sub-phases XI/1-3, Area 2 North-west

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
528	stone pavement	6	6 sj, 35 ud			
530	hard surface, o.d.	X			N1057, N1058	mixture EB-IA
541	below stone pavement	X				mainly EB-LB sherds
555	entrance to tower		8 ud			
559	destruction debris	78				
561	fill		1 b, 1 ja, 50 ud			
564	surface, o.d.	X				mainly EB-LB sherds
W429	inside wall		1 cp, 23 ud			
W430	inside wall		22 ud			
W432	inside wall		1 b, 21 ud			
W436	inside wall		8 ud			

Table 18 continued Description of the loci of Sub-phases XI/1–3, Area 2 North-west

Legend for the illustrated pottery and another find from Phase XI, Area 2 North-west (all sub-phases)²⁷

Fig. Locus No.

Description

- 79:1 501 -1 Carinated bowl, soft-fired, light brown fabric, medium-fine, a few grey inclusions, self slip, red wash interior, splashes of red paint exterior.
- 79:2 494 -1 *Bowl, hard-fired, brown fabric, grey core, medium-coarse, mainly grey inclusions, yellow slip, red paint interior and below rim exterior.*
- 79:3 492 -1 Carinated bowl, hard-fired, red fabric, thick grey core, medium-fine, a few white inclusions, red slip.
- 79:4 489 -2 *Carinated bowl, hard-fired, light brown fabric, fine, yellow slip, red and black paint; incisions below rim (import).*
- 79:5 494 -2 *Carinated bowl, hard-fired, brown fabric, grey core, medium-fine, yellow slip, red paint interior and rim exterior.*
- 79:6 494 -4 *Carinated bowl, hard-fired, light grey fabric, fine, thick red slip, burnished (import).*
- 79:7 489 -1 *Krater, hard-fired, yellowish-brown fabric, medium-coarse, mainly grey inclusions, self slip.*
- 79:8 502 -1 Krater, hard-fired, light brown fabric, coarse, multicoloured inclusions, light yellow slip.

- 79:9 494 -3 *Krater, hard-fired, reddish-brown fabric, medium-coarse, multicoloured inclusions, self slip.*
- 79:10 489 -3 *Jug, hard-fired, light brown fabric, grey core, medium-coarse, mainly grey inclusions, light brown slip, white and red decoration, burnished (import).*
- 79:11 487 N1052 Rhyton of animal (horse?), fragmentary, hand-made, medium-hard-fired, light brown fabric, light grey core, fine, light brown slip, red and black paint.
- 79:12 530 N1057 Spindle whorl, alabaster (?), Wt 24 g.

Additional find from Sub-phase XI/1, Area 2 North-west (listed, not illustrated)

Locus No.

Description

- 530 N1058 Knife, iron, very corroded, L 10.2, W 2.5, Th 2.2 cm.

PHASE XII (Figs. 80–83)

Architecture and features

The more than 4 m wide Early Bronze Age city wall (W439) was reused and a rectangular structure was built against it (W423, 434, 442). The foundation of this structure, which is 10 m × 8 m in ground plan, goes back to the Late Bronze Age and maybe even to

²⁷ Italics are used in the description of those finds which derive from the disturbance L489 and L494 and which are most likely of later date.

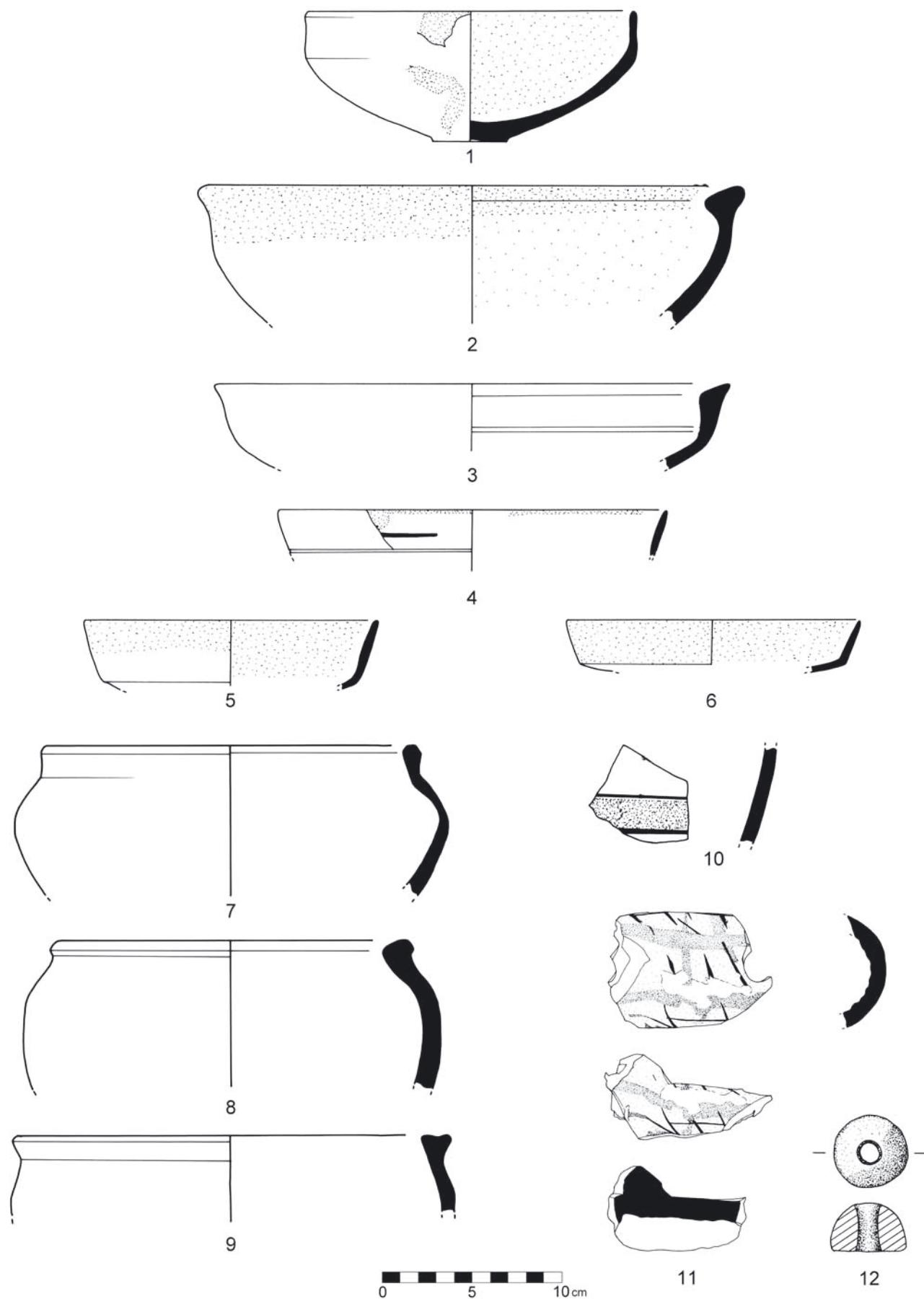


Fig. 79 Pottery and another find from Phase XI, Area 2 North-west (all sub-phases)

the later part of the Middle Bronze Age. There are two stone-paved rooms, of which only parts of the stone pavement are preserved. The north-western room has a posthole in the middle of the room. Much ash and carbonised straw was lying on the floor. The south-eastern room has two stone-built benches (W431, 431') which in fact are reused walls from an earlier period of occupation (see above). This room continues towards the south-west in the shape of a 2.5 m wide corridor (W444, 434) in which numerous mudbricks were found. To the west of the structure is another posthole, to the south a *tabun*, and to the east a kind of annex (W425, 428) of which the southern wall (W428) curves towards a right angle. A stone-sup-

ported jar was found to the north of the annex in a stone-paved portion, and another *tabun* surrounded by a thick layer of ash lying on a beaten earth floor is east of the curving wall.

Another structure which dominates this phase is a cistern. It is well constructed and over 4 m deep: oval in shape, approx. 4 m × 3 m, built of stone, sealed with clay between the stones, and carefully plastered.

Interpretation of the material evidence

The core of the solid city wall (W 439), which is more than 4 m wide, goes back to the Early Bronze Age. The Early Bronze Age city wall was reused in the Middle and Late Bronze Ages after the long occupational lacuna. It was repaired and altered and the basic structure was still in use during the Iron Age. The fairly square structure, 10 m × 8 m in size, which was built against the city wall and aligned with its interior part, resembles a tower with stone-paved internal rooms. There is no doubt that these massive structures were reused during this Iron Age phase because of the discovery of Iron Age material, which was found

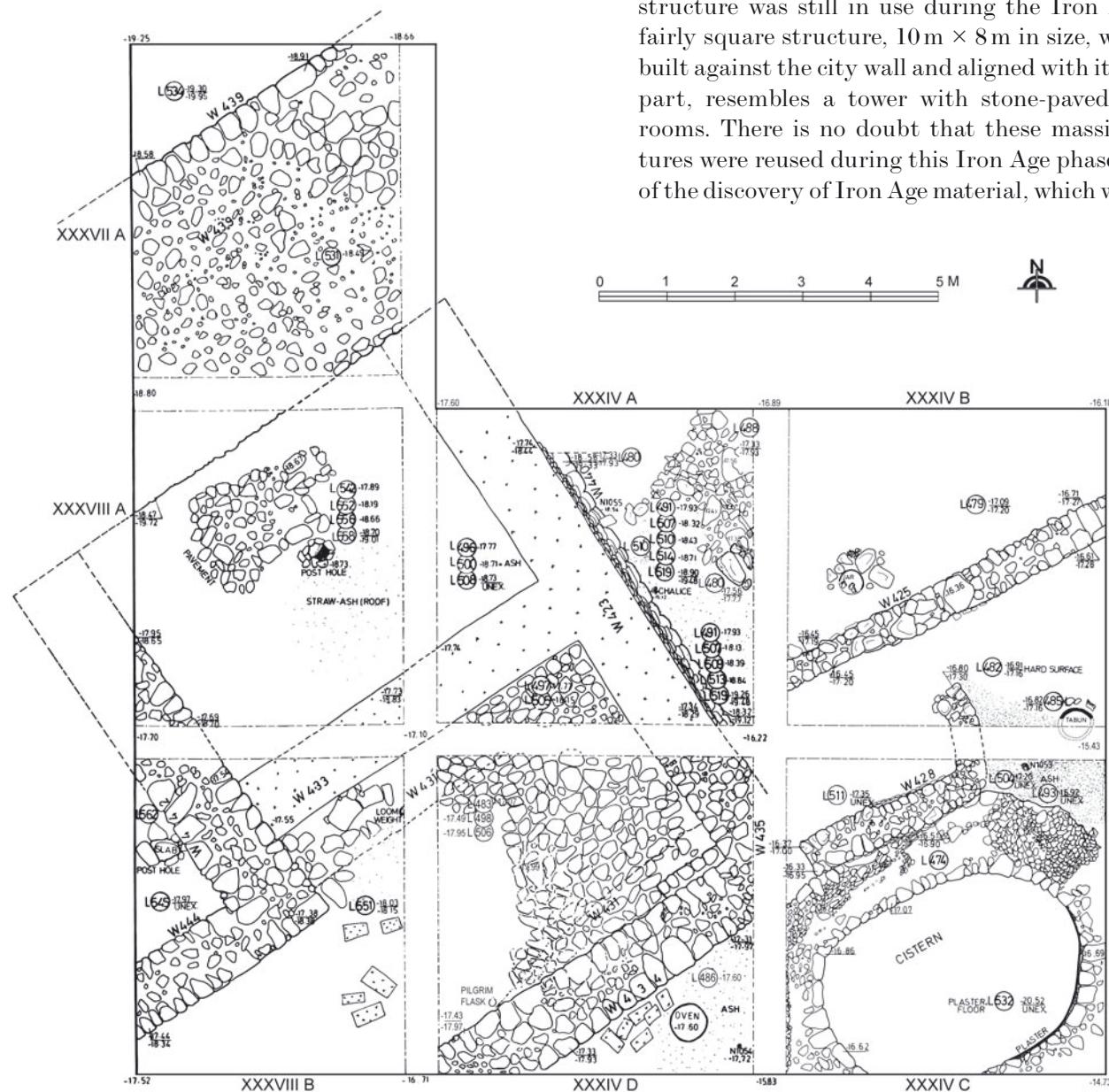




Fig. 81 Cistern, Area 2 North-west

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
423	1.0	0.95		7-9		MB-LB wall, reused
425	0.5-0.6	0.7	3			
428	0.5-0.7	0.6	3			
431	?	0.2	1			reused as bench
431'	0.9	0.2	1			reused as bench
433	1.0	0.9		7-9		
434	1.0-1.2	0.7	3			
439	4.2	1.25	7			EB city wall, reused
442	1.2	1.0	5-6			
444	1.0	1.0	5-6			

Table 19 Description of the walls of Phase XII, Area 2 North-west

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
479	fill, o.d.	1	-1 ic, -2 cp, 2 b, 1 l, 2 cp, 2 sj, 120 ud			
480	fill, o.d.	50	-2 ja, -3 k, 3 b, 3 eb, 1 tri, 5 k, 1 jl, 1 j, 10 sj, 1 ep, 1 pf, 432 ud			
481	fill in cistern		24 ud			
482	hard surface, o.d.	2	-2 b, -3 ep, -4 cb, -5 k, -6 jl, 5 b, 1 eb, 2 k, 2 j, 3 sj, 147 ud			
485	tabun, d. 0.4, ash		-1 k, -2 b, -3 b			
486	ash, o.d.	455	1 sj, 17 ud		N1054	mixed context
488	fill, o.d.		-1 j, -2 k, -3 b, 1 b, 1 cb, 2 k, 3 j, 5 sj, 132 ud			
491	fill, o.d.	150	-1 b, -2 dec hm, 2 b, 7 k, 7 j, 1 ja, 2 cp, 1 dec, 243 ud			
493	ash, o.d.	5	3 k, 2 j, 8 sj, 2 cp, 190 ud			

Table 20 Description of the loci of Phase XII, Area 2 North-west

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
496	fill, o.d.	8	1 b, 1 j, 1 sj			
497	fill above pavement	3	6 k, 4 sj, 174 ud			
498	fill, o.d.	7	-1 k, -2 b, 1 b, 57 ud			
500	surface, ash	1	1 j, 25 ud			
504	ash, o.d.	3				
505	stone pavement					
506	stone pavement	15	-1 b, 10 ud			
508	fill, o.d.	1	2 ud			
511	surface, o.d.	3	1 k, 1 j, 1 sj, 2 pf, 45 ud			
532	fill in cistern					
542	fill, o.d.	20	-1 jl, 5 b, 8 k, 1 jl, 2 j, 3 sj, 1 ja, 160 ud			
545	fill, o.d.	83	2 b, 1 k, 5 j, 1 jl, 5 sj, 1 ep, 139 ud			disturbed
551	fill, o.d.	62	9 b, 6 k, 8 j, 1 jl, 3 sj, 1 ep, 234 ud			disturbed
552	fill, o.d.	8	5 b, 3 k, 1 j, 1 jl, 1 ep, 40 ud			
556	surface, o.d.	197	5 b, 1 j, 18 sj, 35 ud			
558	below surface	105	3 j, 10 ud			
562	posthole, stone-lined					
W428	inside wall		18 ud			

Table 20 continued Description of the loci of Phase XII, Area 2 North-west

abundantly all over the area of excavation. A roof support in the centre of the northern space and carbonized straw point to a collapsed roof of clay and straw. Destruction debris and traces of an intensive fire were evident all over the area. The area outside the tower including the annex to the east was used for the preparation of food, judging from the two *tawabeen*. The original water capacity of the cistern is estimated at approximately 50 cubic metres.

Legend for the illustrated pottery from Phase XII, Area 2 North-west

Fig.	Locus No.	Description
82:1	506 -1	Bowl, hard-fired, reddish-brown fabric, coarse, mainly grey inclusions, self slip.
82:2	491 -1	Bowl, hard-fired, brown fabric, grey core, coarse, multicoloured inclusions, self slip.
82:3	498 -2	S-bowl, hard-fired, reddish-brown fabric, grey core, coarse, mainly white inclusions, self slip, red wash.
82:4	488 -3	S-bowl, medium-hard-fired, light brown fabric, coarse, mainly white inclusions, light brown slip, red wash.
82:5	482 -4	Carinated bowl, medium-hard-fired, greyish-brown fabric, medium-coarse, multicoloured inclusions, light reddish-brown slip; marked ridge below rim.

82:6	479	-1	Incense cup, hard-fired, reddish-brown fabric, coarse, mainly grey inclusions, self slip.
82:7	485	-2	Bowl, medium-hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, self slip.
82:8	485	-3	Bowl/cup, medium-hard-fired, light reddish-brown fabric, medium-coarse, multicoloured inclusions, red slip.
82:9	498	-1	Krater, hard-fired, light brown fabric, grey core, coarse, mainly white inclusions, light brown slip, red wash.

Legend for the illustrated pottery and another find from Phase XII, Area 2 North-west

Fig.	Locus No.	Description
83:1	480 -2	Jar, hard-fired, brownish-red fabric, grey core, coarse, green and white inclusions, light greenish-grey slip.
83:2	488 -2	Krater, hard-fired, light brown fabric, coarse, mainly grey inclusions, yellow slip.
83:3	480 -3	Krater, hard-fired, brown fabric, coarse, black inclusions, self slip.
83:4	482 -5	Krater, medium-hard-fired, brown fabric, grey core, coarse, multicoloured inclusions, self slip.

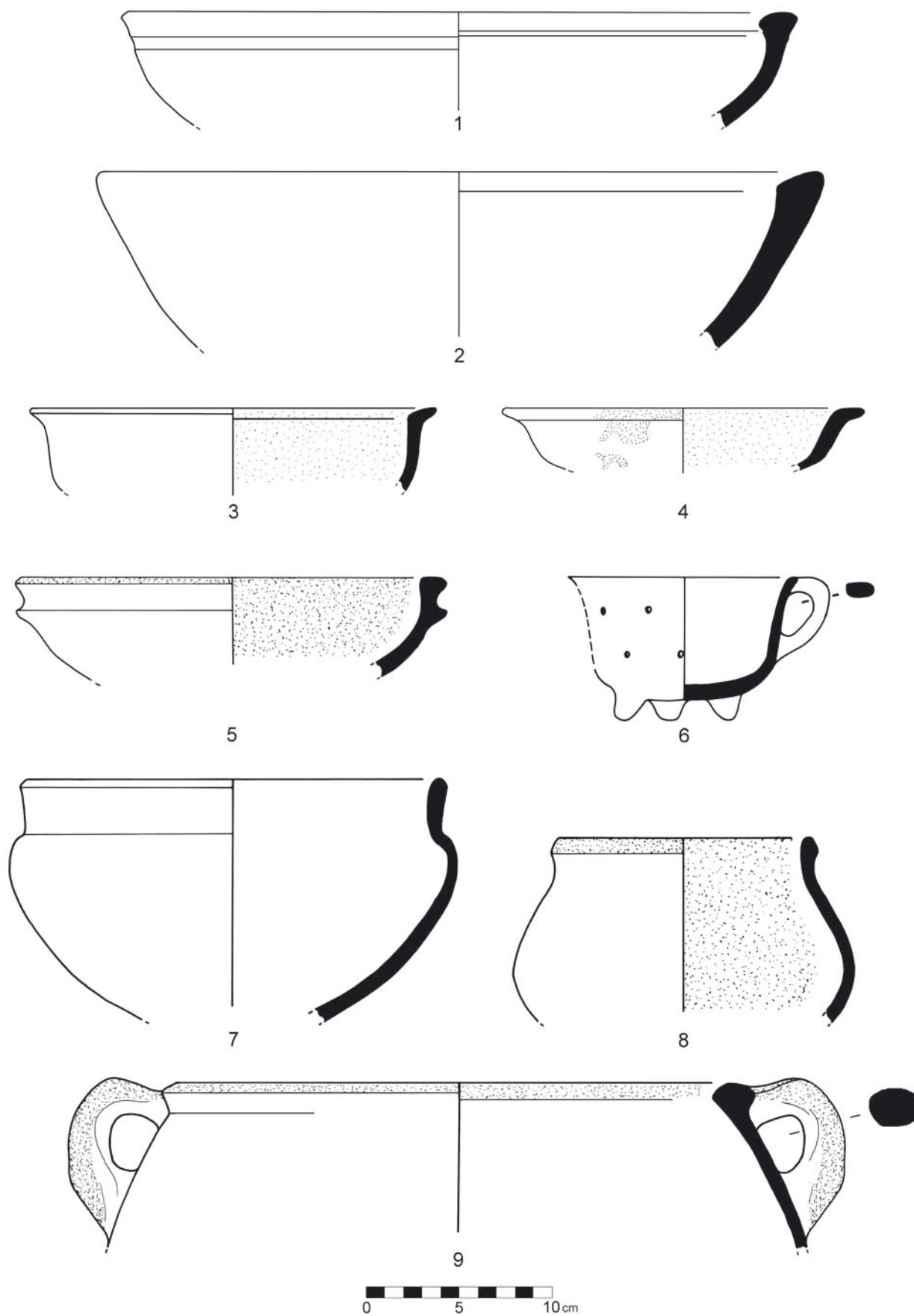


Fig. 82 Pottery from Phase XII, Area 2 North-west

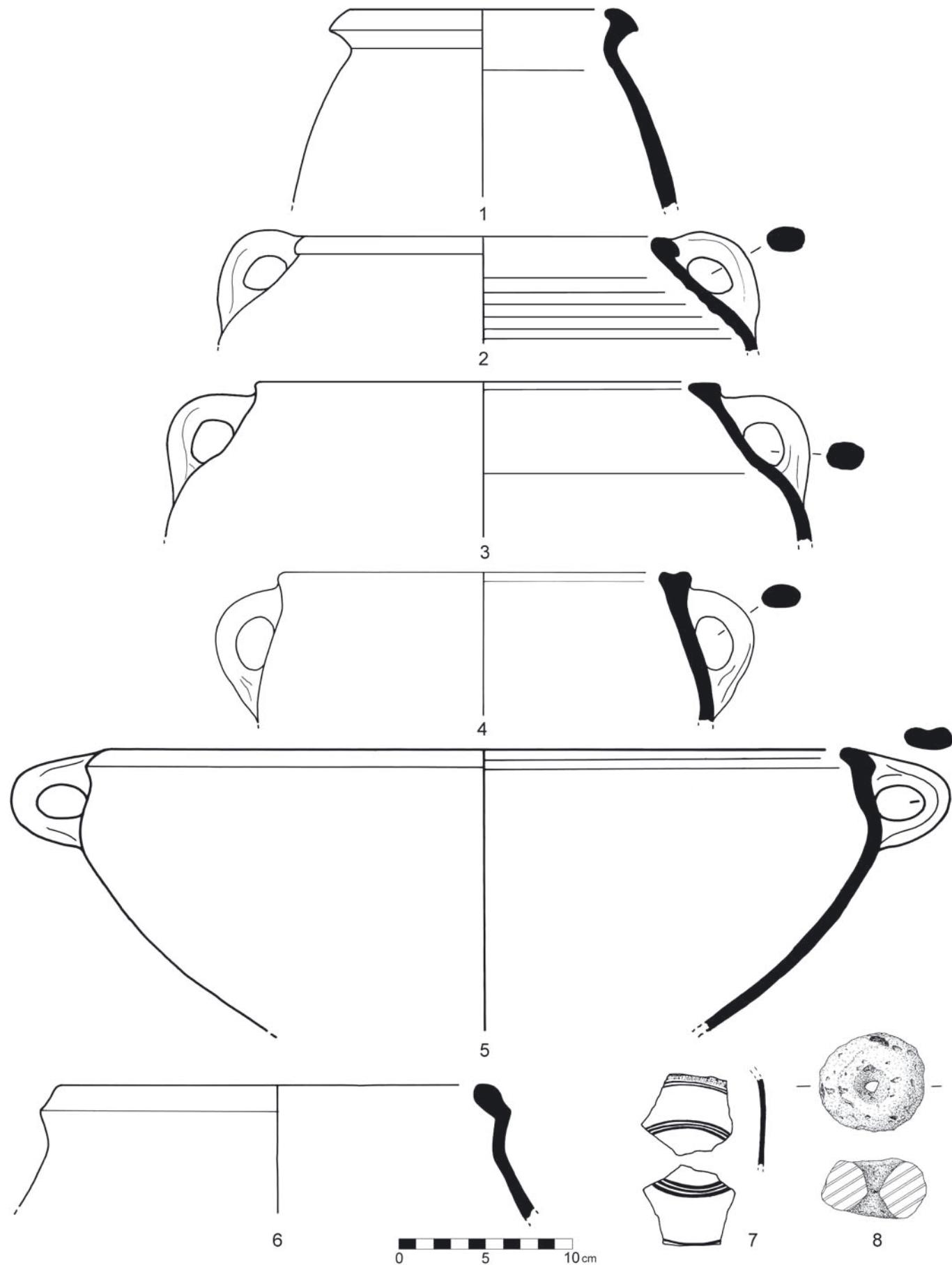


Fig. 83 Pottery and another find from Phase XII, Area 2 North-west

- 83:5 485 -1 Krater, medium-hard-fired, brown fabric, medium-coarse, multicoloured inclusions, light brown slip.
 83:6 482 -3 Cooking pot, hard-fired, reddish-brown fabric, dark grey core, coarse, white inclusions, self-slip.
 83:7 488 -1 Jug, hard-fired, light brown fabric, fine, yellow slip, dark brown decoration; import.
 83:8 486 N1054 Loom weight, basalt, Wt 92 g.

PHASE XIII (Figs. 84–85)

Architecture and features

This phase is only visible in the eastern part where the cistern is. There is the corner of a structure which was built towards the cistern (W426, 427) and at a distance of approximately 3 m is another reused wall (W425) with a clay sewer to the north. There is a well-defined stone pavement (L478) between the two structures.

Interpretation of the material evidence

Not much can be concluded from the scanty remains of this phase. They should be considered only as an alteration of the structures from the previous phase.

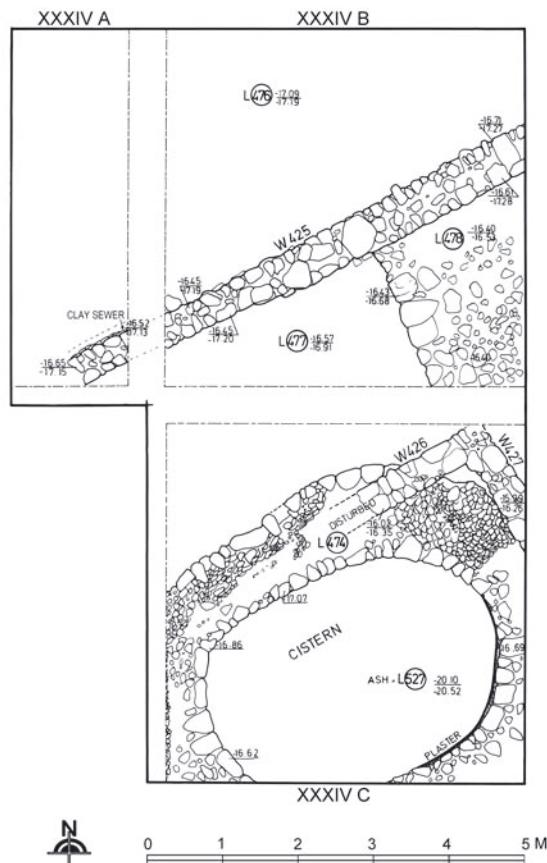


Fig. 84 Plan of Phase XIII, Area 2 North-west

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
425	0.5-0.6	0.7	3			
426	0.5	0.3	1-2			
427	0.5	0.3	1-2			

Table 21 Description of the walls of Phase XIII, Area 2 North-west

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
476	surface, o.d.		-1 b, -2 lid, -3 sj, -4 jl, 1 j, 35 ud			
477	surface, o.d.	3	3 b, 1 k, 1 j, 2 sj, 81 ud			
478	stone pavement					
527	fill in cistern		23 ud			
W425	inside wall	1	2 k, 2 j, 2 sj, 2 cp, 37 ud			

Table 22 Description of the loci of Phase XIII, Area 2 North-west

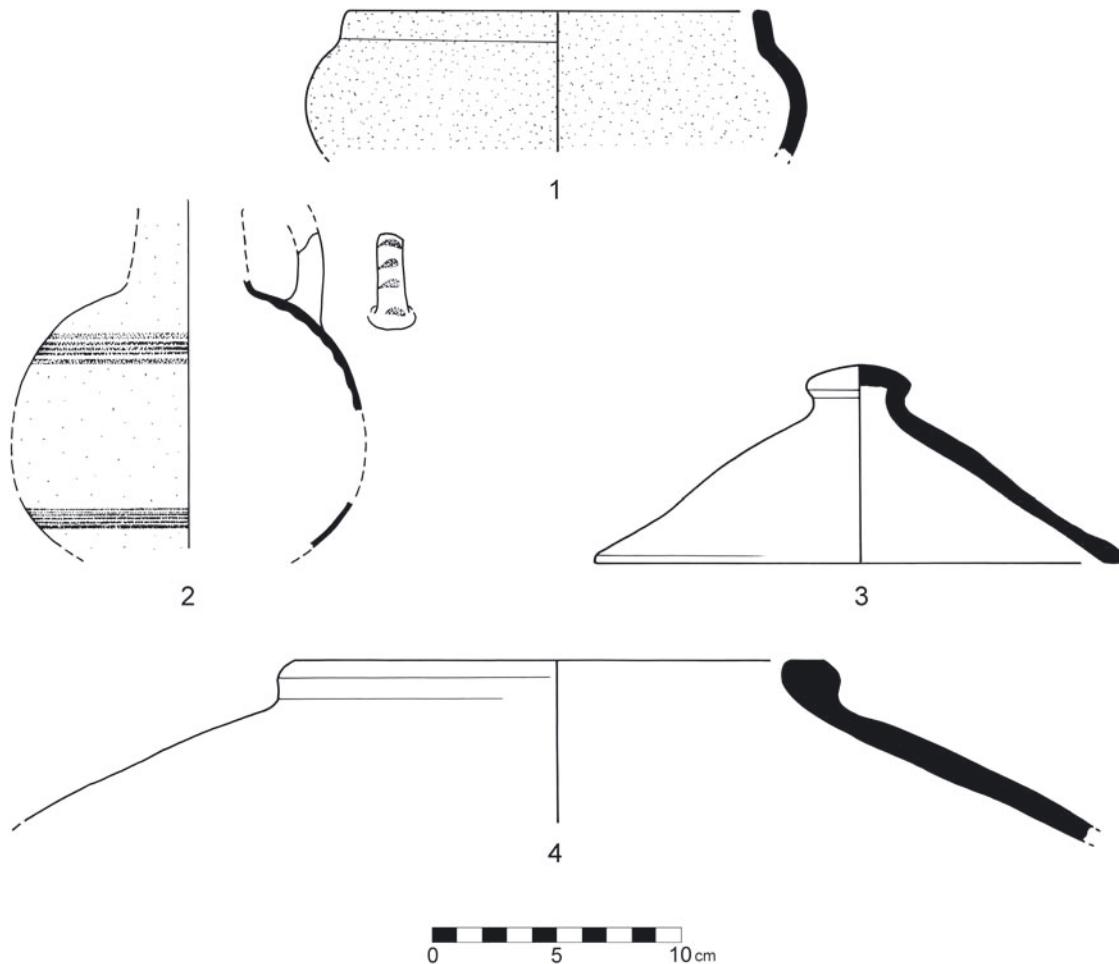


Fig. 85 Pottery from Phase XIII, Area 2 North-west

**Legend for the illustrated pottery from Phase XIII,
Area 2 North-west**

Fig.	Locus No.	Description
85:1	476 -1	Bowl, medium-hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, red slip.
85:2	476 -4	Juglet, hard-fired, light brown fabric, medium-fine, light brown slip, red decoration; incised lines above and below belly (import).
85:3	476 -2	Lid, hard-fired, brown fabric, thick grey core, coarse, self slip.
85:4	476 -3	Storage jar, hard-fired, light brown fabric, thick dark grey core, coarse, self slip.

PHASE XIV (Figs. 86–89)

Architecture and features

The cistern was still in use, but it seems that the tower was no longer used. The cistern was approached from the north-west via a stone- and mudbrick-paved road, which ended with a 1 m wide step of hard clay leading up to the cistern. The cistern is surrounded by a stone pavement. Parts of two additional, very eroded, structures were exposed, one in the south-west (W443) and the other with an entrance in the north-east (W419, 420).

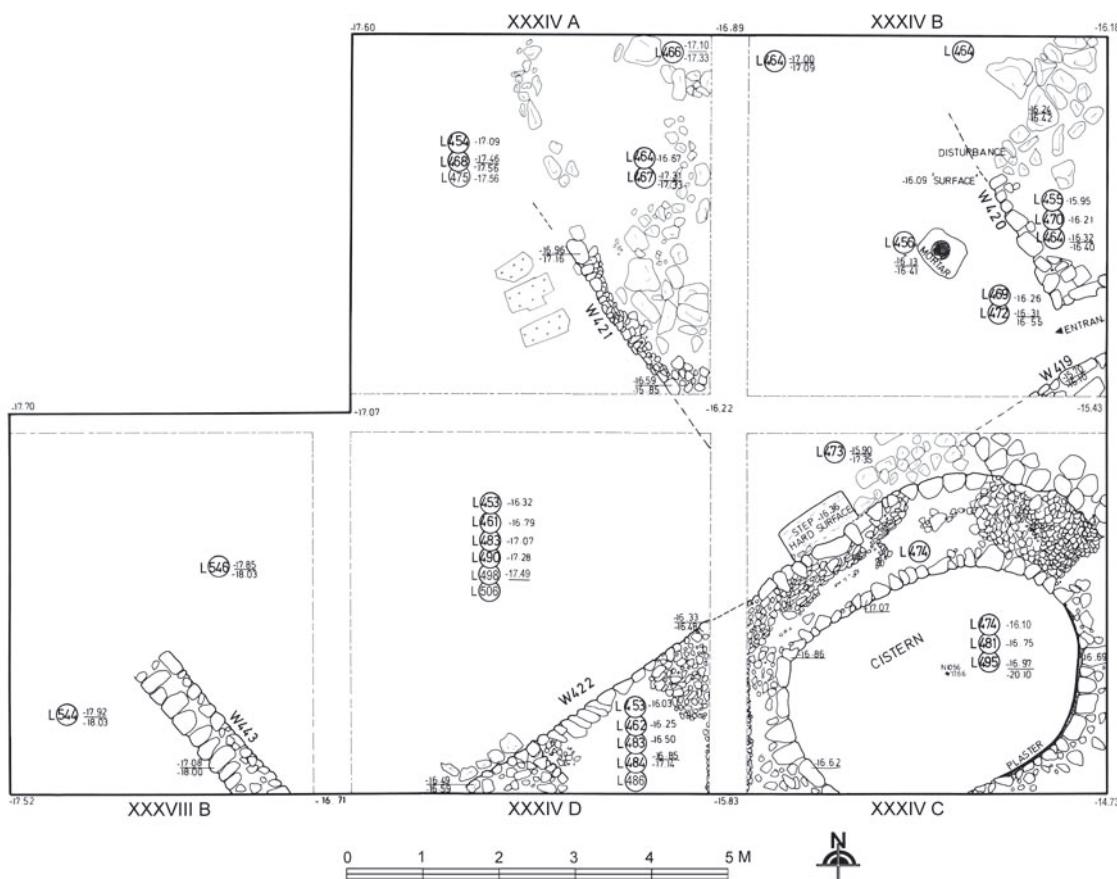


Fig. 86 Plan of Phase XIV, Area 2 North-west

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
419		0.4	2			part of stone pavement
420	?	0.2	1-2			
421	?	0.3	1-2			
422		0.1	1			part of stone pavement
443	0.5	0.9	3-4			

Table 23 Description of the walls of Phase XIV, Area 2 North-west

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
453	fill, o.d.	22				
454	fill, o.d.	44	-1 b, 1 k, 2 j, 2 sj, 2 cp, 97 ud		-2 fig	
455	fill, o.d.		3 ud			
456	fill, o.d.		4 ud			
461	fill, o.d.	17	4 b, 1 j, 3 sj, 1 ep, 75 ud			
462	fill, o.d.	2	1 sj, 2 cp, 45 ud			

Table 24 Description of the loci of Phase XIV, Area 2 North-west

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
463	fill, o.d.		-1 ja			
464	fill, o.d.	3	-1 lid, 4 b, 1 j, 3 sj, 1 dt, 4 ep, 112 ud		1?	
466	fill, o.d.					
467	fill, o.d.	1	1 cb, 1 j, 1 ja, 2 sj, 1 ep, 50 ud			
468	fill, o.d.	6	1 b, 1 sj, 81 ud			
469	fill, o.d.		3 ud			
470	fill, o.d.		2 ud			
472	fill, o.d.		1 b, 1 dt, 63 ud		1?	
473	hard surface	1	-2 cb, 5 b, 3 k, 4 j, 1 ja, 7 sj, 2 ep, 265 ud			
474	fill in cistern	18	4 b, 1 k, 2 j, 3 sj, 2 ep, 119 ud			
475	fill, o.d.	7	2 b, 1 k, 2 j, 2 sj, 133 ud			
481	fill in cistern	11	-1 pf, 3 b, 1 cb, 1 k, 2 j, 11 sj, 11, 1 ep, 256 ud			
483	fill, o.d.	111	-1 j, -2 jl, 5 b, 3 k, 5 j, 1 ja, 1 sj, 3 cp, 7 ud			
484	fill, o.d.	3	-1 ja, 4 sj, 1 ep, 62 ud			
490	fill, o.d.	12	-1 k, 1 j, 4 sj, 1 pf, 104 ud			
495	fill in cistern	15	N1056 bj, -1 pf, -2 sj, 14 b, 2 k, 1 j, 16 sj, 6 ep, 115 ud			
544	fill, o.d.	28	79 ud			
546	fill, o.d.	7	5 k, 1 jl, 1 j, 2 sj, 113 ud			

Table 24 continued Description of the loci of Phase XIV, Area 2 North-west

Interpretation of the material evidence

The area around the cistern (see above) was altered and improved.

Legend for the illustrated pottery from Phase XIV, Area 2 North-west

Fig. Locus No. Description

87:1 454 -1 Bowl, hard-fired, light reddish-brown fabric, light brown core, medium-coarse, multicoloured inclusions, red slip, wheel-burnished; plastic trumpet-decoration on rim.

87:2 473 -2 Carinated bowl, medium-hard-fired, light brown fabric, fine, yellowish-brown and red slip, burnished, black decoration.

87:3 490 -1 Krater, hard-fired, light brown fabric, coarse, mainly grey inclusions, self slip.

87:4 484 -1 Handle of jar, hard-fired, light brown fabric, grey core, coarse, multicoloured inclusions, self slip; incised pot mark.

87:5 454 -2 Bull figurine, hand-made, hard-fired, light pinkish-brown fabric, thick grey core, fine, self slip.

87:6 463 -1 Handle of jar, hard-fired, light brown fabric, grey core, coarse, multicoloured inclusions, self slip; seal impression; see also Figs. 88, 466:4 and Appendix 4.

Legend for the illustrated pottery from the cistern of Phase XIV, Area 2 North-west

Fig. Locus No. Description

89:1 495 N1056 Black Juglet, hand-made, medium-hard-fired, brown fabric, fine, thick black slip, hand-burnished.

89:2 495 -1 Pilgrim flask, very hard-fired, light brownish-red fabric, thick grey core, medium-coarse, white inclusions, thick white slip.

89:3 495 -2 Storage jar, hard-fired, reddish-brown fabric, thick black core, coarse, multicoloured inclusions, self slip; finger impression on rim.

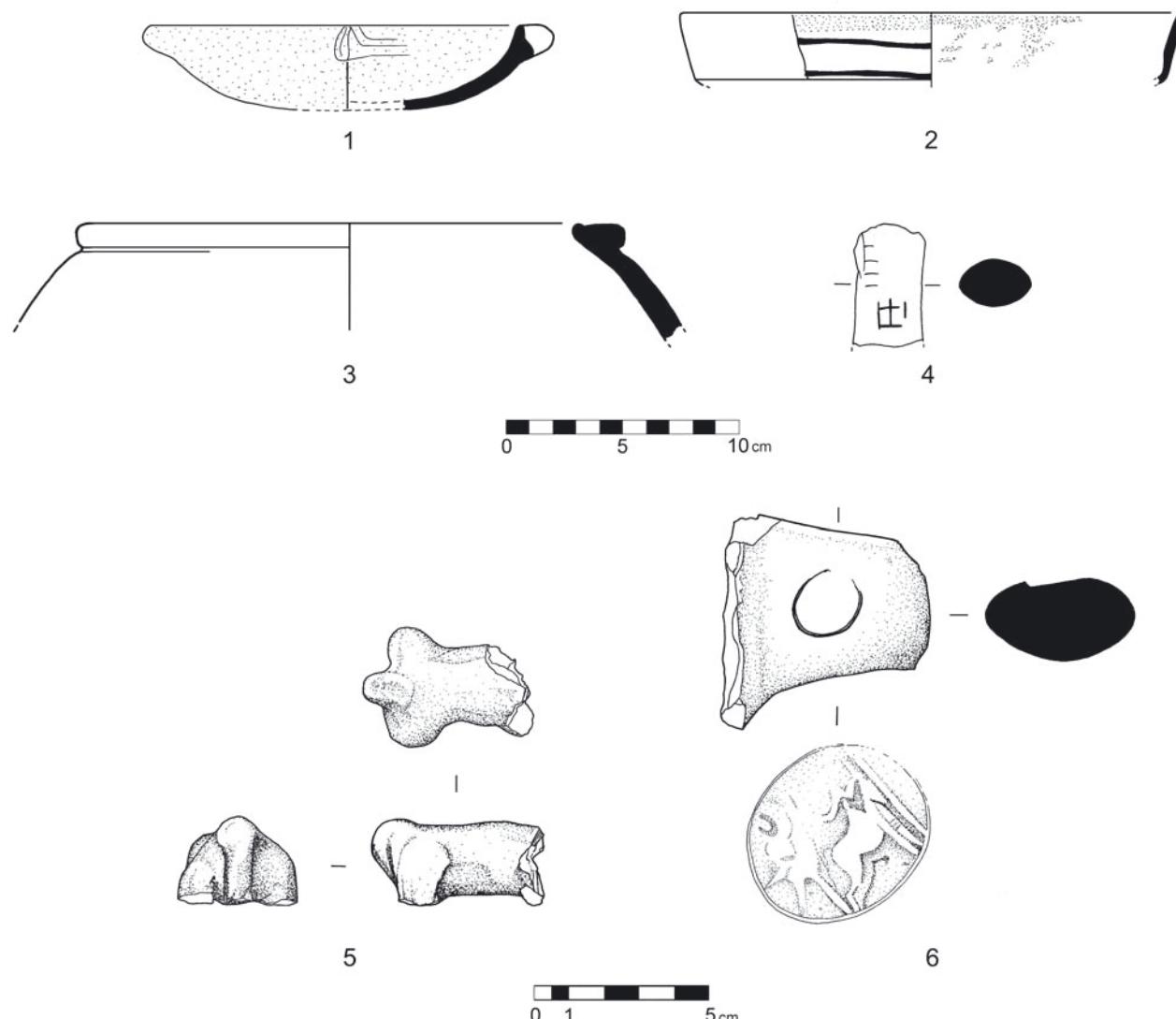


Fig. 87 Pottery from Phase XIV, Area 2 North-west



Fig. 88 Seal impression on handle of jar; see also Figs. 87:6, 466:4 and Appendix 4.

AREA 3

General information

This area lies to the north of Area 1, east of Area 2 North-west, and approximately 70 m northwest of the summit, in Grids NN–QQ / 27. The following trenches, with Iron Age remains, belong to Area 3: XIA–D, XII and XLIII.²⁸ Trenches XI and XII were excavated in 1992, and Trench XLIII in 1998. The area is situated on the sloping western part of the tell, not far from the

²⁸ Trench XLIII from 1998 is an extension of Trench XII from 1992. The primary purpose of opening Trench XLIII was to obtain additional radiocarbon samples of the locus with the sphinx-handle (N553, L84 from Trench XII) because the samples taken in 1992 could not be dated by the Oxford laboratory. Dataable samples could be retrieved and many other complete finds were made in 1998.

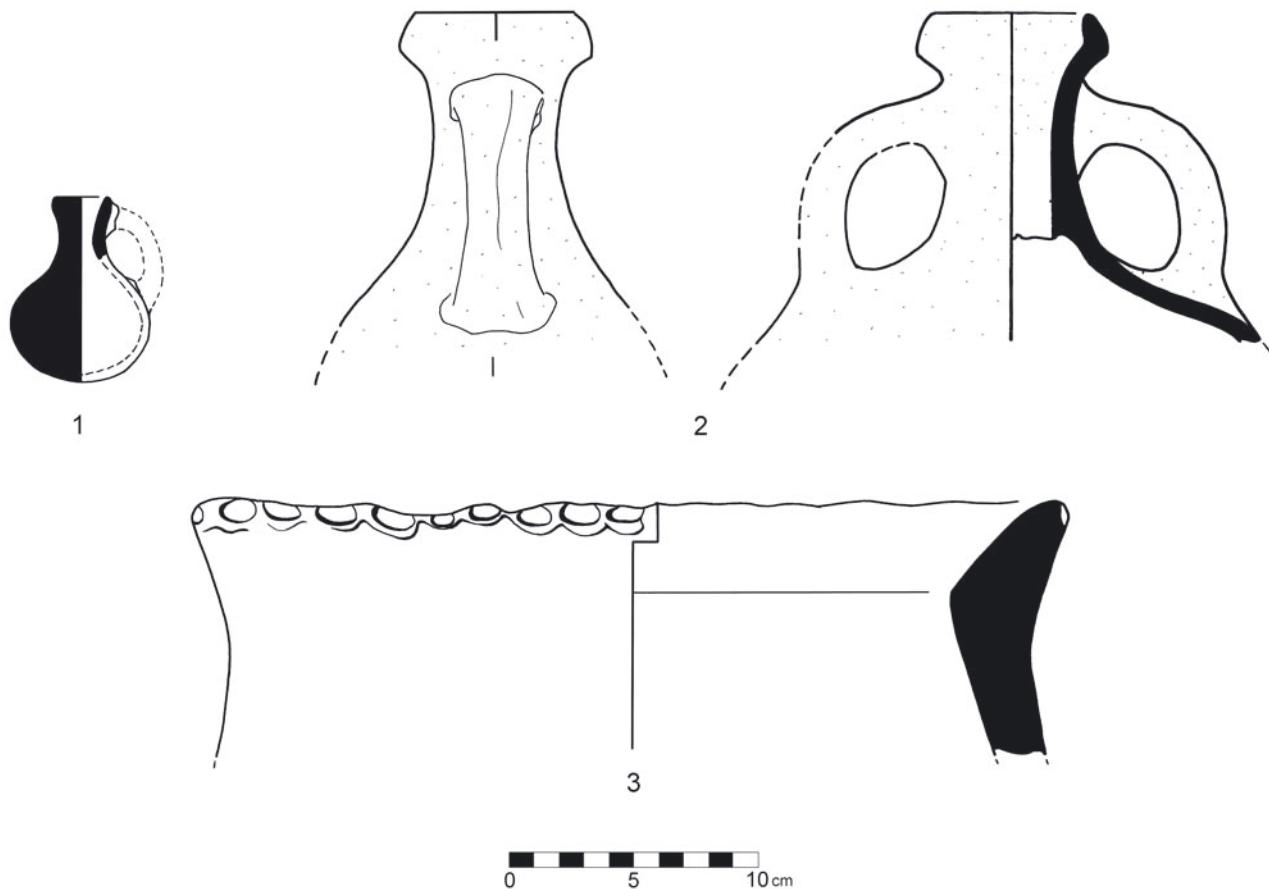


Fig. 89 Pottery from the cistern of Phase XIV, Area 2 North-west

centre of the upper plateau. Trial trenches were opened in order to investigate the occupational sequence at a spot which was considered convenient for an ancient street that would have connected the western lower part of the tell, i.e. Area 2, with the summit plateau (Area 10). The size of the area opened is only 154 square metres, which makes it the smallest excavated area on the upper part of the tell. Apart from some spectacular small finds²⁹ the area is too small to draw any far-reaching conclusions on the architectural sequence. Another fact to consider is that a secure stratigraphic connection between the two plots, viz. Trench XIA-D and Trenches XII/XLIII, does not exist: looters' and military pits lay between the two plots, and – in addition – the area slopes downwards to the west, making any stratigraphic connections highly speculative. Pottery –

including many complete items – was found in considerable quantities in the two plots, thus allowing a synchronisation based on the typology of the pottery. Nevertheless, here the two plots will be treated separately. In general, the excavations in Area 3 should be considered as trial soundings which can be extended to the east in the future, viz. towards the summit of the site, where an area of more than 3000 square metres is still unexcavated.

This area seems to have been intensively occupied during the Iron Age, judging from deep-lying Early Bronze Age remains which, together with scanty remains from the Middle and Late Bronze Ages, were much disturbed by Iron Age building activities. A tomb from the early Iron Age even reaches down to bedrock (here at a depth of a little more than 4 m from the surface).

²⁹ See, *inter alia*, the exquisitely carved bone handle depicting sphinxes (N553) and the ceramic “mask” of a smiling, bearded youngster (N504).

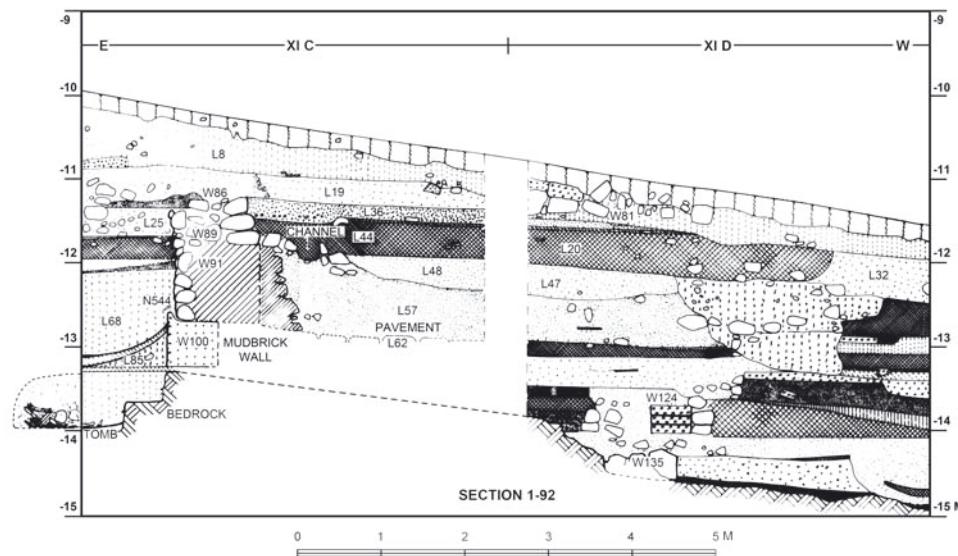


Fig. 90 Section 1-92. Area 3, south section Trenches XIC and D

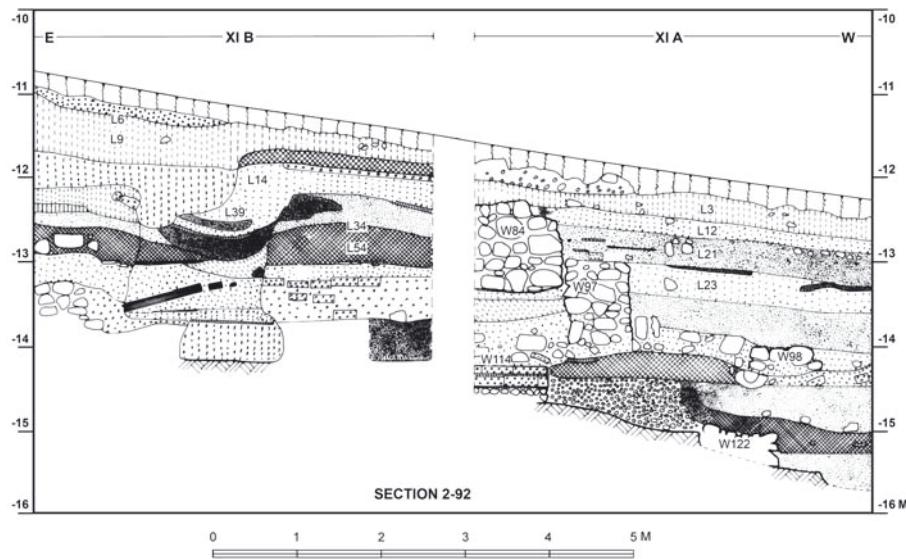


Fig. 91 Section 2-92. Area 3, south section Trenches XIB and A

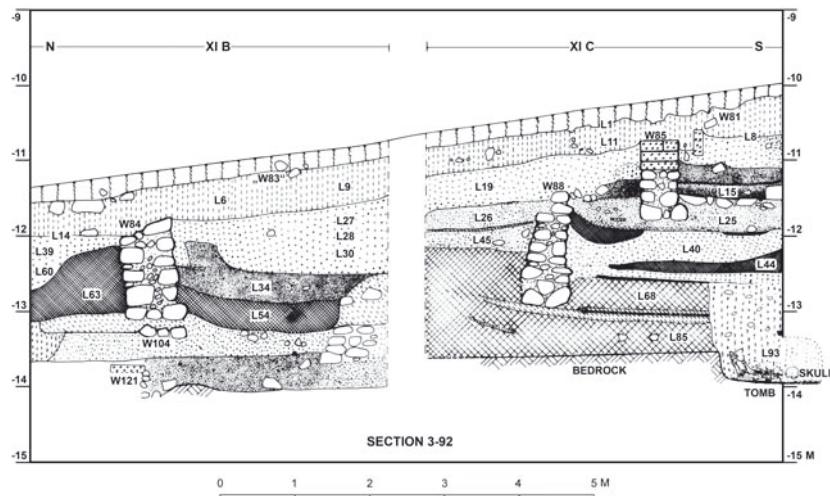


Fig. 92 Section 3-92. Area 3, east section Trenches XIB and C

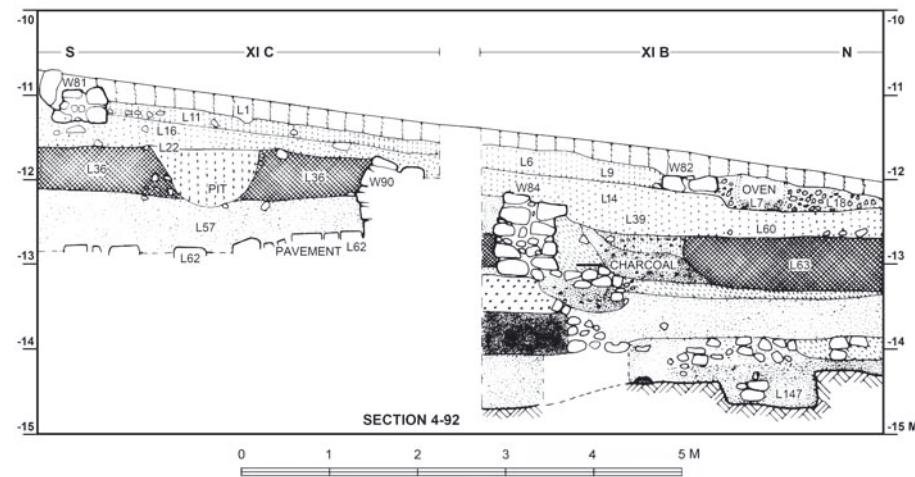


Fig. 93 Section 4-92. Area 3, west section Trenches XIC and B

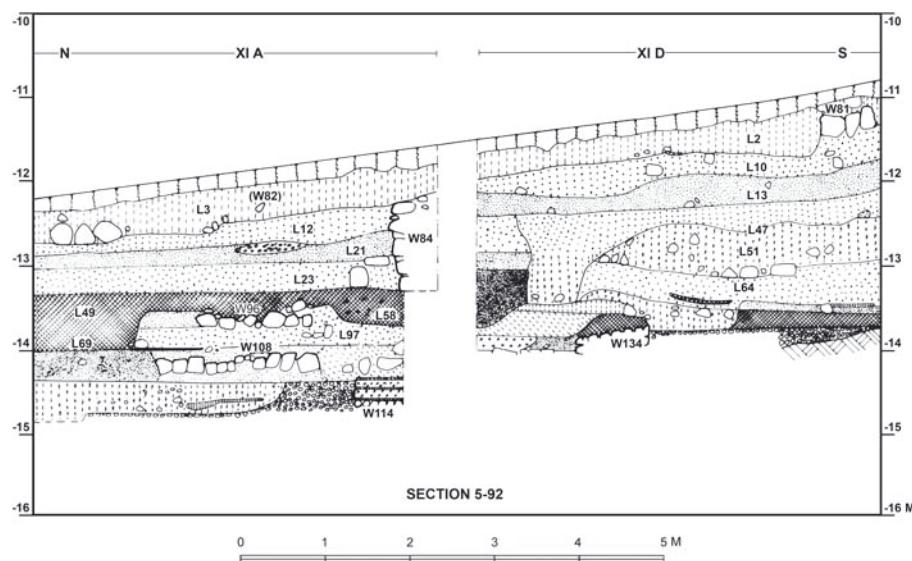


Fig. 94 Section 5-92. Area 3, east section Trenches XI A and D

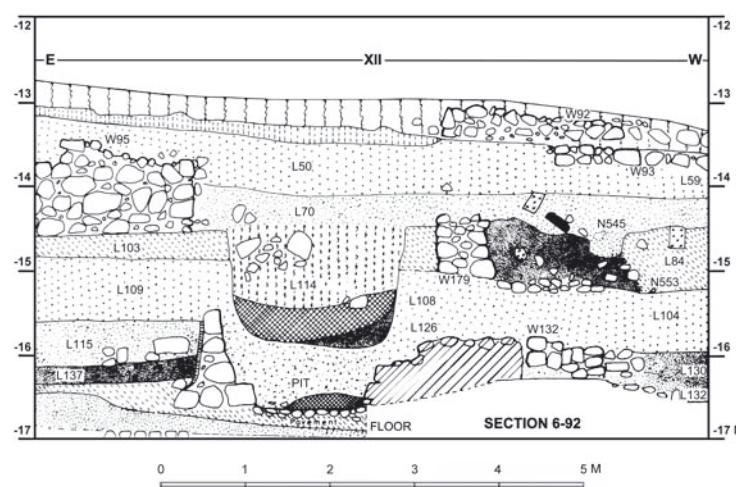


Fig. 95 Section 6-92. Area 3, south section Trench XII

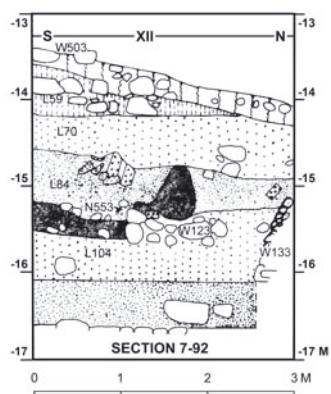


Fig. 96 Section 7-92. Area 3, west section Trench XII

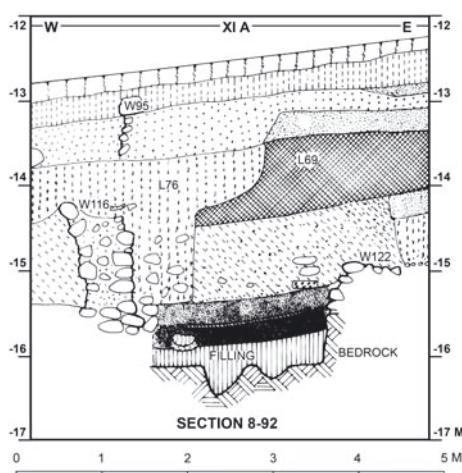


Fig. 97 Section 8-92. Area 3, north section Trench XIA

PHASE X, TRENCH XI, AREA 3 (Figs. 98–101)

Architecture and features

There are only scanty remains, which are tentatively ascribed to Phase X, the oldest Iron Age occupation in this area. W100 in Trench XIC is a mudbrick wall which is built in a foundation trench directly on bedrock. Associated loci are L68 and L85: an arrowhead of bronze (N544) and a multitude of Iron Age pottery shapes, a few of which may be intrusive,³⁰ should be mentioned.

Interpretation of the material evidence

The mudbrick wall W100 is untypical of Iron Age walls which almost always have stone foundations upon which mudbrick structures were built. It may

therefore predate the Iron Age but have been reused as an architectural element in a later structure.

There are early Iron Age shapes amongst the pottery but there are also shapes which should be better placed in the second half of the Iron Age. Concerning the arrowhead of bronze (N445): arrowheads of bronze are not found in Iron Age contexts at the site and if they can be associated with an Iron Age layer they are usually considered residual finds/heirlooms or assumed to have been reused.

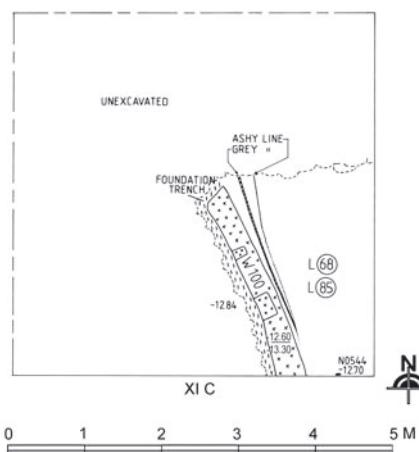


Fig. 98 Plan of Phase X, Trench XI, Area 3

Legend for the illustrated pottery from Phase X, Trench XI, Area 3

Fig.	Locus No.	Description
99:1	68 -6	Bowl, hard-fired, light brown fabric, medium-coarse, white inclusions, light brown slip, red wash interior and exterior.
99:2	68 -21	Bowl, medium-hard-fired, light greyish-brown fabric, coarse, grey and white inclusions, light brown slip, red wash interior and exterior / red splashes.
99:3	68 -2	Bowl, slight carination below rim, hard-fired, yellowish-brown fabric, coarse, a few large grey inclusions, light yellowish-brown slip.
99:4	85 -1	Carinated bowl, medium-hard-fired, light yellowish-brown fabric, coarse, mainly grey inclusions, light yellowish-brown fabric.
99:5	68 -4	Carinated bowl, medium-hard-fired, light brown fabric, medium-fine, a few white and grey inclusions, light yellowish-brown slip, red wash interior and exterior, splashes of red wash interior.

³⁰ See e.g. some of the cooking pot shapes in Fig. 101.

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
100	0.3-0.4	0.45		x		reused?

Table 25 Description of the wall of Phase X, Trench XI, Area 3

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
68	fill	19	-1 k, -2 b, -3 k, -4 cb, -5 stand, -6 b, -7 cb, -8 pf, -9 cp, -10 cp, -11 ja, -12 k, -13 b, -14 cp, -15 ja, -16 ja, -17 ja, -18 k, -19 k, -20 k, -21 b, -22 k, -23 cp, -24 cp, -25 sj, 8 b, 1 k, 2 ja, 4 cp		N544	
85	surface		-1 cb, -2 c, -3 cb, -4 k			

Table 26 Description of the loci of Phase X, Trench XI, Area 3

99:6	68	-7	Carinated bowl, hard-fired, light brown fabric, medium-coarse, grey inclusions, yellowish-brown fabric, orangish-red wash interior and exterior.	100:5	68	-18	Krater, hard-fired, light brown fabric, coarse, grey and white inclusions, yellowish-brown slip, red wash exterior.
99:7	85	-3	Carinated bowl, medium-hard-fired, greyish-brown fabric, medium-coarse, mainly light grey inclusions, self slip, brownish-red wash interior and exterior.	100:6	68	-3	Krater, hard-fired, light brown fabric, coarse, a few grey inclusions, light yellowish-brown slip.
99:8	68	-5	Stand (?) with two handles, hard-fired, light yellowish-brown fabric, medium-fine, a few grey and white inclusions, yellowish-brown slip, red wash exterior; incisions below rim.	100:7	85	-4	Krater, medium-hard-fired, light yellowish-brown fabric, coarse, grey and black inclusions, pinkish-yellow slip.
99:9	85	-2	Chalice, hard-fired, greyish-brown fabric, coarse, white inclusions, brown wash interior and exterior.	100:8	68	-20	Krater, hard-fired, light greyish-brown fabric, coarse, white and grey inclusions, light pinkish-brown slip, red wash interior, brown wash exterior.

Legend for the illustrated pottery from Phase X, Trench XI, Area 3

Fig. Locus No.

Description

100:1	68	-12	Krater, medium-hard-fired, light greyish-brown fabric, grey core, coarse, grey and white inclusions, light brown slip interior and exterior.
100:2	68	-19	Krater, hard-fired, light brown fabric, coarse, grey and white inclusions, yellowish-brown slip, traces of red wash exterior.
100:3	68	-22	Krater, hard-fired, greyish-brown fabric, coarse, a few white inclusions, light brown slip, red wash interior and exterior; ridge on neck.
100:4	68	-1	Krater, medium-hard-fired, light greyish-brown fabric, coarse, a few dark grey inclusions, light yellowish-brown slip; ridge below rim and incisions on belly.

Legend for the illustrated pottery and another find from Phase X, Trench XI, Area 3

Fig. Locus No.

Description

101:1	68	-25	Storage jar, hard-fired, light brown fabric, medium-coarse, a few grey inclusions, light yellowish-brown slip; incisions and ridge on neck.
101:2	68	-17	Jar, hard-fired, light yellowish-brown fabric, medium-coarse, white and grey inclusions, light yellowish-brown slip.
101:3	68	-11	Jar, medium-hard-fired, light greyish-brown fabric, coarse, white inclusions, self slip.
101:4	68	-16	Jar, hard-fired, light yellowish-brown fabric, medium-coarse, white and grey inclusions, light yellowish-brown slip.
101:5	68	-15	Jar, medium-hard-fired, light yellowish-brown fabric, medium-fine, self slip, traces of brown wash exterior.
101:6	68	-10	Cooking pot, medium-hard-fired, light greyish-brown fabric, coarse, white inclusions, self slip; ridge on neck.

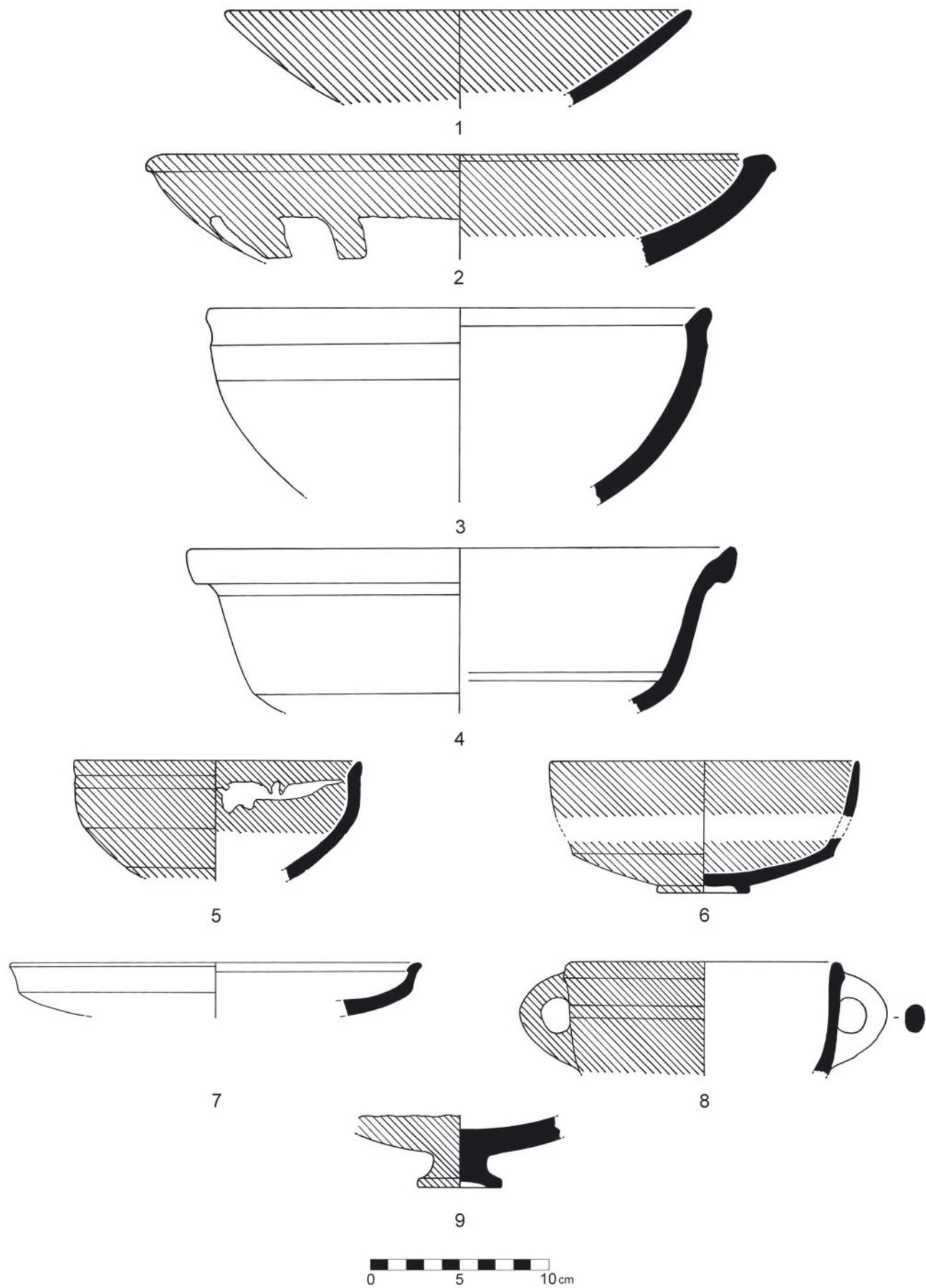


Fig. 99 Pottery from Phase X, Trench XI, Area 3

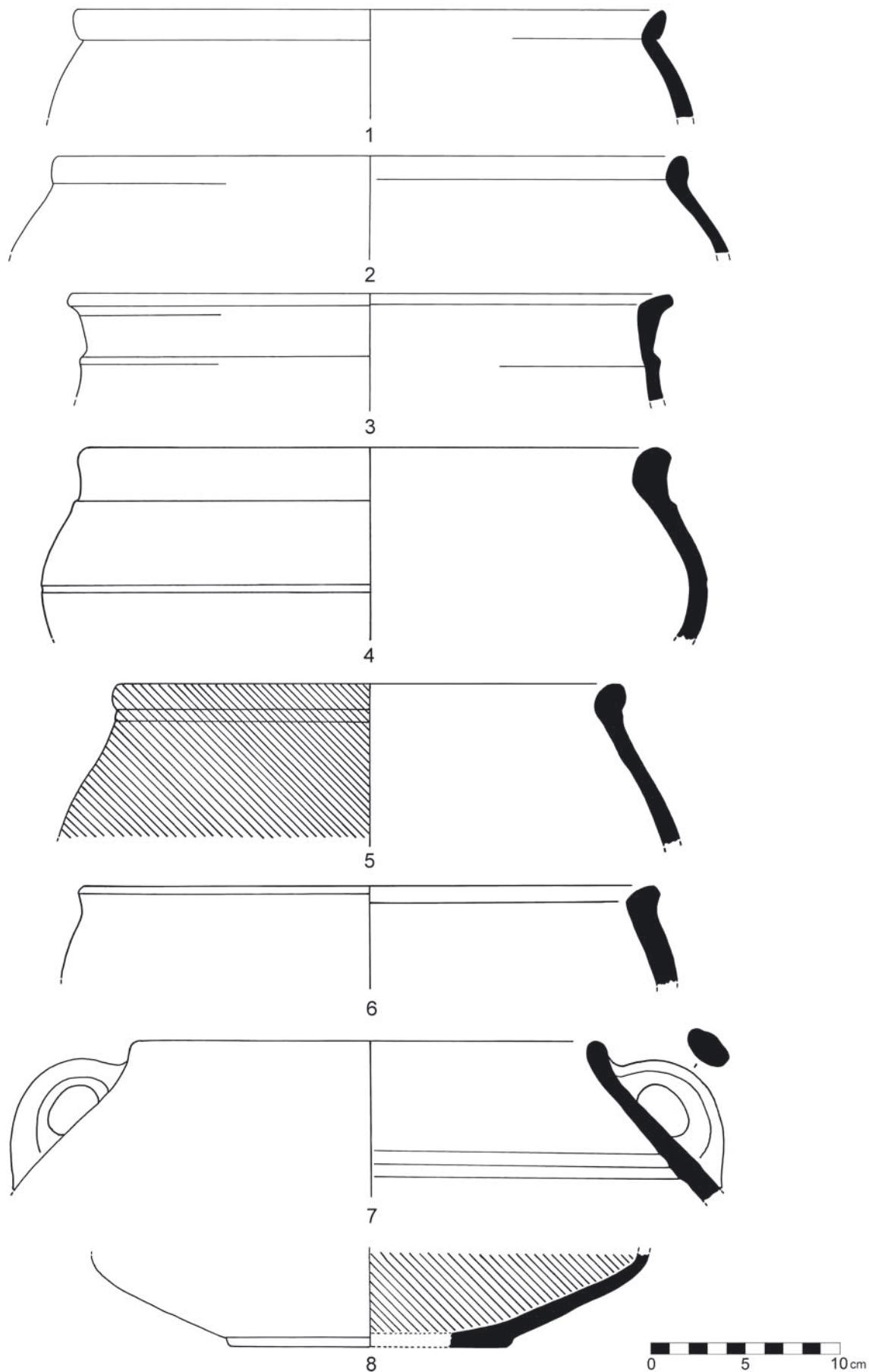
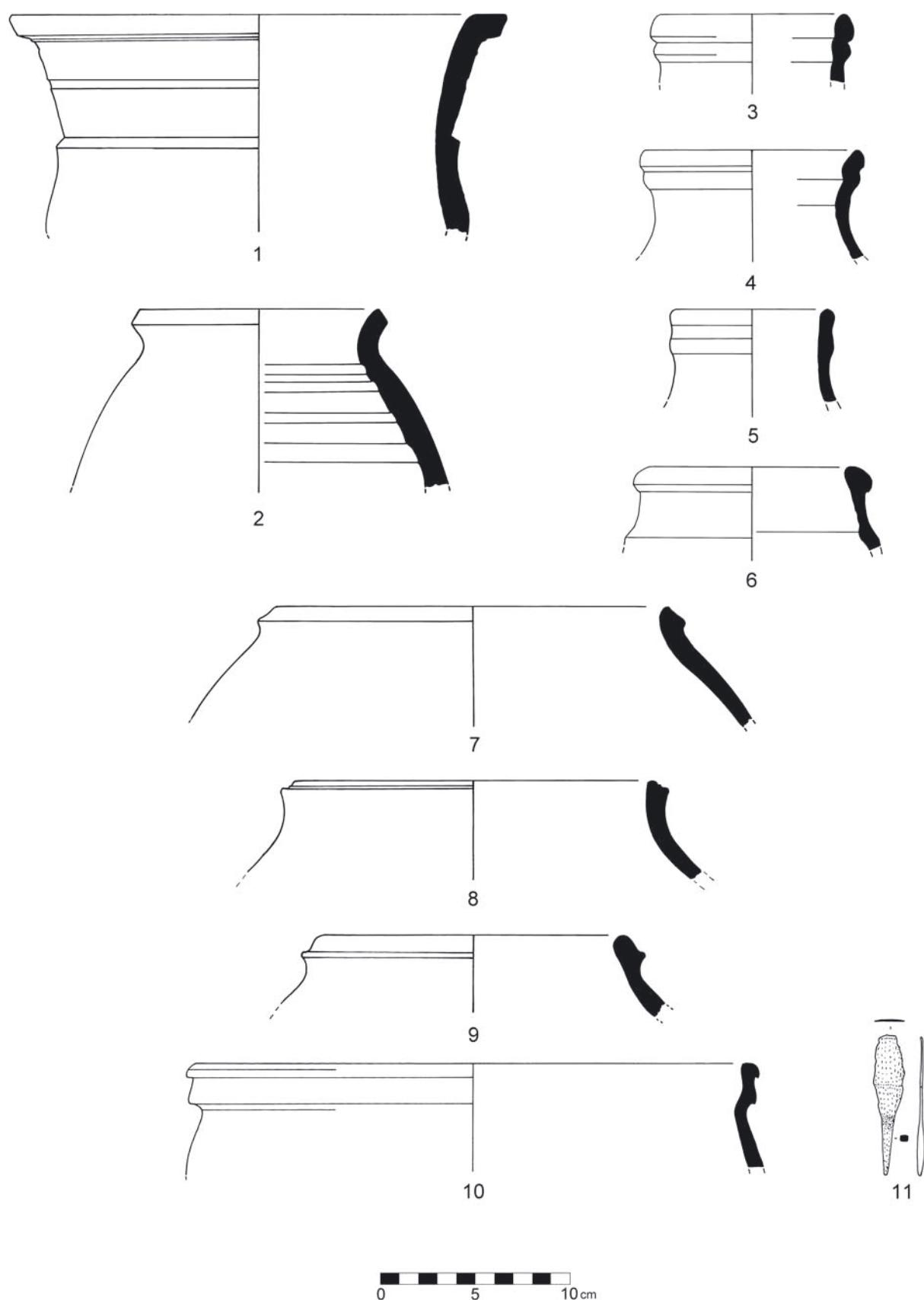


Fig. 100 Pottery from Phase X, Trench XI, Area 3



0 5 10 cm

Fig. 101 Pottery and another find from Phase X, Trench XI, Area 3

101:7	68	-24	Cooking pot, hard-fired, reddish-brown fabric, thick grey core, coarse, grey and white inclusions, self slip.
101:8	68	-23	Cooking pot, hard-fired, reddish-brown fabric, thick grey core, coarse, white inclusions, brown slip.
101:9	68	-9	Cooking pot, hard-fired, light brown fabric, coarse, white and grey inclusions, yellowish-brown slip.
101:10	68	-14	Cooking pot, hard-fired, reddish-brown fabric, grey core, coarse, white inclusions, self slip.
101:11	68	N544	Arrowhead, bronze, L 7.3, W 1.6 cm.

PHASES XIA AND B, TRENCH XI, AREA 3 (Figs. 102–110)

Architecture and features

There are indications of two sub-phases, however, they are difficult to separate stratigraphically. It is also not unlikely that a number of loci and finds which are from the lower portions of this phase, viz. with higher loci numbers and here ascribed to Phase XIA, in fact belong to the older Phase XIB.

There is the corner of a destroyed structure which is situated mainly in Trenches XIB and C (W84, 87, 88, 89, 90, 91). A stone-paved space belonging to the older sub-phase is to the south-west in Trench XIC (L62, 57). A millstone of basalt and six loom weights of unfired clay (N535A, B) lie on top of the stone paving. There are also two tombs which are ascribed to the older sub-phase: L54 (in Trench XIB), the burial of an animal in a pit (Fig. 102), and L93 (in Trench XIC), a tomb with human burials (Fig. 103). The animal's grave is fairly shallow whereas the 1.25 cm deep tomb cuts through an earlier layer and was dug into roughly 0.4 m of bedrock. This tomb is situated in the south-eastern corner of Trench XIC extending into the eastern and southern section and could therefore only be partly excavated during the season of 1992.³¹ It contained burnt bones of several individuals (minimum four individuals).³² The only possible gift which can be ascribed to the tomb is a large jug in the upper part of the fill. Additional tomb gifts might have been placed farther east and south in the tomb. The tomb, which was discovered at the very end of the 1992 season of excavation, was only partly excavated into the sections, and the whole trench was backfilled in order

to protect and preserve the area for future investigations.

Interpretation of the material evidence

The small exposed area makes any interpretation tentative. It is, however, clear that the wall in Trench XIB and those in Trench XIC were not built simultane-

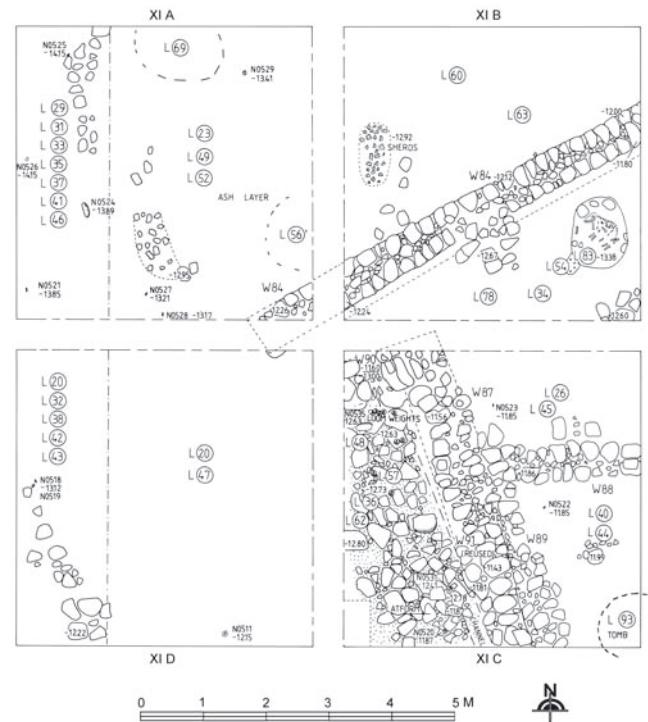


Fig. 102 Plan of Phases XIA and B, Trench XI, Area 3

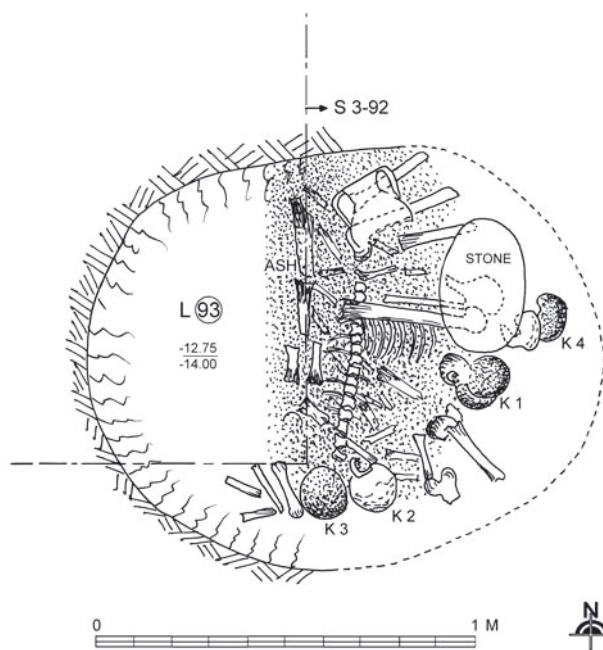


Fig. 103 Plan of Tomb, Phase XI, Trench XI, Area 3

³¹ Some 0.75 m was dug into the sections.

³² The OxA-4337 radiocarbon date of one of the burnt human bones is as follows: 1σ (91 %) 1166–998 BCE and 2σ (99 %) 1267–911 BCE. See also the chapter on radiocarbon.

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
84	0.6	0.8	4			
87	0.6	0.5	3			
88	0.5	0.5	3			
89	0.5	0.5	3			
90	0.6	1.1	4			reused in two phases
91	0.7	1.1	5			reused in two phases

Table 27 Description of the walls of Phase XI, Trench XI, Area 3

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
20	fill	10	-1 ja, 5 b, 2 k, 3 jl, 5 h, 4 cp, 157 ud		N511	
23	fill	52	-1 ja, -2 cp, 2 b, 2 k, 1 j, 206 ud			
26	surface	2	1 b, 9 k, 1 jl, 1 j, 1 ja, 9 sj, 131 ud		N523	
29	fill					
31	fill	11	2 b, 1 jl, 1 j, 2 ja, 1 cp, 39 ud			
32	fill	1	-1 sj, -2 cp, -3 ep, 2 k, 1 ep, 66 ud		N518	
33	fill	5	1 j			
34	fill	15	-2 b, 5 b, 1 c, 1 k, 2 sj, 1 hm, 162 ud			
35	fill	1	1 k, 2 h, 1 cp, 1 dec			
36	fill	5	-1 k, -2 k, -3 k, -4 cb, -5 k, -6 b, -7 ja, -8 ja, -9 j, -10 k, -11 k, 5 b, 1 cb, 2 k, 1 sj, 187 ud		N520, N531	
37	fill	23	1 k, 1 jl, 1 j, 1 ja, 1 cp, 77 ud			
38	fill	10	1 b, 1 j, 1 jl, 5 h, 1 cp			
40	fill	8	-1 k, -2 sj, -3 jl, -4 k, 1 b, 2 k, 3 sj, 1 hm, 1 cp		N522	
41	surface	23	-1 k, -2 ja, 1 b, 1 dec, 2 cp, 42 ud		N521, N524	
42	fill	29	2 b, 1 ja, 1 cp, 2 h, 14 ud			
43	fill	47	1 b			
44	fill	-10, 8	-1 k, -2 k, -3 k, -4 b, -5 k, -6 k, -7 k, -8 j, -9 j-dt, 1 cb, 1 b, 1 k, 1 j, 5 ja dec, 52 ud			
45	fill	6	5 b, 2 red-burnished bs			
46	fill	24	2 ep, 61 ud		N525, N526	
47	fill	5	3 b, 1 k, 1 jl, 3 ja, 2 cp, 147 ud			
48	fill above pavement	2				
49	ash layer	126	N529 l, -1 j, -2 k, -3 j, -4 j, -5 cp, -6 cp, -7 cp, -8 cp, -9 j-dt, -10 k, -11 ja, 6 b, 1 c, 4 j, 1 bj, 1 ja, 1 sj, 1 cp, 401 ud	N527, N528		
52	fill		-1 cb, -2 cb			
54	animal burial		-1 cp			
56'	area with ash	-1	-2 ep, -3 ep, -4 cp			just above tabun from Phase VII

Table 28 Description of the loci of Phase XI, Trench XI, Area 3

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
57	stone pavement	6	-1 ja, 5 b, 1 cp, 1 ud			
60	fill	5	2 b, 1 sj, 1 h, 1 cp			
62	stone pavement				N535A and B	
63	surface	23	-3 cp, 1 b, 4 ja, 1 hm, 1 h, 2 dec, 3 cp			
69	ash spot		-2 cp			
78			-1 cp, -2 cp			
83	animal burial					
93	human burials		-1 j			burnt bones
W87	inside wall		1 ja			
W88	inside wall	13				
W89	inside wall	2	1 ja			

Table 28 continued Description of the loci of Phase XI, Trench XI, Area 3

ously but were used together on one occasion. The animal which was buried in a shallow pit has been classified as a dog. The burnt and quite disintegrated human bones from Tomb L93 do not allow any conclusions on age and sex of the buried individuals. The radiocarbon dates place the tomb in Iron Age I or possibly at beginning of II A.

There are again early Iron Age shapes amongst the pottery, especially the cooking pots, but some shapes can also be placed somewhat later in the Iron Age sequence.

Legend for the illustrated pottery from Phase XI, Trench XI, Area 3

Fig. Locus No.

Description

- 104:1 44 -4 Bowl, medium-hard-fired, light greyish-brown fabric, medium-coarse, grey inclusions, brown slip.
- 104:2 52 -2 Carinated bowl, hard-fired, light grey fabric, coarse, black inclusions, light brown slip, burnished exterior; ridge below rim.
- 104:3 52 -1 Carinated bowl, hard-fired, light grey fabric, coarse, black inclusions, light brown slip, burnished exterior.
- 104:4 36 -4 Carinated bowl, hard-fired, light brown fabric, coarse, white and grey inclusions, self slip, brownish-red wash interior and exterior.
- 104:5 36 -6 Base of bowl, hard-fired, light grey fabric, coarse, grey and white inclusions, pinkish-grey slip and wash.
- 104:6 36 -5 Krater, medium-hard-fired, light greyish-brown fabric, medium-coarse, multi-coloured inclusions, light greyish-brown slip.

- 104:7 44 -3 Krater, medium-hard-fired, light greyish-brown fabric, coarse, a few multi-coloured inclusions, yellowish-brown slip.
- 104:8 36 -1 Krater, hard-fired, pinkish-brown fabric, coarse, white inclusions, light brown slip.
- 104:9 36 -2 Krater, hard-fired, light greyish-brown fabric, coarse, white and grey inclusions, pinkish-yellow slip; "ridge" on belly.

Legend for the illustrated pottery from Phase XI, Trench XI, Area 3

Fig. Locus No.

Description

- 105:1 44 -2 Krater, hard-fired, light greyish-brown fabric, coarse, grey inclusions, light brown slip, red wash.
- 105:2 49 -10 Krater, hard-fired, light pinkish-brown fabric, light grey core, coarse, black and white inclusions, self slip.
- 105:3 41 -1 Krater, medium-hard-fired, light greyish-brown fabric, coarse, mainly grey inclusions, light yellowish-brown slip.
- 105:4 40 -4 Krater, hard-fired, light greyish-brown fabric, coarse, dark grey inclusions, light brown slip, brown wash on rim.
- 105:5 40 -1 Krater, hard-fired, light brown fabric, thick dark grey core, coarse, multi-coloured inclusions, light yellowish-brown slip.
- 105:6 44 -6 Krater, medium-hard-fired, light yellow fabric, light brown core, coarse, grey inclusions, yellowish-brown slip; multiple minor ridges on neck.

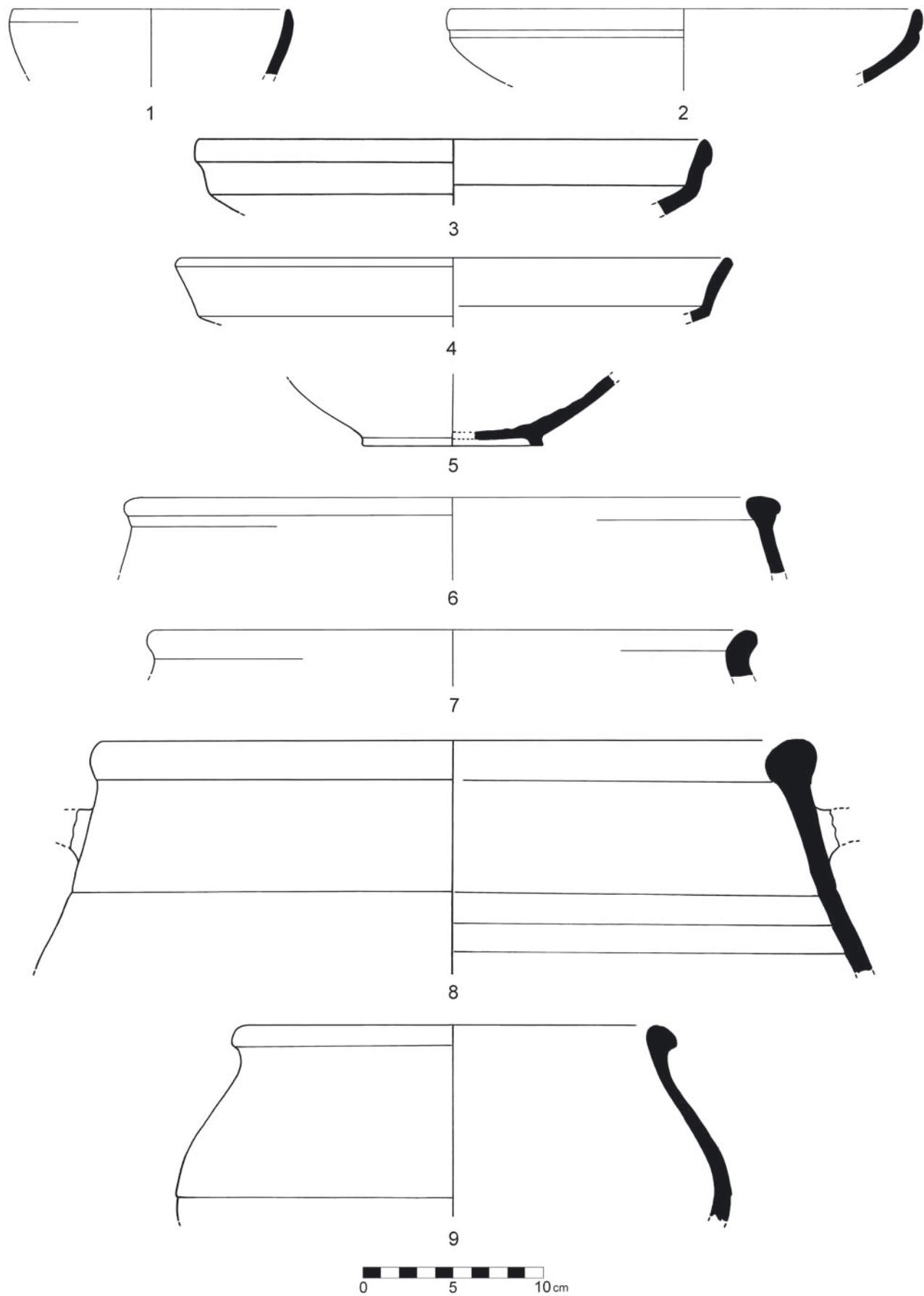


Fig. 104 Pottery from Phase XI, Trench XI, Area 3

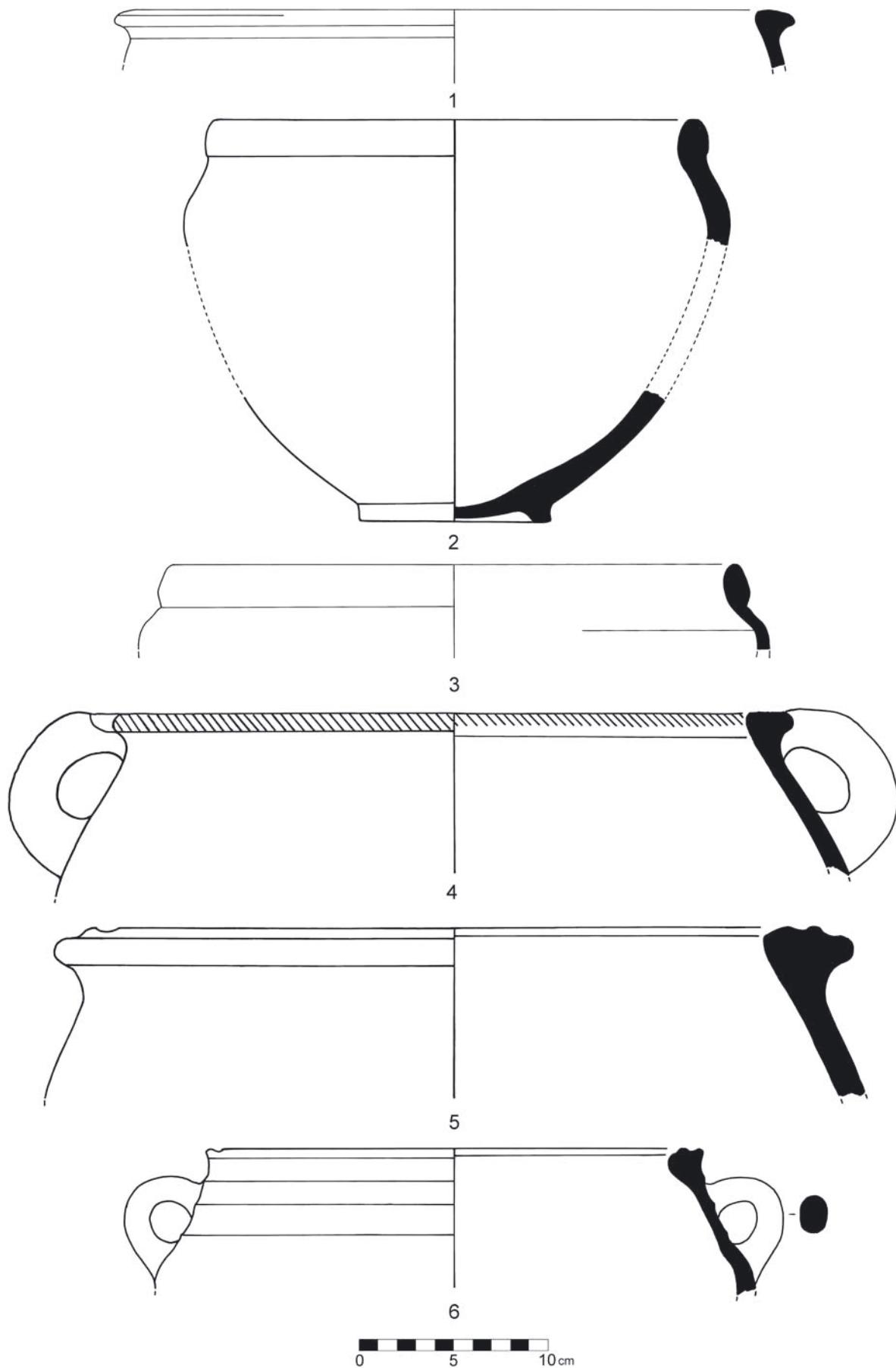


Fig. 105 Pottery from Phase XI, Trench XI, Area 3

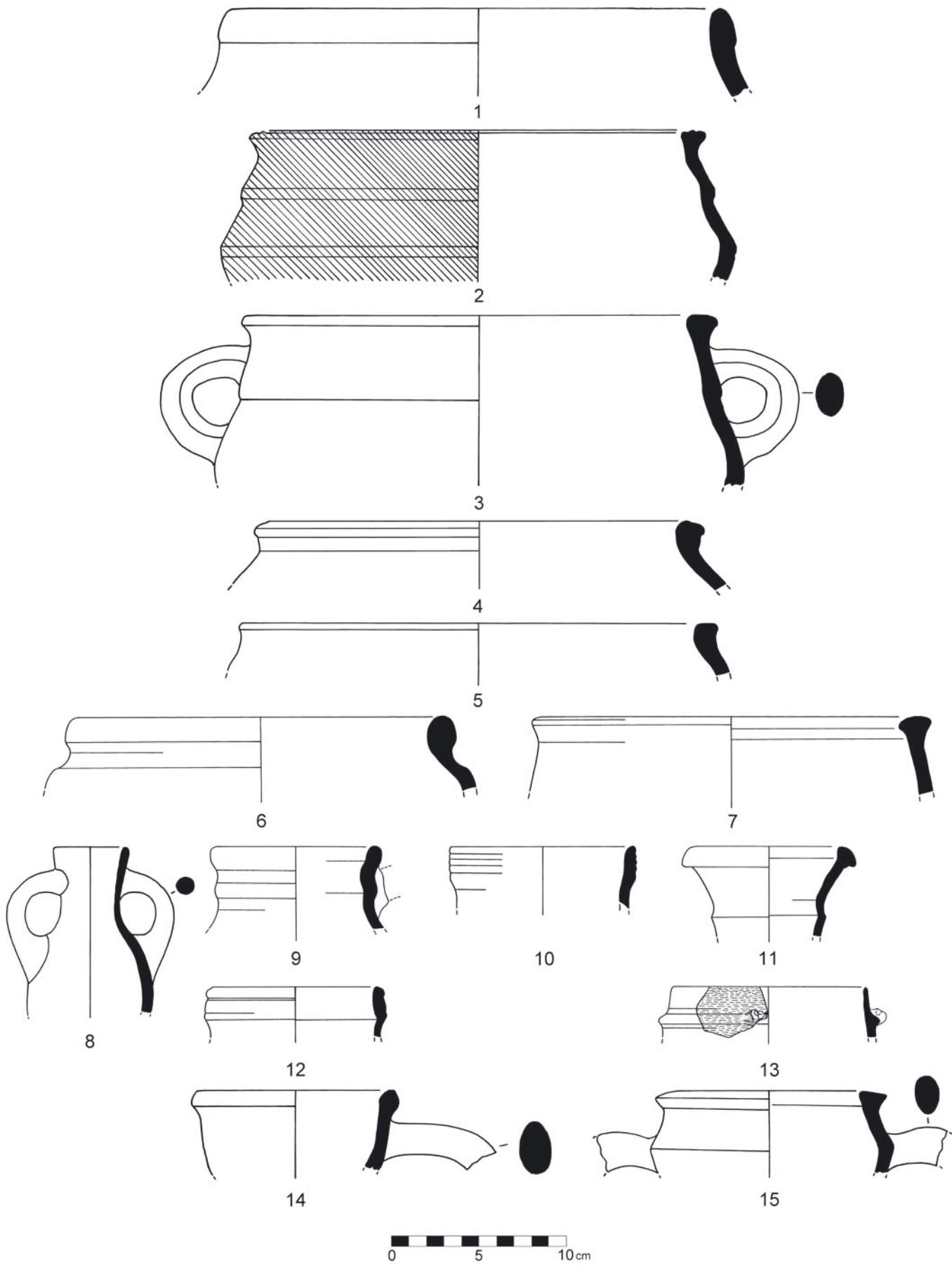


Fig. 106 Pottery from Phase XI, Trench XI, Area 3

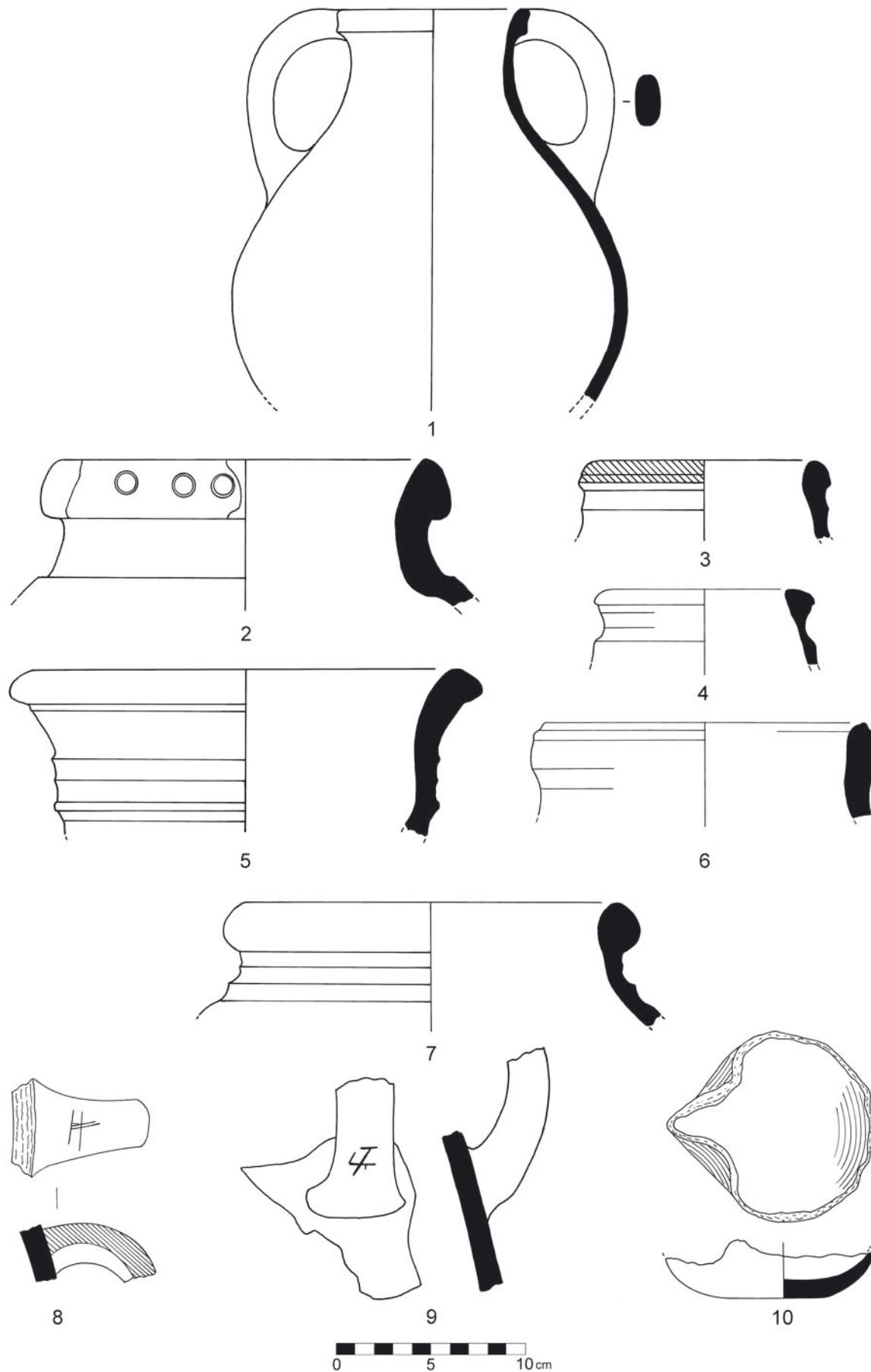


Fig. 107 Pottery from Phase XI, Trench XI, Area 3

Legend for the illustrated pottery from Phase XI,
Trench XI, Area 3

Fig.	Locus No.	Description
106:1	49	-2 Krater, hard-fired, grey fabric, coarse, black inclusions, light brown slip.
106:2	36	-10 Krater, medium-hard-fired, light brown fabric, coarse, mainly grey inclusions, light pinkish-brown slip, red wash; ridges on neck and belly.
106:3	36	-11 Krater, medium-hard-fired, light brown fabric, coarse, mainly grey inclusions, light pinkish-brown slip, traces of brown wash.
106:4	36	-3 Krater, hard-fired, light greyish-brown fabric, coarse, white and grey inclusions, light pinkish-brown slip.
106:5	44	-5 Krater, medium-hard-fired, light greyish-brown fabric, coarse, a few multicoloured inclusions, yellowish-brown slip.
106:6	44	-1 Krater, medium-hard-fired, light brown fabric, coarse, white and grey inclusions, light yellowish-brown slip.
106:7	44	-7 Krater, medium-hard-fired, light greyish-brown fabric, coarse, a few multicoloured inclusions, yellowish-brown slip.
106:8	40	-3 Juglet, medium-hard-fired, light reddish-brown fabric, coarse, mainly white inclusions, orangish-brown slip.
106:9	44	-9 Jug-decanter, hard-fired, light brown fabric, coarse, light grey inclusions, light pinkish-brown slip, traces of red wash; neck ridge.
106:10	49	-4 Jug, hard-fired, light grey fabric, coarse, mainly white inclusions, self slip.
106:11	36	-9 Jug, medium-hard-fired, light pinkish-brown fabric, medium-coarse, grey inclusions, yellowish-white slip; neck ridge.
106:12	49	-3 Jug, medium-hard-fired, light pinkish-yellow fabric, coarse, black inclusions, self slip.
106:13	49	-1 Jug, hard-fired, light grey fabric, coarse, mainly white inclusions, light brown slip.
106:14	44	-8 Jug, hard-fired, light brown fabric, light grey core, medium-coarse, light grey inclusions, light brown slip, traces of yellowish- to reddish-brown wash.
106:15	49	-9 Jug-decanter, medium-hard-fired, light red fabric, dark grey core, white inclusions, light pinkish-brown slip, traces of lilac lines on rim; neck ridge.

Legend for the illustrated pottery from Phase XI,
Trench XI, Area 3

Fig.	Locus No.	Description
107:1	93	-1 Jug, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, very light brown slip.

107:2	23	-1 Jar, hard-fired, light greyish-brown fabric, coarse, white inclusions, light brown slip, impressed circles on exterior of rim.
107:3	36	-7 Jar, very hard-fired, pink fabric, coarse, white inclusions, light pinkish-brown slip; neck ridge.
107:4	36	-8 Jar, hard-fired, light greyish-brown fabric, grey core, coarse, white inclusions, white slip; neck ridge.
107:5	40	-2 Storage jar, hard-fired, light greyish-brown fabric, coarse, mainly dark grey inclusions, light brown slip; neck ridges.
107:6	49	-11 Jar, hard-fired, light grey fabric, coarse, white inclusions, light brown slip.
107:7	32	-1 Storage jar, hard-fired, light greyish-brown fabric, coarse, white inclusions, light brown slip; neck ridges.
107:8	57	-1 Jar, handle, hard-fired, light greyish-brown fabric, coarse, grey inclusions, light brown slip, red wash; pot mark.
107:9	20	-1 Jar, handle, hard-fired, pinkish-grey fabric, medium-coarse, white inclusions, light brown slip; pot mark.
107:10	49	N529 Lamp, medium-hard-fired, light grey fabric, medium-coarse, white inclusions, light orangish-brown slip.

Legend for the illustrated pottery from Phase XI,
Trench XI, Area 3

Fig.	Locus No.	Description
108:1	49	-8 Cooking pot, hard-fired, pink fabric, light grey core, medium-coarse, white inclusions, self slip.
108:2	49	-5 Cooking pot, hard-fired, brown fabric, dark grey core, medium-coarse, white inclusions, self slip.
108:3	69	-2 Cooking pot, hard-fired, light grey fabric, coarse, white inclusions, light brown slip.
108:4	49	-6 Cooking pot, hard-fired, reddish-brown fabric, dark grey core, medium-coarse, white inclusions, self slip; incisions just above belly.
108:5	78	-1 Cooking pot, hard-fired, reddish-brown fabric, coarse, white inclusions, self slip.
108:6	32	-2 Cooking pot, hard-fired, reddish-grey fabric, grey core, coarse, white inclusions, self slip.
108:7	49	-7 Cooking pot, hard-fired, brown fabric, grey core, medium-coarse, white inclusions, self slip.
108:8	23	-2 Cooking pot, hard-fired, grey fabric, medium-coarse, quartzite inclusions, reddish-brown slip.
108:9	32	-3 Cooking pot, hard-fired, reddish-grey fabric, grey core, coarse, white inclusions, self slip.

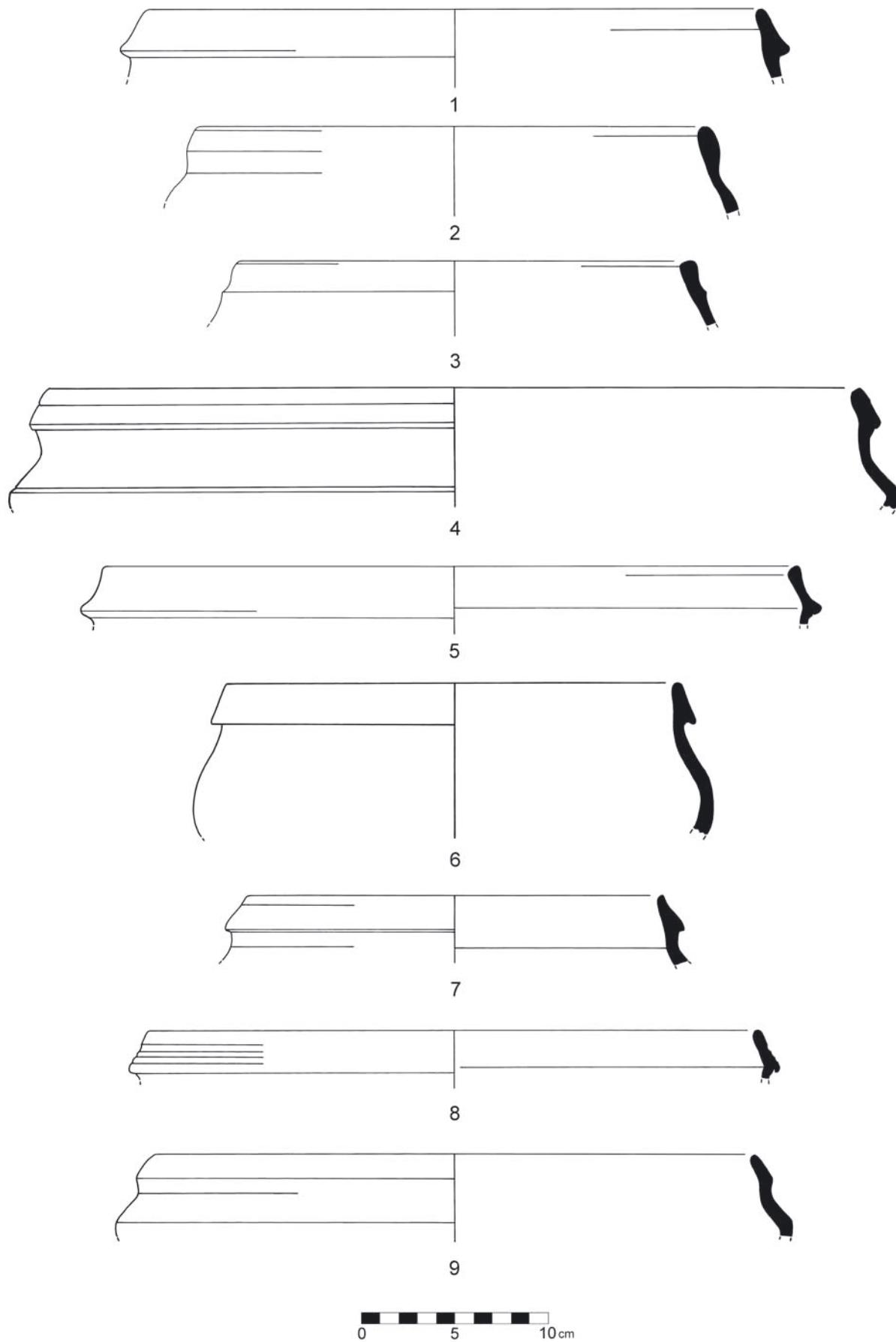


Fig. 108 Pottery from Phase XI, Trench XI, Area 3

Legend for the illustrated pottery from Phase XI,
Trench XI, Area 3

Fig. Locus No. Description

- | | | | |
|-------|-----|----|---|
| 109:1 | 56' | -3 | Cooking pot, hard-fired, reddish-brown fabric, coarse, white inclusions, self slip. |
| 109:2 | 56' | -4 | Cooking pot, hard-fired, reddish-brown fabric, coarse, white inclusions, self slip. |
| 109:3 | 78 | -2 | Cooking pot, hard-fired, reddish-brown fabric, coarse, white inclusions, self slip. |

- | | | | |
|-------|-----|----|--|
| 109:4 | 63 | -3 | Cooking pot, hard-fired, reddish-brown fabric, coarse, white inclusions, self slip. |
| 109:5 | 54 | -1 | Cooking pot, hard-fired, reddish-brown fabric, coarse, white inclusions, self slip, pierced rim. |
| 109:6 | 56' | -2 | Cooking pot, hard-fired, reddish-brown fabric, coarse, white inclusions, self slip. |

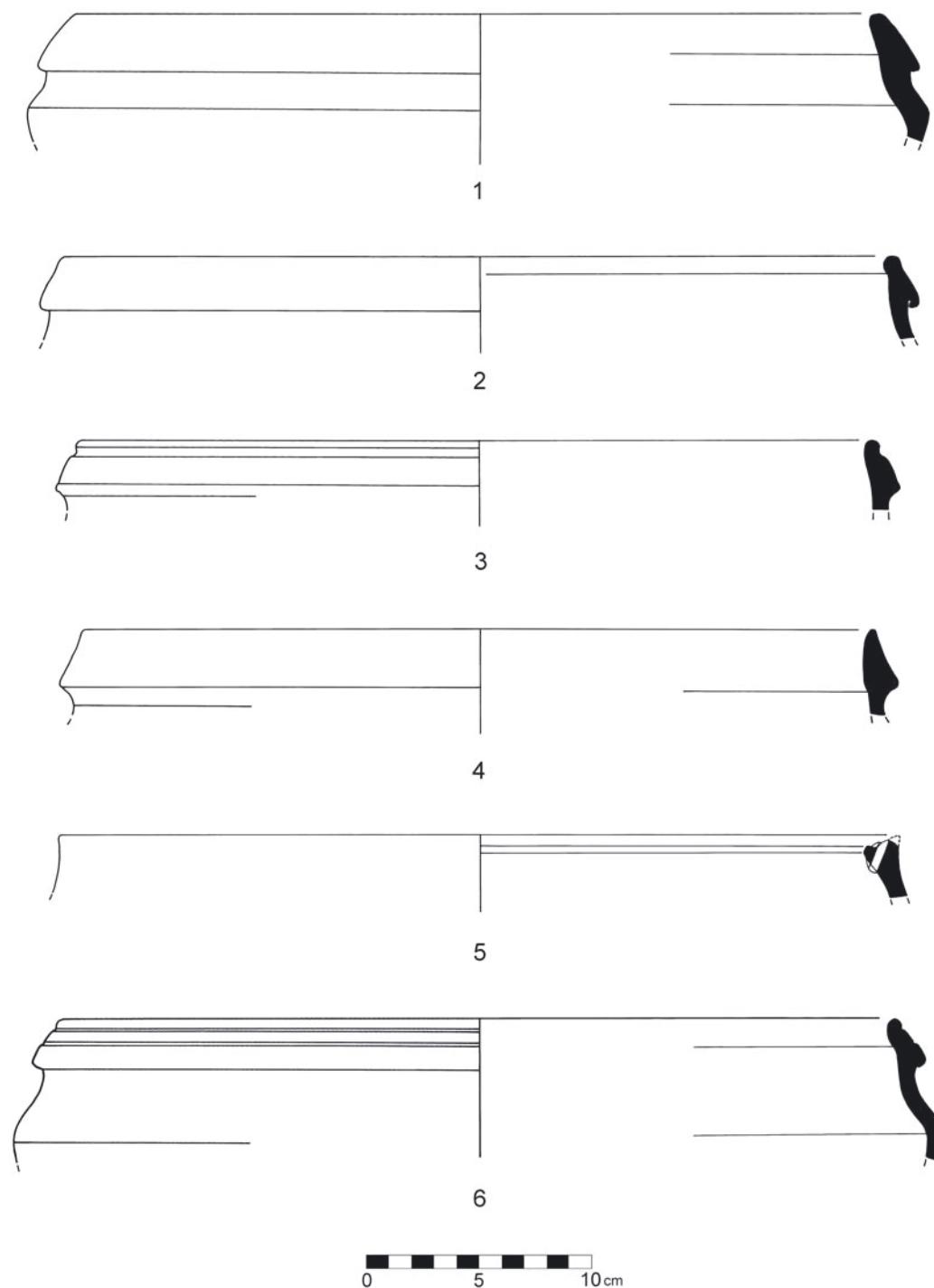


Fig. 109 Pottery from Phase XI, Trench XI, Area 3

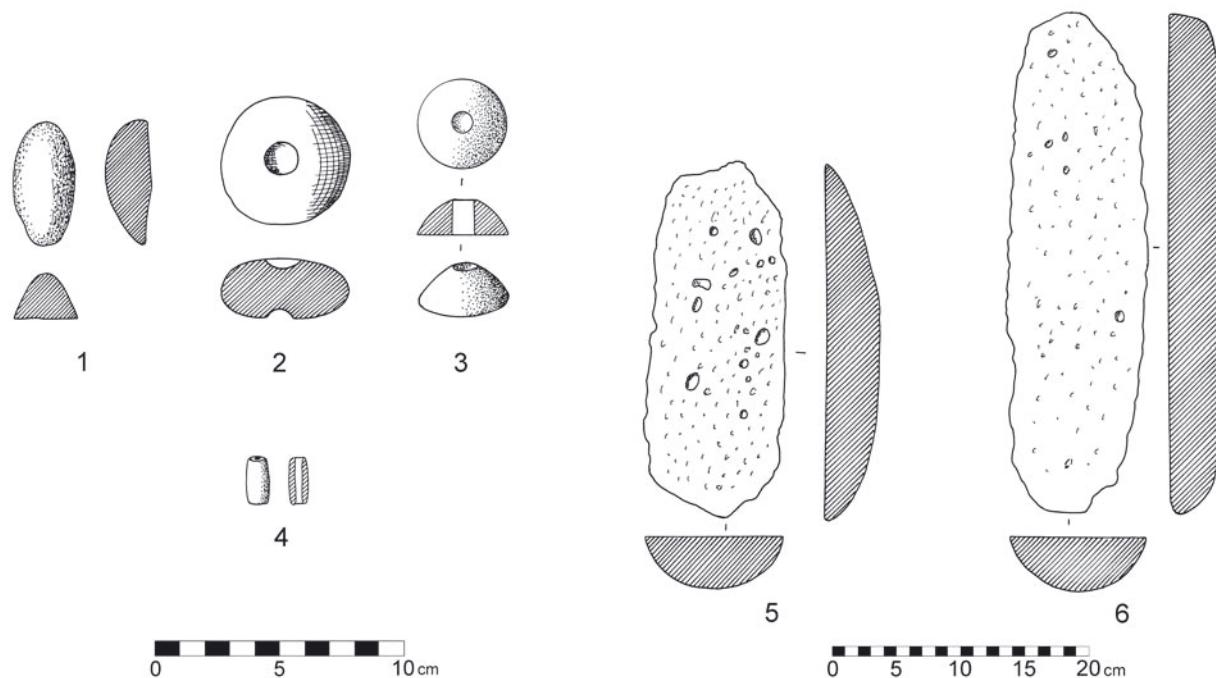


Fig. 110 Finds from Phase XI, Trench XI, Area 3

Legend for the illustrated finds from Phase XI, Trench XI, Area 3

Fig.	Locus No.	Description
110:1	46	N526 Weight, stone.
110:2	20	N511 Spindle whorl, limestone, unfinished, Wt 55 g.
110:3	36	N531 Spindle whorl, black stone, Wt 25 g.
110:4	40	N522 Bead, stone, light reddish-brown.
110:5	62	N535A Millstone, basalt.
110:6	41	N524 Millstone, basalt.

Additional finds from Phase XI, Trench XI, Area 3 (listed, not illustrated)

Locus No.	Description
26	N523 Lithic, blade, trapezoidal section, L 7.5, W 2.0, Th 0.4 cm.
32	N518 Pin, bronze, fragmentary, L 3.8, d. 0.6 cm.
36	N520 Spindle whorl, basalt, d. 4.0, H 2.0, d. of hole 1.3 cm, Wt 50 g.
41	N521 Lithic, blade, trapezoidal section, L 4.0, W 2.8, Th 0.4 cm.
46	N525 Lithic, blade, trapezoidal section, L 6.1, W 3.3, Th 1.3 cm.
49	N527 Toggle pin, bronze, fragmentary, L 8.9, d. 0.5 cm.
49	N528 Lithic, saw, trapezoidal section, L 7.8, W 4.0, Th 1.2 cm.
62	N535B Loom weights, unfired clay, nine pieces, fragmentary.

PHASE XII, TRENCH XI, AREA 3 (Figs. 111–117)

Architecture and features

This phase of occupation is quite disturbed in certain portions of Trench XI. There are only two fairly intact structures. The remainder are spread architectural elements: one is a wall in Trench XIA and B (W84) and the other is the corner of a house with an entrance 0.5 m wide (W85, 86). The area around the entrance is covered with ash and several objects were found there: juglets (N510, N512), a jug (N513), two storage jars (N506, N509), a flint blade (N505) and a millstone of porous basalt and some shells. A red-slipped juglet with three incised concentric circles on the shoulder was found to the west of the house (N507). Two clay-lined ovens (*tawabeen*) should be mentioned from Trench XIA. One extraordinary find from Trench XID is the representation of a smiling young male with a beard of fired and painted clay (N504; Figs. 117, 453:4). His face is painted red. This “mask” was once attached to a ceramic vessel (see also Appendix 1).

Interpretation of the material evidence

The area between W84 and the house in the south-eastern corner was once an outdoor area, maybe a courtyard. The building in the south-eastern corner

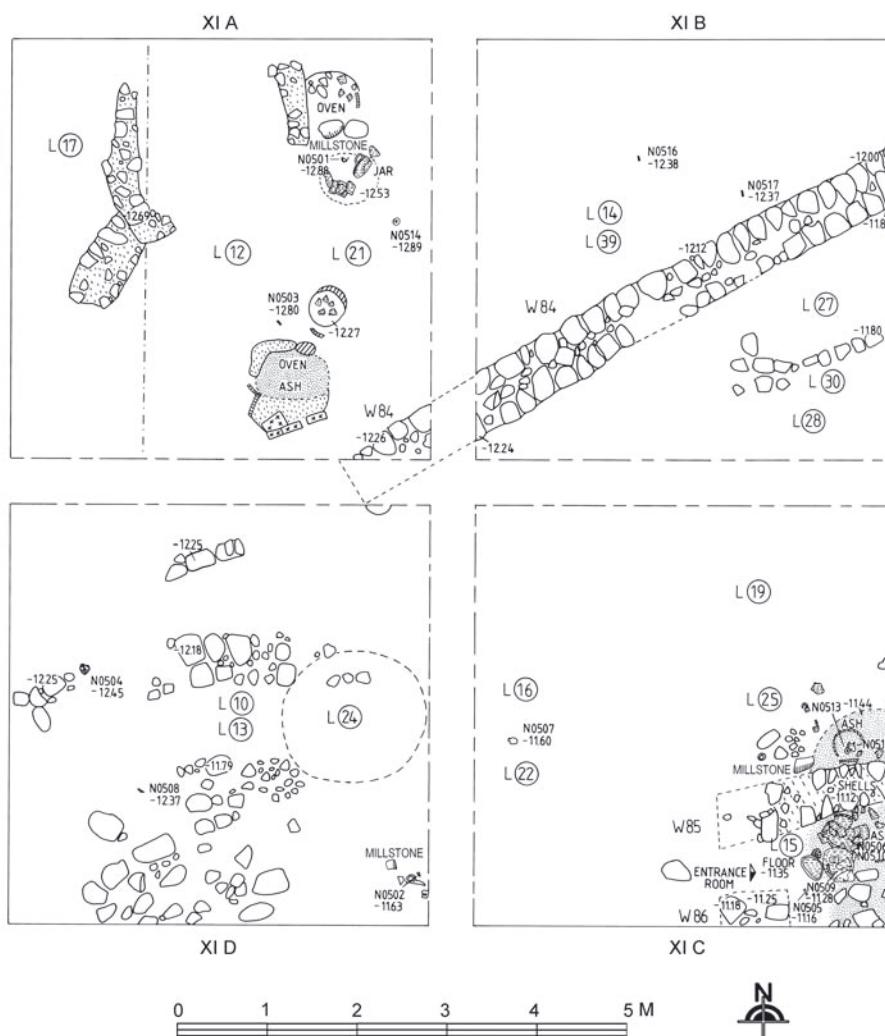


Fig. 111 Plan of Phase XII, Trench XI, Area 3

shows traces of an intense fire. Judging from the finds, the area around the entrance was used for the preparation of food.

In addition to the locally produced pottery there are a red-slipped juglet (N507; Figs. 112:8 and 114

right), which is not typical of locally produced pottery, and an import from the Phoenician sphere of culture (L15-1, Figs. 112:7 and 113): a thin-walled, two-handled jug with a light brown slip and burnish, decorated with reddish-brown bands and dots.

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
84	0.6	0.8	4			reused
85	0.5	0.2	1			
86	0.6	0.2	1			

Table 29 Description of the walls of Phase XII, Trench XI, Area 3

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
10	fill	3	-1 cp, 3 b, 7 k, 1 j, 2 jl, 1 ja, 1 spja, 1 hm, 1 h, 4 sj, 2 ep, 206 ud		N502	
12	fill	18	-1 cp, 2 b, 2 ja, 89 ud			
13 upper	surface	3	8 b, 5 k, 3 jl, 1 ja, 1 hm, 2 h, 6 ep, 1 lid, 135 ud		N504 mask, N508	
13 lower	surface	5	2 b, 4 k, 1 j, 2 ja, 2 sj, 1 ep, 83 ud			
14	fill	-3, 21	-1 cp, -2 sj, 2 b, 2 k, 1 j, 1 ja, 3 sj, 2 ep, 20 ud		N516, N517	
15	surface	1	N506 sj, N509 sj, N510 jl, -1 Phoen j, -2 ja, -3 ep, -4 sj, 2 b, 2 k, 1 j, 2 cp		N505	
16	fill		N507 jl, 1 jl, 1 j, 2 sj			
17	fill	5	-1 k, 2 b, 1 j, 1 jl, 1 ja, 82 ud			
19	surface		-1 k, -2 k, -3 jl, -4 pf, 5 b, 2 k, 1 jl, 1 l, 1 sj, 1 dec, 123 ud			
21	surface	30	N 501 l, 1 b, 1 jl, 1 dt, 2 ja, 11, 1 ep, 99 ud		N503, N514	
22	fill	1	-1 cp, -2 k, -3 ep, 4 b, 1 ja, 2 cp, 1 dec, 179 ud			
24	pit, d. 1.6		1 b, 1 k, 1 h, 1 ep, 1 ud			
25	surface, path		N512 spjl, N513 j, 2 b, 1 cb, 1 bjl, 1 jl, 1 h, 327 ud			
27	fill					
28	fill	4	1 b, 2 k, 1 j, 51 ud			
30	stone setting		1 b			
39	surface	39	-1 ja, -2 cp, -3 sj, 5 b, 2 k, 3 j, 2 ja, 1 sj, 1 hm, 5 ep, 2 dec, 120 ud			
W85	inside wall		1 b, 76 ud			

Table 30 Description of the loci of Phase XII, Trench XI, Area 3

Legend for the illustrated pottery from Phase XII, Trench XI, Area 3

Fig. Locus No.

Description

- 112:1 22 -2 Krater, hard-fired, light greyish-brown fabric, coarse, grey and white inclusions, light reddish-brown slip.
- 112:2 19 -2 Krater, medium-hard-fired, light brown fabric, light grey core, medium-fine, light brown slip, reddish-brown paint on rim.
- 112:3 19 -4 Pilgrim flask, hard-fired, light brown slip, grey core, medium-coarse, grey inclusions, light yellowish-brown slip.
- 112:4 25 N513 Jug, spout, hard-fired, orangish-brown fabric, thick grey core, coarse, mainly white inclusions, light brown slip.

- 112:5 19 -3 Juglet, hard-fired, light yellowish red fabric, fine, light yellow slip, vertically knife-burnished.
- 112:6 25 N512 Spouted juglet, medium-hard-fired, yellowish-brown fabric, medium-fine, self slip.
- 112:7 15 -1 Jug, hard-fired, light brown very thin fabric, very fine, yellowish-brown slip, burnished, decoration of reddish-brown bands and dots; Phoenician import.
- 112:8 16 N507 Juglet, medium-hard-fired, light brown fabric, fine, red slip; three incised lines on shoulder.
- 112:9 15 N510 Juglet, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, self slip; incised cross on upper side of handle.

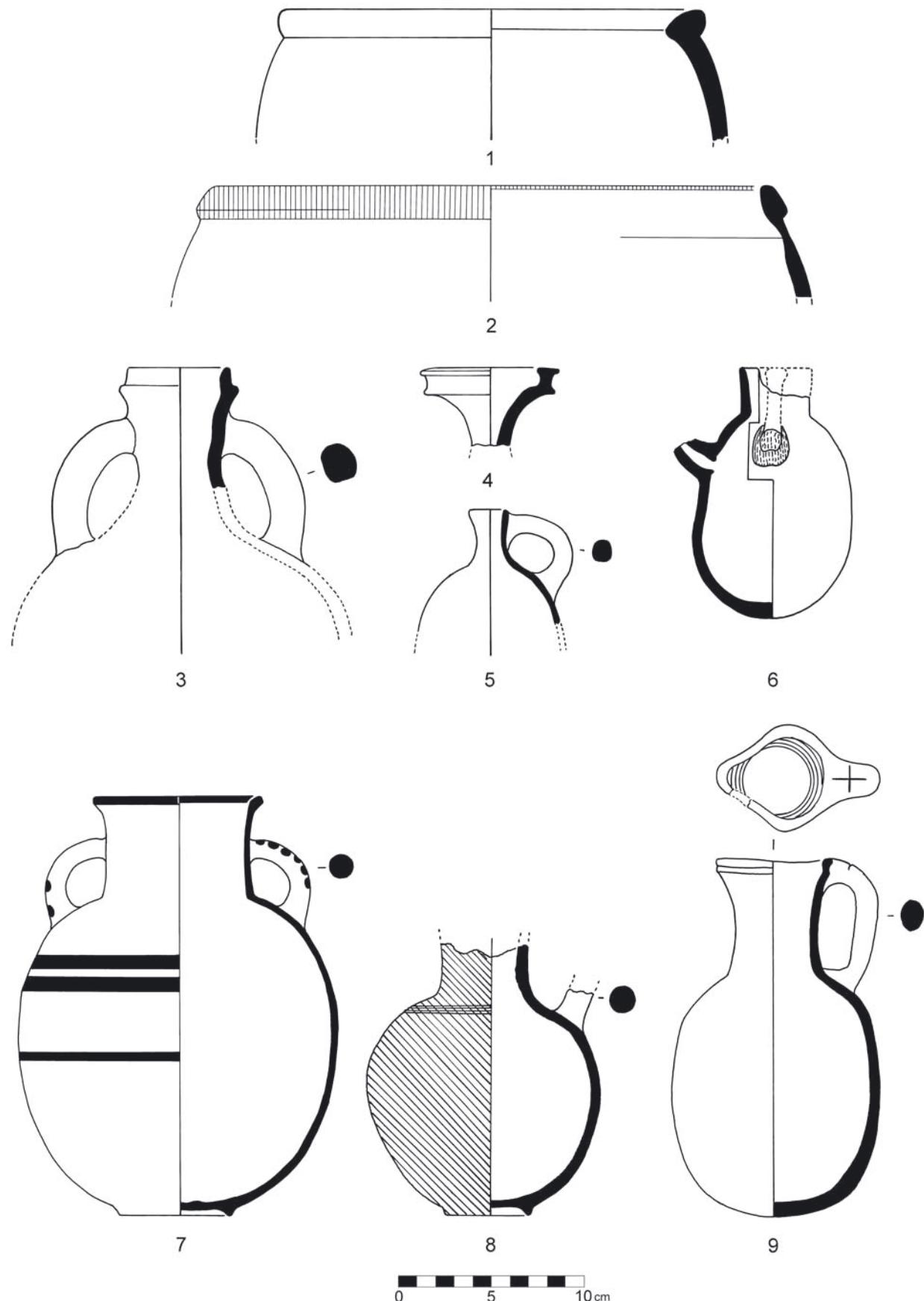


Fig. 112 Pottery from Phase XII, Trench XI, Area 3

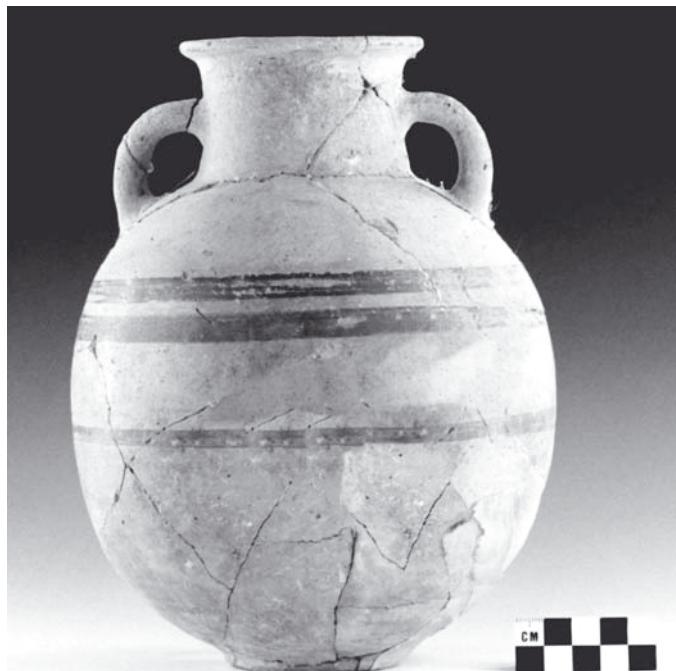


Fig. 113 Imported jug (L15-1), Phase XII, Trench XI, Area 3



Fig. 114 Juglets (N510 left, N507), Phase XII, Trench XI, Area 3

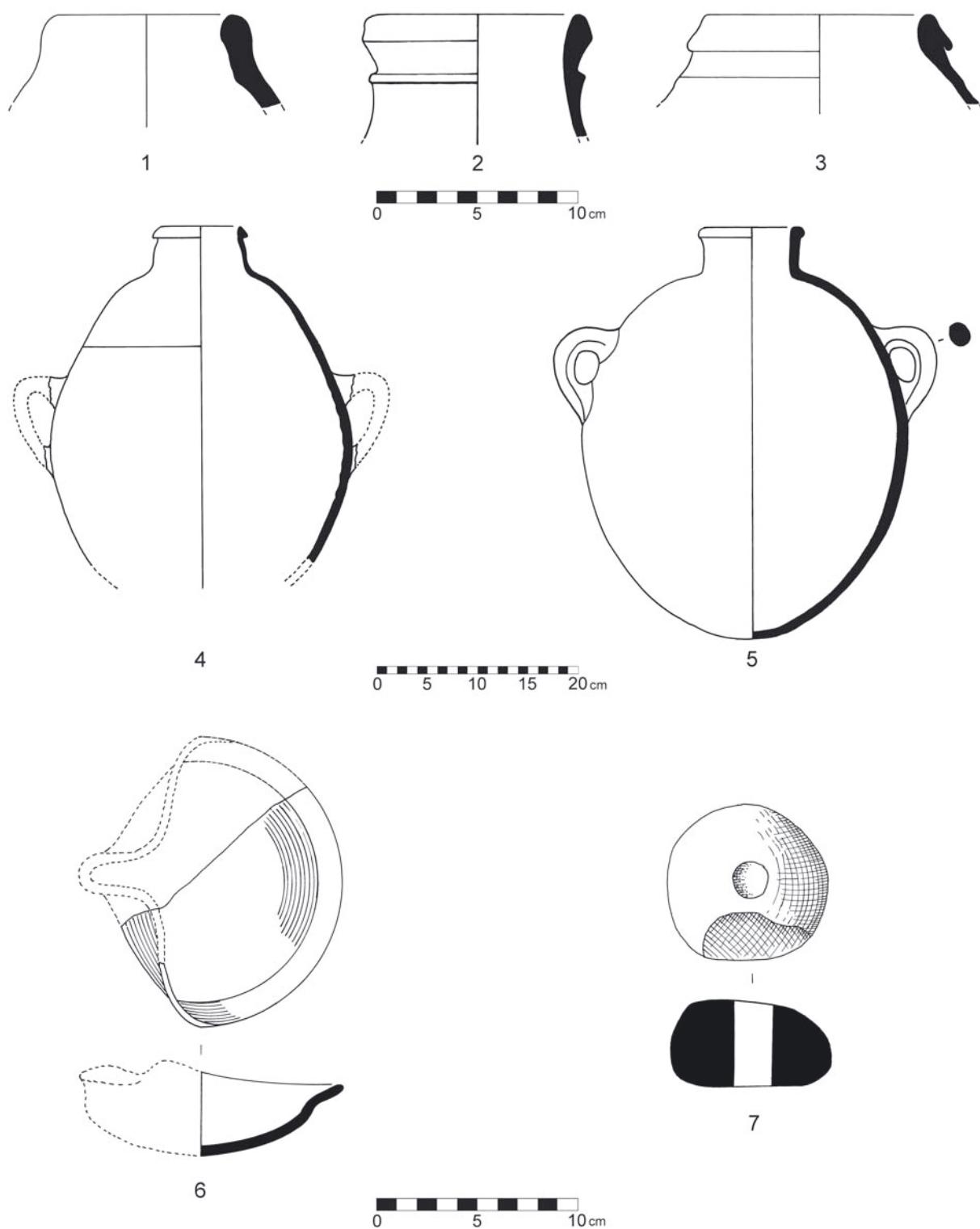


Fig. 115 Pottery and another find from Phase XII, Trench XI, Area 3

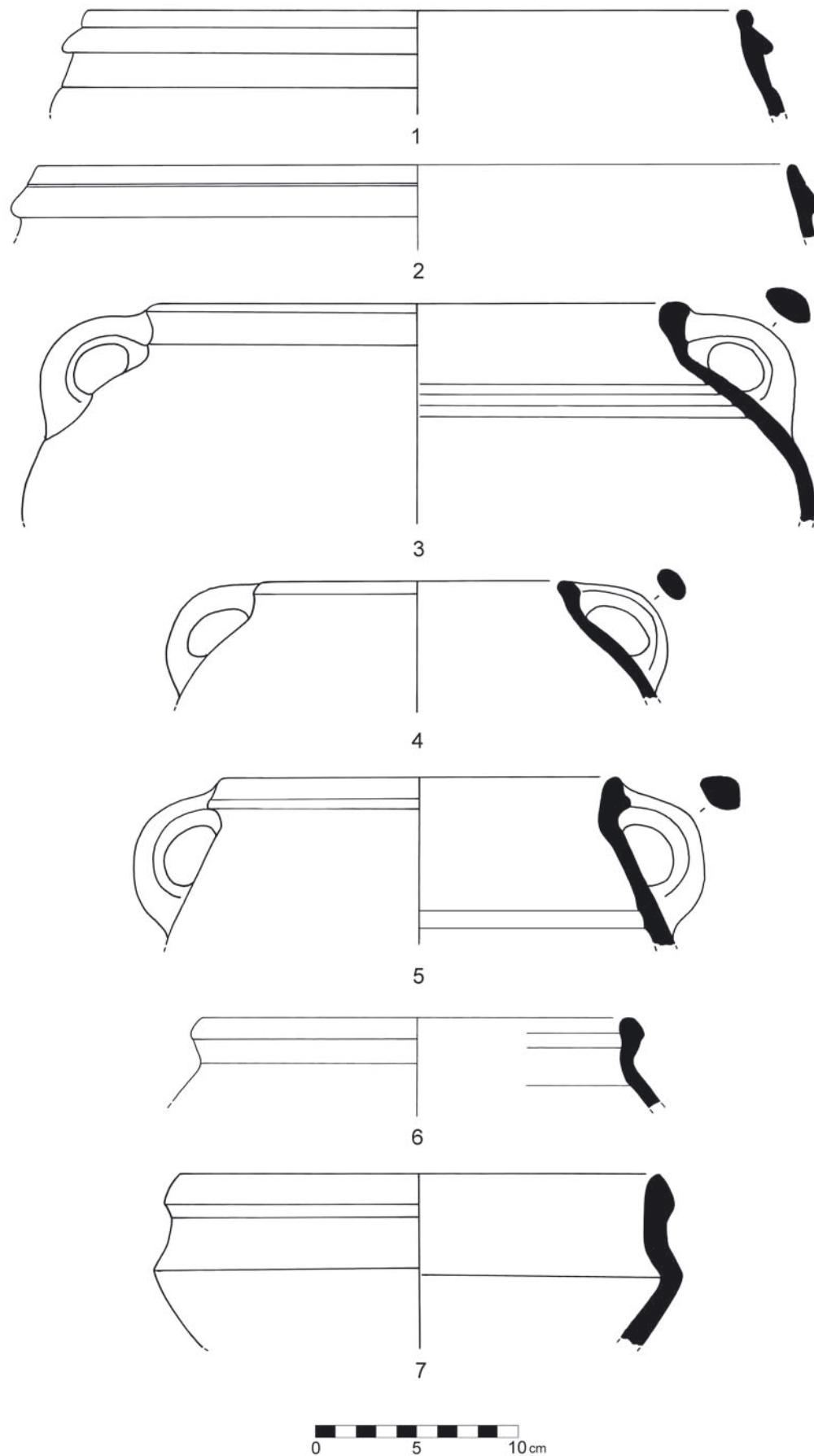


Fig. 116 Pottery from Phase XII, Trench XI, Area 3

Legend for the illustrated pottery and another find from Phase XII, Trench XI, Area 3

Fig.	Locus No.	Description
115:1	39	-1 Jar, hard-fired, reddish-brown fabric, medium-coarse, white inclusions, self slip.
115:2	15	-2 Jar, hard-fired, light reddish-brown fabric, medium-coarse, white and grey inclusions, reddish-brown slip; neck ridge.
115:3	14	-2 Storage jar, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, self slip; stepped neck.
115:4	15	-4 Storage jar, hard-fired, light greyish-brown fabric, coarse, grey inclusions, light brown slip.
115:5	15	N506 Storage jar, hard-fired, light greyish-brown fabric, coarse, grey inclusions, light brown slip.
115:6	21	N501 Lamp, hard-fired, light yellow fabric, light grey core, coarse, white and black inclusions, self slip.
115:7	21	N514 Loom weight, unfired clay, fragmentary, d. 8.5, H 4.0cm.

Legend for the illustrated pottery from Phase XII, Trench XI, Area 3

Fig.	Locus No.	Description
116:1	39	-2 Cooking pot, hard-fired, reddish-brown fabric, dark grey core, coarse, white inclusions, self slip.
116:2	14	-1 Cooking pot, hard-fired, reddish-brown fabric, dark grey core, coarse, white inclusions, self slip.
116:3	15	-3 Cooking pot, hard-fired, reddish-brown fabric, dark grey core, coarse, white inclusions, self slip.
116:4	10	-1 Cooking pot, medium-hard-fired, yellowish-brown fabric, light brown core, coarse, white inclusions, self slip.
116:5	22	-3 Cooking pot, hard-fired, reddish-brown fabric, dark grey core, coarse, white inclusions, self slip.

116:6	22	-1	Cooking pot, hard-fired, greyish-brown fabric, coarse, white inclusions, self slip.
116:7	12	-1	Cooking pot, hard-fired, reddish-brown fabric, grey core, coarse, white inclusions, self slip.

Additional finds from Phase XII, Trench XI, Area 3 (listed, not illustrated)

Locus No.	Description
10	N502 Lithic, blade, trapezoidal section, L 2.9, W 2.1, Th 0.9 cm.
13	N508 Pointed tool, iron, very corroded, L 7.5, W 1.2, Th 0.7 cm.
14	N516 Lithic, blade, trapezoidal section, L 5.7, W 2.0, Th 0.5 cm.
14	N517 Lithic, blade, triangular section, L 6.2, W 2.1, Th 1.0 cm.
15	N505 Lithic, blade, trapezoidal section, L 3.8, W 1.2, Th 0.4 cm.
15	N509 Storage jar, hard-fired, light brown fabric, coarse, black inclusions, greyish-brown slip.
21	N503 Lithic, blade, trapezoidal section, L 5.2, W 2.1, Th 0.6 cm.

PHASE XIII, TRENCH XI, AREA 3 (Fig. 118–120)

Architecture and features

Two destroyed structures dominate in this phase: to the north is a pebble-paved compound with an approximately 1 m wide entrance towards the north-west (W82). Two ovens (*tawabeen*) were found there. The southern compound has another entrance 1 m wide towards the south-east (W81). A destroyed, pebble-paved structure is centred between the two compounds (“W83”). A red-slipped almost complete krater with plastic decoration was found opposite the entrance to the northern compound standing on the floor and supported by small stones (N500; Fig. 119:2).



Fig. 117 Mask of young male with beard (L13, N504), anthropomorphic decoration of vessel, hand-made, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, self slip, red paint on upper part of face.

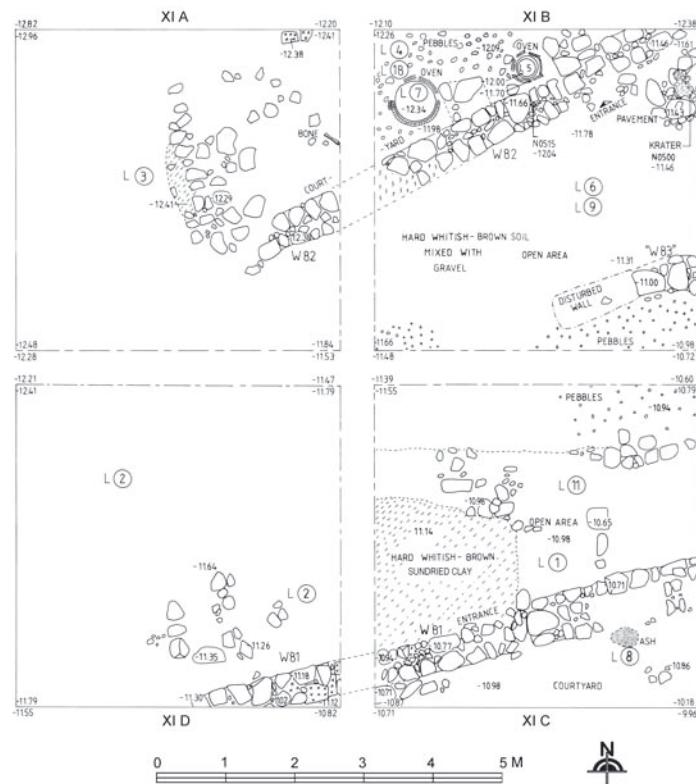


Fig. 118 Plan of Phase XIII, Trench XI, Area 3

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
81	0.6	0.3	2			
82	0.6	0.4	2			N515 inside wall
"83"	0.5	0.2	1			

Table 31 Description of the walls of Phase XIII, Trench XI, Area 3

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
1	fill, sun-dried clay	3	1 b, 1 k, 1 ja, 2 hm, 7 ud			
2	surface		1 b, 2 k, 4 sj, 32 ud		2	
3	surface, o.d.	68	-1 cp, 2 b, 4 k, 2 j, 5 ja, 4 cp, 190 ud		1	
4	fill		1 stj, 1 sj, 1 cp			
5	tabun		-1 cp, -2 sj, 2 sj			
6	fill		N500 k			
7	tabun		-1 cp			
8	surface, ash	3	1 b, 1 k, 1 jl, 2 cp, 1 dec, 61 ud			
9	surface	13	-1 k, -2 cb, -3 k, 5 b, 4 k, 1 jl, 1 ja, 1 sj, 3 cp, 173 ud			
11	surface, od	1	-1 b, -2 cp, 2 b, 3 k, 1 g, 1 j, 12 ja, 2 sj, 2 cp, 3 dec, 228 ud			
18	surface	64	4 b, 3 k, 1 ja, 1 sj, 2 cp, 97 ud			
W81	inside wall		-1 cp, 2 b, 5 ja, 74 ud			
W82	inside wall				N515	

Table 32 Description of the loci of Phase XIII, Trench XI, Area 3

Interpretation of the material evidence

There are two compounds in this phase separated by a street from which they were entered and in which a pebble-paved structure of unknown function was

built. No more detailed interpretation is possible due to the superficial position of the remains of this phase, viz. just below colluvial soil or, in the case of certain wall portions, visible on the surface.

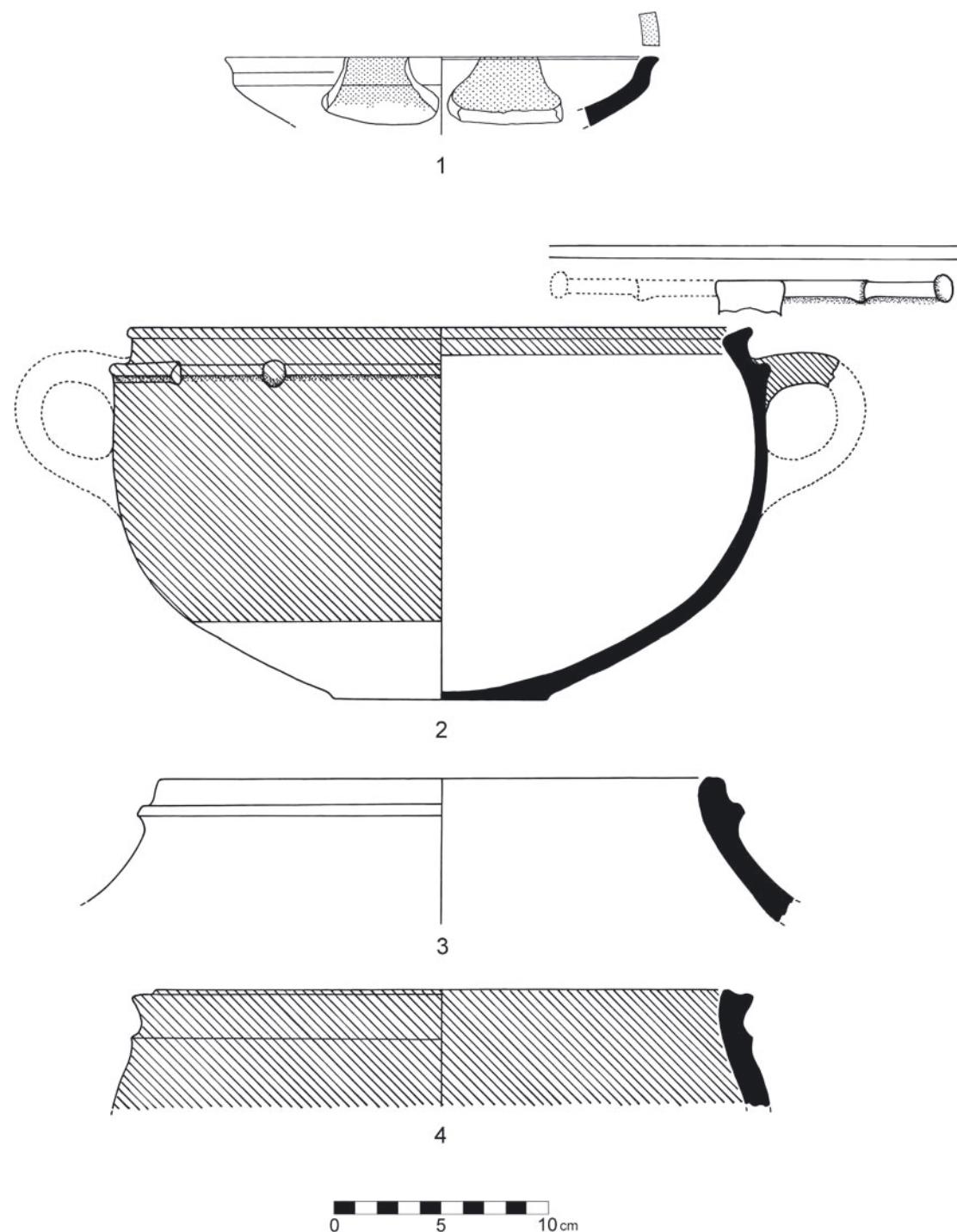


Fig. 119 Pottery from Phase XIII, Trench XI, Area 3

Legend for the illustrated pottery from Phase XIII,
Trench XI, Area 3

Fig.	Locus No.	Description
119:1	9 -2	Carinated bowl, hard-fired, light brown fabric, medium-fine, red slip.
119:2	6 N500	Krater, medium-hard-fired, grey fabric, yellowish-brown core, medium-coarse, multicoloured inclusions, red slip on upper part of vessel; plastic trumpet/dot decoration below rim.
119:3	9 -3	Krater, medium-hard fired, yellowish-brown fabric, medium-coarse, multicoloured inclusions, pink slip.
119:4	9 -1	Krater, medium-hard-fired, light reddish-brown fabric, grey core, red slip, burnished; neck ridge.

Legend for the illustrated pottery from Phase XIII,
Trench XI, Area 3

Fig.	Locus No.	Description
120:1	5 -1	Cooking pot, hard-fired, reddish-brown fabric, grey core, coarse, white inclusions, self slip.
120:2	W81 -1	Cooking pot, hard-fired, reddish-brown fabric, grey core, coarse, white inclusions, self slip.
120:3	7 -1	Cooking pot, hard-fired, reddish-brown fabric, grey core, coarse, white inclusions, self slip.
120:4	3 -1	Cooking pot, hard-fired, reddish-brown fabric, grey core, coarse, white inclusions, self slip; neck ridge and incised lines on belly.

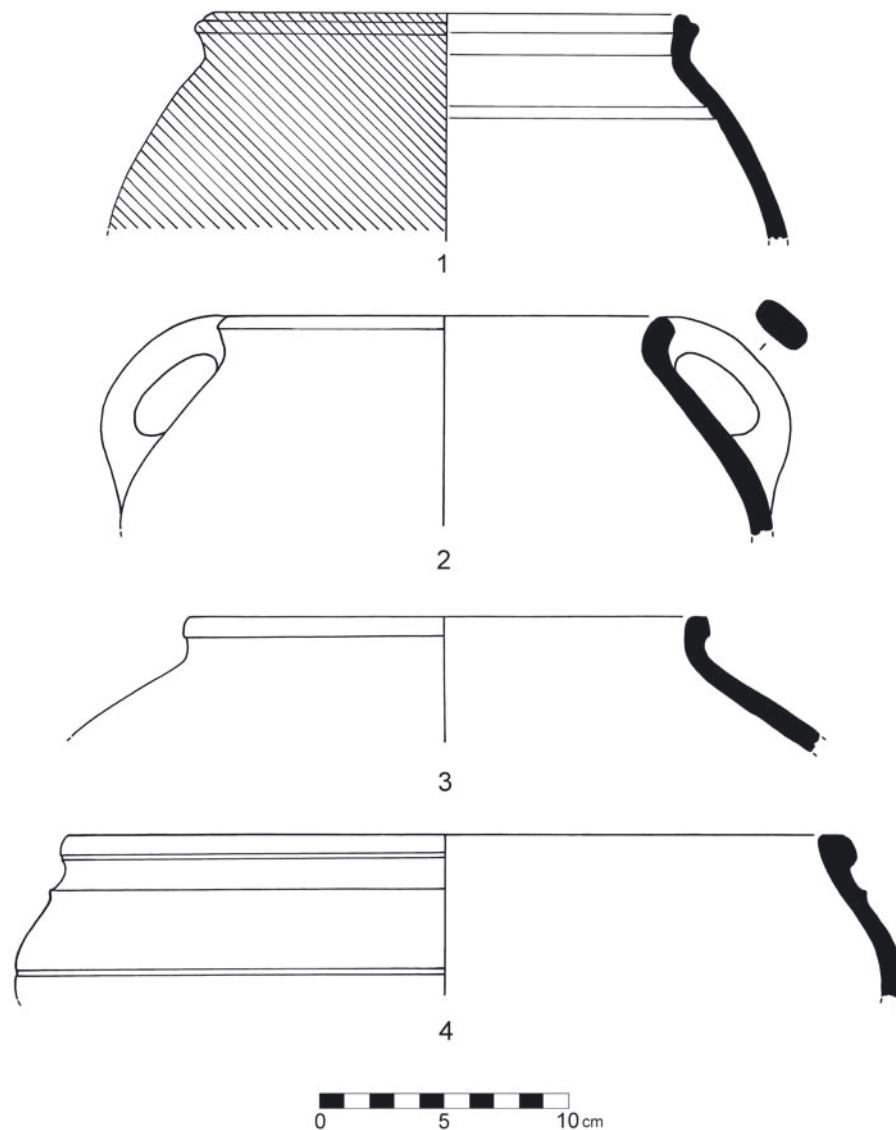


Fig. 120 Pottery from Phase XIII, Trench XI, Area 3

Additional find from Phase XIII, Trench XI, Area 3
(listed, not illustrated)

Locus No. Description

W82 N515 Lithic, blade, triangular section, L 5.9, W 1.9,
Th 0.5 cm.

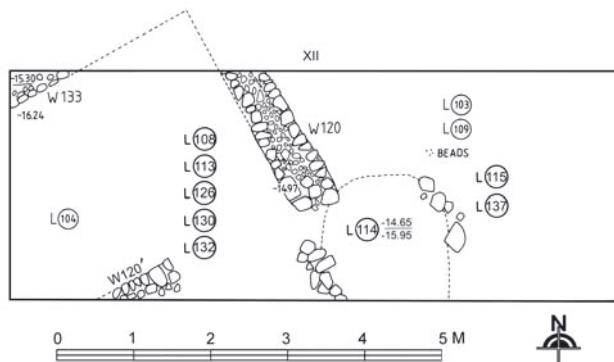


Fig. 121 Plan of Phase XI, Trench XII, Area 3

PHASE XI, TRENCH XII, AREA 3³³ (Figs. 121–123)

Architecture and features

There are the remains of a structure to the west (W120, 120', 133). The lowest loci of this Iron Age phase contain, in addition to Iron Age pottery, a considerable amount of Late Bronze Age sherds.

Interpretation of the material evidence

The structure, which was used in two phases, may represent a small walled space with an entrance to the south-east. In addition to bowls, kraters, a decanter-jug, cooking pots and a lamp, a pyxis decorated with black and red bands should be mentioned.

Legend for the illustrated pottery from Phase XI, Trench XII, Area 3

Fig.	Locus No.	Description
122:1	130 -3	Carinated bowl, medium-hard-fired, light yellowish-brown fabric, medium-coarse, multicoloured inclusions, yellowish-brown slip, red paint on rim.

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
120	0.5-0.6	0.8	3			
120'	?	0.4	2			
133	?	0.9	3-4			

Table 33 Description of the walls of Phase XI, Trench XII, Area 3

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
103	fill		2 b, 1 jl, 2 ja, 120 ud			
104	fill		23 ud			
108	fill	2	-1 ep, -2 k, -3 cb, 80 ud			
109	surface	4	-1 j, 2 b, 1 dt, 3 ep, 196 ud			
113	surface		-1 cb, -2 j			
114	pit, well					disturbance from later period
115	surface		-1 ep, -2 ep, 210 ud			
126	fill		N568 pyx, 2 b			lower IA portion
130	fill		N581 l, -2 cb, -3 cb, -4 cp			lowest IA portion
132	fill		-1 cb, -2 k, -3 k, 2 b, 1 bj, 1 ep, 210 ud			lowest IA portion
137	fill	3	-2 k			lowest IA portion

Table 34 Description of the loci of Phase XI, Trench XII, Area 3

³³ Only Phases XI and XII contain finds from fairly secure contexts. Therefore only finds from these phases are shown in the illustrations.

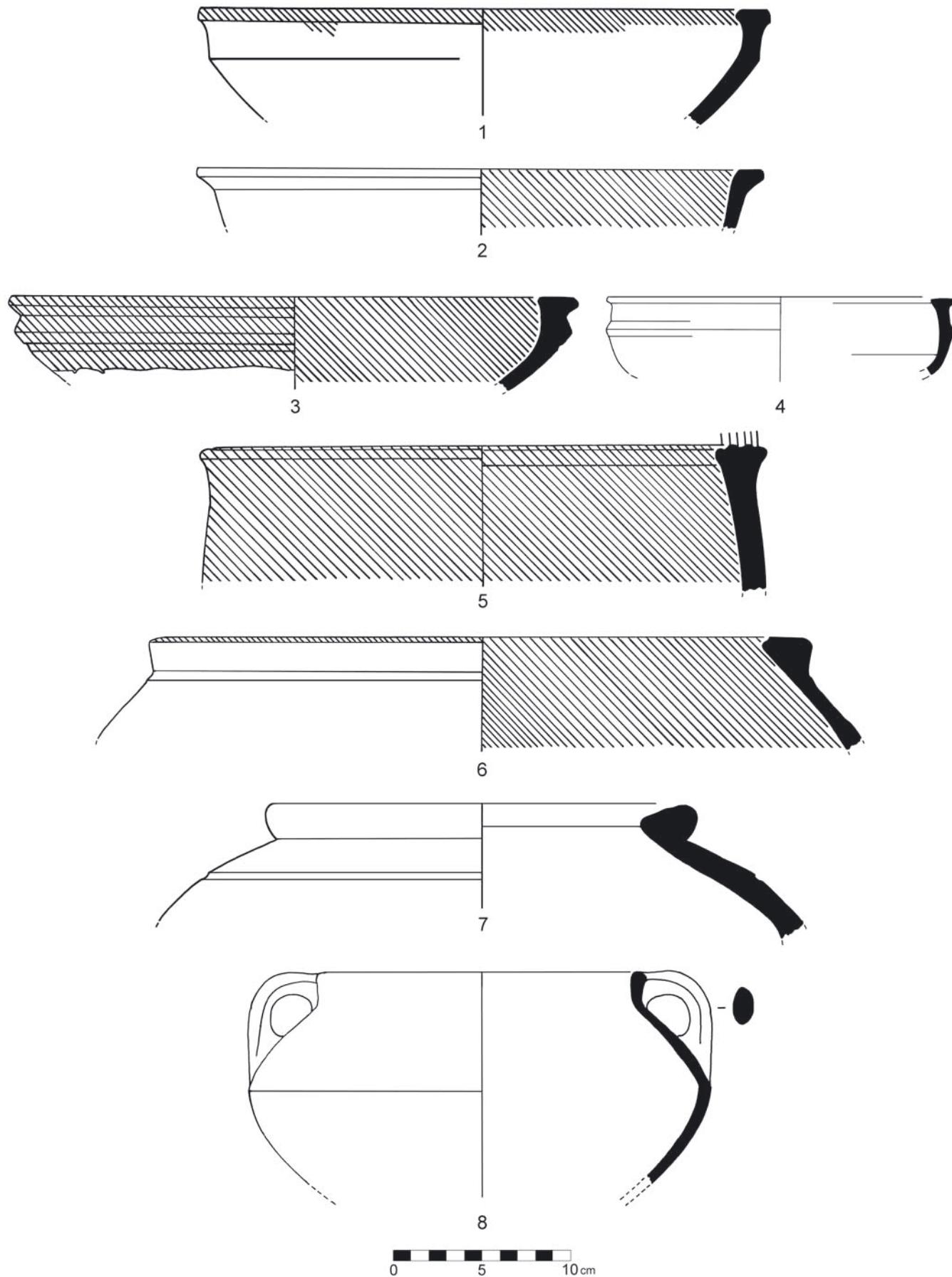


Fig. 122 Pottery from Phase XI, Trench XII, Area 3

122:2 130 -2	Carinated bowl, medium-hard-fired, light yellowish-brown fabric, medium-coarse, multicoloured inclusions, yellowish-brown slip, red paint on rim and interior.	122:5 132 -2	Krater, medium-hard-fired, light brown fabric, medium-coarse, black inclusions, yellowish-brown fabric, red paint interior and exterior.
122:3 132 -1	Carinated bowl, hard-fired, light greyish-brown fabric, coarse, black inclusions, yellow slip, red paint interior and exterior; ridge and incision below rim.	122:6 132 -3	Krater, hard-fired, light brown fabric, coarse, dark grey inclusions, yellowish-brown fabric, red paint on rim and interior.
122:4 108 -3	Carinated bowl, hard-fired, light greyish-brown fabric, fine, light brown slip, traces of red paint on rim and interior; ridge below rim.	122:7 108 -2	Krater, hard-fired, light greyish-brown fabric, thick grey core, coarse, grey and white inclusions, light yellowish-brown slip; incision above belly.
		122:8 137 -2	Krater, hard-fired, yellowish-brown fabric, coarse, grey inclusions, yellowish-brown slip.

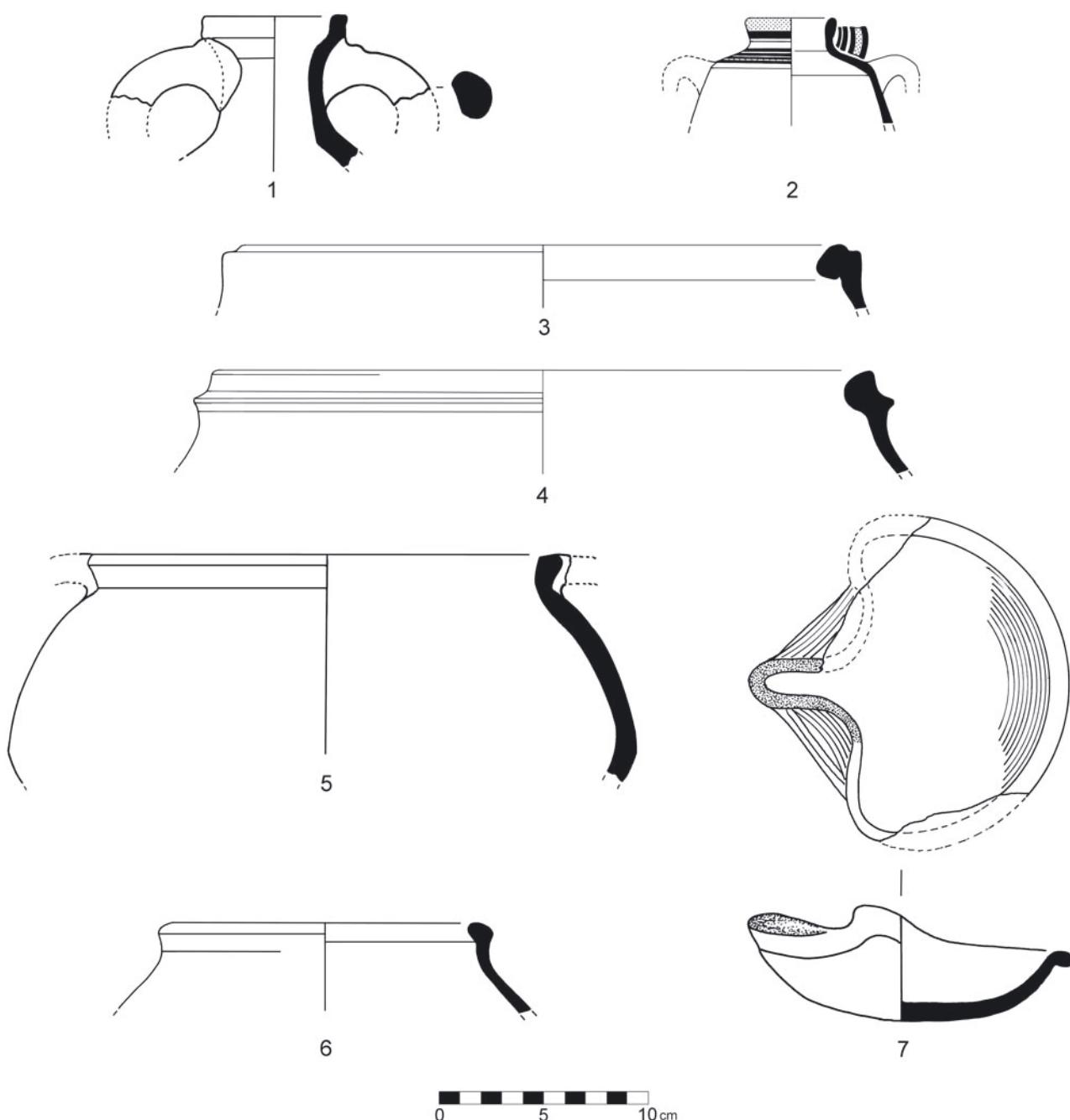


Fig. 123 Pottery from Phase XI, Trench XII, Area 3

**Legend for the illustrated pottery from Phase XI,
Trench XII, Area 3**

Fig.	Locus No.	Description
123:1	109	-1 Jug, hard-fired, light brown fabric, thick grey core, coarse, mainly white inclusions, self slip.
123:2	126	N568 Pyxis (?), medium-hard-fired, light yellowish-brown fabric, fine, light yellowish-brown slip, burnished, red and black decoration.
123:3	115	-1 Cooking pot, hard-fired, grey fabric, multicoloured inclusions, brownish-red slip.
123:4	108	-1 Cooking pot, hard-fired, brownish-red fabric, thick grey core, medium-coarse, white inclusions, self slip.
123:5	130	-4 Cooking pot, hard-fired, reddish-brown fabric, thick grey core, coarse, white inclusions, self slip.
123:6	115	-2 Cooking pot, hard-fired, light reddish-brown fabric, coarse, white inclusions, self slip.
123:7	130	N581 Lamp, hard-fired, orangish-brown fabric, medium-fine, some white inclusions, self slip.

PHASE XII, TRENCHES XII AND XLIII (Figs. 124–127)

Architecture and features

A stone-paved structure dominates this phase. There is an oblong room about 3 m in width and at least 5 m in length (W123, 119, 518, 517; its south-west wall has not yet been excavated). It is entered from the north-east through a courtyard or second room. The entrance, flanked by larger stones, is 1.10 m wide, and has a stone threshold and sockets for door leaves. The floor of the room, covered by about 1 m of debris of collapsed mudbrick tiles and ash, is carefully paved with small stones, with clay between them. The remains inside the burnt-down building show signs of intense heat. A great deal of pottery was collected from the floor of the room: it includes a number of intact and complete shapes and consists of bowls, a chalice, a strainer cup, kraters, juglets, jugs, storage jars, cooking pots and a lamp. A ring of bronze and an exquisitely carved bone handle (N553) were also found on the floor (Figs. 127, 453:3, 464 and Appendix 2). Additional finds which are connected with the production of fabric are two bone shuttles, two limestone spindle whorls and six loom weights of secondarily fired clay. There are also quite a few pieces of charcoal along the wall to the south-east (W 517) which most likely derive from a burnt-down loom which had been leaning against the wall.

There is another stone-paved room to the north.

Interpretation of the material evidence

The entire compound suffered from a severe conflagration, on the evidence of the 1 m thick layer of ash and debris. The room's uses included the production of textiles. The ceramics were locally produced but there is also an import from the Phoenician sphere of culture (L365-3; Fig. 126:3).

A well-preserved carved bone object with a separate lid at the bottom is quite a spectacular find (N553; Figs. 127, 453:3, 464 and Appendix 2). It was found on the floor of the stone-paved room, embedded in clay, which no doubt explains how it survived the fire so well. However, it has been affected by the surroundings, showing a light-grey, but still burnished and almost glazed, surface (see FISCHER 2009b: 215–226). The piece has a pair of dowel holes perforating the rim at the top, which do not survive on comparable but fragmentary examples from Nimrud. These holes must have been used to fix something to the object. The bone object most likely served as the handle of a sceptre, fan or flywhisk. It may be that the surface of the object had been polished during the manufacturing process, but the shiny surface might also have resulted from frequent use as a handle. The context in which the handle was found is interesting. In addition to the pottery there are finds which clearly connect this room with the production of textiles: bone shuttles, loom weights, spindle whorls and the likely remains of a wooden loom. It may alternatively be that the object represents the handle of a tool used during the production of textiles.

There are two main categories in the bone group from Tell Abu al-Kharaz, Nimrud, and Hazor. The first category, with examples from Tell Abu al-Kharaz and Nimrud, has a single design register above hanging palmettes and a short base. The bottom of the Abu al-Kharaz piece was closed with a stopper. The bone itself, with its low relief, flattened hanging palmettes and oval form, fits comfortably into the hand. The second category, which includes taller objects with the design reversed, has examples from Nimrud and Hazor. The most complete of these, from Nimrud, is S 70, BM 123864, with two registers of sphinxes below a register decorated with vertical lines, the band of palmettes and a flaring area with a concave curved top. This curve may suggest that a bowl was attached to the long bone, whose flat carving and oval form fit comfortably into the hand and could well have served as the bowl's handle.

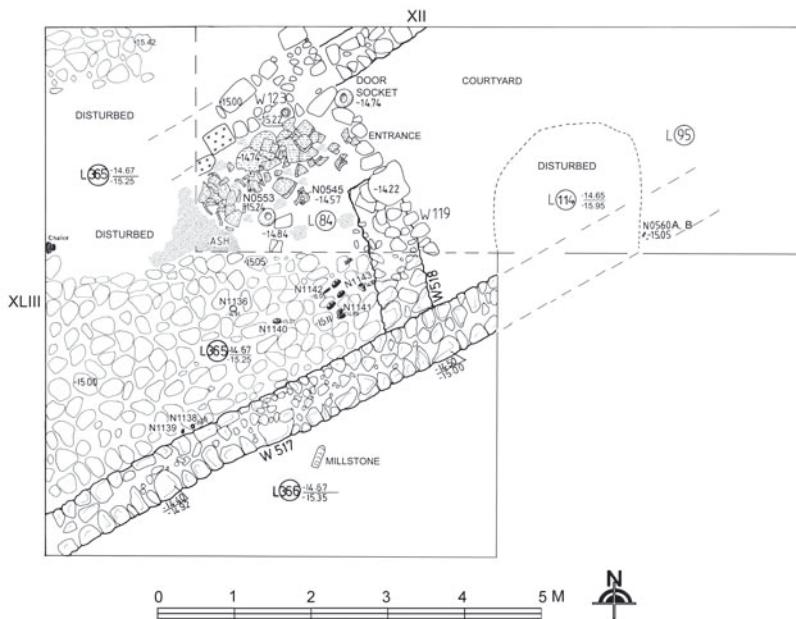


Fig. 124 Plan of Phase XII, Trenches XII and XLIII, Area 3

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
517	0.7	0.5	2-3			
119/518	0.7	0.7	2-3			
123	0.7	0.3	1-2			

Table 35 Description of the walls of Phase XII, Trenches XII and XLIII, Area 3

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
84	floor of room	13	N545 j, -1 trough, -2 jl, -3 ep, -4 sj, 1 b, 1 ep, 8 ud		N553, N560	
95	floor of room	2	-1 k/hm, -2 sj, -3 eb, 5 b, 1 k, 1 jl, 1 hm, 2 ja, 1 l, 4 cp			
114	pit, well		23 ud			disturbance from later period
365	stone pavement	1	N 1143 jl, -1 ic, -2 e, -3 Phoen j, 8 b, 4 e, 2 k, 2 jl, 10 j, 1 stj, 2 ja, 10 h, 1 l, 9 cp, 475 du		N 1136, N1138... N1142	
366	surface		7 b, 1 g, 5 j, 3 jl, 1 l, 6 sj, 12 cp, 225 ud			

Table 36 Description of the loci of Phase XII, Trenches XII and XLIII, Area 3

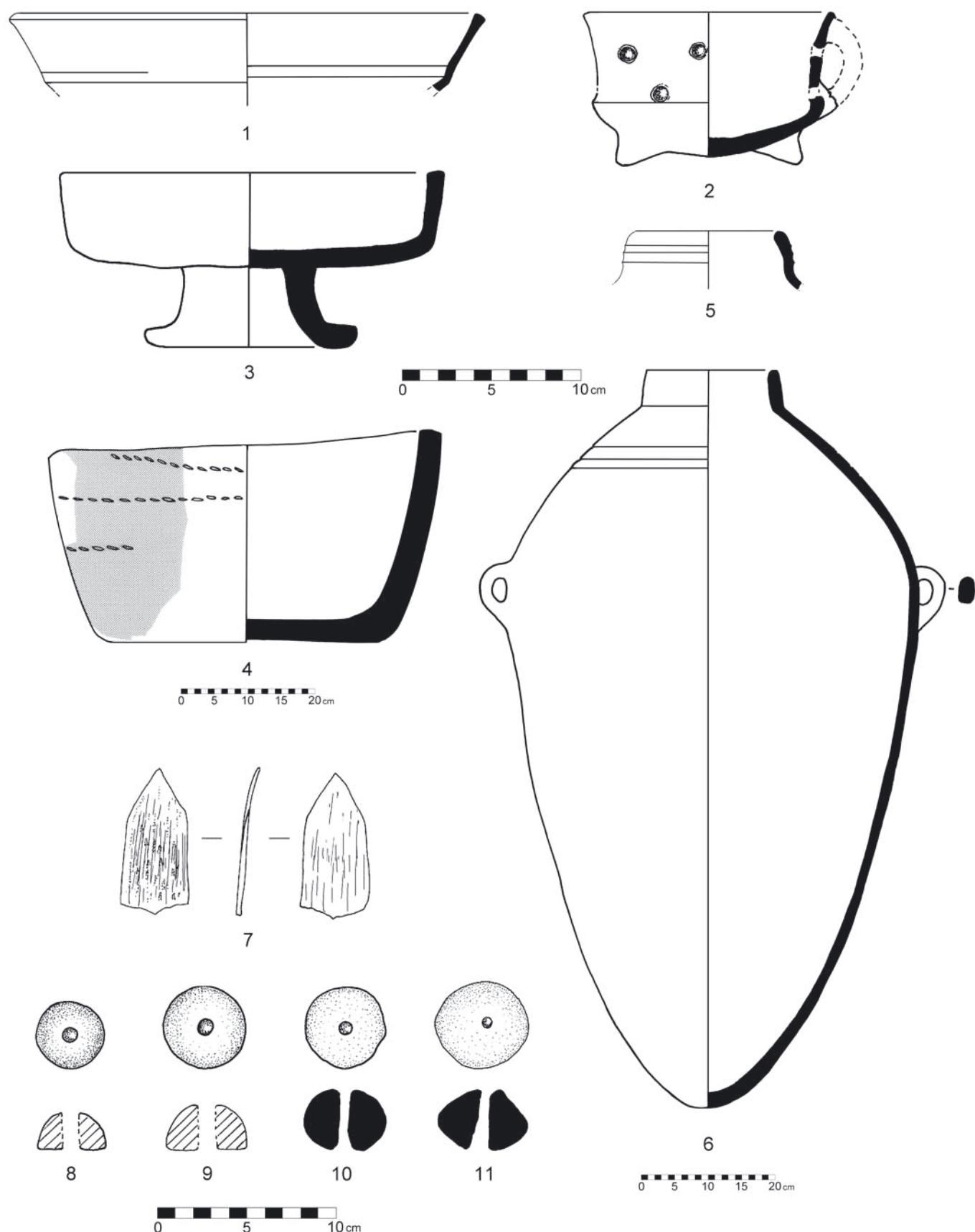


Fig. 125 Pottery and other finds from Phase XII, Trenches XII and XLIII, Area 3

Legend for the illustrated pottery and other finds from Phase XII, Trenches XII and XLIII, Area 3

Fig.	Locus No.	Description			
125:1	95 -3	Carinated bowl, hard-fired, light pinkish-brown fabric, medium-coarse, grey inclusions, light pinkish-brown slip.	125:5	95 -2	Storage jar, hard-fired, light greyish-brown fabric, grey core, coarse, white and grey inclusions, self slip.
125:2	365 -1	Incense cup, hard-fired, light yellowish-brown fabric, medium-fine, multi-coloured inclusions, self slip.	125:6	84 -4	Storage jar, hard-fired, light greyish-brown fabric, grey core, coarse, white and grey inclusions, self slip; incisions on neck.
125:3	365 -2	Chalice, medium-hard-fired, light brown fabric, fine, a few grey inclusions, light yellowish-brown fabric, wheel-burnished.	125:7	365 N1142	Shuttle, bone.
125:4	84 -1	Trough, hand-made, soft-fired, light brown fabric, coarse, black and white inclusions, soot on exterior; impressed string pattern.	125:8	365 N1138	Spindle whorl, limestone, Wt 24 g.
			125:9	365 N1140	Spindle whorl, limestone, Wt 30 g.
			125:10	365 N1141A	Loom weight, unfired clay (first of six), Wt 59 g.
			125:11	365 N1141B	Loom weight, unfired clay (second of six), Wt 65 g.

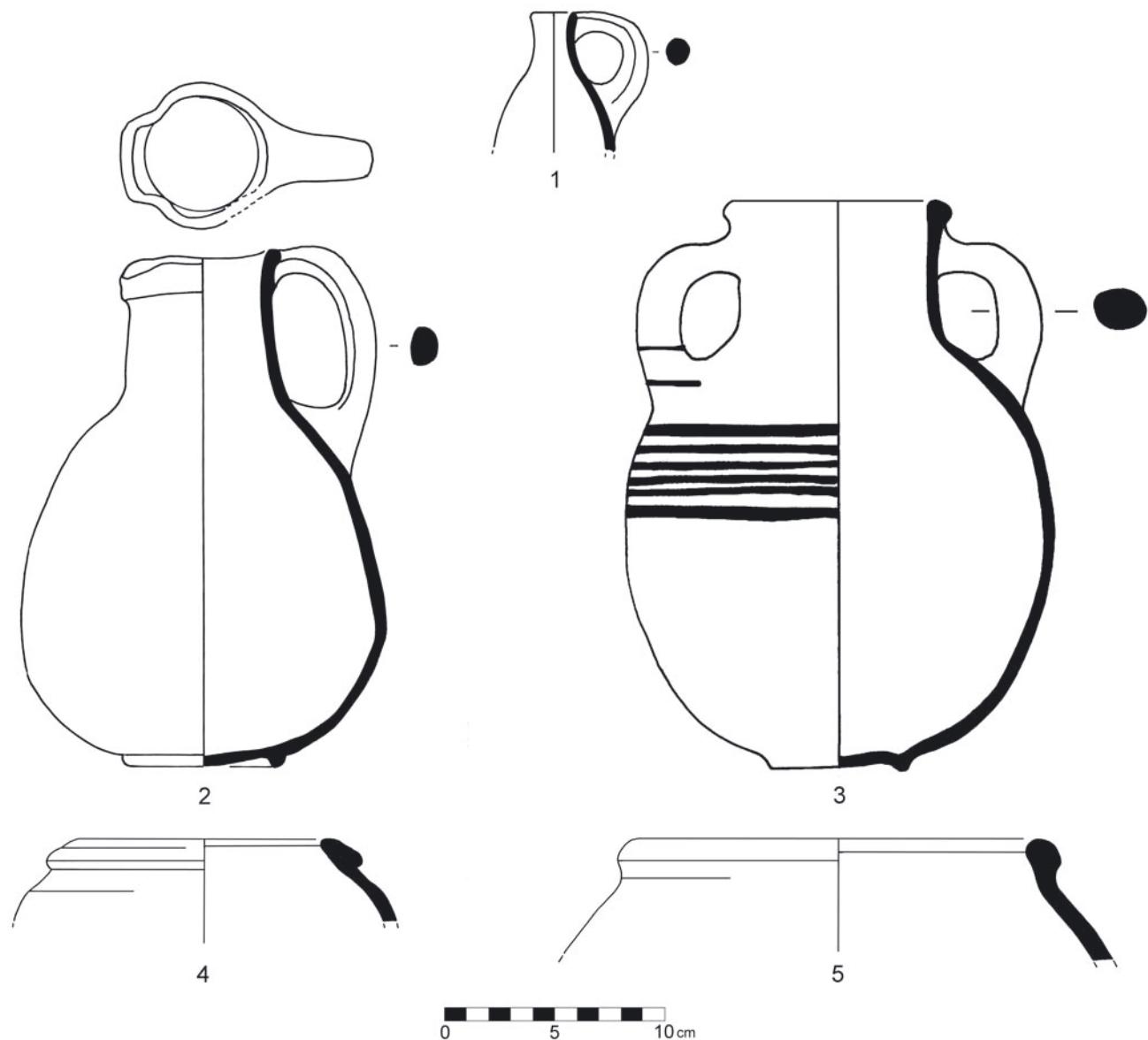


Fig. 126 Pottery from Phase XII, Trenches XII and XLIII, Area 3

Legend for the illustrated pottery from Phase XII,
Trenches XII and XLIII, Area 3

Fig. Locus No. Description

- 126:1 84 -2 Juglet, medium-hard-fired, light reddish-brown fabric, brown core, fine, light yellowish-brown slip, traces of red paint.
- 126:2 84 N545 Jug, hard-fired, light greyish-brown fabric, medium-coarse, multicoloured inclusions, light greyish-brown slip.

- | | | | |
|-------|-----|----|--|
| 126:3 | 365 | -3 | Jug, hard-fired, reddish-brown fabric, fine, brownish-red slip, burnished, black decoration; Phoenician import. |
| 126:4 | 95 | -1 | Krater/hole-mouth jar, hard-fired, light pinkish-brown fabric, grey core, coarse, grey and black inclusions, light pinkish-brown slip. |
| 126:5 | 84 | -3 | Cooking pot, hard-fired, brown fabric, dark grey core, coarse, white inclusions, self slip. |



Fig. 127 The bone (Sphinx) handle from Phase XII, Trench XII, Area 3

Legend for the carved bone handle (Sphinx handle) from Phase XII, Trench XII, Area 3

Fig. Locus No. Description

127 84 N553 Carved bone handle (Sphinx handle) with lid and dowel holes, long bone of cattle; see also Figs. 453:3 and 464.

Additional finds from Phase XII, Trenches XII and XLIII, Area 3 (listed, not illustrated)

Locus No. Description

84 N560 A. Awl, from a split rib bone (Th 0.2 cm), one end pointed, the other rounded; B. Bead of glass d. 0.6, H 0.5, d. of hole 0.15 cm.
365 N1136 Ring, bronze, d. 1.5, Th 0.2 cm.
365 N1139 Shuttle, bone, fragmentary.
365 N1143 Juglet (for general shape see N545, Fig. 126:2, above), hard-fired, light yellowish-brown fabric, medium-fine, self slip.

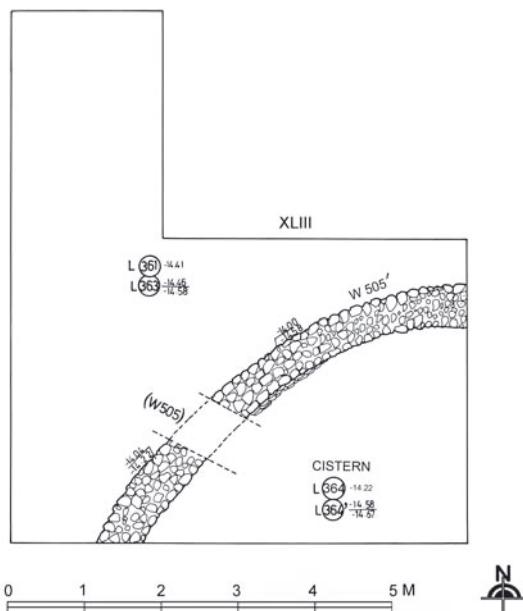


Fig. 128 Plan of Phase XIII, Trench XLIII, Area 3

PHASE XIII, TRENCH XLIII, AREA 3 (Fig. 128)

Architecture and features

A curved wall is the only feature which can be ascribed to this sub-phase (W505').

Interpretation of the material evidence

The curved wall represents a partly exposed cistern. A tentative reconstruction of the cistern is 12 m in diameter.

PHASE XIV, TRENCHES XII AND XLIII, AREA 3 (Fig. 129)

Architecture and features

Another wall (W505) was later built partly on top of the cistern.

Interpretation of the material evidence

Although W505 was built later than the cistern it may belong to roughly the same phase of occupation.

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
505'	0.5	0.6	3			

Table 37 Description of the wall of Phase XIII, Trench XLIII, Area 3

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
361	fill		12 ud		24	
363	surface		15 ud		2	
364	fill					
364'	surface	3	-1 Phoen j, 12 b, 2 k, 3 jl, 1 j, 11 ja, 1 tri, 5 sj, 2 cp, 65 ud			

Table 38 Description of the loci of Phase XIII, Trench XLIII, Area 3

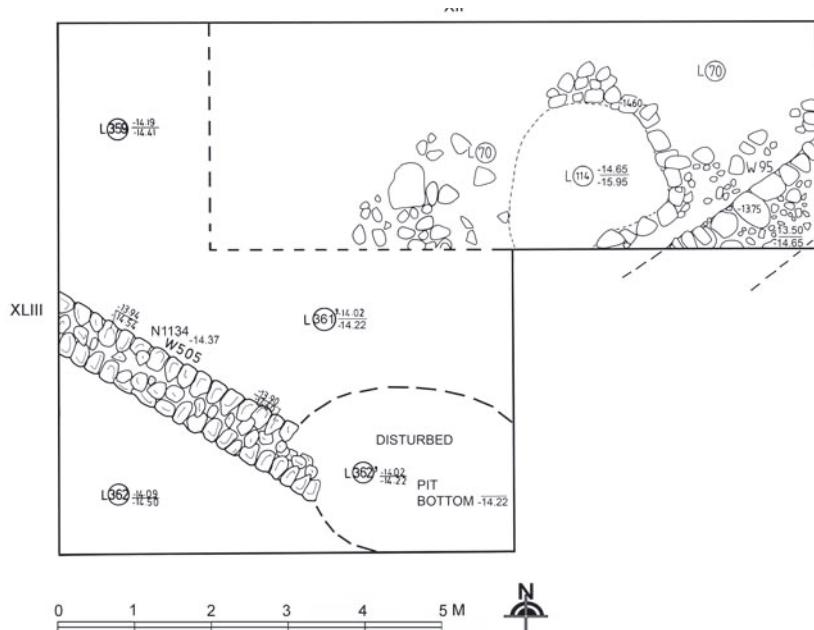


Fig. 129 Plan of Phase XIV, Trenches XII and XLIII, Area 3

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
95	0.9	1.15	5			
505	0.7	0.6	3			

Table 39 Description of the walls of Phase XIV, Trenches XII and XLIII, Area 3

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	eon	post		
70	surface	2	2 b, 4 ja, 2 cp			
114	pit, well, d. c. 2.0	3	150 ud		built in this phase	
359	fill, disturbed		4 ud			
361'	fill, disturbed					
362	fill		8 ud	mainly		
362'	fill, disturbed					
W505	inside wall		1 k, 2 cp, 10 ud			

Table 40 Description of the loci of Phase XIV, Trenches XII and XLIII, Area 3

PHASE XV, TRENCH XII (Fig. 130)**Architecture and features**

Wall 93 and Loci 50 and 59 belong to this phase.

Interpretation of the material evidence

Although the majority of the pottery is from the later part of the Iron Age it is not clear that W93 was built in the Iron Age: it could as well have been built in post-Iron Age periods thereby bringing up earlier material during the construction of the foundation trenches.

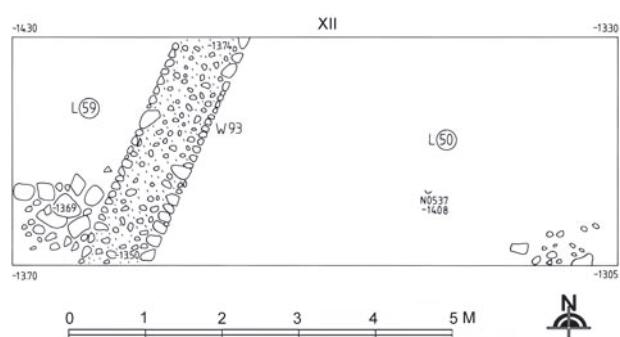


Fig. 130 Plan of Phase XV, Trench XII, Area 3

PHASES XVI A AND B, TRENCHES XII AND XLIII, AREA 3 (Fig. 131)

Architecture and features

The superficial walls W92, 503 and 506, which were visible on surface, were obviously built in two periods.

Interpretation of the material evidence

The walls may belong to any or several of the following periods judging by the associated pottery: very late Iron Age, Byzantine and Abbasid.

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
93	0.8	0.3	1-2			

Table 41 Description of the wall of Phase XV, Trench XII, Area 3

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
50	surface, o.d.	8	1 k, 46 ud		N537	
59	surface, o.d.		1 cp, 14 ud	1		

Table 42 Description of the loci of Phase XV, Trench XII, Area 3

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
92	2.0	0.2	1-2			ambiguous date
503	0.8	0.25	1-2			possible Iron Age
506	0.8?	0.5-0.3	2			possible Iron Age

Table 43 Description of the walls of Phase XVI, Trenches XII and XLIII, Area 3

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
358	fill, disturbed		1 h			
360	fill, disturbed		6 ud	6		
W503	inside wall		35 ud	3		
W506	inside wall		1 tri	7		

Table 44 Description of the loci of Phase XVI, Trenches XII and XLIII, Area 3

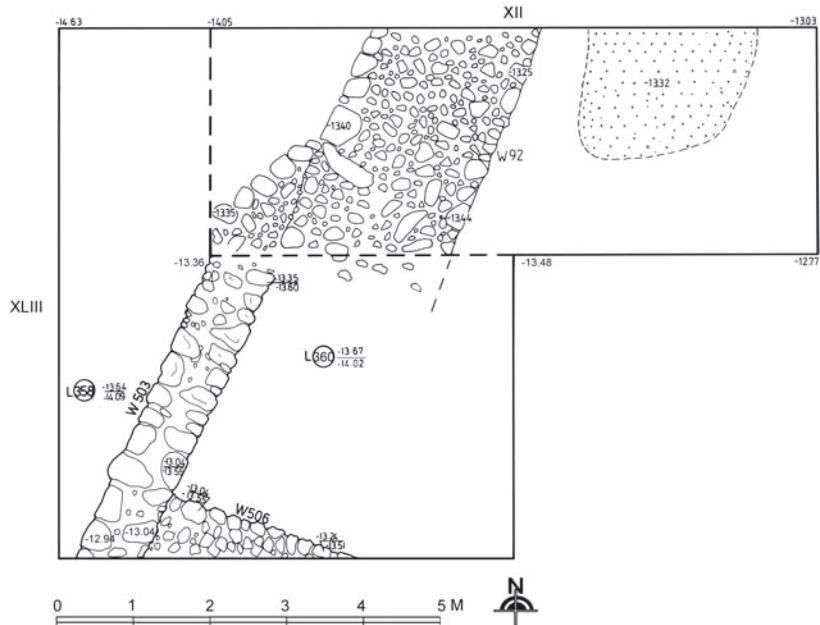


Fig. 131 Plan of Phase XVI, Trenches XII and XLIII, Area 3

AREA 7

General information

The excavated portions of this area lie north of the summit of the tell on a partially natural terrace in Grids RR–XX / 24–26. The area is fairly flat in the east-west direction. There is a steep slope north of the area which makes it easy to defend. The easiest way to reach this part of the settlement once the city is entered is from the north-west, passing north of Areas 2 and 3, or if the city is entered from the south via the summit plateau along a path that slopes moderately (approximately 9 m in 70 m).

The excavations started in the eastern part of Area 7 in 1993. They were later extended westwards in 1997 and 1998, eastwards in 2008 and westwards again in 2009. The following trenches from east to west are included in Area 7: XLVIA–D, XLVIIA–B, XIX, XX, XXIIA–B, XXIII, XXXIXA–D, XLA–D, XLIA–B, XLVIIIA–D, XLIXA–B and LA–B. The total size of the opened area is approximately 725 square metres.³⁴

The excavations in Area 7 concentrated on Iron Age remains but portions of Late Bronze to Early Bronze Age remains were also unearthed (FISCHER 2006a, b; *idem*: 2008a; FISCHER and FELDBACHER 2009 and 2010; FISCHER 2010). The excavations in the following trenches did not really continue below the ear-

liest Iron Age levels (from east to west): XLVIA–D, XLVIIA–B, XXXIXA–D, XLVIIIA–D, XLIXA–B and LA–B. Test soundings were dug in the other trenches in order to verify earlier, viz. Late, Middle and Early Bronze Age, occupation.

On the surface numerous blocks of stones from collapsed structures were visible. These structures turned out to be of mainly Islamic and of late Iron Age date. The area also revealed an abundance of Islamic sherds on the surface and in the uppermost layers (see e.g. the report on the Islamic pottery in WALMSLEY 1995). The preliminary date of the Islamic pottery is 9th century, viz. Abbasid.

This conveniently flat area offered the possibility of overlooking a large sector of the Central Jordan Valley and areas far into the northern part of Cisjordan. It was used for defence and, later, for domestic structures. From the earlier part of Iron Age occupation in Area 7 there are two successive towers with somewhat different ground plans, followed by "four-room houses", i.e. houses with two pairs of rooms which surround partly roofed courtyards in the subsequent phases of occupation. There is a workshop for the production of iron objects in the easternmost part of Area 7. The construction of the Iron Age buildings disturbed earlier occupation, viz. the Late, Middle and Early Bronze Ages, to a considerable depth. The

³⁴ The trenches with irregular northern outlines follow the natural course of the edge of the tell.

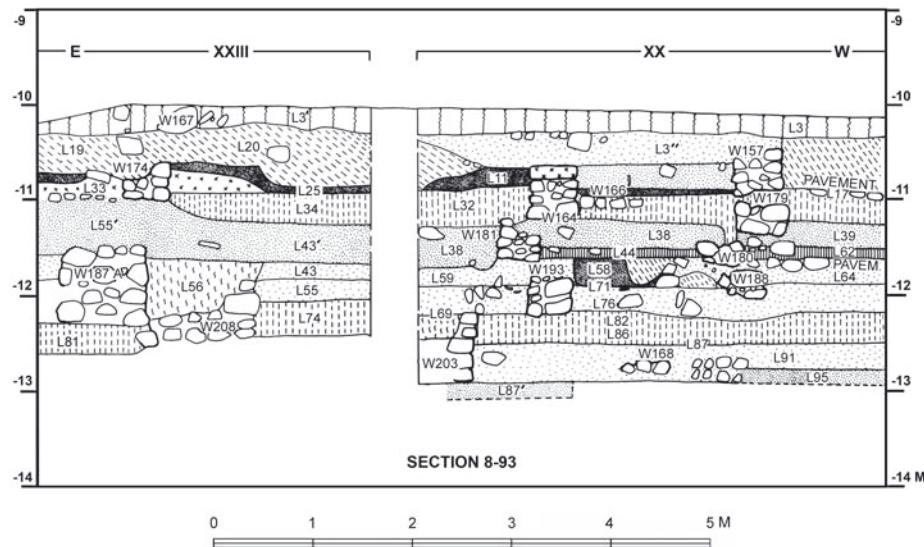


Fig. 132 Section 8-93. Area 7, south section Trenches XXIII and XX

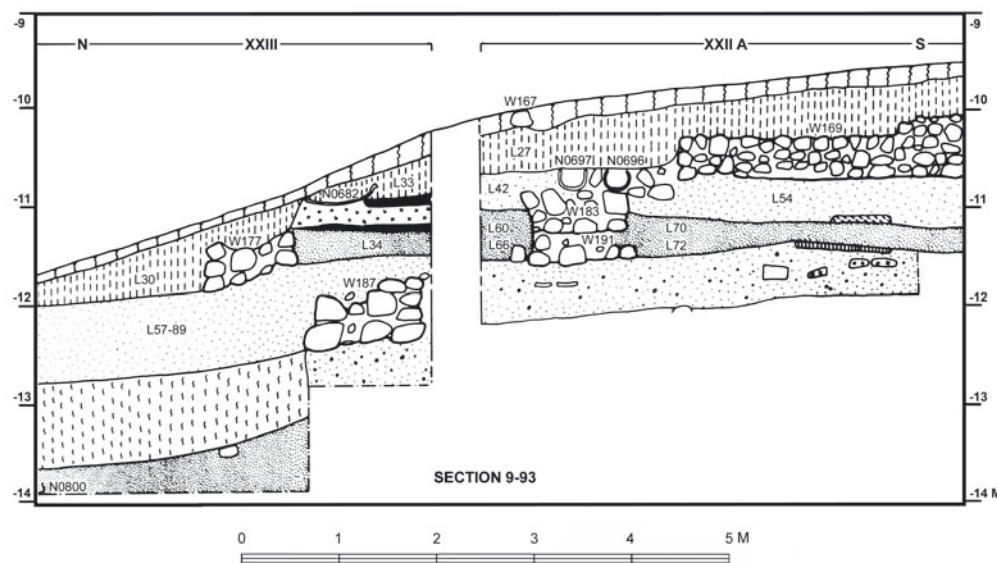


Fig. 133 Section 9-93. Area 7, east section Trenches XXIII and XXIIA

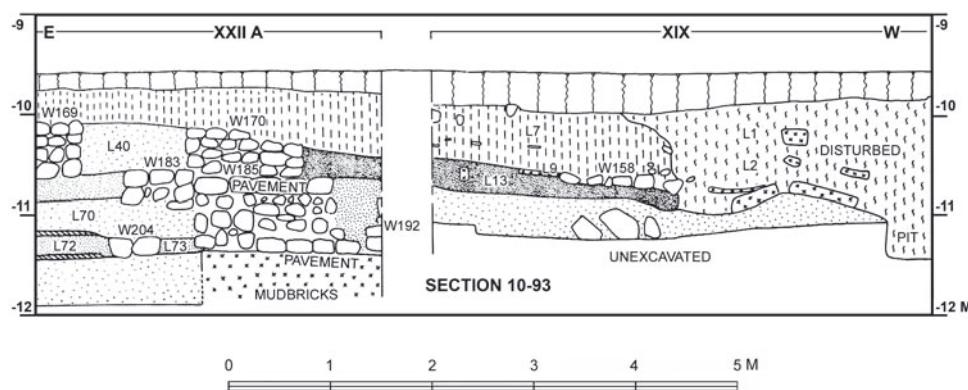


Fig. 134 Section 10-93. Area 7, south section Trenches XXIIA and XIX

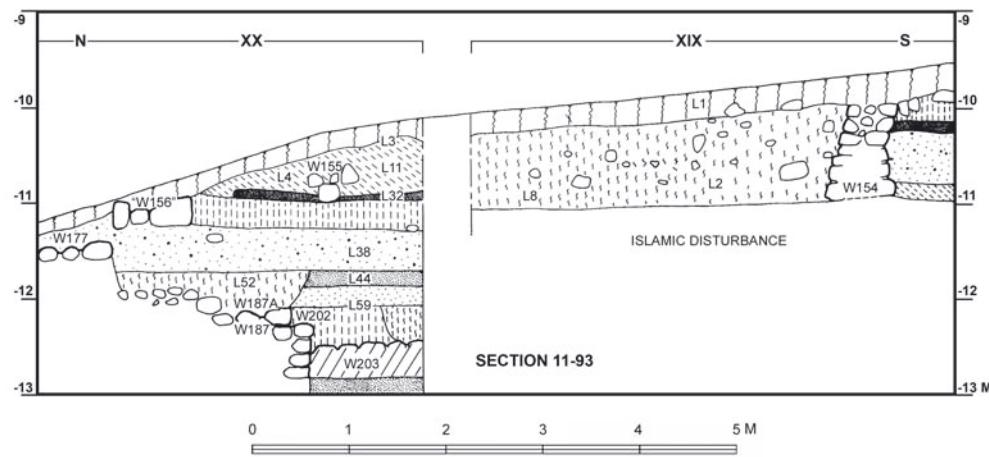


Fig. 135 Section 11-93. Area 7, east section Trenches XX and XIX

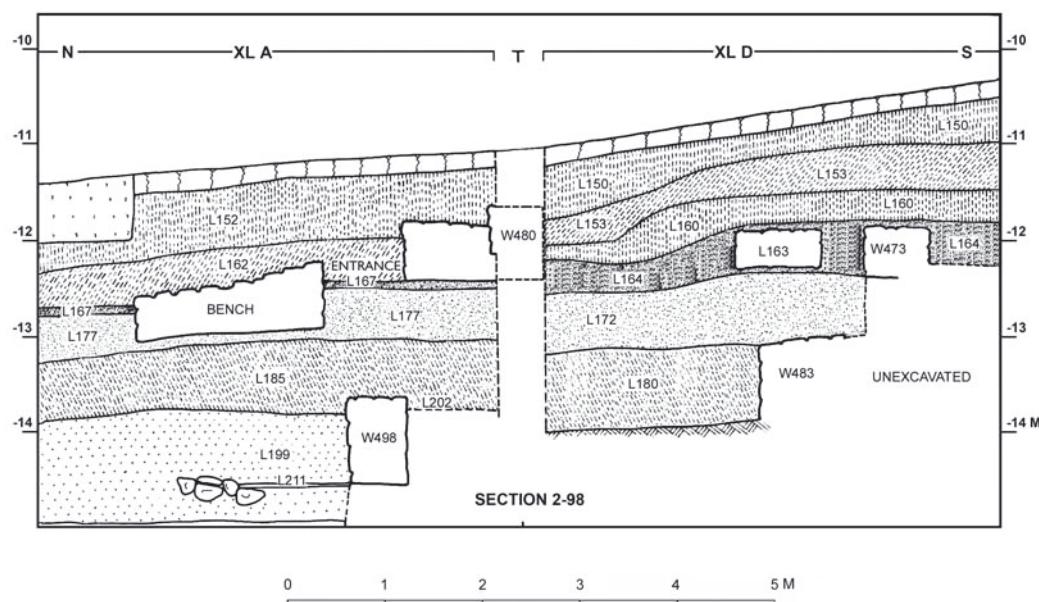


Fig. 137 Section 2-98. Area 7, east section Trenches XLA and D

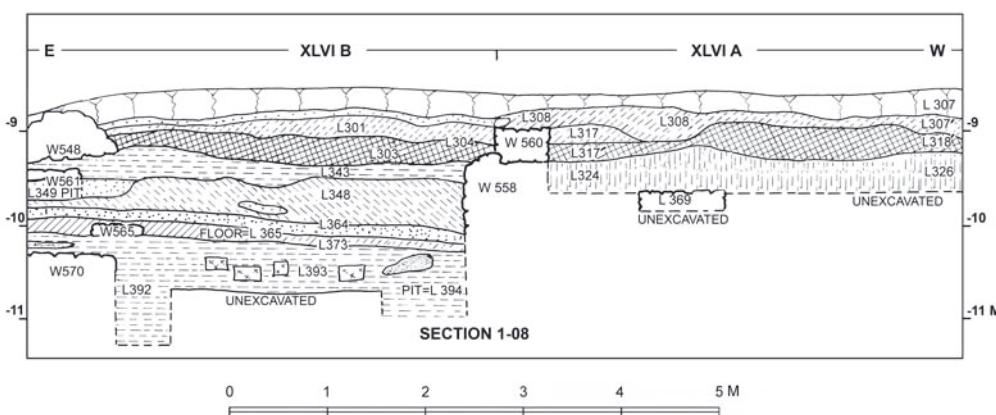


Fig. 138 Section 1-08. Area 7, south section Trenches XLVIB and A

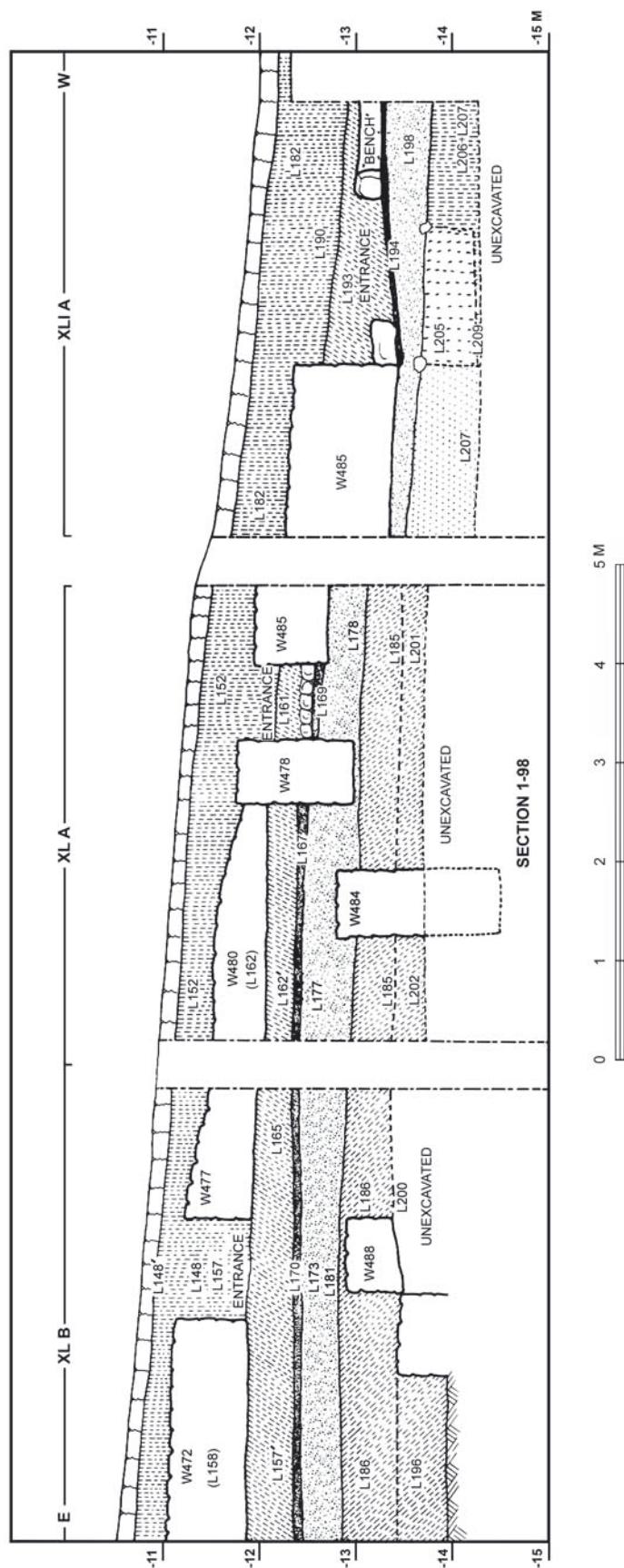
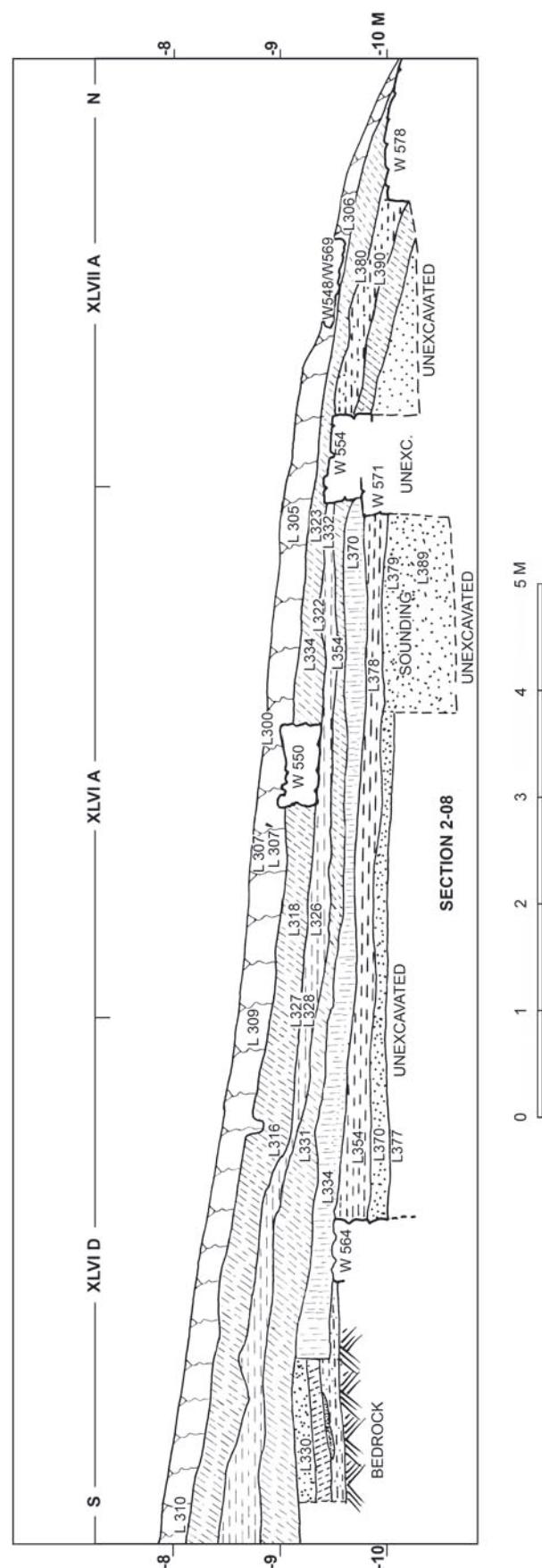


Fig. 136 Section 1-98. Area 7, south section Trenches XLB, XLA and XLIA



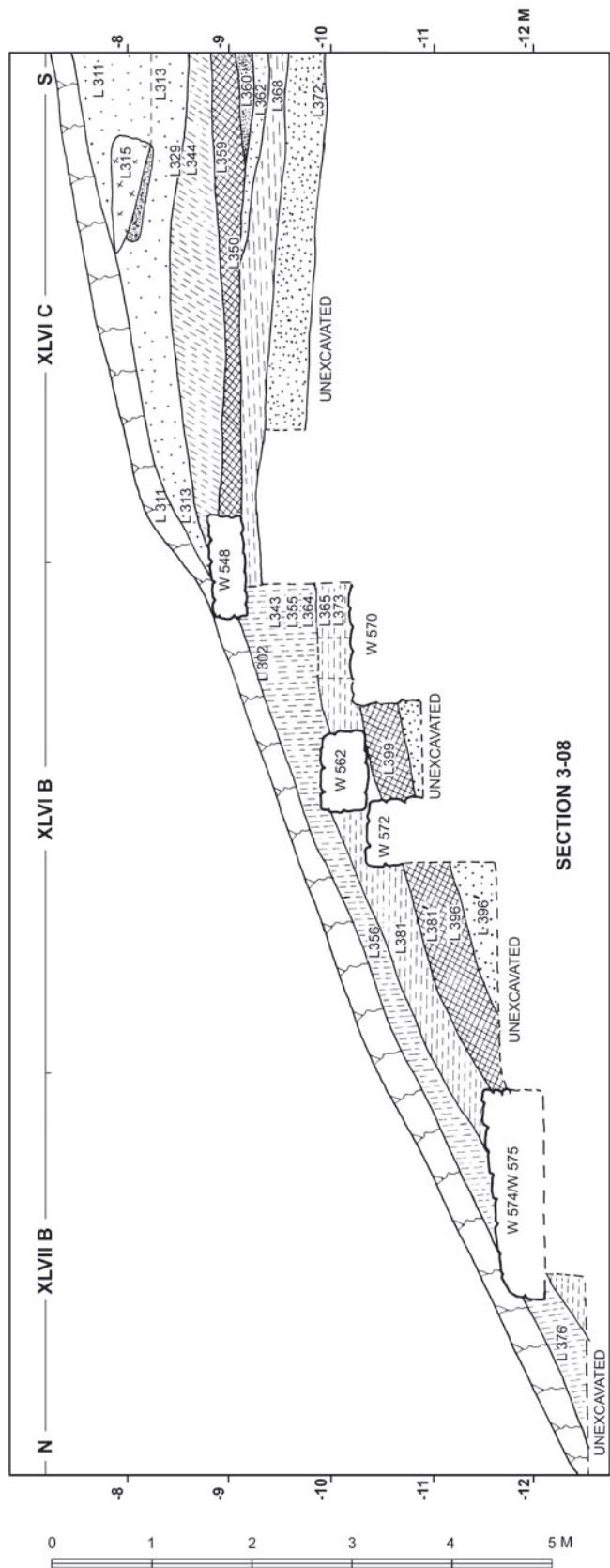


Fig. 140 Section 3-08. Area 7, east section Trenches XLVII B, XLVII B and C

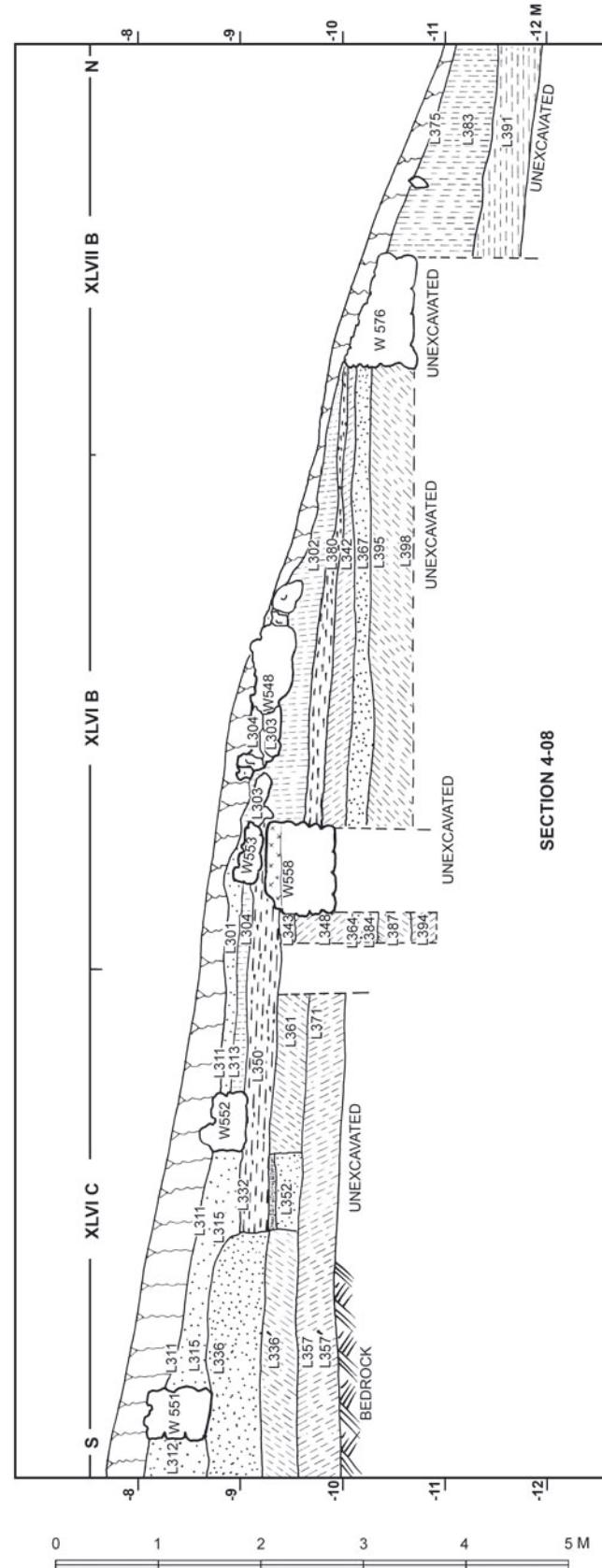


Fig. 141 Section 4-08. Area 7, west section Trenches XLVIC, XLVIB and XLVII B

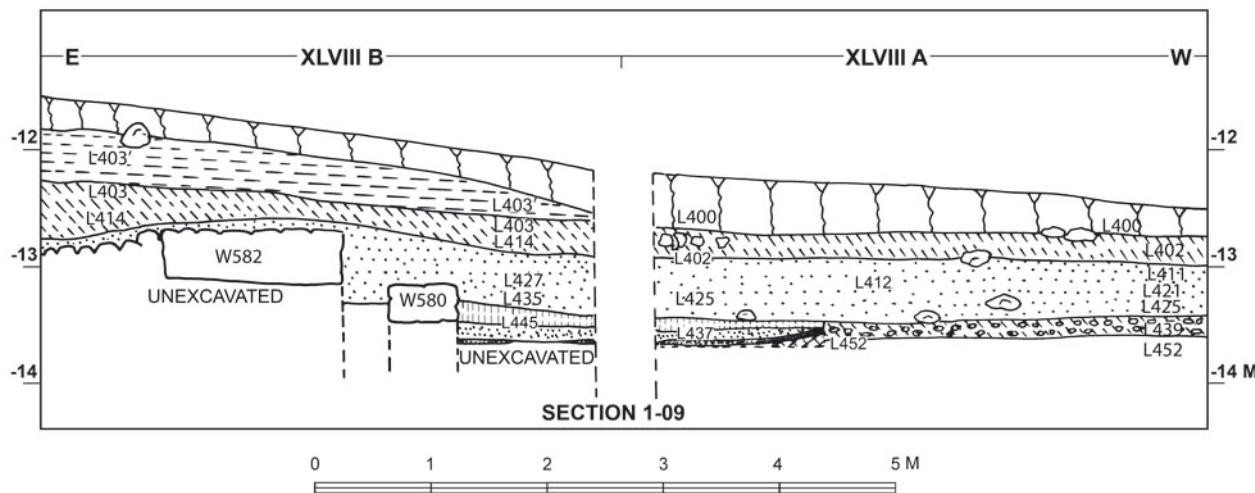


Fig. 142 Section 1-09. Area 7, south section Trenches XLVIII B and A

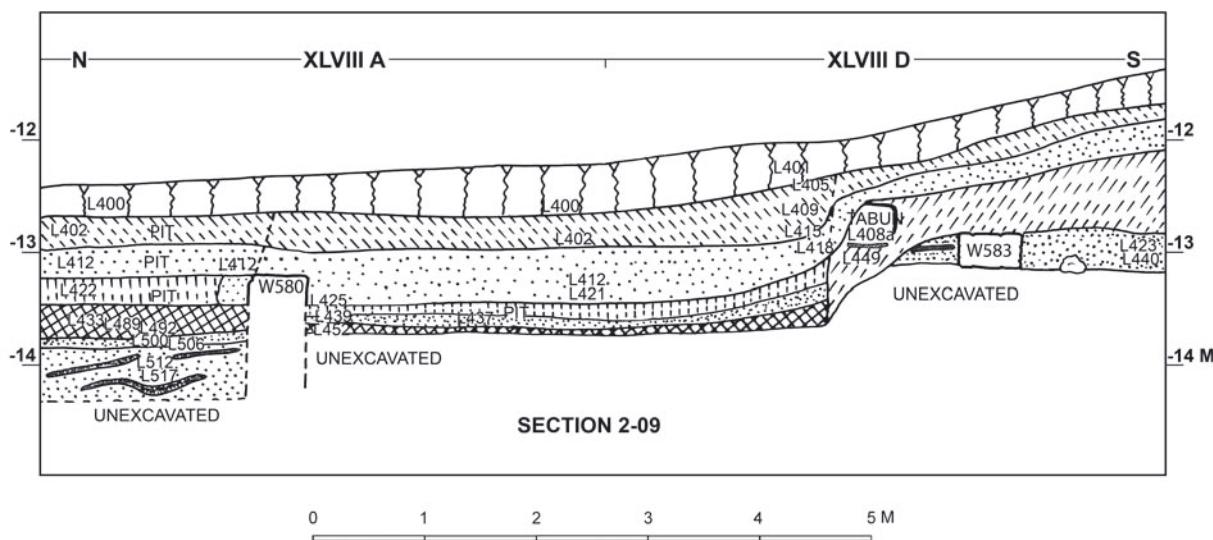


Fig. 143 Section 2-09. Area 7, east section Trenches XLVIII A and D

northern edge of the tell suffered also from erosion and possible earthquakes: remains of the northernmost settlement structures (and pottery) from all periods which once stood on the edge of the tell can now be found demolished and construction elements spread down the steep slope to the north. Nonetheless, many structures inside the city walls, i.e. to the south of the city wall, and especially those from the Iron Age, are remarkably well-preserved.

PHASE XI, AREA 7 (Figs. 144 and 145)

General remarks

It has been highlighted that the conveniently flat Area 7, from which large parts of the Jordan Valley can be controlled, was used significantly during the

Iron Age. Extensive building activities in this part of the tell created a number of stratigraphical problems as regards the second part of the Late Bronze Age, viz. Phases VI–VIII, and the earliest Iron Age remains in this area (cf. the remarks of FISCHER 2006a: 178–184) because earlier structures were used as quarries for building material. Therefore the interpretation of the scanty material remains from the oldest Iron Age occupation, here ascribed to Phase XI, should be treated with caution because of possible contamination with material from later Iron Age phases.

Architecture and features

The only remains which can be attributed with any certainty to Phase XI are from the eastern part of

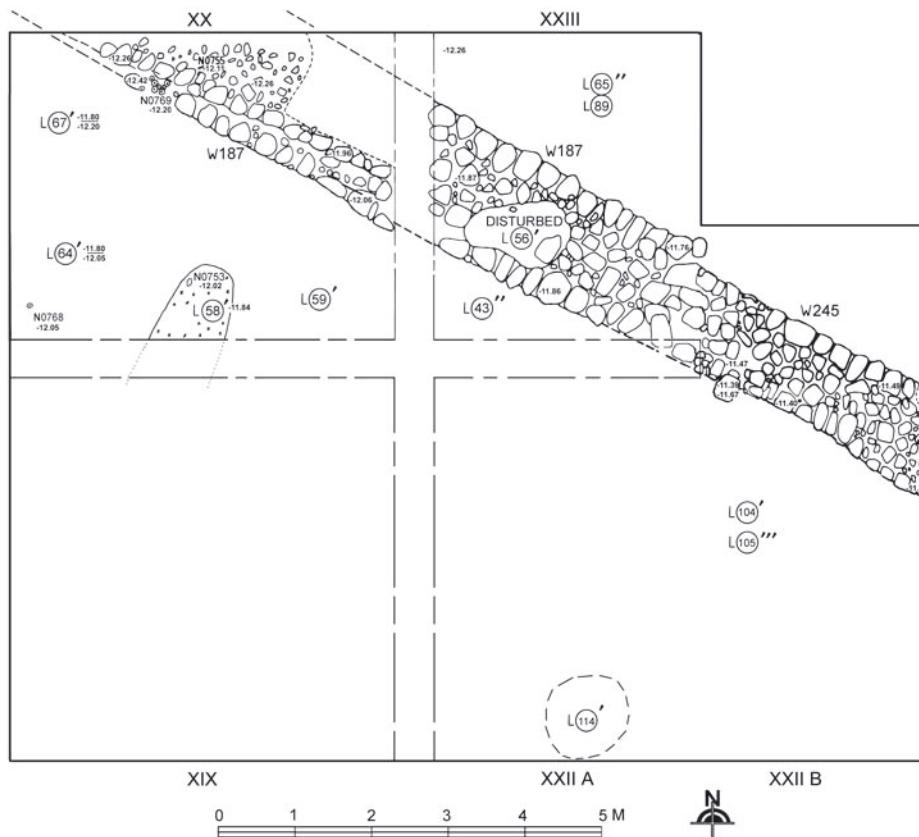


Fig. 144 Plan of Phase XI, Area 7 East

Area 7 in Trenches XIX, XX, XXIIA–B and XXIII. There are indications that the Late Bronze Age city wall (W187/245; see also FISCHER 2006a: 182, figs. 218 and 220) was reused during this phase. A beaten earth floor (L64', 67') was laid against W187, and a surface covered with clay (L58') belongs to this phase. On this floor eight loom weights (N769) and far to the southwest another one (N768), all of unfired clay, were discovered. The diameters of the first eight range from 7.1 to 8.3 (average 7.4 cm) and their heights from 4.2 to 5.2 (average 4.8 cm). The final single loom weight is smaller (d. 5.2 and H. 3.0 cm). The roughly centrally placed holes of the loom weights are approximately 0.9 cm in diameter. Parts of a bone shuttle were found on W187 (N755). There is a hearth in the southern part with parts of cooking pots preserved (L114').

Other features which are tentatively ascribed to this phase are: L43'', L59', L65'', L89, L104' and L105''. W187/245 correspond to W570 (adjoining loci are L392 and L399) in Trench XLVIB in 2008.³⁵

Interpretation of the material evidence

The scanty remains from this phase allow only very limited conclusions. There was obviously a space which was used for the production of textiles, judging from the bone shuttle and the unfired clay loom weights, which are typical of the Iron Age loom weights at Tell Abu al-Kharaz and elsewhere. The find position of the shuttle above W187 can be interpreted in two ways: either that W187 and with the collapsed superstructures of clay (L58') were used as a founda-

³⁵ Some of the loci are not on the plan. They belong to trial soundings from the 1993 and 2008 seasons of excavations. There are, for instance, two loci which are from trial soundings and from which radiocarbon samples were taken: L38 is from the eastern part of Area 7 close to the city wall; this locus is ascribed to Phase IX. The other one is L39 also from the eastern part of Area 7; this locus is ascribed to Phase XI. Some loci are from mixed contexts, mainly Late

Bronze Age and Iron Age, for instance, L89 from outside the city wall (W187). W570 was exposed in a trial sounding at the very end of the season 2008 (not on plan). L392 and L399 belong to the oldest Iron Age phase in this spot. Below these loci Late Bronze Age remains start to show up. The pottery next to the wall is a mixture of Late Bronze Age and Iron Age sherds.

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
187/245	1.75-2.0	0.7	3			reused LB city wall
570	1.75		x			partly exposed in trial sounding

Table 45 Description of the walls of Phase XI, Area 7

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
39	floor?					trial trench, not on plan
43"	fill, o.d.	7	2 b, 1 j, 1 ja			
58'	clay surface, o.d.	37	N753 pf			reused LB installations
59'	fill, o.d.	39	6 ud			
64'	surface, posthole, o.d.	29	2 ud		N768	
65"	dump outside city wall, lower part	176	1 jl		N797	mixed up context
67'	surface, o.d.	31	-2 k, 9 ud		N755, N769... N771	
89	dump outside city wall, lower part		-3 ep, -4 cp			mixed up context
104'	fill, o.d.	7	11 ud			
105""	surface, o.d.	12	8 ud			
392	test trench, associated with W570, south part	3	-2 ep, -3 sj, 1 b, 3 j, 1 sj, 4 cp, 57 ud			mixture LB/IA sherds
399	test trench, associated with W570, north part	22	2 b, 1 j, 35 ud		N1242, -2	mixture LB/IA sherds

Table 46 Description of the loci of Phase XI, Area 7

tion for a beaten earth floor and that the original wall bordering this space to the north has fallen down the steep slope because of earthquakes and erosion; or that the reused W187 limited the northern part of this space, and that the position of the bone shuttle upon this wall is the result of later disturbances. L58', which covers a layer with ash, most likely represents the remains of a superstructure of mudbrick belonging to the Late Bronze Age and destroyed in a fire. This surface was later levelled and used by the people of Phase XI as a floor. In general, the pottery is mainly a mixture of Late Bronze Age and early Iron Age sherds.

Legend for the illustrated pottery from Phase XI, Area 7 East

Fig.	Locus No.	Description
145:1	67' -2	Krater, medium-hard-fired, yellowish-brown fabric, medium-coarse, multicoloured inclusions, thick yellowish-white slip.
145:2	58' N753	Pilgrim flask, cup-mouth, hard-fired, brown fabric, medium-fine, yellowish-brown slip; incised decoration.
145:3	89 -4	Cooking pot, hard-fired, light reddish-brown fabric, greyish-brown core, mainly grey and white inclusions, self slip; finger indentions.
145:4	89 -3	Cooking pot, hard-fired, reddish-brown fabric, greyish-brown core, mainly grey and white inclusions, self slip.

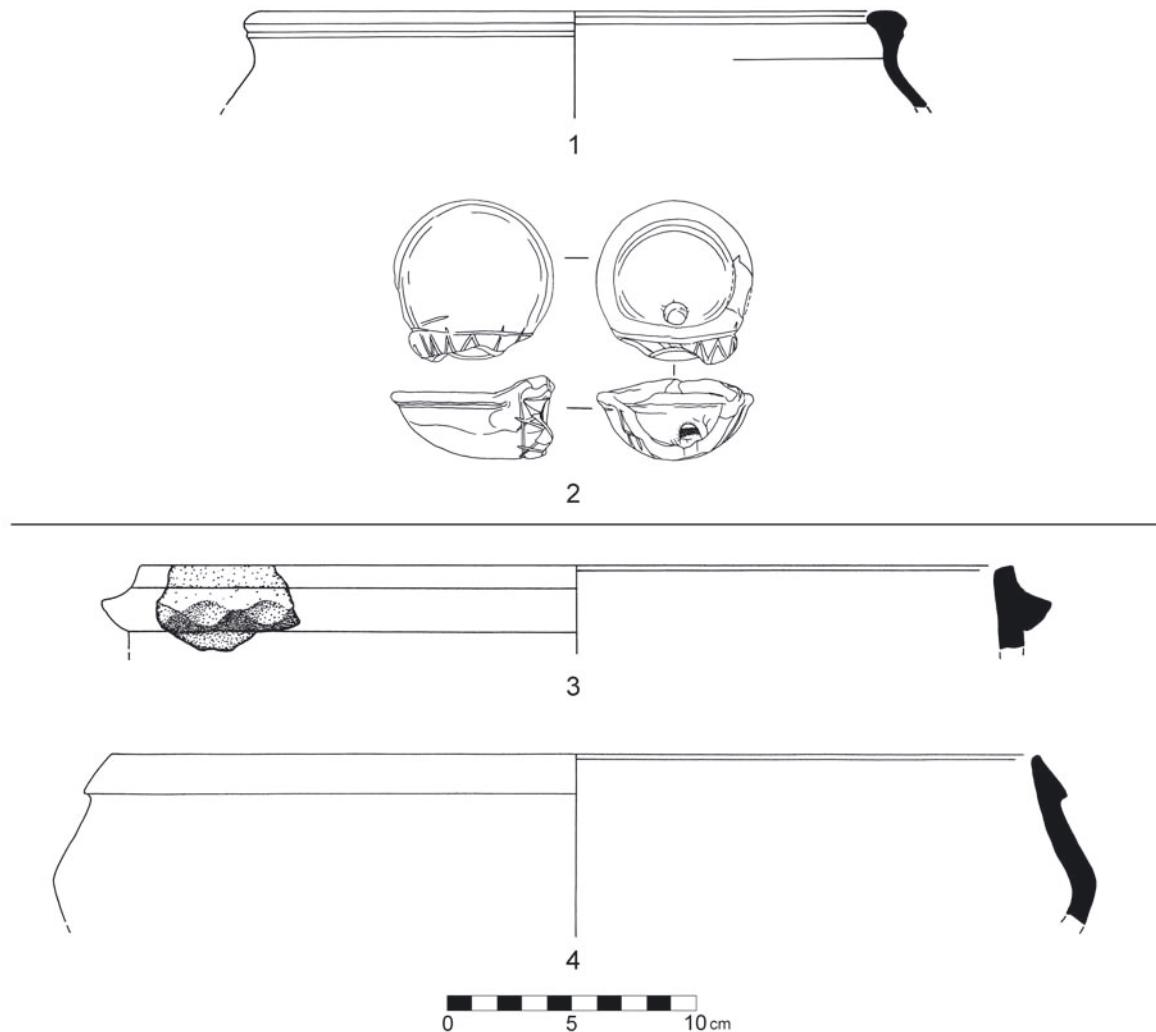


Fig. 145 Pottery from Phase XI, Area 7 East

Additional finds from Phase XI, Area 7 East (listed, not illustrated)

Locus No. Description

- 64' N768 Loom weight, unfired clay, d. 5.2, H 3.0, d. of hole 0.9 cm, 85 g.
- 65" N797 Fibula, bronze, bow (d. 0.7 cm) and lock (d. 0.9 cm) preserved.
- 67' N755 Shuttle, bone, broken, preserved L 5.8, W 2.2, Th 0.3 cm.
- 67' N769 Loom weights (8), unfired clay, d./H/d. of hole: 7.4/5.2/0.9, 7.6/5.0/0.9, 7.1/4.6/0.8, 8.3/5.2/1.0, 7.2/4.5/1.1, 7.2/4.5/1.0, 7.6/4.9/1.0, 7.2/4.7/0.9 cm, Wt 290, 295, 280, 320, 285, 282, 290, 280 g.
- 67' N770 Tripod bowl, basalt, only one leg and part of body preserved.
- 67' N771 Bone styli, two fragments of two (?) different styli, points preserved, L 2.1/3.6, W 1.9/1.9 cm.
- 399 N1242 Millstone, basalt, convex on upper and flat on lower side, L 30.8, W 14.9, H 3.9 cm.

PHASE XII, AREA 7 EAST AND WEST (Figs. 146–156)

General remarks

There are two portions with architectural remains on the terrace of Area 7 which are ascribed to Phase XII: one is in the eastern part of Area 7, Trenches XIX, XX, XXII and XXIII, and the other is in the western part, Trenches XLA and B, and XLIA. These two portions are separated by a four-room house of Phase XIV in Trench XXXIX which cuts through the layer of Phase XII. It was decided to leave this later house with fairly intact architecture *in situ* and to consolidate and preserve its complete foundation walls. Consequently, there is no stratigraphic connection between these two portions.³⁶ Best preserved are the

³⁶ The synchronization of these two areas is mainly based on pottery.

remains of a structure which is interpreted as a tower in the eastern part and which was apparently destroyed in a conflagration, traces of which can be seen everywhere inside and outside the structure. There are only limited remains of architecture in the western portion. The latter, however, shows a number of surfaces/floors and a stone-paved room with fairly intact domestic contexts.

Architecture and features

In Area 7 East a partially preserved casemate system (W187A, 245, 253; L109) survives from the Late Bronze Age (cf. FISCHER 2006a: 183). Parts of it were reused as a foundation of and integrated into an almost square structure. This structure has the dimensions 7.6 m × 6.6 m. The north-western and eastern parts of the structure in Trenches XX, XXII and XXIII are fairly intact whereas the south-western part in Trench XIX suffered from a deep pit of Abbasid origin according to numerous Islamic sherds (cf. WALMSLEY 1995: 107). There is also a disturbance to the south-west of Walls 187A and 245 running from south-east to north-west alongside these walls. This disturbance (L43', 55'), which is most likely the foundation trench for W167 (Abbasid; not on plan), cuts through Phases XIV and XIII and also caused damage to the square structure of Phase XII.

The distance between the outer walls (W180/188, 191, 192), which were built against W187A, and the inner walls (W181, 189, 190) is 1.2 m to 1.4 m (L44, 60, 66). A sort of foundation deposit should be mentioned: built into the north-western wall (W188) a complete and intact one-handled mug was found (N773; Figs. 153 and 154). It was perfectly integrated within the wall and standing on a bed of clay. The space between the outer and inner walls is neatly stone-paved in the eastern part (L60, 66) but has a beaten earth floor in the western part (L44). Layers of ash cover this space, where a Phoenician two-handled jug was found (N754; Figs. 151:8 and 152). The central room, in which a jar stand was found along W181, is bordered by Walls 181, 189 and 190 and measures approximately 2.8 m × 2.8 m (L63). The mid-part of the wall to the north (W 187A) is possibly supported in the north-east by a projecting stone buttress. Ash-covered pavements are outside the square structure to the north-west (L62) and to the south-east (L107; additional loci of various surfaces: L70, 72, 105", 108'; and a pit L73/120). There are the

remains of additional structures in the portion with the pavements at a distance of about 2 m to the north-west (W182) and south-east (W255) of the square structure. There is a stone-lined pit within the north-western pavement (L49). Loci 57', 61', 65' and 106 belong to a dump area outside the square structure to the north-east on the upper part of the steep slope. East of the structure and inside the city wall are several ceramic containers and small finds, amongst which are a Cypriote-imported Black-on-Red juglet (W258-3; Fig. 151:9)³⁷ and an arrowhead of iron (N772).

The structures in Area 7 West are not very well preserved. They include the north-south running W488' and the east-west running W498', which are both interrupted by entrances approximately 0.75 m wide (L173, 177, 178, 181, 185', 186). The corner of another paved structure (W501, 500; L204, 207), which differs from the previously mentioned walls in its orientation, is to the far west (the locus west of this structure is L206).³⁸ Installations include a circular stone-paved hearth and a clay trough. Many tools of stone were found, including mortars and millstones. Amongst the finds are juglets (N1105, N1108), loom weights of basalt (N1106, N1124), the blade of an iron dagger with a rivet preserved (N1107) and an excellently manufactured cosmetic palette of polished and decorated limestone (N1110; Figs. 156, 453:8 and 465:1; see also Appendix 3): An intense blue powder was found in some of the carved circular depressions.

Interpretation of the material evidence

It is difficult to decide how isolated this square structure in Area 7 East really was, considering the damage caused by later building activities. The most plausible interpretation of its function is that of a watch tower which was integrated into the city wall. The foundation of the city wall itself goes back to Phases IV–V, viz. late Middle and early Late Bronze Ages, but it was reconstructed and reused during Phase XI (cf. FISCHER 2006a: 182, fig. 220). The partly exposed and badly preserved W253 is the northern limit of the Late Bronze Age casemate system. The tower was destroyed in a conflagration, traces of which can be seen everywhere inside and outside the tower. Only the ground floor remains and therefore it is not possible to estimate the original height of the structure. The considerable amount of fallen stone around the structure suggests that there were probably several

³⁷ This juglet is a Cypriote import and not one of the usually locally made counterparts.

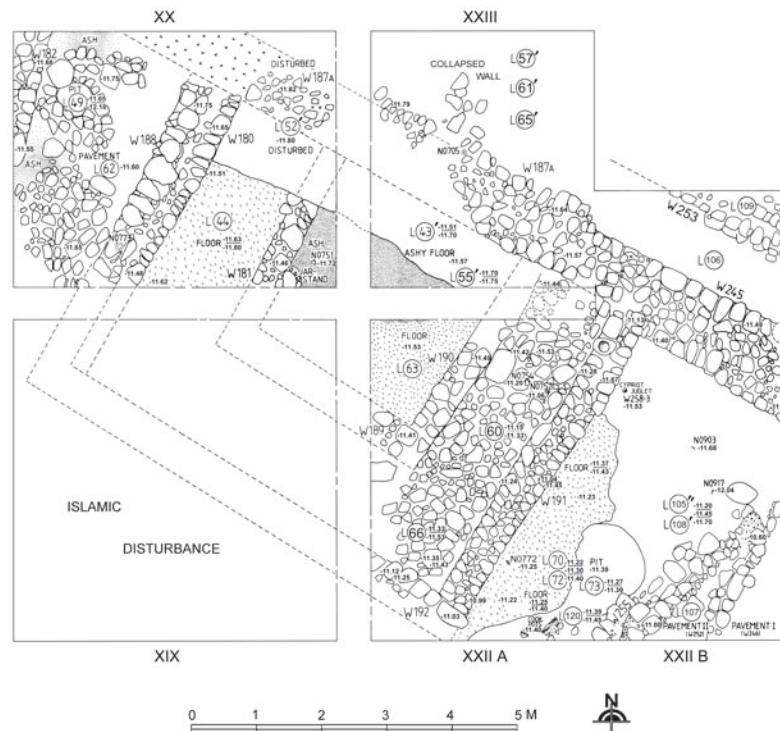
³⁸ Although the orientation of this structure differs from the one to the east, the general levels/stratigraphy suggest that it belongs to the same phase.

additional storeys which could be reached via wooden ladders.

The majority of the upper parts of the walls in the western portion (with the exception of W500 and 501) were reused from the Late Bronze Age and served as foundation walls for the Iron Age structures of a domestic compound (cf. FISCHER 2006a: 181, fig. 219).

There are several imported objects, including a burnished two-handled jug with black and red decoration of Phoenician origin (N754; Figs. 151:8 and 152),

which was found on the stone pavement in the south-eastern part of the tower, and a Cypro-Geometric juglet, found just to the east of the tower (W258-3; Fig. 151:9). In the central room, maybe a storage facility, a jar stand built of stones and mudbrick and a black and red decorated, imported, jug were found close to the north-western inner wall. The built-in mug from W188 is most likely a foundation deposit. The stone-lined pit of L49 once contained a wooden roof support belonging to a structure to the west. The



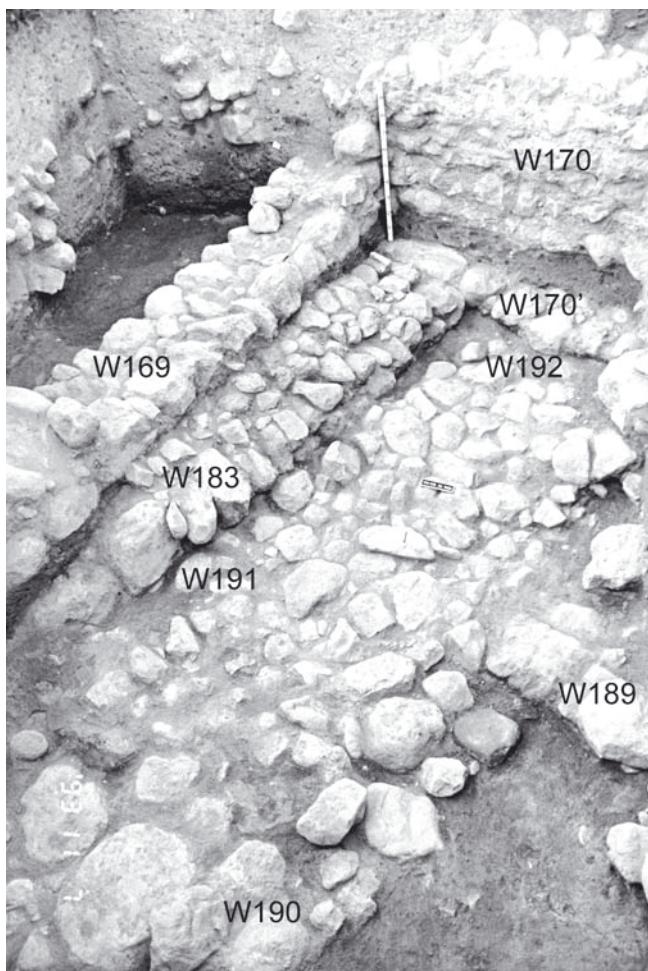


Fig. 148 Phase XII, Area 7: array of walls and stone pavement (see also Fig. 146)

limestone cosmetic palette with the preserved blue cosmetics is one of several from the site and shows a high level of craftsmanship (N1110; Figs. 156, 453:8 and 465:1; see also Appendix 3). It is not possible to assess if it was imported or manufactured at the site.

Legend for the illustrated pottery from Phase XII, Area 7

Fig.	Locus No.	Description
149:1	186 -2	Bowl, hard-fired, light brown fabric, grey core, medium-fine inclusions, yellow slip interior and exterior, wheel-burnished.
149:2	62 -2	Bowl, hard-fired, brown fabric, medium-fine inclusions, orangish-brown slip interior and exterior.
149:3	181 -3	Carinated bowl, medium-hard-fired, light reddish-brown fabric, thick grey core, multicoloured inclusions, yellowish-brown slip.
149:4	186 -4	Carinated bowl with small ledge handle, hard-fired, yellowish-brown fabric, medium-coarse inclusions, yellow slip, rim painted red on interior and brown on exterior.
149:5	66 -1	Bowl, hard-fired, yellowish-brown fabric, medium-coarse inclusions, red slip interior and exterior, wheel-burnished.
149:6	185' -4	Carinated bowl, medium-hard-fired, yellowish-brown fabric, medium-fine inclusions, light brown slip, wheel-burnished.
149:7	185' -1	Carinated bowl, medium-hard-fired, yellowish-brown fabric, medium-fine inclusions, light brown slip.

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
180/188	0.7-0.8	0.5	3			wall and bench
181	0.4-0.5	0.3	2			
182	0.5	0.5	2			
187A/245	2.0	0.7	3			city wall
189	0.4	0.3	2			
190	0.5	0.3	2			
191	0.5	0.4	2			
192	0.5	0.4	2			
488'	0.8	0.4	2			
498'	0.6-0.7	0.8	4			
500	0.5	0.7	3			
501	0.5	0.4	2			

Table 47 Description of the walls of Phase XII, Area 7

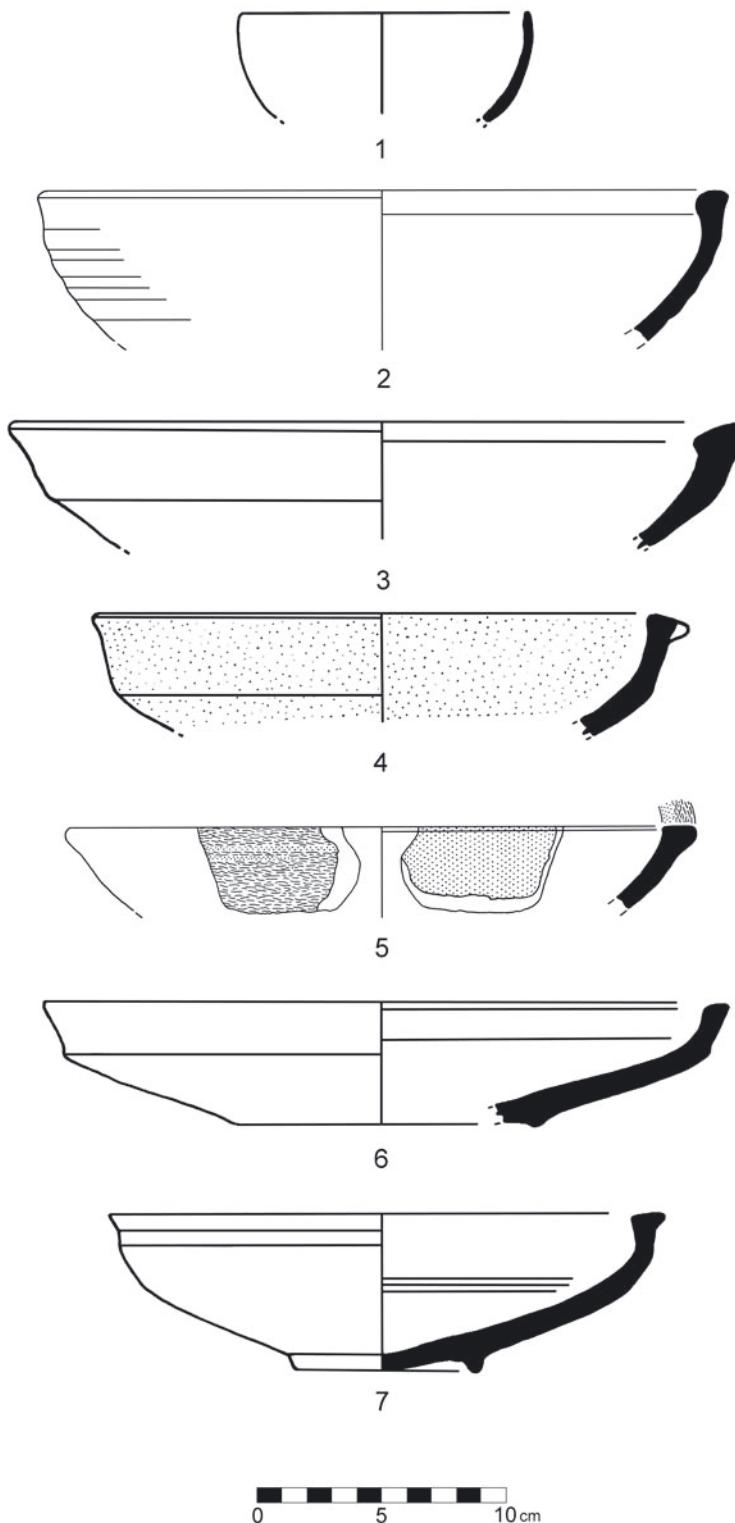


Fig. 149 Pottery from Phase XII, Area 7

Locus no.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
43'	floor, ash (upper part)	6	2 b, 1 j, 1 ja, 1 sj			partly disturbed
44	floor, beaten earth	13	-1 k, -2 cp, 1 dt, 1 ja, 66 ud			
49	pit, d. 0.4, stone-lined, posthole?	32	3 b, 2 ja, 1 ep, 1 dec bs, 46 ud			
52'	levelled stone wall	51	1 b, 1 cb, 1 jl, 1 tri, 30 ud	1		partly disturbed
55'	floor, ash (lower part)	79	-1 ep		N748	partly disturbed
57'	dump outside building	37	1 b, 5 ud			
60	stone pavement	65	N754 Phoen j, 4 b, 1 k, 1 sj, 1 l, 60 ud		N752	
61'	dump outside building					mainly soil, ash
62	pavement	30	-1 ep, -2 b, -3 basin, 4 b, 1 ja, 1 ep, 58 ud			
63	floor, clay, some ash	16	1 k, 5 ud			
65'	dump outside building, upper part	141	-1 ep, -2 k, -3 k, 2 b, 2 j, 1 jl, 2 cp, 85 ud			mixed up
66	stone pavement (see also L60)	12	-1 b, 1 b, 1 ja, 1 sj, 1 ep, 10 ud			
70	floor, beaten earth	23			N772	mainly LB
72	floor, pebbles	36				mainly LB
73	pit, upper part, d. c. 1.2 (see L120)					mainly soil, ash
105"	soil surface	124	W258-2 cp, -1 k, -2 k, -3 b, 12 b, 5 k, 3 j, 7 jl, 5 sj, 1 ja, 27 cp, 16 h, 348 ud		N903	
106	dump outside building	7	1 b, 1 jl, 18 ud			
107	stone pavement	51	-1 ep, -2 dt, 6 b, 5 jl, 4 ja, 1 sj, 1 l, 3 h, 27 ud			
108'	soil surface	20	W258-3 BoR jl, -1 ep, -2 cp, -4 ep, 5 b, 3 j, 2 ja, 3 sj, 1 ep, 1 CG, 197 ud		N919	
109	former casemate system	10	4 b, 1 dt, 2 ja, 1 ep, 2 sj, 2 h, 82 ud			
120	pit, lower part (see L73)		-1 ep, -2 k, -3 k			
173	fill, ash, o.d.	2	6 b, 2 j, 2 jl, 4 sj, 2 cp, 1 l, 80 ud			
177	fill, ash, partly clay, o.d.	28	-1 j, -2 jl, 6 b, 1 k, 8 j, 1 jl, 1 ja, 5 sj, 1 l, 13 cp, 307 ud			
178	fill, ash, partly clay, o.d.		1 b, 15 sj, 2 tri, 1 ep, 18 ud			
181	ash, collapsed roof, o.d.	29	N1105 jl, -1 k, -2 b, -3 cb, 16 b, 6 j, 6 jl, 8 sj, 5 ep, 265 ud		N1106	
185'	ash, floor, o.d.		N1108 jl, -1 eb, -2 mug, -3 jl, -4 eb, 24 b, 8 k, 18 j, 5 jl, 34 sj, 1 l, 6 ep, 541 ud		N1110	
186	ash, floor, o.d.	209	-1 jl, -2 b, -3 j, -4 eb, 45 b, 6 cb, 7 k, 8 j, 31 sj, 1 tri, 11 ep, 1 CG, 599 ud		N1107	
200	ash, floor, o.d.					unexcavated
201	ash, floor, o.d.					unexcavated
202	ash, floor, o.d.					unexcavated
204	stone pavement, o.d.					

Table 48 Description of the loci of Phase XII, Area 7

Locus no.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
205	stone-lined pit cut into L206, d. 1.5					mainly soil, ash
206	hard surface, o.d.		1 ja		N1124	
207	hard surface, o.d.	15	-1 cp, -2 h fenestrated vessel, 19 b, 4 k, 6 j, 4 ja, 12 sj, 1 l, 8 ep, 235 ud			
upon W187A	stone foundation of wall	5				pottery in wall
in W187A	stone foundation of wall	36				pottery in wall
in W188			N773 mug			pottery in wall
in W191	stone foundation of wall	51				most LB, a few EB, no IA

Table 48 continued Description of the loci of Phase XII, Area 7

Legend for the illustrated pottery from Phase XII,
Area 7

Fig.	Locus No.	Description
150:1	105" -1	Krater, hard-fired, red fabric, light brownish-grey core, medium coarse, mainly grey and white inclusions, self slip.
150:2	120 -3	Krater, hard-fired, brown fabric, medium-coarse, light brown slip.
150:3	44 -1	Krater, hard-fired, light brown fabric, dark grey core, medium coarse, mainly white inclusions, red slip interior and exterior, wheel-burnished.
150:4	105" -2	Krater, hard-fired, light brown fabric, medium-fine, yellowish-grey slip.
150:5	120 -2	Krater, hard-fired, light brown fabric, thin light grey core, medium-fine, yellowish-grey slip, brown decoration.
150:6	181 -1	Krater, hard-fired, light brown fabric, thick grey core, coarse, mainly grey inclusions, yellow slip, red paint; herring bone incisions.

Legend for the illustrated pottery from Phase XII,
Area 7

Fig.	Locus No.	Description
151:1	181 N1105	Juglet, medium-hard-fired, light brown fabric, medium-fine, self slip, wheel-burnished; ribbed pattern on exterior.
151:2	185" -3	Juglet, hard-fired, yellowish-brown fabric, coarse with black and white inclusions, yellow slip, red paint.

151:3	186	-3	Jug, hard-fired, brown fabric, coarse with mainly grey inclusions, yellow slip, red and brown paint.
151:4	177	-1	Jug, hard-fired, light grey fabric, medium-fine, light brown slip.
151:5	185"	-2	Mug, hard-fired, yellowish-brown fabric, coarse with mainly black and white inclusions, yellow slip, red paint.
151:6	W188	N773	Mug, hard-fired, light reddish-brown fabric, medium-coarse, red wash interior and exterior.
151:7	207	-2	Handle of fenestrated vessel (?), handmade, hard-fired, light pinkish-brown fabric, coarse, multicoloured inclusions, dark red slip, burnished; four impressed lines.
151:8	60	N754	Phoenician jug, medium-hard-fired, light brown fabric, medium-fine, multicoloured inclusions, light orangish-brown slip, burnished, bichrome decoration in red and black.
151:9	108"	W258-3	Cypriote Black-on-Red juglet, hard-fired, reddish-yellow fabric, fine, yellow slip on interior, light brown slip on exterior, very dark brownish-black decoration. Comment: the vessel is not an imitation but genuine Cypriote-imported ware.
151:10	60	N752	Spindle whorl, basalt, Wt 46 g.

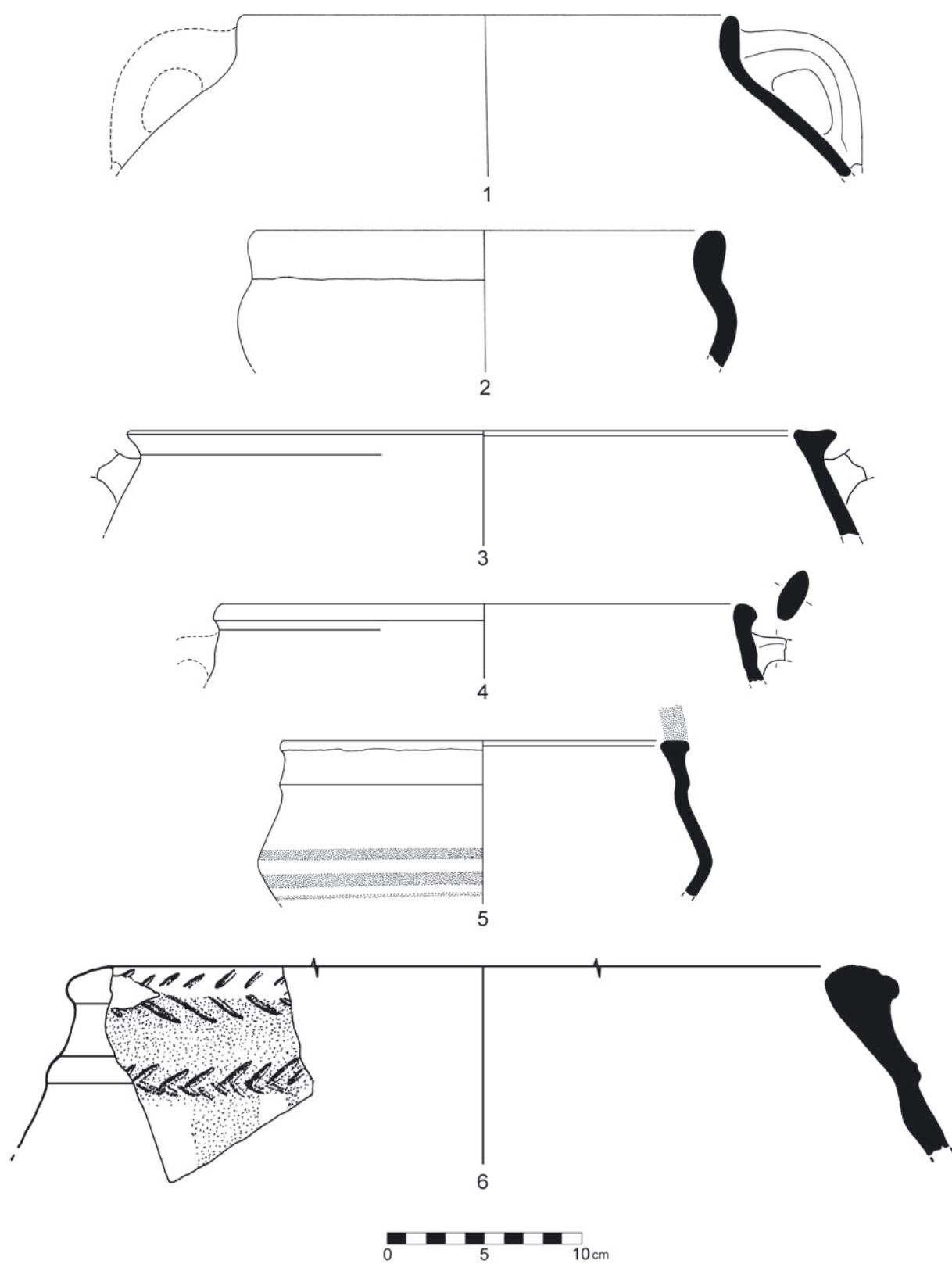


Fig. 150 Pottery from Phase XII, Area 7

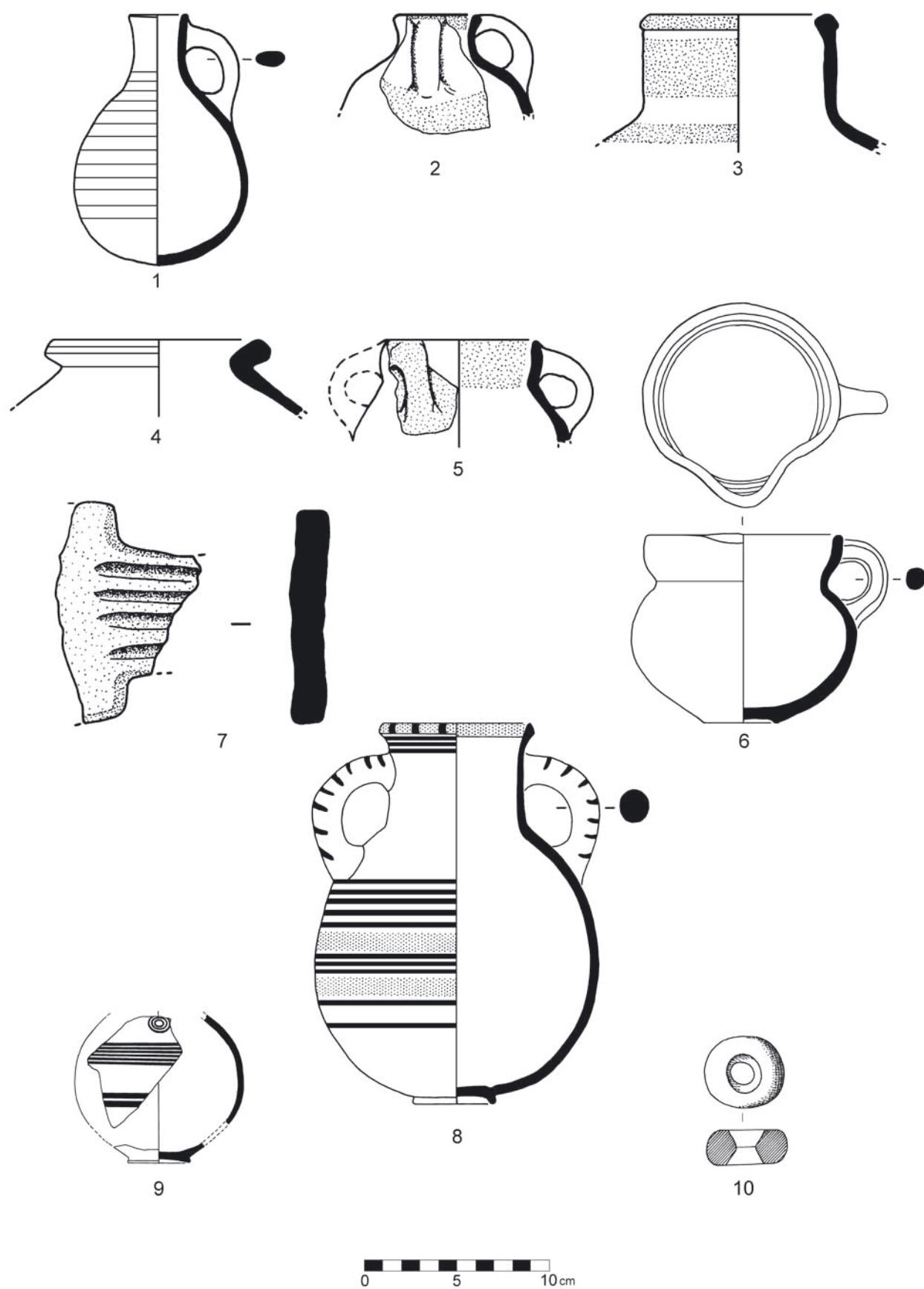


Fig. 151 Pottery from Phase XII, Area 7

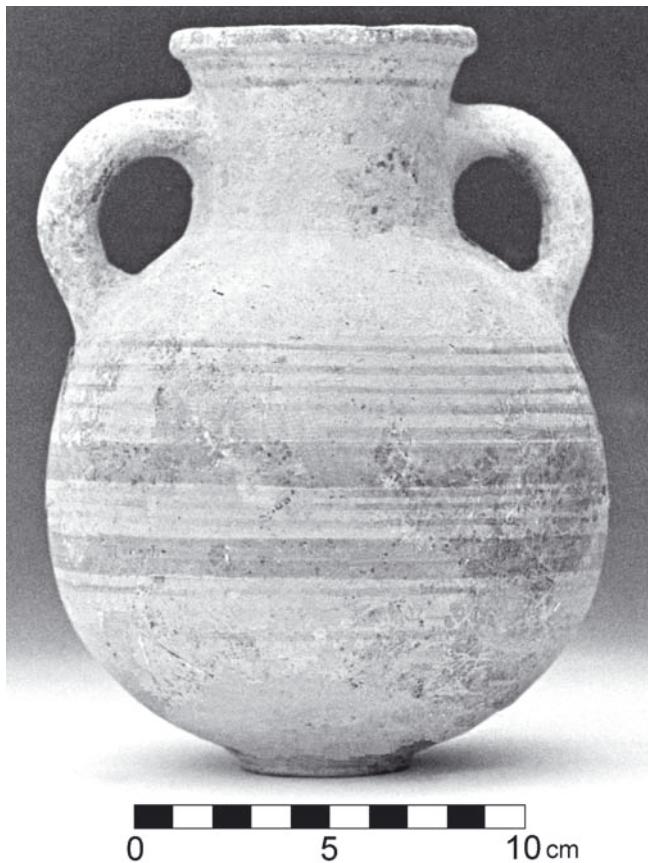


Fig. 152 Phoenician-type jug from Phase XII, Area 7 East
(N754)



Fig. 154 Mug from Phase XII, Area 7 East (N773)



Fig. 153 Mug incorporated in W188 from Phase XII, Area 7 East (N773)

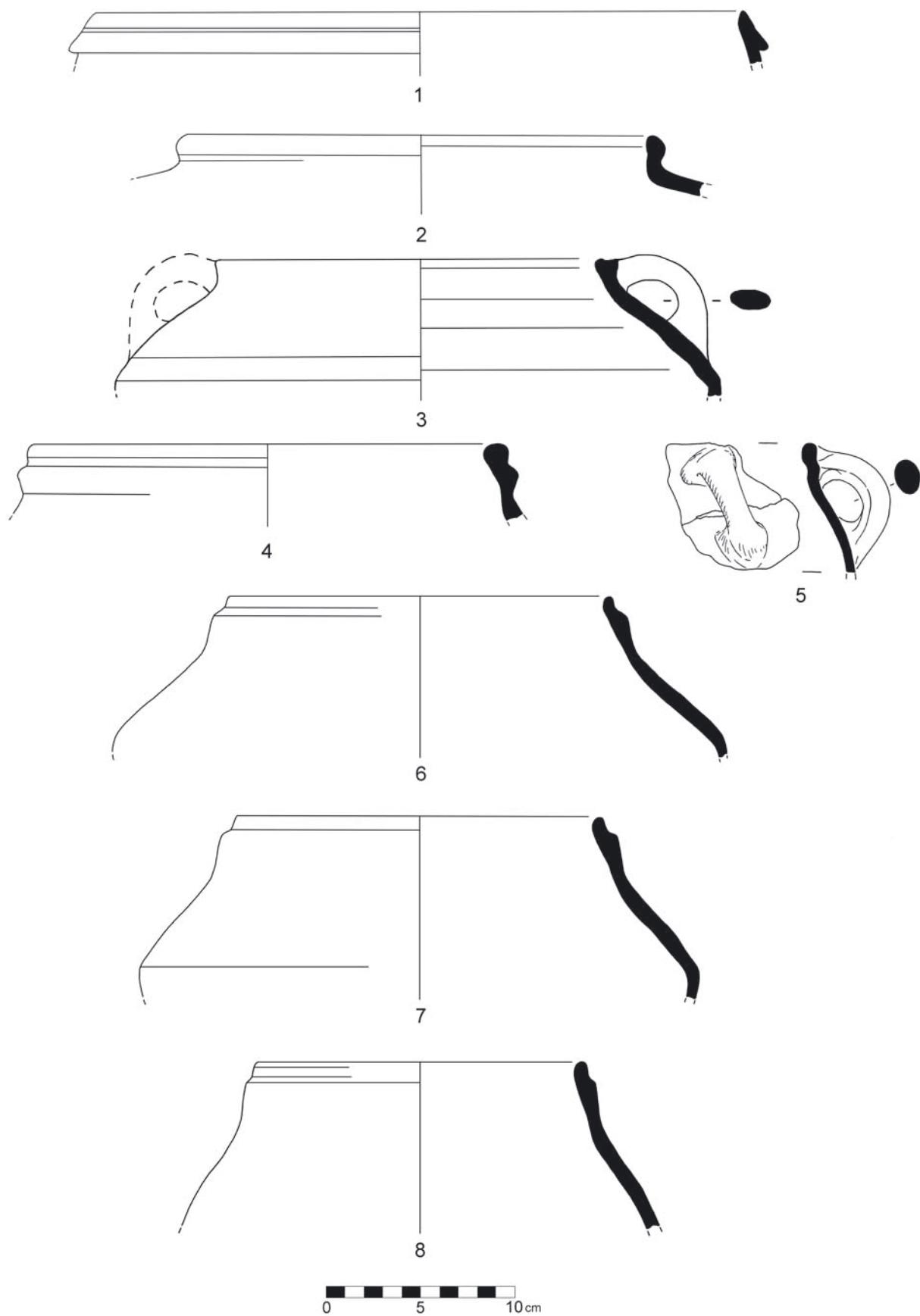


Fig. 155 Pottery from Phase XII, Area 7

Legend for the illustrated pottery from Phase XII,
Area 7

Fig. Locus No. Description

- | | | | |
|-------|------|--------|---|
| 155:1 | 105" | W258-2 | Cooking pot, hard-fired, reddish-brown fabric, medium-coarse, mainly black inclusions, self slip; double-incision on exterior of rim. |
| 155:2 | 44 | -2 | Cooking pot, medium-hard-fired, dark brown fabric, dark grey core, large white inclusions, self slip. |
| 155:3 | 207 | -1 | Cooking pot, hard-fired, brown fabric, coarse, mainly black inclusions, self slip. |

- | | | | |
|-------|------|----|--|
| 155:4 | 55' | -1 | Cooking pot, very hard-fired, reddish-brown fabric, grey core, mainly white and grey inclusions, self slip. |
| 155:5 | 65' | -1 | Cooking pot, medium-hard-fired, reddish-brown fabric, grey core, mainly white and grey inclusions, self slip. |
| 155:6 | 108' | -4 | Cooking pot, hard-fired, reddish-brown to dark greyish-brown fabric, coarse, large white and grey inclusions, self slip. |
| 155:7 | 108' | -1 | Cooking pot, hard-fired, brownish-red fabric, brown core, medium-coarse, large grey inclusions, self slip. |
| 155:8 | 108' | -2 | Cooking pot, hard-fired, dark brown fabric, black core, medium-coarse, large white inclusions, self slip. |

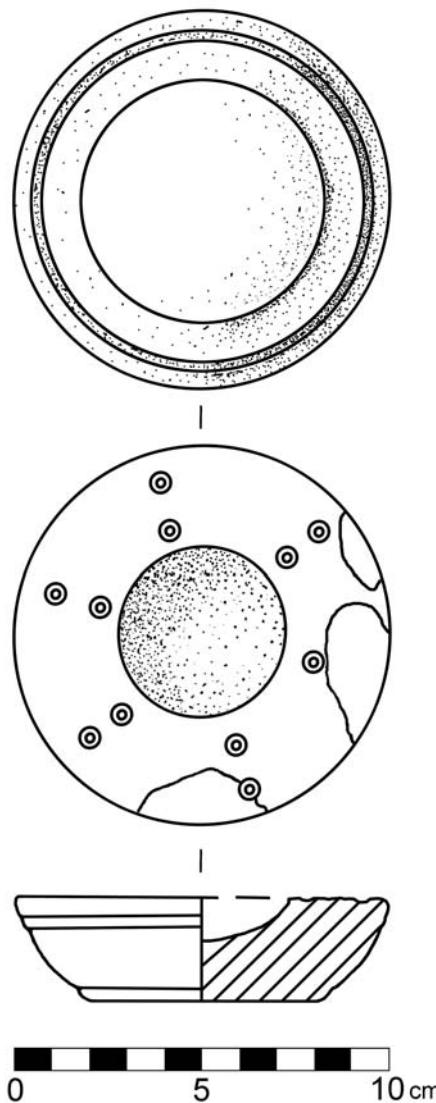


Fig. 156 Cosmetic palette from Phase XII, Area 7

- Fig. Locus No. Description
- | | | | |
|-----|-------|-------|---|
| 156 | L185' | N1110 | Cosmetic palette, limestone, polished and decorated, traces of blue paste in depressions. |
|-----|-------|-------|---|

Additional finds from Phase XII, Area 7 (listed, not illustrated)

- | Locus | No. | Description |
|--------|-------|---|
| 55' | N748 | Spindle whorl, limestone, d. 3.5, Th 1.5, d. of hole 0.7 cm, Wt 49 g. |
| 70 | N772 | Arrowhead, iron, L 9, W 1.5, Th 0.6 cm. |
| 105" | N903 | (Toggle) pin, bronze, broken, L 7.8, d. 0.5 cm. |
| 108' | N919 | Object, bronze, two pieces, quite shapeless, much corroded. |
| 181 | N1106 | Spindle whorl, basalt, d. 3, Th 1, d. of hole 1 cm, Wt 39 g. |
| 185' | N1108 | Juglet, hard-fired, baggy-type with one handle from rim to shoulder, light brown fabric, medium-fine, a few white inclusions, yellowish-red slip, vertically burnished. |
| 186 | N1107 | Knife/dagger, iron, one rivet preserved, L 10.4, W 3, Th 1.1 cm. |
| 206 | N1124 | Loom weight, basalt, d. 4.2, H 1.2, d. of hole 1.3 cm, Wt 42 g. |
| W17739 | N749 | Pestle, stone, H 4.9, d. 5.2 cm. |

PHASE XIII (Figs. 157–181)

General remarks

This phase is better preserved than the previous one and produced many well-constructed structures and *in situ* find assemblages which contain numerous intact or complete earthenware vessels and other objects, one of which is so far unique (see the cosmetic palette of alabaster N1314 below). Phase XIII seems

³⁹ W177 belongs to Phase XIII but the position of pestle N749 inside the wall foundation points to an older date, here ascribed to Phase XII.

to have come to a violent end, judging from substantial remains of burnt down wooden structures especially visible in the western portions of the area. There are again two portions with architectural remains from this phase, separated by a break in the structures where the phase could not be demonstrated with any confidence: one portion is in the east, Trenches XIX, XX, XXII and XXIII (Fig. 157), and the other is in the west, Trenches XLA, B and D, XLIA, XLVIIA–D, XLIXA–B and LA–B (Fig. 158). The structures of another tower to the east and a domestic compound to the west are well-preserved, however. There is a cistern in Trench XLD. Many structures from this phase were used in the next phase (Phase XIV).

Architecture and features

A square structure is built in Area 7 East upon the destroyed tower of Phase XII (W179/180, 177, 186, 183, 170'; L32', 38, 34, 34', 50, 51, 53). This new structure is almost identical in plan with the previous tower but it is larger. It is orientated more towards the north, i.e. it is turned somewhat anticlockwise and built against a wall with a supporting buttress to the north, which is constructed upon the remains of the casemate system from the Late Bronze Age, which in turn was reused during Phase XII. The new square building is 8 m × 8 m (reconstructed). One entrance, with a threshold of mudbricks, 0.7 m wide, is between the city wall W177 and W179/180 in the north-west. There may be another entrance in the north-east. In Trench XXIII the south-eastern corner of the tower is quite intact. Its foundation is constructed as follows: the distance between the outer wall, 0.5 m wide, and the inner wall, 0.4 m wide, is 1.6 m. The space in between is stone-paved, but leaving a 0.4 m wide “gutter”, which was used for drainage. The central room is square, with a side length of 4 m. There is a disturbance for about 1 m along the inside of W177, which is most likely the foundation trench for W167 from post-Iron Age times (see above): it cuts through the Phases XIV, XIII and XII. L30' is a mixed context of a dump area to the north of the city wall, whereas L28, 39, 54, 102, 103, 104" and 13 are contemporaneous find spots outside the square building.

In Area 7 West there are two structures. The ground plan of the more westerly building differs from that of the other houses in not being of the four-room type. It is surrounded by walls W601, 600/599/580, 614 and 611, and is approximately 10 m (east-west) by

7.2 m (north-south) in ground plan. The widths of the wall vary between 0.5 and 0.8 m. The complex contains three rooms separated from each other by W598 and W586, both approximately 0.6 m wide. The mud-brick superstructure of some of the stone-based walls is still in a good state of preservation (W601 and 598). The space to the west is 1.6 m wide and is partly stone-paved (L505, 515, 519). It contained, in addition to many small finds, including a lamp (N1317), five arrowheads of iron (N1320) and a fishing hook of bronze (N1303), two large storage jars (N1306, N1306' with contents of more than 100 litres each; one in Fig. 174:1), a large millstone and a rectangular clay trough. The next room to the east, centrally placed and 4 m wide, was most likely roofed in its eastern half. The western, open, part (L507, 513, 518, 520) contained a *tabun* (L509') and a hearth (L509), and several tools, including spindle whorls of limestone and fired clay, working tools of stone and bone, and a bronze earring with a knob (N1305). The eastern, roofed part (L432, 447), contained tools of limestone and basalt, for instance a mortar, a pestle and a polisher. There are also a tripod of basalt (N1309), another arrowhead and unfired clay loom weights. Jewellery includes three carnelian beads (N1269), a fibula of iron (N1268) and an extraordinary find: an intact cosmetic palette of alabaster (N1314; Figs. 179:1, 453:9 and 465:2; see also Appendix 3). Excellently manufactured and decorated with incised circles, it still contained the remains of the cosmetics last used: one is of an intense light-blue pigment, and the other of lilac colour.⁴⁰

The third space farther east is 2.5 m wide to the south and narrows to 1.25 m to the north, obviously adapting to the topography of the tell (L503, 433, 506, 512). This space is divided into two small portions by W609 which leaves a 0.5 m wide corridor towards the northern room, which contained a stone-paved bench in its north-eastern corner (“W610”; L514). The bench was most likely used as a working table for the preparation of food in connection with the two *tawa-been* (L506', 512'), with a mortar between them, and the hearth (L503') in the southern room. There is a 0.8 m wide exit from the southern room, from which a partly roofed and stone-paved backyard could be reached.

The backyard to the south of this compound contained three stone pillar supports, positioned in line halfway between the southern house wall and the terrace-retaining wall towards the south, a distance of approximately 4.2 m (L425, 439, 452, 484, 493, 457,

⁴⁰ Analysis of the cosmetics is forthcoming.

459, 465, 469, 456, 473, 477, 478, 499). This backyard was one of the most rewarding find spots in Area 7: in addition to another, quite large, stone-paved “*tabun*” (L453) there were several complete earthenware vessels: a carinated bowl (N1290), a crater (N1275), a pilgrim flask (N1272; Figs. 170:9 and 172), jugs and juglets, a jar (N1273) a cooking pot (N1276), the latter including a Black Juglet (N1277), and a tripod bowl (N1279). A carinated, red-slipped, Assyrian-style bowl should be mentioned. Other finds were a mill-stone and a bronze/iron fibula (N1283). A large pit is in the eastern part of the courtyard (L437, 445, 458) another smaller pit is in the west (L497). To the south of terrace-retaining W593 and on a higher level is a stone-lined hearth (L482, d. 0.6 m) and next to it a clay-lined recessed container (L479, d. 0.3 m) and several loom weights of unfired clay. To the east of the courtyard is another walled and stone-paved space, the function of which is not clear (L446). It is surrounded by the 0.5–0.6 m wide W588/585’, 589 and 582 and partly paved, but devoid of any finds of interest.

There is an open space between the two exposed houses (L489, 492, 500, 506, 512, 516, 517). An interesting find from there is a handle of a storage jar with a rectangular seal impression (L516-6; see Figs. 174:6, 466:5 and Appendix 4). The next house lies approximately 2 m to the east of the former. It is difficult to determine the “outer” walls of this structure because it seems to be built together with the next structure to the west in that W478’ is shared with the next building or that W478’ in fact is an outer wall and the space to the east is between two buildings. This would give the house a width of approximately 12 m. The “outer” walls, 0.5–0.7 m wide, are W595’, 587’, 588/585’, 485’ and 478’. Two dividing walls, W602 and 487’, created three spaces, of which the central one is a courtyard. The western room (L487, 488, 490), 1.7 m wide, which in this stratum is stone-paved, could be entered from the west via an entrance approximately 0.8 m wide, where a door socket was found.

The courtyard, 5 m wide, has a 1 m wide entrance from the south (L193, 194, 502). Courtyard installations are two stone/clay-built benches flanking the southern entrance, and a large clay container attached to wall 487’. The courtyard produced numerous finds: a centrally placed concentration of 110 unfired spherical or donut-shaped loom weights (see photograph in Fig. 181) together with a shuttle of bone, a complete tripod bowl of basalt (N1284, Figs. 160:3, 161 and 458:9), a Phoenician-style jug (N1285; Figs. 170:5 and 171), a millstone (N1113), a storage jar (N1114), a spouted juglet (N1115; Figs. 165:1 and 166), another

juglet (N1117), a strainer-jug (N1118), a jug with three handles and a false spout (N1119; Figs. 168:1, 169 and 458:1), a juglet with a wide mouth and four horizontally placed lug handles (N1109; Figs. 165:7 and 166), a cooking pot (N1122), a lamp (N1116; Figs. 177:8 and 178) and two spindle whorls (N1120, N1121). East of the courtyard is another space (L161’, 169, 192’, 198), with another entrance from the south. It contains a stone-paved hearth, tools of stone including a mortar and pestle, pottery and additional loom weights of unfired clay. Amongst the pottery are a cooking pot and a decorated jug (N1097). The next space to the east is partly stone-paved and has a stone-built bench (L162’, 167). East of the bench (L157’, 170, 171, 158’, 165) there are again numerous loom weights of unfired clay and some vessels of fired clay.

There is a partly excavated circular stone structure to the south (W473), obviously a cistern (L164). To the north-east of this structure is a circular stone construction (L163) and west of it two stone slabs. Parts of the head and neck of a rhyton of fired and painted clay depicting a bridled animal were found nearby (N1093; Figs. 179:11, 453:1 and 463:1; see also Appendix 1).

Interpretation of the material evidence

The square structure represents once again a tower which is integrated into the city wall. It is somewhat larger than the tower from the previous phase and has a slightly different orientation. It is evident that the new tower was constructed quite soon after the demolition of the previous tower, which can be seen, for instance, in Section 9-93 (observe the positions of W183 of Phase XIII and W191 of Phase XII in Fig. 133). The new tower was again destroyed but the substantial layer of ash which is visible in the western portion of the structures belonging to this phase could not be observed. It is difficult to estimate the original height of the tower since only its foundation remains, but there must have been additional storeys which could be reached by wooden ladders, judging by the large amount of building material all around the structure.

Domestic structures which were presumably destroyed by a conflagration, judging from a fairly thick layer of ash, were found in the west. The ground plan of the most westerly building seems not to be of the four-room type (it is only partially excavated). Numerous unfired loom weights of clay point to activities associated with the production of textiles. Several installations for cooking suggest the preparation of food but other procedures connected with textile production and, for instance, the preparation of dyes

and/or the actual dyeing process (see also the cistern below), may not be ruled out. There are a number of ceramic containers of rare shapes, which differ from the "standard domestic pottery assemblage" of Iron Age Tell Abu al-Kharaz and may support this theory: there are comparatively many spouted vessels in addition to standard domestic vessels, such as cooking pots and lamps, the latter two of which might also fit into the line of textile production, almost on an "industrial scale". The building to the far west must have been of some importance judging from the amount and quality of the finds including jewellery. The cosmetic palette of alabaster, for instance, must have represented a considerable value.

The circular structure to the south represents the boundary of a cistern. Stone slabs around the cistern were used as beam supports for a protecting roof construction. The approximately 1 m wide circular stone platform was certainly used as a support for ceramic containers which were filled with water from the cistern. The head and neck of a red and white painted rhyton was found close to the cistern: it shows a horse-like animal with a bridle which is modelled with great detail. The general appearance and the extremely long neck of the animal may not exclude its interpretation as a camel (see also Appendix 1).

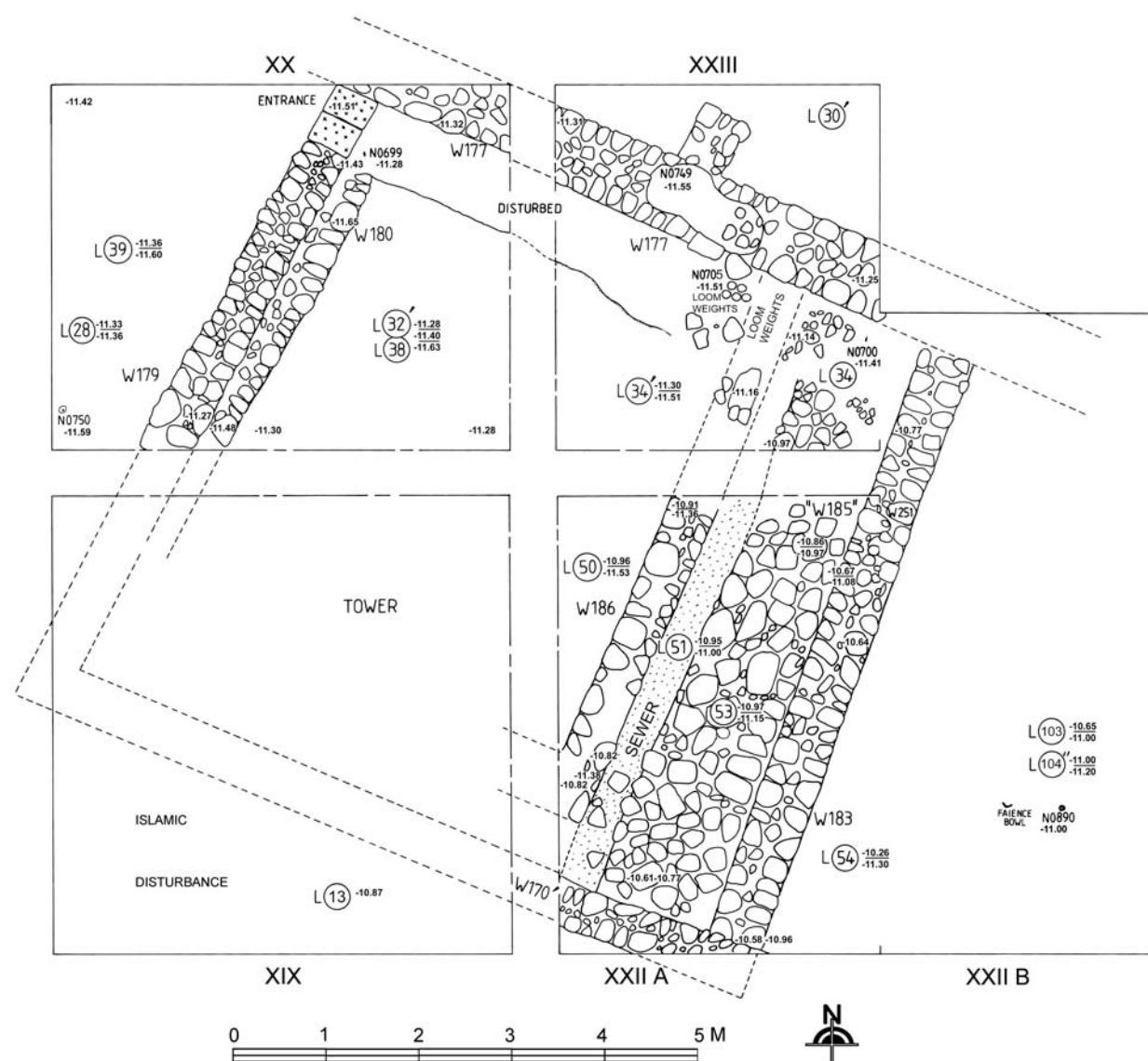


Fig. 157 Plan of Phase XIII, Area 7 East

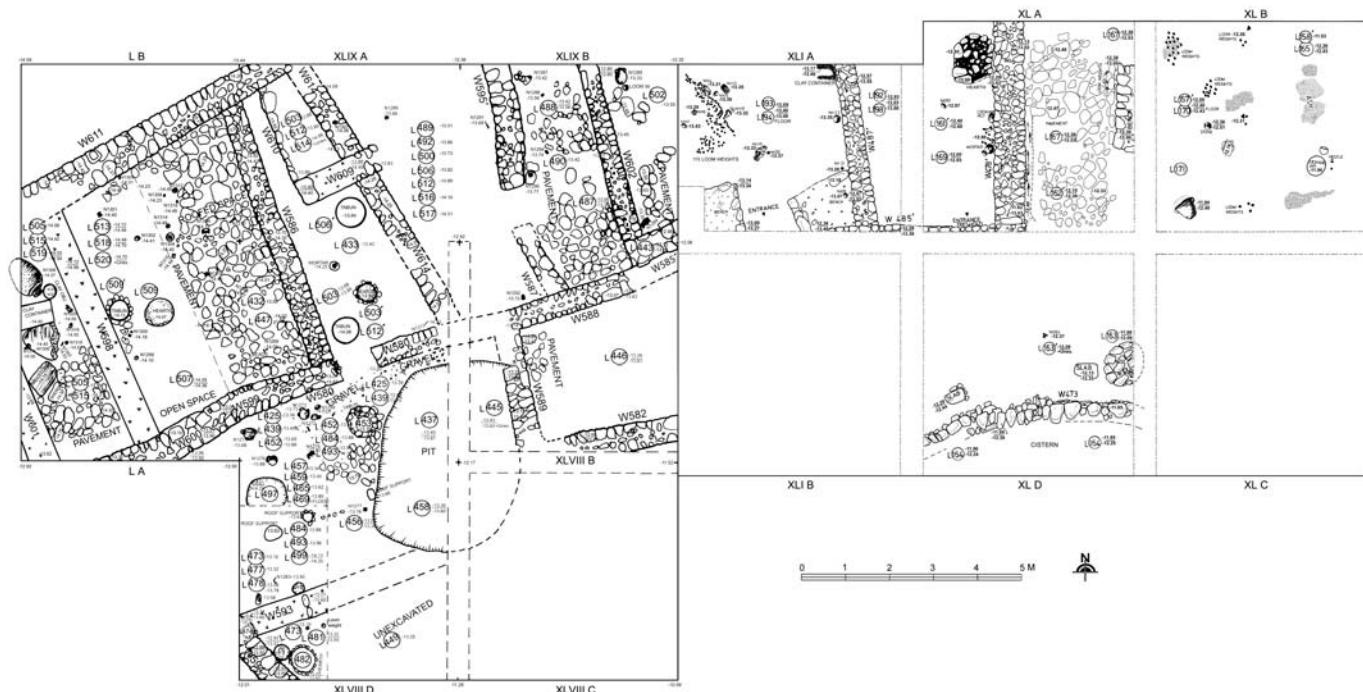


Fig. 158 Plan of Phase XIII, Area 7 West

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
170'	0.5	1.0+	4+			
177	0.8	0.5-0.7	3			city wall
179	0.5	0.3	2	1	0.5 x 0.3 x 0.15 (threshold)	rests partly on W180
180	0.3-0.4	0.2-0.3	2			used as bench
183/251	0.5-0.6	0.4	2			
"185"	1.3-1.5	0.2	1			pavement (no wall)
186	0.5	0.4-0.5	2			
473	c. 0.4	0.3-0.4	3			wall of cistern
478'	0.7-0.8	0.9-1.2	4-5			
485'	?	1.1	5			
487'	0.5	1.0-1.1	5			
580	0.5	0.9	4-5			built of large stones
582	0.5-0.7	0.5	3			
585'	0.7	0.3	1			
586	0.5	0.6	3			
587'	0.5	0.3	1			
588	0.5	0.5	2-3			
589	0.6	0.3	1-2			reused
593	0.65	0.3	?			mudbrick wall
594	0.6	0.6	3			
595'	0.6-0.7	0.8	3			
598	0.7	0.5	3			mudbrick wall
599/600	0.6-0.8	0.8	6			also used in next phase
601	0.7	0.6	?			mudbrick wall

Table 49 Description of the walls of Phase XIII, Area 7

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
602	0.5	1.0	4			reused
609	0.6	0.6	2	1		
610	x	0.4-0.6				platform
611	0.8-0.9	0.3	1-2			
614	0.6	?				not fully excavated

Table 49 continued Description of the walls of Phase XIII, Area 7

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
13	south of tower, mixed o.d.					partly disturbed
28	west of tower, upper part, hard-packed soil, o.d.	4	-1 k, 1 jl, 1 sj, 1 cp, 18 ud			
30'	dump north of city wall, mixed o.d.					mainly soil, ash
32'	fill above floor L38, o.d.					mainly soil, ash
34	fill above pavement, o.d.				N700, -1	mainly soil, ash
34'	floor, o.d.				N705	mainly soil, ash
38	floor, o.d.	14	N751 Phoen j, -1 sj, -3 b, 7 b, 1 cb, 1 j, 1 ja, 122 ud			
39	west of tower, lower part, o.d.	9	-1 cb, 3 b, 2 cb, 1 k, 1 j, 1 jl, 1 dt, 2 ja, 81 ud		N750	
50	floor, o.d.	23	1 k, 26 ud			
51	sewer, soil					mainly loose soil
53	stone-paved surface, o.d.	57	1 k, 1 ep, 41 ud			
54	east of tower, o.d.	34	-1 ep, -2 k, -3 sj, 4 b, 1 k, 1 j, 1 jl, 1 ep			
103	east of tower, intermediate layer, o.d.	2	N890 b, -1 sj, -2 k, -3 k, -4 ep, -5 cp, -7 k, 14 b, 2 j, 2 jl, 19 ja, 7 sj, 7 cp, 213 ud		-6 faience b	Cypro-Geometric juglet
104''	east of tower, lower layer, o.d.	8	-1 cb, -2 k, -3 cb, -4 k, 11 b, 7 k, 1 j, 23 ja, 1 dt, 2 jl, 138 sj, 5 cp, 4 tri, 9 h			
157'	fill above floor L170, o.d.	2	2 b, 2 k, 5 j, 1 jl, 1 sj, 1 tri, 1 l			
158'	fill above floor L165, o.d.	39	-1 ep, 1 b, 2 k, 4 j, 12 sj, 2 cp, 1 h, 3 dec, 204 ud			
161'	floor, o.d.		1 b, 2 k, 1 sj, 2 cp, 20 ud			
162'	pavement, surface with o.d.	2	1 b, 3 j, 2 sj, 1 tri, 4 cp, 70 ud			
163	circular stone structure, d. 1					
163'	area west of L163				N1093 zoomorphic rhyton	only partly excavated
164	lower part of cistern, loose soil	43	2 b, 2 k, 1 jl, 4 sj, 7 cp, 75 ud			
165	floor, o.d.	30	-1 b, -2 bj, 6 b, 2 k, 1 j, 8 sj, 5 cp, 65 ud			
167	removed pavement, soil, o.d.		1b, 1 k, 4 j, 1 ep, 86 ud		N1095, N1096	

Table 50 Description of the loci of Phase XIII, Area 7

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
169	area around entrance with threshold		N1097 jl, -1 cp, -2 cb, 4 b, 1 k, 1 sj, 1 l, 7 cp, 171 ud			
170	floor, o.d.	2	1 b, 1 j, 3 ja, 1 cp, 67 ud			
171	floor, o.d.		-1 cb, 23 sj			
192'	hard surface, o.d.		-2 jl, 2 b, 1 j, 1 jl, 6 sj, 2 ep, 75 ud			
193	fill just above floor L194, o.d.	27	N1109 jl, 8 b, 4 k, 4 j, 6 sj, 3 cp, 121 ud			
194	floor, much pottery and tools, o.d.		N1114 sj, N1115 spjl, N1116 l, N1117 jl, N1118 stj, N1119 j, N1122 cp, 4 b, 1 k, 1 j, 10 sj, 2 ep, 18 ud		N1113, N1120, N1121	
198	fill below surface, o.d.	2	26 b, 5 k, 15 j, 4 jl, 39 sj, 1 l, 13 cp, 514 ud			
in W180	stone foundation of wall	4	1 k, 14 ud			pottery in wall
in W183	stone foundation of wall	10	-1 sj, 1 j, 1 cp			pottery in wall
in W185	pavement	17	1 cp, 1 sj, 5 ud			pottery in wall
in W186	stone foundation of wall	21	9 ud			pottery in wall
425	earth surface, o.d.	2	2 b, 1 cb, 1 k, 6 j, 3 sj, 25 ud			
432	fill above floor L447, o.d.		-1 k, -2 bjl, -3 Phoen j, 2 cb, 1 k, 1 j, 1 jl, 33 ud		N1268	
433	fill above L425, L492, o.d.					
437	part of pit, c. 5 x 3.5	1	1 b, 3 k, 1 j, 3 sj	3		
439	surface with gravel	11	N1290 cb, -1 b, -2 cp, -3 cb, -4 sj, -5 k, -6 sj, 3 cb, 5 k, 1 dt, 5 j, 1 jl, 4 sj, 1 l, 4 cp, 71 ud			
443	stone platform					
445	part of pit, c. 5 x 3.5					
446	partly paved surface	86	-1 cp, 1 b, 4 k, 14 j, 2 jl, 6 sj, 2 cp, 98 ud	2		
447	floor, stone-paved				N1269	
452	beaten earth floor, o.d.		N1272 pf, N1273 sj, N1275 k, 1 k, 1 j, 5 jl, 1 cp, 69 ud			
453	circular stone setting, d. 0.8, tabun d. 0.5					
456	surface, unexcavated	12	5 b, 4 k, 6 j, 2 jl, 1 ja, 3 cp, 195 ud	2		
457	fill, o.d.		2 b, 2 j, 80 ud			
458	part of pit, c. 5 x 3.5	10	1 j, 66 ud	2		
459	gravel surface, o.d.	2	4 b, 3 k, 8 j, 2 cp, 65 ud			
465	fill above surface L469, o.d.	3	-1 l, -2 dt-j, 2 b, 4 k, 1 dt, 5 j, 1 jl, 2 sj, 3 cp, 167 ud			
469	beaten earth floor, o.d.	11	N1276 cp, N1277 bjl, N1279A-B tri, -1 cb, -2 b, -3 b, -4 cp, -5 sj, 3 b, 2 cb, 13 k, 10 j, 1 jl, 1 cp, 413 ud			
473	test trench: fill, o.d.	37	-1 Phoen j, -2 sj, -3 k, -4 sj, 1 b, 3 cb, 4 k, 4 j, 3 sj, 3 cp, 318 ud			
474	test trench: pit, d. 0.6		2 cp, 7 ud			
477	test trench: hard surface with mudbricks		1 b, 1 cb, 2 j, 1 jl, 2 cp, 59 ud			
478	test trench: ash below L477	19	1 b, 4 k, 12 j, 1 ja, 2 cp, 704 ud		N1283	
479	test trench: clay-lined container, d. 0.6					

Table 50 continued Description of the loci of Phase XIII, Area 7

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
481	test trench: surface around tabun L482	6	1 b, 3 j, 1 jl, 2 sj, 1 cp, 121 ud			
482	test trench: tabun, d. c. 0.6, stone-lined		1 j, 13 ud			
484	test trench: fill below L478, o.d.	6	-1 k, -2 k, 1 cb, 2 k, 1 j, 1 bj, 204 ud			
487	stone pavement					
488	floor level north of L490	1	N1285 Phoen j, N1287 bj, -1 ep, -2 k, -3 sj, 1 b, 7 k, 6 j, 1 tri, 1 sj, 3 cp, 56 ud		N1284, N1288	
489	open area between houses, o.d.	1	5 k, 1 j, 1 ja, 3 sj, 7 ud			
490	floor level north of stone pavement L487	1	2 cb, 4 k, 4 j, 2 jl, 5 sj, 3 cp, 128 ud			
492	open area between houses, below L489, o.d.	1	-1 cp, -2 ep, 1 b, 1 cb, 9 k, 3 j, 2 jl, 3 sj, 1 ep, 82 ud	1	N1289, N1291	
493	test trench: fill below L484	5	-1 Phoen j, 2 b, 1 eb, 9 k, 7 j, 2 jl, 1 dt, 1 sj, 1 cp, 196 ud		-2	
497	pit, d. 1, o.d.	1	3 k, 2 j, 1 ja			
499	test trench: hard surface below L493	3	-1 sj, -2 j, -3 cb, -4 k, 1 cb, 2 k, 1 jl, 1 ja, 1 sj			
500	fill above floor	3	-1 k, -2 k, -3 jl, -4 Phoen j, -5 sj, -6 cp, 20 k, 5 j, 1 jl, 1 ja, 4 sj, 6 cp, 275 ud		N1292, N1294	
502	floor level, beaten earth floor	1	-1 b, -2 sj, 3 b, 3 k, 1 dt, 5 j, 1 jl, 2 cp, 1 ja, 121 ud			
503	floor level, thick beaten earth floor		1 k, 1 dt, 1 jl, 7 cp, 31 ud			
503'	hearth, d. c. 0.5, stone-lined					
505	fill above floor L515		1 k, 1 j, 1 jl, 1 cp, 46 ud			
506	floor level, beaten earth floor	1	-1 Phoen j, -2 cb, -3 k, -4 cp, -5 sj, -6 b, 1 b, 10 k, 15 j, 1 jl, 5 sj, 5 cp, 133 ud		N1296	
506'	tabun, d. 0.75					
507	beaten earth floor, extension of L447	1	-1 cp, -2 b, -3 ep, 1 b, 2 cb, 3 k, 6 j, 1 jl, 4 sj, 11, 5 cp, 320 ud		N1299, N1300, N1315, N1316	
509	hearth, d. 0.7, stone-lined					
509'	tabun, d. 0.6, stone-lined					
512	fill below floor L503		-1 b, -2 j, -3 k, 1 b, 1 c, 6 k, 3 j, 1 jl, 4 ja, 2 sj, 4 cp, 79 ud			
512'	tabun, d. 0.6					
513	beaten earth floor, extension of L447; see also L507		1 b, 3 k, 3 j, 5 jl, 9 ja, 2 tri, 6 sj, 4 cp, 240 ud		N1301, N1302, N1304, N1305, N1308, N1309, N1310, N1314	
514	floor level		2 cb, 2 k, 4 j, 1 jl, 7 sj, 3 cp, 84 ud		N1307	

Table 50 continued Description of the loci of Phase XIII, Area 7

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
515	beaten earth floor upon stone pavement	2	N1306 sj, N1306' sj, N1317 l, -1 sj, -2 k, -3 ep, 1 b, 1 k, 2 j, 1 jl, 2 ja, 1 sj, 1 ep, 166 ud		N1303, N1318, N1319, N1320	
516	floor level	2	-1 sj, -2 k, -3 k, -4 ep, -5 ep, -6 sj, 5 b, 10 k, 7 j, 4 jl, 1 dt, 6 ja, 7 ep, 203 ud		N1313	
517	fill below floor L516		1 b, 1 k, 2 j, 1 sj, 27 ud			
518	fill below L513	4	4 b, 5 k, 2 j, 1 ep, 1 ud			
519	fill below floor L515	1	2 b, 3 k, 2 j, 1 jl, 1 sj, 1 lid, 2 ep			
520	fill below L518					unexcavated
in W595'	stone foundation of wall		-1 k, 2 k, 4 sj, 3 cp, 47 ud			
W614	stone foundation of wall		2 b, 1 k, 1 pf			

Table 50 continued Description of the loci of Phase XIII, Area 7

Legend for the illustrated pottery from Phase XIII, Area 7

Fig.	Locus No.	Description
159:1	38	-3
		Bowl, hard-fired, light pinkish-brown fabric, fine, pinkish-red slip, dark red painted lines, burnished.
159:2	469	-2
		Bowl, hard-fired, red fabric, medium-coarse, mainly white inclusions, self slip.
159:3	507	-2
		Bowl, hard-fired, light brown fabric, medium-fine, a few large inclusions, light brown slip, red wash.
159:4	506	-6
		Bowl, hard-fired, yellowish-brown fabric, medium-coarse, multicoloured inclusions, brownish-red slip, burnished interior and rim.
159:5	469	-3
		Bowl, medium-hard-fired, light brownish-red fabric, medium-fine, reddish-yellow slip, red paint on rim and upper part.
159:6	502	-1
		Bowl, medium-hard-fired, light brown fabric, coarse, mainly black inclusions, yellowish-brown slip, red paint.
159:7	439	-1
		Bowl, medium-hard-fired, light brown fabric, coarse, mainly white inclusions, creamy-white slip, red paint on rim and exterior; comment: the fabric differs from that of the bulk of the ceramics from this phase; import?
159:8	512	-1
		Bowl, medium-hard-fired, grey fabric, medium-coarse, white inclusions, light yellowish-brown slip, traces of red paint on rim.
159:9	469	-1
		Carinated bowl, hard-fired, light brownish-red fabric, medium-fine, light yellow slip, traces of red wash on rim.
159:10	104"	-3
		Carinated bowl, hard-fired, red fabric, grey core, medium-fine, mainly white inclusions, red slip.

159:11	39	-1	Carinated bowl, hard-fired, pinkish-brown fabric, brownish-grey core, fine, light yellowish-brown slip, burnished.
159:12	439	-3	Carinated bowl, hard-fired, brown fabric, coarse, mainly grey inclusions, yellowish-brown slip, brown wash.
159:13	169	-2	Carinated bowl, hard-fired, light brown fabric, medium-fine, light yellow slip, red paint.
159:14	104"	-1	Carinated bowl, hard-fired, yellowish-grey fabric, light brown core, medium fine, small black inclusions, light yellow slip.
159:15	171	-1	Carinated bowl, hard-fired, brown fabric, medium-fine, red slip; ridge below rim.
159:16	499	-3	Carinated bowl, hard-fired, light yellow fabric, medium-fine, multicoloured inclusions, yellow slip, red painted exterior and interior; comment: the shape is foreign to the standard vessel forms, it belongs to the Neo-Assyrian tradition, locally made (imported?).

Legend for the illustrated pottery and other finds from Phase XIII, Area 7

Fig.	Locus No.	Description
160:1	469	N1279A Tripod bowl, wheel-made/hand-made, very hard-fired, lilac fabric, thick grey core, coarse, mainly white inclusions, light red slip.
160:2	469	N1279B Tripod bowl, wheel-made/hand-made, hard-fired, light red fabric, thick grey core, coarse, mainly white inclusions, light red slip.
160:3	488	N1284 Tripod bowl, basalt, complete and intact; see also Figs. 161 and 458:9.
160:4	513	N1309 Tripod bowl, basalt, fragmentary.

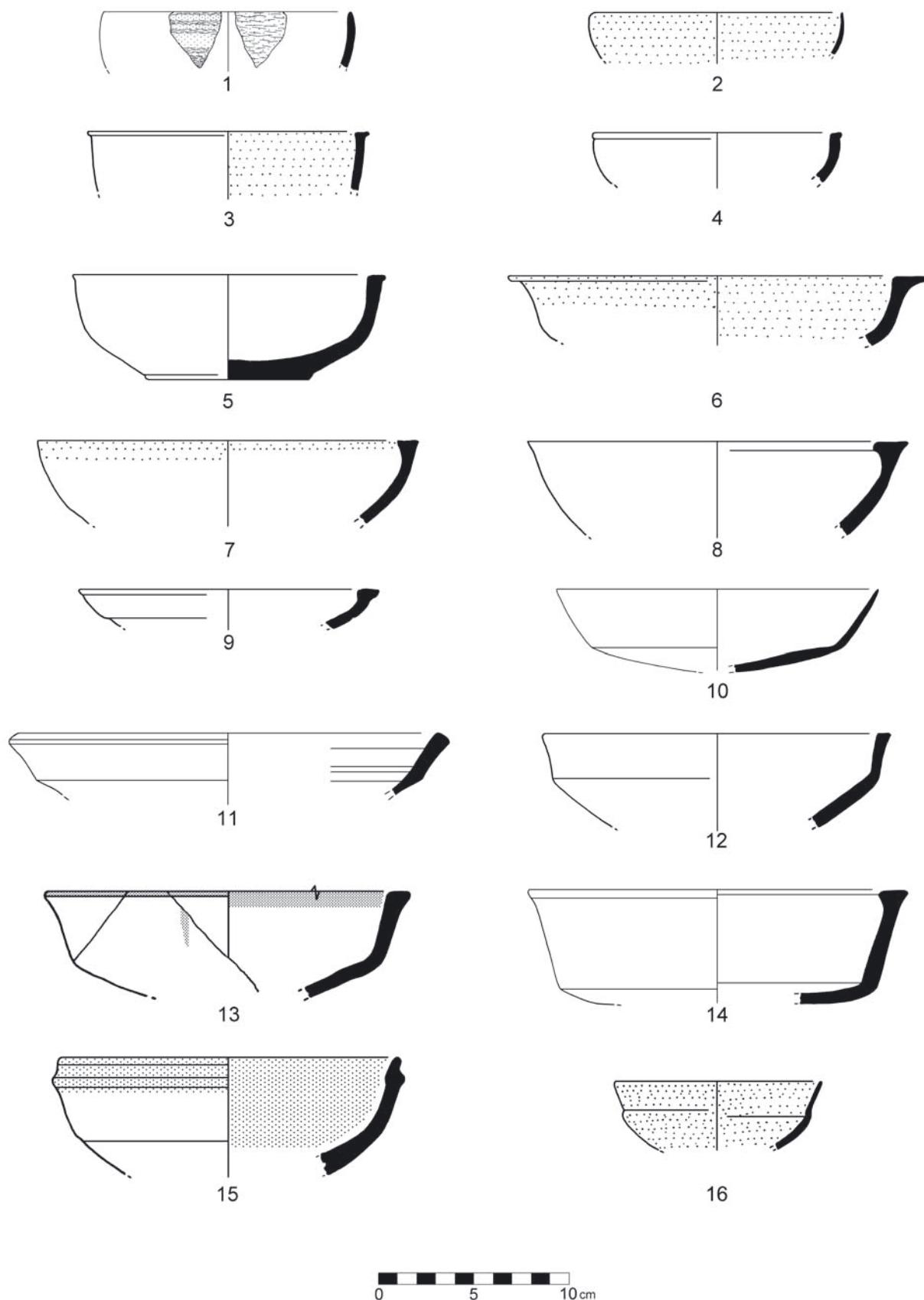


Fig. 159 Pottery from Phase XIII, Area 7

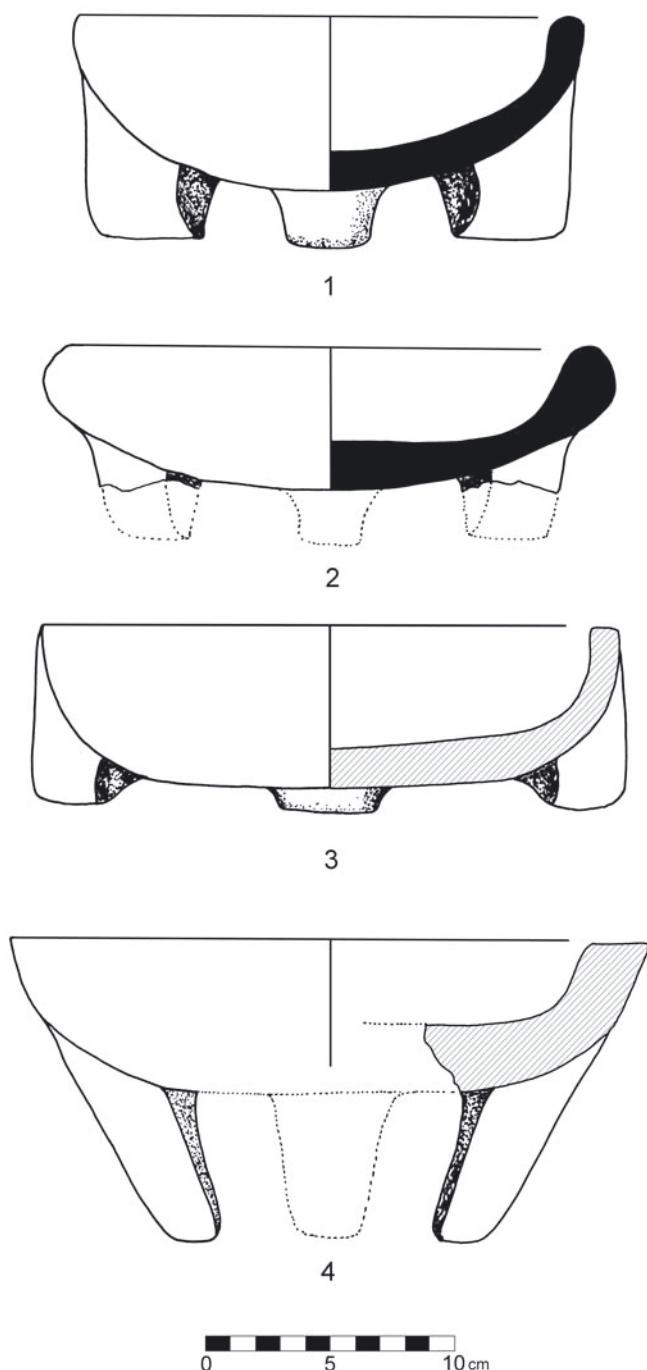


Fig. 160 Pottery and other finds from Phase XIII, Area 7

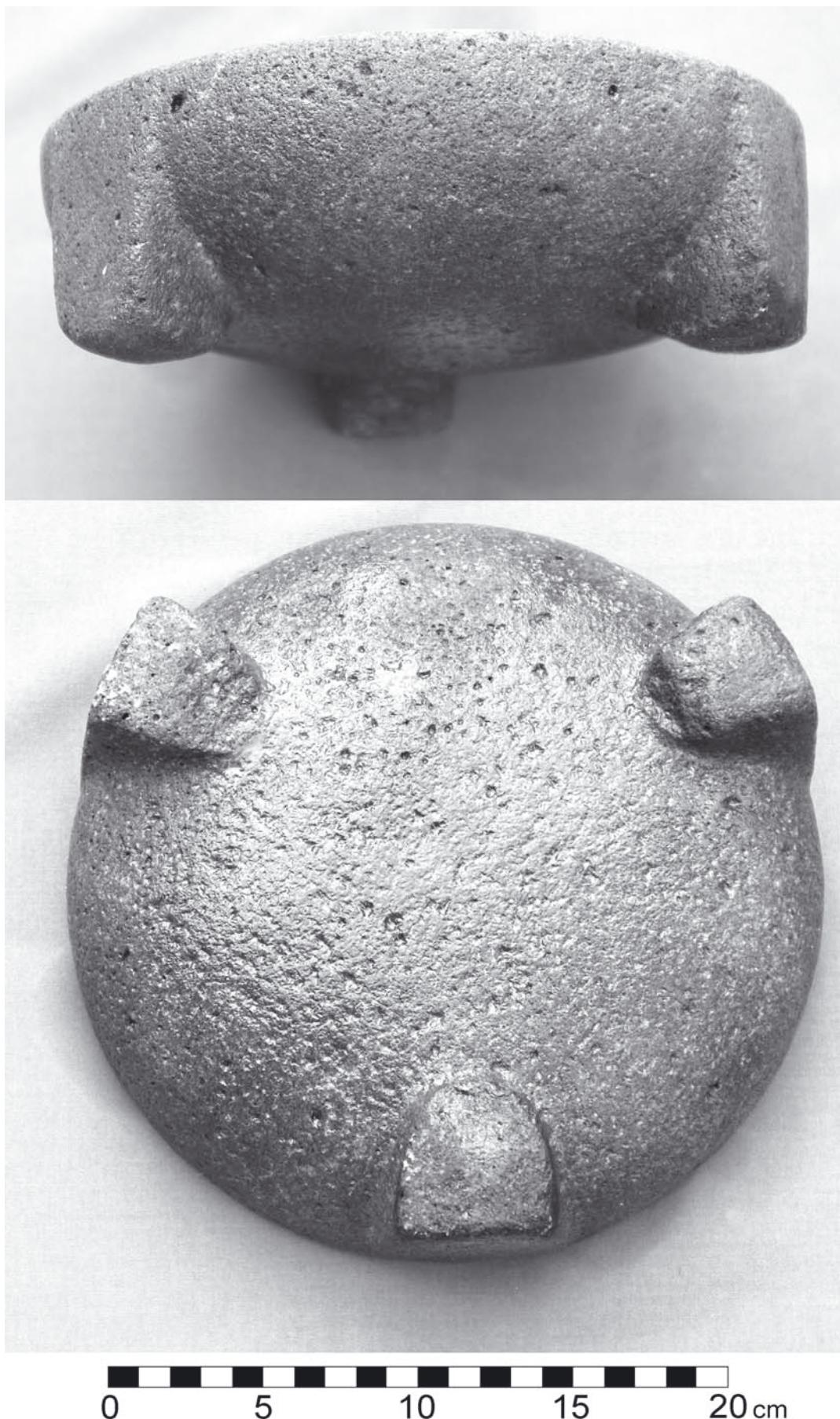


Fig. 161 Basalt tripod bowl, Phase XIII, Area 7 (N1284, see also Figs. 160:3 and 458:9)

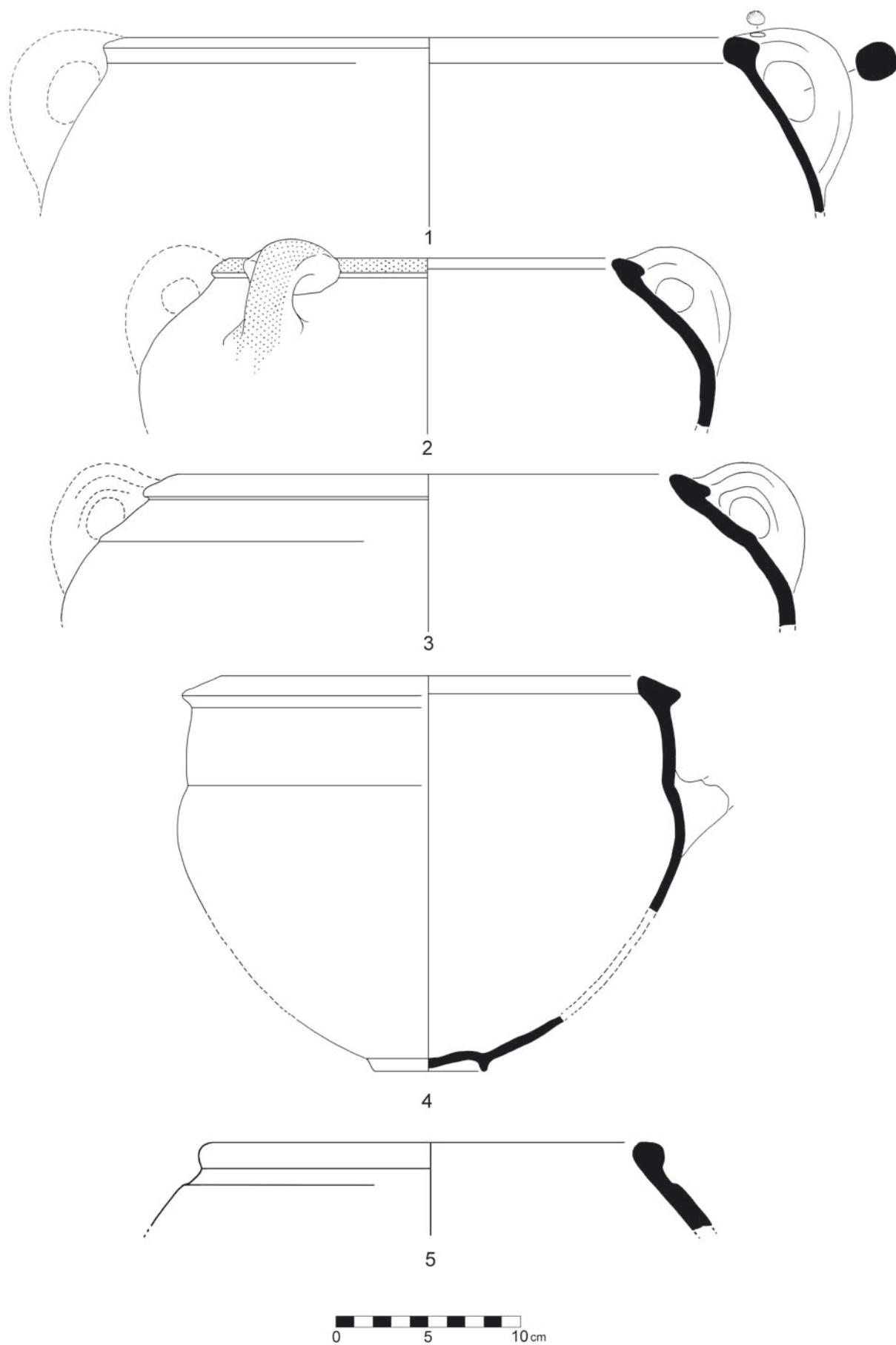


Fig. 162 Pottery from Phase XIII, Area 7

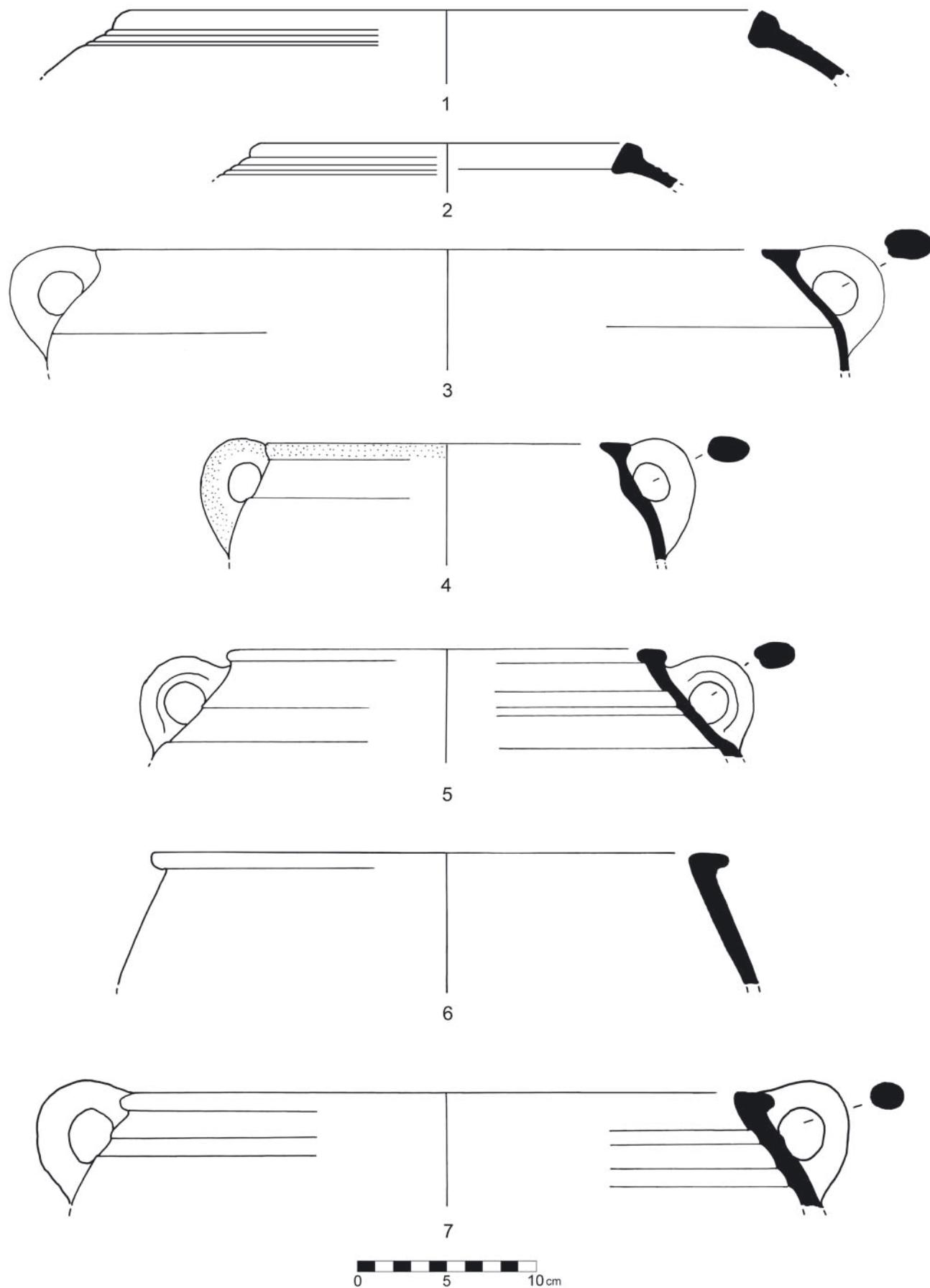


Fig. 163 Pottery from Phase XIII, Area 7

Legend for the illustrated pottery from Phase XIII,
Area 7

Fig.	Locus No.	Description
162:1	28 -1	Krater, hard-fired, light orangish-brown fabric, grey core, medium-coarse, multicoloured inclusions, yellowish-brown slip, partly red paint on interior and exterior.
162:2	103 -7	Krater, small, hard-fired, yellowish-brown fabric, greyish-brown core, medium-fine, grey and white inclusions, self-slip interior, red wash exterior on rim and handle.
162:3	104" -2	Krater, hard-fired, light brown fabric, grey core, medium-fine, mainly black and white inclusions, red paint on exterior.
162:4	104" -4	Krater, medium-hard-fired, red fabric, dark grey core, self-slip, secondarily fired; from possibly disturbed context.
162:5	484 -2	Krater, soft-fired, dark greyish-brown fabric, coarse, mainly black inclusions, dark reddish-brown slip; step on neck.

Legend for the illustrated pottery from Phase XIII,
Area 7

Fig.	Locus No.	Description
163:1	506 -3	Krater, very hard-fired, light brownish-red fabric, medium-coarse, mainly grey inclusions, light brownish-red slip; incised lines below rim.
163:2	500 -2	Krater, medium-hard-fired, light reddish-brown fabric, coarse, mainly grey inclusions, reddish-yellow slip; incised lines below rim.
163:3	516 -2	Krater, hard-fired, yellowish-brown fabric, coarse, grey inclusions, yellow slip.
163:4	515 -2	Krater, hard-fired, brown fabric, coarse, mainly white inclusions, reddish-yellow slip, red paint on rim and handle.
163:5	516 -3	Krater, hard-fired, yellowish-brown fabric, coarse, mainly black inclusions, orange slip.
163:6	484 -1	Krater, hard-fired, light reddish-brown fabric, grey core, medium-coarse, black inclusions, light greyish-brown slip.
163:7	432 -1	Krater, medium-hard-fired, light red fabric, thick grey core, medium-coarse, multicoloured inclusions, light orange slip.

Legend for the illustrated pottery from Phase XIII,
Area 7

Fig.	Locus No.	Description
164:1	452 N1275	Krater, hard-fired, light brown fabric, grey core, coarse, multicoloured inclusions, light yellowish-brown slip.
164:2	439 -5	Krater, hard-fired, light greyish-brown fabric, coarse, mainly grey inclusions, self-slip.
164:3	54 -2	Krater, soft-fired, light brown fabric, medium-fine, mainly white inclusions, self-slip.
164:4	103 -3	Krater, small, medium-hard-fired, yellowish-brown fabric, greyish-brown core, medium-fine, mainly grey and white inclusions, self-slip.
164:5	103 -2	Krater, small, hard-fired, yellowish-brown fabric, greyish-brown core, medium-coarse, mainly grey inclusions, self-slip.
164:6	488 -2	Krater, small, hard-fired, greyish-brown fabric, medium-fine, few grey inclusions, reddish-yellow slip.
164:7	500 -1	Krater, medium-hard-fired, light brown fabric, thick dark grey core, coarse, multicoloured inclusions, yellowish-brown slip, red paint on rim and handles.
164:8	W595' -1	Krater, hard-fired, light brown fabric, grey core, coarse, multicoloured inclusions, light yellowish-brown slip.

Legend for the illustrated pottery from Phase XIII,
Area 7

Fig.	Locus No.	Description
165:1	194 N1115	Juglet, spouted, medium-hard-fired, light brown fabric, coarse, multicoloured inclusions, self-slip.
165:2	194 N1117	Juglet, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, self-slip.
165:3	469 N1277	Black Juglet, hand-made, hard-fired, light brownish-red fabric, medium-fine, black slip, horizontally burnished.
165:4	432 -2	Black Juglet, hand-made, hard-fired, yellow fabric interior, black fabric exterior, black slip, vertically burnished.
165:5	488 N1287	Black Juglet, hand-made, hard-fired, grey fabric, thin core, dark grey slip, burnished.
165:6	192' -2	Juglet, wide mouth, medium-hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, self-slip.
165:7	193 N1109	Juglet, four vestigial handles, hard-fired, light brown fabric, medium-fine, multicoloured inclusions, yellow slip, red paint.
165:8	169 N1097	Juglet, hard-fired, light brown fabric, fine, greyish-brown slip, burnished, dark brown paint.

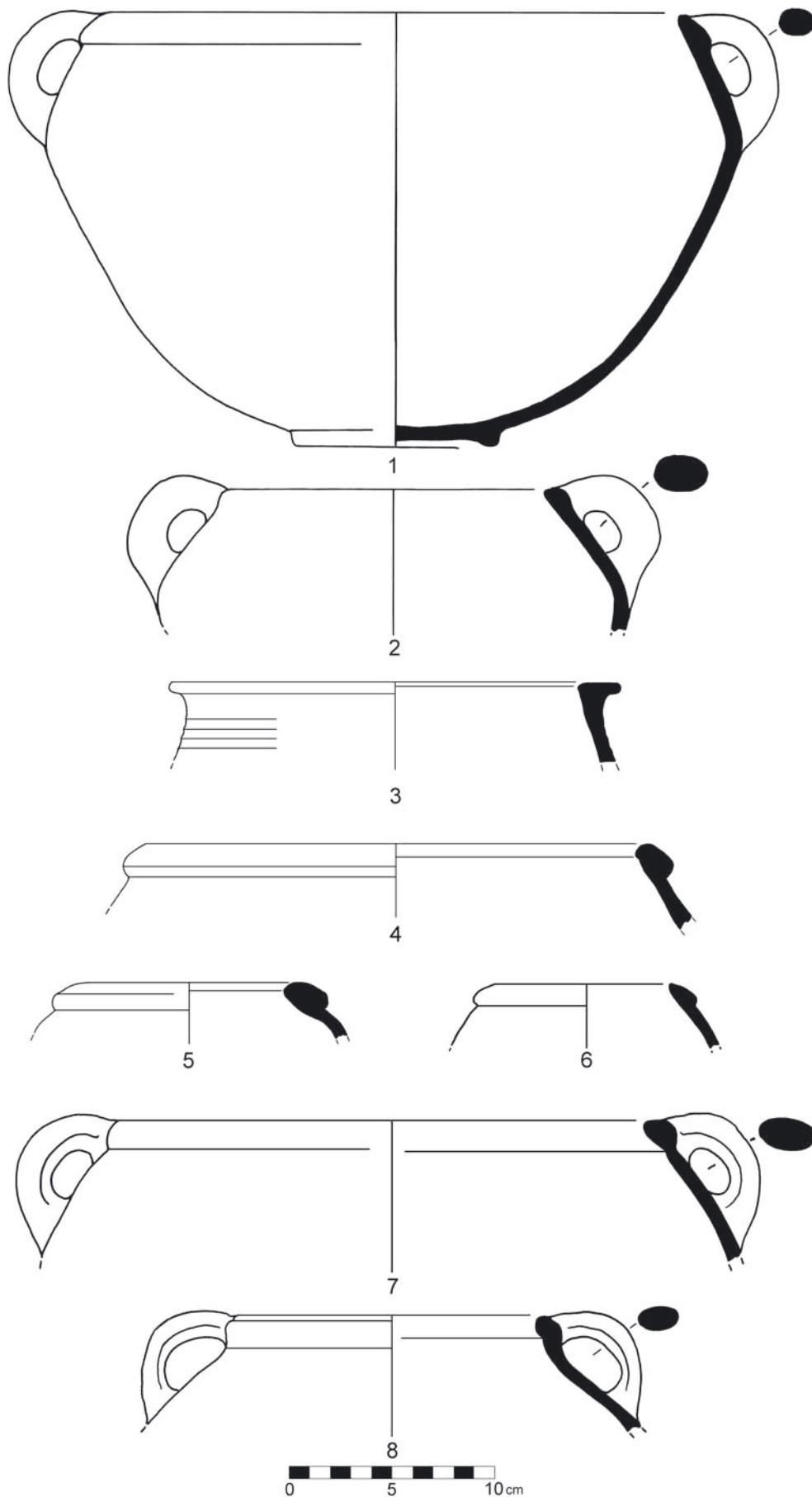


Fig. 164 Pottery from Phase XIII, Area 7

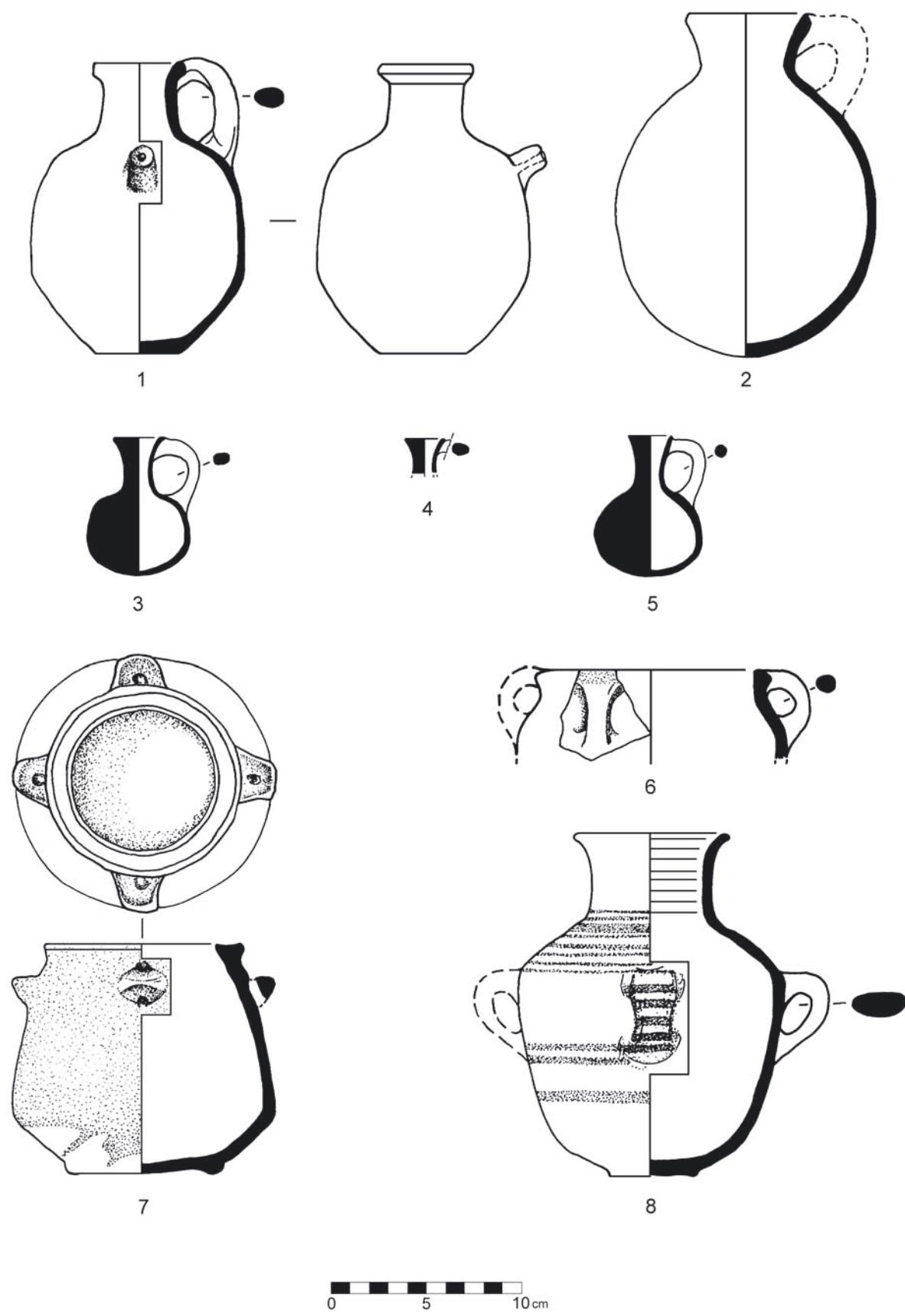


Fig. 165 Pottery from Phase XIII, Area 7



Fig. 166 Juglet from Phase XIII, Area 7 (N1115, see also Fig. 165:1)



Fig. 167 Juglet from Phase XIII, Area 7 (N1109, see also Fig. 165:7)

Legend for the illustrated pottery from Phase XIII, Area 7

Fig. Locus No. Description

- 168:1 194 N1119 Jug, three handles, false spout, very hard-fired, reddish-brown fabric, thick dark grey core, medium-coarse, a few large white inclusions, dark brown slip, splashes of yellow paint; three incised lines below neck (see Figs. 169 and 458:1).
- 168:2 194 N1118 Strainer jug, medium-hard-fired, light brown fabric, medium-fine, self slip, splashes of brown paint; minor ridge below neck.

Legend for the illustrated pottery from Phase XIII, Area 7

Fig. Locus No. Description

- 170:1 500 -4 Jug, Phoenician, medium-hard-fired, light brownish-red fabric, very fine, light yellow slip, traces of red paint.
- 170:2 499 -2 Jug, hard-fired, brownish-red fabric, light brown core, medium-coarse, mainly grey inclusions, self slip, red paint on rim and neck.
- 170:3 512 -2 Jug, hard-fired, brownish-red fabric, coarse, white inclusions, self slip.
- 170:4 465 -2 Decanter-jug, hard-fired, light reddish-brown fabric, coarse, mainly white inclusions, pink slip.

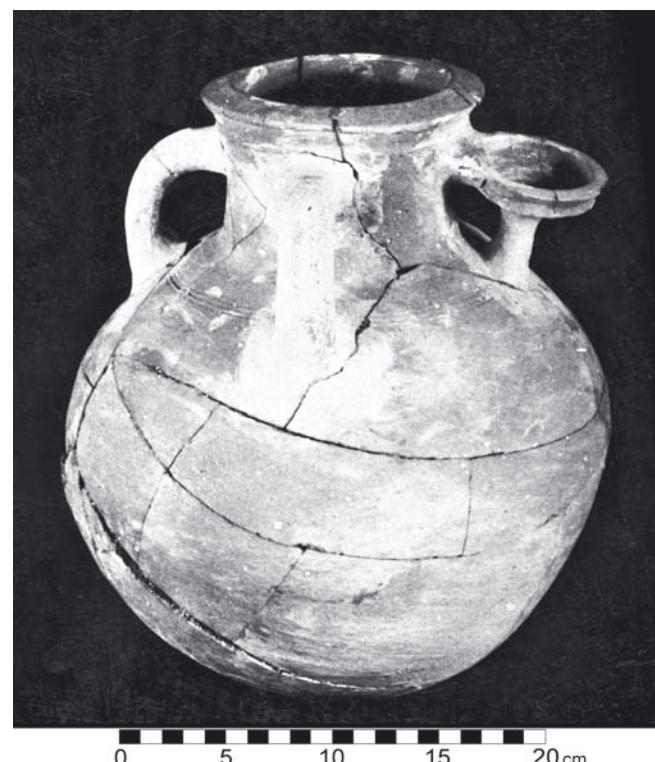


Fig. 169 Jug with false spout from Phase XIII, Area 7 (N1119, see also Figs. 168:1 and 458:1)

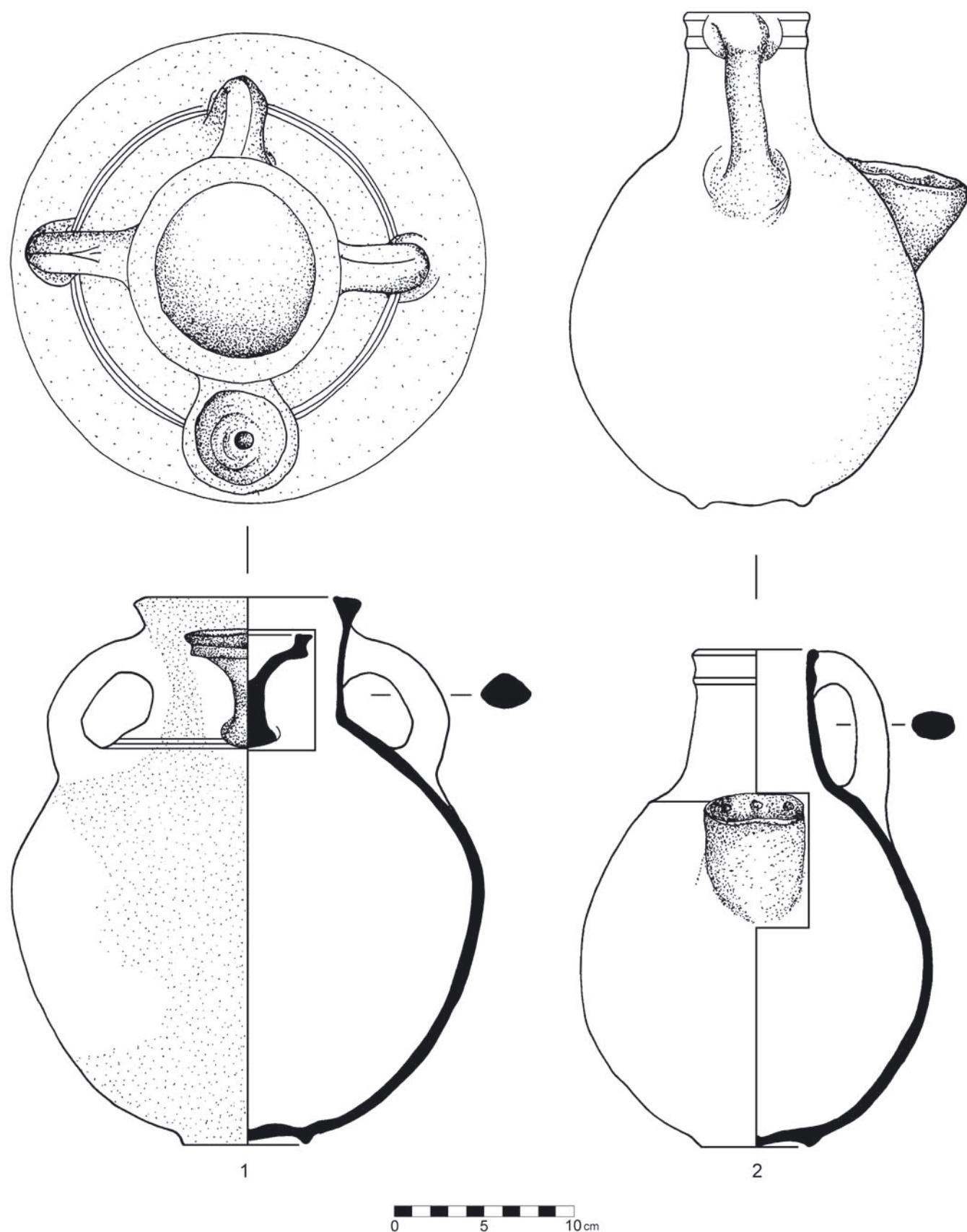


Fig. 168 Pottery from Phase XIII, Area 7

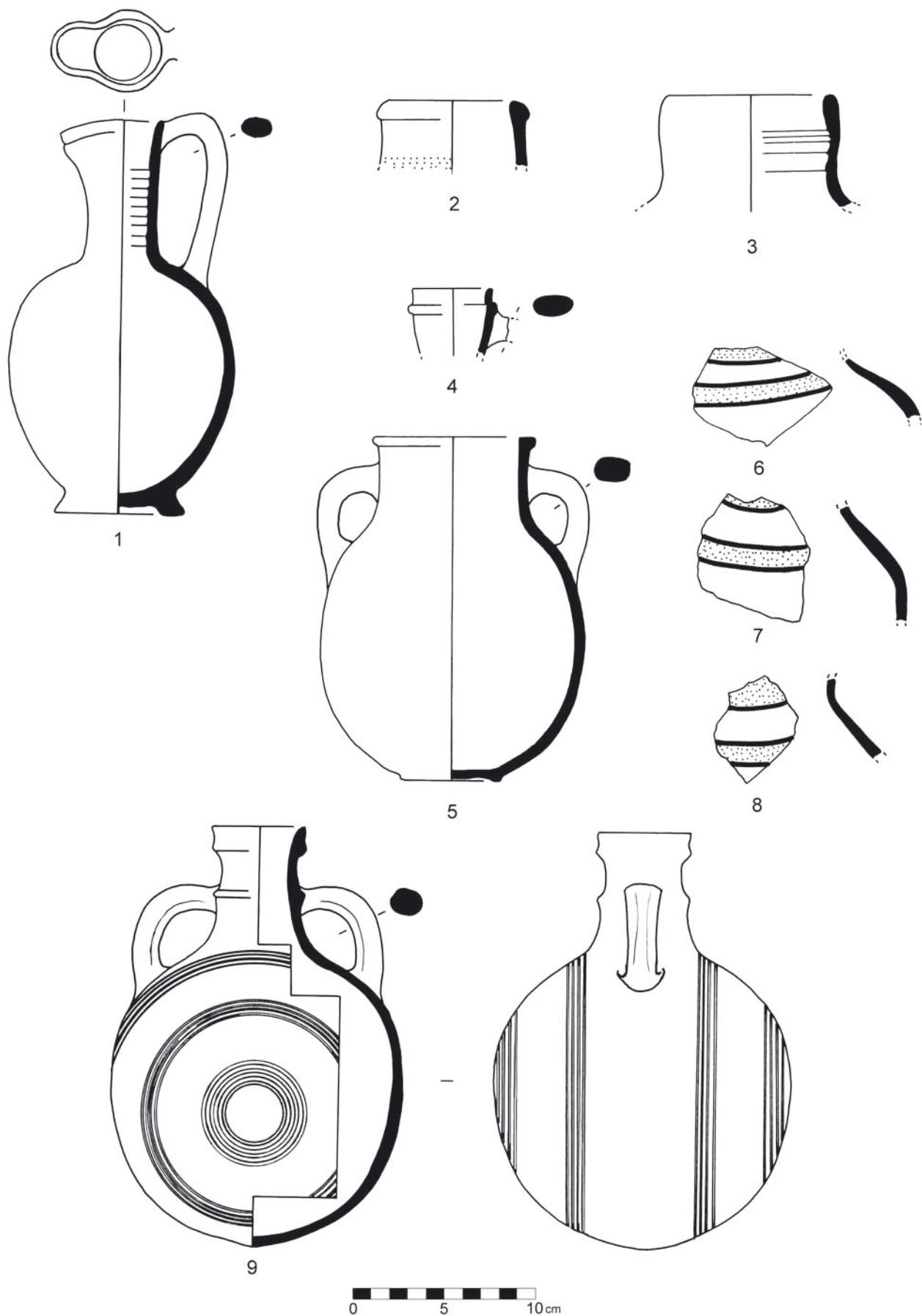


Fig. 170 Pottery from Phase XIII, Area 7

170:5 488	N1285	Phoenician jug, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, pink to yellow slip. Comment: possibly a local copy of a Phoenician-type jug.	173:3 452	N1273	Storage jar, hard-fired, light brown fabric, multicoloured inclusions, self slip.
170:6 493	-1	Phoenician jug, shoulder sherd, hard-fired, light red fabric, light grey core, fine, pinkish-yellow slip, bichrome decoration in red and black. Comment: possibly same vessel, cf. next figure.	173:4 473	-2	Storage jar, hard-fired, light brown fabric, medium-fine, self slip, brown wash.
170:7 473	-1	Phoenician jug, shoulder sherd, hard-fired, light red fabric, light grey core, fine, pinkish-yellow slip, bichrome decoration in red and black. Comment: see previous figure.	173:5 469	-5	Storage jar, medium-hard-fired, light red fabric exterior, light grey fabric interior, medium-fine, light brownish-orange slip; neck ridge.
170:8 432	-3	Phoenician jug, shoulder sherd, hard-fired, light brown fabric, thick grey core, medium-fine, light yellow slip, bichrome decoration in red and black.	173:6 439	-6	Storage jar, medium-hard-fired, light brown fabric, coarse, black inclusions, light yellowish-brown slip; neck ridge.
170:9 452	N1272	"Pilgrim flask"/globular jug, wheel-made/hand-made, medium-hard-fired, light brownish-yellow fabric, medium-coarse, mainly white inclusions, self slip; decoration in the shape of incised concentric circles in three groups.	173:7 439	-4	Storage jar, hard-fired, yellowish-brown fabric, coarse, multicoloured inclusions, orange slip.
			173:8 502	-2	Storage jar, medium-hard-fired, light brown fabric, coarse, mainly black inclusions, yellowish-brown slip, red wash.
			173:9 500	-5	Storage jar, very hard-fired, grey fabric, medium-coarse, mainly white inclusions, self slip; neck ridge.
			173:10 54	-3	Storage jar, medium-hard-fired, orangish-brown fabric, coarse, grey inclusions, self slip.
			173:11 103	-1	Storage jar, hard-fired, yellowish-brown fabric, yellowish-brown core, medium-coarse, grey and white inclusions, self slip.
			173:12 W183	-1	Storage jar, medium-hard-fired, yellowish-brown fabric, medium-coarse, light brown slip; neck ridge.
			173:13 506	-5	Storage jar, hard-fired, yellowish-brown fabric, coarse, mainly grey and white inclusions, brownish-yellow slip; neck ridge.

Legend for the illustrated pottery from Phase XIII,
Area 7

Fig. Locus No. Description

- | | | |
|-----------|-------|---|
| 173:1 194 | N1114 | Storage jar, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, self slip; neck ridge. |
| 173:2 38 | -1 | Storage jar, hard-fired, brown fabric, dark brown core, coarse, grey and black inclusions, pinkish-orange slip. |



Fig. 171 Jug from Phase XIII, Area 7 (N1285, see also Fig. 170:5)



Fig. 172 "Pilgrim flask"/globular jug from Phase XIII, Area 7 (N1272, see also Fig. 170:9)

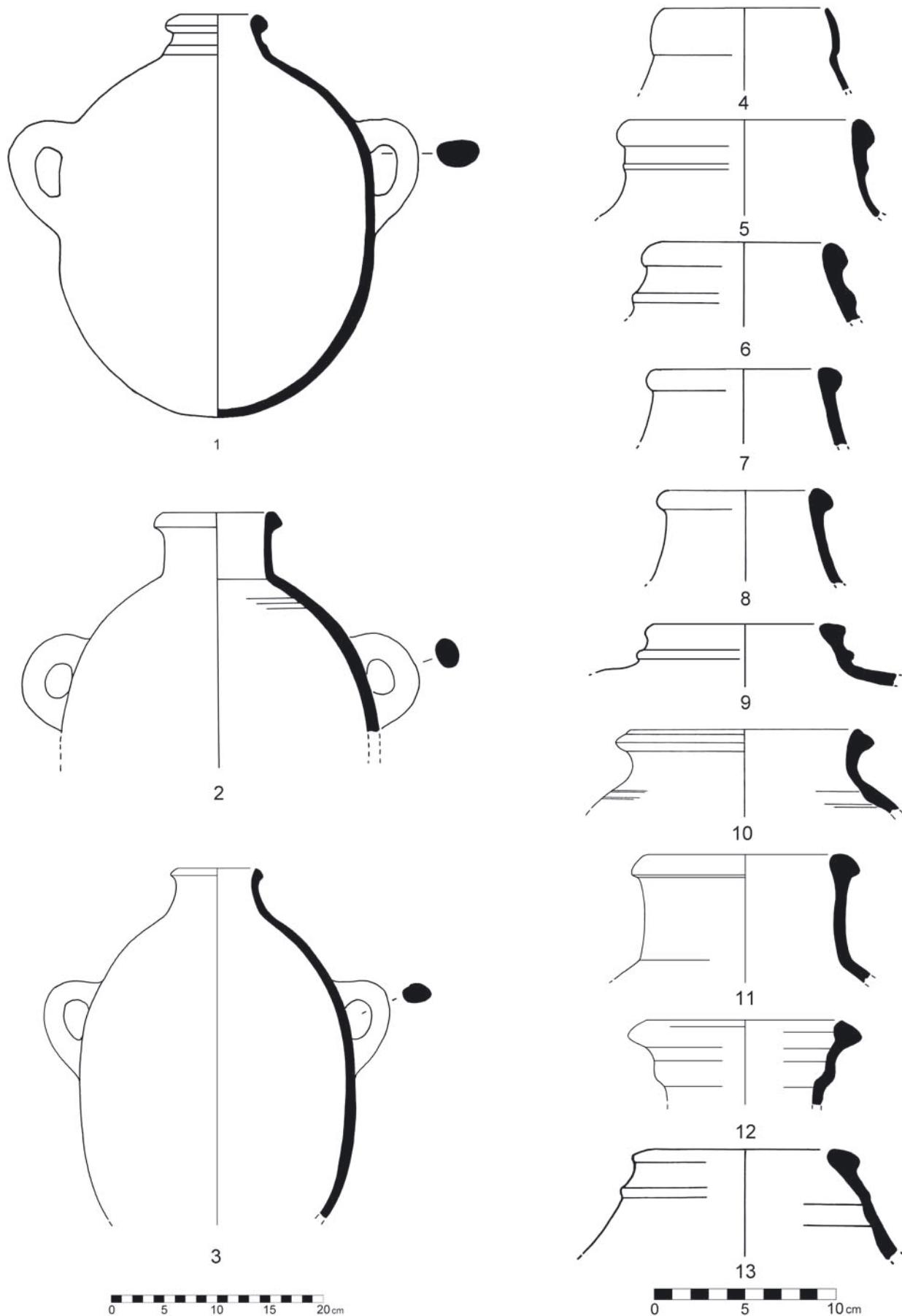


Fig. 173 Pottery from Phase XIII, Area 7

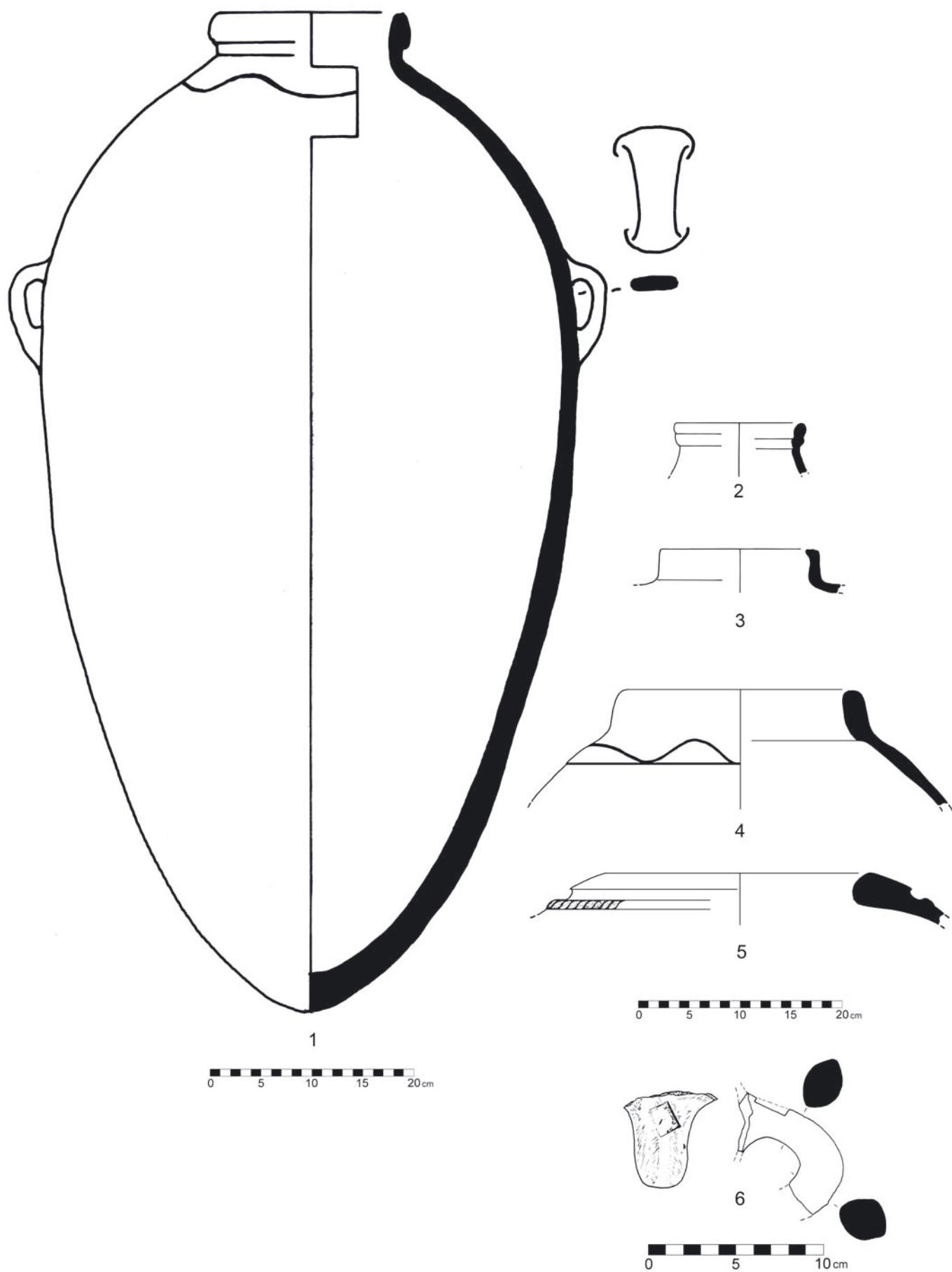


Fig. 174 Pottery from Phase XIII, Area 7

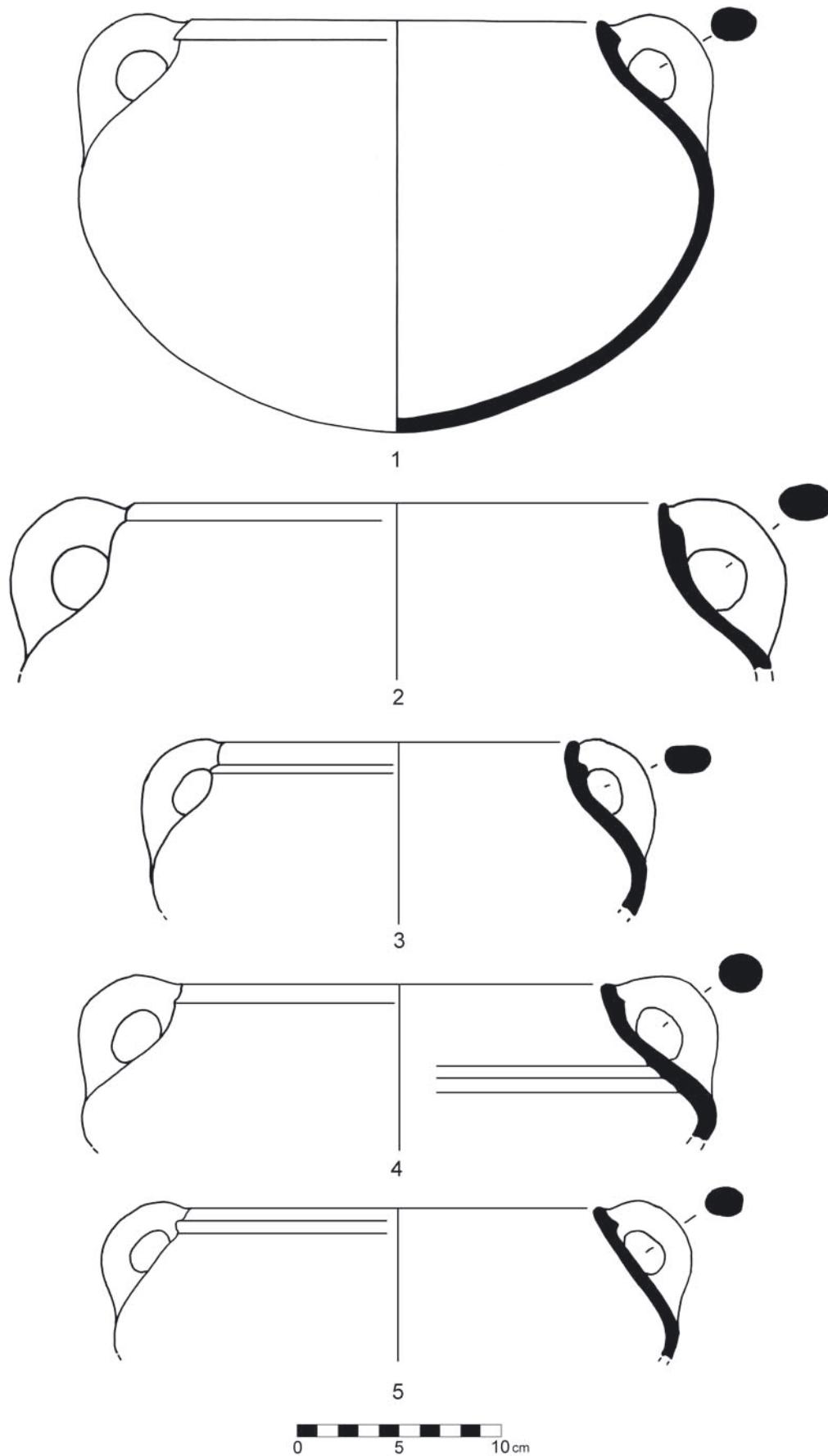


Fig. 175 Pottery from Phase XIII, Area 7

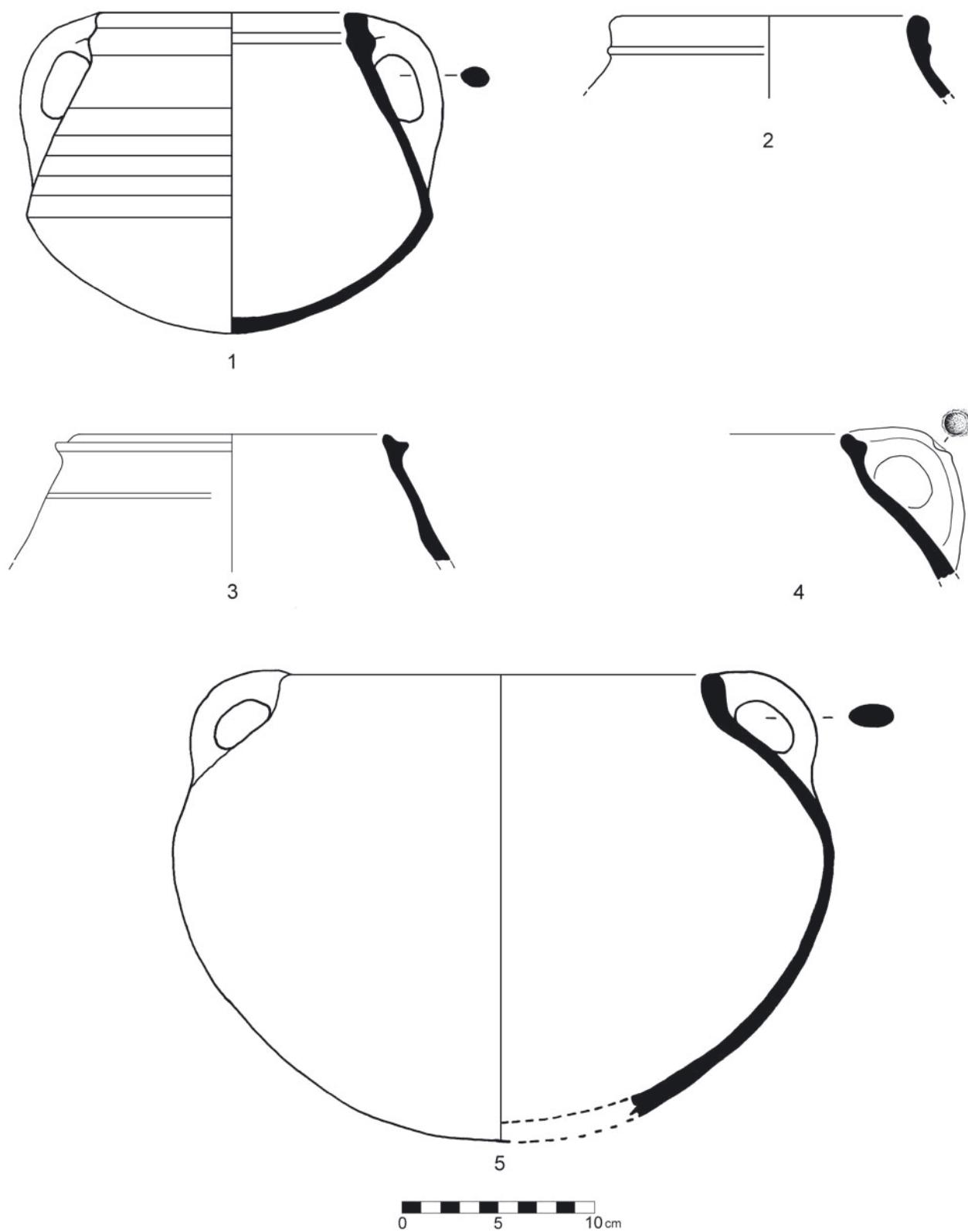


Fig. 176 Pottery from Phase XIII, Area 7

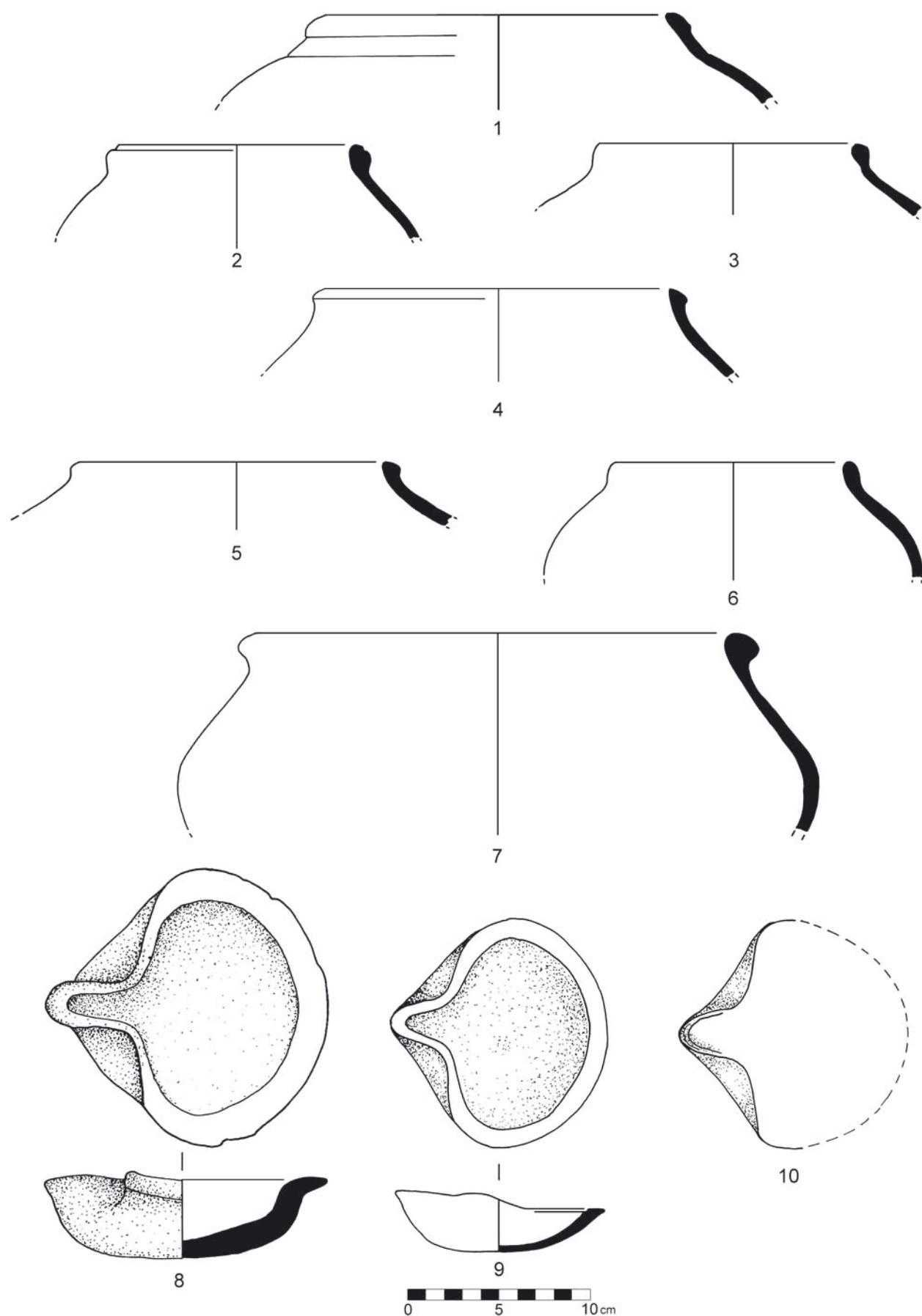


Fig. 177 Pottery from Phase XIII, Area 7

Legend for the illustrated pottery from Phase XIII,
Area 7

Fig. Locus No. Description

- 174:1 515 N1306 Storage jar, hard-fired, light red fabric exterior, grey fabric interior, coarse, mainly white inclusions, self slip; wavy line incision on shoulder.
- 174:2 499 -1 Storage jar, hard-fired, light brown fabric, medium-fine, a few large grey inclusions, light yellowish-brown slip.
- 174:3 488 -3 Storage jar, medium hard-fired, grey fabric, medium-coarse, crushed pottery inclusions, light yellowish-red slip; neck ridge.
- 174:4 515 -1 Storage jar, hard-fired, light reddish-brown fabric, coarse, mainly white inclusions, self slip. remains of a thick white substance; wavy line impression on neck.
- 174:5 516 -1 Storage jar, hard-fired, light brown fabric, grey core, coarse, multicoloured inclusions, greyish-yellow slip; plastic rope decoration below rim.
- 174:6 516 -6 Storage jar, handle with seal impression (see Eggler and Keel 2006: 278:3, 279:3; see also Fig. 466:5 and Appendix 4)

Legend for the illustrated pottery from Phase XIII,
Area 7

Fig. Locus No. Description

- 175:1 469 N1276 Cooking pot, medium-hard-fired, light reddish-brown fabric, grey core, coarse, mainly white inclusions, self slip.
- 175:2 500 -6 Cooking pot, hard-fired, red fabric, thick grey core, coarse, mainly white inclusions, self slip.
- 175:3 446 -1 Cooking pot, medium hard-fired, light greyish-brown fabric, coarse, multicoloured inclusions, self slip.
- 175:4 492 -1 Cooking pot, soft-fired, light brown fabric, coarse, grey inclusions, reddish-yellow slip.
- 175:5 488 -1 Cooking pot, medium-hard-fired, greyish brown fabric exterior; dark grey fabric interior, coarse, mainly white inclusions, red slip.

Legend for the illustrated pottery from Phase XIII,
Area 7

Fig. Locus No. Description

- 176:1 194 N1122 Cooking pot, hard-fired, brown fabric, white inclusions, self slip.
- 176:2 469 -4 Cooking pot, medium-hard-fired, brownish-red fabric, medium-coarse, mainly white inclusions, self slip.
- 176:3 54 -1 Cooking pot, medium-soft fired, dark brown fabric, coarse, mainly white inclusions, self slip.
- 176:4 103 -5 Cooking pot, hard-fired, reddish-brown fabric, dark grey core, medium-coarse, white inclusions, self slip.

- 176:5 169 -1 Cooking pot, hard-fired, reddish-brown fabric, coarse, mainly white inclusions, self slip.

Legend for the illustrated pottery from Phase XIII,
Area 7

Fig. Locus No. Description

- 177:1 439 -2 Cooking pot, medium-hard-fired, brownish-red fabric, thick grey core, coarse, mainly white and black inclusions, self slip.
- 177:2 506 -4 Cooking pot, soft-fired, brownish-red fabric, dark grey core, coarse, multicoloured inclusions, self slip.
- 177:3 507 -1 Cooking pot, hard-fired, brownish-red fabric, coarse, white inclusions, self slip.
- 177:4 516 -5 Cooking pot, hard-fired, brown fabric, coarse, quartz inclusions, self slip.
- 177:5 492 -2 Cooking pot, hard-fired, brownish-red fabric, thick dark grey core, coarse, mainly white inclusions, self slip.
- 177:6 507 -3 Cooking pot, hard-fired, brown fabric, coarse, white inclusions, self slip.
- 177:7 515 -3 Cooking pot, hard-fired, brown fabric, thick grey core, coarse, white inclusions, self slip.
- 177:8 194 N1116 Lamp, hard-fired, light brown fabric, medium-coarse, a few large grey inclusions, self slip.
- 177:9 515 N1317 Lamp, very hard-fired, pinkish-brown fabric, medium-coarse, mainly white inclusions, self slip.
- 177:10 465 -1 Lamp, very hard-fired, pink fabric, thick light grey core, medium-fine, self slip, traces of soot.



Fig. 178 Lamp from Phase XIII, Area 7 (N1116, see also Fig. 177:8)

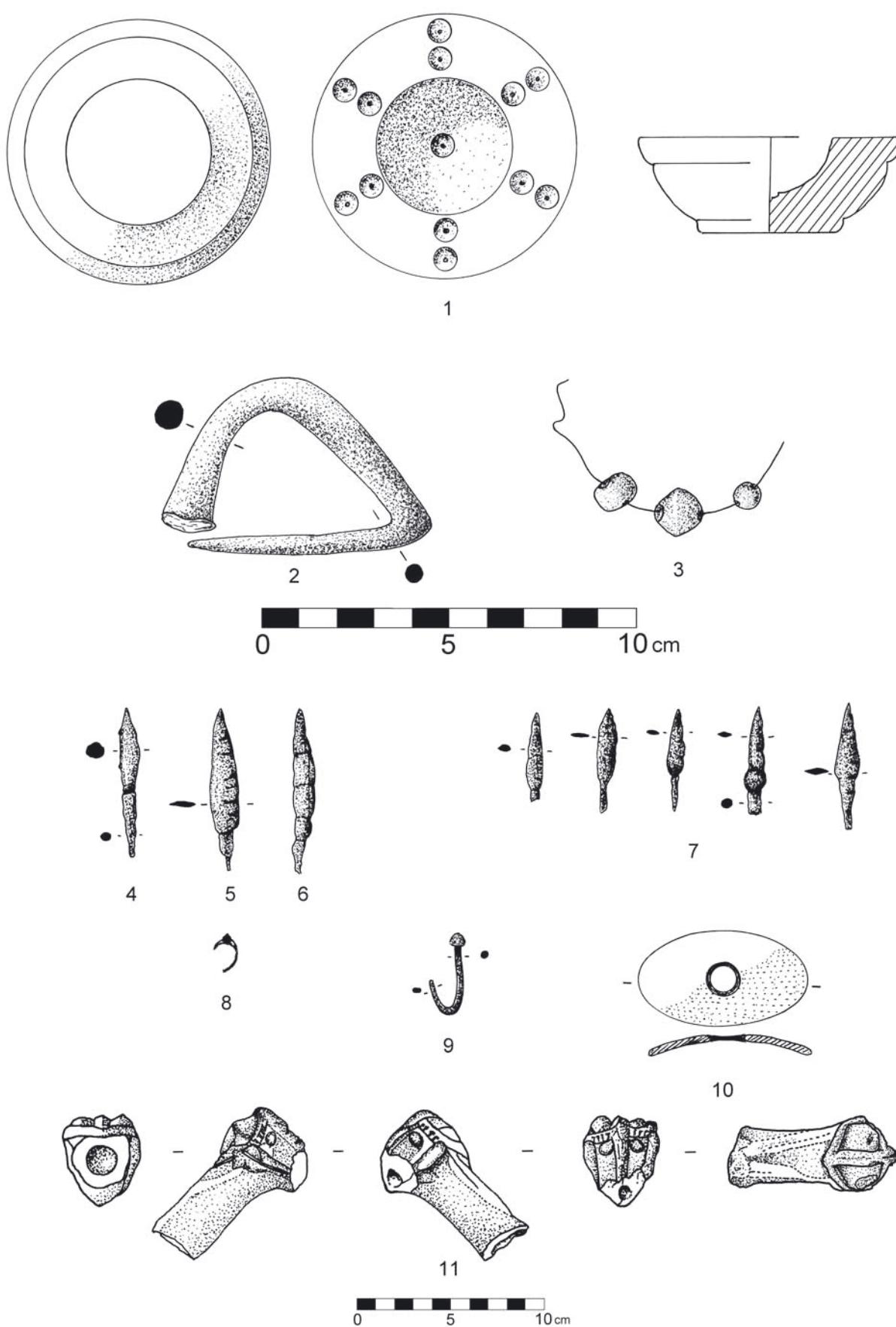


Fig. 179 Finds from Phase XIII, Area 7

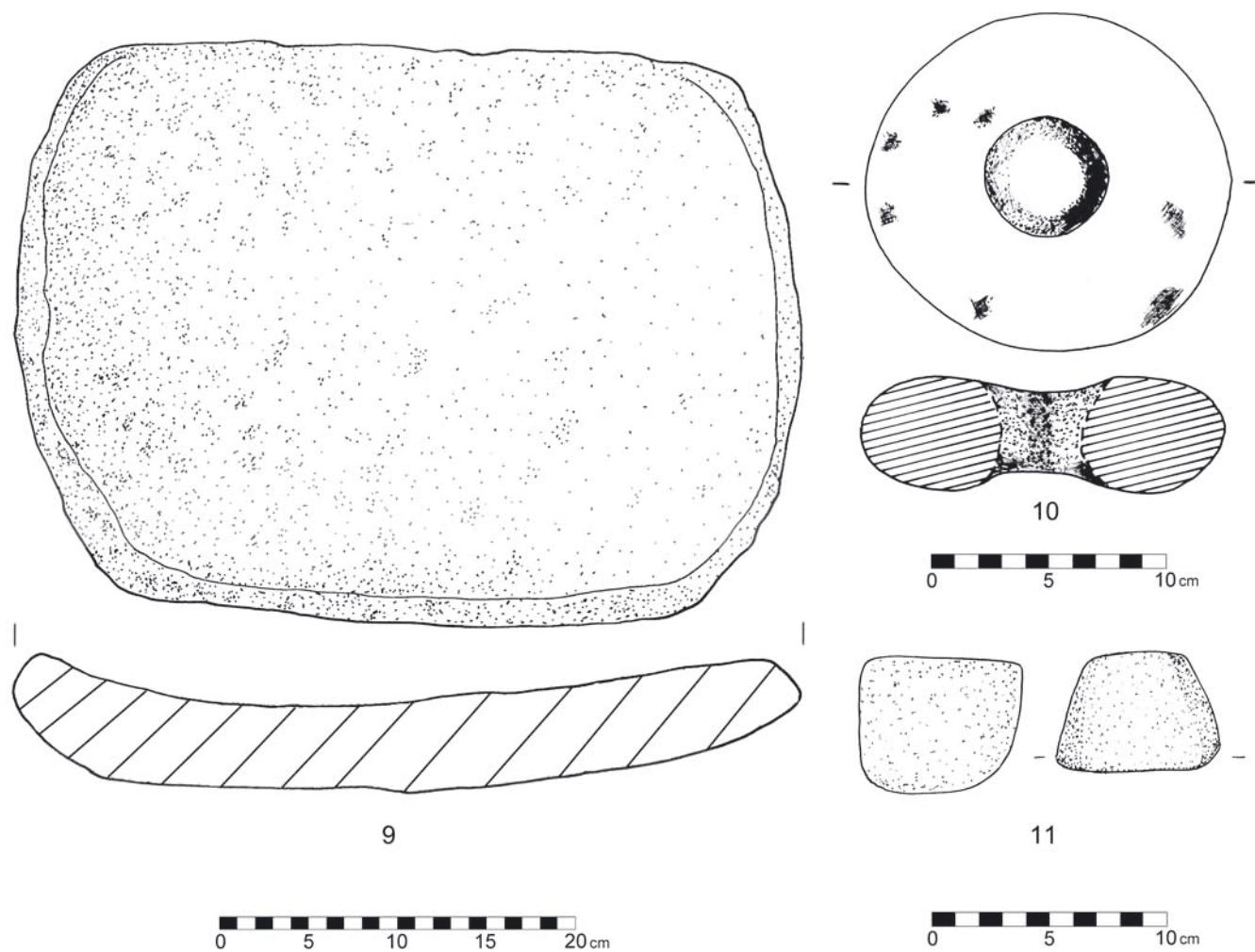
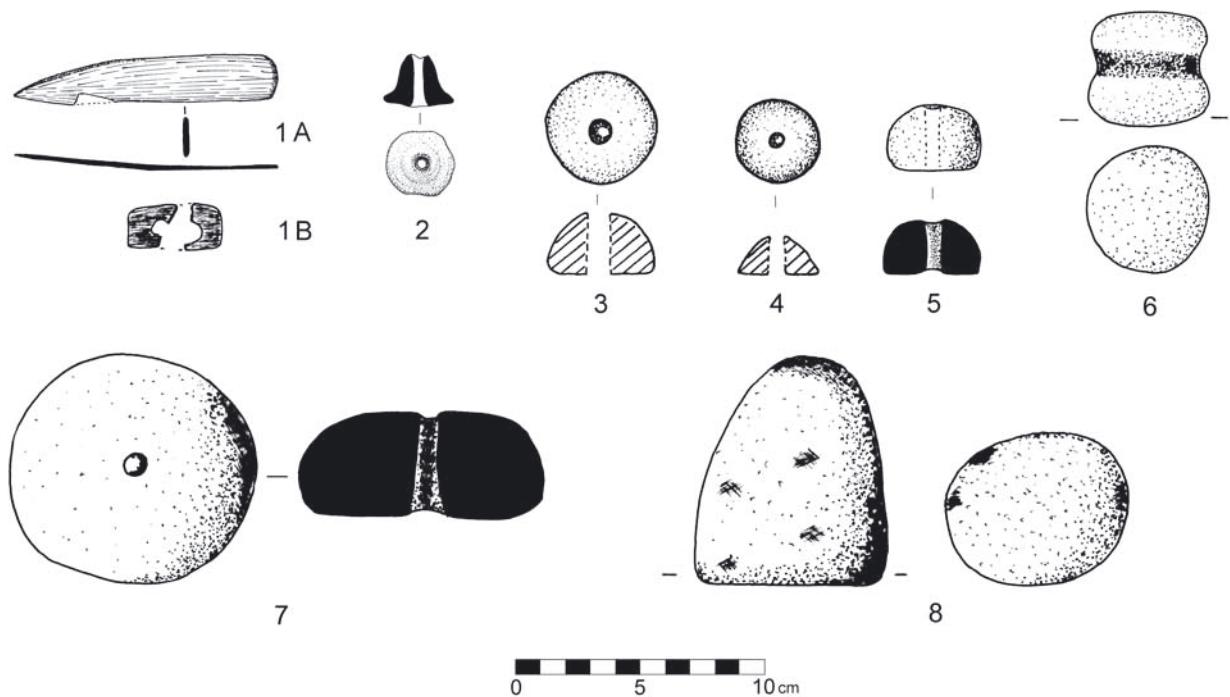


Fig. 180 Finds from Phase XIII, Area 7

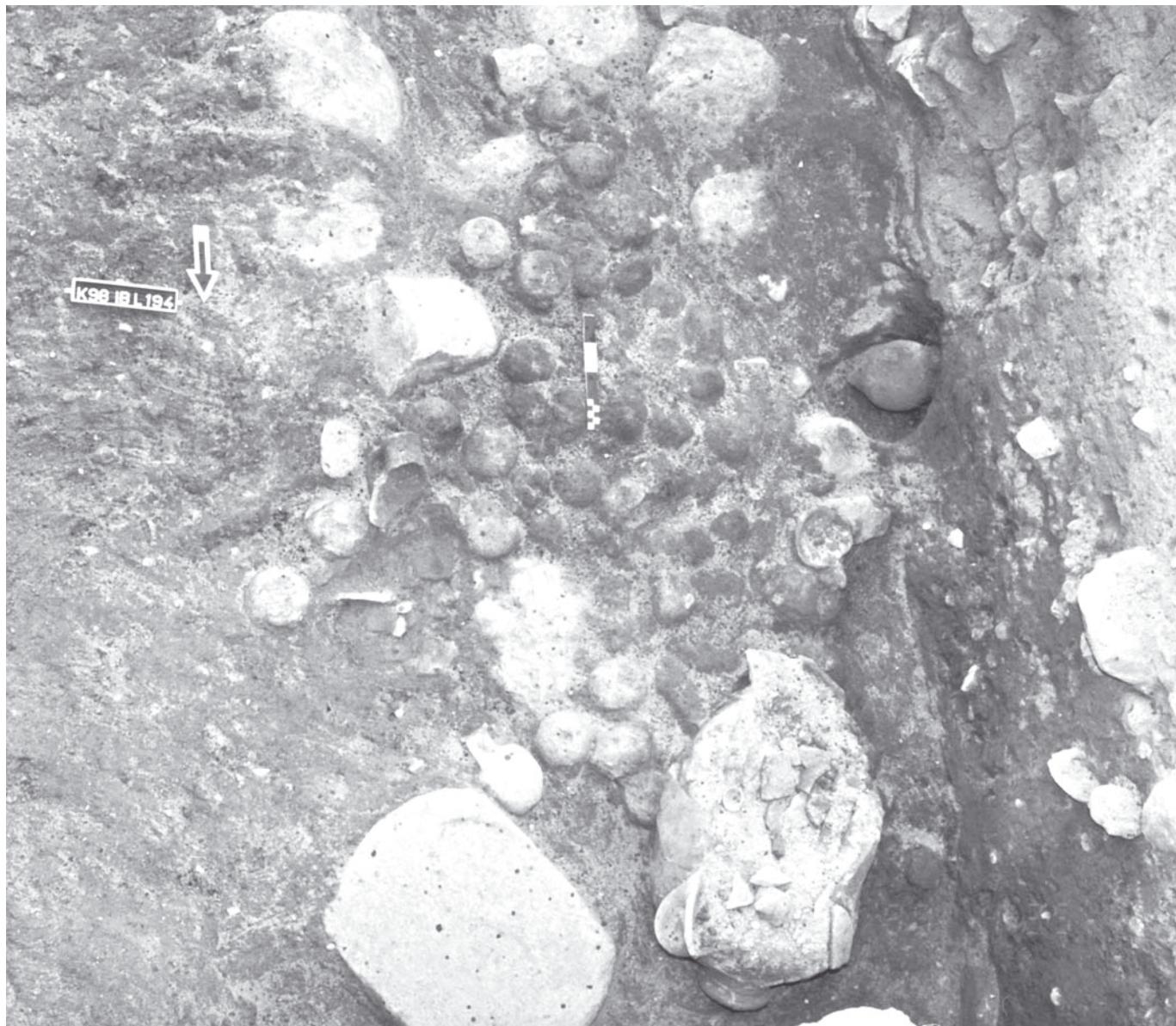


Fig. 181 L194-1: 110 unfired clay loom weights, Phase XIII, Area 7

Legend for the illustrated finds from Phase XIII,
Area 7

Fig. Locus No. Description

- 179:1 513 N1314 Cosmetic palette, alabaster, complete but worn, remains of two types of pigments: one of dark red colour in centre, the other of intensive light blue colour in peripheral incisions (see also Figs. 453:9 and 465:2 and Appendix 3).
- 179:2 432 N1268 Fibula, iron, very corroded, made in one piece.
- 179:3 447 N1269 Beads, three; from left to right: 1. carnelian, 2. glass, 3. carnelian.
- 179:4 492 N1291 Arrowhead, iron, complete, corroded.
- 179:5 516 N1313 Arrowhead, iron, complete, corroded.

- 179:6 513 N1310 Arrowhead, iron, complete, corroded.
- 179:7 515 N1320 Arrowheads (5), iron, complete, corroded.
- 179:8 513 N1305 Earring with knob/crown, broken, copper-base.
- 179:9 515 N1303 Fishing hook, copper-base.
- 179:10 493 -2 Tool with centred hole, reused sherd, medium hard-fired, light brown fabric, coarse, mainly grey inclusions, yellow to pink slip, red paint.
- 179:11 163' N1093 Rhyton, camel with bridle, wheel-made/hand-made, hard-fired, light brown fabric, grey core, medium-fine, red slip and white paint (see also Figs. 453:1 and 463:1 and Appendix 1).

Legend for the illustrated finds from Phase XIII,
Area 7

Fig.	Locus No.	Description
180:1A	34 N700	Shuttle, bone, polished due to wear.
180:1B	507 N1300	Tool, bone; textile production related?
180:2	34 -1	Spindle whorl, fired clay, hand-made, greyish-brown fabric, medium-fine, self slip, Wt 14 g.
180:3	194 N1121	Spindle whorl, limestone, polished, Wt 35 g.
180:4	194 N1120	Spindle whorl, limestone, polished, Wt 25 g.
180:5	513 N1302	Spindle whorl, fired clay, hand-made, medium-hard-fired, yellowish-brown fabric, medium-coarse, multicoloured inclusions, self slip, Wt 20 g.
180:6	513 N1301	Loom weight, basalt, Wt 223 g.
180:7	492 N1289	Loom weight, fired clay, hand-made, Wt 586 g.
180:8	514 N1307	Pestle, basalt.
180:9	194 N1113	Millstone, basalt.
180:10	513 N1304	Weight, basalt.
180:11	507 N1315	Polisher, porous basalt.

Additional finds from Phase XIII, Area 7 (listed, not illustrated)

Locus No.	Description
34' N705	Spindle whorl, basalt, d. 4.3, d. of hole 1.1, H 1.8 cm, Wt 47 g.
38 N751	Jug, Phoenician-type, hard-fired, yellowish-brown fabric, darker core, medium-fine, multicoloured inclusions, pinkish-red slip, red and black decoration.
39 N750	Loom weight, unfired clay, d. 7.9, H 6.2, d. of hole 1.4 cm, Wt 280 g.
103 N890	Bowl, rudely hand-made, irregular shape, d. 3.8, H 1.6 cm.
167 N1095	Arrowhead, iron, leaf-shaped, very corroded, L 8, W 1.5 cm.
167 N1096	Nail, iron, very corroded, two pieces, L 5, W 0.5 cm.
439 N1290	Carinated bowl, incomplete, hard-fired, dark red fabric, medium-fine, a few grey inclusions, thick light orangish-red slip, d. 13, H 4.1 cm.
478 N1283	Fibula, bronze/iron, with one bead, ⁴¹ L 5, W 2.6, Th 0.6 cm.
488 N1288	Tool, stone, almost spherical, d. 5.5 × 6.2 cm, Wt 339 g.
500 N1292	Pestle, basalt, pyramidal shape, W 5.4, H 5.5 cm, Wt 213 g.
500 N1294	Shuttle, split rib bone, broken, polished due to wear, L 4.2, W 2.8, Th 0.3 cm.
506 N1296	Potter's wheel, lower part (matrix), steatite, traces of wear (polished), L 25, W 17, H 12, d. of hole 7.8, d. of polished part 11.8 cm.
507 N1299	Spindle whorl (?), limestone, disk-shaped, d. 4.1, H 1 cm, Wt 32 g.

⁴¹ Bead-like decoration on bow.

507	N1316	Loom weight, unfired clay, d. 6.4, H 4.6 cm, Wt 171 g.
513	N1308	Pestle/polisher, basalt, cylindrical shape, d. bottom 3.7, d. top 3, H 3.5 cm.
515	N1318	Loom weight, unfired clay, d. 7.5, H 5, d. of hole 2 cm, Wt 265 g.
515	N1319	Pestle, basalt, slightly pyramidal shape, d. bottom 5.8, H 6.6 cm.

PHASE XIV (Figs. 182–229)

General remarks

Although many structures were taken over almost unchanged from Phase XIII the principal use of Area 7 shifted in this phase. There are five domestic structures, and a workshop for the production of iron and bronze objects in the easternmost part of what has so far been exposed (Fig. 182). The five domestic buildings to the west of the workshop contained numerous intact or complete objects fairly close to the present surface. The two eastern houses west of the workshop are fairly intact. West of these are two houses which suffered to a considerable extent from erosion: the northern halves of these houses and the city wall have fallen down the steep slope and the present edge of the plateau is now approximately in the mid-part of the preserved structures. The most westerly house is again better preserved. Ash and collapsed parts of the ceilings were found everywhere in the houses, which were apparently destroyed by fire. The find complexes in all the buildings are very rich and many well-preserved and complete objects, a few of them imported, could be retrieved.

Architecture and features

The compound east of the five houses is bounded to the north by the stone foundations of a 1.6 m wide wall (W574/575). The date of this wall and the perpendicularly built W573 is problematic: it was certainly used during this period and earlier Iron Age phases but at least W574/575 might date back to the Late Bronze Age as part of the earlier excavated casemate system from various areas (cf. e.g. FISCHER 2006a: 211, fig. 251). The ceramic evidence strengthens this hypothesis: although sherds from the second half of the Iron Age dominate there are sherds from earlier phases of the Iron Age, and from the Late Bronze Age.

W562/576 represents the southern limit of the casemate walls and functions as the northern border of a building complex. The western casemate room is bordered by W574, 573 and 576 (only partly exposed;

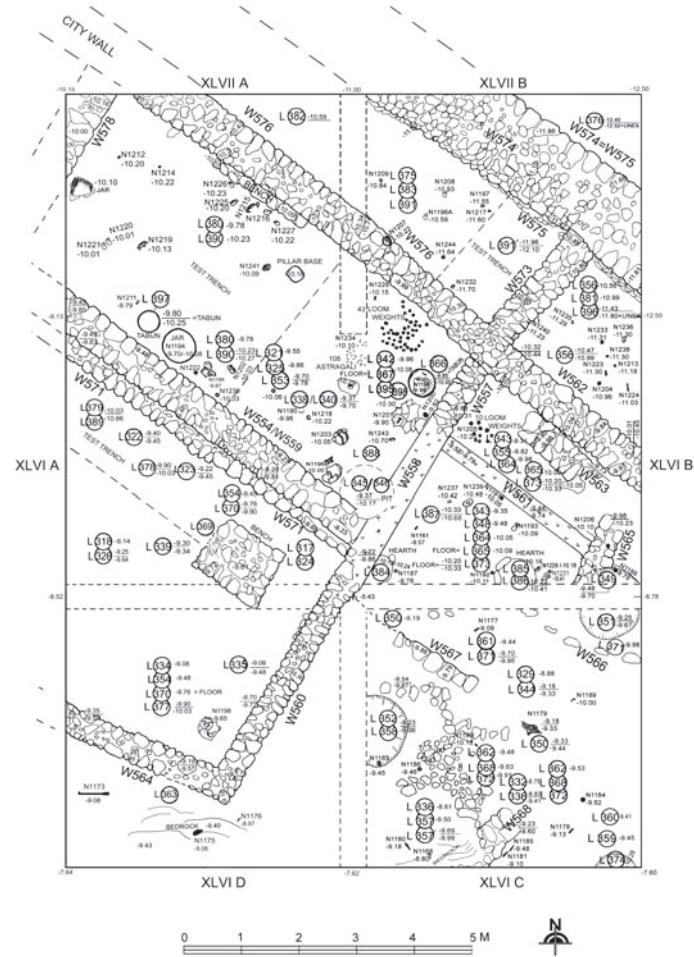


Fig. 182B Plan of Phase XIV, Area 7, Workshop



Fig. 182C Plan of Phase XIV, Area 7, House 1

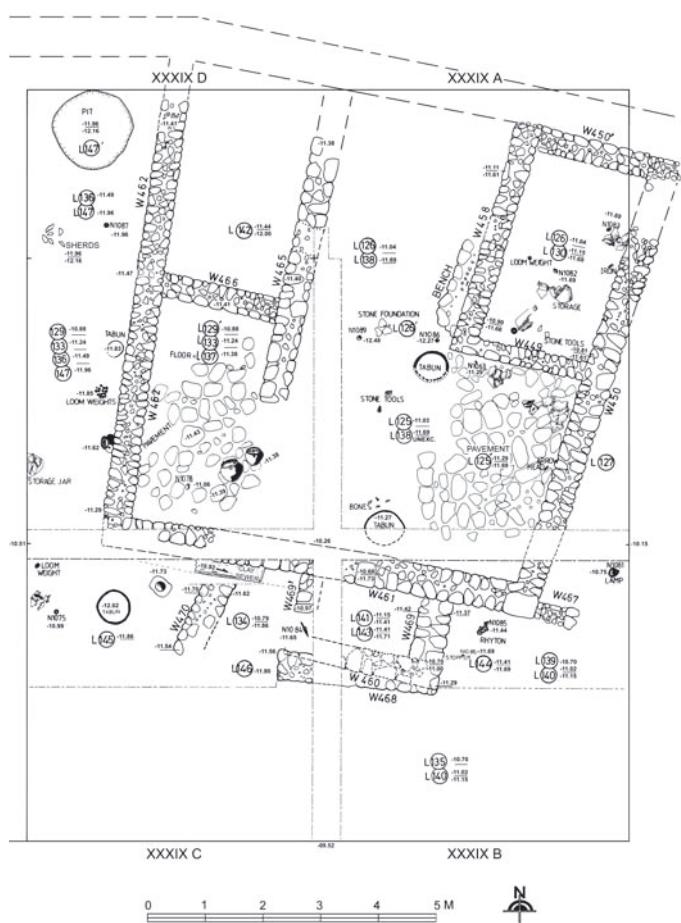


Fig. 182D Plan of Phase XIV, Area 7, House 2

L375, 382, 383, 391) and contained, in addition to textile-production-related tools, two juglets (N1208, N1196A), an earring of bronze (N1197) and a limestone pendant (N1232). The eastern casemate room, which is exposed to a very limited extent, is bordered by W574, 573 and 562 (L356, 381, 396). It contained amongst other finds textile production tools (N1204, N1233, N1224) and a juglet (N1236). There are two roofed spaces in the western part: One is a room to the north-west which is bordered by W578, 576, 557 and 554/559 (L380, 390, 321, 325, 353, 338, 340, 342, 367, 395, 398, 388). It is 7.5 m × 3.5 m in size and crowded with complete vessels and various textile-production-related tools (the latter include N1212, N1218, N1222, N1230, and N1228A comprising 25 loom weights of unfired clay). Amongst the other finds are a krater (N1215), cooking pots (N1216, N1241), a Phoenician juglet with five pseudo-rivets imitating a metal vessel (N1226; Figs. 219:1 and 453:7), three other juglets (N1202, N1220, N1221), a jug (N1227), a lamp (N1190) and a basalt tripod bowl (N1219). A concentration of 108 *astragals* close to the loom weights should be mentioned (N1234). There is a *tabun* which

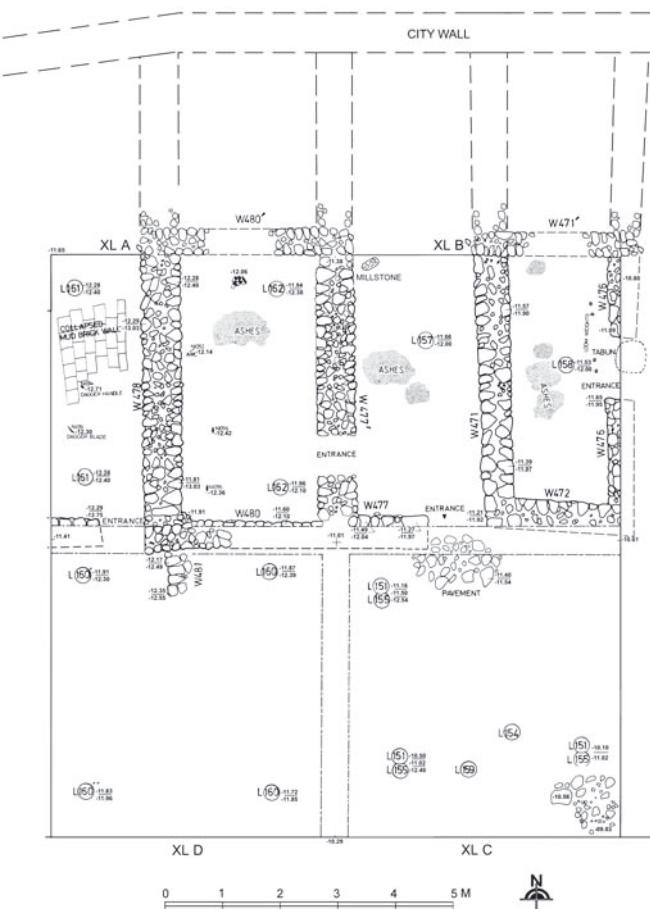


Fig. 182E Plan of Phase XIV, Area 7, House 3

is built against W554 (L397) and another one to the east close to W557 (L366). To the south of the former room is a roofed space of 7.5 m × 5 m (reconstructed), which is bordered by W554/559, 560, 564, 571 (L322, 323, 354, 317, 324, 318, 326, 339, 334, 335, 354, 370, 377; and the loci from the test trench L378, 379, 389). It contains a stone structure approximately one metre square close to its north-eastern corner (L369), maybe a working table reused from the remains of an earlier wall. A krater should be mentioned (N1198).

To the south-east of these two rooms is a partly excavated area which was roofed in its northern part. It is limited by W567, 558/557, 562 and contains a small mudbrick-built dividing wall (W561) which divides the space into two portions: one to the north-east (L355, 364, 365, 373) and one to the south-west (L348, 364, 365, 373, 387). The function of the remains of two additional walls (W563, 565, 566) is not clear. The north-eastern room once more contained 12 loom weights (e.g. N1188, N1205, N1206). The south-western room produced, in addition to more loom weights (N1187, N1191, N1192, N1229), a door socket



Fig. 182F Plan of Phase XIV, Area 7, Houses 4 and 5

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
154/170	0.5	1.0+	4+			
156	1.0	0.3	1-2			stone filling, pavement
157	0.6	0.6	3-4			rests on soil above W179
158	0.3	0.2	1-2			wall attached to house, annex
164/165	0.5	0.5	3			
166	0.4	0.2	2			
169/250	0.4/0.7	0.95	5			
176	0.4	0.95	4			
177/253	0.8	0.5-0.7	3			city wall
174/178	0.4	0.7-0.8	3	1		
449	0.4	0.7	3-4			
450	0.6	0.8	4			
450'	0.5	0.8	4			
458	0.5	0.7	3			
460	0.4	0.3	1			wall attached to house, annex

Table 51 Description of the walls of Phase XIV, Area 7

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
461	0.6	1.0	4-5			
462	0.5	0.2	1-2			
465	0.5	0.6	3			
466	0.5	0.6	3			
467	0.3-0.4	0.3	1			wall attached to house, annex
468	0.6	0.3	1			wall attached to house, annex
469	0.6	0.3	1			wall attached to house, annex
469'	0.4	0.3	1			wall attached to house, annex
470	0.5	0.2	1			wall attached to house, annex
471	0.5-0.6	0.6	2-3			
471'	0.4	0.4	2			
472	0.6	0.3	1-2			
476	0.5	0.7	3			
477/480	0.5	0.5-0.7	3			
477'	0.7	0.7	3			
478	0.7-0.8	0.9-1.2	4-5	6	average 0.13 high	reused from previous phase; fallen mudbrick wall
480'	0.5	0.4	2			
481	0.4	0.2	1			
485	?	1.1	5			reused from previous phase
487	0.5	1.0-1.1	5	8	average 0.14 high	reused from previous phase; fallen mudbrick wall
489	0.4	0.3	1			
554/559	0.6	0.4-0.6	3			
557	0.6	0.6	3			
558	0.6	0.6	3	3		mudbrick repair of W557
560	0.4-0.5	1.0-1.1	5			
561	0.3	0.3	1-2	2	0.50 x 0.35 x 0.12	mudbrick dividing wall
562	0.7	0.4	2			
563	0.5	0.2-0.3	1			
564	0.5	0.3-0.4	1-2			
565	0.4	0.2-0.3	1-2			
566	?	0.2	1			
567	?	0.3	1			
568	0.5-0.6	0.3-0.4	2			
571	0.3	0.3	1-2			bench; or remains of earlier wall
573	0.6	0.3-0.4	1-2			

Table 51 continued Description of the walls of Phase XIV, Area 7

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
574/575	1.4	0.5	3			
576	0.7-0.8	0.4-0.5	2			
578	0.7	0.3	1-2			
579	0.4	0.3	3			built of small stones
580	0.5	0.9	4-5			built of large stones
581	0.5	0.3	1-2			reused from LB
582	0.5-0.7	0.5	3			reused
583	0.4	0.3	0.3		0.57 x 0.40	mudbrick wall
584	0.6	0.6	3			
585	0.7	0.3	1			
587	0.5	0.3	1			
588	0.5	0.5	2-3			
589	0.6	0.3	1-2			
594	0.6	0.6	3			reused
595	0.6-0.7	0.8	3			reused
596/603	0.5	0.4	2			
597	0.6	0.6	?			mudbrick wall
598	0.7	0.5	?			mudbrick wall, reused
600	0.6-0.8	0.8	6			reused
601	0.7	0.6	?			mudbrick wall, reused
602	0.5	1.0	4			
604	0.6	0.4	2			

Table 51 continued Description of the walls of Phase XIV, Area 7

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	eon	post		
6	working area west of house, upper layer, hard, o.d.	6	N665 j, N675 bjL, -1 k, -2 b, -3 k, -4 ep, 1 b, 4 k, 1 j, 1 ja, 1 cp, 1 l, 112 ud			
7	fill above hard surface south of house, o.d. (see L9)				X	
9	hard surface south of house, floor, tabun remains (see L7)	1	1 k, 1 ja, 34 ud			
10	floor, upper layer, ash, o.d.	4	N626 bjL, N627 jl, N628 ja, N629 sj, N657 j, 1 b, 1 cb, 44 ud	2		
11	floor, upper layer, ash, o.d.	3	N658 cp, N660 ja, -1 b, -2 ja, 2 k, 2 j, 3 sj, 1 ep, 86 ud			
12	floor, lower layer, o.d.	5	N659 j, N661 ja, N676 cp, 1 b, 1 k, 3 jl, 5 ja, 3 cp, 1 dec bs, 89 ud		N663	
13	surface south of house, o.d.		1 cb, 1 jl, 1 sj, 13 ud			
14	courtyard surface, disturbed, o.d.	3	2 b, 1 jl, 1 j, 1 cp, 12 ud	X	N666, N672	disturbed, Islamic
15	disturbed surface, o.d.		-1 ic	X	N673, N674	disturbed, Islamic
16	platform-floor, hard, o.d.		-1 cp, 2 ja, 3 ud			

Table 52 Description of the loci of Phase XIV, Area 7

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
17	working area west of house, lower layer, loose, o.d.	2	3 b, 2 k, 54 ud			
17'	posthole filled with loose, fine soil					
18	pit, d. irregular (c. 2)	7	30 ud	X		disturbed, Islamic
18'	pit, d. irregular (c. 2)	4	1 sj, 1 cp, 12 ud	X		disturbed, Islamic
19	fill above floor L33		1 k, 1 ja, 1 sj, 10 ud	2		
20	above courtyard surface	3	3 b, 1 tri, 1 sj, 20 ud	6		
21	area next to posthole L17', ash, o.d.					
23	pit in wall, d. (1.5 x 0.5)	14	1 k, 1 sj, 1 cp, 61 ud			
25	beaten courtyard surface	31	1 b, 3 sj, 1 cp, 70 ud		N678, N680, N681	
26	mudbricks, hard light brown clay		1 ep, 1 sj, 19 ud			
27	mudbricks, hard light brown clay		3 sj	1		
29	pit, d. irregular (c. 2)	6	2 k, 1 sj	7		disturbed, Islamic
30	dump outside city wall					mainly soil, ash
31	below floor L12, fill, o.d.	8	5 b, 3 cb, 1 jl, 40 ud			
32	below floor L11, fill, o.d.		N679 j, -1 cb, -2 k, 2 b, 3 k, 1 ja, 47 ud		N677	
33	beaten earth floor, o.d. (see L19)		N682 ja			
34 upper	below beaten courtyard surface L25, upper part	60	2 b, 6 k, 3 j, 1 jl, 7 sj, 5 cp	1		
34 lower	below beaten courtyard surface L25, lower part	8	3 b, 1 cp, 16 ud			
35	working table for grinding	3	- 1 b, 3 b, 4 j, 1 jl, 2 ja, 2 sj, 1 cp, 49 ud			
36	beaten earth floor, o.d.	9	2 j, 1 sj, 33 ud			
37	entrance, floor, hard, o.d.					
40	beaten earth floor, o.d.	11	N698 jl, N738 l, N741 jl, N742 jl, N744 ic, -1 b, 3 b, 1 j, 1 jl, 2 ep, 2 sj, 123 ud		N701, N703, N704, N735, N739, N743	
42	beaten earth floor, o.d.		N696 cp, N697 b, N706 ja, N730 j, N740 jl		N702	
45	beaten earth floor, o.d.	6	N731 j-dt, N732 cp, N733 sj, N734 l, N909 j-dt, -1 j, 1 b, 1 j, 24 ud		N746, N747	
46	posthole, stone-lined, o.d.					
47	posthole, stone-lined, o.d.					
48	stone table					
99	hard surface east of house, upper o.d.	2	-1 ep, -2 b, 8 b, 3 k, 1 j, 5 ja, 8 sj, 4 ep, 1 l, 248 ud			
100	hard surface east of house, lower o.d.	1	-1 b, -2 b, 9 b, 5 k, 1 j, 1 dt, 15 sj, 3 ep, 198 ud			

Table 52 continued Description of the loci of Phase XIV, Area 7

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
101	beaten earth floor, o.d.		N906 bj1, 1 ep, 8 ud			
102	east of tower, upper layer, o.d.		-1 cp, 5 b, 1 ep, 3 sj, 107 ud			
125/125'	fill above floor and pavement, roofed, ash, o.d.	1	N1063 jl, N1080 k, -1 ep, -2 cp, 6 b, 4 k, 2 j, 3 jl, 1 tri, 33 sj, 389 ud			
126	fill above floor of roofed courtyard, ash, o.d.	6	-1 k, 1 b, 1 j, 4 sj, 1 ep, 42 ud	1		
126'	stone foundation for roof support					
127	area east of house, o.d.		11 ud			
129	area west of house, fill, ash, o.d.	-5	N1078 j-dt, 1 j, 1 sj, 1 ep, 38 ud			
129'	fill above floor, ash, o.d.	-10	2 sj, 12 ud			
130	floor, ash, o.d.	10	N1082 jl, N1083 jl, -1/1 ja, -1/2 ja, 9 b, 2 k, 3 j, 2 jl, 18 sj, 3 ep, 406 ud	N1086		
133	fill just above floor L137, much ash		1 b, 1 k, 1 sj, 2 cp, 29 ud			
134	floor of annex south of house, sewer, o.d.	11	-1 ja, -2 k, -3 b, 34 b, 6 k, 18 j, 30 sj, 1 tri, 3 l, 24 cp, 34 h, 919 ud	N1075, N1084		
135	upper fill south-east of house, o.d.		1 b, 1 k, 2 j, 1 sj, 5 cp, 32 ud			
136	surface, hard, ash, o.d.		2 b, 2 k, 1 j, 2 jl, 1 ja, 3 sj, 4 cp, 26 ud			
137	floor level, pavement, ash, o.d.		-1 cp, -2 cp, 2 b, 2 k, 1 ep, 29 ud			
138	floor, o.d.	5	N1089 b, 8 b, 6 k, 5 j, 4 sj, 7 cp, 2 l, 260 ud			
139	upper fill south-east of house, o.d.		N1081 l, 2 b, 2 k, 1 j, 10 sj			
140	lower fill south-east of house, o.d.		1 b, 2 k, 5 j, 4 sj, 35 ud			
141	fill in annex south of house	1	2 b, 1 k, 2 j, 4 sj, 30 ud	N1085 zoomorphic rhy-ton		
142	floor level, ash, o.d.		-1 k, 3 b, 3 g, 3 sj, 1 ep, 43 ud			
143	fill in annex south of house	X				
144	floor between annex and house, o.d.	47	2 b, 1 k, 2 j, 13 sj, 80 ud	N1088		
145	tabun area south-west of house, ash, o.d.	4	-1 k, 2 b, 1 k, 1 jl, 5 h, 59 ud			
146	fill in annex south of house		1 b, 3 j, 2 cp, 7 h, 60 ud			
147	fill below surface, o.d.		-1 sj, -3 cp, 1 b, 2 k, 3 sj, 1 ep, 275 ud	N1087		
147'	garbage pit west of house, d. 1.5, o.d.		13 ud			
151	area south of annex, o.d.		-1 j, -2 cp, -3 cp, 1 b, 2 k, 4 j, 1 jl, 4 sj, 1 ep, 1 dec			
154	area south of annex, o.d.					
155	area south of annex, o.d.	-2, 23	-1 j-dt, 17 b, 19 k, 9 j, 2 jl, 26 sj, 10 ep, 1 l, 353 ud			

Table 52 continued Description of the loci of Phase XIV, Area 7

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
157	courtyard area o.d.	1	1 k, 1 sj, 3 cp, 49 ud			
158	floor inside room, ash, o.d.		1 j, 4 sj, 1 ep, 133 ud			
159	area south of annex, o.d.	6	2 b, 4 k, 1 j, 2 cp, 1 sj, 138 ud			
160	disturbed area	15	-1 k, 14 b, 5 k, 1 g, 10 j, 11 ep, 14 sj, 344 ud			
160'	disturbed area					
160''	disturbed area					
161	backyard between houses, collapsed mudbrick wall		1b, 1 k, 1 sj, 29 ud		N1091, N1094	
162	floor inside room, ash, o.d.				N1092	
183	pit, d. 1.0, o.d.	1	1 j, 1 ep, 6 ud	1		
188	fill above floor, o.d.		1 b, 9 ud			
189	tabun on floor L192, ash; cf. L161		-1 ep, 1 b, 2 sj, 1 ep, 30 ud			
190	floor, very hard, o.d.	22	13 b, 1 k, 2 j, 1 sj, 3 cp, 107 ud			
191	pit, d. 0.35, cut into L190, well-defined, loose soil, o.d.					
192	floor, ash, o.d.					
317	destruction fill, o.d.		2 ep			
318	destruction fill, o.d.		1 j, 8 sj, 1 ud			
321	destruction fill, o.d.		6 ud			
322	destruction fill, o.d.					
323	destruction fill, o.d.	5	1 b, 2 k, 3 j, 4 sj, 1 l, 3 cp, 83 ud	6		
324	destruction fill, o.d.	1	1 rb, 9 ud			
325	destruction fill, o.d.					
326	destruction fill, o.d.		1 k, 1 j, 1 sj, 1 cp, 19 ud			
329	destruction fill, o.d.	2	1 b, 1 cb, 1 k, 1 j, 1 ja, 8 sj, 1 cp, 68 ud		N1177	
332	pit, upper part, ash, o.d.	3	7 b, 2 cb, 3 k, 3 j, 1 ja, 3 sj, 58 ud		N1178	
334	destruction fill, o.d.	15	N1175 jl, -2 b, 2 b, 4 k, 5 j, 9 sj, 157 ud		N1173, N1176, -1	
335	destruction fill, o.d.	11	-1 ep, -2 cb, -3 j-dt, -4 k, -5 cp, 2 b, 1 cb, 7 k, 2 j, 1 jl, 4 sj, 85 ud			
336	pit, d. c. 1.5, upper part, ash, o.d.	16	N1183 jl, -1 l, -2 k, -3 Ass cb, -4 b, -5 ja, -6 b, -7 b, -8 b, 1 b, 3 k, 7 j, 1 jl, 14 sj, 5 cp, 1 fig, 182 ud		N1168, N1180, N1181, N1184... N1186	
338	hard fill, o.d.	1	1 b, 1 sj, 15 ud			
339	destruction fill, intermediate part, o.d.					
340	hard fill, o.d., see L338		2 ud			
342	fill above floor, hard		-1 sj, 1 k, 1 sj, 12 ud			
343	fill above floor, hard		5 b, 5 k, 1 j, 1 jl, 2 sj, 14 ud			
344	fill, ash, o.d., lower part of L329				N1179	
345	pit, d. c. 1, o.d., upper part		1 eb, 1 sj	30		

Table 52 continued Description of the loci of Phase XIV, Area 7

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
346	pit, d. c. 1, o.d., lower part		15 ud		31	
348	fill above floor, hard	10	-2 ja, -3 k, 2 b, 3 k, 2 j, 1 jl, 7 sj, 1 cp, 54 ud		N1187, N1188, -1	
349	pit, d. c. 1.3, loose, o.d. (see L351)					Islamic disturbance
350	furnace, ash, mudbrick, o.d.					
351	pit, d. c. 1.3, loose, o.d. (see L349)					Islamic disturbance
352	pit, d. c. 1.3, ash, upper part of L358		-1 cp			
353	fill above floor, o.d.	5	N1190 l, N1194 sj, N1195 ja, N1202 jl, N1203 cp, -1 k, -2 ja, -4 b, 3 b, 1 cb, 4 k, 3 j, 2 ja, 8 sj, 1 cp, 130 ud		-3	
354	fill above floor, o.d.	2	-1 k, -2 b, -3 jl, 3 b, 4 cb, 7 k, 6 j, 9 sj, 2 cp, 156 ud	1		
355	soft fill with pebbles, o.d.	2	1 k, 15 ud			
356	fill, o.d.	4	-1 sj, 1 k, 4 j, 2 sj, 1 fig, 20 ud		N1204	1 ostrakon (sj)
357	pit, d. c. 1.5, lower part, loose soil	3	1 j, 1 sj, 5 ud			
357'	pit, lowest part, loose soil above bedrock		4 ud			
358	pit, d. c. 1.3, fill with pebbles, o.d.					
359	fired mudbrick, iron slag, parts of tuyère	7	1 cb, 3 k, 6 j, 7 sj, 1 cp, 20 ud			
360	loose soil, ash	15	-1 j, -2 ja, -3 cp, -4 sj, -5 ja, -6 ja, 9 b, 12 k, 13 j, 2 jl, 2 ja, 14 sj, 5 cp, 175 ud		N1189	
361	hard fill	5	-1 b, -2 ja, -3 jl, -4 ja, 2 k, 4 sj, 40 ud			
362	stone platform					
363	soil above bedrock, o.d.	12	1 jl, 28 ud			
364	hard surface, o.d.	3	-1 sj, -2 cp, -3 b, 2 sj			
365	floor, hard, o.d.	7	N1193 sj, -1 l, 1 b, 1 cb, 1 k, 4 j, 1 sj, 30 ud		N1191, N1192	
366	tabun, d. c. 0.5		N1201 sj		N1200	
367	floor, below L342, o.d.					
368	soil below platform L362	14	2 k, 1 jl, 5 sj, 3 cp, 18 ud			
369	stone bench					
370	floor, o.d.	18	N1198 k, -1 cp, -2 b, 6 b, 2 cb, 8 k, 7 j, 1 jl, 5 sj, 1 l, 9 cp, 244 ud		-3	
371	fill with charcoal		-1 k, -2 k, -3 cb, 1 j, 16 ud			
372	hard layer of mudbrick below L368	7	6 ud		N1199	
373	floor, hard, o.d.	26	1 b, 1 k, 1 sj, 1 ep, 29 ud		N1205, N1206	
374	pit with burnt material, d. c. 0.8					
375	fill, o.d.	3	N1196A jl, N1207 j, N1208 jl, 65 sj	1	N1196B, N1209	

Table 52 continued Description of the loci of Phase XIV, Area 7

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
376	dump outside city wall, o.d.		1 ep, 12 ud			
377	fill below floor L370, just above bedrock	-1, 3	1 b, 1 k, 2 j, 2 jl, 8 sj, 11 ep, 345 ud			
378	fill, o.d.		22 ud			
379	test trench, o.d.	5	3 b, 12 k, 6 j, 7 sj, 224 ud			
380	fill above floor L390	1	N1215 k, N1216 ep, N1220 jl, N1221 jl, N1225 k, N1226 jl, N1227 j, N1241 ep, -1 ja, 3 b, 1 k, 2 j, 2 sj, 3 ep, 47 ud		N1211, N1212, N1214, N1219, N1222, N1228A-B, N1230, N1234	
381	fill, o.d., see L356	121	N1236 jl, -1 jl, -2 k, -3 k, -4 k, -5 ja, -6 ja, -7 ep, -8 CG III jl, -9 jl, -10 eb, -11 k, 3 b, 1 cb, 5 k, 11 j, 2 jl, 1 ja, 1 l, 9 sj, 1 ep, 35 ud		N1213, N1223, N1224, N1233, N1235, N1238, N1240	
382	fill, o.d.					
383	fill below L375	4	1 b, 6 j, 2 jl, 1 ja, 4 sj, 52 ud		N1197	
384	hearth, associated with L373					
385	stone-lined hearth, upper level					
386	stone-lined hearth, lower level		1 sj, 11 ud		N1229, N1231	
387	fill, loose soil, o.d.	5	1 b, 1 j, 2 sj, 1 ep, 32 ud		N1237, N1239	
388	area outside pit L345/346, o.d.					
389	test trench, see L379					
390	floor, o.d.	3	-3 b, -4 hm/k, -5 ep, 1 k, 2 j, 10 sj, 9 ud		N1218, -1, -2	
391	fill below L383	13	-2 ja, 1 b, 1 cb, 1 k, 1 jl, 8 sj, 58 ud		N1217, N1232, N1244	
395	test trench, o.d.	2	3 b, 1 cb, 2 k, 8 j, 2 jl, 3 sj, 3 cp, 147 ud		N1243	
396	test trench below L381, o.d.	-1, 15	-2 cb, -3 b, 1 b, 2 j, 4 sj, 1 ep, 136 ud			
397	small tabun, d. c. 0.3					
398	test trench below L395		3 k, 3 j, 1 ep, 109 ud			
403	upper part of pit		-1 BoR I jl			
410	pit, d. 0.7, ash				N1250	
413	southern part of pit					
416	fill, o.d.		-1 k, 3 k, 3 j, 1 sj, 1 ep, 15 ud			
417	fill, o.d.		-5 k			
418	courtyard surface, varying texture, o.d.	8	N1255 jl, -1 k, -2 ja, -3 ja, -4 eb, -5 ja, -6 k, -7 ja, -8 jl, -9 j, 7 b, 1 cb, 7 k, 3 j, 4 jl, 1 sj, 1 ep, 447 ud		N1254	

Table 52 continued Description of the loci of Phase XIV, Area 7

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
420	loose fill with hard spots, o.d.	-2, 28	N1264 jl, -1 ja, -3 ep, 1 b, 1 cb, 4 k, 7 j, 1 jl, 3 sj, 1 cp, 247 ud	2	N1265	
421	courtyard surface, hard, o.d.	2	-1 cp, 4 b, 6 k, 8 j, 2 jl, 8 sj, 3 ja, 8 cp, 142 ud	1		
422	pit, western part, d. c. 3.5	2	-1 k, 1 b, 1 cb, 10 k, 3j, 1 jl, 16 sj, 3 ep, 23 ud	-2		later disturbance
424	gutter, loose soil, o.d.	1	3 cb, 8 j, 1 jl, 1 k, 7 sj, 3 cp, 70 ud			
426	pit, eastern part, d. c. 3.5		-1 dt, 1 e, 2 sj, 14 ud			later disturbance
427	medium-hard fill, od.	20	-1 cp, -2 k, -3 k, -4 e, -5 ja, -6 cb, 9 b, 2 cb, 12 k, 29 j, 7 jl, 2 ja, 29 sj, 1 l, 2 ep, 389 ud			
428	floor level, o.d.	1	1 b, 2 cb, 1 k, 6 j, 1 jl, 2 sj, 29 ud			
429	loose fill with small pebbles	-1, -2, 177				
430'	originally LB disturbed during this phase, surface, o.d.	27	-1 cb, 19 b, 9 k, 18 j, 3 jl, 7 sj, 6 cp, 582 ud			
431	entrance area of room		-1/1 k, -1/2 k			
434	pit, see L426		2 sj, 1 cp, 11 ud	1		later disturbance
435	courtyard surface, hard, o.d.		1 k, 1 j, 1 ja, 4 sj, 1 cp, 50 ud			
436	surface, medium-hard, o.d.	72	-1 b, -2 k, -3 b, -4 cb, -5 bj, -6 hm, 7 cb, 8 k, 18 j, 5 jl, 13 ja, 34 sj, 451 ud			
438	loose fill with hard spots, o.d.	28	-1 k, 1 b, 1 k, 1 j, 1 jl, 2 sj, 1 l, 153 ud		N1266, N1267	
441	courtyard surface, hard, o.d.		-1 k, -2 b/k			
442	fill with stones					
448	fill with stones, o.d.	1	-1 b, -2 cp, -3 k, 1 b, 1 k, 2 j, 1 jl, 3 sj, 4 cp, 167 ud		N1270, N1271	
460	pit, see L426		1 k, 1 j, 2 cp, 9 ud	1		later disturbance
470	hard surface, pebbles, o.d.	2	1 k, 3 j, 3 sj, 46 ud			
471	soft fill, some small stones, ash, o.d.	3	N1278 jl, N1280 tri, N1282 jl, -1 zoomorphic rhyton, -2 sj, -3 cb, 1 b, 2 cb, 8 k, 8 j, 3 jl, 5 sj, 1 cp, 254 ud			
471'	surface, o.d.		N1281 sj, 54 ud			
472	fill, o.d.	1	-1 cp, -2 zoomorphic rhyton, -3 k, -4 k, 2 cb, 5 k, 2 j, 1 sj, 3 cp, 31 ud			
475	pit, d. c. 1.4, loose dark soil, no stones	1	1 k, 19 ud			
476	loose fill, pebbles					
480	hard fill, mudbricks, o.d.		17 ud	1		
483	floor, pebbles, ash, o.d.		-1 cp, -2 k, -3 k, -4 j?, -5 ep, 1 cb, 4 k, 1 j, 1 ja, 3 sj, 1 cp			
485	beaten earth floor, mud-bricks	4	4 j, 2 ja, 71 ud			
486	fill just above floor, quite soft texture, pebbles					
491	floor, quite soft texture		N1293 bj, -1 sj, -2 k, 3 k, 1 j, 1 dec, 1 jl, 2 ja, 19 sj, 1 cp, 672 ud		-3	

Table 52 continued Description of the loci of Phase XIV, Area 7

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
495	pit, see L426	2	1 b, 2 cb, 11 k, 4 j, 3 jl, 6 ja, 2 sj, 3 ep, 105 ud			later disturbance
498	fill with some large stones		5 sj			
501	fill with pebbles	2	-1 ep, -2 c, -3 ep, 1 b, 2 j, 8 sj, 165 ud		N1295, N1297, N1298	
in W156	stone foundation of wall	4	-1 k, 2 b, 40 ud		N699	pottery in wall
in W157	stone foundation of wall		2 b, 1 ep			pottery in wall
in W164	stone foundation of wall	1	-1 j-dt, 1 b, 8 ud			pottery in wall
in W166	stone foundation of wall	4	-1 b, 2 b, 40 ud			pottery in wall
in W177	stone foundation of wall	10	1 ep		N749	pottery in wall
in W471	stone foundation of wall	2	2 b, 1 k, 3 j, 2 cp, 44 ud			
in W487	stone foundation of wall		3 sj, 27 ud			
in W562	stone foundation of wall	3	-1 ep, -2 j, 3 j, 3 sj, 25 ud		-3	
in W579	stone foundation of wall		-1 k, -2 cp, -3 ep, -4 k, 1 b, 6 k, 2 j, 1 jl, 4 sj, 4 cp, 82 ud			
in W581	stone foundation of wall	-1, 28				
in W596	stone foundation of wall	1	1 b, 1 k, 1 j, 2 ja, 1 sj, 1 ep, 186 ud			
in W597	stone foundation of wall		1 tri, 1 j, 1 ep, 28 ud			
in W598	stone foundation of wall		2 k, 1 j, 19 ud			
in W604	stone foundation of wall		1 b, 6 k, 2 j, 1 sj, 2 cp, 35 ud			

Table 52 continued Description of the loci of Phase XIV, Area 7

(N1239), obviously moved from its original position, a storage jar (N1193) and a red-painted, collared cylinder seal of steatite of Neo-Assyrian origin (N1161; Figs. 229, 453:6 and 467:1; see also discussion below and Appendix 4). Two finds of metal should be mentioned: an iron arrowhead (N1177) and the melted remains of a possible fibula (N1189). Two stone-built hearths, one is L384 and the other is L385/386, and a pit (L349/351) belong to this room.

The south-eastern corner of the exposed area, with the destroyed remains of two walls (W567, 568), is covered by thick layers of ash and contains some pits. Numerous arrowheads of iron (N1180, N1181 and N1185; Fig. 227), an iron sickle (N1168) and some items of bronze (e.g. dagger N1178) were found in L329, 332, 336, 344 and 350. In L344 there is an accumulation of arrowheads (N1179; Fig. 227), bundled together. Other finds are a red-painted juglet (N1183), a limestone disk (N1184), an alabaster spindle whorl (N1186) and an unfinished (?) pendant/bead/seal of limestone (N1199). The majority of the loci of this space are of yellowish-red to reddish-brown loose soil intermixed with quite substantial layers of ash and slag. Pieces of hard-fired mudbrick were also present. There are also two pits: L352/358 and L374.

There are five houses to the west of the former compound and built along the former edge of the upper plateau of the tell against the city wall. The city wall is partly preserved in the easternmost and westernmost parts but demolished in the remaining part of the area due to erosion. The ground plans of four of the houses, the exception being the most westerly, are similar and all of them comprise four rooms and partly roofed courtyards. The necessary adaption to the curving edge of the tell influenced their general shape: whereas the easternmost house is almost square, being 8.5 m × 9 m (N/S × E/W), the next one to the west is more trapezoidal in shape, being 9 m × 8/9 m, the next is square again (9 m × 8.5 m as reconstructed). Too little is preserved/excavated of the two westernmost houses for it to be possible to report their dimensions. The easternmost three houses show annex structures built against the southern façade of the houses. There are also walls between the houses, creating protected working spaces.

House 1: The best-preserved house is on the easternmost part of the terrace (see the selected collection of finds from this house in Figs. 187A and B). The floors of the four rooms and the courtyard are all of beaten



Fig. 183 North-western room of House 1, Phase XIV, Area 7

earth. In the north-west part of this house lies a small room measuring 1.5 m × 2.4 m (interior dimensions) with a hard-packed clay floor (W157, 177, 164, 166; L10, 16, 12, 31; Fig. 183). In its northern part there is a bench, approx. 0.15 m high and 0.4 m deep. There is a stone filling about 1 m wide between the bench and the reused city wall to support the older wall ("W156"). The entrance to the room is from the west via a step built of stone slabs (L35; Fig. 183). The threshold is part of the western outer wall. The room contains a variety of vessels including two pithoi leaning against the north-west and north-east corners (N628, N629), a two-handled ovoid jar (N661), two one-handled jugs with trefoil mouths, one of them with a rounded base and the other with a ring-base (N659), and a cooking pot (N676).

The room to the south-west is separated from the former by a wall (W166; the other walls are W165, 154, 157; and L15). It measures 1.5 m × 3.2 m (reconstructed). It contains among other finds a loom weight (N674). Its southern part has been destroyed during Islamic times (see above). The Islamic pit contained a

glass bottle (N662). Other Islamic pits in the south-west are L18 and 18'.

The room in the south-east corner of the building (W176, 169, 154/170; L26, 40, 46) is open (to the north-west) to the central courtyard (Figs. 184 and 185). It measures 2.4 m × 2.8 m. Two postholes surrounded by stones with a bottom stone for a wooden roof support were found in the centre of the opening (L46, 47). In the north-west corner of this room there is a table built of flat stones (L48). A number of finds had fallen down from the table or once been put around it. A complete tripod basalt bowl (N739) and fifteen iron arrowheads with parts of the wooden shafts preserved were among them (N743). It is very likely that the arrows were deposited in a container, maybe a quiver, which has not been preserved. A number of vessels were found around the table: a bowl, one-handled jugs with rounded bases of which two have an ovoid (N742) and one a long cylindrical body shape (N741), and a lamp (N738). Many unfired clay loom weights were found just outside the room, suggesting the position of a loom.⁴² Close to them was an

⁴² Ash and charcoal are present and may stem from a burnt down loom.



Fig. 184 South-eastern room of House 1, Phase XIV, Area 7



Fig. 185 North-eastern and south-eastern room of House 1, Phase XIV, Area 7. "Astragal" jug N730 to the north
(to the right of) the dividing wall



Fig. 186 Jar N706 with 40 unfired clay loom weights (N702)

incense cup in the shape of a carinated and perforated bowl on three stump legs (N744; Figs. 193:1 and 194 right).

The neighbouring room to the north-east is 2.0 m × 3.8 m (reconstructed; W174/178, 177, 169/250, 176; L19, 27, 33, 42, 101). The 1 m wide entrance is from the south-west (L37). The eastern foundation wall of the tower from the preceding period was reused as a bench in the eastern part of the room. A cooking pot (N696) and a large rudely hand-made bowl (N697) were found next to the bench. A juglet and a one-handled jug with a trefoil mouth and ring-base were found close to the entrance (see the jug in N730; Figs. 187B, 200:2 and 458:4). The jug contained 41 *astragals*. A broken jar (N706) in the southern part has contained about forty unfired clay loom weights (N702; Fig. 186). A large jar was found in the north-west corner close to the city wall (N682).

The area between the eastern and western pair of rooms, a courtyard, was obviously partly roofed. Remains of the roof construction in the shape of collapsed ceiling were found in the northern part (L25). The courtyard has a floor of beaten earth measuring 3.5 m × 7 m (L11, 14, 20, 25, 32, 34, 36, 45; and the pit L29). In the north-western part a jar (N660), a jar

with a cup-like spout (N679), two jugs (one is N657), a Black Juglet (N626) and a cooking pot (N658) were excavated. The majority of the other courtyard finds were discovered outside the room last described and near its entrance: three cooking pots (one is N732), a seven-spouted lamp (N734; see photograph in Fig. 212 left), a decanter jug (N731; see Figs. 198:9, 199 right and 458:2) and a jar (N733) with ten *astragals*. The lamp N734 was once attached to a raised base which is not preserved. Many iron arrowheads, spindle whorls, weights and stone tools including flints were found in the courtyard and elsewhere in the rooms. The southern part of the courtyard was partly affected by Islamic disturbances (see above).

The area west of House 1, viz. between the eastern two houses, is partly stone-paved (L6, 17, 17', 21; Fig. 188). In this area north of the steps leading via an entrance to the north-western room two basalt querns were found on top of a 0.5 m high, 1.5 m long and 1 m wide stone bench (L35). A Black Juglet (N675) and sherd of a Black-on-Red vessel were found nearby. There is a partly exposed "annex" which was built against the southern façade of the house (W158; L7, 9).

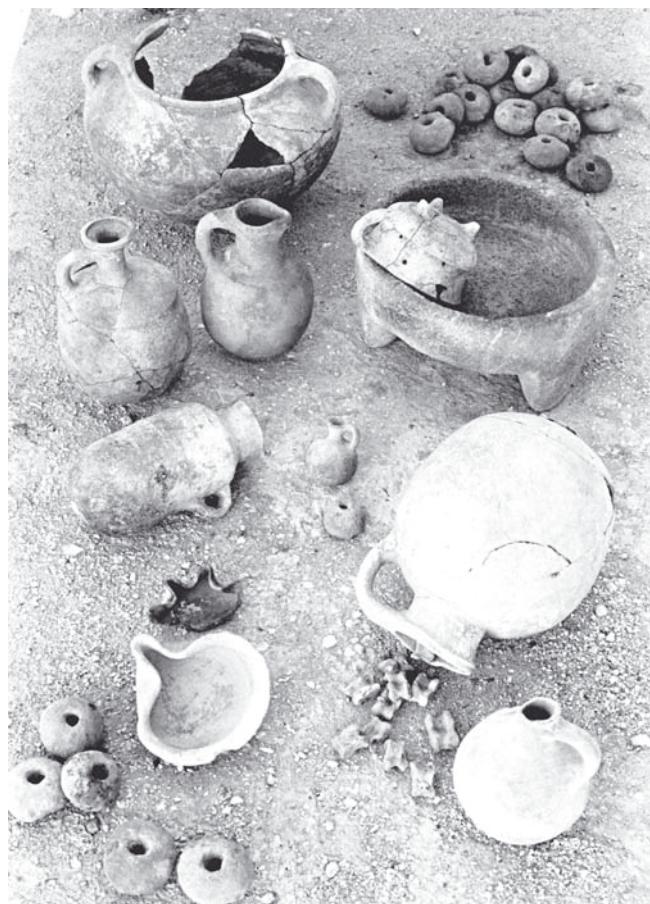


Fig. 187A Collection of finds from House 1, Phase XIV, Area 7

House 2: The second house to the west of the former is slightly trapezoidal in the design of the plan thereby following the conditions provided by the curving edge of the tell. There is a pair of rooms to the west. The northern one measures approximately $2\text{ m} \times 3.5\text{ m}$ (W462, 466, 465; L142). The entrance from the courtyard was from the southern part of this room via W465. The south-western room, $2\text{ m} \times 4\text{ m}$ in size (W465, 461, 462, 466; L129', 133, 137), is stone-paved and only partly separated from the courtyard by the extension of W465. In the opening towards the courtyard there might once have been wooden roof supports. Cooking pots and a jug-decanter (N1078) are amongst the pottery. The eastern pair of rooms is correspondingly constructed: a walled room to the north, $2\text{ m} \times 3.3\text{ m}$ in size (W458, 450', 450, 449; L126, 130), with an entrance from the courtyard in the centre of W458. The southern room, $2.3\text{ m} \times 3.8\text{ m}$, is stone-paved and open towards the courtyard (W449, 450, 461; L125'). Also in these rooms were a number of earthenware vessels, amongst them a globular juglet (N1063), various stone tools and an arrowhead. The courtyard between the pair of rooms is of beaten earth (L125, 126, 138) and has a stone bench in its northern part alongside W458. There are also two *tawabeen*, approximately 2 m apart, at the opening of the south-eastern room. The southern one is surrounded by



Fig. 187B Jug N730 with 41 astragals (see also Fig. 458:4)



Fig. 188 Working area west of House 1, Phase XIV, Area 7

bones. In the centre of the courtyard is a stone setting to support a wooden beam and the roof which obviously only covered the northern part of the courtyard. Stone tools, a hemispherical bowl (N1089) and a spindle whorl of alabaster (N1086) are amongst the finds.

There is an "annex" alongside the southern façade which reveals two building phases close in time, both with openings in the western part. The first, smaller and older one, is 1.0 m × 1.7 m in size (inner diameter) and enclosed by W469', 461, 469, 460 (L141, 143). There was a bronze dagger with a bone or ivory handle at the entrance of the annex (N1084). The annex was later rebuilt and enlarged, now covering 1.3 m × 3.3 m and enclosed by W470, 461, 469, 468 (L134, 146). Just east of the annex was an elaborate rhyton depicting an equid carrying two open vessels (N1085; see Figs. 223:1, 224, 453:2A/B and 462:3; see also Appendix 1), and to the west there is another *tabun*. Remains of a drainage system in the shape of a fired-clay sewer were found alongside W461 (Fig. 189). There is a small wall (W467), which extends W461 eastwards. Many objects were found in front of the house and between this and the houses to the east and west (L129, 133, 136, 145, 147, 135, 140, 144, 139, 127). Amongst these are a lamp (N1081), a cooking pot, a storage jar and numerous unfired loom weights.

House 3: Of the third, squarer, house to the west only the foundation walls of its southern half are preserved. It measures 9 m × 8.5 m as reconstructed. Much ash was found inside the three exposed spaces. The south-western room measures 4.5 m × 2.4 m (W478, 480', 477', 480; L162). Arrowheads (N1095, N1096) and an awl (N1092), all of iron, are amongst the finds from this room. The south-eastern room, 4.3 m × 1.6 m, is enclosed by W471, 471', 476 and 472 (L158). There is a 1 m wide entrance in the east where a *tabun* is placed. Several unfired clay loom weights were in this room. The courtyard which is flanked by the two rooms is 9 m × 2.2 m (reconstructed) with one entrance from the south-eastern corner where a stone pavement was laid (W477', 471, 477; L157). There is another entrance towards the western room in W477'. A millstone belongs to the inventory of the courtyard. This house, too, seems to have had an annex of which only a partly preserved wall is left (W481; L160). Not much can be said about the partly disturbed area south of the house (L154, 160, 160', 160", 151, 154, 155, 159). It may be that the cistern from the previous phase was reused.

House 4: The next house measures in its southern part, 7.5 m (east-west) by approximately 7.5 m (north-



Fig. 189 Sewer along the southern wall of House 2,
Phase XIV, Area 7

south; reconstructed). It was taken over almost unchanged from the previous Phase 3. The outer walls, 0.5–0.6 m wide, are W595/587, 585, 485 and 487. Two dividing walls, W602 and 489, created three spaces of which the central space is a courtyard. The western space, 1.7 m wide (L471, 483, 431), could be entered from the west via an approximately 0.8 m wide entrance where a door socket was found, and from the south through a 0.9 m wide, stone-reinforced, entrance. Finds from this room include a one-handled jug with trefoil mouth (N1282), a juglet (N1278) and a tripod bowl of fired clay (N1280). The next, trapezoidal space (L471'), in which a large storage vessel (N1281) was found, is 2–3 m wide. There are two pits: one is from the occupational phase (L475) and the other is a later disturbance (L183). Numerous pieces of raw iron were found in the uppermost part of pit L475 (see Fig. 228). The next space (L190), approximately 2.5 m wide, has a 2 m wide entrance in W485 from the south. A centrally placed small pit (L191)

and the fairly well-preserved remains of a collapsed wall of unfired mudbricks were found here. There is a walled space between this house and the next to the east where again the remains of a collapsed mudbrick wall were exposed (L161, 188, 192). It was entered from the south through via a 0.7 m wide opening in W485. Features from this “backyard” are a *tabun* (L189) and close to it a rectangular clay trough. Other finds include a dagger handle (N1094), a dagger blade (N1091) and raw iron (“iron scrap”, see Fig. 228).

There is a 2.6 m wide “annex” to the south of House 4, of which W589 and 582 are preserved (L427, 436). This annex is much larger than the corresponding annexes in the eastern part of the area. To the north-west is a pit which starts just below modern surface (L403, 413, 422, 426, 434, 460, 495). A Cypro-Geometric juglet comes for the area surrounding the pit (L403-1; Fig. 218:7). The southern part of the exposed area revealed the northern ends of additional structures (W594, 583 and 581; 0.4–0.6 m wide). Between these two compounds there seems to have been a street running west-south-west to east-north-east.

Between House 4 and 5 is a stone-paved gutter (L424), 0.3–0.6 m wide, the purpose of which is to drain rainwater from the upper part of the tell down the slope. Three walls were found close to the gutter: the parallel north-south W584 and 596/603 and the transverse short W604, all them 0.5 m wide. Their functions are speculative. It might be that they represent the eastern limits of a walled external yard and, at the same time, functioned as stabilizers of the soil and the walls along the gutter. The narrow space between the two parallel walls might have been used as a storage facility, although there are no finds to confirm this theory.

House 5: The dimensions of this house are difficult to assess because it is only partly excavated. Parts of the mudbrick superstructure of some of the approximately 0.6 m wide, stone-foundation, walls are still in a good state of preservation (W601, 598 and 597). The uncovered walls of the westernmost house so far exposed are W601, 600/599/580 and 579. There are two well-preserved dividing walls inside the building (W598, 597), of which W597 takes a different direction, thus not fitting into the fairly rectangular system of the structure; this wall might represent a later addition. The space to the west is 1.6 m wide (lower loci L486, 491) and that to the east 4.3 m (lower loci L428, 485, 498, 501; the later addition, W597, is not taken into consideration). In the south-eastern corner of the eastern space there is a stone bench measuring 0.9 m × 0.5 m. Finds from the western room include a

Black Juglet (N1293). The middle room contains a millstone and the eastern room a stone mortar surrounded and supported by small stones. South of a possible road the northern limits of another compound were partly exposed (W594, 583; L418, 430', 442, 448). Amongst the finds from the area north of the southerly compound are a loom weight (N1254) and a vessel with a spout resembling the head of a bird (N1255). Other finds are a complete arrowhead of iron (N1270) and a flint blade (N1271), together with the stone support for a roof structure. A bronze fibula with the iron needle still attached (N1250; Figs. 225:12 and 458:7) was found inside a *tabun* (L410): its position is somewhat problematic because it lies higher than the surroundings. Close to the *tabun* area a juglet (N1264) and loom weights (N1265) were discovered.

Interpretation of the material evidence (see reconstruction in Figs. 190 and 452:1)

Ash and collapsed parts of the structures' ceilings and roofs were found everywhere in the houses and in the workshop, all of which were apparently destroyed by fire. It does not seem conceivable that the structures were destroyed by an earthquake, since the foundation walls were found quite intact. It is, however, evident that the inhabitants did not return after the catastrophe to retrieve their belongings, the position of which must have been known to them. There are, except for later Islamic pits, no disturbances to suggest a search through the rubble of the collapsed structures: we were able to expose numerous intact

ceramics and other objects of bone, stone and metal very close to today's colluvial soil. It is also evident that this particular area was abandoned until Islamic times.⁴³ It is very possible that the domestic structures had two storeys. Due to the find situation, the interpretation of the functions of the various rooms in each house is limited to the ground floor of which the stone foundations are intact.

Workshop: The structure to the extreme east contains, to the west, a living space and, to the south-east, the workshop for the production of iron and bronze objects, of which many were found. A very plausible hypothesis is that the workshop once contained a furnace, which was destroyed or dismantled. This theory is supported by finds of parts of a possible tuyère of fired clay/sherds leading to a small pit surrounded by pebbles. In addition, there is another partly excavated small pit with pebbles (L374) which unfortunately continues into the southern section. It contains loose, ashy, material, with a hard bottom of a greyish-white texture: this might have been used as a small casting installation or it contained the remnants of a blacksmith's activities. Amongst the finds are a well-preserved long fire rake (Figs. 225:1, 226 and 458:8) which has a good parallel at Tell Keisan (BRIEND and HUMBERT 1980: pl 99:5). There are also numerous arrowheads of iron (Fig. 227). It is somewhat surprising to find evidence of textile production in the shape of spindle whorls and loom weights in the close vicinity of the metal workshop. However, the workshop is separated from the domestic area to the north and west

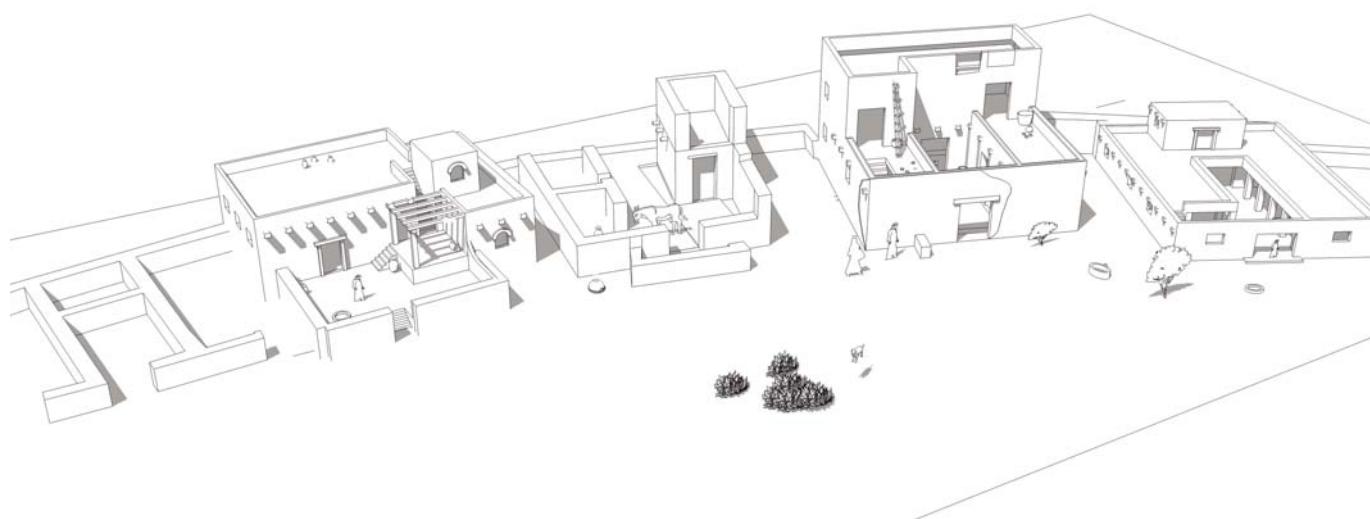


Fig. 190 Reconstruction of Phase XIV structures, Area 7

⁴³ There are, for example, Roman/Byzantine remains in Area 10 which is just to the south of Area 7.

by a small, much damaged, wall (W567). The location of the workshop in the north-eastern corner of the settled plateau is well chosen because at Tell Abu al-Kharaz the wind blows mainly from the west and south. Therefore, the population was less affected by the smoke and smell caused by the workshop.

Amongst the typical pottery from the second half of the Iron Age from this phase are imports from Cyprus (Black-on-Red pottery from the Cypro-Geometric III period), Phoenicia and Assyria. The Phoenician juglet with its inwardly folded rim, the double handle and the plastic decorations (knobs), one above and four below the handle, is unique to Tell Abu al-Kharaz (N1226; Figs. 219:1 and 453:7). The knobs are pseudo-rivets, and the whole appearance of the juglet gives the impression that the producer intended to imitate a counterpart in metal. The import from Assyria is a red-painted Neo-Assyrian cylinder seal of steatite/enstatite with the representation of a bearded male with a foot-long decorated dress aiming a bow and arrow at an ungulate heading towards a tree (N1161; Figs. 229, 453:6 and 467:1; see also Appendix 4). There are two symbols above the animal: one is a double-wedge which resembles the Greek letter “pi”⁴⁴ and the other a half-moon. We also discovered an ostrakon of a storage jar in L356 (Figs. 219:3 and 467:3; see Appendix 4). The partly preserved inscription is in Aramaic. There are three letters “R”, “Q” and most likely “Y”. The interpretation is speculative but it could be read as a name/owner (most likely), a measure or information about the contents (cf. RICHELLE 2010: 247–249).

House 1: This domestic space to the north-west was obviously used for storage of liquids and food. The space to the south-west, which was partly disturbed during Islamic (Abbasid) times, must have had the same function as the former room. That the space to the north-east was used for the production of textiles can be deduced from the numerous loom weights. The fourth room to the south-east, which has a posthole for a roof support at its entrance to the west, produced only a limited amount of finds: it seems that it was used as a living/resting room. The partly or completely roofed courtyard between the two pairs of rooms was crowded with finds, including several cooking pots, storage vessels, lamps, table wares, a possible quiver with many arrowheads and a jug with numerous *astragals*. This space was used for the preparation

of food, storage and other activities of daily life. There are two additional installations attached to the outer walls of the house: one along the western façade and the other attached to the southern façade. The latter consists of a partly exposed small space which may have been used to hold small animals, for instance domesticated birds. The former is a structure just to the north of the steps leading to the entrance of the house: a stone-built structure on which two millstones of basalt were placed. The position of the millstones suggests that they could be used simultaneously by two persons lying on their knees to grind grain.

House 2 is almost identical with House 1 in plan and in the arrangement of the internal rooms. This and the find repertoire including jugs, juglets, cooking pots and storage jars point to similar if not identical use. There is however one difference: whereas House 1 had a beaten earth floor the two southern rooms of House 2 were stone-paved. The two *tawabeen* indicate that the central room where they were placed was not roofed. The equid rhyton with the attached two miniature vessels, the bronze knife with the bone handle and a lamp – all found outside the house or inside or outside the annex – might point to religious activities taking place outside the house or in the annex. The annex was maybe a kind of room for praying and/or offering (see also Appendix 1).

House 3 reminds of the houses previously described but yielded fewer finds.

Houses 4 and 5: These two structures are only partly excavated and preserved but the functions of the rooms are clearly domestic judging from the rich finds. Amongst these are millstones, mortars, flint blades, loom weights of unfired clay, arrowheads of iron and raw iron. The pottery belonging to the typical Iron Age II repertoire of the site includes rounded and carinated bowls, juglets, both plain, shaved and burnished together with the characteristic Black Juglets, jugs, cooking pots and storage jars, one of which once contained more than 100 litres of fluid. There is also a clay pot with three stump legs, obviously an imitation of the more elaborate and expensive tripod bowls of basalt, of which there are several from our Iron Age contexts.

From what has been said above it is evident that the northern part of the tell, the most difficult to access from the plain below but from where essential

⁴⁴ There is some resemblance between these double wedges, and the incised or raised potmarks from Early Bronze Age Tell Abu al-Kharaz Phase I (FELDBACHER and FISCHER

2008: 395, 35), Phase II (*iidem* 396, 26) and “unstratified” (*iidem* 397, 17; see also the chronological discussion in FISCHER 2008a: 371–382).

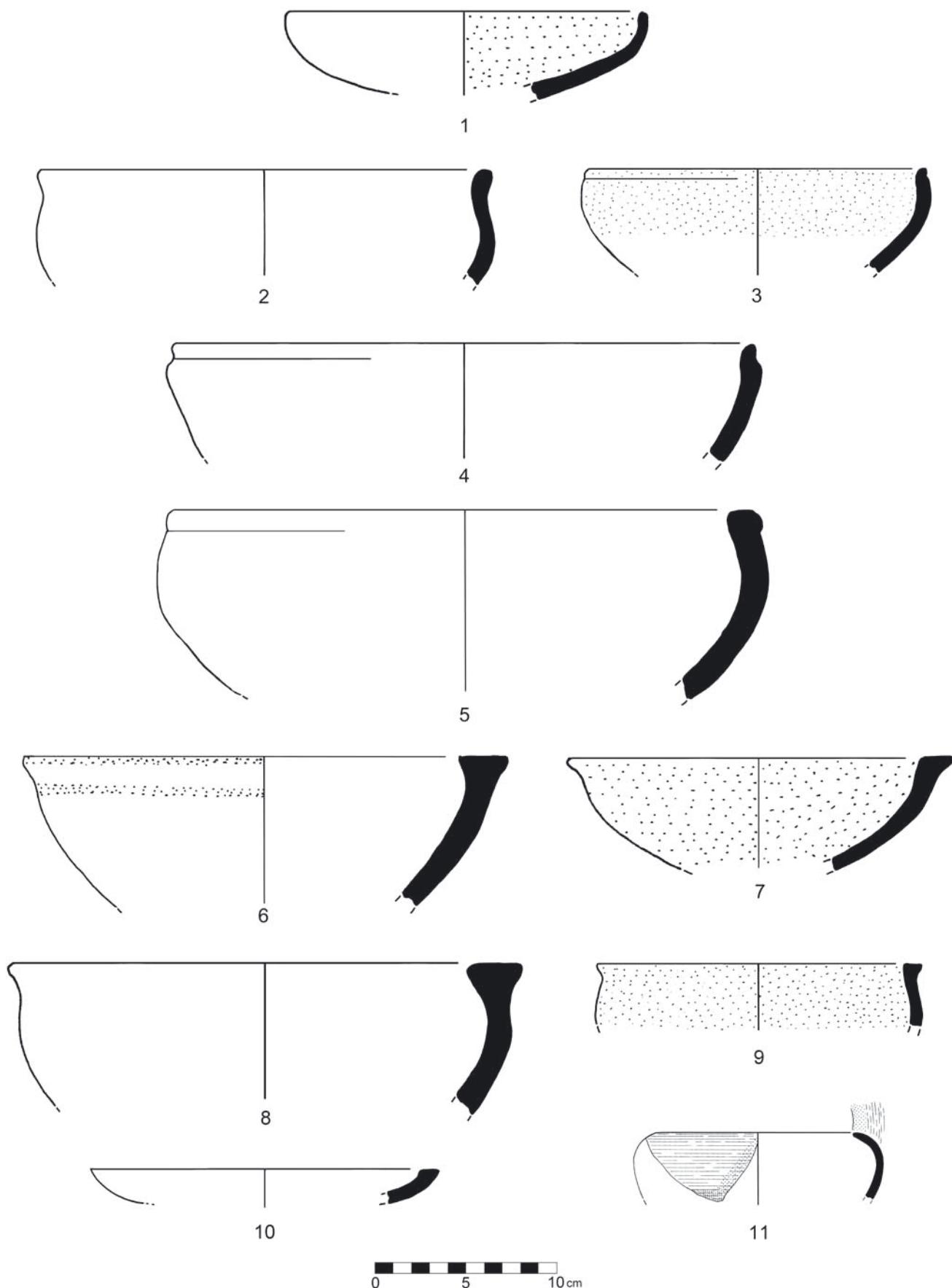


Fig. 191 Pottery from Phase XIV, Area 7

parts of the Jordan and Jezreel Valleys could be controlled, was used during an intensive period of occupation in the second half of the Iron Age. An effect of the intensive construction activities during this period has been the removal of architectural remains from older occupation, sometimes even down to bedrock (see Area 7 in the most easterly part). Nevertheless, islands of undisturbed remains from the Middle/Late Bronze and Early Bronze Ages could be secured and investigated, demonstrating that this area, too, was used during all three main periods of prehistoric occupation (see FISCHER 2006a, b; 2008a).

Legend for the illustrated pottery from Phase XIV, Area 7

Fig.	Locus No.	Description
191:1	354 -2	Bowl, hard-fired, greyish-brown fabric, medium-fine, self slip, red paint on interior, reused as lamp because of soot.
191:2	353 -4	S-bowl, medium-hard-fired, light brown fabric, medium-fine, light yellowish-brown slip.
191:3	336 -4	Bowl, medium-hard-fired, light greyish-brown fabric, medium-coarse, multicoloured inclusions, light greyish-yellow slip, upper part exterior and interior repainted.
191:4	336 -6	Bowl, hard-fired, light reddish-brown fabric, thick greyish-brown core, coarse, multicoloured inclusions, brownish-red slip.
191:5	336 -8	Bowl, hard-fired, light red fabric, thick grey core, multicoloured inclusions, self slip, red wash.
191:6	334 -2	Bowl, medium-hard-fired, light greyish-brown fabric, coarse, mainly black inclusions, light yellowish-brown fabric and slip, red paint on rim and below rim exterior.
191:7	364 -3	Bowl, medium-hard-fired, yellowish-grey fabric, multicoloured inclusions, self slip, red paint on rim and interior, splashes of paint on exterior.
191:8	336 -7	Bowl, medium-hard-fired, yellowish-grey fabric, coarse, multicoloured inclusions, yellowish-grey slip.
191:9	361 -1	S-bowl, medium-hard-fired, light greyish-brown fabric, coarse, multicoloured inclusions, light yellow slip, red paint on rim and interior.
191:10	436 -1	Bowl, medium-hard-fired, light red fabric, light brown core, medium-coarse, mainly grey inclusions, self slip.
191:11	99 -2	Bowl, very hard-fired, light red fabric, light grey core, very fine, light yellowish-green slip with bright red spots, wheelburnished to a high lustre; import.

Legend for the illustrated pottery from Phase XIV, Area 7

Fig.	Locus No.	Description
192:1	448 -1	Bowl, medium-hard-fired, light brown fabric, greyish-brown core, medium-coarse, multicoloured inclusions, light yellowish-brown slip.
192:2	35 -1	Bowl, hard-fired, pinkish-orange fabric, very fine, light brown slip on rim, red paint.
192:3	100 -1	Bowl, hard-fired, reddish-brown fabric, greyish-brown core, medium-fine, some grey inclusions, red slip.
192:4	32 -1	Carinated bowl, hard-fired, brown fabric, orange core, medium-coarse, mainly grey inclusions, self slip exterior, red paint on rim and interior.
192:5	418 -4	Carinated bowl, medium-hard-fired, light yellowish-red fabric exterior, dark grey fabric interior, medium-coarse, multicoloured inclusions, yellowish-red slip; ribbed on exterior.
192:6	335 -2	Carinated bowl, hard-fired, yellowish-brown fabric, medium-coarse, multicoloured inclusions, light yellowish-brown slip.
192:7	427 -6	Carinated bowl, soft-fired, light grey fabric, medium-fine, red slip.
192:8	396 -2	Carinated bowl, hard-fired, light yellowish-brown fabric, medium-coarse, multicoloured inclusions, yellow and red slip, burnished.
192:9	396 -3	Bowl, hard-fired, light reddish-brown fabric, medium-coarse, multicoloured inclusions, red and brown slip, burnished.
192:10	390 -3	Bowl, hard-fired, light greyish-brown fabric, medium-coarse, multicoloured inclusions, light yellowish-brown slip, red paint on rim.
192:11	11 -1	Bowl, hard-fired, reddish-brown fabric, greyish-brown core, medium-coarse, multicoloured inclusions, creamy-white slip.
192:12	441 -2	Small bowl/krater with two lug handles, medium-hard-fired, light brown fabric, thin dark grey core, medium-fine, light brownish-yellow slip.
192:13	501 -2	Chalice, soft-fired, light brownish-red fabric, medium-fine, light yellowish-red slip, yellowish-red paint on rim.

Legend for the illustrated pottery from Phase XIV, Area 7

Fig.	Locus No.	Description
193:1	40 N744	Incense cup with three legs and handle, medium-hard-fired, yellowish-brown fabric, coarse, mainly white inclusions, self slip (see also Fig. 194 right).

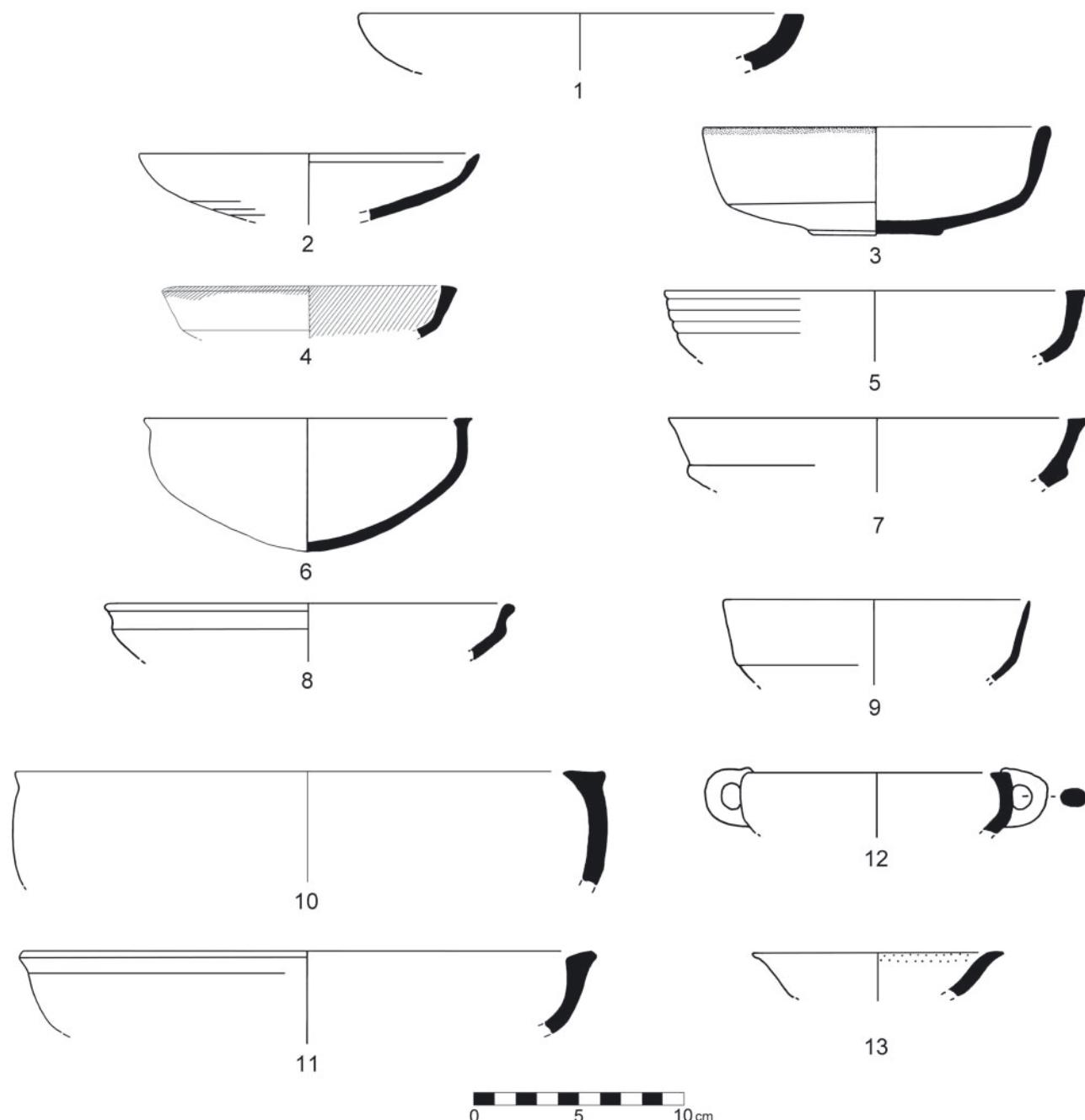


Fig. 192 Pottery from Phase XIV, Area 7

- 193:2 15 -1 Incense cup with three legs (handle?), medium-hard-fired, light brown fabric, coarse, mainly white inclusions, self slip (see also Fig. 194 left).
 193:3 471 N1280 Tripod bowl, wheel/hand-made, very hard-fired, lilac fabric, thick grey core, coarse, mainly white inclusions, yellowish-green slip.

- 193:4 142 -1 Krater, hard-fired, light brown fabric, grey core, medium-coarse, multicoloured inclusions, yellow slip.
 193:5 125 N1080 Krater with four handles, hard-fired, greyish-brown fabric, light grey core, medium-coarse, mainly white inclusions, light brown slip.

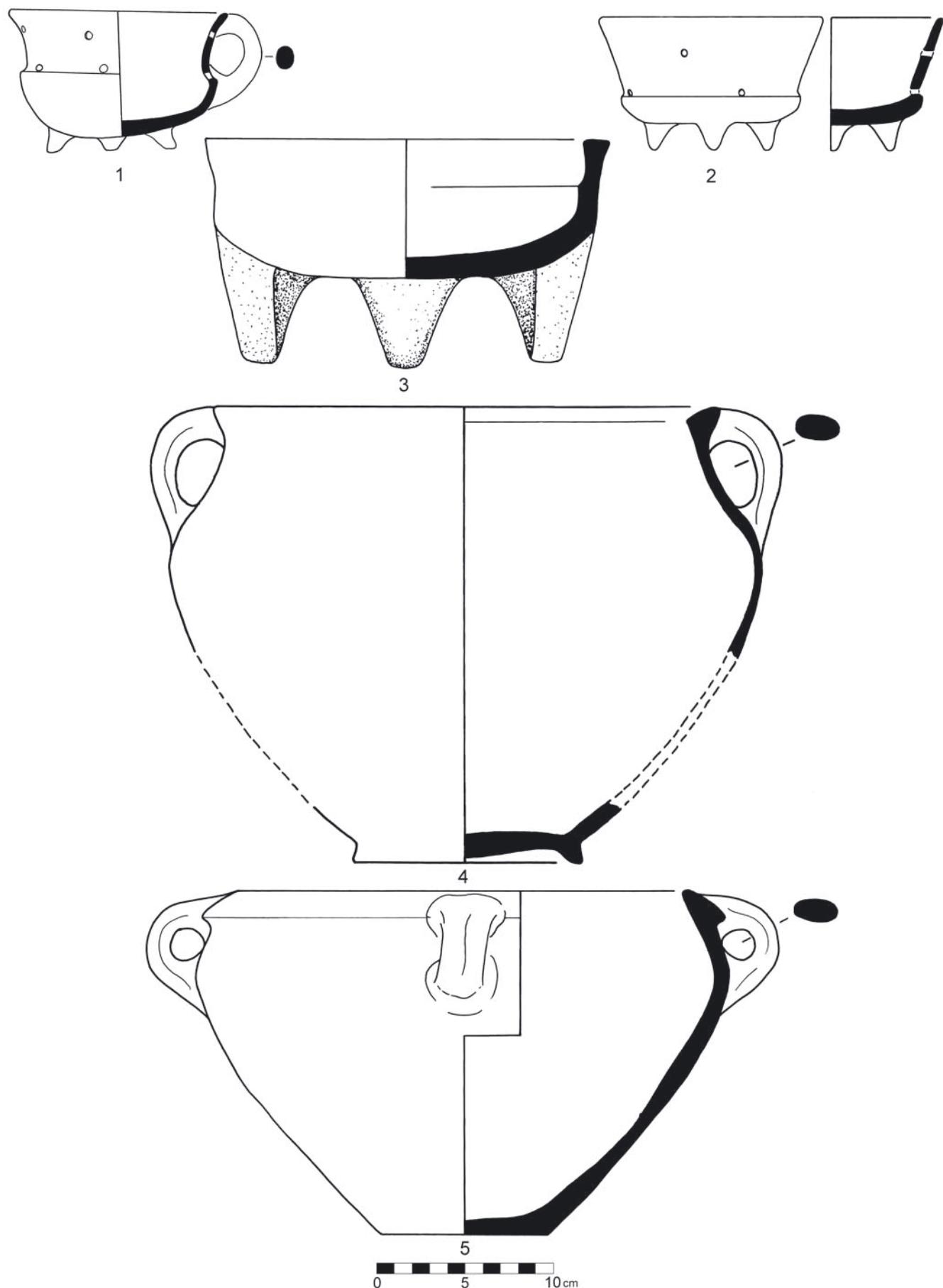


Fig. 193 Pottery from Phase XIV, Area 7



Fig. 194 Incense cups L15-1 and N744 from Phase XIV, Area 7

Legend for the illustrated pottery from Phase XIV,
Area 7

Fig. Locus No. Description

- 195:1 380 N1215 Krater, medium-hard-fired, light brown fabric, coarse, multicoloured inclusions, orange slip.
- 195:2 380 N1225 Krater, hard-fired, light brown fabric, coarse, multicoloured inclusions, light yellowish-brown slip.
- 195:3 370 N1198 Krater, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, orangish-yellow slip.
- 195:4 418 -6 Krater, soft-fired, light brown fabric, coarse, multicoloured inclusions, self-slip.
- 195:5 417 -5 Krater, hard-fired, greyish-brown fabric, coarse, mainly black inclusions, light brownish-yellow slip, neck ridge.
- 195:6 416 -1 Krater, medium-hard-fired, greyish-brown fabric, medium-fine, orangish-red slip.
- 195:7 381 -2 Krater, medium-hard-fired, light brown fabric, coarse, mainly dark inclusions, light brown slip.
- 195:8 422 -1 Krater, very hard-fired, light brown fabric, medium-fine, light yellowish-brown slip.
- 195:9 431 -1/1 Krater, hard-fired, light brown fabric, coarse, mainly grey inclusions, light reddish-yellow slip.
- 195:10 353 -1 Krater, medium-hard-fired, greyish-brown fabric, black core, medium-coarse, multicoloured inclusions, red to reddish-brown paint.
- 195:11 354 -1 Krater, medium-hard-fired, light brown fabric, grey core, coarse, multicoloured inclusions, pinkish-yellow slip, red paint on rim and handle.

- 195:12 381 -11 Krater, medium-hard-fired, brownish-red fabric, coarse, multicoloured inclusions, light brownish-red slip.
- 195:13 126 -1 Krater, very hard-fired, light brown fabric, medium-fine, light yellowish-brown slip; marked step on neck.
- 195:14 6 -1 Krater, hard-fired, orangish-brown fabric, grey core, medium-coarse, grey inclusions, thin orange slip, red paint on rim and thin red painted line on shoulder; marked step on neck.

Legend for the illustrated pottery from Phase XIV,
Area 7

Fig. Locus No. Description

- 196:1 W579 -4 Krater/hole-mouth jar, hard-fired, light reddish-brown fabric, light grey core, medium-coarse, a few white inclusions, light yellow slip.
- 196:2 390 -4 Krater/hole-mouth jar, hard-fired, light reddish-brown fabric, grey core, medium-fine, light yellowish-brown slip.
- 196:3 145 -1 Krater/hole-mouth jar, hard-fired, light brown fabric, grey core, medium-fine, some white inclusions, yellow slip.
- 196:4 381 -4 Krater, hard-fired, light brown fabric, grey core, coarse, multicoloured inclusions, yellow slip.
- 196:5 348 -3 Krater, medium-hard-fired, light reddish-brown fabric, coarse, multicoloured inclusions, light reddish-brown slip.
- 196:6 381 -3 Krater, hard-fired, light brown fabric, coarse, white inclusions, yellow slip.
- 196:7 335 -4 Krater, hard-fired, light brown fabric, coarse, dark grey inclusions, light yellowish-brown slip, red paint on rim.

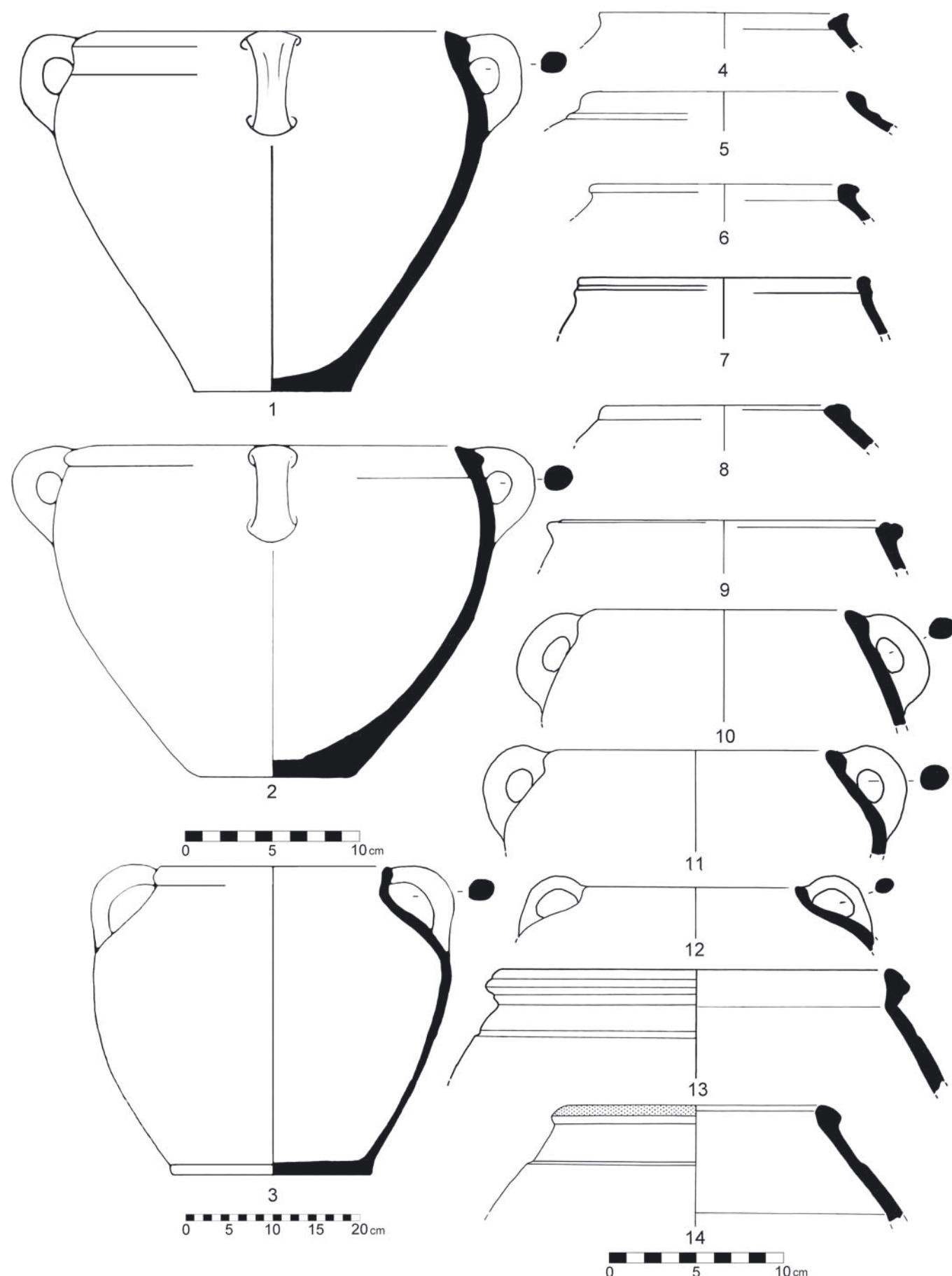


Fig. 195 Pottery from Phase XIV, Area 7

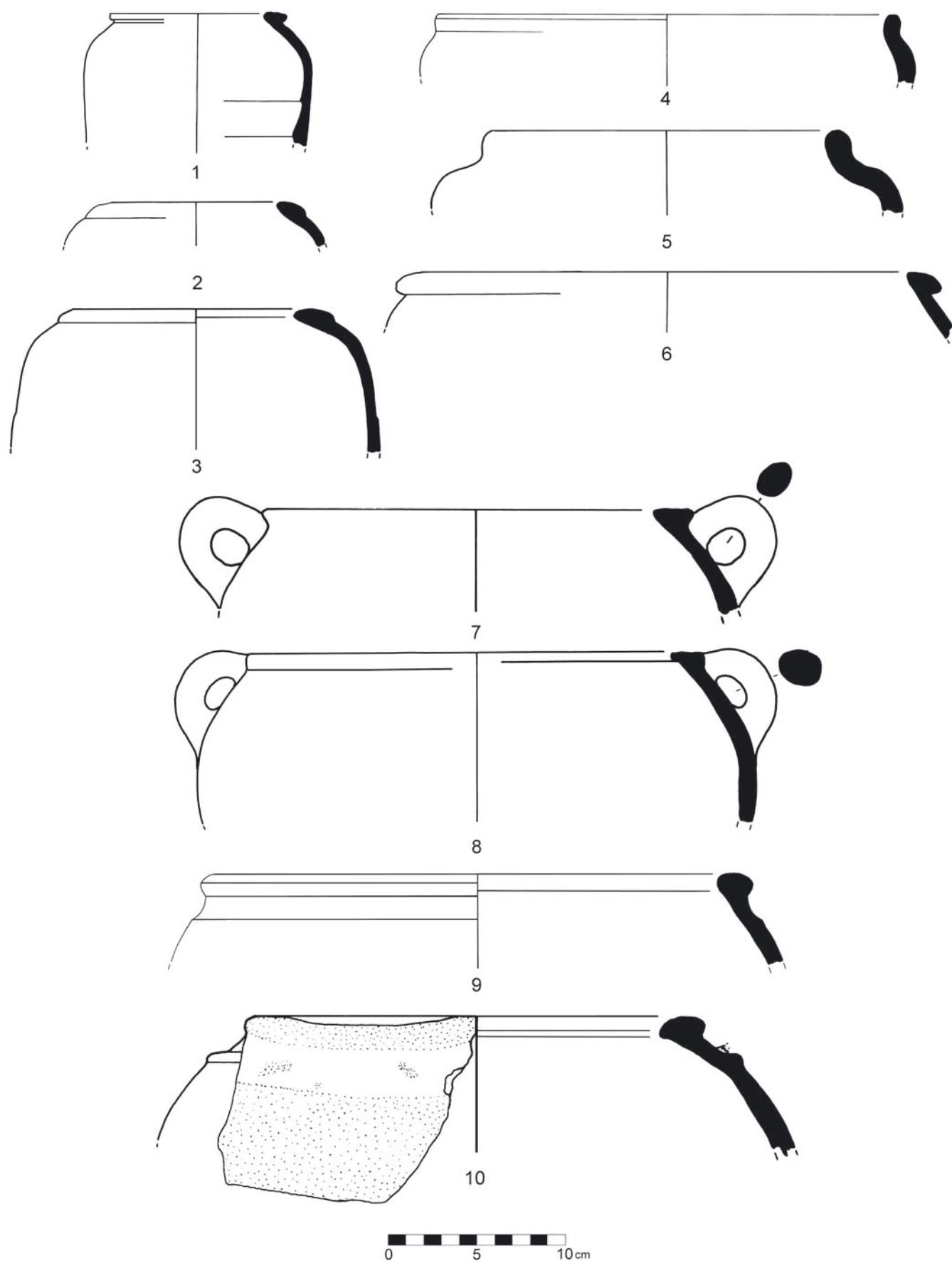


Fig. 196 Pottery from Phase XIV, Area 7

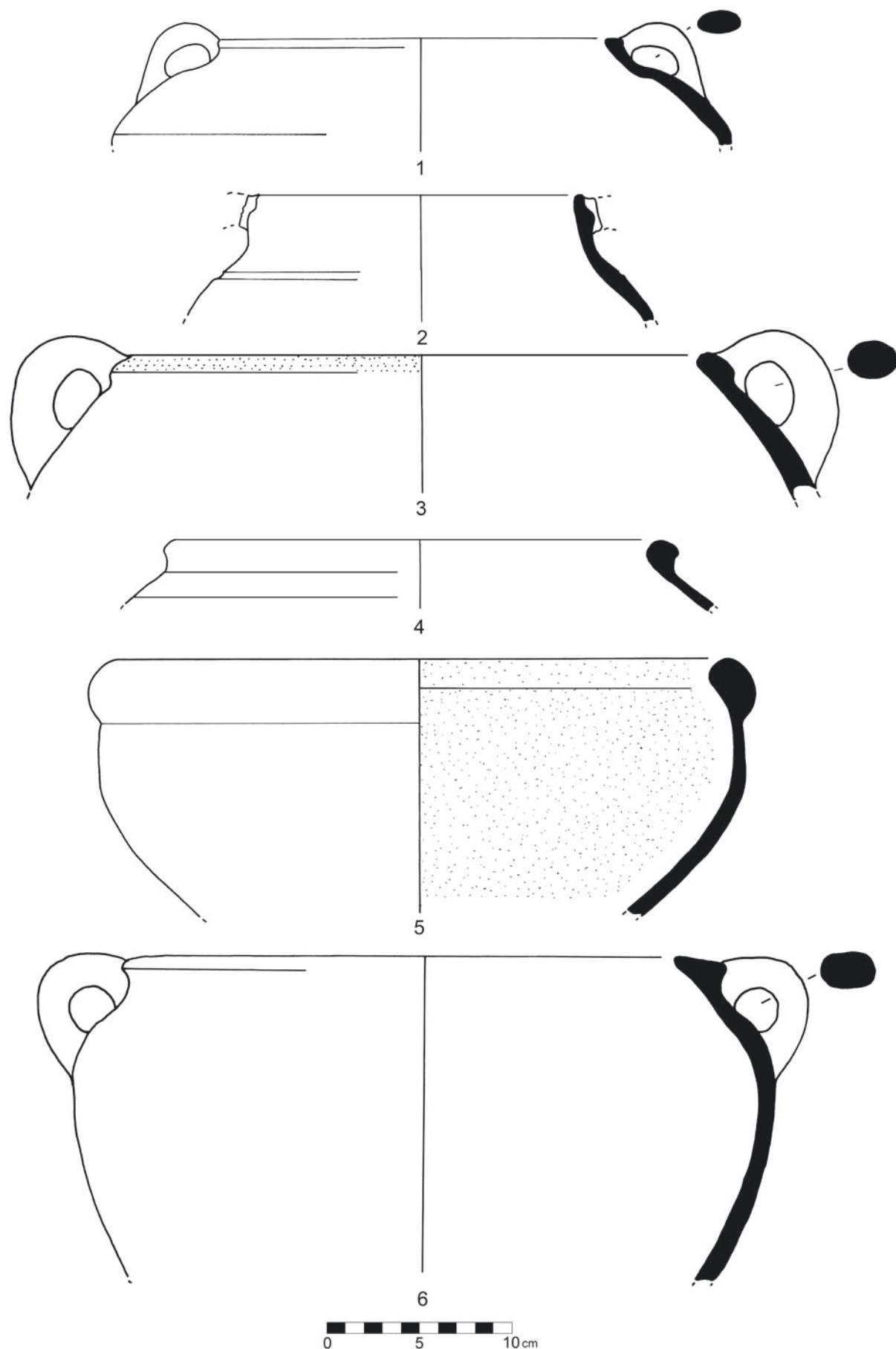


Fig. 197 Pottery from Phase XIV, Area 7

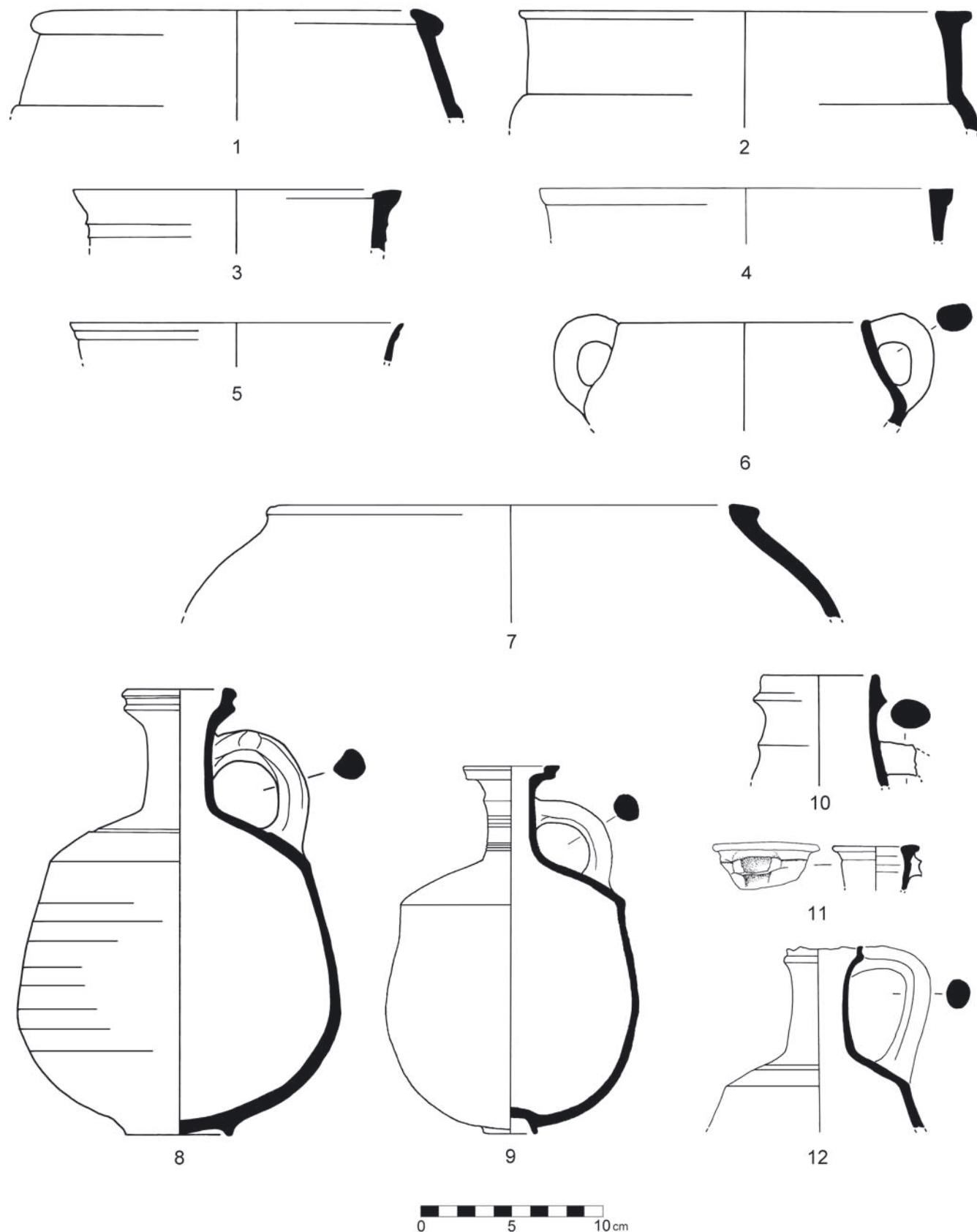


Fig. 198 Pottery from Phase XIV, Area 7

196:8 371	-1	Krater, medium-hard-fired, light brown fabric, light grey core, fine with a few coarse inclusions, light yellowish-brown slip.
196:9 32	-2	Krater, medium-hard-fired, light brown fabric, brown core, medium-coarse, mainly grey and black inclusions, orangish-brown slip; small neck ridge.
196:10 160	-1	Krater, medium-hard-fired, light brown fabric, light brown core, medium-coarse, mainly grey and black inclusions, orangish-brown slip, traces of red wash; neck ridge.

Legend for the illustrated pottery from Phase XIV,
Area 7

Fig.	Locus No.	Description
197:1	431 -1/2	Krater, hard-fired, light brown fabric, grey core, coarse, multicoloured inclusions, yellow slip.
197:2	483 -3	Krater, hard-fired, light-brownish-red fabric, thick dark grey core, medium-coarse, mainly white inclusions, self slip; incision on neck.
197:3	W579 -1	Krater, hard-fired, light brown fabric, medium-coarse, mainly black and white inclusions, yellow slip, traces of red paint on rim exterior.
197:4	472 -3	Krater, medium-hard-fired, light-greyish-brown fabric, grey core, coarse, mainly black inclusions, yellow slip, red paint on rim.

197:5	134	-2	Krater, hard-fired, greyish-brown fabric, medium-coarse, mainly white inclusions, yellow slip, traces of burnish interior.
197:6	441	-1	Krater, hard-fired, brownish-red fabric, medium-coarse, multicoloured inclusions, self slip.

Legend for the illustrated pottery from Phase XIV,
Area 7

Fig.	Locus No.	Description
198:1	427 -2	Krater, hard-fired, light brownish-red fabric, grey core, medium-coarse, mainly black inclusions, light yellowish-red slip.
198:2	438 -1	Krater, medium-hard-fired, light red fabric, thick grey core, medium-coarse, multicoloured inclusions, light orangish-red slip.
198:3	427 -3	Krater, hard-fired, light brown fabric, grey core, medium-fine, yellow slip, red wash on exterior.
198:4	418 -1	Krater, hard-fired, light reddish-brown fabric, light brown core, medium-fine, a few large inclusions, light orangish-yellow slip, traces of red paint on rim.
198:5	448 -3	Krater (or large bowl), medium-hard-fired, dark grey fabric exterior, brownish-red fabric interior, medium-fine, light reddish-brown slip.
198:6	483 -2	Krater, hard-fired, brown fabric, medium-fine, light brown slip, red paint on rim and parts on exterior.



Fig. 199 Jugs/decanters N1078 (left) and N731, Phase XIV, Area 7

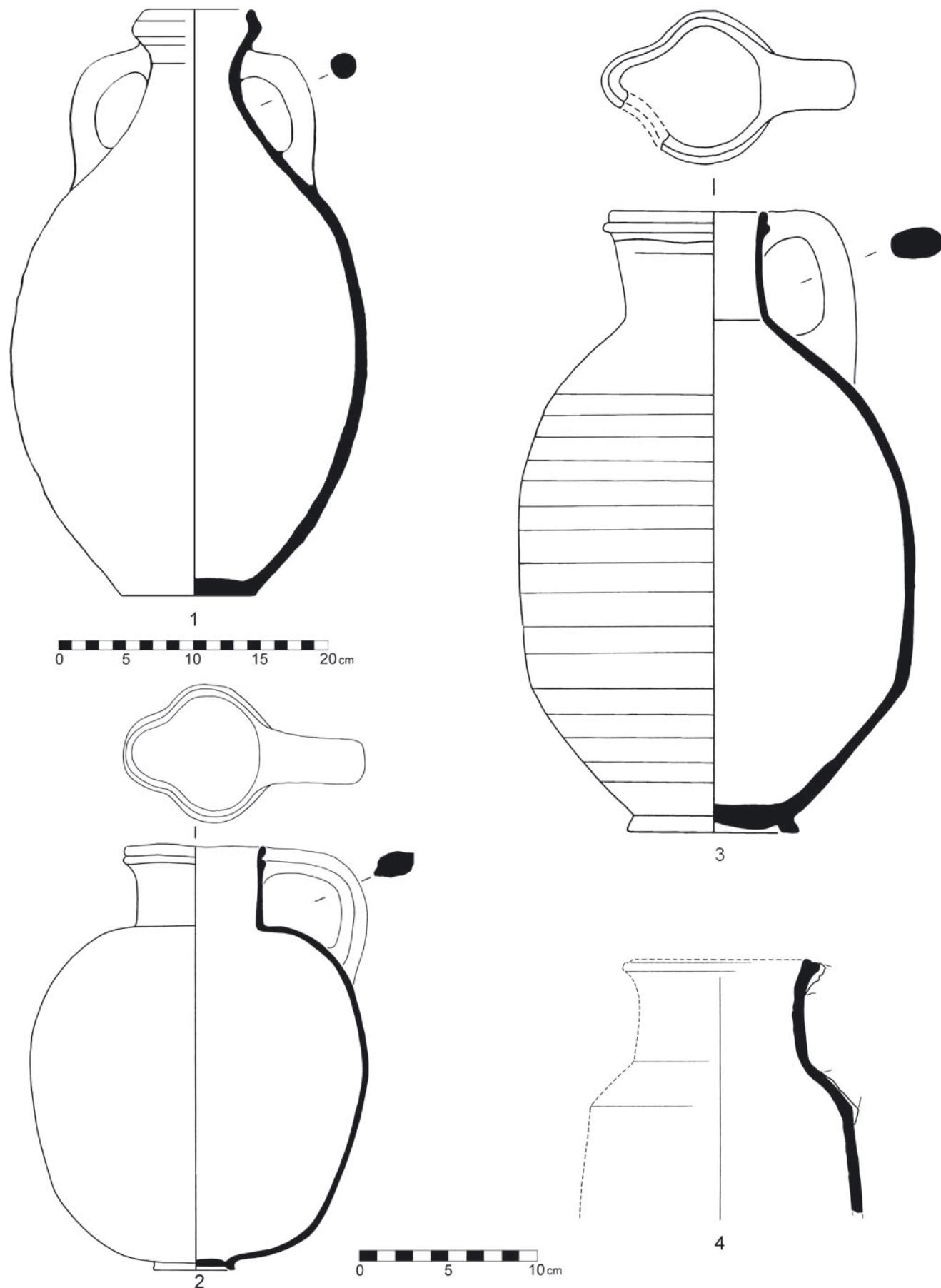


Fig. 200 Pottery from Phase XIV, Area 7

- 198:7 491 -2 Krater, hard-fired, greyish-brown fabric, coarse, mainly grey inclusions, self slip.
- 198:8 129 N1078 Jug-decanter, hard-fired, grey fabric, brown core, medium-fine, mainly white inclusions, self slip; incisions on shoulder (see Fig. 199 left).
- 198:9 45 N731 Jug-decanter, hard-fired, light greyish-brown fabric, medium-fine, brownish-red slip; incisions on neck (see Figs. 199 right and 458:2).
- 198:10 335 -3 Jug-decanter, hard-fired, light greyish-brown fabric, medium-coarse, multicoloured inclusions, yellow slip; neck ridge.
- 198:11 155 -1 Jug-decanter, hard-fired, light brownish-red fabric, medium-coarse, mainly white inclusions, light brown slip.
- 198:12 W164 -1 Jug-decanter, hard-fired, dark orangish-red fabric, light grey core, very fine, light brown slip; incisions on shoulder.

Legend for the illustrated pottery from Phase XIV,
Area 7

- | Fig. | Locus No. | Description |
|-------|-----------|---|
| 200:1 | 375 | N1207 Jug with two handles, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, light red slip (see Fig. 201). |
| 200:2 | 42 | N730 Jug, hard-fired, reddish-brown fabric, grey core, medium-fine, pinkish-yellow slip; jug contained 41 <i>astragals</i> (see also Figs. 187B and 458:4). |
| 200:3 | 12 | N659 Jug with trefoil mouth and one handle, hard-fired, dark orangish-brown fabric, coarse, thick light orangish-brown slip (see Fig. 202). |
| 200:4 | 45 | N909 Jug-decanter with wide neck and mouth, hard-fired, reddish-brown fabric, medium-coarse, multicoloured inclusions, orangish-brown slip. |

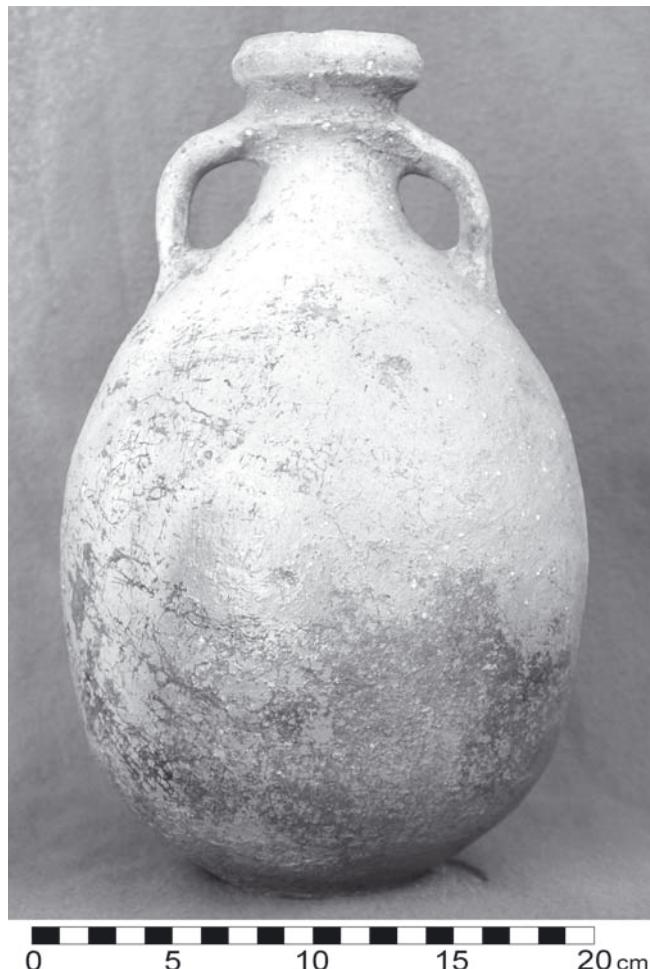


Fig. 201 Jug N1207 from Phase XIV, Area 7

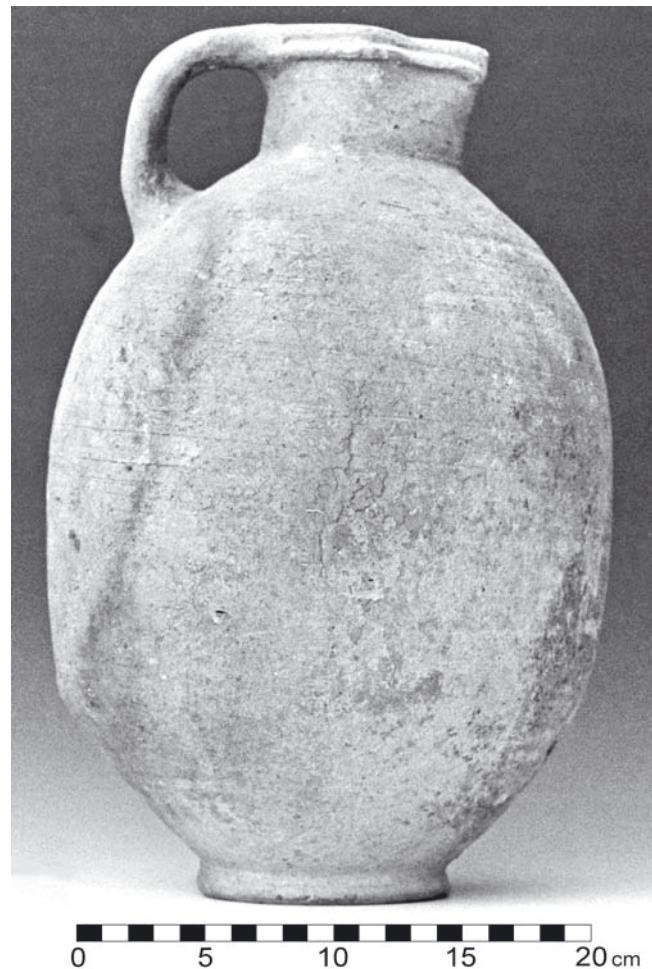


Fig. 202 Jug N659 from Phase XIV, Area 7

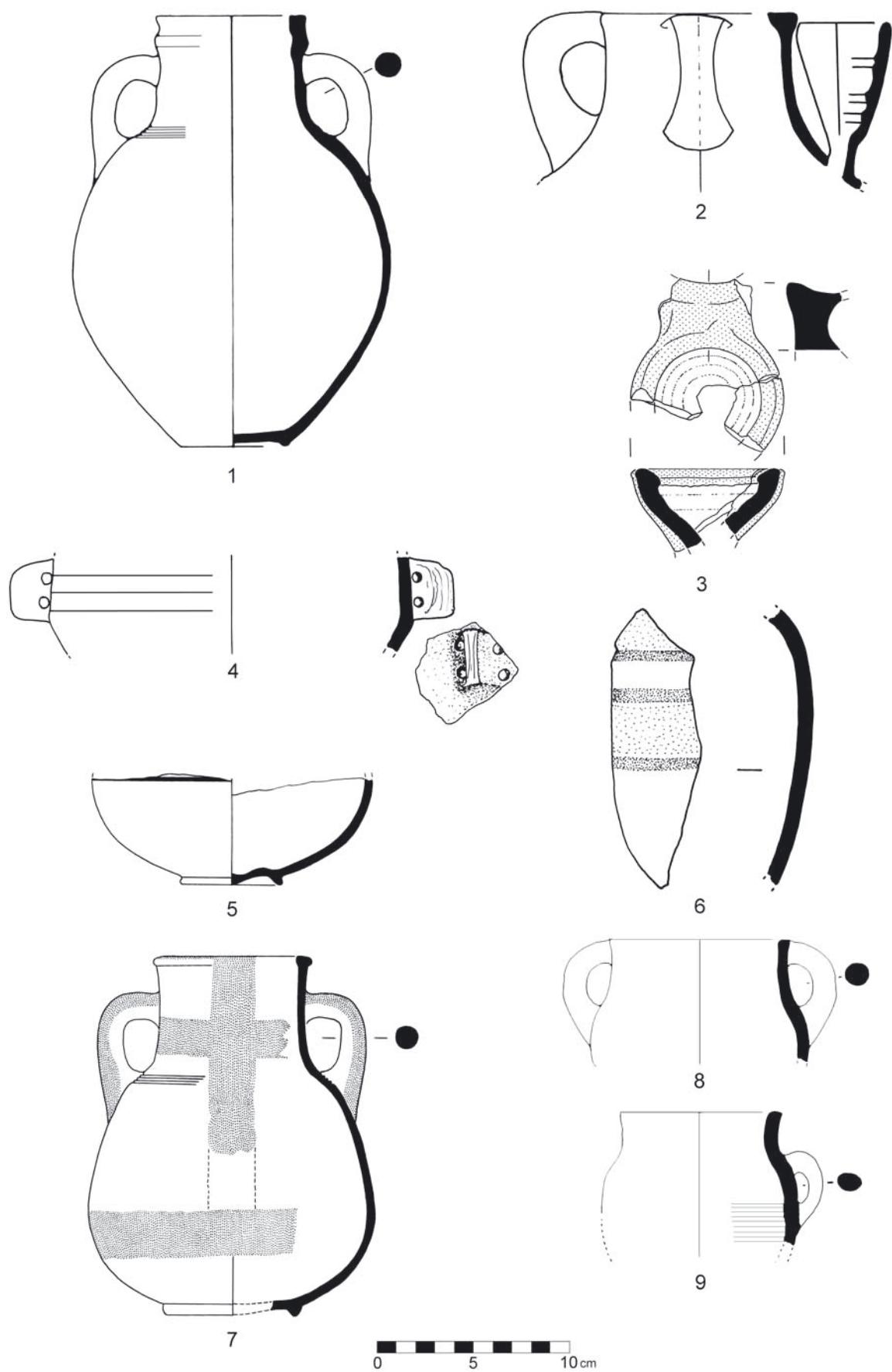


Fig. 203 Pottery from Phase XIV, Area 7

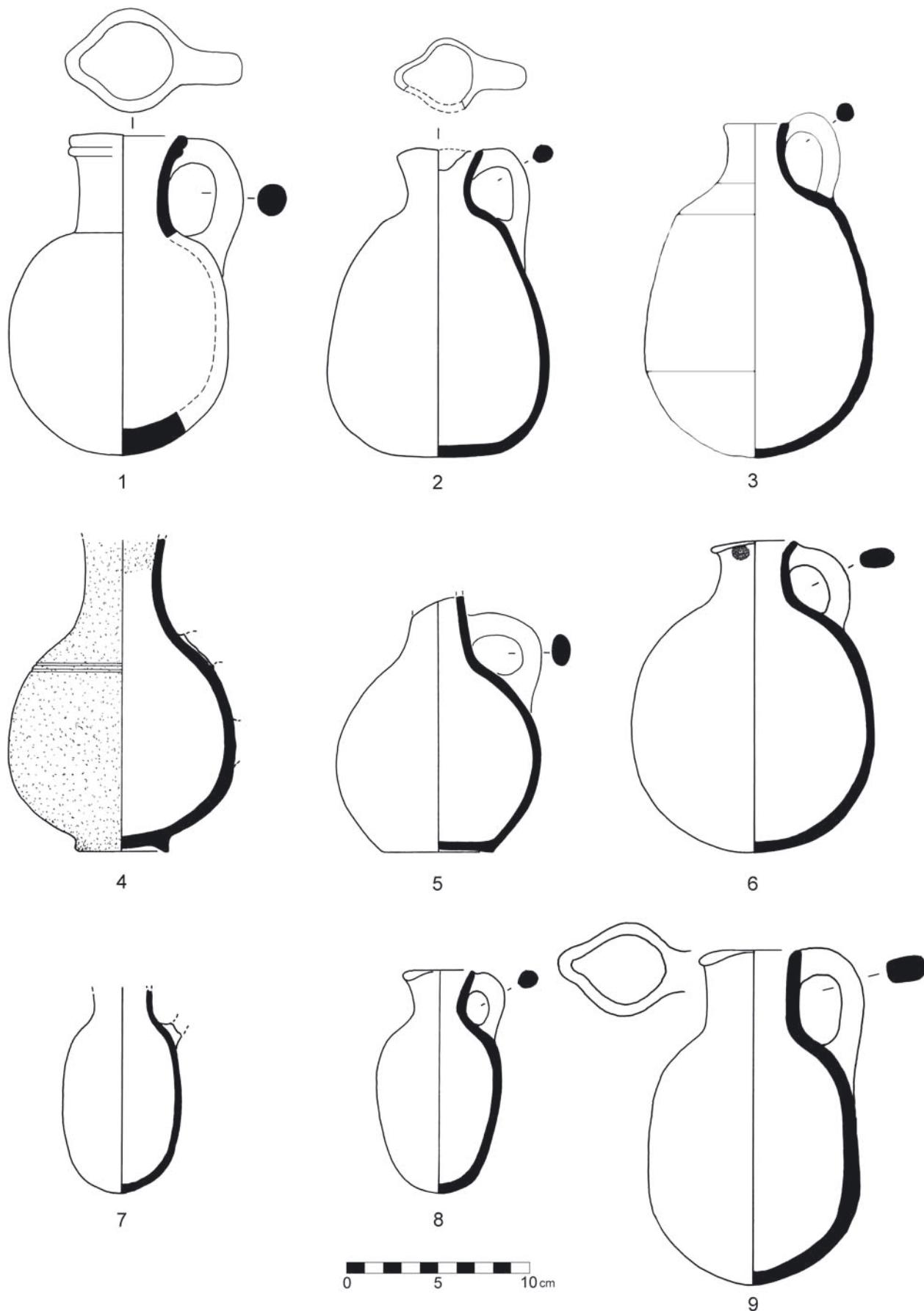


Fig. 204 Pottery from Phase XIV, Area 7

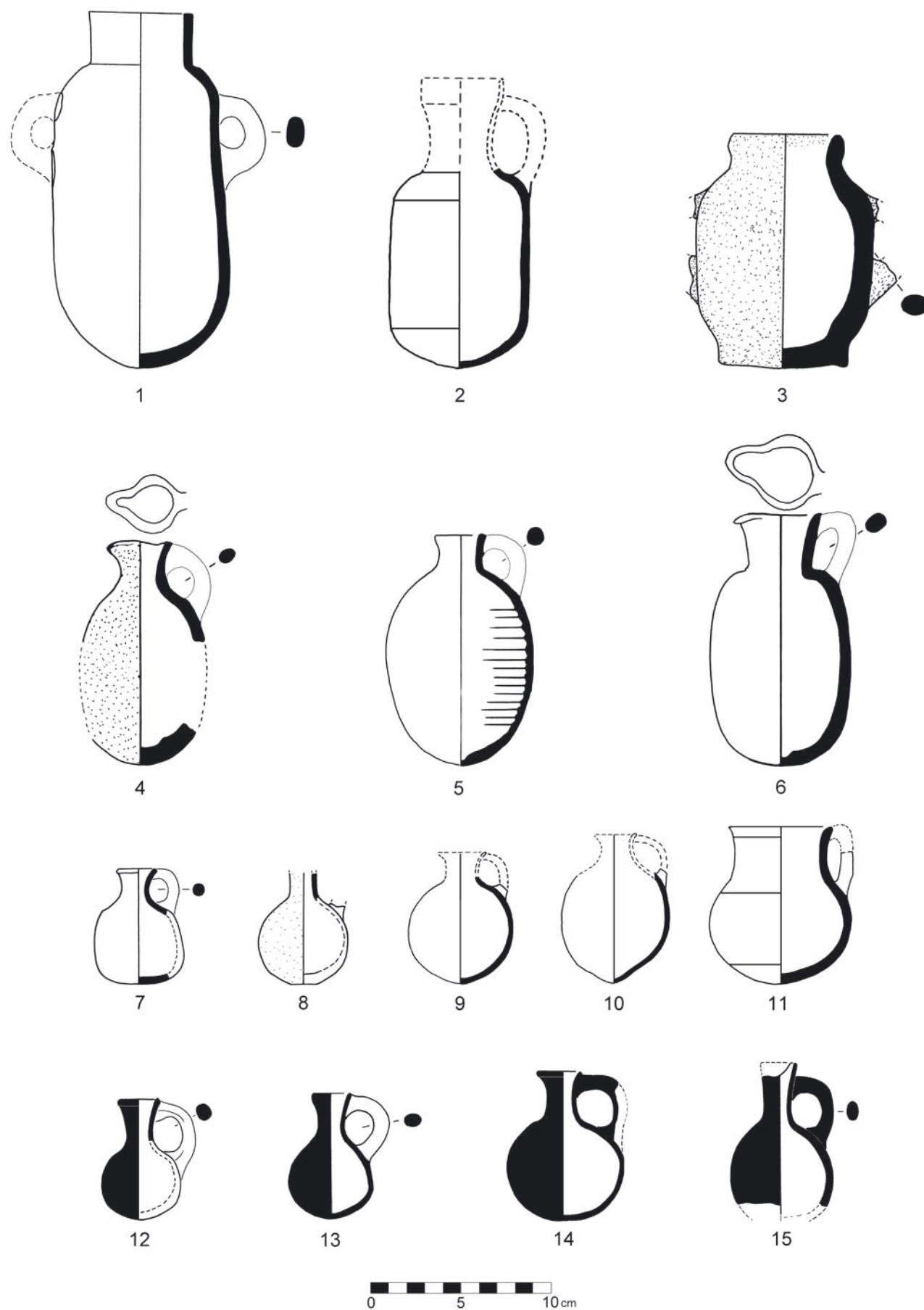


Fig. 205 Pottery from Phase XIV, Area 7

Legend for the illustrated pottery from Phase XIV,
Area 7

Fig.	Locus No.	Description
203:1	380	N1227 Jug, hard-fired, dark grey fabric, medium-coarse, mainly white inclusions, self slip.
203:2	360	-1 Jug with attached spout, hard-fired, light brownish-red fabric, light red core, medium-fine, light greyish-yellow slip; traces of burnish.
203:3	32	N679 Jug, spout, hard-fired, orange fabric, greyish-brown core, coarse, grey and black inclusions, self slip, red paint on lip and exterior.
203:4	483	-4 Jug(?), wheel-made/hand-made, light brown fabric exterior, grey fabric interior, medium-fine, light red slip; double-pierced handles.
203:5	45	-1 Jug, hard-fired, reddish-brown fabric, coarse, mainly white inclusions, self slip, burnished to a high lustre; Phoenician import.
203:6	151	-1 Jug, hard-fired, yellowish-brown fabric, grey core, medium-coarse, mainly black inclusions, light yellow slip, light brown and dark brown decoration.
203:7	6	N665 Jug with two handles, medium-hard-fired, light red fabric, medium-fine, some grey inclusions, thin orange slip, brown decoration; incisions on shoulder; copy of Phoenician jug (import?).
203:8	354	-3 Juglet, hard-fired, light brown fabric, medium-fine, light greyish-orange slip.
203:9	381	-1 Juglet, medium-hard-fired, light brown fabric, coarse, mainly grey inclusions, yellowish-brown slip.

Legend for the illustrated pottery from Phase XIV,
Area 7

Fig.	Locus No.	Description
204:1	40	N742 Juglet with trefoil mouth, medium-hard-fired, greyish-brown fabric, coarse, white inclusions, self slip; possible traces of black paint (see Fig. 206).
204:2	10	N627 Juglet with trefoil mouth, hard-fired, light brown fabric, medium-coarse, thin yellowish-brown slip (see Fig. 207).
204:3	353	N1202 Juglet, hard-fired, light brown fabric, coarse, mainly white inclusions, pinkish-yellow slip.
204:4	130	N1082 Juglet, medium-hard-fired, light brown fabric, fine, yellow slip, red paint; incisions on shoulder.
204:5	40	N698 Juglet, medium-hard-fired, yellowish-grey fabric, medium-fine, traces of red slip.
204:6	418	N1255 Juglet, hard-fired, light brown fabric, medium-fine, yellow slip, impressed decoration in the shape of an eye.
204:7	420	N1264 Juglet (shaved), hard-fired, light brown fabric, grey core, medium-coarse, mainly white inclusions, self slip, vertically burnished.

204:8	471	N1278 Juglet, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, self slip.
204:9	471	N1282 Juglet, medium-hard-fired, light greyish-brown fabric, coarse, mainly white inclusions, self slip (see Fig. 207).

Legend for the illustrated pottery from Phase XIV,
Area 7

Fig.	Locus No.	Description
205:1	40	N741 Juglet with two handles, hard-fired, light yellowish-brown fabric, coarse, white inclusions, light brown slip (see Fig. 206).
205:2	375	N1208 Juglet, medium-soft-fired, light brown fabric, coarse, multicoloured inclusions, light orangish-brown slip.
205:3	130	N1083 Juglet with two handles, hard-fired, brown fabric, fine, self slip, red paint.
205:4	361	-3 Juglet, medium-hard-fired, light brown fabric, medium-fine with a few coarse inclusions, self slip, red paint on exterior and on interior of rim.
205:5	334	N1175 Juglet, hard-fired, brownish-yellow fabric, fine, self slip, vertically hand-burnished.
205:6	336	N1183 Juglet, medium-hard-fired, brownish-grey fabric, grey core, medium-coarse, multicoloured inclusions, yellow slip, red paint.
205:7	42	N740 Juglet, medium-hard-fired, greyish-brown fabric, medium-fine inclusions, self slip, red wash (Fig. 207).
205:8	125	N1063 Juglet, hand-made, medium-hard-fired, yellowish-brown fabric, fine, yellowish-brown slip, hand-burnished.
205:9	381	N1236 Juglet, medium-hard-fired, light pinkish-brown fabric, fine, yellowish-pink slip, traces of red paint on handle and body.
205:10	380	N1221 Juglet, hard-fired, reddish-grey fabric, fine, yellowish-grey slip.
205:11	380	N1220 Juglet, medium-hard-fired, light reddish-brown fabric, medium-coarse, multicoloured inclusions, reddish-brown slip.
205:12	101	N906 Black Juglet, hard-fired, greyish-brown fabric, medium-fine, thick black slip, vertically burnished (see also Fig. 249 right).
205:13	491	N1293 Black Juglet, hard-fired, dark grey fabric, medium-fine, multicoloured inclusions, black slip, randomly hand-burnished.
205:14	10	N626 Black Juglet, medium-hard-fired, greyish-black fabric, light grey core, medium-fine, some white inclusions, black slip, vertically burnished (see Fig. 206).
205:15	6	N675 Black Juglet, medium-hard-fired, greyish-black fabric, medium-fine, black slip, vertically burnished (see Fig. 206).



Fig. 206 Juglets from Phase XIV, Area 7; from left: N626, N675, N741 and N742



Fig. 207 Juglets from Phase XIV, Area 7, left upper: N740; left lower: N627 and right: N1282.

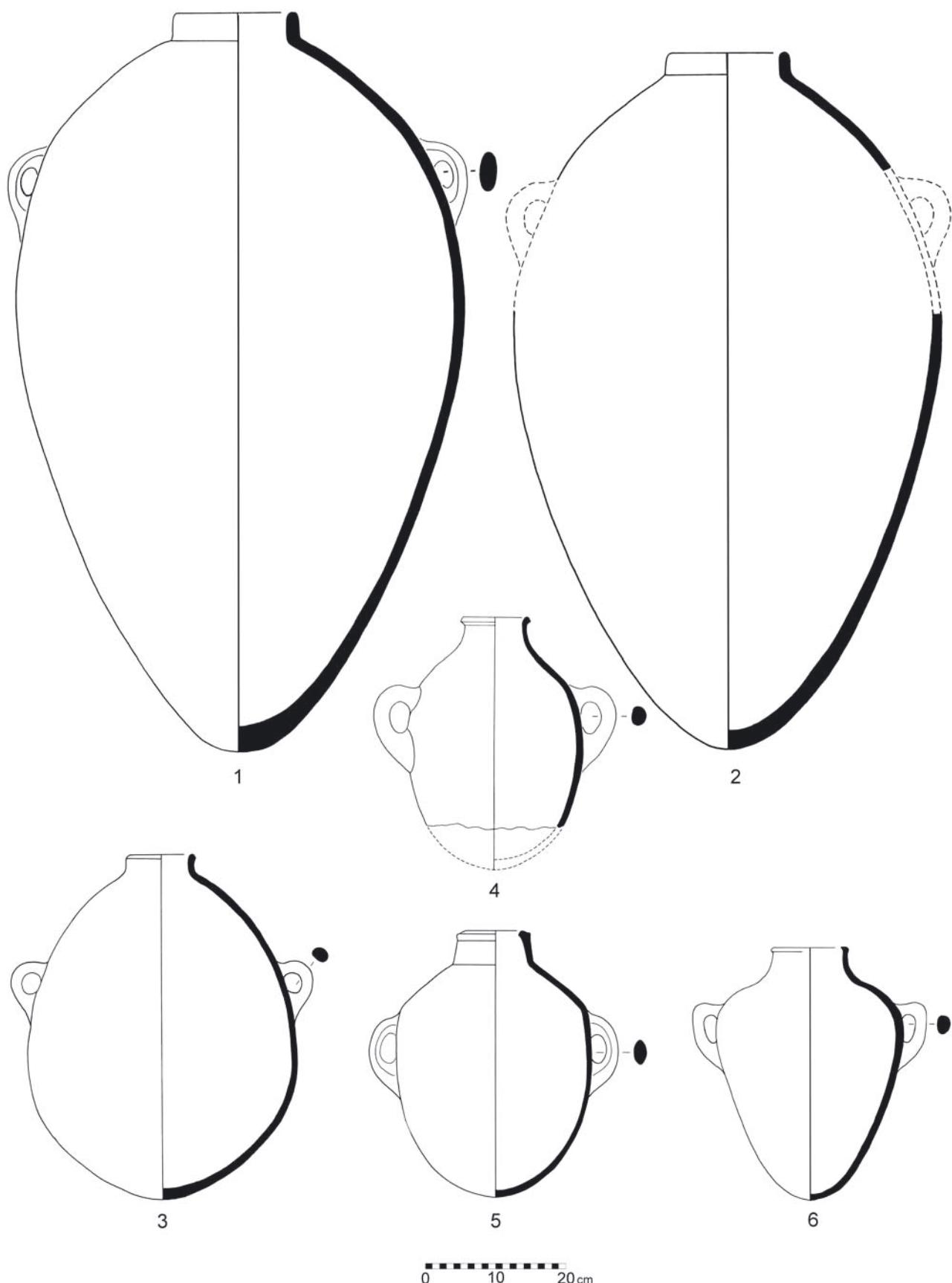


Fig. 208 Pottery from Phase XIV, Area 7

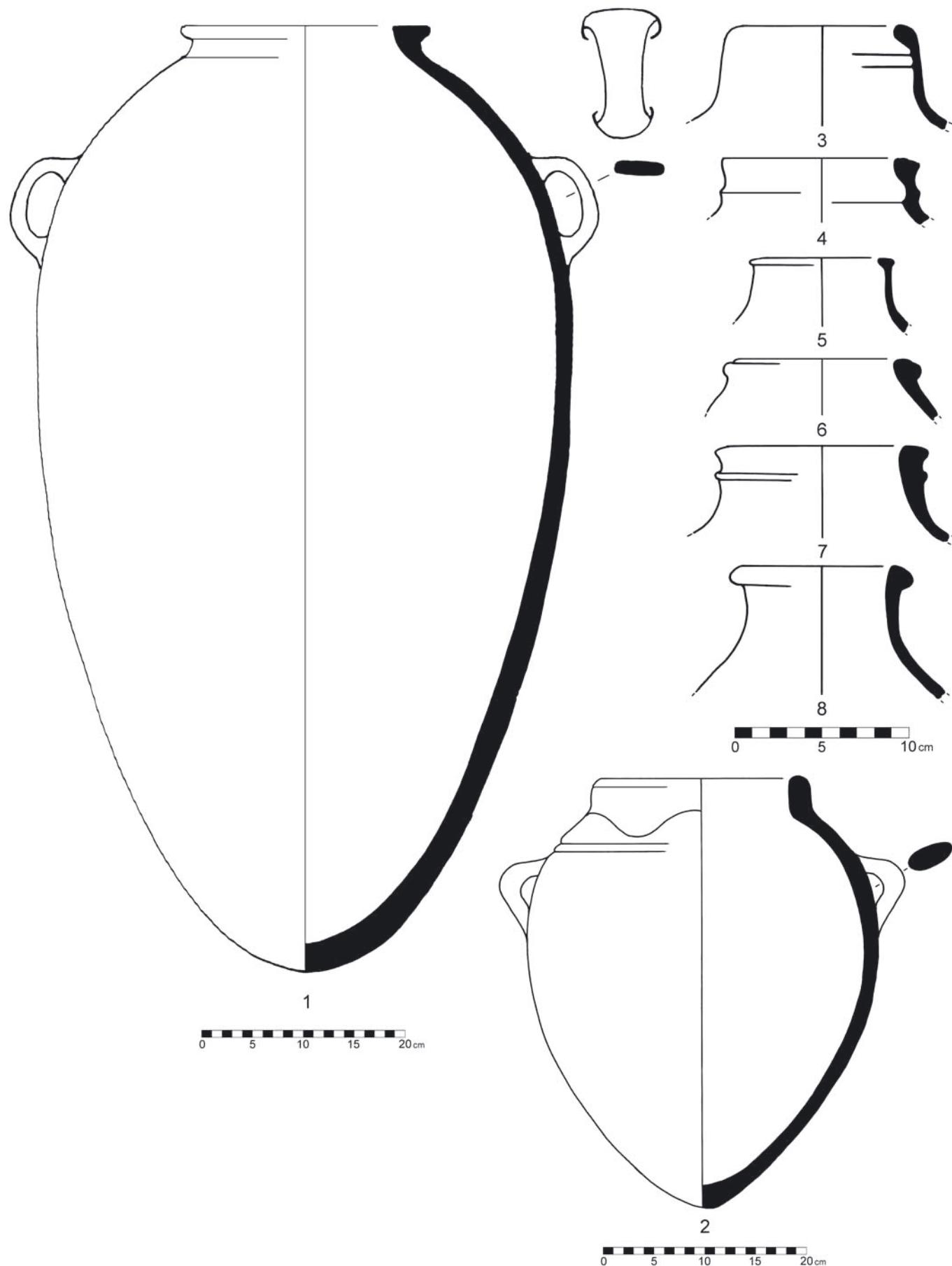


Fig. 209 Pottery from Phase XIV, Area 7

Legend for the illustrated pottery from Phase XIV,
Area 7

Fig.	Locus No.	Description
208:1	10	N629 Storage jar, medium-hard-fired, brownish-grey fabric, thick dark grey core, coarse, mainly white inclusions, self slip.
208:2	10	N628 Jar, medium-hard-fired, reddish-brown fabric, thick dark grey core, coarse, mainly white inclusions, self slip.
208:3	11	-2 Jar, hard-fired, brown fabric, grey core, medium-coarse, mainly white inclusions, thick creamy-white/pinkish-orange slip.
208:4	11	N660 Jar, hard-fired, orangish-brown fabric, grey core, medium-fine, grey inclusions, self slip.
208:5	12	N661 Jar, hard-fired, greyish-brown fabric, coarse, grey and black inclusions, light brown slip.
208:6	353	N1195 Jar, very hard-fired, dark grey fabric, medium-coarse, multicoloured inclusions, light yellowish-brown slip.

Legend for the illustrated pottery from Phase XIV,
Area 7

Fig.	Locus No.	Description
209:1	366	N1201 Storage jar, medium-hard-fired, light brown fabric, coarse, multicoloured inclusions, self slip.
209:2	471'	N1281 Storage jar, hard-fired, light brown fabric, greyish-brown core, coarse, mainly black inclusions, self slip; incised wavy line on shoulder; incised wavy and straight lines on shoulder.
209:3	364	-1 Storage jar, hard-fired, light reddish-brown fabric, light brown core, coarse, multicoloured inclusions, light yellowish-brown slip.
209:4	360	-5 Jar, hard-fired, red fabric, reddish-brown core, fine, light bluish-grey slip; neck ridge.
209:5	353	-2 Jar, very hard-fired, light yellowish grey fabric, thick black core, coarse, mainly white inclusions, light yellowish-grey slip possibly mixed up with salt water (?).
209:6	360	-6 Jar, medium-hard-fired, light brown fabric, grey core, medium-coarse, mainly grey inclusions, light yellowish-brown slip.
209:7	336	-5 Jar, hard-fired, light brown fabric, thick grey core, coarse, mainly white inclusions, light greyish-yellow slip; neck ridge.
209:8	361	-2 Jar, hard-fired, light brown fabric, coarse, mainly grey inclusions, light yellowish-brown slip.

Legend for the illustrated pottery from Phase XIV,
Area 7

Fig.	Locus No.	Description
210:1	147	-1 Storage jar, hard-fired, light brown fabric, thick grey core, coarse, mainly white inclusions, light brown slip; neck ridge.
210:2	130	-1/1 Jar, very hard-fired, reddish-brown fabric, thick grey core, coarse, mainly white inclusions, light yellow slip; neck ridge.
210:3	130	-1/2 Jar, medium-hard-fired, light yellowish-red fabric, coarse, mainly black inclusions, self slip; neck ridge.
210:4	134	-1 Jar, hard-fired, light brown fabric, coarse, multicoloured inclusions, self slip; neck ridge.
210:5	418	-3 Jar, hard-fired, light brownish-yellow fabric, medium-coarse, multicoloured inclusions, thick yellowish-white slip.
210:6	418	-7 Jar, medium-hard-fired, light yellowish-red fabric, coarse, mainly black inclusions, self slip.
210:7	420	-1 Jar, hard-fired, reddish-brown fabric, grey core, medium-coarse, mainly white inclusions, light yellow slip.
210:8	418	-2 Jar, medium-hard-fired, greyish-brown fabric, coarse, mainly grey inclusions, self slip.
210:9	418	-5 Jar, hard-fired, brownish-red fabric, medium-coarse, mainly black inclusions, light yellowish-red slip.
210:10	381	-5 Jar, medium-hard-fired, light greyish-brown fabric, coarse, mainly grey inclusions, light grey slip.
210:11	381	-6 Jar, medium-hard-fired, yellowish-brown fabric, coarse, multicoloured inclusions, yellowish-red slip.
210:12	391	-2 Jar, medium-hard-fired, yellowish-brown fabric, coarse, multicoloured inclusions, yellowish-red slip.
210:13	348	-2 Jar, hard-fired, light brown fabric, thick dark grey core, coarse, mainly white inclusions, light yellowish-brown slip.
210:14	361	-4 Jar, medium-hard-fired, light brown fabric, coarse, mainly black inclusions, light yellowish-brown slip.
210:15	360	-4 Storage jar with collar, hard-fired, light brownish-red fabric, thick grey core, coarse, mainly white inclusions, light yellowish-brown slip; neck ridges.
210:16	380	-1 Jar, hard-fired, light greyish-brown fabric, light grey core, medium-coarse, multicoloured inclusions, light greyish-brown slip; neck ridge.
210:17	342	-1 Storage jar with collar, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, light red slip; neck ridge.

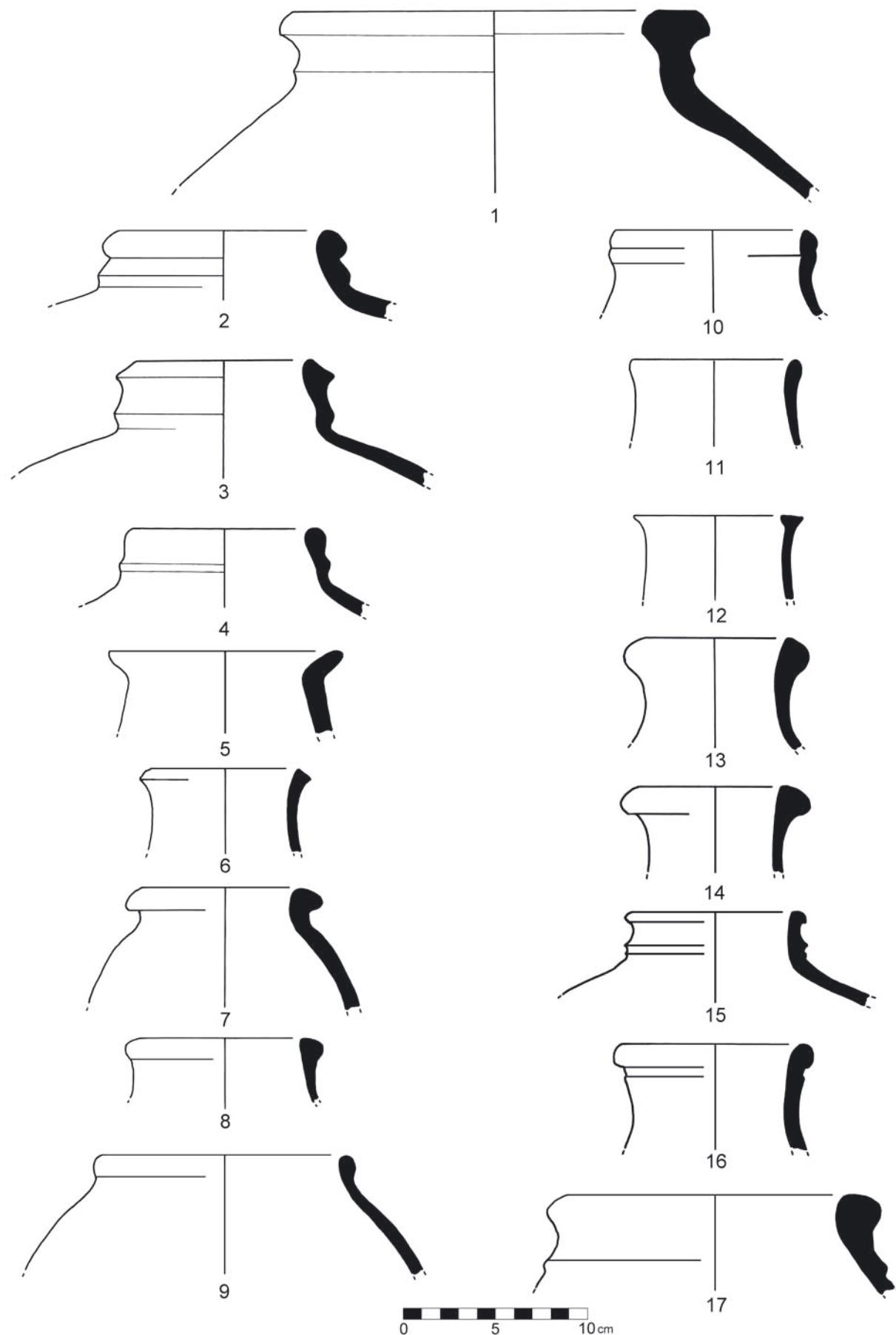


Fig. 210 Pottery from Phase XIV, Area 7

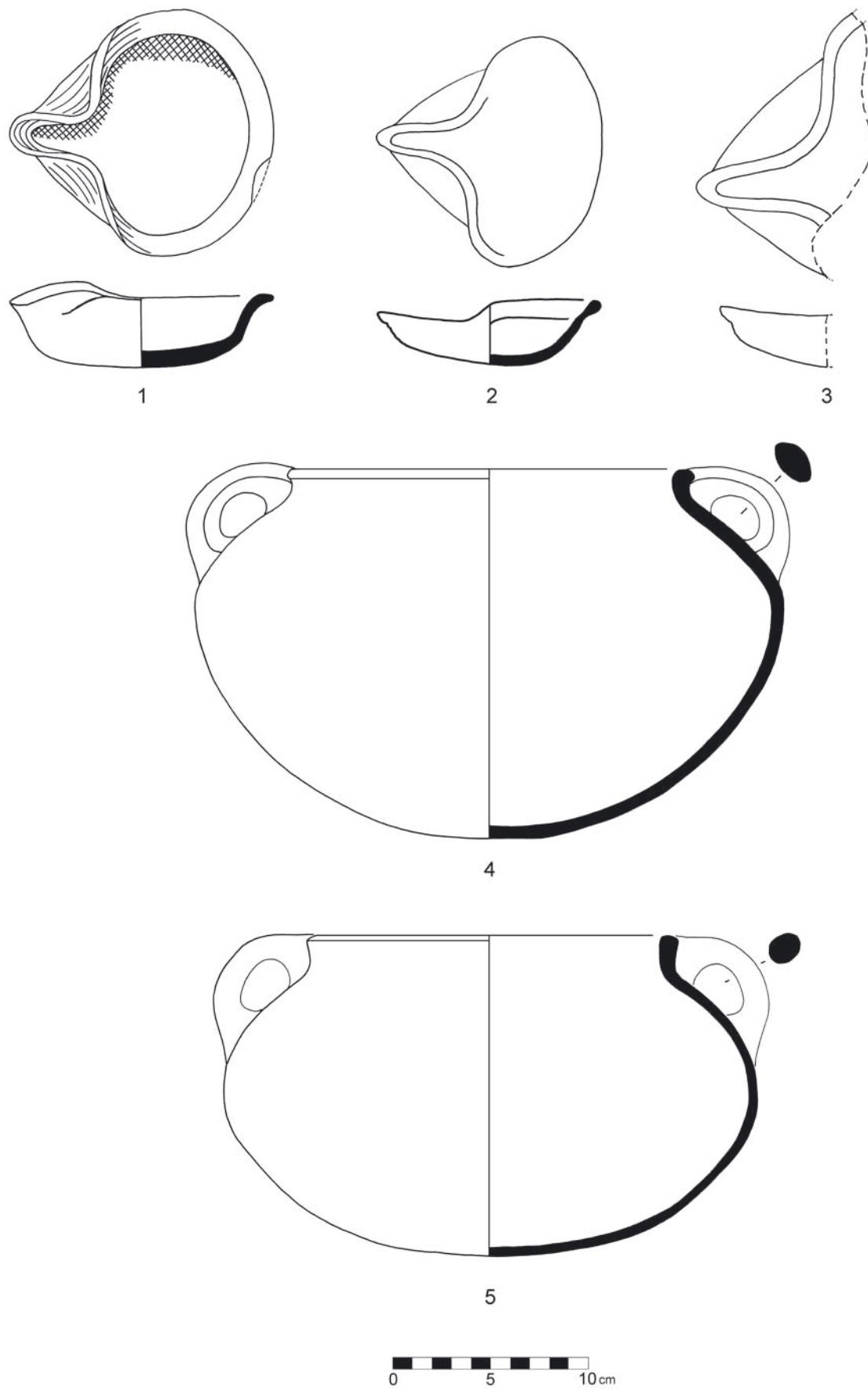


Fig. 211 Pottery from Phase XIV, Area 7

**Legend for the illustrated pottery from Phase XIV,
Area 7**

Fig. Locus No. Description

- | | | | |
|-------|-----|------|---|
| 211:1 | 40 | N738 | Lamp, medium-hard-fired, greyish-brown fabric, coarse, mainly white inclusions, self slip (see also Fig. 212, right). |
| 211:2 | 336 | -1 | Lamp, hard-fired, light red fabric, medium-fine, white inclusions, self slip, soot around mouth. |
| 211:3 | 365 | -1 | Lamp, hard-fired, reddish-brown fabric, fine, light-yellowish-red slip, traces of soot. |
| 211:4 | 42 | N696 | Cooking pot, hard-fired, reddish-brown fabric, coarse, white inclusions, self slip. |
| 211:5 | 12 | N676 | Cooking pot, medium-hard-fired, brownish-grey fabric, brown core, coarse, multicoloured inclusions, self slip. |

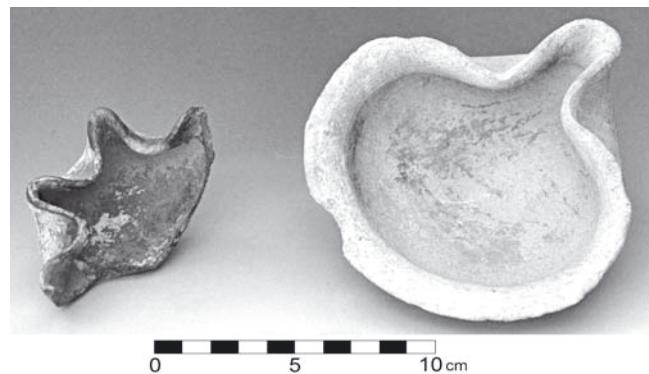


Fig. 212 Lamps from Phase XIV, Area 7: N734 (description below) and N738

**Legend for the illustrated pottery from Phase XIV,
Area 7**

Fig. Locus No. Description

- | | | | |
|-------|-----|------|---|
| 213:1 | 147 | -3 | Cooking pot, hard-fired, reddish-brown fabric, coarse, white inclusions, self slip. |
| 213:2 | 45 | N732 | Cooking pot, hard-fired, dark greyish-brown fabric, coarse, reddish-brown slip; ridge on shoulder (see Fig. 214). |
| 213:3 | 11 | N658 | Cooking pot, medium-hard-fired, reddish-brown fabric, coarse, black and grey inclusions, reddish-brown slip. |

**Legend for the illustrated pottery from Phase XIV,
Area 7**

Fig. Locus No. Description

- | | | | |
|-------|-----|----|---|
| 215:1 | 137 | -2 | Cooking pot, hard-fired, brown fabric, coarse, mainly white inclusions, self slip. |
| 215:2 | 99 | -1 | Cooking pot, hard-fired, greyish-brown fabric, grey core, medium-coarse, white inclusions, self slip. |

- | | | | |
|-------|-----|----|--|
| 215:3 | 125 | -1 | Cooking pot, hard-fired, brown fabric, thick grey core, coarse, white inclusions, self slip. |
| 215:4 | 151 | -2 | Cooking pot, hard-fired, brown fabric, thick grey core, coarse, white inclusions, self slip. |

**Legend for the illustrated pottery from Phase XIV,
Area 7**

Fig. Locus No. Description

- | | | | |
|-------|------|----|--|
| 216:1 | 125 | -2 | Cooking pot, hard-fired, brown fabric, thick grey core, coarse, white inclusions, self slip. |
| 216:2 | 501 | -1 | Cooking pot, medium-hard-fired, light brown fabric, thick black core, coarse, mainly white inclusions, self slip. |
| 216:3 | 448 | -2 | Cooking pot, medium-hard-fired, light reddish-brown fabric, coarse, mainly black and white inclusions, self slip. |
| 216:4 | 483 | -1 | Cooking pot, hard-fired, red fabric, medium-coarse, white and grey inclusions, red slip. |
| 216:5 | 501 | -3 | Cooking pot, medium-hard-fired, light reddish-brown fabric, grey core, coarse, mainly white inclusions, self slip. |
| 216:6 | W579 | -2 | Cooking pot, soft-fired, greyish-brown fabric, coarse, white and quartz inclusions, self slip. |

**Legend for the illustrated pottery from Phase XIV,
Area 7**

Fig. Locus No. Description

- | | | | |
|-------|-----|-------|--|
| 217:1 | 380 | N1216 | Cooking pot, hard-fired, reddish-brown fabric, coarse, mainly white inclusions, self slip. |
| 217:2 | 353 | N1203 | Cooking pot, medium-hard-fired, greyish-brown fabric, coarse, mainly white inclusions, self slip. |
| 217:3 | 370 | -1 | Cooking pot, medium-hard-fired, light brown fabric, grey core, medium-coarse, mainly sandy inclusions. |

**Legend for the illustrated pottery from Phase XIV,
Area 7**

Fig. Locus No. Description

- | | | | |
|-------|------|----|--|
| 218:1 | 390 | -5 | Cooking pot, hard-fired, brown fabric, grey core, coarse, mainly white inclusions, self slip. |
| 218:2 | 335 | -1 | Cooking pot, hard-fired, reddish-brown fabric, light grey core, coarse, multicoloured inclusions, self slip. |
| 218:3 | 315 | -1 | Cooking pot, hard-fired, reddish-brown fabric, grey core, coarse, self slip (possibly disturbed locus). |
| 218:4 | W562 | -1 | Cooking pot, medium-hard-fired, light brown fabric, thick greyish-brown core, medium-coarse, multicoloured inclusions, yellow slip, red paint. |

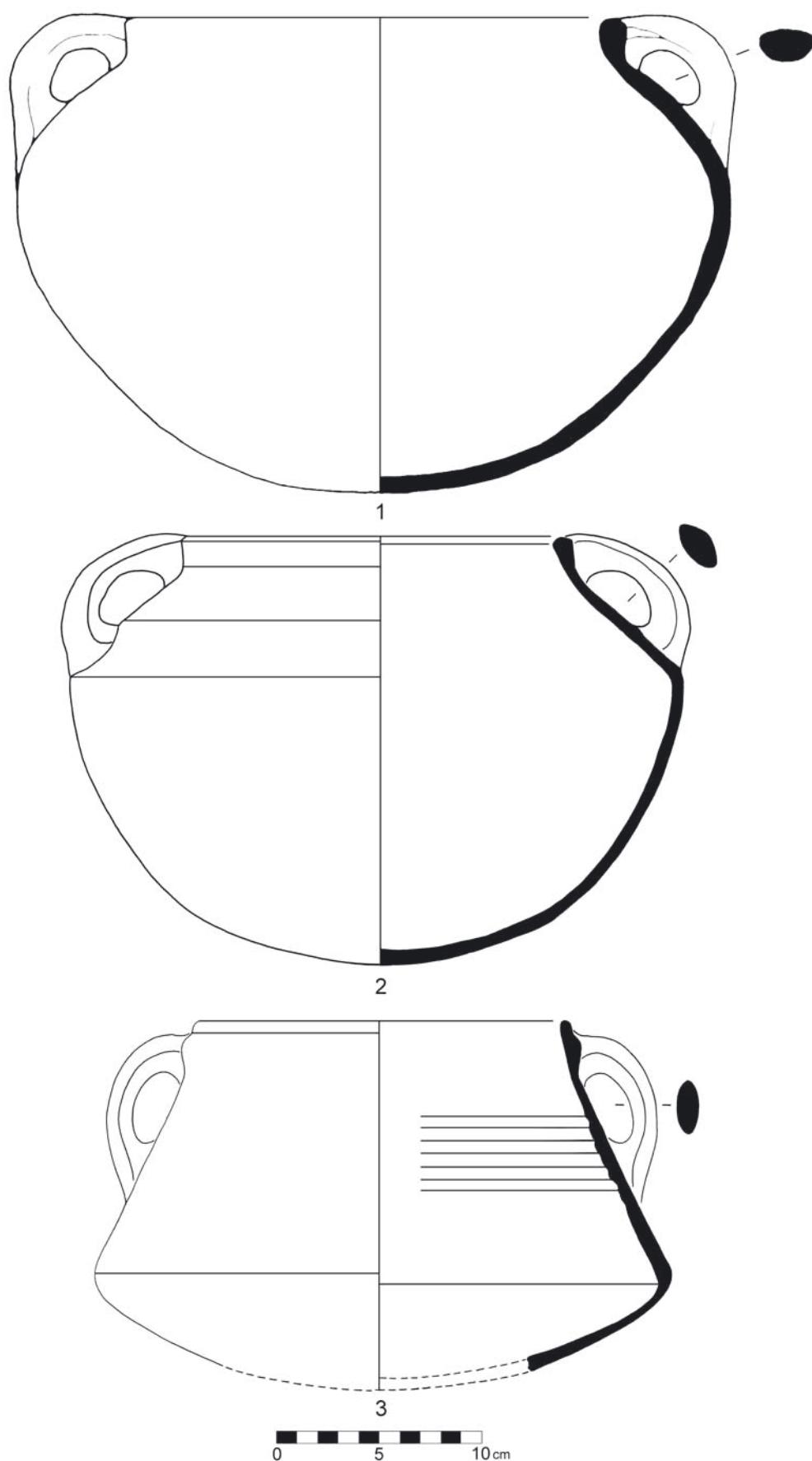


Fig. 213 Pottery from Phase XIV, Area 7



⇒ Fig. 214 Cooking pot N732 from Phase XIV, Area 7

- 218:5 380 N1241 Cooking pot, hard-fired, brownish-red fabric, coarse, white inclusions, self slip.
 218:6 335 -5 Cooking pot, hard-fired, light brown fabric, thick black core, coarse, mainly white inclusions, self slip.
 218:7 403 -1 Cypro-Geometric (BoR I) juglet, hard-fired, light yellowish-grey fabric, very fine, red slip, black decoration, burnished.

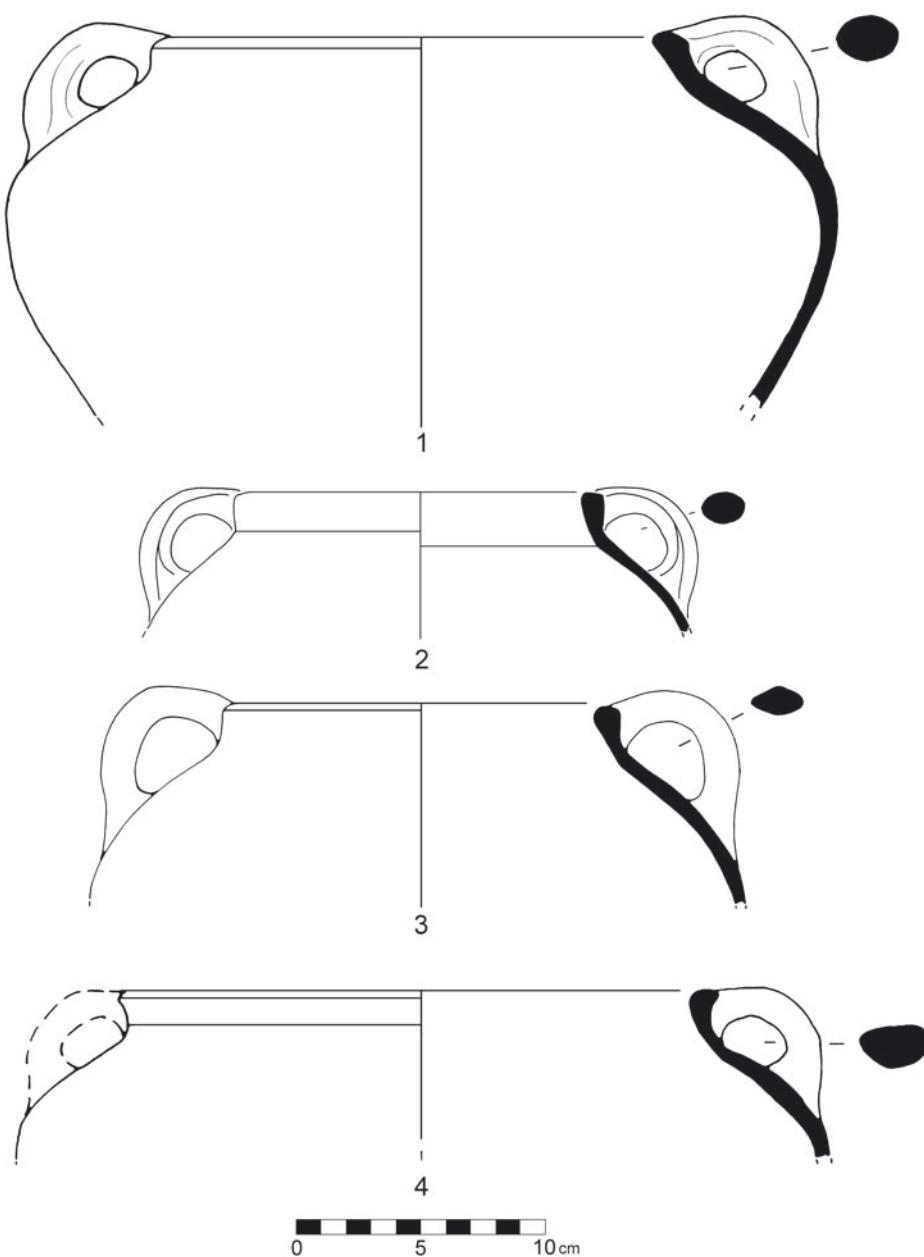


Fig. 215 Pottery from Phase XIV, Area 7

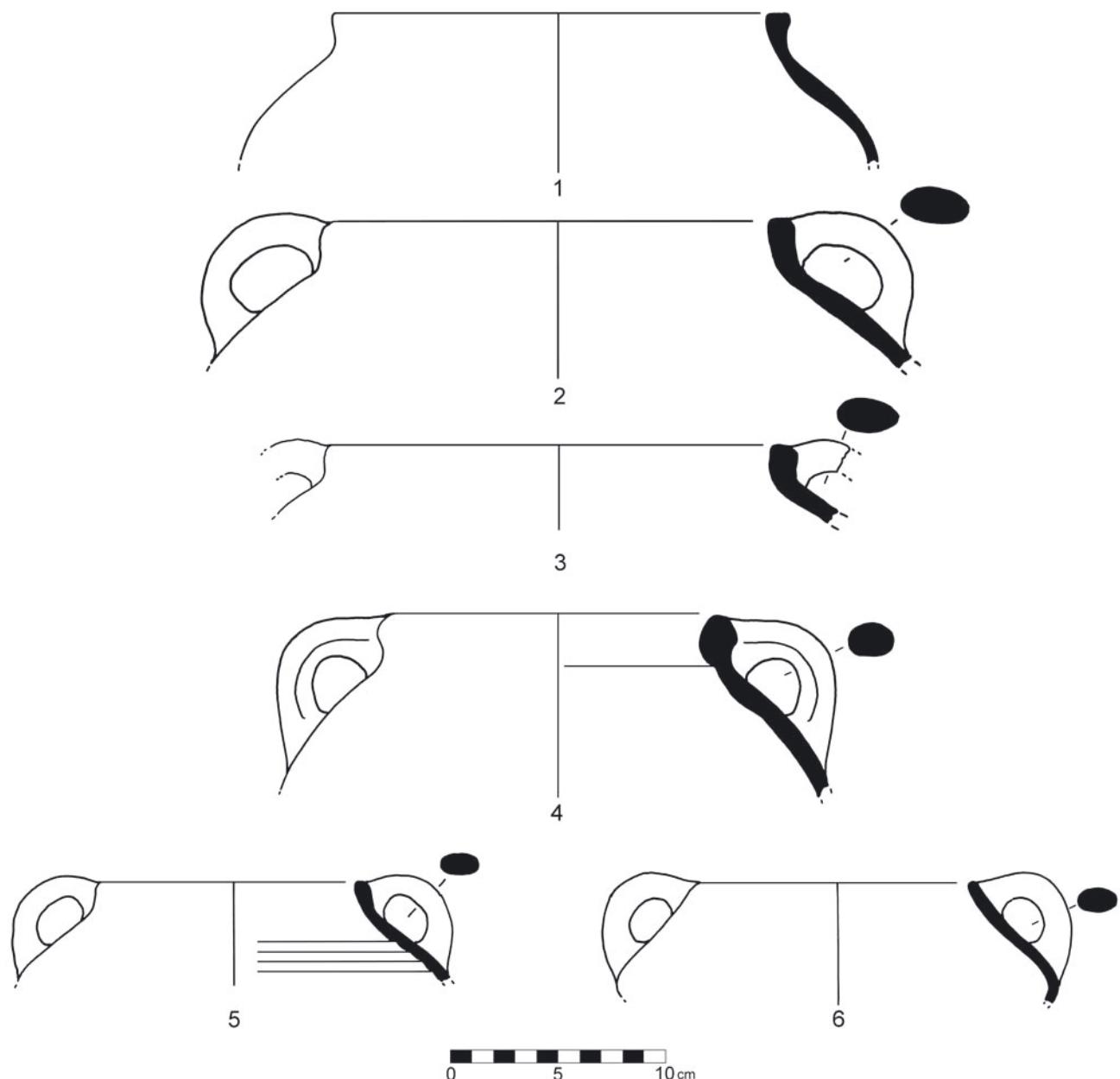


Fig. 216 Pottery from Phase XIV, Area 7

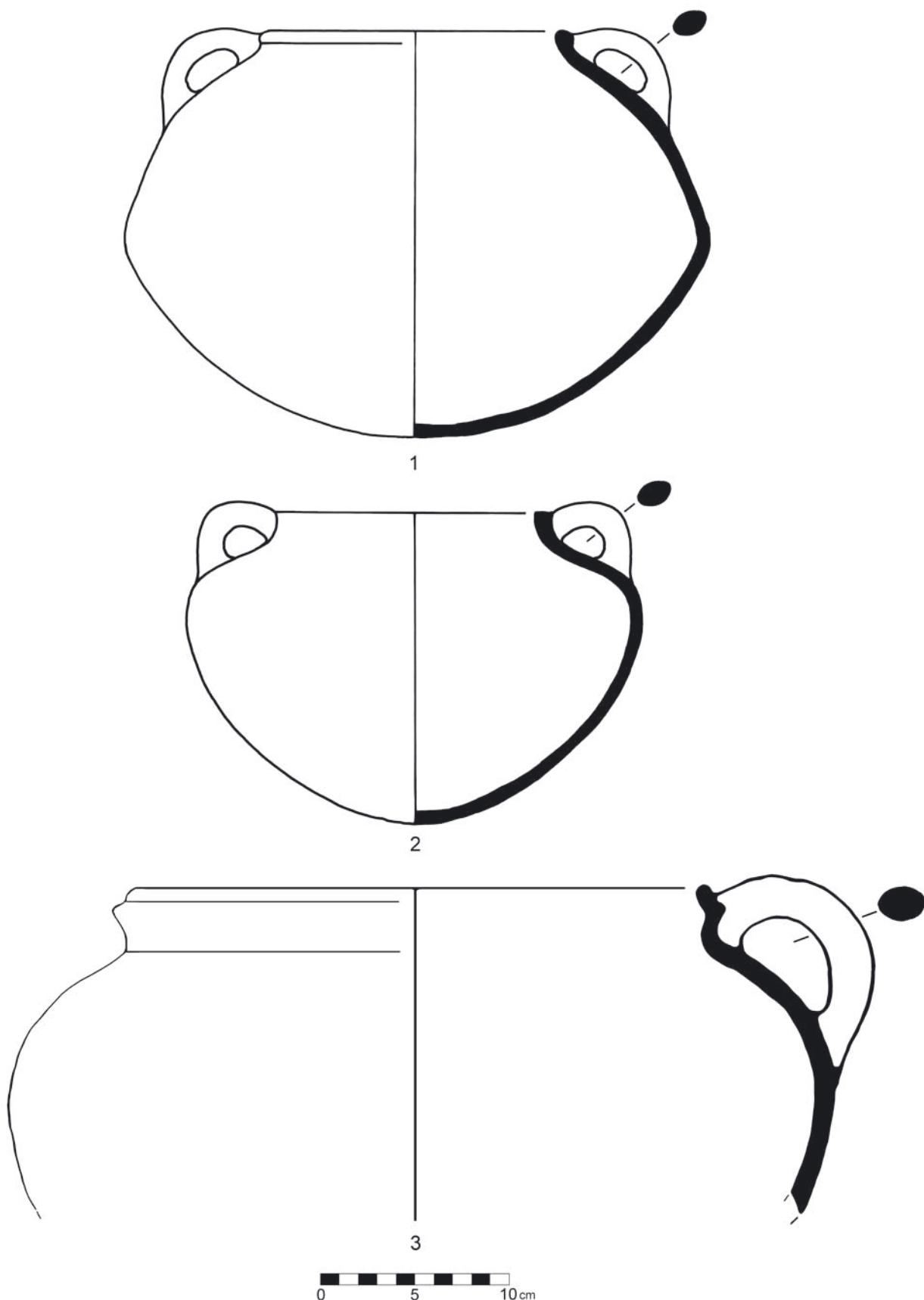


Fig. 217 Pottery from Phase XIV, Area 7

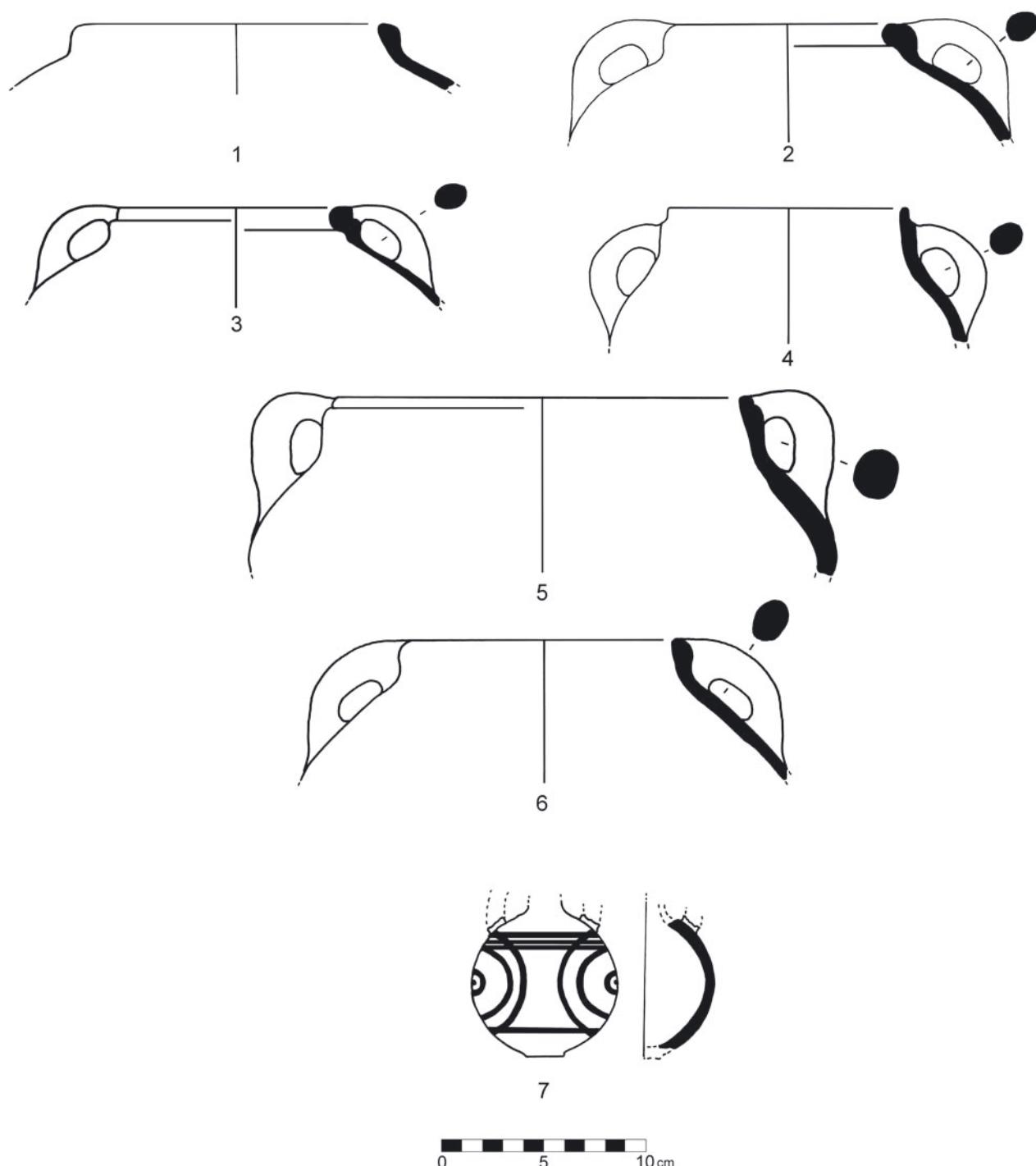


Fig. 218 Pottery from Phase XIV, Area 7

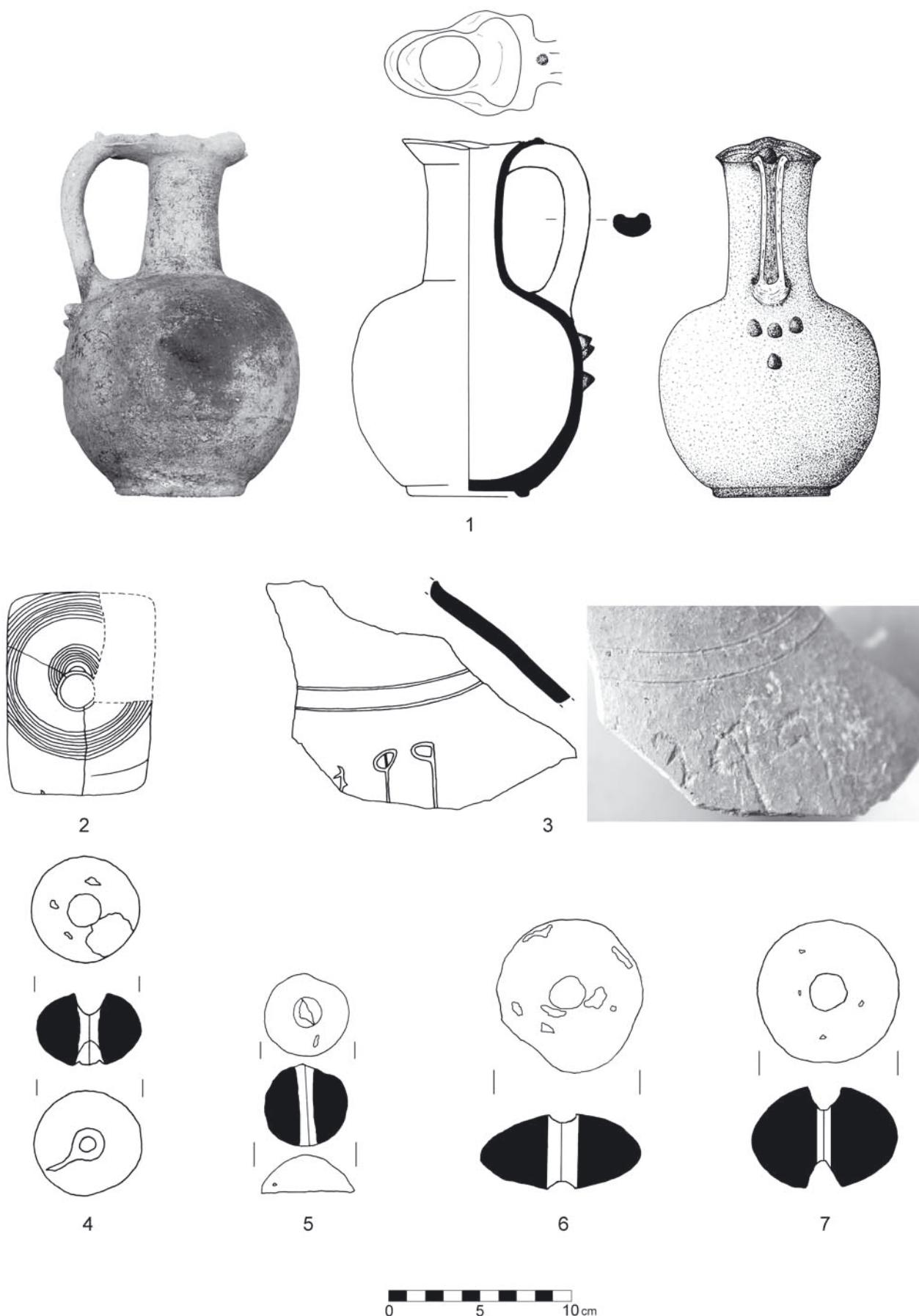


Fig. 219 Pottery and other finds from Phase XIV, Area 7

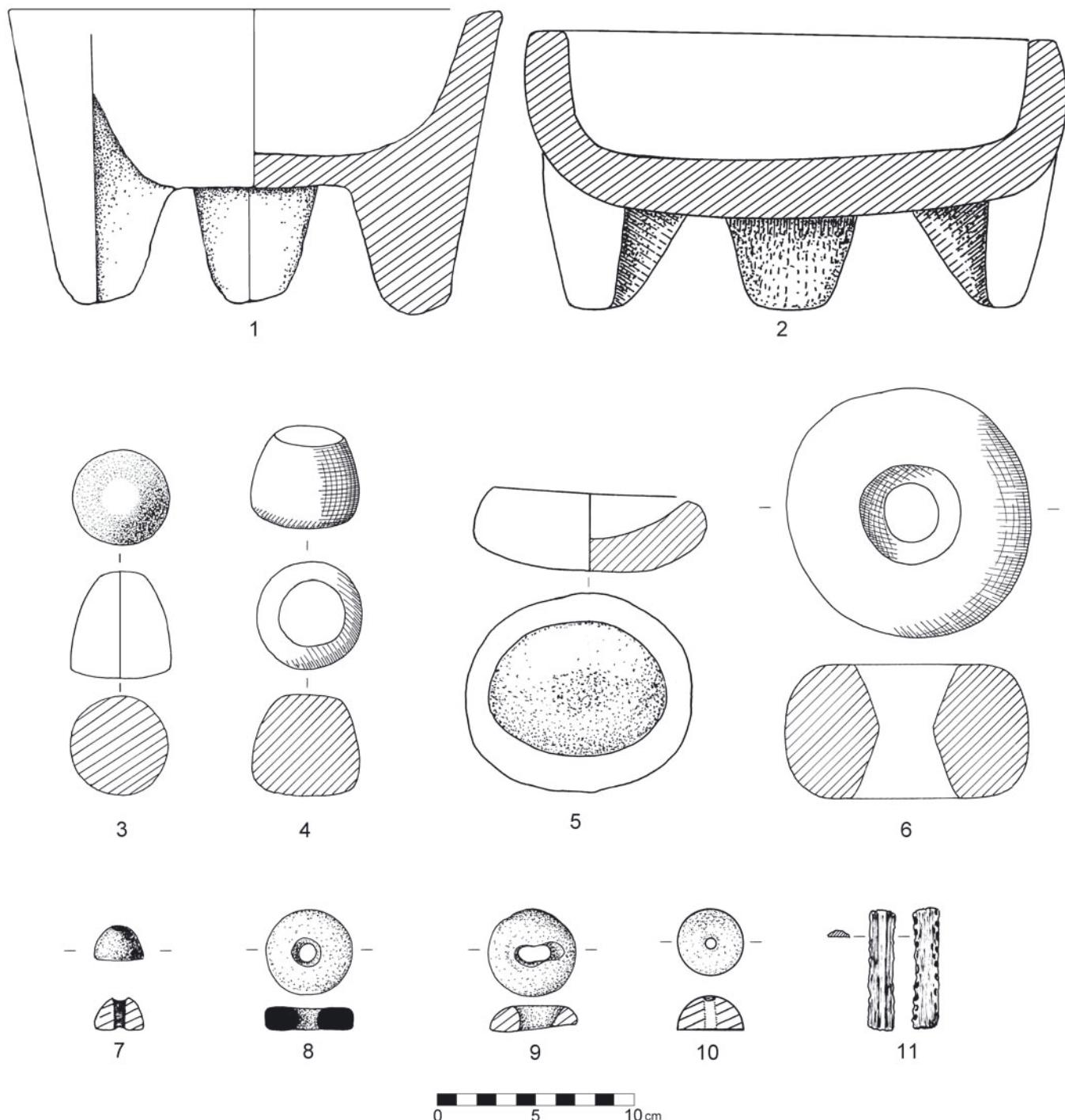


Fig. 220 Finds from Phase XIV, Area 7



Fig. 221 Tripod bowl of basalt N1219 from Phase XIV, Area 7

Legend for the illustrated pottery and other finds from Phase XIV, Area 7

Fig. Locus No. Description

- 219:1 380 N1226 Juglet, hard-fired, light brown fabric, medium-fine, multicoloured inclusions, yellowish-red slip; there are one pseudorivet above the double handle and four below it; Phoenician import or local copy.
- 219:2 370 -3 Tool, reused large sherd, hard-fired, light red fabric, medium-fine, light grey core, medium-coarse, multicoloured inclusions, red slip; incised concentric circles, pierced in centre.
- 219:3 356 -1 Ostrakon, sherd of storage jar, hard-fired, reddish-brown fabric, medium-coarse, mainly white inclusions, light reddish-brown slip; incised lines and signs (see also Fig. 467:3 and Appendix 4).



Fig. 222 Tripod bowl of basalt N739 from Phase XIV, Area 7

- 219:4 302 N1164 Loom weight, unfired clay (secondarily soft-fired), Wt 216 g (possibly disturbed locus).
- 219:5 315 N1167 Loom weight, unfired clay (secondarily soft-fired), Wt 138 g (possibly disturbed locus).
- 219:6 348 N1187 Loom weight, unfired clay, Wt 286 g.
- 219:7 348 N1188 Loom weight, unfired clay, Wt 271 g.

Legend for the illustrated finds from Phase XIV, Area 7

Fig. Locus No. Description

- 220:1 380 N1219 Tripod bowl, basalt (see Fig. 221).
- 220:2 40 N739 Tripod bowl, basalt (see Fig. 222).
- 220:3 W562 -3 Pestle, stone.
- 220:4 W177 N749 Pestle, stone.
- 220:5 501 N1297 Mortar, basalt
- 220:6 40 N704 Weight, limestone.
- 220:7 501 N1295 Spindle whorl, limestone, Wt 18 g.
- 220:8 147 N1087 Spindle whorl, fired clay, orange fabric, fine, self slip, Wt 25 g.
- 220:9 130 N1086 Spindle whorl, alabaster, Wt 20 g.
- 220:10 315 N1174 Spindle whorl, limestone (possibly disturbed locus), Wt 30 g.
- 220:11 448 N1271 Flint blade, retouched, traces of use.

Legend for the illustrated figurines from Phase XIV, Area 7

Fig. Locus No. Description

- 223:1 141 N1085 Rhyton, horse or donkey with bridle and two attached vessels, wheel-made/hand-made, medium-hard-fired, brown fabric, brownish-grey core, medium-coarse, mainly black inclusions, light brown slip; traces of red paint; the two vessels are connected through the hollow trunk with the animal's muzzle (see also Figs. 224, 453:2A/B, 462:3 and Appendix 1).

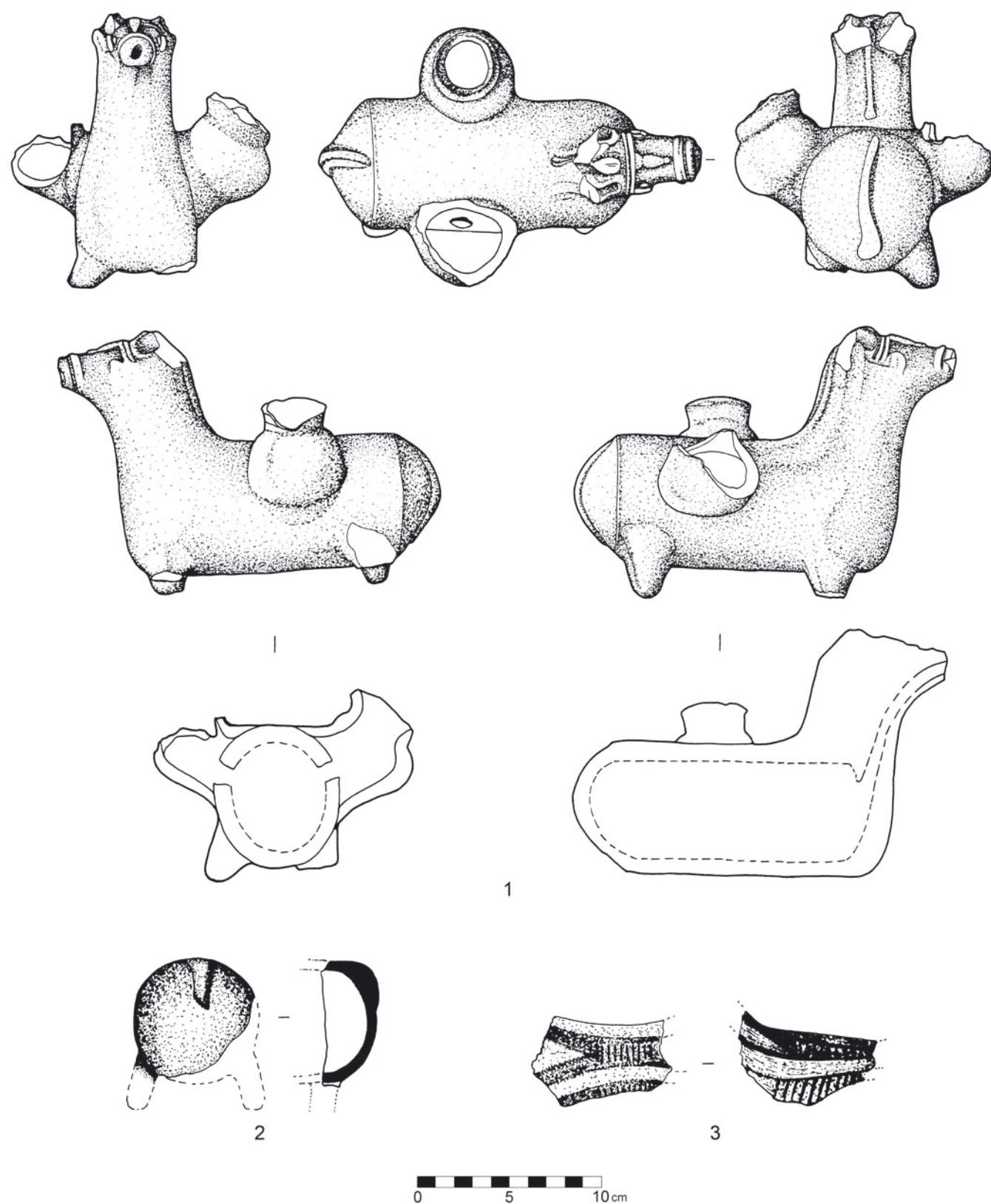


Fig. 223 Figurines from Phase XIV, Area 7

223:2	472	-2	Rhyton, hind part of horse or donkey, wheel-made/hand-made, medium-hard-fired, light red fabric exterior, grey fabric interior, coarse, multicoloured inclusions, light orangish-brown slip, red paint (see also Fig. 463:5 and Appendix 1).	225:2	161	N1094	Knife/dagger handle, iron.
223:3	471	-1	Rhyton, neck and back of horse or donkey, wheel-made/hand-made, hard-fired, dark grey fabric, medium-fine, thick brownish-red slip (see also Fig. 463:7 and Appendix 1).	225:3	336	N1168	Fibula, iron.
				225:4	448	N1270	Arrowhead, iron.
				225:5	336	N1181	Arrowhead, iron (selected object; see also Fig. 227).
				225:6	336	N1180	Arrowhead, iron (selected object; see also Fig. 227).
				225:7	336	N1185-1	Arrowhead, iron (selected object; see also Fig. 227).
				225:8	329	N1177	Arrowhead, iron (selected object; see also Fig. 227).
				225:9	336	N1185-2	Arrowhead, iron (selected object; see also Fig. 227).
				225:10	334	N1176	Pendant, pierced tooth.
				225:11	134	N1084	Dagger, iron blade, bone/ivory handle, bronze rivet.
				225:12	410	N1250	Fibula, bronze with iron needle preserved (see also Fig. 458:7).

Legend for the illustrated finds from Phase XIV,
Area 7

Fig. Locus No. Description

225:1 334 N1173 Tool, fire rake, iron (see Figs. 226, 458:8).



Fig. 224 Rhyton N1085 (see also Fig. 223:1)

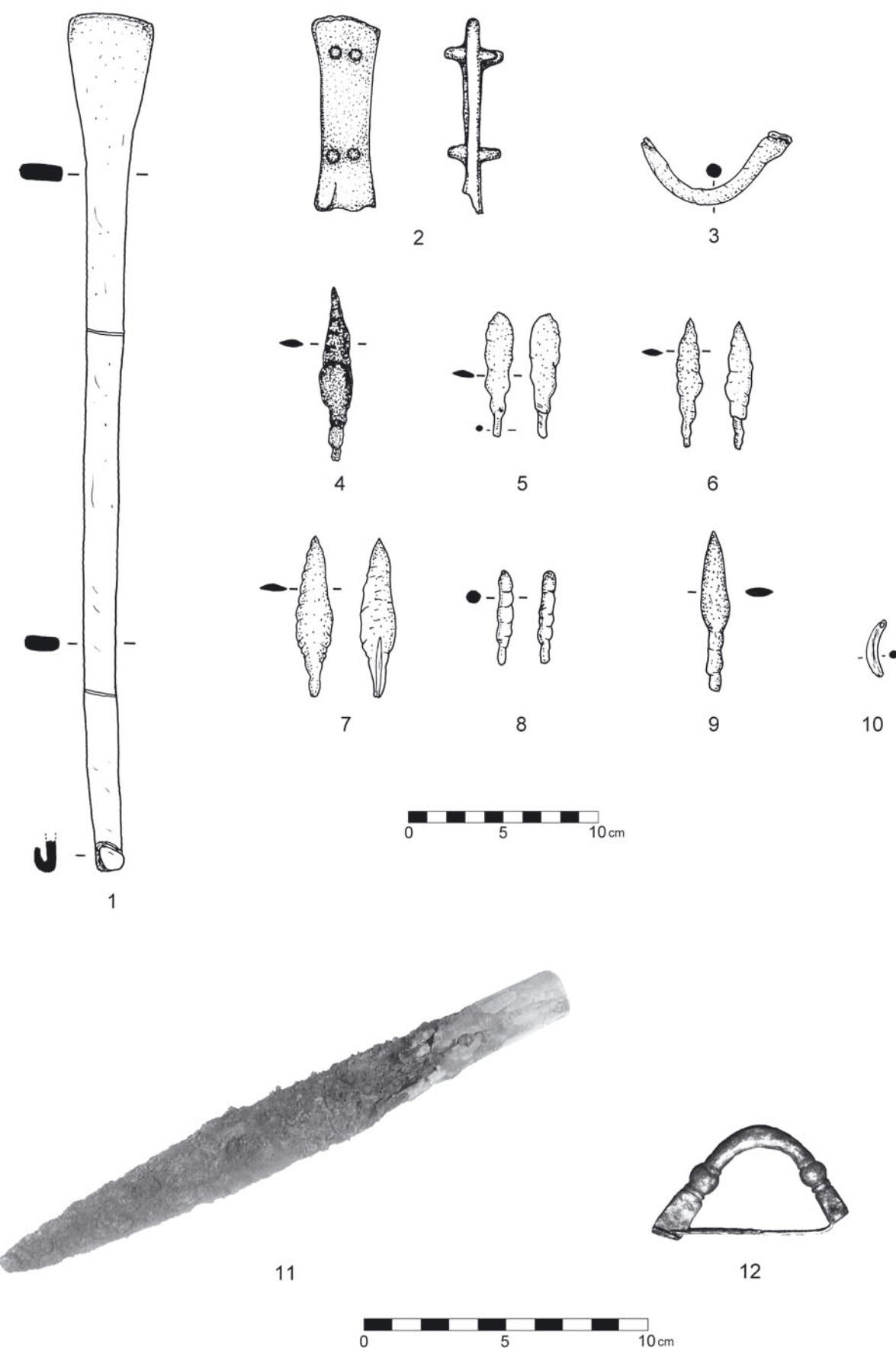


Fig. 225 Finds from Phase XIV, Area 7



Fig. 226 Fire rake of iron N1173 from Phase XIV, Area 7



Fig. 228 Iron scrap from L475, Phase XIV, Area 7

Additional finds from Phase XIV, Area 7 (listed, not drawn)

Locus No.	Description
10 N657 ⁴⁵	Jug, medium-hard-fired, orangish-brown fabric, thick dark grey core, medium-coarse, multicoloured inclusions, light reddish-orange slip.
12 N663	Loom weight, unfired clay, d. 6.5, H 4.4, d. of hole 1.5 cm, Wt 180 g.



Fig. 227 Arrowheads of iron from L344, 336 and 329

⁴⁵ This broken vessel was stolen on the night of 20/21 October 1993.

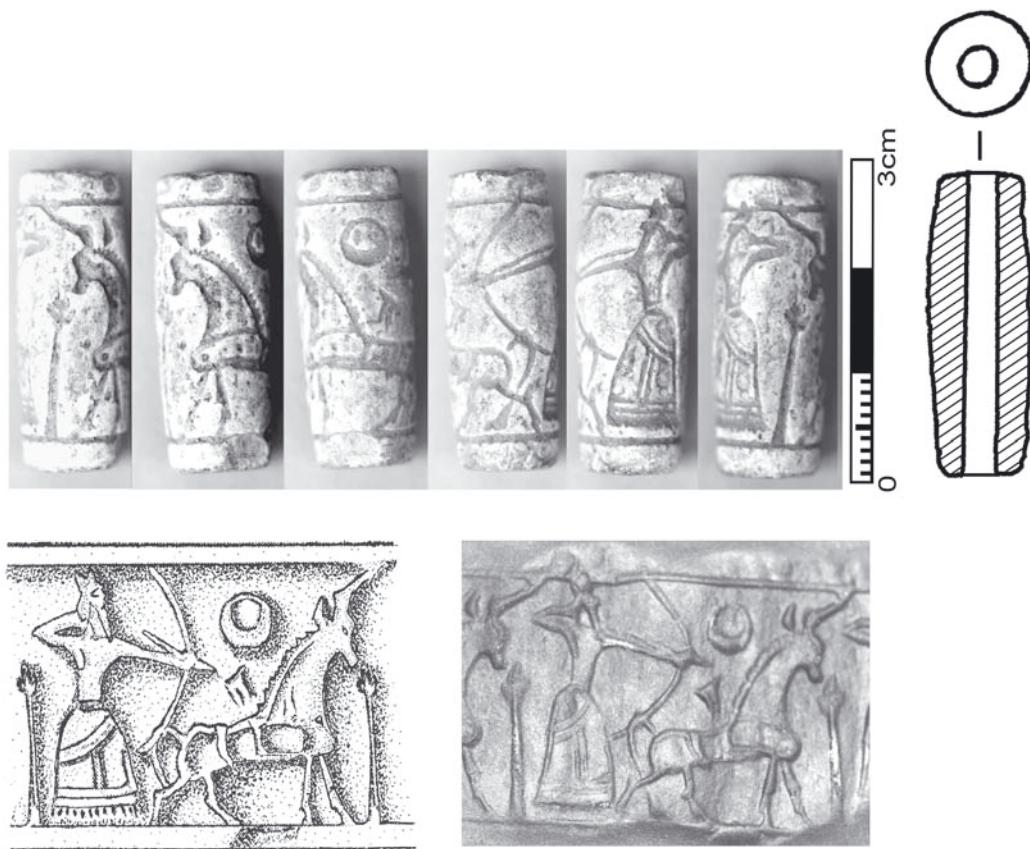


Fig. 229 Neo-Assyrian cylinder seal (N1161, Phase XIV, Area 7): steatite, brownish-red colour in engravings, L 2.9, d. 1.0 to 1.1, d. of hole 0.3 cm, Wt 5.2 g (see also Figs. 453:6, 467:1 and Appendix 4).

14	N666	Shell, d. 3.2 cm.	42	N702	Forty loom weights, unfired clay, average dimensions: d. 6.2, H 3.6, d. of hole 1.2 cm. Wt 210 g.
14	N672	Arrowhead, iron, very corroded, L 6.75, W 0.85 cm.	42	N706	Jar, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, self slip (see Fig. 186 centre of photograph).
15	N673	Shell, 7.0 × 4.4, Th 0.3 cm; does not seem to have been worked.	45	N733	Storage jar, hard-fired, light yellowish-brown fabric, medium-coarse, mainly dark grey inclusions, self slip; vessel contained 10 <i>astragals</i> .
15	N674	Loom weight, unfired clay, d. 9.3, H 9.7, d. of hole 1.2 cm, Wt 520 g.	45	N734	Lamp, four-spouted, attached base not preserved, wheel/hand-made, medium-hard-fired, greyish-brown fabric, medium-coarse, mainly white inclusions, light yellowish-brown slip (see Fig. 212 left).
25	N678	Loom weight, broken, unfired clay, d. 5.5, H 5.5, d. of hole 1.5 cm, Wt 300 g.	45	N746	Arrowhead, leaf-shaped, iron, very corroded, L 8.5 cm.
25	N680	Stone, pestle, globular, H 6.5, d. 6.5 cm.	45	N747	Shell, ellipsoidal, L 6.7 cm.
25	N681	Loom weight, unfired clay, d. 5.5, H 5.5, d. of hole 1.5 cm, Wt 300 g.	134	N1075	Spindle whorl, basalt, d. 4.0, H 2.5 cm, Wt 58 g.
32	N677	Weight(?), basalt, cylindrical, pierced, d. 7.1, L 8.5, d. of hole 2.0–2.3 cm.	138	N1089	Hemispherical bowl, medium-hard-fired, brown fabric, coarse, mainly grey inclusions, self slip, red wash.
33	N682	Jar, only partly exposed, remainder still in section.	139	N1081	Lamp, fragmentary, wheel/hand-made, medium-hard-fired, greyish-brown fabric, medium-coarse, mainly white inclusions, light brown slip.
40	N743	Fifteen arrowheads, iron, corroded, wooden shafts partly preserved.			
40	N703	Loom weight, unfired clay, d. 11.2, H 6.8, d. of hole 2.6 cm, Wt 500 g.			
40	N701	Loom weight, unfired clay, d. 8.3, H 7.5, d. of hole 1.6 cm, Wt 420 g.			
40	N735	Spindle whorl, fired clay, d. 4.1, H 2.8, d. of hole 0.8 cm, Wt 31 g.			
42	N697	Bowl, cylindrical, hand-made, soft-fired, light brown fabric, coarse, multicoloured inclusions, self slip, d. 31, H 20 cm.			

144	N1088	Stopper, clay, medium-hard-fired, brown fabric, grey core, coarse, mainly white inclusions, self slip, brown wash.	380	N1214	Polishing stone, basalt, almost globular, Wt 329 g.
161	N1091	Knife, iron, two rivets preserved, L 13.5, W 4.2 cm.	380	N1222	Spindle whorl, limestone, conical shape, d. 4.7, H 3.0 cm, Wt 58 g.
162	N1092	Awl, iron, L 6.0, d. 1.0 cm.	380	N1228A	Twenty-five loom weights, unfired clay, range of d. 7.9–9.7, range of H 5.5–8.1 cm, Wt 281, 321, 353, 381, 381, 386, 387, 391, 425, 435, 435, 441, 443, 455, 472, 490, 494, 503, 507, 510, 533, 544, 555, 625, 640 g.
332	N1178	Dagger, bronze, melted, L 12.7, W 4.5, Th 0.7–1.4 cm.	380	N1228B	Arrowhead, iron, much corroded L 11.5, W 7.8, Th 1.7 cm.
334	-1	Roof tile, hand-made, medium-hard-fired, yellowish-brown fabric, coarse, multicoloured inclusions, self slip.	380	N1230	Spindle whorl, fired clay, d. 3.5, H 2.7 cm, Wt 37.8 g.
336	N1184	Disk limestone, d. 2.7, Th 0.7 cm.	380	N1234	108 <i>astragals</i> , bone.
336	N1186	Spindle whorl (incomplete), alabaster, d. 1.9, H 0.7, d. of hole 0.7 cm, Wt 2 g.	381	N1213	Two loom weights, range of d. 8.0–8.6, range of H 5.6–5.8 cm, Wt 378, 413 g.
344	N1179	Arrowheads, iron (see Fig. 227).	381	N1223	Polishing stone, basalt, biconical shape, d. 4.9 bottom, 3.4 top, H 4.5 cm, Wt 167.5 g.
348	-1	Crucible (partly preserved), limestone, crudely made.	381	N1224	Needle, ivory, L 19.9, d. 1.2 cm, Wt 31 g.
353	N1190	Lamp, wheel-made, hard-fired, light reddish-brown fabric, medium-coarse, multicoloured inclusions, self slip.	381	N1233	Spindle whorl, stone, cylindrical shape, d. 3.4, H 3.6 cm, Wt 52.4 g.
353	N1194	Storage jar, only partly exposed, still in section.	381	N1235	Pestle, stone, d. 4.5, H 4.0–4.7 cm, Wt 176 g.
356	N1204	Spindle whorl, basalt, d. 3.9, H 2.0 cm, Wt 43.3 g.	381	N1238	Spindle whorl, ivory, slightly convex upper profile, d. 2.3, H 1.0 cm, Wt 4.0 g.
360	N1189	Bronze object, melted (fibula?), L 15.3, W 5.1, Th 0.3–1.0 cm.	381	N1240	Polishing tool, fired clay, rounded upper side, flat base, d. top 6.7, d. bottom 9.6, H 6.4 cm.
365	N1191	Loom weight, unfired clay, d. 7.5, H 5.4 cm, Wt 294 g.	383	N1197	Earring, bronze, d. 1.9, Th 0.5 cm.
365	N1192	Loom weight, unfired clay, d. 8.2, H 4.6 cm, Wt 313 g.	386	N1231	Tool, basalt, pierced, irregular shape, L 4.7, H 4.2, d. of hole 0.3 cm.
365	N1193	Storage jar, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, yellow slip.	386	N1229	Loom weight, unfired clay, d. 7.3, H 4.3, d. of hole 1.4 cm, Wt 192 g.
366	N1200	Loom weight, ⁴⁶ unfired clay, d. 6.6, H 4.6 cm, Wt 180.5 g.	387	N1237	Spindle whorl, alabaster, conical shape, d. 3.7, H 3.0, d. of hole 0.7 cm, Wt 34.2 g.
372	N1199	Pendant/bead/seal (unfinished), limestone, L 3.5, d. 1.4, d. of hole 0.4 cm, Wt 8.9 g.	387	N1239	Door socket, limestone, L 20.5, H 7.3, d. of depression 7.9–9.9 cm.
373	N1205	Seven loom weights, unfired clay; range of d. 6.4–8.7, range of H 4.4–6.7 cm, Wt 382, 260, 384, 497, 512, 388, 133 g.	390	N1218	Spindle whorl, fired clay, conical shape, d. 4.2, H 3.1, d. of hole 0.7 cm, Wt 50 g.
373	N1206	Loom weight, unfired clay, d. 8.5, H 6.3 cm, Wt 428.6 g	390	-1	Tool of fired pottery (from grain bin), broken, wheel-made, hard-fired, light brown fabric, thick grey core, medium-fine, light greyish-brown slip.
375	N1196A	Juglet, wheel-made, hard-fired, dark brown fabric, thick grey core, medium-fine, light orangish-brown slip.	390	-2	Tool of fired pottery (from grain bin), broken, wheel-made, hard-fired, light brownish-red fabric, grey core, medium-fine, light brownish-red slip.
375	N1196B	Storage jar, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, yellow slip.	391	N1217	Gaming piece, limestone, conical shape, d. 0.8/1.6, H 1.5 cm, Wt 5.1 g.
375	N1209	Loom weight, unfired clay, d. 6.6, H 4.9 cm, Wt 205.5 g.	391	N1232	Pendant, limestone, pierced, decorated with irregularly arranged drill holes, d. 3.0–3.4, H 0.9 cm, Wt 12 g.
380	N1211	Bead, stone of reddish-white colour with white spots, d. 0.6, L 0.9 cm.	391	N1244	Loom weight, basalt, conical shape, d. bottom 5.2, H 4.7, d. of hole 0.6 cm, Wt 170 g.
380	N1212	Seventeen loom weights, range of d. 6.7–9.1, range of H 4.8–6.6 cm, Wt 465, 368, 426, 272, 189, 331, 304, 252, 237, 346, 443, 316, 196, 519, 291, 251 g.	395	N1243	Tool, basalt, L 10.6, H 2.6, W 7.2 cm, Wt 270 g.

⁴⁶ For a general discussion on the unfired loom weights from Tell Abu al-Kharaz exemplified by those from the 2008 season of excavation, see RINNER 2009: 147–149.

418	N1254	Loom weight, secondarily fired clay, d. 8.1, H 6.2, d. of hole 1.7 cm, Wt 405 g.
420	N1265	Loom weight, secondarily fired, d. 7.1, H 4.6, d. of hole 1.9 cm, Wt 219 g.
438	N1267	Loom weight, secondarily fired, d. 6.5, H 4.0, d. of hole 1.1 cm, Wt 170 g.
438	N1266	Three loom weights, all secondarily fired, range of d. 6.2–8.2, range of H 3.0–5.3, range of d. of holes 1.7–2.0 cm, Wt 278, 130, 196 g.
501	N1295	Spindle whorl, limestone, pyramidal shape, d. 2.7, H 1.9, d. of hole 0.65 cm, Wt 18 g.
501	N1298	Loom weight, unfired clay, broken, d. 13.3, H 11.5 cm.
W156	N699	Knife, bronze, fragmentary, much corroded, L 6.9, W 1.5, Th 0.2 cm.

AREA 9

General information

Area 9 lies in the south of the upper part of the tell between Areas 1 and 10 and somewhat to the south of these. It is situated in the most vulnerable part of the city since the southern descent from the city via Area 9 towards the Wadi al-Yabis only slopes moderately in comparison to the approaches to the city from the other directions (Fig. 230). This topographic situation was also the reason why defence structures were expected and finally verified: there is an array of city

walls built upon each other and partially reused in later periods from the Early Bronze Age until Islamic times, a period covering some 4000 years (FISCHER 2006a, 2008a).

The excavated portions of this area lie directly south of the summit of the tell on quite a sloping portion of the city in Grids RR–YY / 31–34. The partly exposed portion of Area 9 is 71 m long in the east-west direction and slopes approximately 6 m from east to west and 4 m from north to south. The total size of the opened area is 795.5 square metres (state end of season 2012). Some stone walls which originate from the three “main” periods represented at Tell Abu al-Kharaz – Iron Age, and Late/Middle and Early Bronze Age – are visible on the surface. The walls run approximately east-west and north-south. The surface pottery is a mixture of all the periods found at Tell Abu al-Kharaz, however the Iron Age and the Early Bronze Age are the best represented. Superficial finds also include two Islamic objects: one is a well-preserved silver coin and the other a lentoid glass flask, both from the Abbasid period. A (silver?)-lead rosette-shaped pendant derives from the same level.

The excavations started there in 1994 (Trenches XXIV and XXVA and B). They were extended towards the west (Trench XLII) in 1998 and continued in 2009 (Trench LI), towards the east in 2010 (Trenches LIIA–D, LIIIA and B, LIVA and LVA),



Fig. 230 Area 9 and southern slope prior to the excavations in 2009

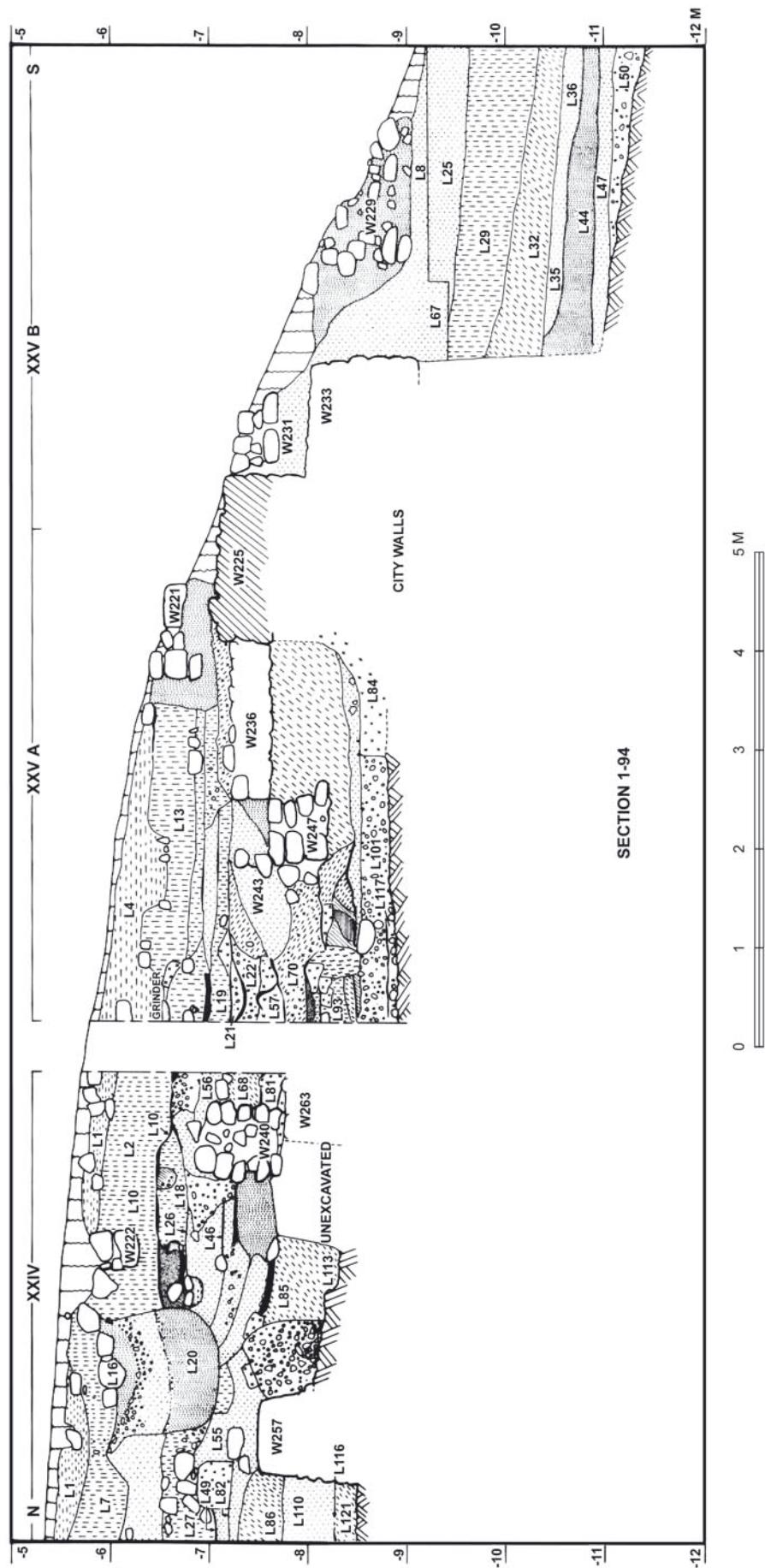


Fig. 231 Section I-94. Area 9, east section Trenches XIV and XXV A and B

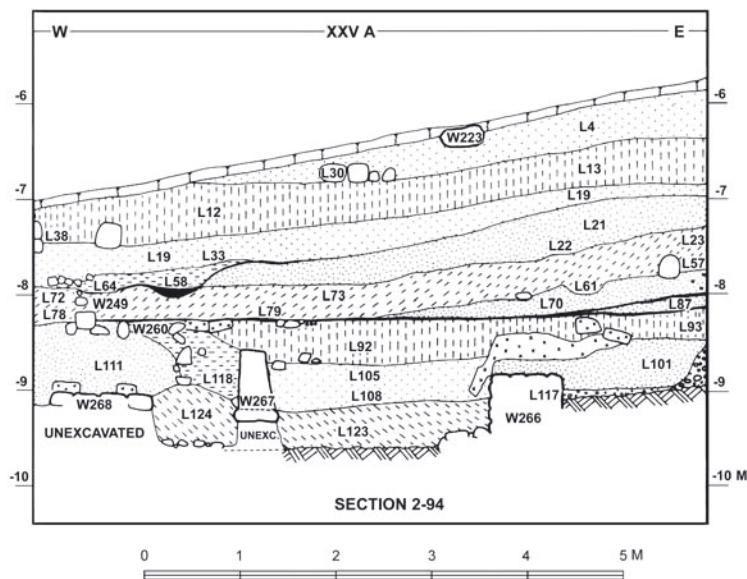


Fig. 232 Section 2-94. Area 9, north section Trench XXVA

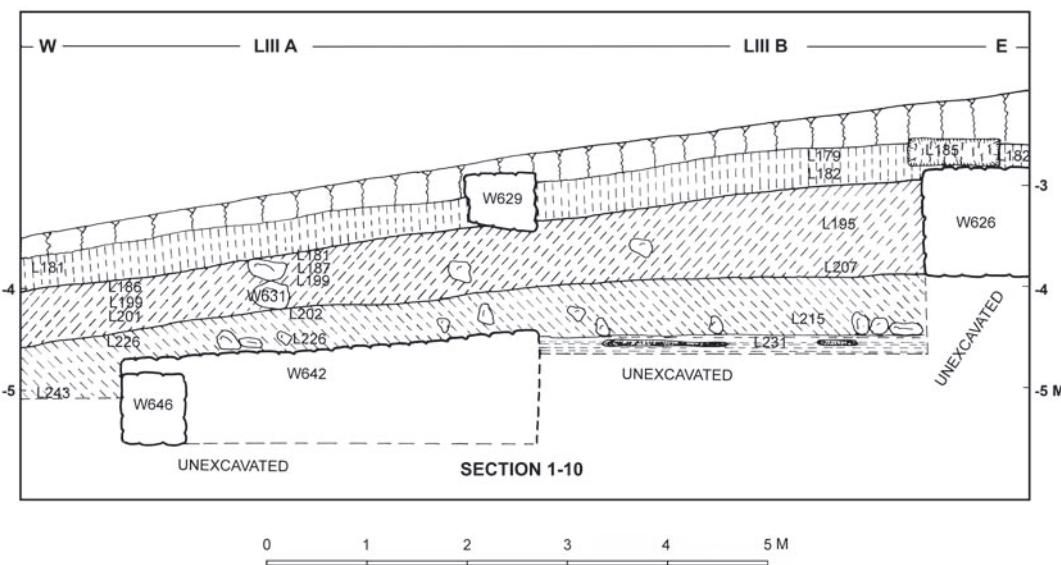


Fig. 233 Section 1-10. Area 9, north section Trenches LIIIA and B

and in 2011 both towards the north-east (Trench LVI) and towards the west (Trenches LVII and LVIII) thereby “connecting” the excavations of 1994/1998 with those of 2009. In 2012 the excavations were extended towards the east (Trenches LIXA–E). There is a partially looted area between the trenches from 1994/1998 and those from 2009–2012. Consequently there is no secure stratigraphic connection between the two portions except for the upper parts of the city walls from the Iron Age and the Middle/Late Bronzes which were visible on the surface to the south. Therefore, the two portions will be treated separately as the somewhat disturbed “Area 9 West”, and the extremely

rewarding “Area 9 East” the latter of which contained well-preserved structures with numerous primary contexts.

The purpose of the 1994 and 1998 seasons of excavations in Area 9 West was to expose and record the entire occupational sequence there spanning from the Early Bronze Age to Islamic times (see FISCHER 2006a: 193–209; FISCHER 2008a: 213–241; FISCHER 2008b). The main objective of the excavations in 2009–2012 in Area 9 East was to study the Iron Age sequence because of surface finds which to some extent were the result of illicit digging in the area and which could be dated to the early Iron Age. Facilitated by heavy rain-

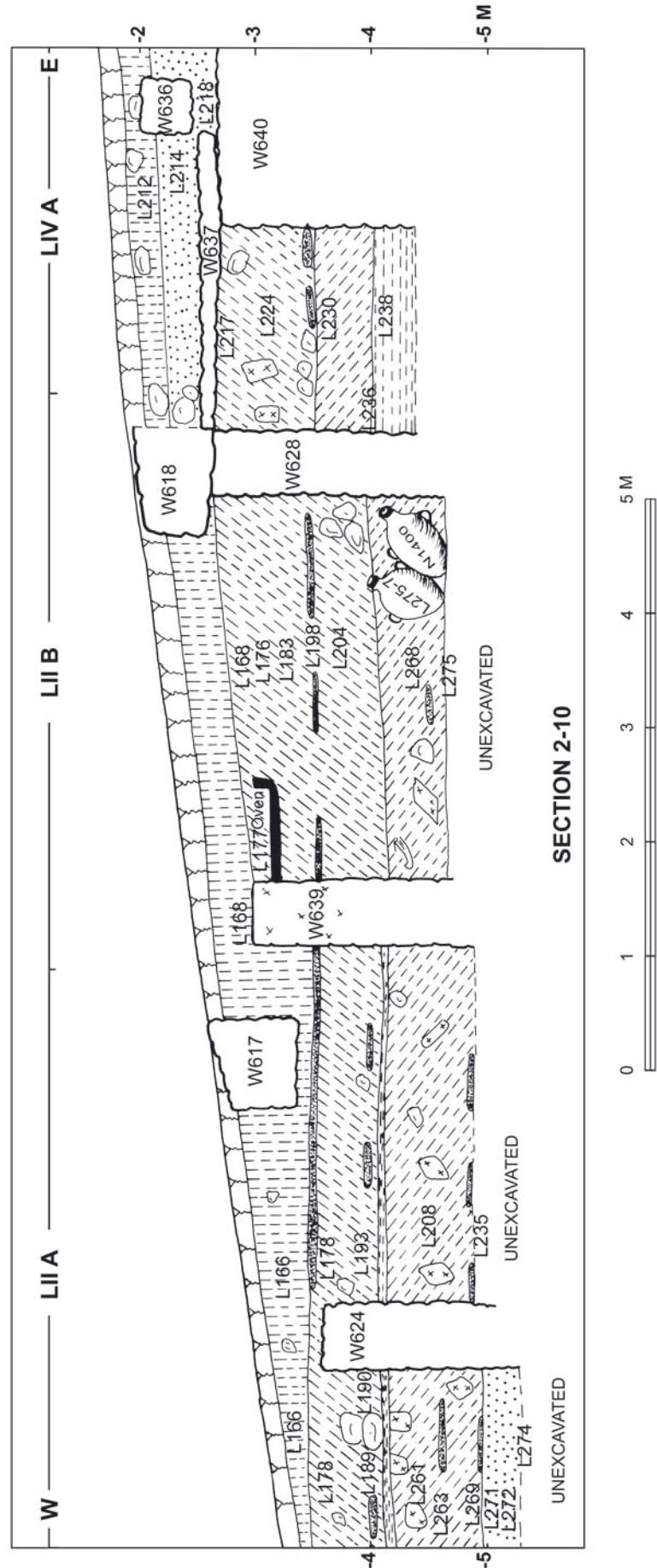


Fig. 234 Section 2-10, Area 9, north section Trenches LIIA, LIIB and LIVA

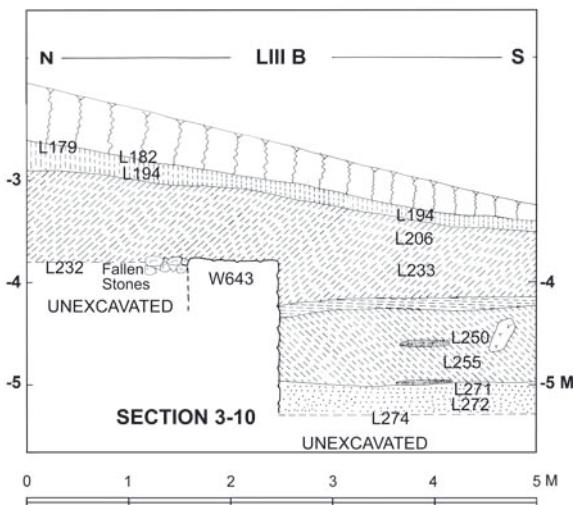


Fig. 235 Section 3-10. Area 9, east section Trench LIII B

fall in 2009, which exposed deeper structures, the excavations in Area 9 East produced amazingly well-preserved early Iron Age remains, thus adding new knowledge to the occupational sequence of Tell Abu al-Kharaz: before 2009, only stray finds belonging to the early Iron Age were made. However, the situation changed dramatically when we could expose a kind of “Early Iron Age Pompeii” with well-preserved rooms and rich contexts with numerous finds that also include imports.⁴⁷

PHASE XI, AREA 9 WEST (Figs. 241–243)

Architecture and features

Architectural remains from this phase, although not clear-cut, were found over the entire area of excavation. Defence walls from the Late, Middle and Early

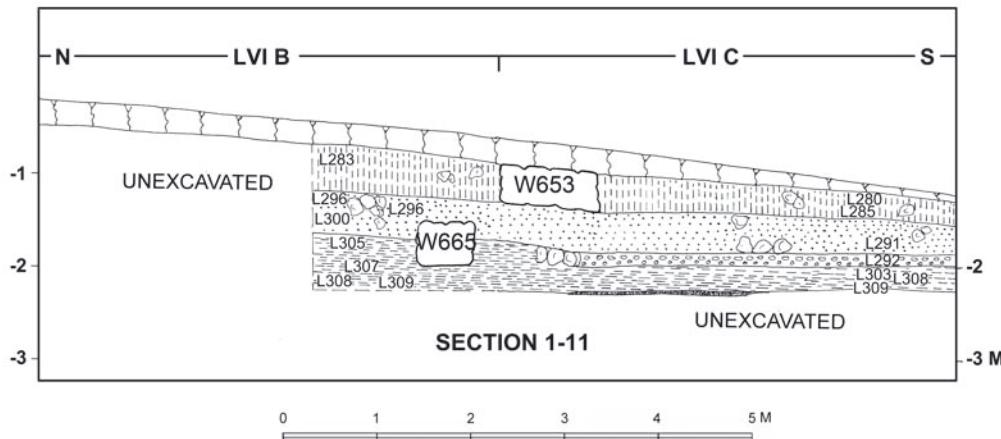


Fig. 236 Section 1-11. Area 9, east section Trenches LVIB and C

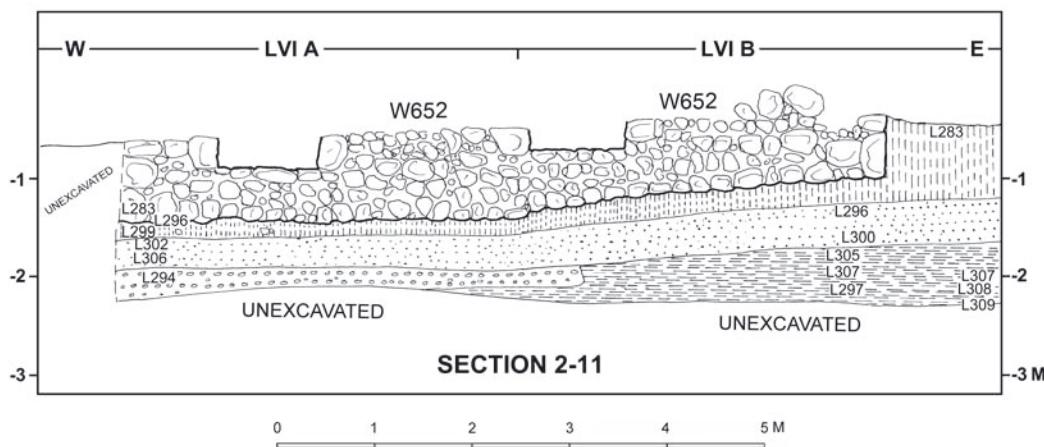


Fig. 237 Section 2-11. Area 9, north section Trenches LVIA and B

⁴⁷ In addition to numerous Early Bronze Age primary contexts the early Iron Age finds from Area 9 East represent the best preserved contexts anywhere at Tell Abu al-Kharaz.

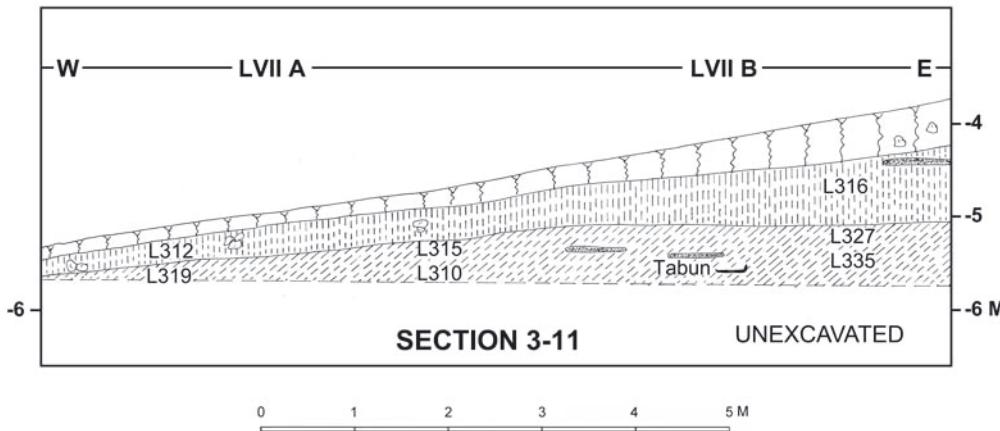


Fig. 238 Section 3-11. Area 9, north section Trenches LVIIA and B

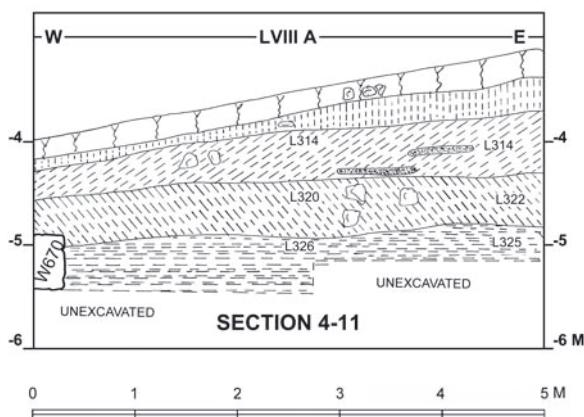


Fig. 239 Section 4-11. Area 9, north section Trench LVIIIA

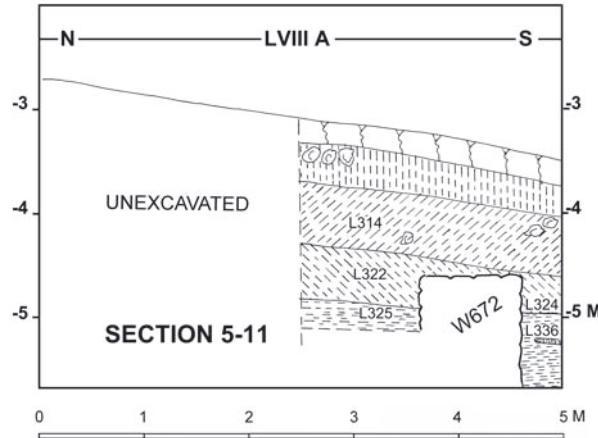


Fig. 240 Section 5-11. Area 9, east section Trench LVIIIA

Bronze Ages, an impressive approximately 5–6 m wide compound, were reused as foundations for a number of new structures. These consist of almost destroyed remains of partly stone-paved domestic buildings. In the west, there is a walled and stone-paved space, approximately 6 m × 4 m, with an entrance in the north-west (L132, 136; W497, 496, 512). Another feature of interest is a stone-paved circle, approximately 1.5 m in diameter, to the east of the walled space (L134). To the south of it is a disturbance, most likely an animal's hole (L135), which was isolated during the excavations. In the east is an array of disturbed walls and features. The finds consist of some tools of stone, pottery and jewellery. Concerning pottery there are only sherds present, except for a complete bowl (L75-1) and an almost complete large jug (N907; Figs. 242:6 and 243). Other finds are a part of a tripod bowl of basalt (N1129), a basalt pestle (N1125), a millstone (N900), a spindle

whorl of alabaster (N899), a ring (L75-3) and an earring (N887) both of bronze, a bead of Egyptian Blue (N886) and another one of white glass (?; N891). Outside the Early Bronze Age city wall are a spindle whorl of limestone (N872) and a bronze needle (N880). These two finds are only tentatively ascribed to Phase XI.⁴⁸

Interpretation of the material evidence

The scanty remains of this phase allow only very limited conclusions. There seem to be a number of domestic, partly stone-paved, structures. Considering the obvious damage done to the structures, the association of pottery and other finds to this phase should be treated with caution. Certain pottery shapes definitely belong to the first half of the Iron Age. However, there are also shapes which should be better placed in the second half.

⁴⁸ Further descriptions are not provided because of the insecure stratifications of these two finds.

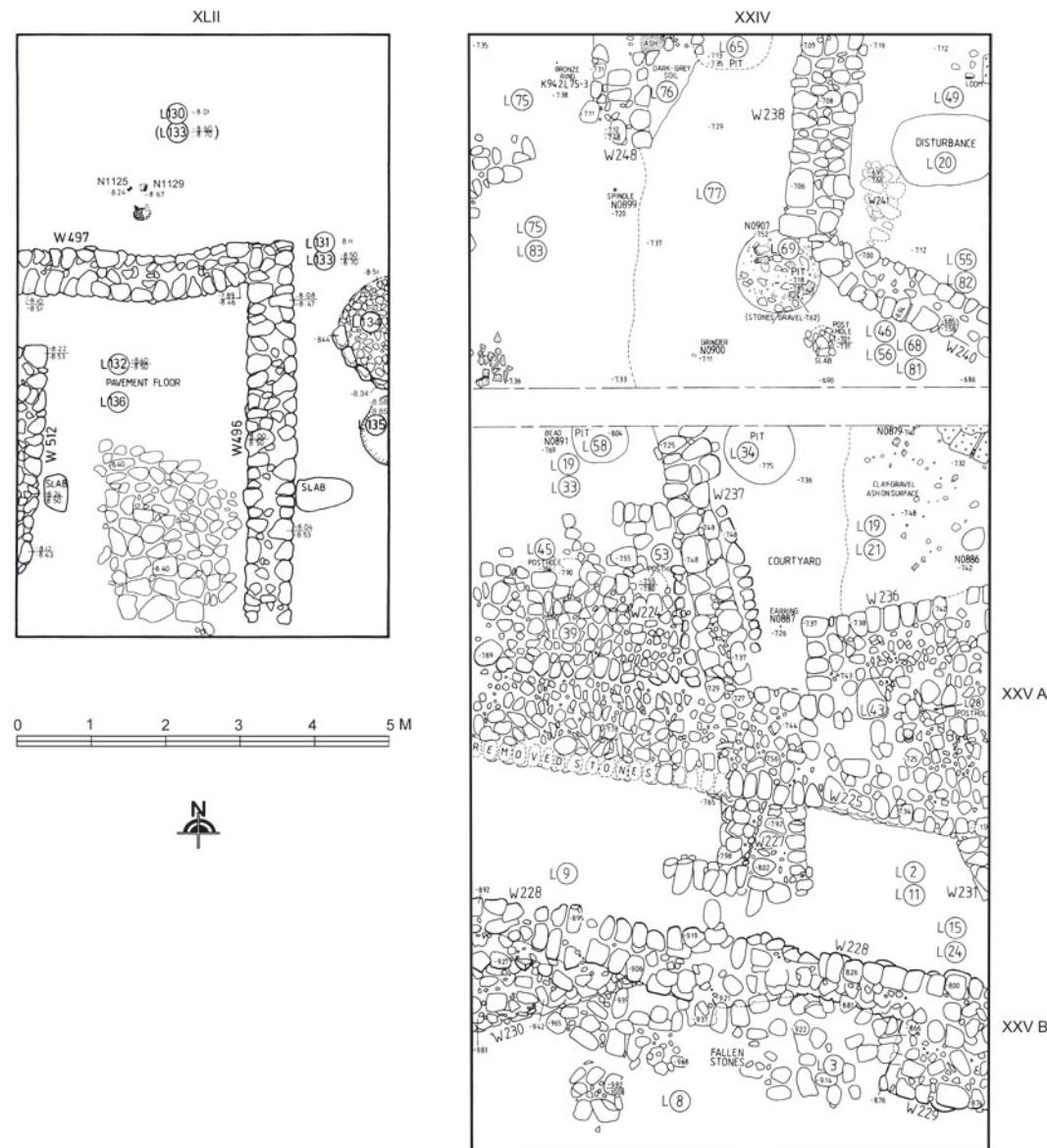


Fig. 241 Plan of Phase XI, Area 9 West

Wall No.	Width (m) average dimensions	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
236	i.d.	i.d.	i.d.			possible platform
237	0.7	0.3	1-2			
238	0.7	0.3	1-2			
240	0.7	0.7	3			
248	0.6	0.3	3			
496	0.6-0.7	0.5	3-4			
497	0.6-0.7	0.6	4			
512	0.5-0.6	0.4	3			

Table 53 Description of the walls of Phase XI, Area 9 West

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
2	dump outside city wall	mixed sherds (EB/MB/LB/IA)				mixed up context
3	dump outside city wall	mixed sherds (EB/MB/LB/IA)				mixed up context
8	dump outside city wall	mixed sherds (EB/MB/LB/IA)				mixed up context
9	dump outside city wall	mixed sherds (EB/MB/LB/IA)				mixed up context
11	dump outside city wall	mixed sherds (EB/MB/LB/IA)				mixed up context
15	dump outside city wall	mixed sherds (EB/MB/LB/IA)				mixed up context
19	fill, o.d.	N879, 74	-1 sj, -2 k, -3 j-dt, -4 hm, -5 b, 1 jl, 1 j, 1 sj, 1 cp, 67 ud		N886, N887	
21	fill, o.d.	142	1 jl, 3 sj, 59 ud			
24	dump outside city wall					mixed up context
33	fill, o.d.	28	-1 sj, 1 b, 1 j, 4 sj, 1 cp, 53 ud		N891	
34	pit, d. 0.9, o.d.	25	1 b, 1 ja, 16 ud			
39	fill, o.d.					disturbed
43	fill, o.d.					disturbed
45	fill, o.d.					disturbed
46	fill, o.d.	52	6 jl, 1 h, 11 ud			
49	fill, o.d.					disturbed
53	fill, o.d.					disturbed
55	fill, o.d.				-1	
56	fill, o.d.	5	10 ud			disturbed
58	pit, d. 0.7, o.d.		-1 ep, 28 ud			
65	pit, d. 0.5, o.d.	15	1 b, 1 h, 44 ud			
68	fill, o.d.					disturbed
69	upper part of pit, d. 1.0, o.d.	36	N907 j-dt, 1 dt, 2 cp, 2 dec, 32 ud			
75	fill, o.d.	2	-1 b, -2 cp, 3 b, 1 k, 1 sj, 5 cp, 45 ud		N899, N900, -3	
76	accumulation of stones					
77	fill, o.d.	48	1 b, 1 j, 1 dec, 95 ud			
81	fill, o.d.					disturbed
82	fill, o.d.					
83	fill, o.d.		-1 k			disturbed
130	surface, o.d.	56	-1 cb, -2 b, -3 j, 4 b, 1 jl, 3 j, 1 ja, 8 sj, 3 cp, 142 ud		N1125	
131	surface, o.d.	4	7 b, 1 j, 4 ja, 1 l, 1 pf, 3 sj, 3 ep, 86 ud			
132	stone pavement	1	1 jl, 1 j dec, 1 ja, 1 cp			
133	fill, o.d.	3	1 b dec, 2 j			
134	circular stone setting, d. 1.5					
135	pit, d. 1.0, o.d.	3				
136	fill below pavement L132	-2, 5	-1 cp, 1 b, 1 cb, 1 k, 1 j, 1 jl, 6 sj, 35 ud		N1129	
W227	inside wall		-1 sj			
W228	inside wall		-1 k			

Table 54 Description of the loci of Phase XI, Area 9 West

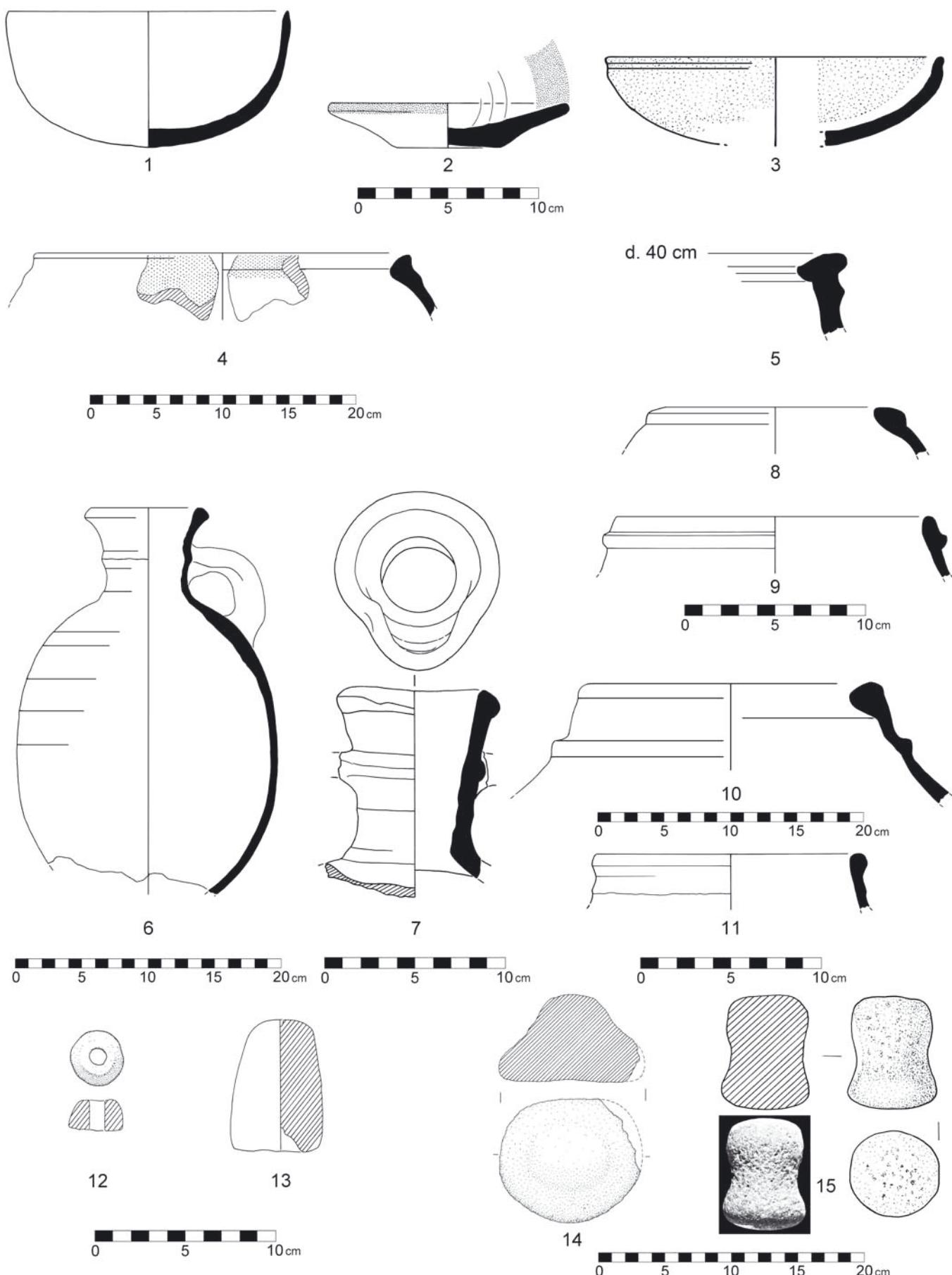


Fig. 242 Pottery and other finds from Phase XI, Area 9 West

Legend for the illustrated pottery and other finds from Phase XI, Area 9 West

Fig.	Locus No.	Description
242:1	75	-1 Bowl, hard-fired, greyish-brown fabric, medium-coarse, mainly white and black inclusions, yellowish-brown slip.
242:2	19	-5 Bowl, medium-hard-fired, yellowish-brown fabric, dark grey core, coarse, mainly black inclusions, thick yellow slip, reddish-brown paint on rim.
242:3	130	-1 Bowl with high carination, hard-fired, light brownish-red fabric, yellow core, coarse, multicoloured inclusions, yellowish-red slip.
242:4	83	-1 Krater, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, self slip and red wash.
242:5	W228	-1 Krater, hard-fired, greyish-brown fabric, medium-fine, a few black inclusions, light brown slip.
242:6	69	N907 Jug-decanter, hard-fired, light brown fabric, medium-coarse, a few large white inclusions, self slip; neck ridge (see also Fig. 243).
242:7	19	-3 Jug-decanter, hard-fired, brownish-red fabric, yellowish-brown core, coarse, white inclusions, self slip; neck ridge.
242:8	19	-4 Krater/hole-mouth jar, hard-fired, light brown fabric, grey core, medium-coarse, a few white inclusions, self slip.
242:9	33	-1 Storage jar, light brown fabric, medium-coarse, white and black inclusions, self slip.
242:10	W227	-1 Storage jar, hard-fired, grey fabric, coarse, mainly white inclusions, light brown slip; neck ridge.
242:11	19	-1 Storage jar, hard-fired, dark grey fabric, coarse, mainly quartz inclusions, self slip.
242:12	75	N899 Spindle whorl, alabaster, d. 3.2, H 1.9, d. of hole 1.0 cm, Wt 22 g.
242:13	75	N900 Weight, tapering, depressions top and bottom, basalt, H 7.2, d. bottom 5.1 cm.
242:14	55	-1 Pestle, porous basalt.
242:15	130	N1125 Pestle, basalt.

Additional finds from Phase XI, Area 9 West (listed, not illustrated)

Locus No.	Description
19	N879 Juglet, hand-made, medium-hard-fired, light yellow fabric, coarse, multicoloured inclusions, self slip; residual from Early Bronze Age II.
19	N886 Bead, glass, d. 0.7 cm.
19	N887 Earring, bronze, crescent shaped, L 2.1, max. Th 0.8 cm.
33	N891 Bead, glass, d. 0.6 cm.
75	-3 Ring, bronze, fragmentary.
136	N1129 Tripod bowl, basalt, fragmentary.



Fig. 243 Jug N907 from Phase XI, Area 9 West

PHASE XII, AREA 9 WEST (Figs. 244–246)

Architecture and features

This phase, too, has no clear-cut architecture except for the city wall (W491/221) which was built in this phase and against which a number of structures were built. To the west are two parallel walls (W494 and 495) on roughly the same levels and one perpendicular wall (W493). The remains of a stone pavement are to the north-west of them. There is a rudimentary but wider wall to the east, together with the remains of additional stone pavements. On the east side there is a pit (L20) penetrating into Phase XI. There is a considerable amount of ash in most parts of the opened portion, for instance to the east in L18 and 26. Small finds are rare and include a pierced shell (pendant (?), N884) from the pit and a spindle whorl made from a reused sherd (N885).

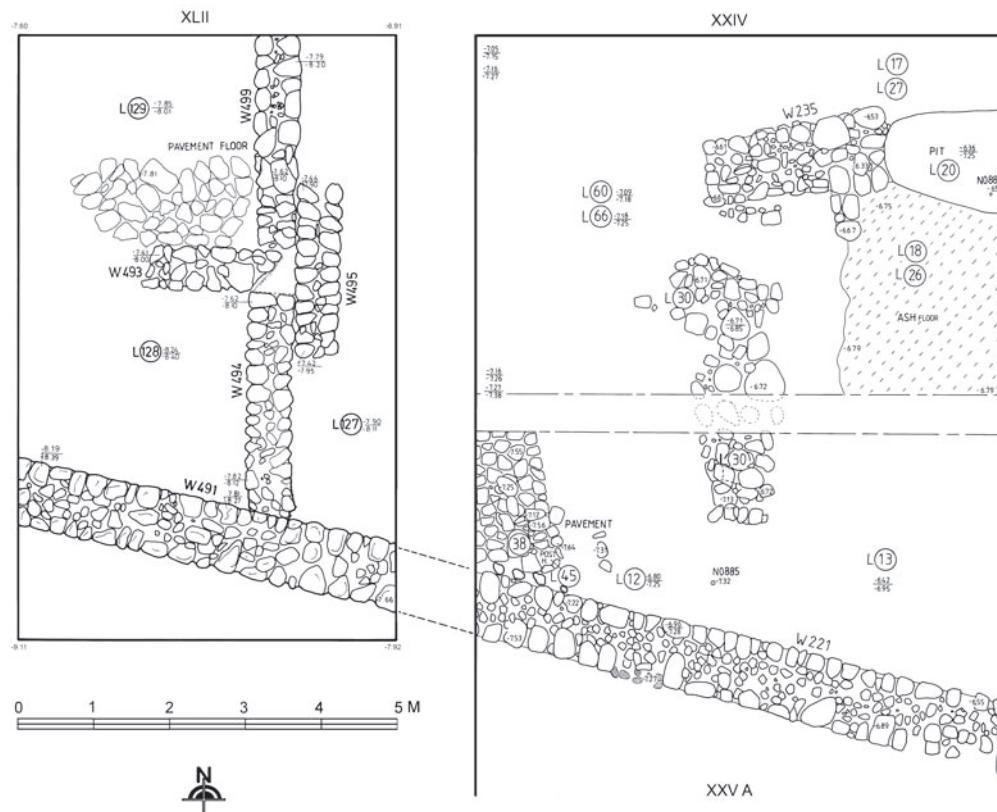


Fig. 244 Plan of Phase XII, Area 9 West

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
	average dimensions		stone	mudbrick		
221	1.0	0.2-0.3	2			
235	0.9	0.3	2			
491	1.0	0.2-0.4	2			
493	0.6	0.6	3			
494	0.6	0.3-0.4	2-3			
495	0.6	0.5	3			
499	0.6	0.4	2			

Table 55 Description of the walls of Phase XII, Area 9 West

Interpretation of the material evidence

The scanty remains of this phase do not allow any useful deductions. There are a number of obvious domestic, partly stone-paved, structures which were destroyed in a conflagration. Serious damage has been done to the structures and most of the pottery and other finds were not found in their original position. The majority of the sherds are from the second half of the Iron Age.

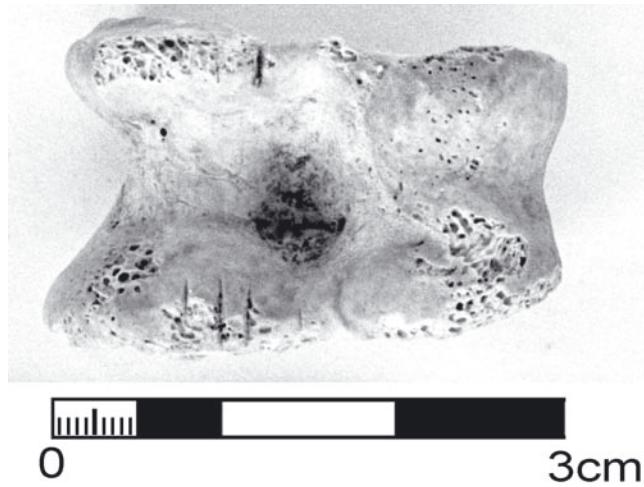
Legend for the illustrated pottery from Phase XII, Area 9 West

Fig.	Locus No.	Description
245:1	20 -1	Bowl, medium-hard-fired, reddish-brown fabric, medium-fine, light brown slip, thin red wash.
245:2	20 -2	Carinated bowl, hard-fired, light brown fabric, greyish-brown core, medium-coarse, multicoloured inclusions, yellowish-brown slip, thin brown wash.

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
12	pavement	5	-1 j, -3 ep, 1 jl, 1 ja, 1 cp, 88 ud			
13	surface, o.d.	8	-2 k/hm, -3 ep, -4 sj, -7 b, -8 cp, 221 ud	1	N885, -1, -5, -6	
17	fill, o.d.		-1 k			
18	fill, o.d.	136	-1 sj, 3 b, 1 k, 2 jl, 3 j, 1 ja, 2 sj, 2 ep, 4 dec ud, 1 CG jl			
20	pit, d. 1.2 x 1.0, o.d.	2	-1 b, -2 cb, 5 b, 1 jl, 1 j, 8 sj, 2 l, 1 cp		N884	
26	floor, much ash	15	-1 cb, 1 jl, 1 cp			
27	surface, o.d.	67	1 tri, 1 stj, 50 ud			
30	stone circle					
45	posthole					
60	fill, o.d.	3	-1 j, 3 b, 2 cb, 2 k, 2 j, 1 sj, 1 cp, 109 ud			
66	surface, o.d.	8	2 b, 1 k, 1 dt, 2 jl, 3 j, 1 sj, 2 cp, 153 ud	5		
127	surface					
128	surface, partly stone-paved					
129	surface, partly stone-paved					

Table 56 Description of the loci of Phase XII, Area 9 West

- 245:3 26 -1 Carinated bowl, medium-hard-fired, brownish-grey fabric, grey core, medium-coarse, black and white inclusions, reddish-brown burnished slip.
- 245:4 17 -1 Krater, hard-fired, light reddish-yellow fabric, fine, self slip, burnished interior, red slip on rim.
- 245:5 13 -2 Krater/hole-mouth jar, hard-fired, light brown fabric, grey core, medium-coarse, black inclusions, light brown slip.
- 245:6 12 -1 Jug, hard-fired, yellowish-brown fabric, medium-coarse, some white and grey inclusions, yellow slip, red wash.
- 245:7 13 -4 Storage jar, hard-fired, reddish-brown fabric, coarse, mainly white inclusions, self slip.
- 245:8 60 -1 Jug, spout, medium-hard-fired, light yellowish-red fabric, light brown core, medium-coarse, multicoloured inclusions, self slip.
- 245:9 13 -8 Cooking pot, hard-fired, greyish-brown fabric, grey core, coarse, mainly white inclusions, self slip.
- 245:10 12 -3 Cooking pot, hard-fired, brown fabric, coarse, mainly white and grey inclusions, self slip.
- 245:11 13 -3 Cooking pot, hard-fired, light reddish-brown fabric, grey core, coarse, multicoloured inclusions, light yellowish-brown slip.

Fig. 246 *Astragal* with incisions from Phase XII, Area 9 West

Additional finds from Phase XII, Area 9 West (listed, not illustrated)

Locus No.	Description
13 N885	Spindle whorl, made of reused sherd, d. 5.6, Th 0.6 cm, Wt 15 g.
13 -1	Loom weight, unfired clay, d. 9.5, d. of hole 1.8 cm, Wt 420 g.
13 -5	Pestle, stone, d. 6.5–6.9, H 6.3 cm.
13 -6	Pestle, stone, d. 6.5–7.9, H 6.1 cm.
20 N884	Shell, pierced, L 3.2, W 1.1, Th 0.3 cm.

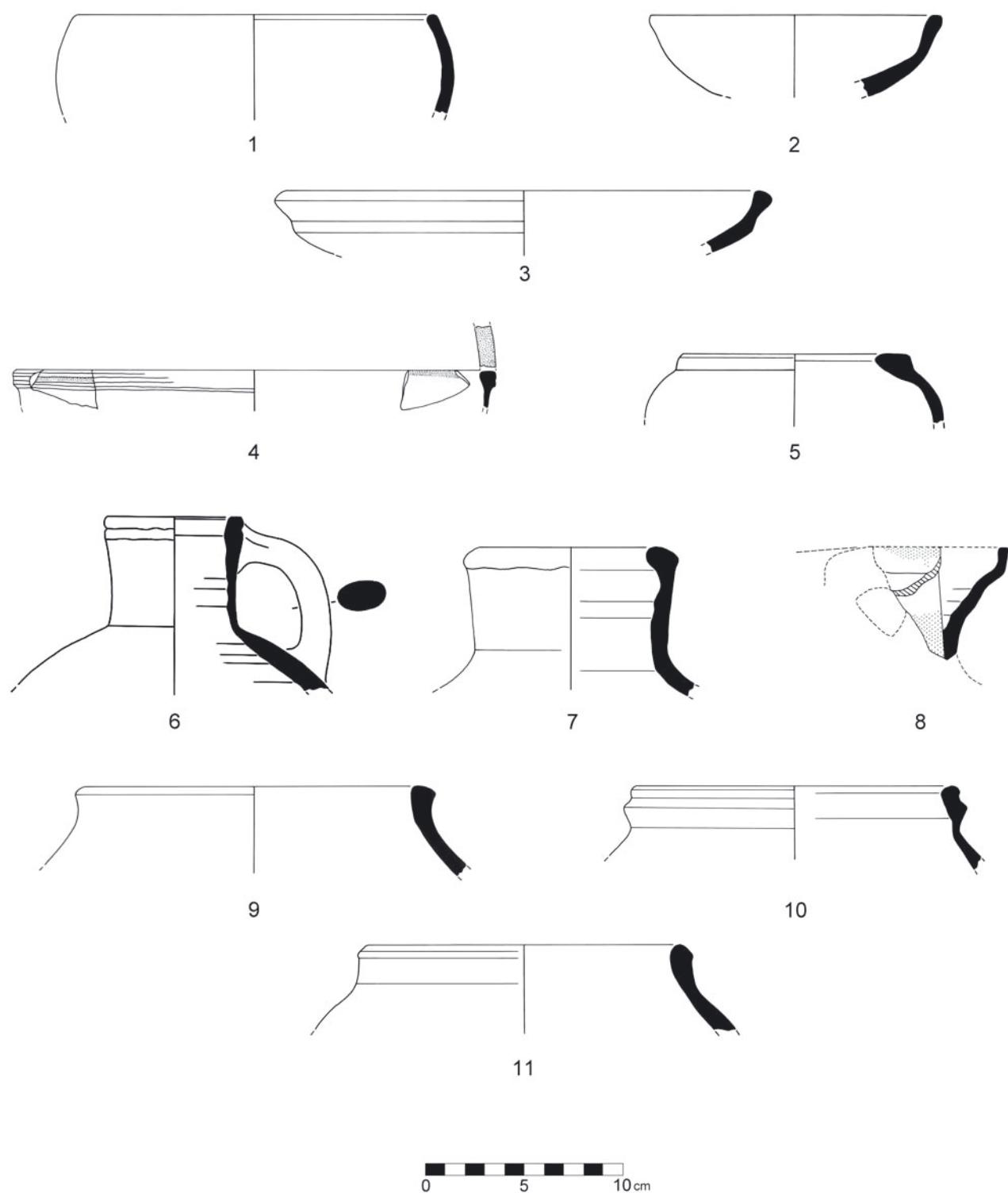


Fig. 245 Pottery from Phase XII, Area 9 West

PHASE XIII, AREA 9 WEST (Figs. 247-249)

Architecture and features

The city wall W491/221 was reused from the previous period. Two perpendicular walls (W492, 223), 11.5 m apart, were obviously built against it. W223/222 and W223/226 form the corners of two walled spaces. There are the remains of a possible pavement in the north-eastern corner of the area and a large pit in the western part (L126'). Finds from this phase are an almost complete krater (N877), the base of a juglet (N897), a Black Juglet (N889; Figs. 248:1 and 249 left), a female figurine holding a tambourine (N874; Figs. 248:6, 458:5 and 462:1; see also Appendix 1), a

bull's hind part (L7-2; Figs. 248:5 and 463:6; see also Appendix 1), tweezers of iron (N882), an arrowhead of iron with parts of the wooden shaft preserved (N883), a stone pestle (N876), a limestone loom weight (N1111) and a millstone of basalt (N1112). The presence of a silver and a copper coin, a lentoid flask of glass (N870) and silver(?)-lead pendant (N888) indicates that this, the most superficial of the phases in Area 9 West, was exposed to later activities.

Interpretation of the material evidence

The city wall W 491/221 is the same wall as was found in 1989 to the west in Area 1 and numbered Wall 4

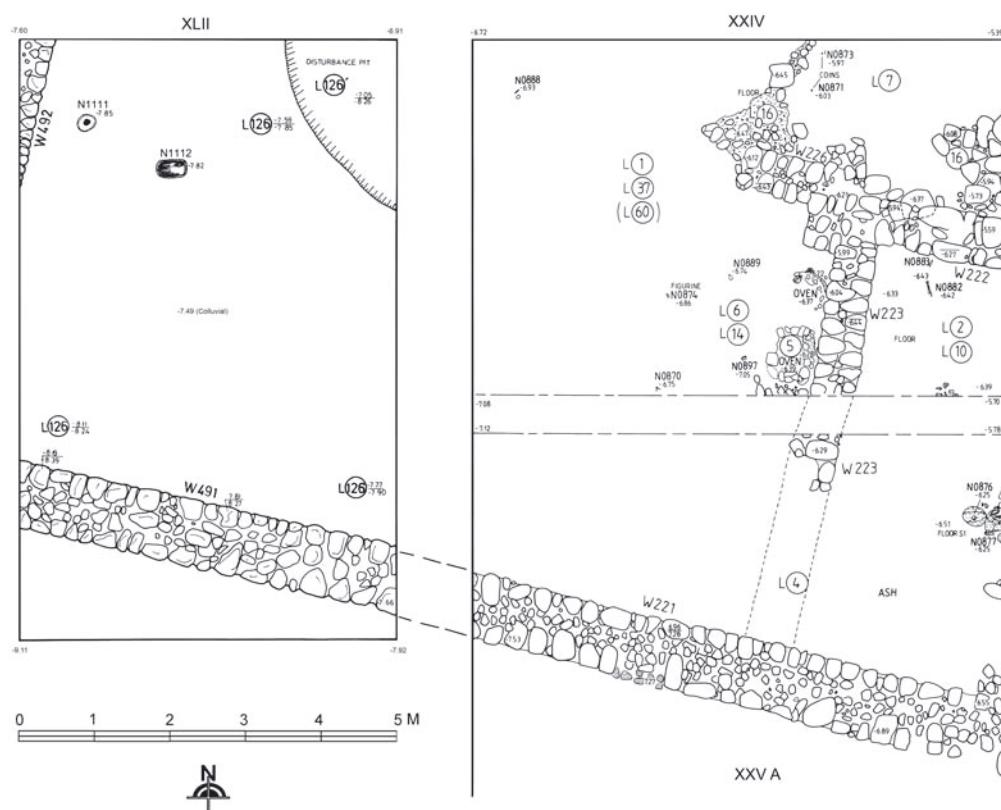


Fig. 247 Plan of Phase XIII, Area 9 West

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
	average dimensions		stone	mudbrick		
221	1.0	0.2-0.3	2			
222	0.7	0.2	1			
223	0.6	0.2	1			
226	0.6	0.3	2			
491	1.0	0.2-0.4	2			
492	?	0.3	1-2			

Table 57 Description of the walls of Phase XIII, Area 9 West

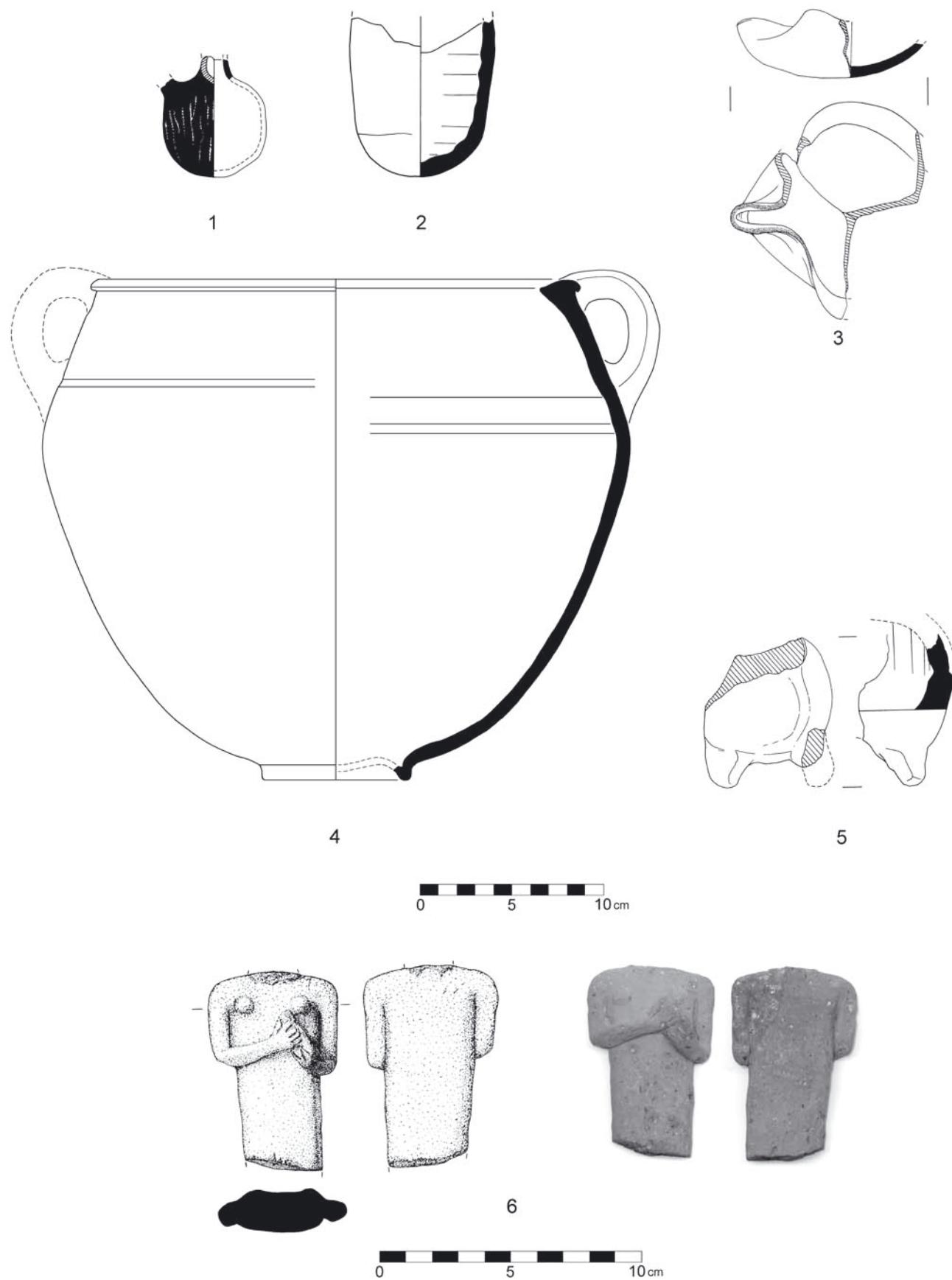


Fig. 248 Pottery and figurines from Phase XIII, Area 9 West

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
1	fill, o.d.	5	N889 bj1, 2 b, 2 j		N870, N874 fig, N888	N870: top of L1
2	fill, o.d.					disturbed
4	fill, o.d.	9	N877 k, -1 l, -2 k, 3 b, 3 k, 1 g, 1 j, 1 jl, 1 l, 1 sj, 7 ep, 101 ud	26	N876	
5	tabun, partly preserved					
6	fill, o.d.					disturbed
7	fill, o.d.	5	2 b, 1 k, 2 sj, 46 ud		-2 fig, N871, N873	N871: between Coll and L7
10	surface, o.d.	9	1 b, 1 jl, 1 sj, 44 ud		N882, N883	
14	surface, o.d.		1 sj, 17 ud	2		
16	floor with pebbles, partly preserved		2 b, 1 sj, 2 ep			
37	surface, o.d.	39	N897 jl, 5 b, 3 k, 1 j, 2 hm, 4 sj, 2 ep, 184 ud	7		
126	surface, o.d.				N1111, 1112	
126'	pit					

Table 58 Description of the loci of Phase XIII, Area 9 West

(FISCHER 1991: 73). Its total length is more than 300 m and it encircles the upper part of the tell. A meaningful interpretation of the scanty remains is not possible. There are again a number of obvious domestic, partly stone-paved, structures. The finds fit well into the second part of the Iron Age.

Legend for the illustrated pottery and figurines from Phase XIII, Area 9 West

- Fig. Locus No. Description
- 248:1 1 N889 Black Juglet, hand-made, hard-fired, greyish-brown fabric, medium-fine, some white inclusions, thick black slip, vertically burnished (see also Fig. 248 left).
- 248:2 37 N897 Juglet, hard-fired, reddish-brown fabric, coarse, mainly black inclusions, self slip.
- 248:3 4 -1 Lamp, hard-fired, light red fabric, grey core, fine, self slip.
- 248:4 4 N877 Krater, hard-fired, red fabric, dark grey core, medium-coarse, multicoloured inclusions, reddish-brown slip.
- 248:5 7 -2 Figurine of bull, wheel/hand-made, hard-fired, light red fabric, thick grey core, coarse, mainly black inclusions, self slip, red paint (see also Fig. 463:6 and Appendix 1).

248:6 1 N874 Figurine of female holding tambourine, hand-made, hard-fired, light red fabric, thick grey core, coarse, mainly white inclusions, light red slip; traces of a "glaze" are visible on the back of her left shoulder (see also Figs. 458:5, 462:1 and Appendix 1).



Fig. 249 Black Juglets: N889 from Phase XIII, Area 9 (left); N906 from Phase XIV, Area 7 (right)

Additional finds from Phase XIII, Area 9 West (listed, not illustrated)

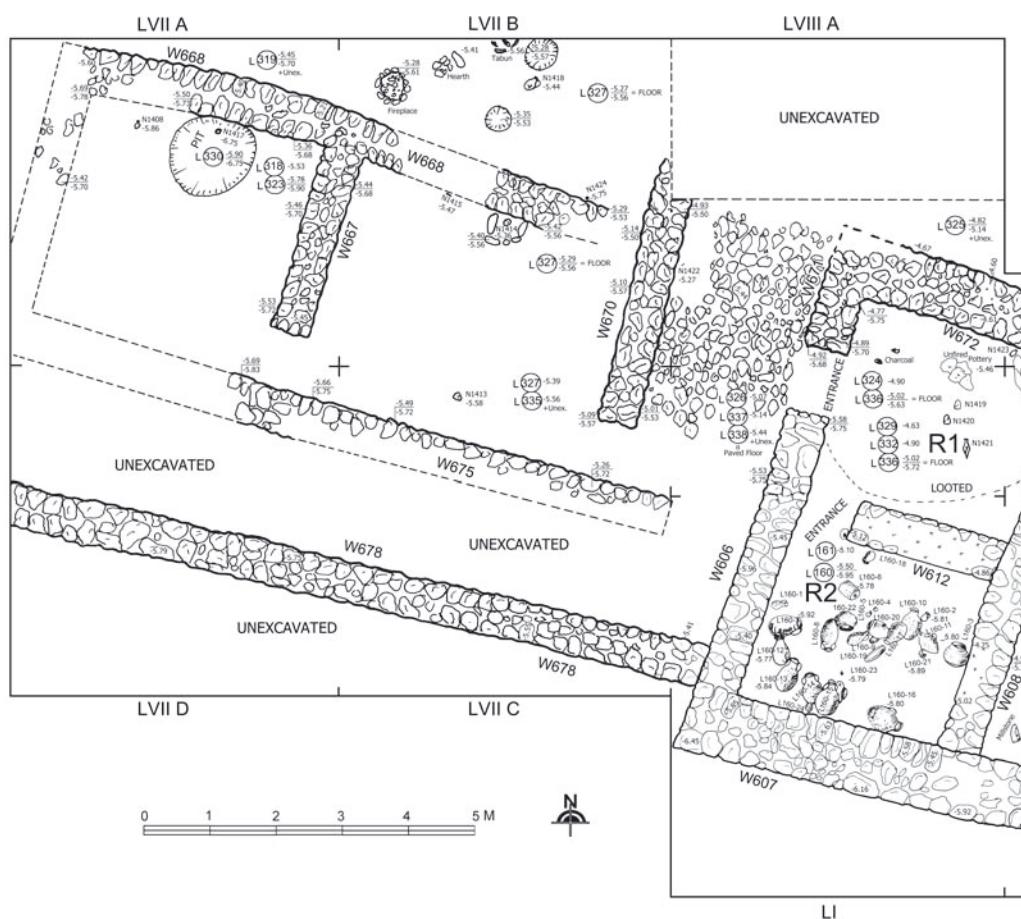
Locus No. Description

- 1 N870 Unguentarium, glass, lentoid shape, d. of rim 1.9, d. of neck 1.4, d. of handle (outer diameter) 1.9, average Th 0.8 cm.
- 1 N888 Bead/pendant, silver/lead, rosette-shaped.
- 4 N876 Pestle, basalt, tapering, d. bottom 6.7, d. top 4.7, H 6.1 cm.
- 7 N871 Coin, silver, "752 A.D.", d. 2.5, Th 1.07 cm.
- 7 N873 Coin, copper-alloy, very corroded, d. 1.7, Th 0.2 cm; and point of needle, bronze, fragmentary, L 2.7, d. 0.5–0.2 cm.
- 10 N882 Tweezers, iron, broken, L 26.0, d. of shafts 1.6, d. of spring 3.1 cm.
- 10 N883 Arrowhead, iron, very corroded L 10.5, W 1.7, Th 0.8 cm; parts of wooden shaft still attached.
- 126 N1111 Loom weight, limestone, d. average 8.5, Th 3.0 cm, Wt 310 g.
- 126 N1112 Millstone, basalt, rectangular shape, 21.0 × 16.0, max. Th 4.5 cm.

PHASE IX, AREA 9 EAST⁴⁹ (Figs. 250–355)

Architecture and features

The total length of the exposed Phase IX structures is 58 m and the width is roughly 8 m (Figs. 250 and 251A and B). There is a sort of annex (K in Fig. 251B), 12 m in length, to the west which is partly connected with the main structure to the east, i.e. a cell-plan compound, 46 m in length (between D and E in Fig. 251B). The annex, which consists of at least four walled spaces with several fire places has a different layout in comparison with the cell-plan compound but is built of walls of an identical direction. There is a stone-paved space to the west of the cell-plan compound opposite its entrance (G in Fig. 251B). An unusual find of a lion figurine of fired clay was made west of this space and just to the north of W668 (N1424; Figs. 354, 458:6, 463:2 and Appendix 1).



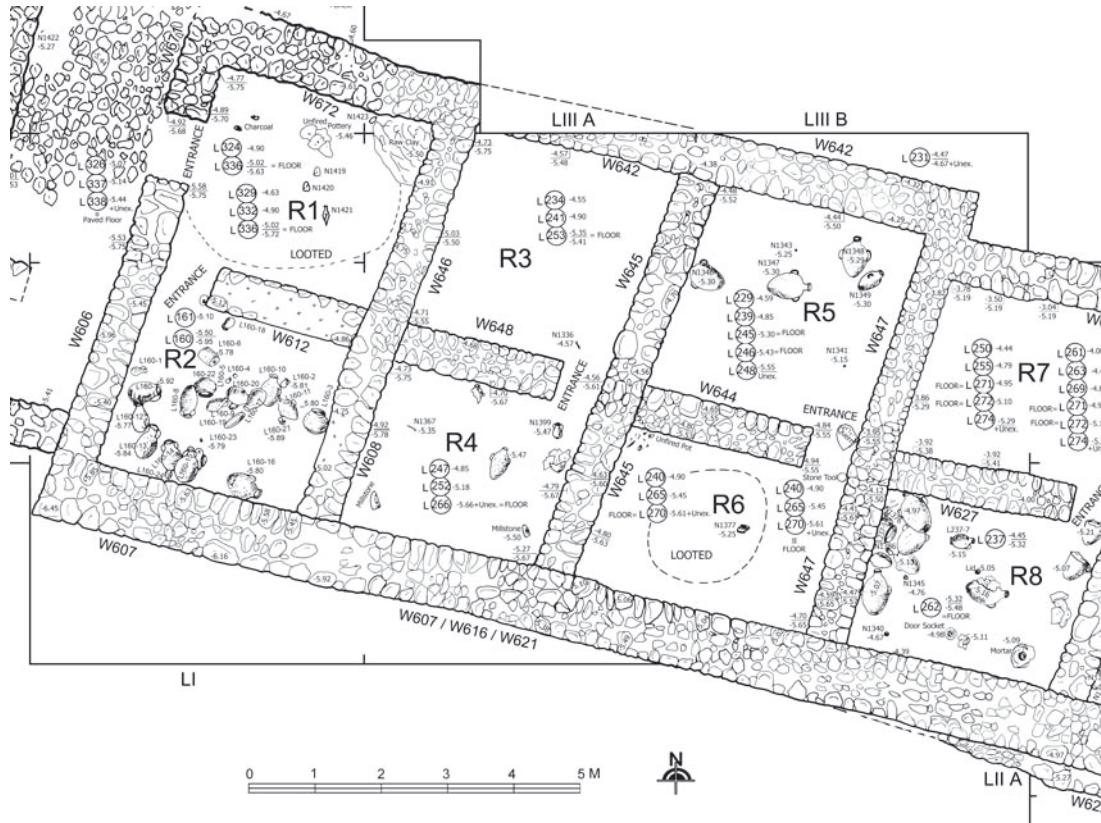
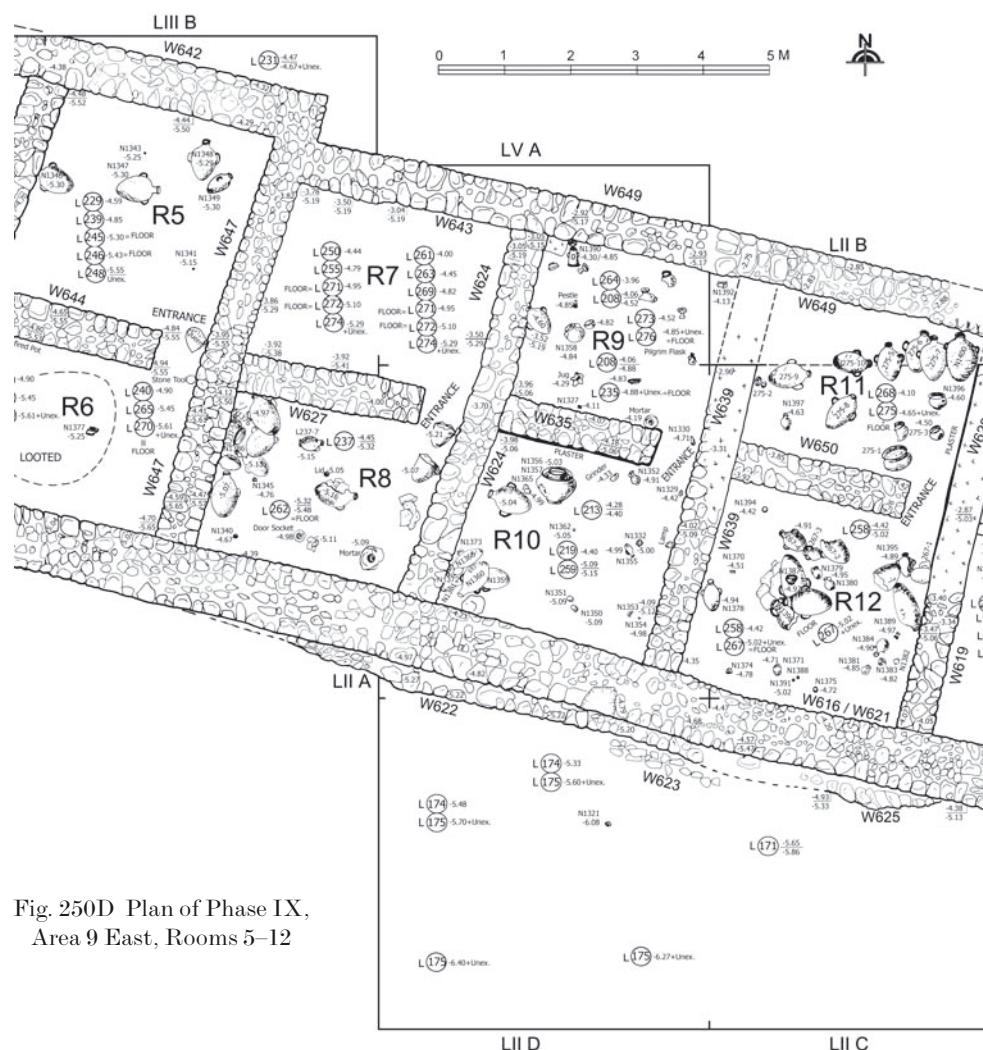


Fig. 250C Plan of Phase IX, Area 9 East, Rooms 1–8

Fig. 250D Plan of Phase IX,
Area 9 East, Rooms 5–12

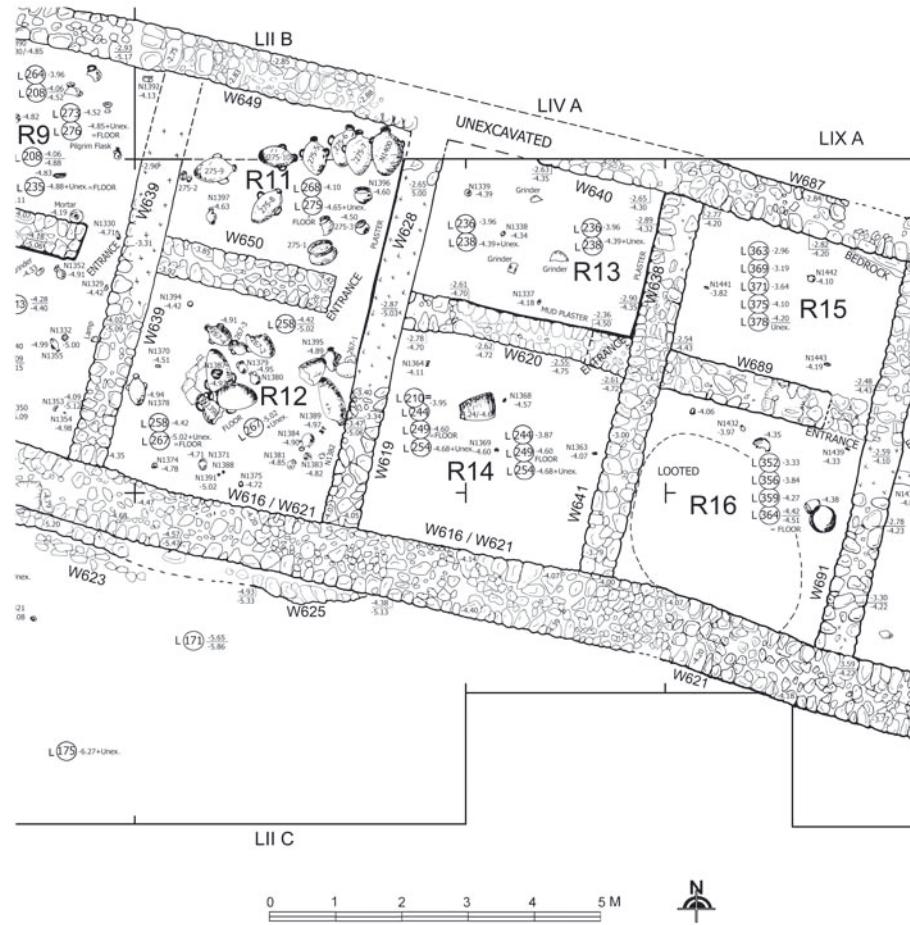


Fig. 250E Plan of Phase IX, Area 9 East, Rooms 11–16

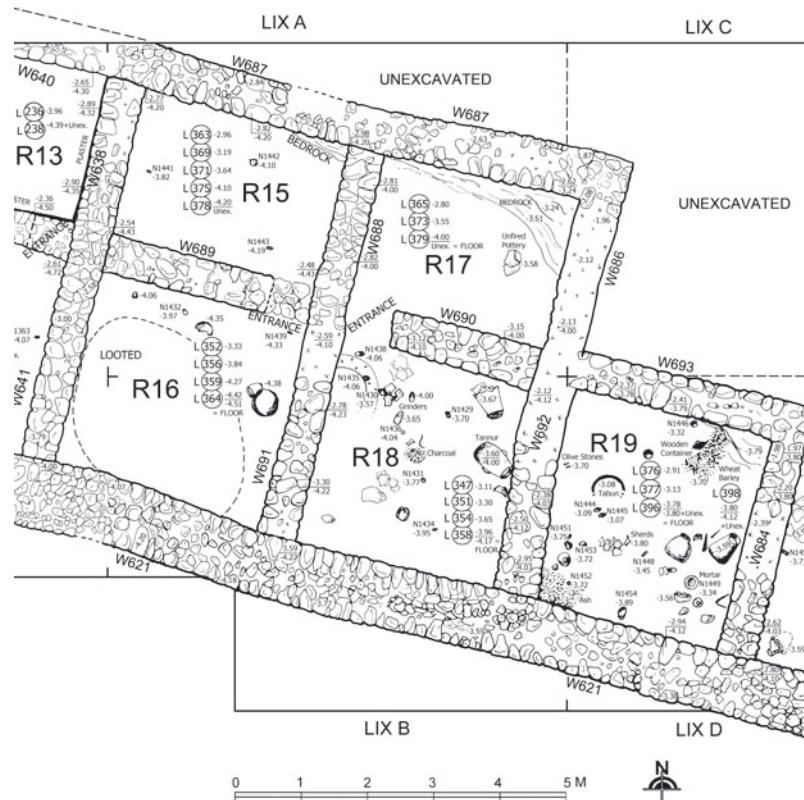


Fig. 250F Plan of Phase IX, Area 9 East, Rooms 15–19

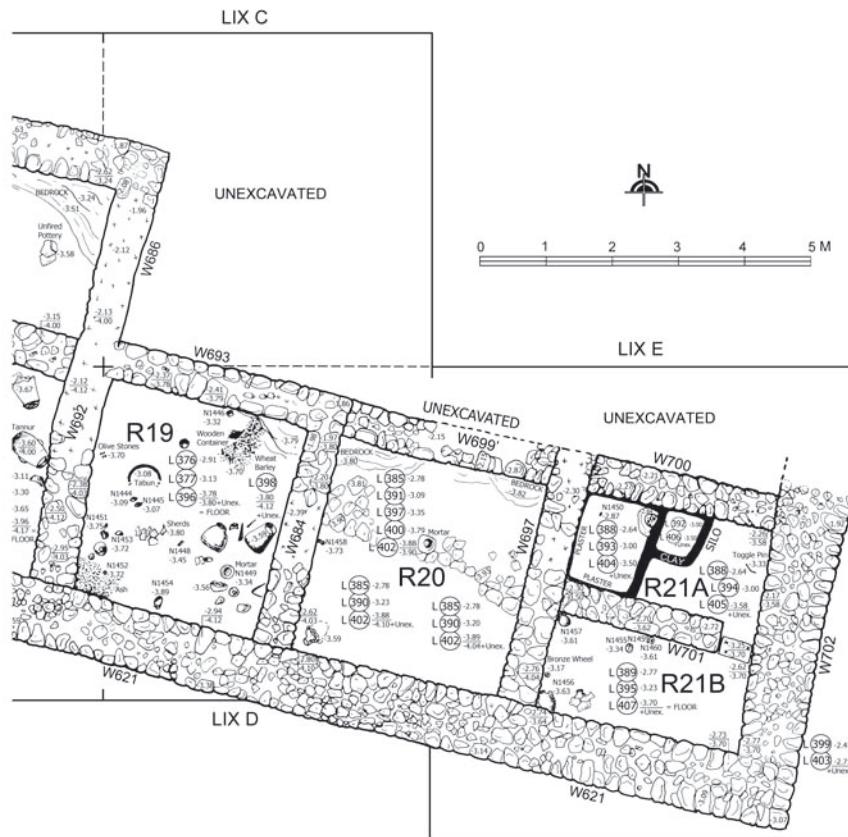


Fig. 250G Plan of Phase IX, Area 9 East, Rooms 19–21

After removing debris with a total thickness of more than 1 m and the burnt down roof structures⁵⁰ which were up to 0.5 m thick (see below and Fig. 264), we were able to expose 46 m × 8 m of the cell-plan compound in the seasons 2009–2012 (see traces of intense fire in Fig 252 and other illustrations). A considerable amount of organic remains were found fairly well preserved (see below and Figs 253, 254, 273, 274, 304 and 316). The cell-plan compound contains 22 rooms (R1–21A, B). The rooms are here numbered from west to east with uneven numbers to the north and even numbers to the south when the rooms are arranged pairwise (R1–18). The high profile of bedrock did not permit the construction of basement rooms in the north-eastern part of the compound; consequently R19–21 are single rooms to the south of which R21 is separated into two smaller spaces (A and B).

The compound is extremely well preserved and

built upon the remains from the Bronze Age including the Late Bronze Age city wall (see the preliminary reports in FISCHER 2012a; FISCHER and BÜRGE 2012, and *idem* in press a–d; FISCHER and FELDBACHER 2010, 2011). Regrettably three looters' pits which were dug between the 2009 and 2010 seasons of excavations reached Stratum IX and disturbed the contexts to a fair depth although only within restricted spots. One is in the northern room of the most westerly pair (Room 1), the second is in the southern room of the third pair (Room 6) and the third is in the southern room of the eighth pair (Room 16). None of the other spaces were disturbed after the catastrophe and conflagration which brought Phase IX to an end. This came as a surprise when one considers, at least in the case of the most westerly rooms, their closeness to the surface, especially in their southern parts (see e.g. Fig. 255).

⁵⁰ The building represents a two-storey compound. Here, the roof belongs to the basement which is equivalent with the floor of the upper storey.

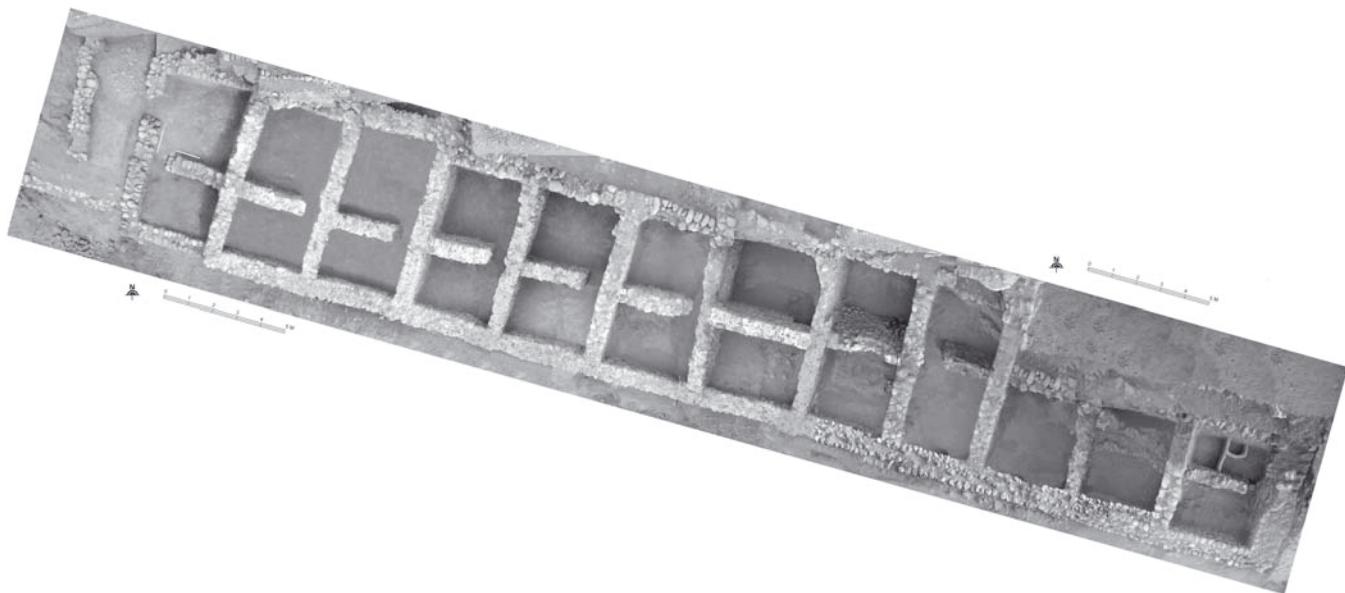


Fig. 251A Overview Phase IX, Area 9 East. Photographs via photo-tower (photographed and compiled by T. Bürgi)

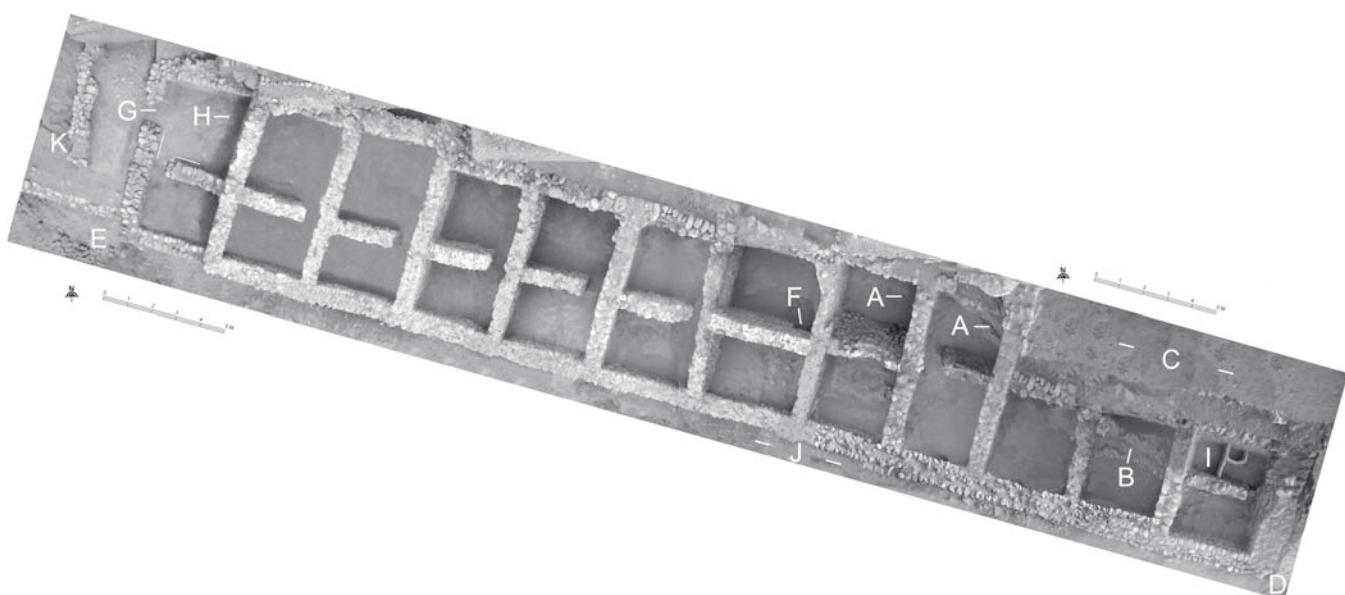


Fig. 251B Phase IX compound: A – bedrock; B – Late Bronze Age city wall; C – levelled surface above bedrock; D – eastern limit (?) of compound; E – western limit of compound; F – preserved entrance; G – paved area in front of western entrance; H – depot of fine clay; I – silo; J – consolidated area to the west, not yet consolidated to the east (state 2012); K – western annex structure

The rooms are fairly standardized, being from $2.5\text{ m} \times 3\text{ m}$ to $3\text{ m} \times 3\text{ m}$ in size except for Room 21 which is further separated into two small rooms of roughly equal size. The walls of the compound are in general $0.6\text{--}0.7\text{ m}$ wide except for the city wall, which is approximately 1 m wide and against which the compound is built to the south. The Iron Age city wall rests on the city walls from earlier Bronze Age peri-

ods. All pairwise arranged rooms (R1–18) are connected to each other through standardized entrances 0.6 m wide. These entrances are in general from the east, except for R1–2 and R17–18 with entrances from the west. Some entrances have a threshold of clay because the northern row of rooms is somewhat higher up the tell than the southern one. All the rooms were plastered on the interior with a layer of fine clay. The



Fig. 252 Soot on northern wall of Room 19

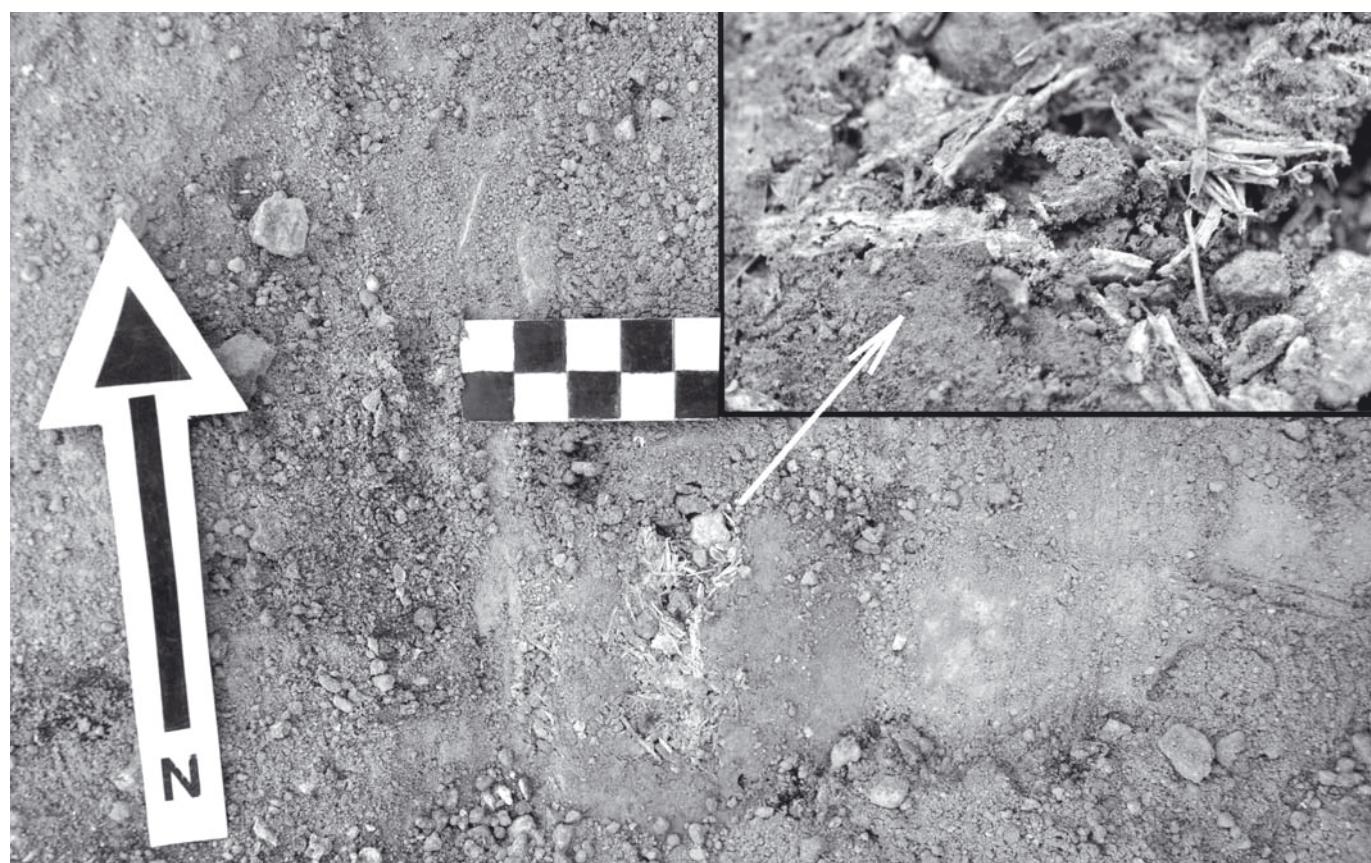


Fig. 253 Straw of roof construction; enlarged within box

Wall No.	Width (m) average dimensions	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
606	0.6-0.65	0.5	3			
607	1.0	0.4	3			city wall
608	0.6	1.0	7-8			
612	0.65	0.9	7			wall with entrance
616	1.0	0.4	2			city wall
619	0.5	2.5	8			
620	0.55	2.1	8			wall with entrance
621	1.0	0.9	5			city wall
624	0.6	2.1	11			
627	0.65	1.4	10			wall with entrance
628	0.5	1.4	5	5	i.d.	upper mudbrick part preserved
635	0.65	1.1	7			wall with entrance
638	0.6	2.4	9			
639	0.6	2.0	7			
640	0.7	2.4	9			
641	0.65	2.2	9			
642	0.8	0.8	7			
643	0.7	1.5	10			
644	0.65	0.7	5			wall with entrance
645	0.65	0.7	6			
646	0.7	0.65	4			
647	0.7	1.4	10			
648	0.65	1.0	7			wall with entrance
649	0.7	1.35	7			
650	0.65	1.5	10			wall with entrance
667	0.7	0.2	1			
668	0.75	0.25	1			disturbed
670	0.7	0.5	1-2			
671	0.7	0.9	i.d.			unexcavated, wall with entrance
672	0.9	i.d.	i.d.			unexcavated
675	0.6	0.3	1			disturbed by later building activities
678	0.6	i.d.	i.d.			unexcavated
686	0.65	1.8	9			
687	0.65	1.2	8			
688	0.5	1.7	7			
689	0.5	2.0	8			wall with entrance
690	0.65	1.0	4			wall with entrance
691	0.65	1.5	7			
692	0.65	1.4	8			
693	0.65	1.4	8			
697	0.65	1.6	7			
699'	0.6	1.0	5			
700	0.65	1.6	7			
701	0.5	1.2	5			wall with entrance
702	1.1	1.7	6			

Table 59 Description of the walls of Phase IX, Area 9 East

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
160	floor of room, o.d.	29	-1 jl, -2 jl, -3 k, -7 ja, -8 sj, -9 ja, -10 sj, -11 sj, -12 sj, -13 j, -14 sj, -15A k, -15B ja, -16 sj, -17 stj, -18 sj, -20 sj, -21 jl, -22 k, -25 sj, -26 sj, -27 cb		-4, -5, -6, -19, -23, -24	very hard, much ash
161	fill above floor of room, o.d.	4	-1 k, 3 j, 85 ud			
174	dump outside city wall	13	24 ud		N1321	mixed-up; find may belong to any period
175	dump outside city wall	4	7 ud			mixed-up
208	layer with o.d. above floor	16	N1392 pyx, -1 k, -2 k, -3 ep, -4 sj, -5 sj, -6 Phoen j, 1 b, 1 eb, 1 c, 1 k, 6 j, 5 sj, 390 ud		N1327	
210	fill above floor, charcoal, ash		-1 ep, -2 ep			
213	fill above floor, charcoal, ash	10	-1 l, -2 sj, -3 j, -4 j, 3 k, 1 jl, 8 j, 1 ja, 2 sj, 162 ud			
219	layer with o.d. above floor		N1332 l, N1350 pf, N1351 pyx, N1352 j, N1353 c?/l?, N1355 j, N1356 k, N1357 k, N1359 ja, N1360 sj, N1361 sj, N1365 pyx, N1366 sj, N1372 b, N1373 j, -1 k, -3 k, -4 j, -5 cp, -6 g/jl, -7 b, -8 jl, -9 ja, -10 eb, 9b, 1 c, 61 k, 12 jl, 51, j, 3 ep, 1 l, 6 sj, 2479 ud		N1329, N1330, N1354, N1362	
229	fill above floor of room, o.d.	56	-1 k, -2 k, -3 k, -4 cp, -5 cp, -6 k, -7 cp, 11 b, 1 g, 4 k, 7 j, 2 jl, 2 sj, 4 ep, 311 ud			
231	fill outside compound, hard packed	26	1 j, 27 ud			partly excavated
234	fill above floor of room, o.d.	21	-1 k, -2 ja, 6 b, 9 k, 8 j, 1 l, 5 sj, 128 ud		N1336	
235	floor of room, o.d.					
236	fill above floor, charcoal, ash	1	2 k, 6 j, 1 jl, 1 ja, 1 ep, 2 sj, 142 ud		N1337, N1338, N1339	
237	fill above floor, charcoal, ash	70	N1386 jl, -1 j, -2 k, -3 b, -4 j, -5 cp, -6 sj, -7 j, -8 cp, 11 b, 1 c, 8 k, 29 j, 2 jl, 1 ja, 53 sj, 1 ep, 3015 ud		N1340, N1345, N1376	
238	floor of room, o.d.	4	-1 ep, 1 k, 1 j, 2 sj, 68 ud			
239	fill above floor of room, o.d.	19	N1346 sj, N1347 sj, N1348 sj, N1349 sj, -1 ep, 3k, 2 j, 372 ud		N1341, N1343	
240	disturbed o.d.	30	-1 ej, 2 b, 2 k, 7 j, 1 ja, 1 spja, 7 sj, 205 ud		N1377	fired mudbrick remains
241	fill above floor of room, o.d.	63	-1 j, -2 cb, -3 b, 1 b, 9 k, 5 j, 3 jl, 1 ep, 340 ud		-4	
243	margins of looter's pit	2	1 jl, 1 j, 17 ud			not excavated
244	fill above floor, charcoal, ash	16	-1 pyx, -2 cb, -3 ep, -4 j, -5 k, 2 k, 7 j, 1 jl, 1 sj, 118 ud		N1363, N1364, -6	
245	floor 1 of room, o.d.		1 k, 1 j, 17 ud			fresh most recent floor
246	floor 2 of room, o.d.					very hard and used
247	fill above floor of room, o.d.	3	-1 sj, 4 b, 2 j, 30 ud		N1367	
248	floor 3 of room, o.d.					very hard and used

Table 60 Description of the loci of Phase IX, Area 9 East

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
249	floor of room, o.d.	1	-1 cp, -2 j, -3 ej, -4 j, -5 k, 1 k, 22 j, 1 l, 5 sj, 480 ud		N1368, N1369	
250	fill with ash, mudbrick	6	4 b, 1 k, 6 sj/k, 260 ud			
252	fill above floor of room, o.d.	41	N1399 ej, -1 b, -2 j, -3 j, -4 k, -5 ja, -6 cb, 5 b, 1 k, 9 j, 1 jl, 1 l, 9 sj, 240 ud			
253	floor of room, o.d.					
254	just below floor of room, o.d.	11	1 b, 1 ja, 10 ud			
255	fill with ash, charcoal, mud-brick	5	1 b, 2 j, 1 ud			
258	fill above floor, charcoal, ash	10	N1371 l, 3 b, 3 k, 2 jl, 3 j, 9 sj, 299 ud		N1370, N1374, N1375, N1394	
259	floor of room, o.d.					
261	fill, medium-hard, o.d.	9	-1 cp, 2 sj, 7 ep, 58 ud			
262	floor of room, ash, o.d.					
263	fill, destruction layer, ash, charcoal	7	1 k, 1 ep, 117 ud			
264	fill above floor, charcoal, ash	16	-1 pf, -2 k, 2 b, 1 k, 3 j, 1 hm, 5 sj, 2 ep, 168 ud			
265	disturbed o.d.					fired mudbrick remains
266	floor of room, o.d.	1	1 cb, 13 ud			
267	floor of room, o.d.	27	N1378 ja, N1379/1 jl, N1379/2 lid, N1380 jl, N1381 jl/pyx, N1383 g/jl, N1384 pf, N1387 b, N1395 ja, N1398 j, -1 ja, -2 ja, -3 pf, 8 b, 5 k, 16 j, 1 jl, 1 l, 69 sj, 1 ja, 1 spja, 2669 ud		N1382, N1388, N1389, N1391	
268	fill above floor, charcoal, ash	10	-1 ej, -2 ej, 1 b, 10 k, 4 j, 1 stj, 4 jl, 1 l, 1 ja, 2 sj, 337 ud			
269	fill, destruction layer, ash, charcoal	8	9 j, 67 ud			
270	floor of room, ash, o.d.					
271	floor 1 of room, o.d.	11	12 ud			
272	floor 2 of room, o.d.	92	23 ud			
273	layer with o.d. directly above floor	96	N1358 ep, N1390/1/2 stand, -1 j, -2 k, -3 ja, -4 e, 7 b, 1 k, 4 j, 2 jl, 1 ja, 5 sj, 241 ud			
274	fill, hard-packed					unexcavated
275	floor of room, o.d.		N1396 k, N1397 g/jl, N1400 spsj, -1 k, -2 e, -3 ep, -4 g/j, -5 ja, -6 sj, -7 sj, -8 sj, -9 sj, -10 sj			
276	floor of room, o.d.					
318	fill, destruction layer	-1... -6, 80	1 b, 2 k, 8 j, 1 sj, 2 cp, 138 ud			
319	surface					
323	fill, o.d.	133	1 b, 2 sj, 2 cp, 46 ud		N1408	
324	fill, destruction layer	6	1 b, 1 k, 20 ud			

Table 60 continued Description of the loci of Phase IX, Area 9 East

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
325	fill, o.d.	20	1 j, 1 ja, 28 ud			
326	fill, o.d.	20	1 ja, 2 sj, 60 ud		N1422	
327	fill, o.d.	N1418, -1... -4, 502	5 jl, 4 ja, 178 ud		1 N1413, N1414, N1415	partly disturbed
329	fill, o.d.	13	-1 b, 2 b, 1 eb, 3 k, 1 jl, 5 j, 10 sj, 1 l, 104 ud	2		looter's pit, dis- turbed
330	pit	-1, 25	1 b, 1 jl, 3 j, 1 sj, 60 ud		N1417	
332	fill, destruction layer above floor	13	31 ud		N1419, N1420, N1421	
335	fill, dump	-1, 552	1 j, 1 sj, 1 cp, 13 ud		N1424 fig	
336	fill above floor, ash, charcoal	-1, 137	3 b, 1 c, 1 k, 2 jl, 5 j, 2 sj, 1 l, 71 ud		N1423	
337	fill, o.d.	152	5 b, 1 c, 4 j, 1 spja, 3 ja, 8 sj, 1 ep, 69 ud	1		
338	paved surface					covered by sherds
347	fill, destruction layer, o.d.	56	5 j, 5 ja, 5 cp, 273 ud	2		
351	destruction layer, mud-brick, charcoal, ash	30	N1429 jl, N1430 j, -1 l, -2 cp, -3 jl, 4 b, 3 k, 2 jl, 2 j, 3 ja, 2 sj, 1 l, 323 ud			
352	destruction layer, mud-brick, charcoal, pebbles	30	2 b, 2 k, 2 jl, 2 j, 2 ja, 4 cp, 232 ud	2		
354	destructiona layer above floor, mudbrick, charcoal, ash	40	N1431 b, -1 j, -2 cp, -3 ej, -4 cb, -5 ja, -6 ja, -7 tannur, 8 b, 1 c, 7 k, 6 jl, 6 j, 1 spj, 6 ja, 1 sj, 1 hm, 5 cp, 553 ud		N1434	
356	destruction layer, mud-brick, o.d.	32	N1432 jl, -2 k, 3 b, 3 k, 6 j, 5 ja, 3 cp, 330 ud		-1	
358	floor of room, charcoal, ash, o.d.	44	N1436 b, N1438 lid, -2 pyx, 4 b, 6 k, 2 jl, 7 j, 1 spj, 9 ja, 1 l, 3 cp, 363 ud		N1435, -1	
359	destruction layer above floor, mudbrick, o.d.	12	-1 ep, 2 b, 2 k, 1 jl, 1 spjl, 3 j, 4 ja, 1 kernos, 3 cp, 150 ud		N1439	tabun
363	fill, destruction layer, o.d.		2 j, 1 ep, 26 ud			
364	floor of room, o.d.	17	2 b, 1 k, 2 ja, 3 sj, 2 cp, 125 ud			
365	destruction layer, mud-brick, charcoal, ash	37	3 b, 1 j, 65 ud			
369	destruction layer, mud-brick, charcoal	30	-1 ej, -2 ja, -3 cp, -4 ep, -5 cp, -6 pyx, 3 k, 1 jl, 1 j, 6 ja, 3 cp, 7 ud			
371	fill, destruction layer, pebbles, o.d.	27	N1442 pyx, -1 pf, -2 cp, -3 ep, -4 ep, -5 ja, 2 b, 3 k, 2 jl, 3 j, 3 ja, 10 ep, 1 ej, 418 ud		N1441	
373	fill, pebbles, o.d.	10	1 b, 1 k, 6 j, 4 ja, 2 ep, 160 ud			
375	destruction layer, mud-brick, charcoal, ash	10	-1 ej, 1 b, 1 k, 1 j, 1 ja, 74 ud		N1443	
376	destruction layer, ash, charcoal	34	-1 spjl, 1 k, 1 j, 1 stj, 8 ja, 3 sj, 1 pyx, 2 ep, 2 ej, 225 ud		N1444, N1445	tabun
377	destruction layer, mud-brick, charcoal, ash, o.d.	-1, 158	N1446 b, N1453 pf, N1454 jl, -2 j, -3 jl, -4 heater, -5 heater, -6 frying pan, -7 b, -8 j, 5 b, 5 k, 1 jl, 6 j, 12 ja, 1 hm, 3 sj, 1 pyx, 2 cp, 779 ud		N1448, N1449, N1451, N1452	
378	floor of room					unexcavated
379	floor of room					unexcavated

Table 60 continued Description of the loci of Phase IX, Area 9 East

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
385	destruction layer, mud-brick, charcoal	-1, 51	-2 b, -3 ja, -4 b, -5 cp, -6 cp, 6 b, 2 k, 2 jl, 7 j, 10 ja, 3 cp, 404 ud	2		tabun
388	fill, mudbrick, charcoal, pebbles	15	2 b, 1 jl, 4 j, 1 ja, 1 l, 2 ep, 248 ud		N1450	
389	destruction layer, mud-brick, o.d.	18	-1 cp, 1 b, 1 k, 7 j, 1 ja, 4 cp, 247 ud		-2	
390	disturbed o.d.	96	-1 ja, 1 b, 3 j, 1 ja, 2 ep, 283 ud	1		mudbrick remains
391	destruction layer, mud-brick, ash	31	-1 b, 5 b, 1 jl, 2 j, 2 ja, 1 ep, 246 ud			
392	fill inside clay structure	4	2 cp, 9 ud			some carbonized seeds
393	fill inside clay structure	3	1 j, 2 ja, 2 cp, 45 ud			some carbonized seeds
394	destruction layer, o.d.	13	2 j, 1 ja, 1 cp, 111 ud		-1	
395	destruction layer above floor, mudbrick, o.d.	28	N1456 ja, N1457 cj, -1 b, -2 ja, -3 b, -4 spj, -5 ja, 7 b, 1 k, 2 j, 32 ja, 36 sj, 15 cp, 1 ej, 2278 ud		N1455, N1459, N1460	
396	floor, foundation of room	30	-1 cp, -2 ja, -3 ja, 2 k, 9 j, 5 ja, 3 sj, 1 l, 5 ep, 281 ud			ash, bones, seeds
397	destruction layer, mud-brick, charcoal, ash	85	-1 l, -2 b, 6 b, 1 k, 2 j, 4 cp, 303 ud	1	N1458	
398	below floor of room	44	2 ja, 31 ud			
399	fill, o.d.	-1, 29	2 k, 1 j, 1 ja, 45 ud			
400	destruction layer above floor, o.d.	13	10 ud			
402	floor of room, ash, o.d.	147				
403	fill, pebbles, mudbrick	2	2 k, 2 ud			unexcavated
404	clay container					unexcavated
405	beaten earth floor of room					unexcavated
406	clay container					unexcavated
407	floor of room					unexcavated
W644	inside wall		1 k, 3 ud			

Table 60 continued Description of the loci of Phase IX, Area 9 East

floor contexts of the undisturbed rooms are amongst the most rewarding of all so far excavated in the city of Tell Abu al-Kharaz.⁵¹

Room 1 (W606, 671, 672, 646, 612; L324, 336, 329, 332) is one of the partly looted spaces. The southern part was totally emptied by the looters whereas the northern part was partly intact.⁵² A depot of fine clay in the eastern part of the room (H in Fig. 251B) and several broken unfired vessels point to the production

of pottery or at least the storage of unfired vessels and raw material. This room contained a considerable amount of charcoaled wood, possibly indicating wooden shelves where the unfired vessels were stored. A sample from a wooden post was sent to the Cornell Tree Ring Laboratory, Cornell University, USA for dendrochronological dating (Fig. 254). The sample, which is ash (*Fraxinus* sp.), could not be placed in a dendrochronological sequence.

⁵¹ In general, the floors of this building are even, hard-packed layers of clay of a totally different texture from the looser fill above.

⁵² A sizable heap of sherds from the looting was found around Room 1 when the excavations were resumed in 2010.

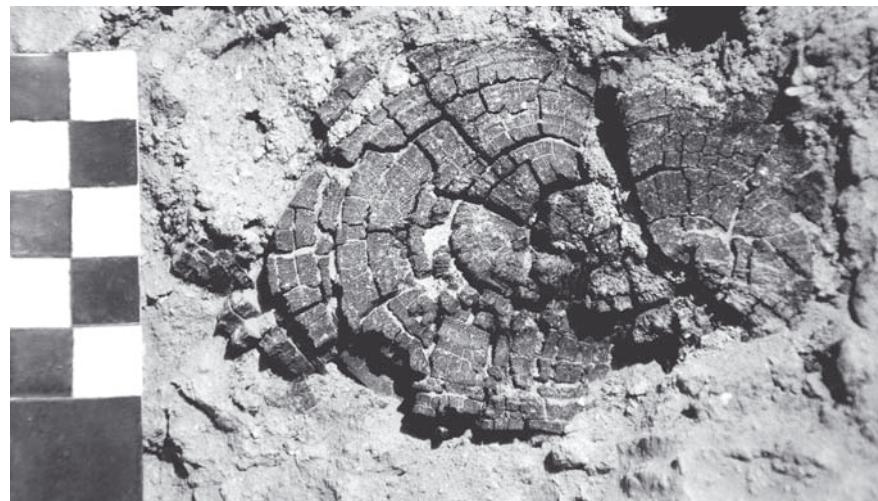


Fig. 254 Wooden post (ash; *Fraxinus* sp.) from Room 1, Phase IX, Area 9 East

Room 1 is the only one of the 21 rooms hitherto excavated that has two entrances. One is the standard opening towards Room 2. The second, which is the only one so far from the outside of the building, is 1 m wide. The irregularity of the corner stones may possibly imply that this “entrance” was widened after the destruction of the compound in an attempt to save belongings or to loot. The following finds derive from Room 1: a stone pestle, a basalt weight (?) with a cylindrical depression at the bottom, a spearhead, and a vessel of alabaster from which the neck and rim are missing (N1423; Figs. 346:2 and 347).⁵³

Room 2 (L160, 161) is the first space which was excavated in 2009 and which led to the discovery of this compound. It was enclosed by the walls W606, 607/616/621, 608 and 612 – some of them preserved up to 1 m high. There was a 0.12 m thick wooden roof support approximately in the centre of the room and an entrance 0.8 m wide in the north-western corner together with a step leading up to the next (later looted) Room 1. In the south-eastern corner of the passage to Room 1 is a door socket of limestone. The room was crowded with 27 primary finds from the floor level L160 (L160-1 through L160-27) intermingled with an ashy destruction layer which made the excavations somewhat difficult.⁵⁴ Twenty-two earth-ware vessels were exposed: one bowl, three kraters, three juglets, one jug and one strainer jug, and 13 jars.

The jars included three decorated types (L160-7, L160-9, L160-15B). Three (L160-10, L160-16, L160-20) contained the remains of (barley?) flour, of which one (L160-10) contained as much as four (!) kilograms (Fig. 316), and one of the kraters (L160-22) contained the dried remains of olive oil and olive pits. The decorated strainer jug with a broken-off basket handle (L160-17; Fig. 305:2 and 307) contained a considerable amount of barley. Finds of basalt include a mortar (L160-24; Figs. 352:1 and 353), a millstone (L160-19), and a spindle whorl of basalt which was probably reused because its shape and production technique are definitely at home in the Early Bronze Age (L160-4). Another find of an uncommon shape is a ribbed spindle whorl of burnt stone (L160-23; Fig. 346:13, 349 and 457:13). A sheet of corroded bronze might belong to the door construction (R1 to R2). A fairly heavy stone cylinder, 0.3 m long and 0.23 m in diameter, shows a centrally placed depression on one side whereas the other side is broken off (Fig. 255, just below and to the right of centre of photograph).

Room 3 (W 646, 642, 645, 648; L234, 241, 253) – together with Room 7 – is unexpectedly drained of any finds of special interest compared to the contents of the other rooms. Room 4 (W608, 648, 645, 607/616/621; L247, 252, 266), in contrast, contained a cooking jug (N1399; Figs. 338:1 and 339 upper right) and a bronze pin (N1367) together with other pottery

⁵³ Material analyses have not yet been carried out. Our vessels, which are of soft stone that was exposed to high temperature, are either of gypsum-alabaster (calcium sulphate) or alabaster (calcium carbonate). The neutral geological term “alabaster” is used here; cf. CLAMER 2007: 626; see also discussion in SPARKS 2007: 159–160.

⁵⁴ The finds L160-25 and 26 (two plain storage jars) and L160-27 (a carinated bowl) are not on the plan because sherds from these vessels were spread over a larger area after the collapse of the roof.



Fig. 255 Room 2, Phase IX, Area 9 East: photograph taken in 2009 during the excavations after removal of the roof debris



Fig. 256 Room 5, Phase IX, Area 9 East with storage jars

and several millstones of porous basalt, and Room 5 (W645, 642, 647, 644; L229, 239, 245, 246, 248) four complete storage jars (N1346–1349; Fig. 256) and two beads of faience (N1341) and carnelian (N1343).

Room 6 (W645, 644, 647, 607/616/621; L 240, 265, 270) was partly looted: only a broken basalt bowl (N1377) and numerous pieces of unfired vessels remained. Of the next pair of rooms, Room 7 (W647, 643, 624, 627; L250, 255, 271, 272, 274, 261, 263, 269) was virtually empty, whereas Room 8 (W647, 627,



Fig. 257 Room 8, north-western corner, Phase IX, Area 9 East: jug, storage jars and cooking pots

624, 607/616/621; L237, 262) was again crowded with finds (Fig. 257): storage jars with lids of unfired/secundarily fired clay, cooking pots of the typical local early Iron Age types with triangular rims, mortars, two spindle whorls (N1340, N1376), a basalt pestle (N1345) and a juglet (N1386; Fig. 292:7 and 294). One of the storage jars from L237 contained a large amount of chickpeas (see Fig. 304, lower half of photograph).



Fig. 258 Room 9, north-western corner, Phase IX, Area 9 East: stand with chalice as lid, another chalice and a cooking pot



Fig. 259 Room 9, north-western corner, Phase IX, Area 9 East: stand with chalice as lid and another chalice; observe traces of oily liquid on exterior of stand

The next pair of rooms, Rooms 9 (W624, 649, 639, 635; L264, 208, 235, 273, 276) and 10, were also packed with finds, some of which are imports: one is a large globular jug in Room 9. It is of excellent craftsmanship with bichrome decoration on a burnished red background (L208-6; Figs. 321:7 and 452:4). It is a typical import from the Phoenician sphere of culture.

Room 9 also contained an upright stand/incense burner (N1390) with a lid in the shape of a chalice, all of it *in situ* (Figs. 258, 259, 328:1, 329 and 452:7). The stand still shows traces of an oily liquid on the outside. Other finds are a cooking pot (N1358; Fig. 335:1 and 336), a pilgrim flask, a pyxis (N1392) and tools of stone including a mortar and a pestle.



Fig. 260 Room 10, Phase IX, Area 9 East during the excavations

Through the aperture in the south-east of Room 9 the southern Room 10 (W624, 635, 639, 607/6161/621; L213, 219, 259) was entered. This room, too, contained numerous finds, some of which were imported. In the south-western corner of the room were storage jars and other vessels leaning against the walls (N1359, N1360, N1361, N1366; Figs. 260 and 261). Other finds from Room 10 are kraters (N1356, N1357), pilgrim flasks (one is N1350; Figs. 321:5 and 324), a pyxis (N1351; Figs. 325:1 and 326), a rare double-pyxis with connecting basket handle (N1365; Figs. 325:8, 327 and 452:3) and various juglets (one is N1355), lamps, one of which is four-spouted (N1332; Figs. 330:2 and 331) and a variety of tools of stone. Amongst the imports is one from the south-western corner: a large, shallow, white-slipped and burnished bowl standing on three loop handles (N1372; Figs. 280:17, 281 and 452:5), and another is a monochrome-decorated, large jug with a thick white, burnished, slip (N1352; Figs. 297:1, 298 and 452:6). Another vessel is most likely a mobile lamp (N1353; Fig. 344:1): it resembles a stem of a chalice with a vertical handle on the stem.

The next pair of connected rooms, Rooms 11 and 12, also contained a multitude of objects, some of them imported (Room 11 in Figs. 262 and 263). The northern Room 11 (W639, 649, 628, 650; L268, 275) contained seven storage jars (N1400, L275-5-10; two in Fig. 263), four cooking pots (three are in Fig. 262; L275-1, -3 and N1396), a chalice (L275-2) and two



Fig. 261 Room 10, south-western corner, Phase IX, Area 9: storage jars, bowl (N1372), jug and tools of stone

large goblets (N1397; Figs. 292:3, 293 and 456:9; and L275-4 in Fig. 292:4). Room 12 to the south (W639, 650, 619, 616/621; L258, 267) contained, *inter alia*, nine storage jars, jugs, juglets and a lamp (N1371; Fig. 332). A jar with two handles (N1398 in L267) contained 35 "balls" of dried clay of unknown function (Figs. 302:1 and 303, 456:5). Another jar in L267 which lay next to N1398 was filled with millet (either *Panicum Miliaceum* or *Setaria Italica*; see Fig. 304, upper part of photograph).⁵⁵ From the same L267

⁵⁵ I am much obliged to U. Thanheiser for this information (e-mail 14 June 2011).



Fig. 262 Room 11, Phase IX, Area 9 East during excavations. A = floor of basement, B = walls and roof of basement, C = floor of upper storey, D = walls and roof of upper storey, E = roof cover of clay, twigs and straw



Fig. 263 Room 11, Phase IX, Area 9 East: storage jars during excavations

derive two imported pilgrim flasks (N1384 and L267-3; Figs. 321:1 and 2, 322, 323 and 457:9). Other finds are one scaraboid (N1388 Figs. 341:1, 342, 457:11 and 466:1) and one scarab (N1389 Figs. 341:2, 343, 457:12

and 466:2): The scaraboid is of steatite with the stylized representation of the head of a horse instead of the common representation of the beetle's pronotum and the wings, and with drilled circular decorations on the base. The scarab is of light yellow, medium-hard composition with the possible throne name of Tuthmosis III (see also Appendix 3 for both finds).⁵⁶ One of the small vessels is of alabaster in the shape of a pyxis (N1382; Fig. 346:3). There is also a well-preserved, fairly heavy (219.6 g) rectangular object of bronze (Figs. 344:13 and 350).

Room 13, the northern of the next two pairs of rooms (W628, 640, 638, 620; L236, 238), is remarkably well-preserved (Fig. 266): its well-constructed walls are still upright to a height of more than 2 m. The doorway between Room 13 and 14 is shown in Figure 267. Rooms 13 and 14 did not contain the same quantity of finds as the rooms to the west. Nevertheless, a number of stone tools and a complete oven of the *tannur* type in Room 14 (W619, 620, 641, 616/621; L210/244, 249, 254) should be mentioned. The *tannur* lay on its side with the heavy roof structure on top (Figs. 264 and 265).

In 2012 eight more rooms could be exposed in the eastern part of the compound (R15–21A, B). The

⁵⁶ With reference to A. Ahrens, German Archaeological Institute, Damascus, who wrote on 26 October 2010: "... a rather mediocre version of "Men-Kheper-Re" (= Tuthmosis III's throne name) ... However, this is not clear beyond doubt,

and one of the signs could also read "user/woser" ... Since the hieroglyphs are locally executed, a definite reading is always difficult..."

stratigraphy in this part of the compound allowed us to distinguish between finds from the basement and finds from the upper storey which fell down into the basement area. During the excavations it became clear that Rooms 15 and 17 are built directly on or against the bedrock, which slopes upwards to the east



Fig. 264 Room 14, Phase IX, Area 9 East: roof structure with buried *tannur*



Fig. 265 Room 14, Phase IX, Area 9 East: exposed *tannur* after removal of roof construction

and north. Therefore the easternmost three rooms to the south (R19–21) are single rooms with no counterparts to the north because of the natural, rising, tell. They are also built partly on top of the Late Bronze Age city wall and partly directly on and against the bedrock.



Fig. 266 Room 13, Phase IX, Area 9 East during excavations. Entrance into Room 14 in left upper corner



Fig. 267 Looking from Room 14 through intact doorway into Room 13



Fig. 268 Haematite weight from Room 15

Room 15 (W638, 687, 688, 689; L363, 369, 371, 373, 379) contained a small weight of haematite (N1441; Fig. 268), a pyxis of clay (N1442), a spindle whorl of alabaster (N1443), an almost complete cooking jug (L369-1; Fig. 338:3) and several cooking pots and a pyxis of elongated shape (L369-6; Fig. 325:6).

Room 16 (W641, 689, 691, 621; L352, 356, 359, 364) was connected with Room 15 but the doorway was blocked with stones. Room 16 was partly looted and only its northernmost part was still intact. In this room a small hand-made juglet of unfired or very soft fired clay (N1432; Fig. 272:1) and a tube of polished bone (N1439; Fig. 269 left, 344:8 and 457:14 left), most likely the grip of a spindle,⁵⁷ were found. A collapsed *tabun* with a chimney was exposed on the floor of the basement of this room (Fig. 270).

Room 17 (W688, 687, 686, 690; L365, 373, 379) contained pieces of unfired pottery which again point to local pottery production. An open doorway connected this room with Room 18 (in W690; W691, 690, 692, 621; L347, 351, 354, 358). In Room 18 three *tannur* could be exposed. One of them was complete (L354-7) leaning against W692 (Figs. 271, 328:2). It has a handle, which is the first ever found on a *tannur* at Tell Abu al-Kharaz. Other finds of this room include



Fig. 269 Polished bone grips from Room 16 (left) and Room 19 (right)

Fig. 270 *Tabun* with chimney from Room 16

a hand-made juglet of unfired clay (N1429; Fig. 272:2) and two small hand-made bowls of soft-fired clay (N1431, 1436; see Fig. 272:3 and 4), a lamp (L351-1), a spindle whorl of clay (N1434), a complete jug (N1430; Fig. 339, lower part of photograph), a juglet (L351-3), a decorated pyxis of clay (L358-2), another pyxis (N1435) and a bowl (L358-1), the two last-named of

⁵⁷ The polished, worn, surface is the obvious result of frequent use. It is suggested that the bone-tube was attached to the spindle in order to facilitate the spinning process when a spindle with a small diameter was used.



Fig. 271 *Tannur* with attached handles from Room 18 (see also drawing in Fig. 328:1)

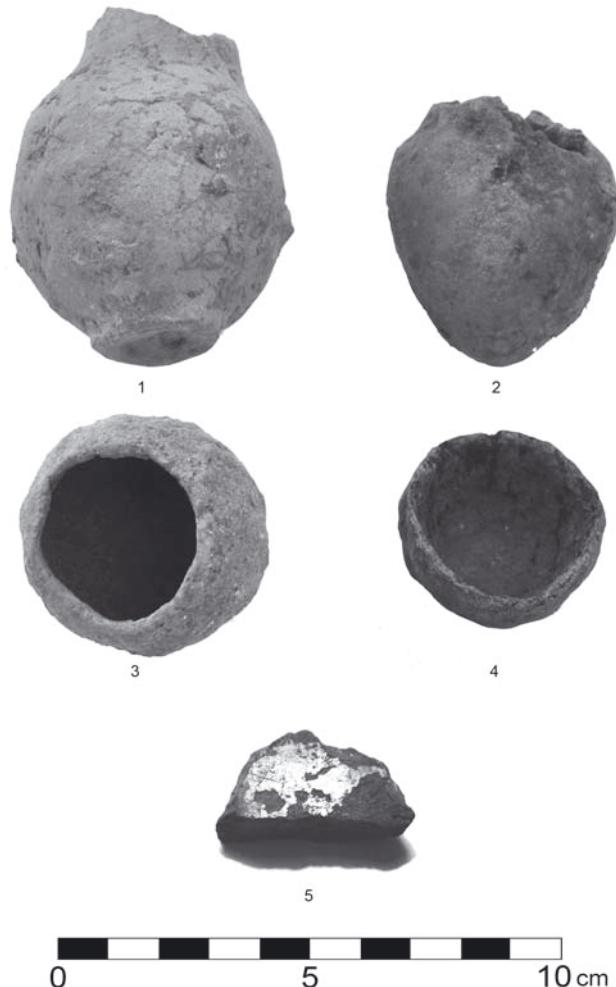


Fig. 272 Hand-made bowls and juglets: 1. N1432 from Room 16; 2. N1429 from Room 18; 3. N1431 from Room 18; and 4. N1436 from Room 18; 5. Hand-made Burnished Ware, closed vessel, hard-fired, dark greyish-brown fabric, fine, dark brown slip, burnished

alabaster with incised decoration (see the pyxis in Figs. 346:4 and 348), and a lid of unfired clay (N1438). There is also the carbonized wooden handle of a sickle (Fig. 273).

Like Room 18, the next room to the east, Room 19 (W692, 693, 684, 621; L376, 377, 396, 398), contained several installations for heating (Fig. 274): a part of a *tabun*, a *tannur* (L377-4) and an intact small heater (L377-5).⁵⁸ Other finds are two hand-made bowls (N1446 and L377-7) and a hand-made jug (L377-8), and – for the first time at Tell Abu al-Kharaz – a sherd of Hand-made Burnished Ware (Fig. 272:5); an oval object of unfired clay, maybe a frying pan (L377-6; Fig. 275), two spindle whorls of clay (N1445 and 1451), a spindle whorl of sandstone (N1444) and one of stone (N1452), a polished bone-tube with incised criss-cross decoration, maybe part of the spindle (N1448; Fig. 269 right, 344:7 and 457:14 right), and a donut-shaped basalt tool with a red pigment (N1449; Fig. 276) which was possibly used during the pottery-manufacturing process. Other ceramic finds include a small decorated, Phoenician-imported, pilgrim flask of high quality (N1453; Fig. 321:6), and a jug with red decoration (L377-2; Figs. 297:2, 299 and 456:4). The shape of the latter recalls Late Bronze Age shapes. Several kilograms of barley and wheat seeds were spread on the floor and numerous olive pits were collected in the western part of the room. The barley was possibly stored in an organic container: a wooden structure of

⁵⁸ It is unlikely that this object was a *tabun*.



Fig. 273 Wooden handle of sickle from Room 18

indistinct shape was exposed close to the seeds. Another wooden structure was found around the *tan-nur* (Fig. 274 left); it possibly served as support for a container/heater. The northern part of this room was built directly on the bedrock which slopes to the south. The southern part of the floor of Room 19 was built on

a loose fill which was covered by large sherds and contained a mixture of different seeds, such as lentils, barley and olive pits. A juglet (N1454) was found next to the sherds within the foundation of the floor. Therefore, we conclude that there are two floors present in Room 19.



Fig. 274 Room 19 with heaters and charcoaled wooden structures



Fig. 275 Frying pan from Room 19 (L377-6)



Fig. 276 Basalt tool with red pigment from Room 19 (N1449)

Room 20 (W684, 699', 697, 621; L385, 391, 397, 400, 402, 390) was disturbed by a large animal hole in the southern part. Finds from this room include a spool-shaped, Aegean-type, loom weight of unfired clay (N1458; Fig. 346:19), a storage jar (L390-1), a lamp (L397-1) and two hand-made bowls of unfired clay (L391-1, L397-2). Bedrock and a section of the Late Bronze Age city wall appeared to the north.

The easternmost space of the compound is different from all the other rooms (Fig. 277): although of the same size as the others it is divided into a northern (R21A; W697, 700, 702, 701; L388, 393, 404, 392, 496, 394, 405) and a southern (R21B; W697, 701, 702, 621; L389, 395, 407) part by W701 with an entrance to the east. As the floor level of Room 21A is some 0.1–0.2 m

higher than that of Room 21B, a threshold made of mudbrick was found in the doorway. There is a structure in Room 21A, namely two 0.8 m deep basins made of unfired clay (Fig. 277 lower part). The walls around them are covered with a fine layer of clay plaster. Remains of barley/wheat seeds show that at least the western basin was used for the storage of grain. Two metal finds were recovered in Room 21A: a toggle pin of bronze and a bead of pierced lead (N1450; Fig. 344:11) resembling a sling bullet. Room 21B was obviously used as a store room. It contained two intact vessels: a cooking jug (N1457; Fig. 278 upper right corner, 338:4, 339 upper left and 457:10) and a jar (N1456; Fig. 278 left corner). Other finds are seven plain storage jars, two small jars, a jug with red decoration on the shoulder resembling a script (L395-5; Fig. 308:6), a jug with a trefoil mouth (L395-4), a small krater and two bowls (L395-1, 3). Of special interest is a large biconical krater (Fig. 320:3) depicting palm trees, a bird and geometric elements in the metope style (L395-2). This is one more early Iron Age product that recalls Late Bronze Age archetypes. Another exceptional find is the part of a small bronze wheel which originally had eight spokes: it is identical with wheels from Philistine and Aegean sites (Figs. 344:12 and 345; see interpretation and discussion below). Other finds from this room include a basalt mortar, again with traces of red pigment (N1455), a ring-shaped weight (N1460) and a small pendant of stone (N1459). Numerous carbonized chickpeas were found in one of the ceramic containers.

The eastern wall at the end of the compound, W702, is with its 1.0 m width remarkably wider than all the other walls belonging to the compound. Its width corresponds exactly to that of the Iron Age city wall, W621. A test trench was opened east of the compound and it became clear that the city wall, i.e. the southern wall of the cell-plan structure, does not continue east of W702. A preliminary theory is that this opening in the city wall was one of the early Iron Age city gates. The position of the suggested gate is on a more moderate slope of the tell facing the Wadi al-Yabis. It would make sense to assume that the main street leading from Wadi al-Yabis to the fortified city centre was here.

Interpretation of the material evidence

The architectural layout of the 22 walled spaces hitherto exposed (state 2012) gives a strong impression of centrally supervised town planning because of the standardized size of the rooms and entrances. Each pair of rooms was connected via an entrance but there

are no apertures between the pair of rooms or to the exterior of the compound – except for Room 1 which has a second entrance in the western wall of the compound. Consequently, one has to ask how these rooms were entered. There is only one possible explanation, namely that these 22 rooms represent the basement of a multi-storey building (Figs. 250, 251; and reconstruction in Figs. 279 and 452: 2). Each pair of rooms

(R1–18) could be entered individually via a ladder from the floor level above because of the absence of a connecting opening between the pair of rooms. The same is valid for the single rooms (R19–21). This would also explain the unusually high walls on a stone foundation, which are preserved to a height of more than 2 m. This height would allow in principle any person to move freely around in the basement.



Fig. 277 Room 21A with silos in foreground



Fig. 278 Room 21B with complete jar and cooking jug and crushed vessels

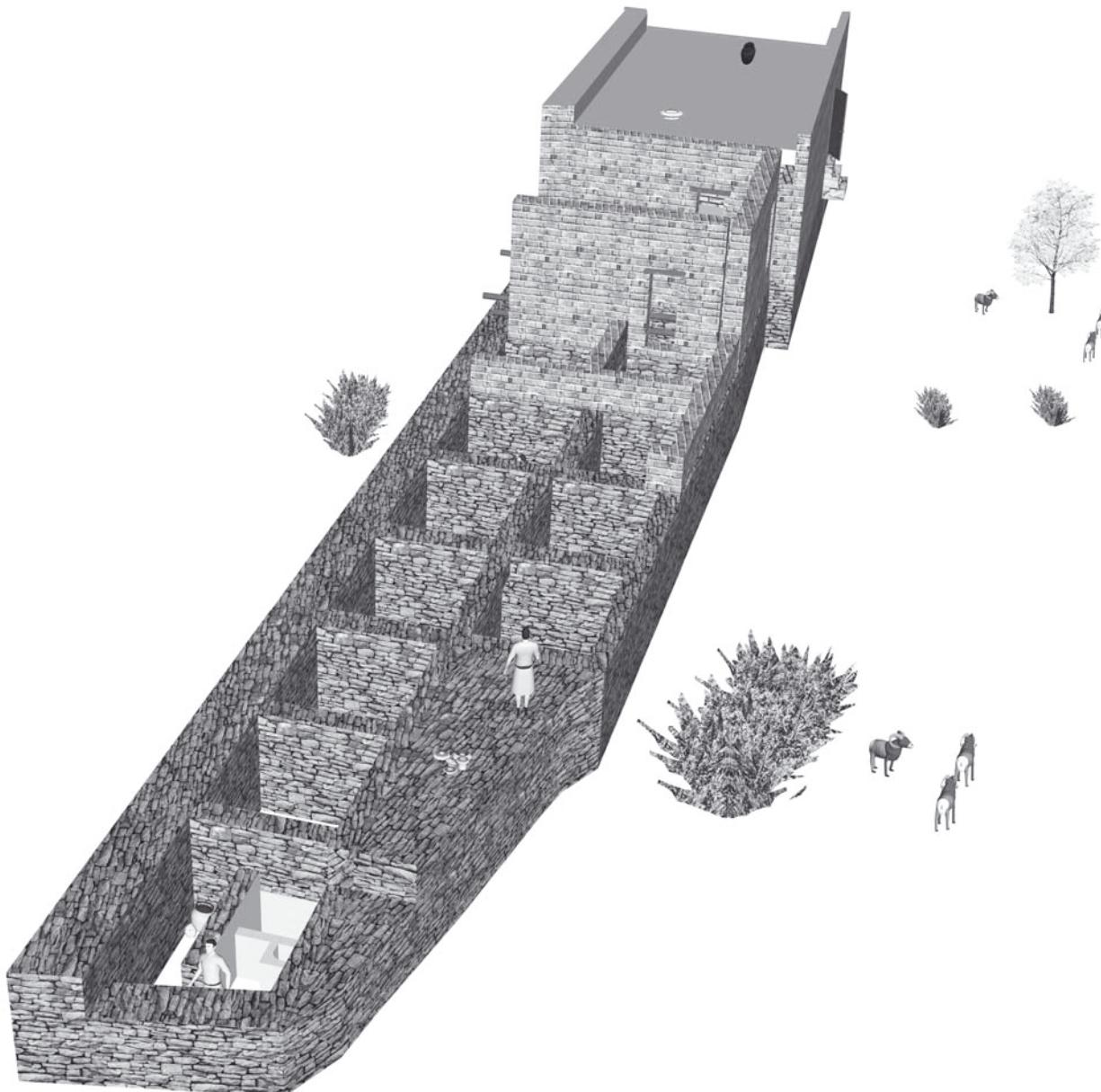


Fig. 279 Reconstruction of the cell-plan compound from Phase IX seen from the north

The “roof” debris which we found everywhere covering almost all of the floor spaces is best preserved in the eastern part of the exposed area and in particular in Room 14 (see the *tannur* embedded in the roof in Fig. 264), and in Room 11. It is approximately 35 cm thick and consists of branches and plaited twigs embedded in clay. The smoothed surface facing the interior of the basement is blackened by soot in many places (see e.g. Fig. 252). However, according to the interpretation presented above, the roof of the basement corresponds to the floor of the upper storey and the upper storey was entirely built of sundried mudbrick. It is evident that the settlers of the next phase (Phase X) merely levelled the mudbrick debris and

built their houses on top of it and refrained from digging up building material from their predecessors.

There is no doubt that the entire phase suffered from a severe conflagration as the result of an enemy’s attack, an earthquake, or other human or natural causes. Everywhere there are ash and carbonized wooden structures in considerable amounts (see e.g. Figs. 254 and 273). The destruction by an enemy – which is the most likely cause according to our interpretation which is based on a number of observations – would suggest that the assailant was more interested in human resources, viz. slaves, than in looting the city: there is not a single human skeleton or any definite proof of looting. Of course, one cannot rule out

the scenario that the assailant conquered the city without destroying the compound, took slaves, looted selectively, i.e. left heavy booty and concentrated on taking precious objects or items of metal which are relatively rare finds in our excavations, and then destroyed the city. The earthquake theory is not very probable because one has to ask why the inhabitants did not search for their possessions after the catastrophe: their exact position must have been known to them. The walls which are preserved to a height of more than 2 m can also be taken as an argument against the earthquake theory. It is not unlikely that the next settlers were new people who were not aware of the multitude of useable finds below the destruction debris and because of the overall architectural plan, which is somewhat different from that of the older settlement, although some of the older stone walls were reused. It is not impossible to assume that a short time passed between the destruction of Phase IX and the erection of the new buildings of Phase X, considering the stratigraphical situation.

The finds from this multi-storey compound reflect activities associated with daily life. There are rooms for storage of liquids and foodstuffs, for instance Room 2, which was used exclusively for that purpose because there was hardly any additional space left for moving around or working. Others were used as working facilities in addition to storage space (see Room 8 as an example of a multi-purpose facility). Working tools of stone and textile-production-related tools such as spindle whorls, grasps for spindles, loom weights and shuttles suggest certain activities which were carried out in the basement. All these findings point to storage facilities which also were used for these activities and which were accessed from the storey above by a ladder.

The necessity of a light source in the basement is obvious but lamps were only sporadically found (e.g. in Room 10). This does not exclude the possibility that mobile lamps were used whenever a room was entered (see e.g. the mobile lamp with handle in Fig. 344:1 from Room 10). One should also consider the option of small openings in the outer walls to allow light to enter the room. The openings in the southern wall, for instance, which also served as a city wall, were probably not large enough for humans to pass through but sufficient to light up the basement. Nevertheless, the openings in the roofs which led up to the upper storey certainly also provided light, assuming that the upper spaces were illuminated.

It is, however, difficult to imagine that people actually slept in this basement. At the same time many luxurious items derive from it: scarabs, the alabaster

vessels, ceramic (double-)pyxides, bowls, juglets, jugs and excellently decorated pilgrim flasks. Some of these items have certainly fallen from the storey above the basement when the latter's roof collapsed. There are numerous imports from the Aegean/Cypriote/Philistine, Phoenician, and Egyptian cultural spheres (see Chapter 5 "Conclusions"). Examples are pilgrim flasks which have counterparts in Philistine and Phoenician sites, Aegean- and Egyptian-type vessels of earthenware and alabaster, Aegean-type spool-shaped loom weights, and a bronze wheel with parallels, for instance, from Philistine Tel Miqne-Ekron and the Aegean (see Chapter 5 "Conclusions"). The presence of Hand-made Burnished Ware is now attested at Tell Abu al-Kharaz Phase IX: it may have arrived at Tell Abu al-Kharaz with groups of Sea Peoples originating from the Greek mainland or even further north.

In conclusion: the people of this phase of occupation were quite wealthy and had far-reaching contacts with other cultures as their predecessors had in the Late Bronze Age. Imports from Cyprus are attested throughout the Late Bronze Age at Tell Abu al-Kharaz, for instance, through finds of White Slip II (see e.g. FISCHER 2006a: 282, fig. 300). It is interesting to notice that residual sherds of White Slip II appear in the fill of the floors of Phase IX and X contexts (Fig. 355).

Legend for the illustrated pottery from Phase IX, Area 9 East

Fig.	Locus No.	Description
280:1	267	N1387 Bowl, medium-hard-fired, light yellowish-brown fabric, medium-coarse, mainly black inclusions, light brownish-red slip, ancient mending of crack with light grey substance.
280:2	377	-7 Bowl, hand-made, medium-hard-fired, orangish-brown fabric, coarse, multicoloured inclusions, light yellow to orange slip.
280:3	237	-3 Bowl, hard-fired, light orange fabric, medium-fine, self slip.
280:4	395	-3 Hemispherical bowl, medium-hard-fired, greyish-brown fabric, medium-coarse, multicoloured inclusions, dark brown wash.
280:5	385	-2 Bowl, hard-fired, light brownish-orange fabric, medium-fine, mainly grey and white inclusions, light yellow slip interior, light orange slip exterior, red decoration on rim.
280:6	395	-1 Bowl, very hard-fired, light greyish-brown fabric, medium-coarse, white and grey inclusions, light yellow slip, red decoration on rim.

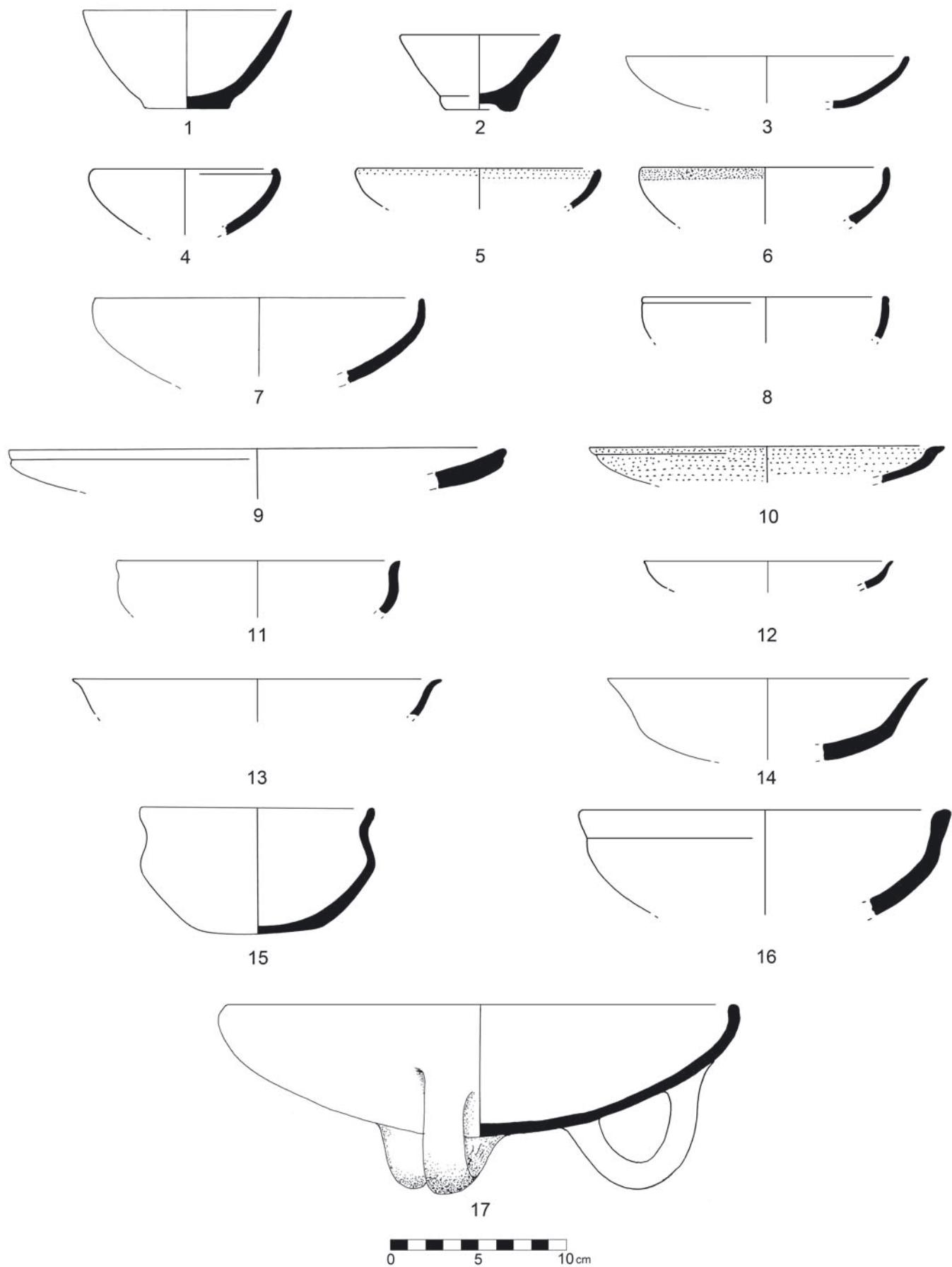


Fig. 280 Pottery from Phase IX, Area 9 East

280:7 219	-7	Bowl, very hard-fired, dark grey fabric, medium-fine, greyish-brown slip, wheel-burnished.	280:10 241	-2	Carinated bowl, hard-fired, light brownish-grey fabric, grey core, medium-fine, light red slip, wheel-burnished, dark red decoration on rim and interior.
280:8 385	-4	Bowl, hard-fired, light red fabric, medium-fine, white inclusions, orange to red slip.	280:11 252	-6	Carinated bowl, hard-fired, light yellowish-white fabric, light grey core, medium-fine, light yellowish-white slip, burnished on interior and exterior.
280:9 241	-3	Bowl, very hard-fired, yellowish-grey fabric, medium-fine, self-slip.			



Fig. 281 Bowl N1372 from Room 10, Phase IX, Area 9 East



Fig. 282 Pottery from Phase IX, Area 9 East

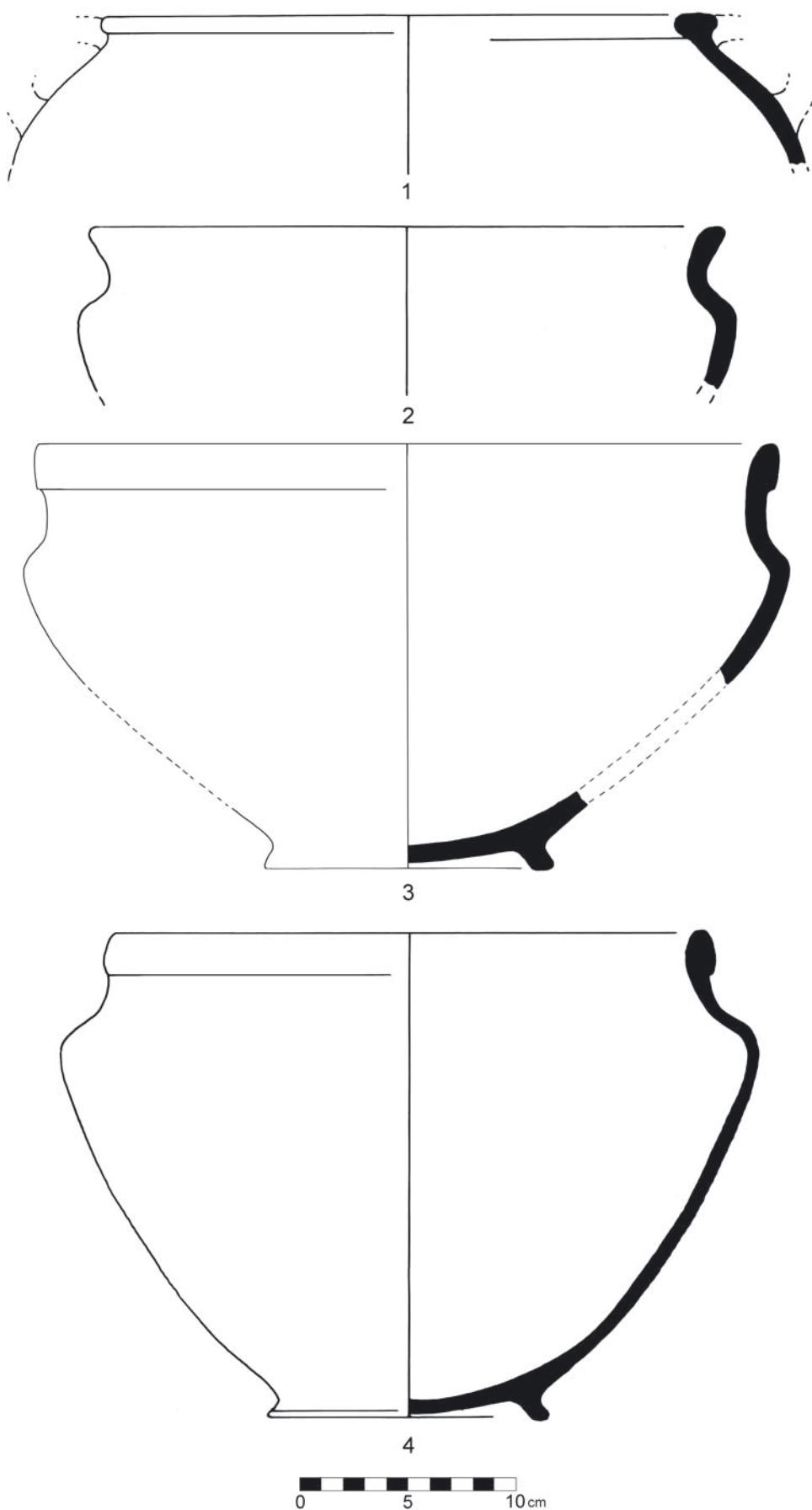


Fig. 283 Pottery from Phase IX, Area 9 East

- 280:12 244 -2 Carinated bowl, medium-hard-fired, light yellow fabric, fine, red slip, wheel-burnished.
- 280:13 252 -1 Bowl, hard-fired, light brown fabric, grey core, medium-fine, yellowish-grey slip, burnished.
- 280:14 219 -10 Carinated bowl, medium-hard-fired, light red fabric, light brown core, coarse, multicoloured inclusions, light yellowish-red slip.
- 280:15 160 -27 Carinated bowl, hard-fired, light orange fabric, medium-fine, mainly grey inclusions, self slip.
- 280:16 354 -4 Carinated bowl, hard-fired, light greyish-orange fabric, medium-coarse, multicoloured inclusions, light orange slip.
- 280:17 219 N1372 Bowl with inverted rim, hard-fired, brownish-red fabric, medium-fine, grey inclusions, (greenish-)white slip, burnished, slip on interior almost completely worn, three loop handle stands (see Fig. 281).

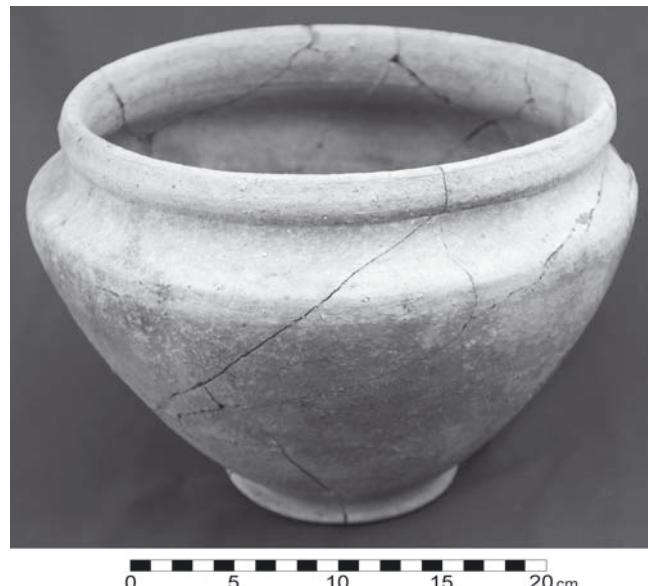


Fig. 284 Krater N1396 from Room 11, Phase IX, Area 9 East

Legend for the illustrated pottery from Phase IX, Area 9 East

- | Fig. | Locus No. | Description |
|-------|-----------|---|
| 282:1 | 273 | -4 Chalice, medium-hard-fired, light brown fabric, coarse, multicoloured inclusions, light brown slip, red paint. |
| 282:2 | 275 | -2 Chalice, medium-hard-fired, light brown fabric, coarse, multicoloured inclusions, yellowish-brown slip, red paint. |

Legend for the illustrated pottery from Phase IX, Area 9 East

- | Fig. | Locus No. | Description |
|-------|-----------|--|
| 283:1 | 234 | -1 Krater, hard-fired, yellowish-grey fabric, medium-coarse, mainly grey inclusions, orange slip, light red paint on rim. |
| 283:2 | 244 | -5 Krater, medium-hard-fired, light reddish-brown fabric, thick light grey core, coarse, multicoloured inclusions, yellowish-white slip. |
| 283:3 | 275 | -1 Krater, medium-hard-fired, reddish-brown fabric, yellowish-brown core, coarse, multicoloured inclusions, self slip. |
| 283:4 | 275 | N1396 Krater, medium-hard-fired, yellowish-red fabric, yellowish-grey core, coarse, multicoloured inclusions, red slip (see Fig. 284). |

Legend for the illustrated pottery from Phase IX, Area 9 East

- | Fig. | Locus No. | Description |
|-------|-----------|---|
| 285:1 | 219 | N1357 Krater, very hard-fired, light pinkish-yellow fabric, medium-fine, light yellow slip. |

- | | | |
|-------|-----|---|
| 285:2 | 229 | -1 Krater, hard-fired, light grey fabric, grey core, medium-coarse, dark grey inclusions, orange slip, red paint. |
| 285:3 | 229 | -6 Krater, hard-fired, light brown fabric, grey core, self slip. |
| 285:4 | 208 | -2 Krater, medium-hard-fired, light red fabric, yellow core, coarse, mainly grey inclusions, self slip. |

Legend for the illustrated pottery from Phase IX, Area 9 East

- | Fig. | Locus No. | Description |
|-------|-----------|--|
| 286:1 | 252 | -4 Krater, medium-hard-fired, light brownish-red fabric, light greyish-red core, medium coarse, multicoloured inclusions, light reddish-yellow slip. |
| 286:2 | 249 | -5 Krater, medium-hard-fired, light red fabric, thick grey core, coarse, multicoloured inclusions, yellowish-orange slip. |
| 286:3 | 237 | -2 Krater, medium-hard-fired, yellowish-grey fabric, medium-coarse, mainly grey inclusions, self slip. |
| 286:4 | 229 | -3 Krater, hard-fired, light orange fabric, dark grey core, medium-coarse, mainly grey inclusions, orange slip. |
| 286:5 | 208 | -1 Krater, medium-hard-fired, sandy-yellow fabric, coarse, black and white inclusions, light orange slip. |

Legend for the illustrated pottery from Phase IX, Area 9 East

- | | | |
|-------|-----|--|
| 287:1 | 273 | -2 Krater, hard-fired, light brown fabric, light grey core, coarse, multicoloured inclusions, light yellow slip. |
|-------|-----|--|

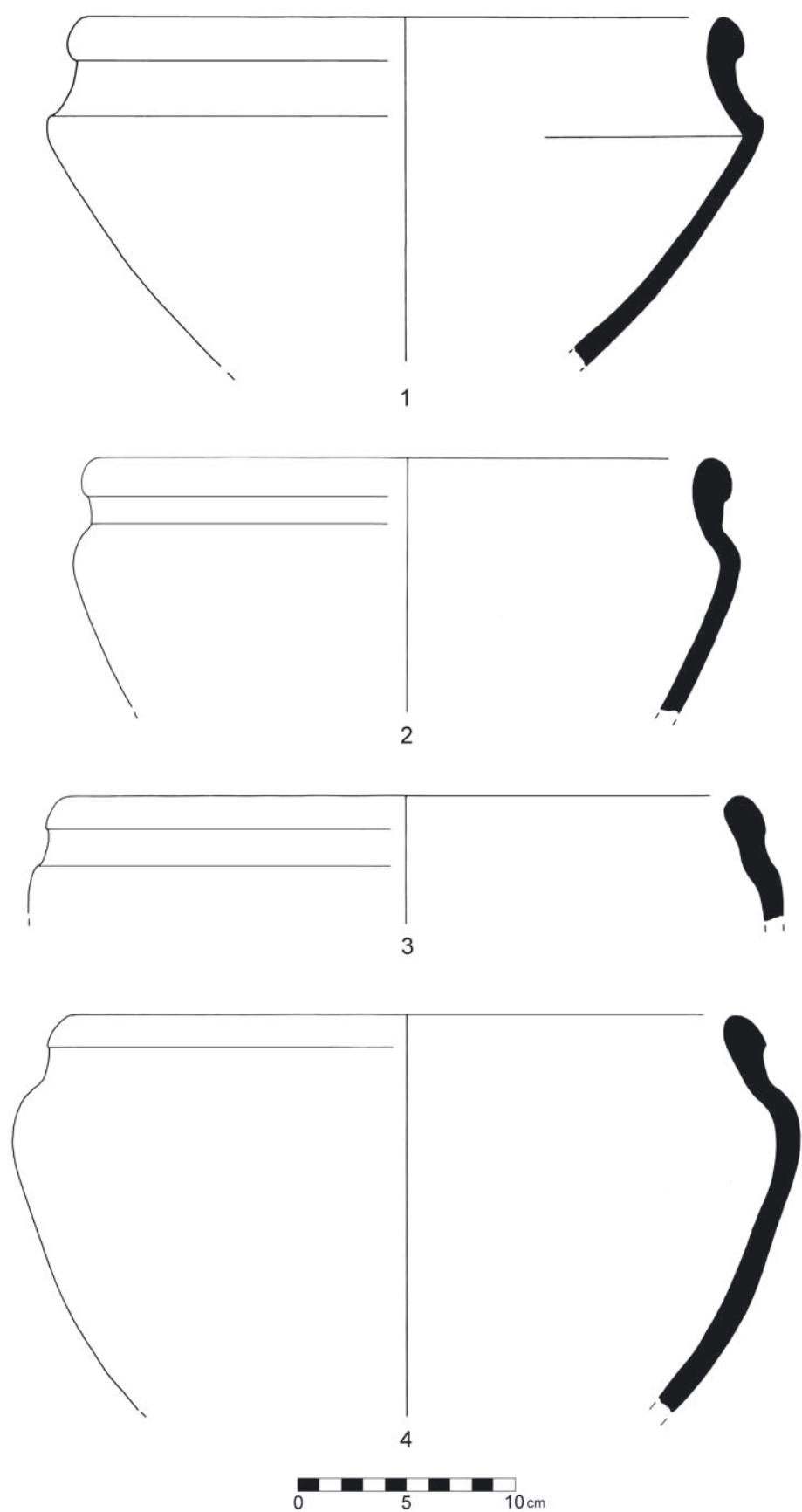


Fig. 285 Pottery from Phase IX, Area 9 East

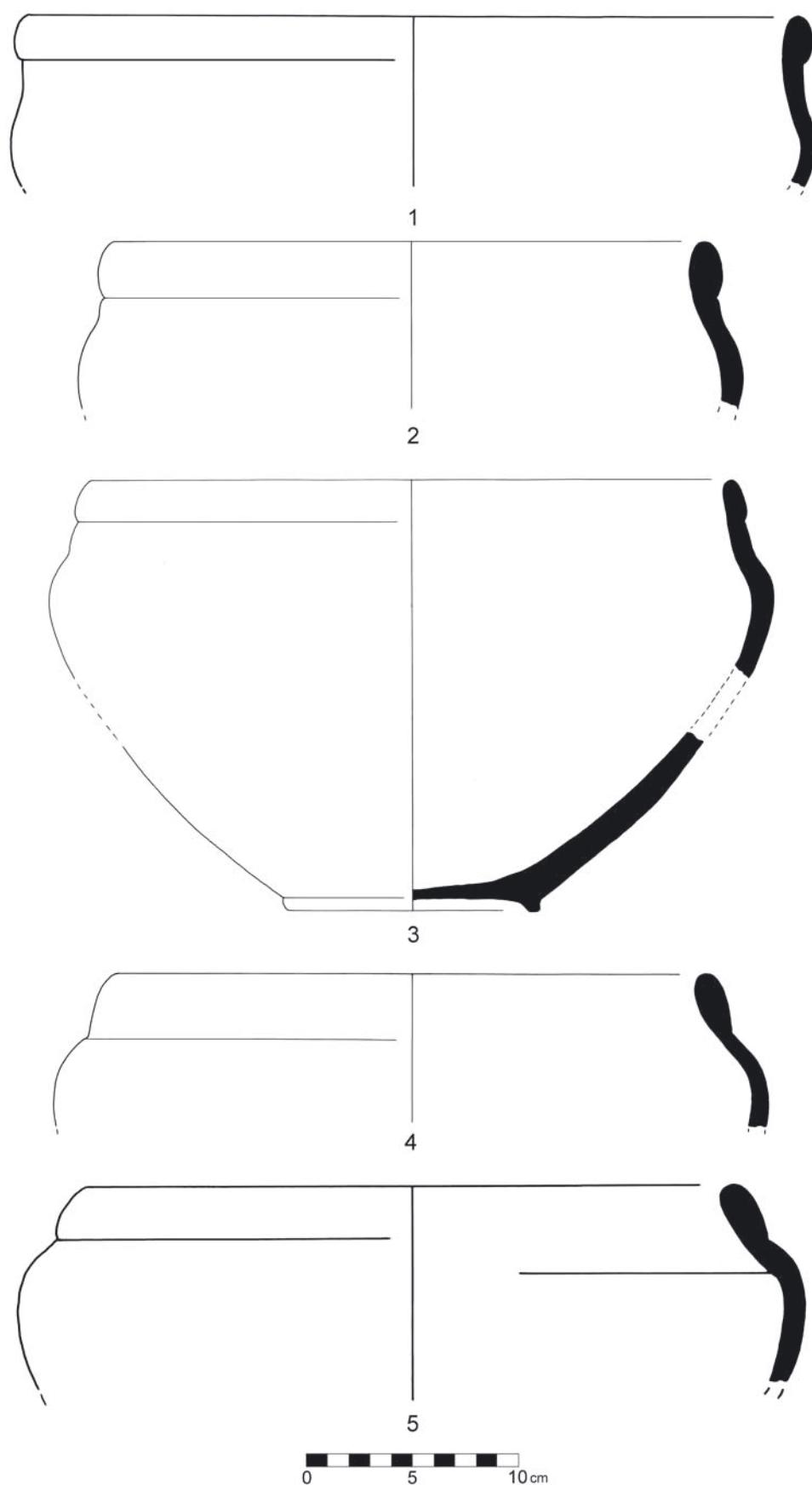


Fig. 286 Pottery from Phase IX, Area 9 East

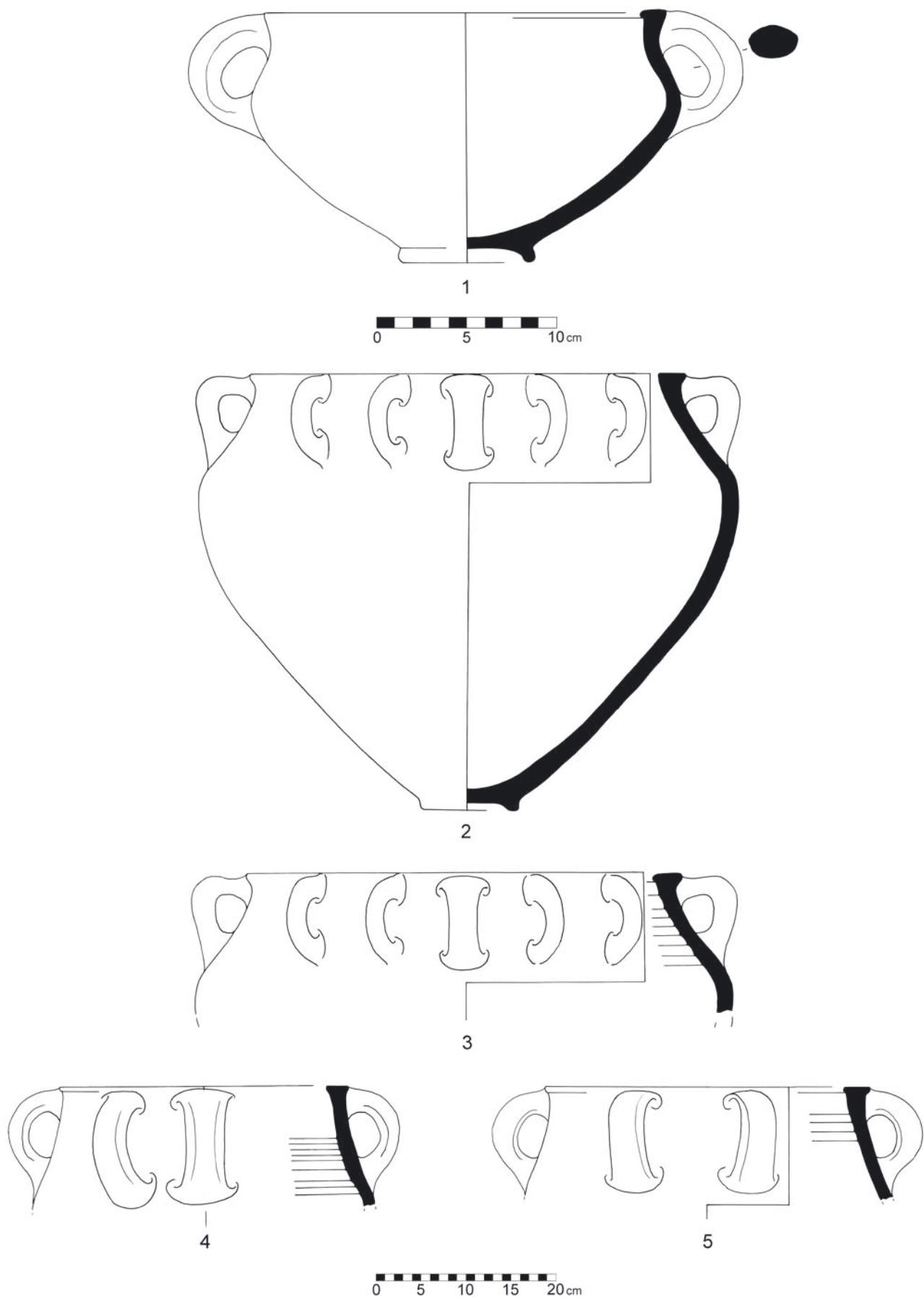


Fig. 287 Pottery from Phase IX, Area 9 East

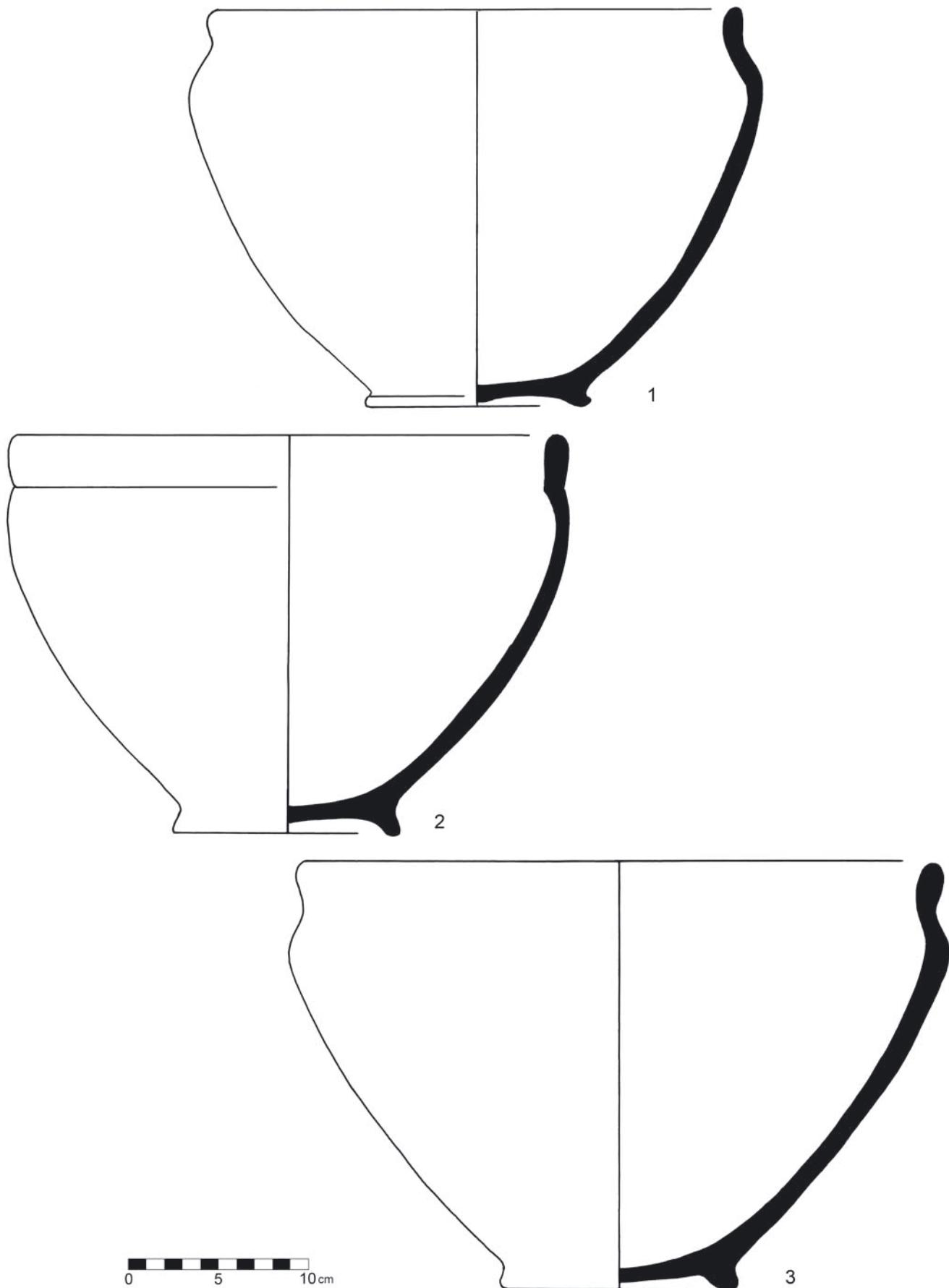


Fig. 288 Pottery from Phase IX, Area 9 East



Fig. 289 Kraters L160-3, L160-22 and L160-15A from Room 2, Phase IX, Area 9 East

- | | | |
|-----------|-------|---|
| 287:2 219 | N1356 | Krater, hard-fired, greyish-brown fabric, coarse, multicoloured inclusions, pinkish-yellow slip. |
| 287:3 264 | -2 | Krater, hard-fired, light greyish-brown fabric, coarse, multicoloured inclusions, light brownish-yellow slip. |
| 287:4 219 | -3 | Krater, hard-fired, greyish-brown fabric, medium-coarse, multicoloured inclusions, light yellow slip. |
| 287:5 219 | -1 | Krater, hard-fired, light greyish-brown fabric, coarse, multicoloured inclusions, light yellowish-brown slip. |

Legend for the illustrated pottery from Phase IX, Area 9 East

- | Fig. | Locus No. | Description |
|-------|-----------|---|
| 288:1 | 160 -22 | Krater, hard-fired, light yellow fabric, medium-coarse, multicoloured inclusions, light orange slip (see Figs. 289 middle and 457:2). |

- | | | |
|-----------|------|---|
| 288:2 160 | -3 | Krater, hard-fired, light yellow fabric, medium-coarse, multicoloured inclusions, light orange slip (see Figs. 289 left and 457:1). |
| 288:3 160 | -15A | Krater, hard-fired, light orange fabric, medium-coarse, mainly white inclusions, self slip (see Figs. 289 right and 457:3). |

Legend for the illustrated pottery from Phase IX, Area 9 East

Fig.	Locus No.	Description
290:1	356 -2	Krater, hard-fired, yellowish-grey fabric, coarse, large grey inclusions, self slip, light orange wash.
290:2	351 -3	Juglet, medium-hard-fired, light yellowish-grey fabric, medium-coarse, multicoloured inclusions, orange slip, light yellow wash.



Fig. 291 Juglets L160-1, L160-21 and L160-2 from Room 2, Phase IX, Area 9 East

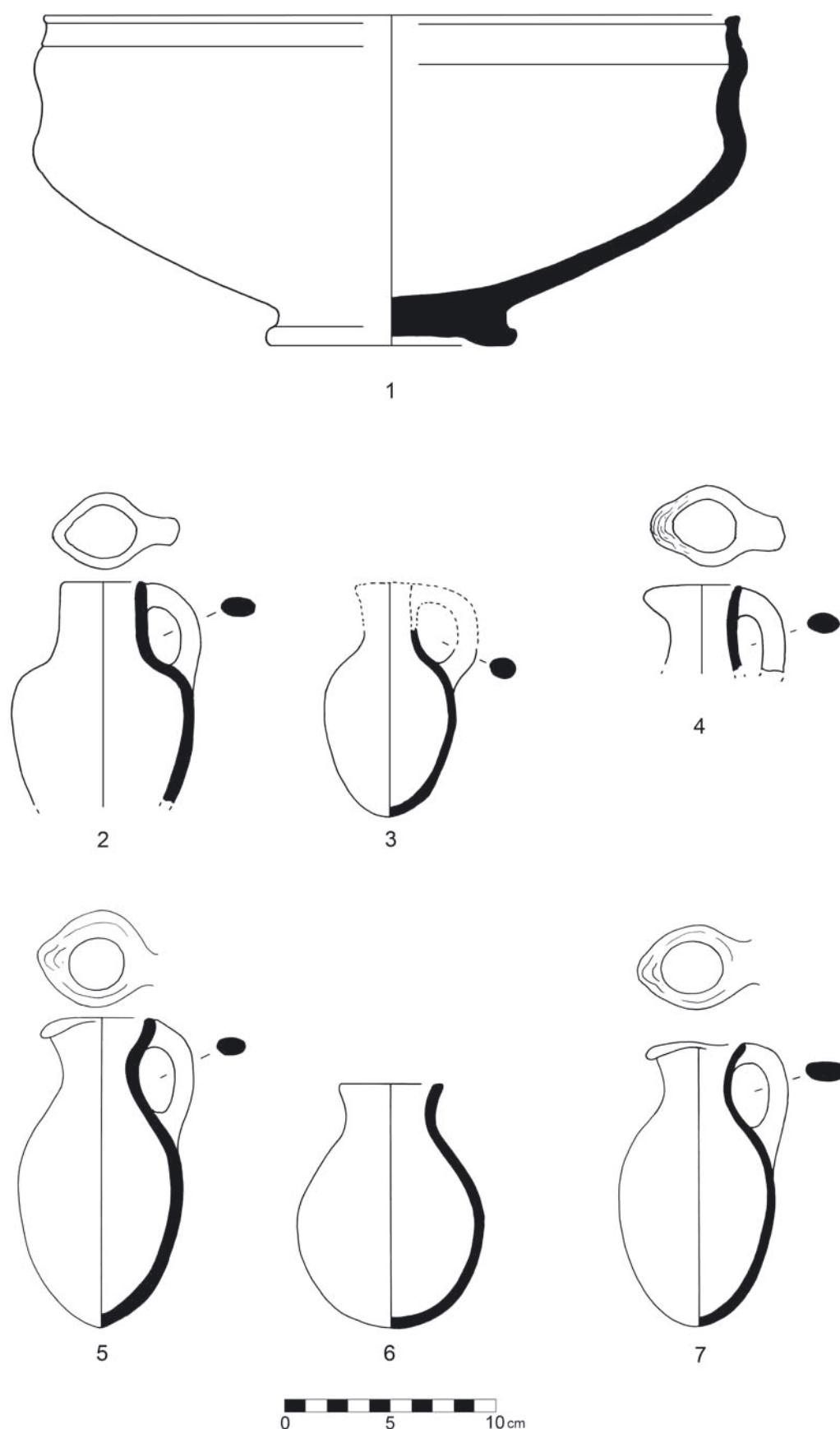


Fig. 290 Pottery from Phase IX, Area 9 East

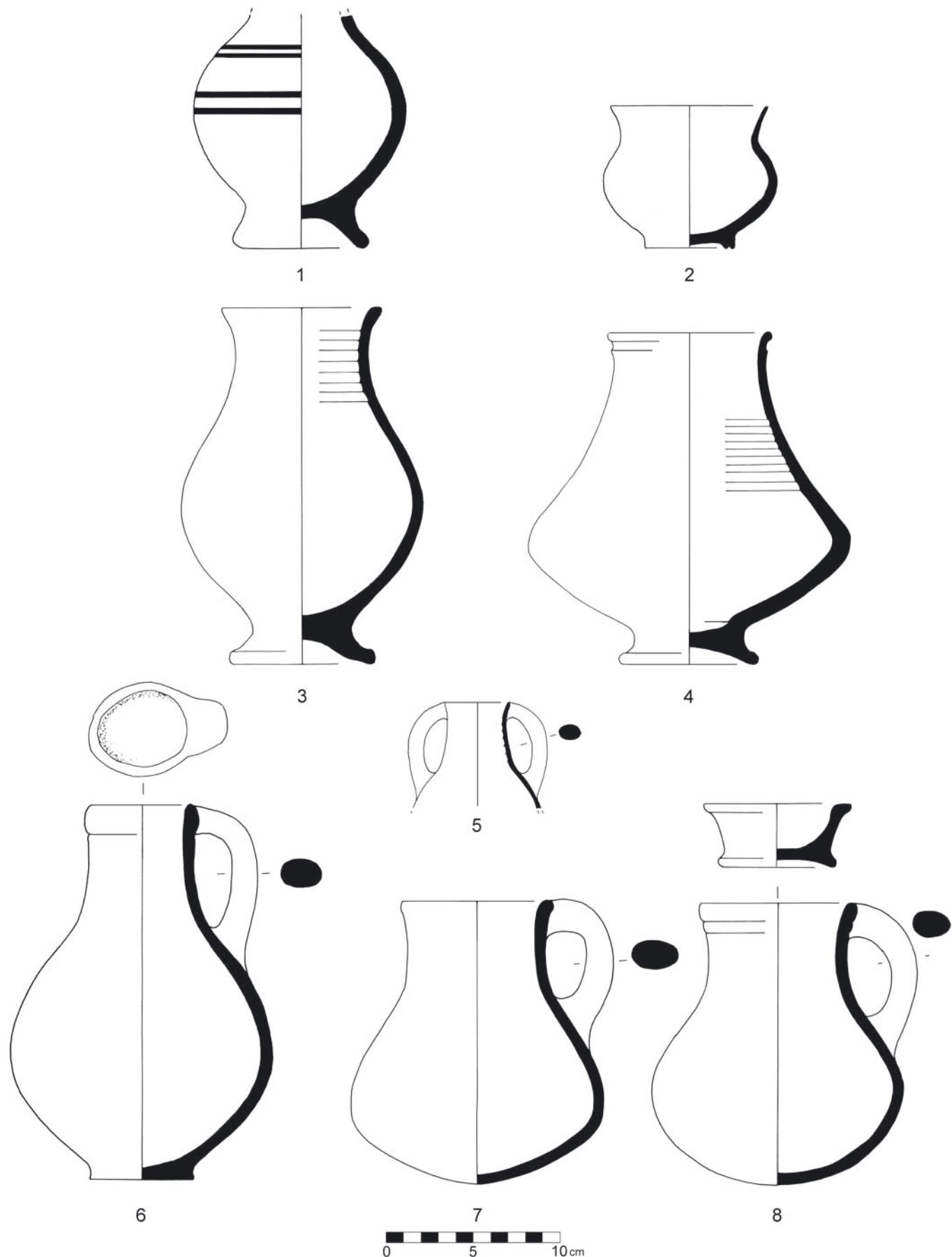


Fig. 292 Pottery from Phase IX, Area 9 East



Fig. 293 Juglet/goblet N1397 from Room 11, Phase IX,
Area 9 East



Fig. 294 Juglet N1386 from Room 8, Phase IX, Area 9 East

- | | | | |
|-------|-----|-------|---|
| 290:3 | 377 | N1454 | Juglet, hard-fired, yellowish-brown fabric, coarse, mainly grey inclusions, light yellow to orange slip. |
| 290:4 | 377 | -3 | Juglet, medium-hard-fired, light orangish-brown fabric, medium-coarse, mainly white inclusions, light yellow slip. |
| 290:5 | 160 | -21 | Juglet, hard-fired, light orangish-brown fabric, medium-fine, self slip (see Figs. 291 middle and 456:7). |
| 290:6 | 160 | -2 | Juglet, hard-fired, light greyish-brown fabric, medium-coarse, multicoloured inclusions, self slip (see Figs. 291 right and 456:8). |
| 290:7 | 160 | -1 | Juglet, hard-fired, light orange fabric, coarse, multicoloured inclusions, self slip (see Figs. 291 left and 456:6). |



Fig. 295 Juglet N1379/1 *in situ* in Room 12, Phase IX,
Area 9 East



Fig. 296 Juglet N1379/1 from Room 12, Phase IX,
Area 9 East

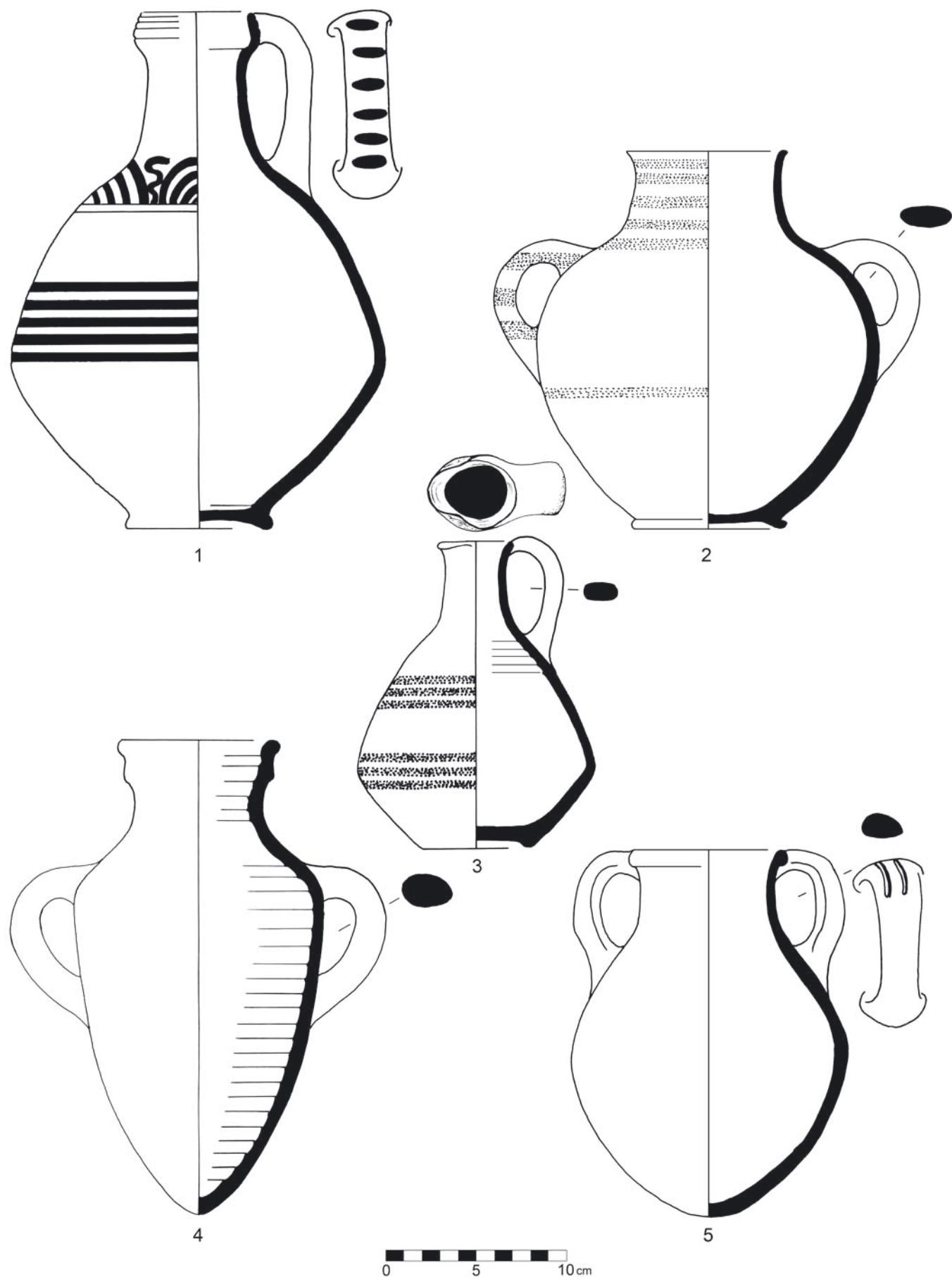


Fig. 297 Pottery from Phase IX, Area 9 East

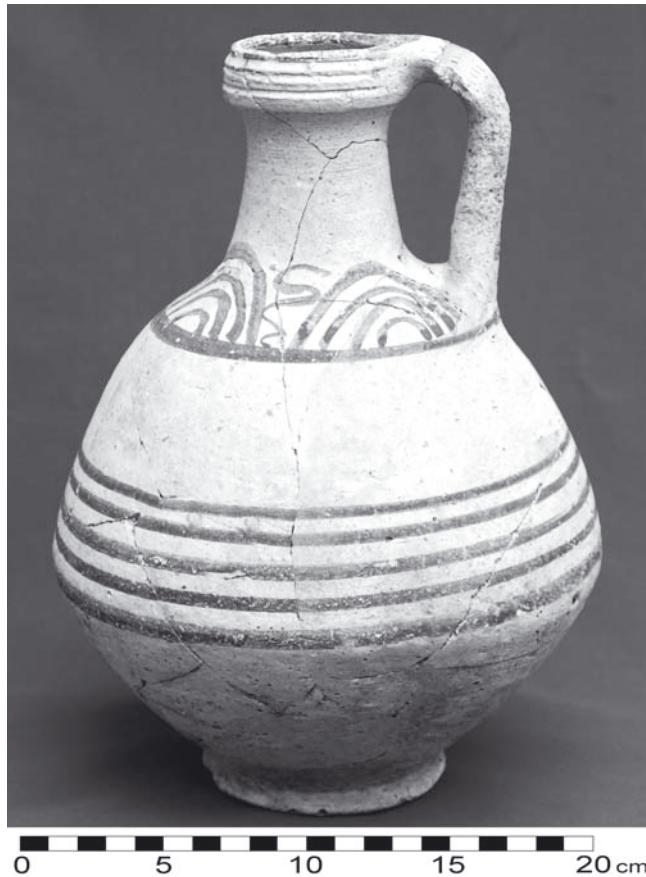


Fig. 298 Jug N1352 from Room 10, Phase IX, Area 9 East

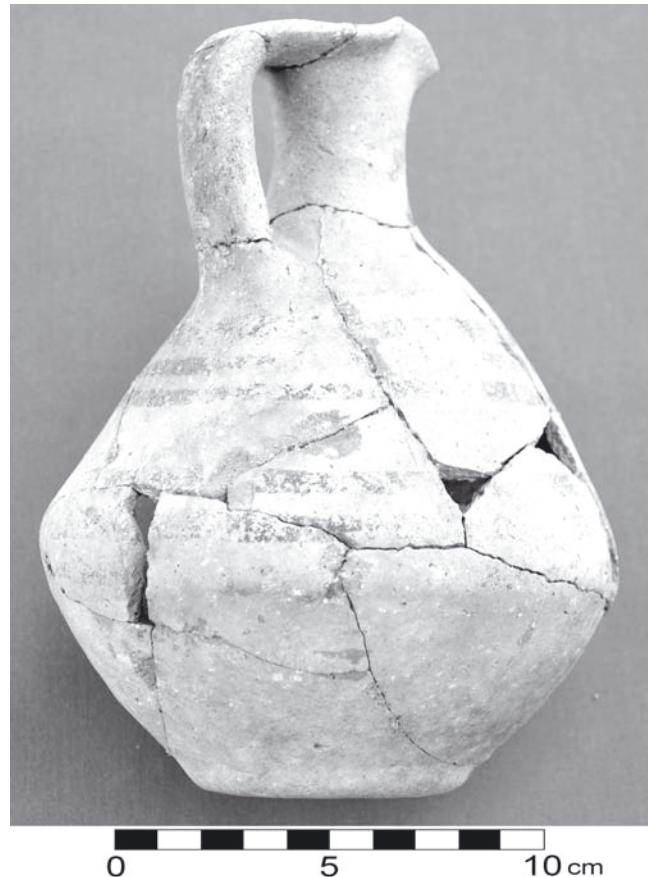


Fig. 300 Juglet N1380 from Room 12, Phase IX, Area 9 East

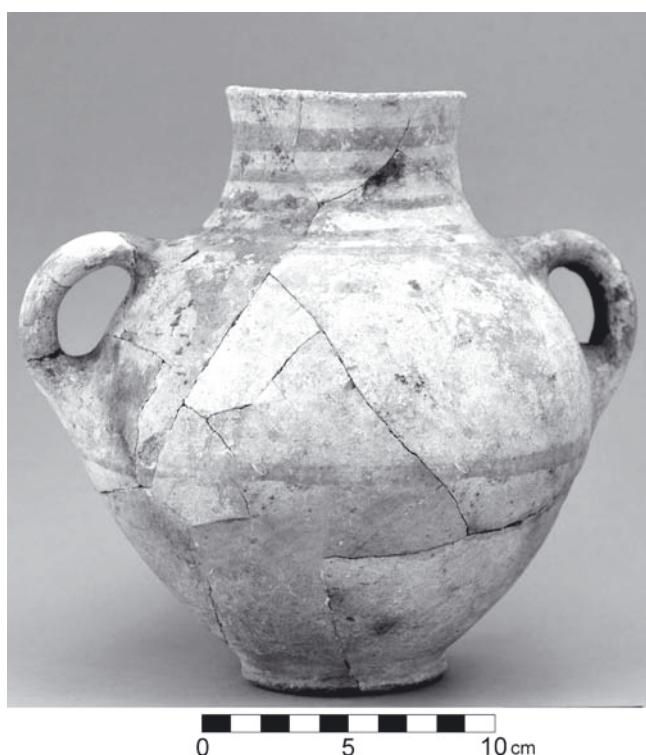


Fig. 299 Jug L377-2 from Room 19, Phase IX, Area 9 East

**Legend for the illustrated pottery from Phase IX,
Area 9 East**

Fig.	Locus No.	Description
292:1	219 -6	Juglet/goblet, medium-hard-fired, light greyish-brown fabric, coarse, mainly white inclusions, light brown slip, brown decoration.
292:2	267 N1383	Juglet/goblet, hard-fired, light brown fabric, thick grey core, medium-fine, light brownish-yellow slip.
292:3	275 N1397	Juglet/goblet, hard-fired, yellowish-red fabric, thick light-yellow core, medium-coarse, mainly grey inclusions, red slip (see Figs. 293 and 456:9).
292:4	275 -4	Juglet/goblet, hard-fired, yellowish-grey fabric exterior, grey fabric interior, medium-coarse, reddish-brown slip.
292:5	219 -8	Juglet, very hard-fired, brownish-red fabric, medium-fine, dark red slip, hand-burnished.
292:6	219 N1373	Jug, medium-hard-fired, greyish-brown fabric, medium-coarse, mainly black inclusions, yellowish-white slip.
292:7	237 N1386	Juglet, medium-hard-fired, light brown/pinkish-orange fabric, self slip, red line decoration on belly (see Fig. 294).

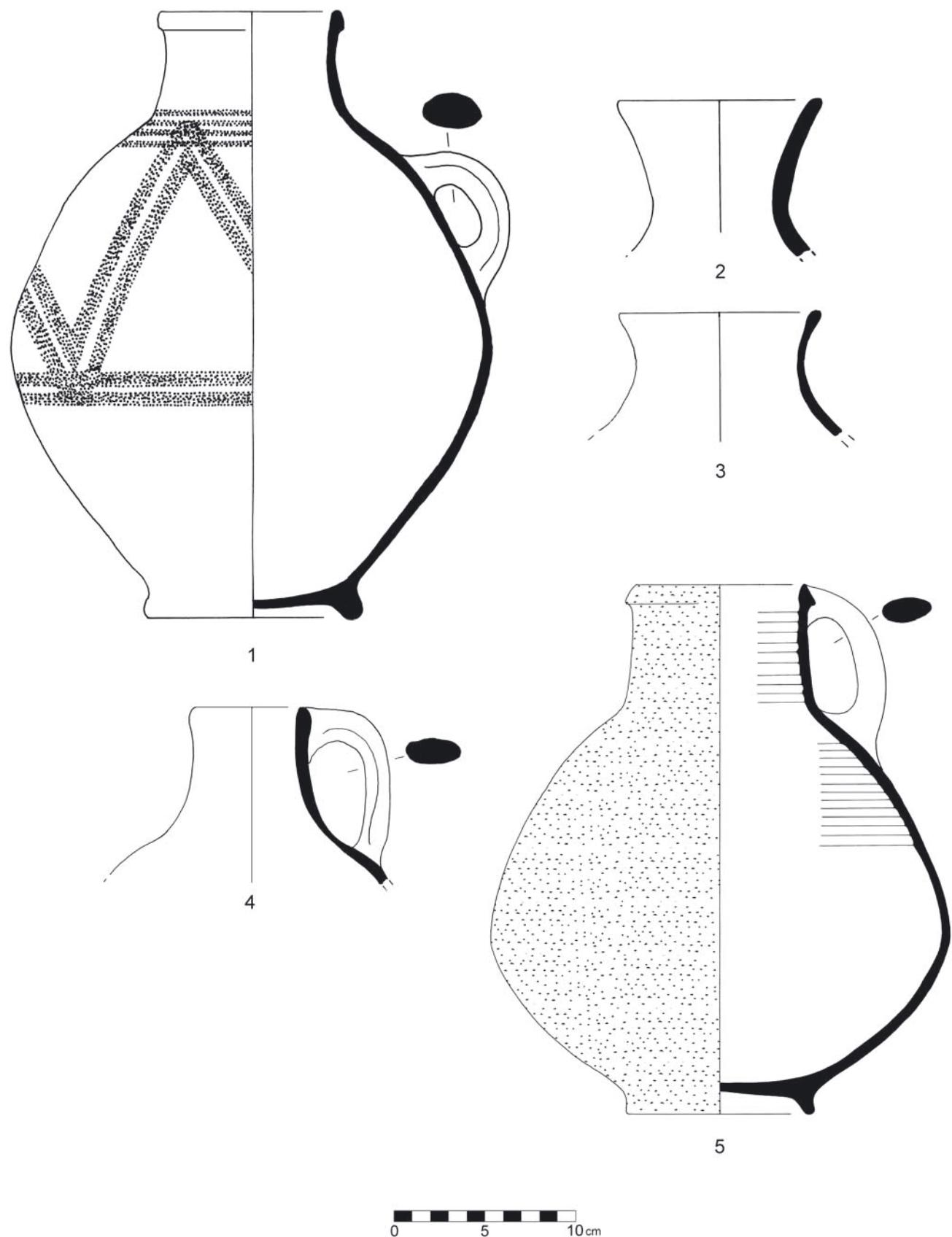


Fig. 301 Pottery from Phase IX, Area 9 East

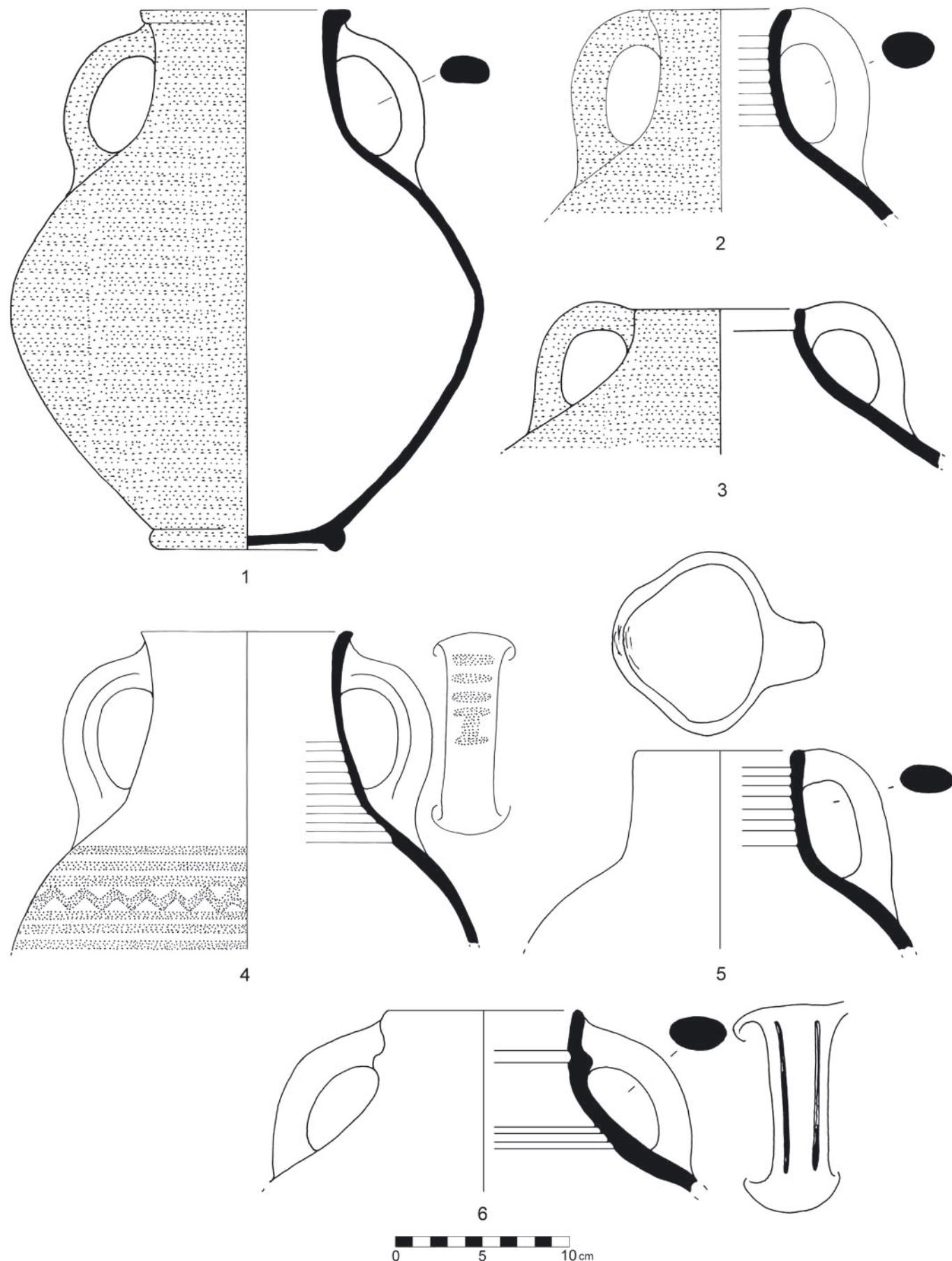


Fig. 302 Pottery from Phase IX, Area 9 East



Fig. 303 Jug N1398 from Room 12, Phase IX, Area 9 East



Fig. 304 Millet from Room 12 (L267 around jug N1398; upper part of photograph); and chickpeas from Room 8 (L237; lower part of photograph)

292:8 267 N1379/1 Juglet, medium-hard-fired, yellow fabric, medium-coarse, multicoloured inclusions, light pinkish-brown slip, incised circles on neck (Figs 295, 296 and 456:3); contents: two lithies, lid in the shape of reused base (N1379/2).

Legend for the illustrated pottery from Phase IX, Area 9 East

Fig. Locus No. Description

- 297:1 219 N1352 Jug, hard-fired, yellowish-brown fabric, medium-coarse, mainly white inclusions, yellowish-white slip, slightly burnished, reddish-brown decoration (see Fig. 298).
- 297:2 377 -2 Jug, hard-fired, light yellowish-brown fabric, medium-coarse, mainly red, white and grey inclusions, light yellowish-grey slip, reddish-brown decoration (see Figs. 299 and 456:4).
- 297:3 267 N1380 Juglet, medium-hard-fired, light brown fabric, coarse, mainly white inclusions, light reddish-yellow slip, brown decoration (see also Fig. 300).
- 297:4 219 N1355 Jug, medium-hard-fired, light yellowish-brown fabric, coarse, mainly black inclusions, orange slip.
- 297:5 351 N1430 Jug, hard-fired, light orange fabric, medium-fine, multicoloured inclusions, brownish-orange slip, marks on one handle (see Fig. 339, lower part).

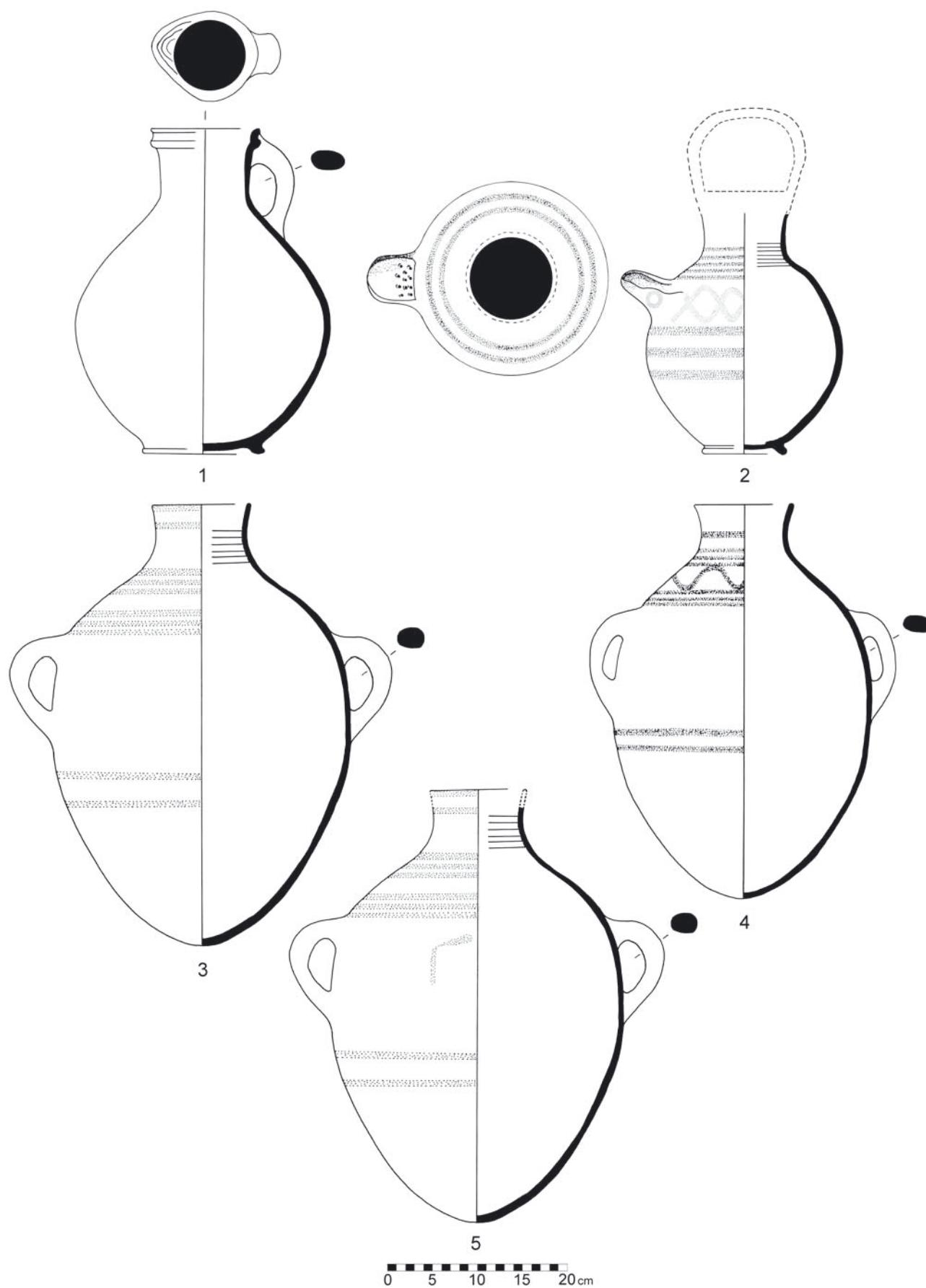


Fig. 305 Pottery from Phase IX, Area 9 East

Legend for the illustrated pottery from Phase IX,
Area 9 East

Fig.	Locus No.	Description
301:1	237 -7	Jug, hard-fired, light brown fabric, cream-brown core, fine, cream slip, faded reddish-brown decoration.
301:2	244 -4	Jug, medium-hard-fired, light greyish-brown fabric, coarse, mainly black inclusions, light brown slip.
301:3	213 -3	Jug, hard-fired, light reddish-brown fabric, medium-coarse, multicoloured inclusions, light yellow slip.
301:4	213 -4	Jug, medium-hard fired, light brown fabric, coarse, mainly black inclusions, orange slip.
301:5	273 -1	Jug, very hard-fired, yellowish-brown fabric, thick black core, coarse, mainly white inclusions, yellowish-red slip.

Legend for the illustrated pottery from Phase IX,
Area 9 East

Fig.	Locus No.	Description
302:1	267 N1398	Jug, hard-fired, yellowish-grey fabric, thick grey core, medium-fine, few coarse inclusions, red slip (see Figs. 303 and 456:5).
302:2	237 -1	Jug, medium-hard-fired, light reddish-brown fabric, grey core, medium-coarse, multicoloured inclusions, light red slip.
302:3	241 -1	Jug, medium-hard-fired, reddish-brown fabric, dark grey core, medium-fine, white inclusions, red slip, fingerprint on handle.



Fig. 306 Jug L160-13 from Room 2, Phase IX, Area 9 East



Fig. 307 Strainer-spouted jug L160-17 from Room 2, Phase IX, Area 9 East

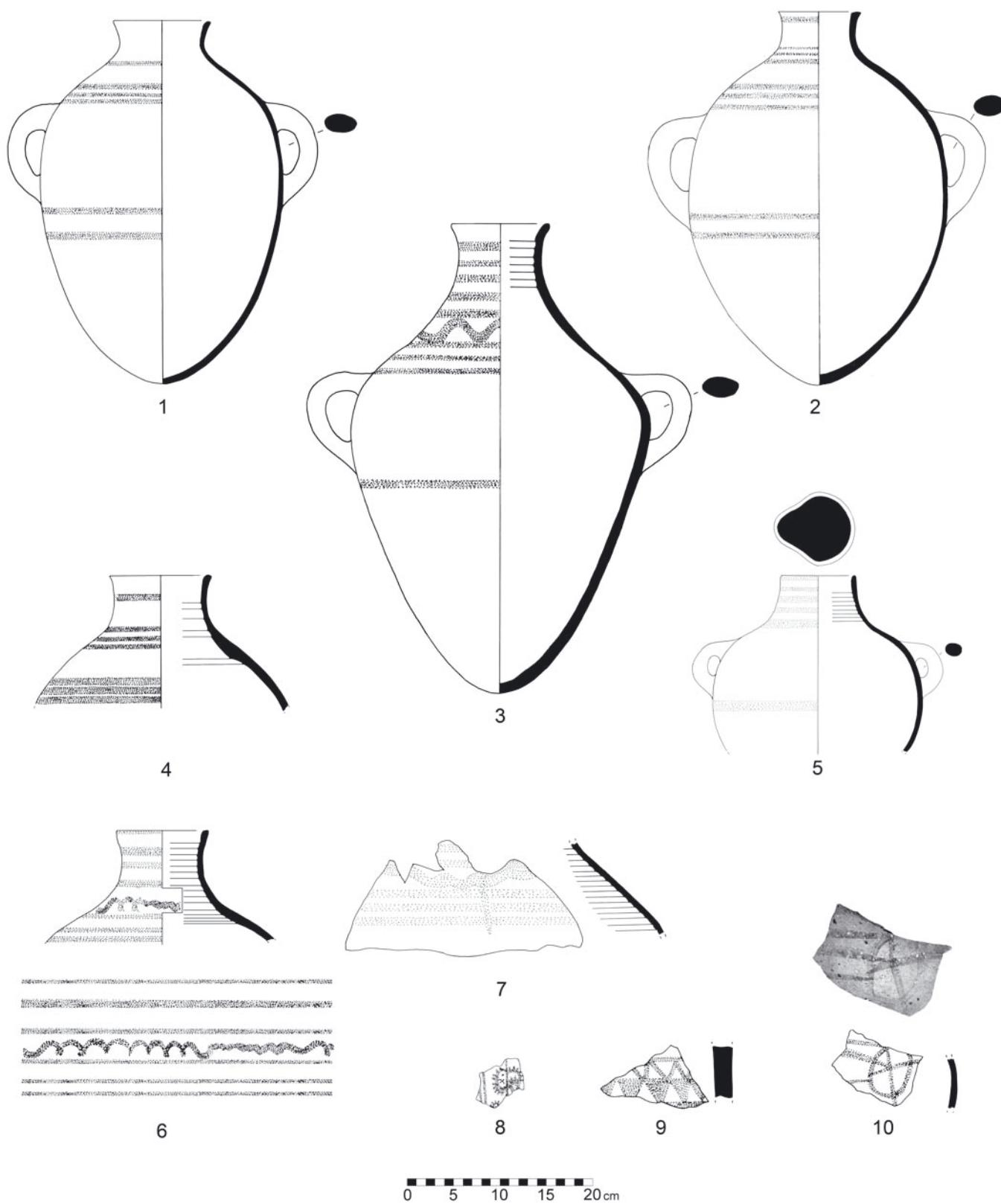


Fig. 308 Pottery from Phase IX, Area 9 East

- 302:4 219 -4 Jug, medium-hard-fired, light greyish-brown fabric, medium-coarse, multicoloured inclusions, orange slip, red decoration.
- 302:5 395 -4 Jug with trefoil mouth, hard-fired, light yellowish-grey fabric, medium-coarse, multicoloured inclusions, self slip.
- 302:6 354 -1 Jug, hard-fired, brownish-orange fabric, medium-coarse, multicoloured inclusions, self slip, light yellow wash.

Legend for the illustrated pottery from Phase IX,

Area 9 East

Fig.	Locus No.	Description
305:1	160 -13	Jug, hard-fired, light orange fabric, light yellowish-brown core, medium-coarse, mainly white inclusions, self slip (see Fig. 306).
305:2	160 -17	Strainer-spouted jug, hard-fired, light brown fabric, medium-coarse, mainly white inclusions, light yellowish-brown slip, light reddish-brown decoration (see Fig. 307).



Fig. 309 Jar L275-5 from Room 11, Phase IX, Area 9 East

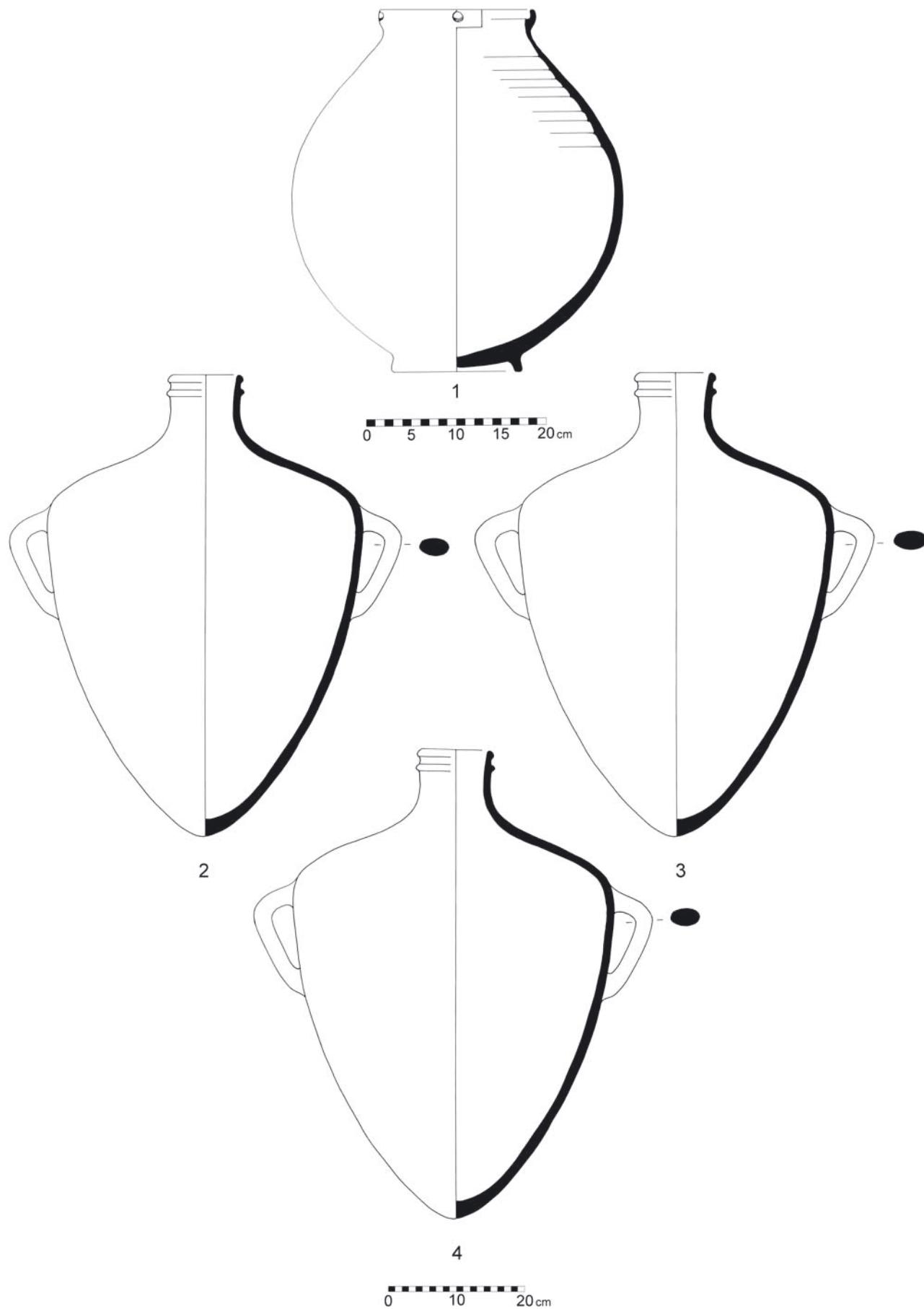


Fig. 310 Pottery from Phase IX, Area 9 East

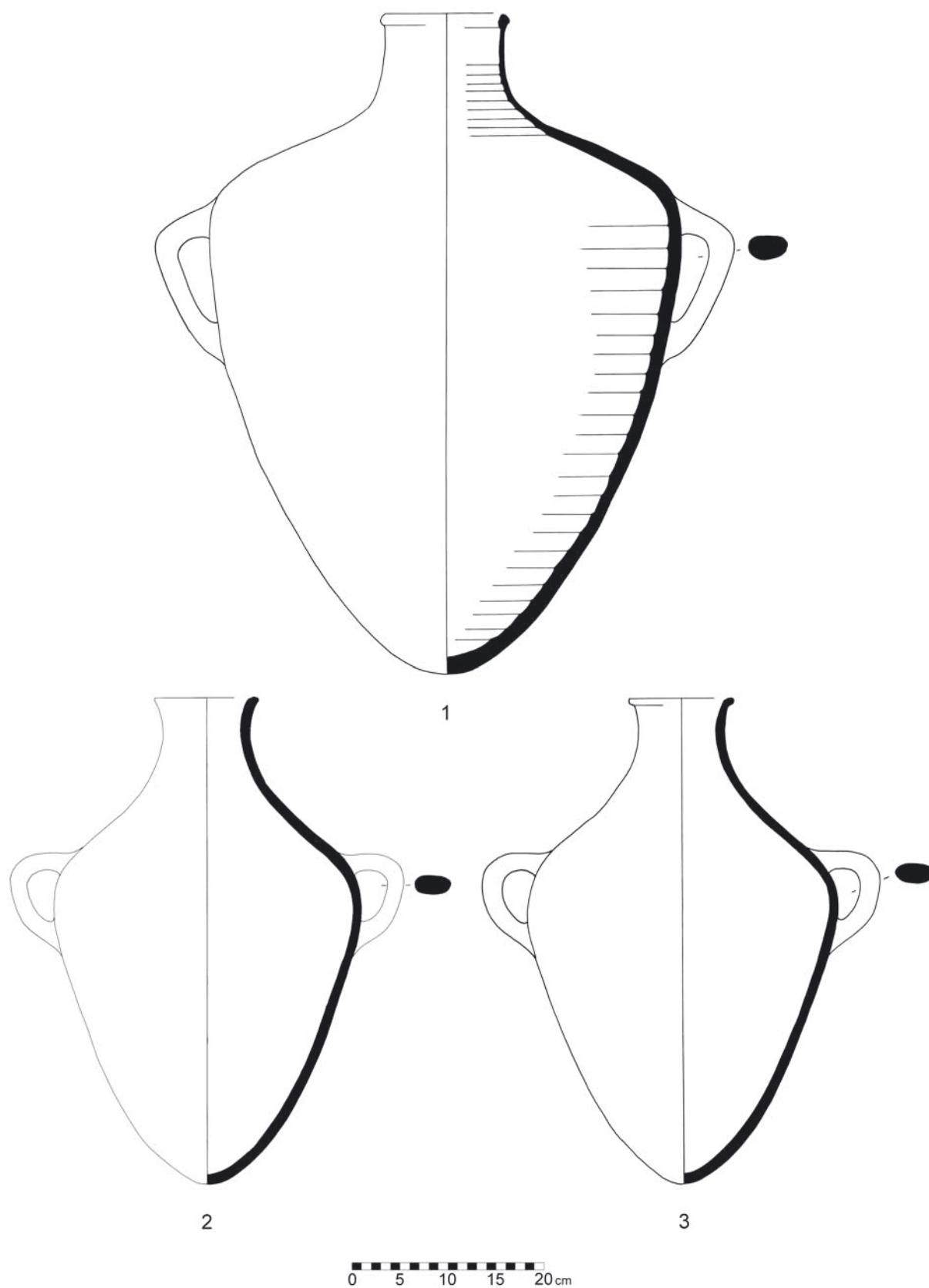


Fig. 311 Pottery from Phase IX, Area 9 East

305:3	160	-7	Jar, hard-fired, light orange fabric, medium-coarse, multicoloured inclusions, self slip, red decoration.
305:4	160	-9	Jar, hard-fired, orangish-brown fabric, medium-coarse, mainly white inclusions, self slip, reddish-brown decoration.
305:5	160	-15B	Jar, hard-fired, light orange fabric, medium-coarse, multicoloured inclusions, self slip, red decoration.

Legend for the illustrated pottery from Phase IX,
Area 9 East

Fig. Locus No. Description

308:1	267	N1395	Jar, hard-fired, light yellowish-brown fabric, coarse, multicoloured inclusions, light yellow slip, brownish-red decoration, finger impression above one handle.
308:2	275	-5	Jar, hard-fired, light brown fabric, multicoloured inclusions, pinkish-yellow slip, red decoration (see Figs. 309 and 457:4).
308:3	219	-9	Jar, hard-fired, light brown fabric, coarse, mainly white inclusions, light yellow slip, brownish-red decoration.
308:4	252	-3	Jug, medium-hard-fired, light greyish-yellow fabric, medium-coarse, grey inclusions, yellow slip, dark brownish-red decoration.
308:5	237	-4	Jug, hard-fired, cream fabric, medium-fine, white inclusions, light cream slip, red band decoration.
308:6	395	-5	Jar, hard-fired, light orangish-brown fabric, coarse, mainly white and grey inclusions, yellowish-brown slip, red decoration.
308:7	371	-5	Jar, hard-fired, light yellowish-grey fabric, medium-coarse, mainly grey and white inclusions, light orange slip, reddish-brown decoration.
308:8	252	-2	Jug (?), medium-hard-fired, yellowish-grey fabric, medium-fine, greenish-yellow slip, dark reddish-brown decoration.
308:9	354	-6	Jar (?), very hard-fired, light yellowish-grey fabric, medium-coarse, multicoloured inclusions, light yellow slip, dark red decoration.
308:10	354	-5	Jar (?), hard-fired, grey fabric, coarse, multicoloured inclusions, light yellow slip, dark red decoration, burnished.

Legend for the illustrated pottery from Phase IX,
Area 9 East

Fig. Locus No. Description

310:1	273	-3	Jar with lid device and holes for strings, hard-fired, light brown fabric, grey core, coarse, mainly white and grey inclusions; plastic dot decoration on rim.
310:2	239	N1348	Storage jar, hard-fired, brown fabric, dark grey core, grey inclusions, yellowish-grey slip; neck ridge.

310:3	239	N1347	Storage jar, hard-fired, light brown fabric interior, light red fabric exterior, brown core, mainly white inclusions, yellowish-grey slip; neck ridge.
310:4	239	N1346	Storage jar, hard-fired, red fabric, thick black core, light grey inclusions, yellowish-grey slip; neck ridge.

Legend for the illustrated pottery from Phase IX,
Area 9 East

Fig. Locus No. Description

311:1	247	-1	Storage jar, hard-fired, red fabric, greyish-yellow core, medium-coarse, multicoloured inclusions, self slip.
311:2	239	N1349	Storage jar, hard-fired, light red fabric, thick light grey core, dark grey inclusions, self slip.
311:3	219	N1366	Storage jar, hard-fired, reddish-brown fabric exterior, light reddish-yellow fabric interior, medium-fine, self slip (see Fig. 312).



Fig. 312 Storage jar N1366 from Room 10, Phase IX,
Area 9 East

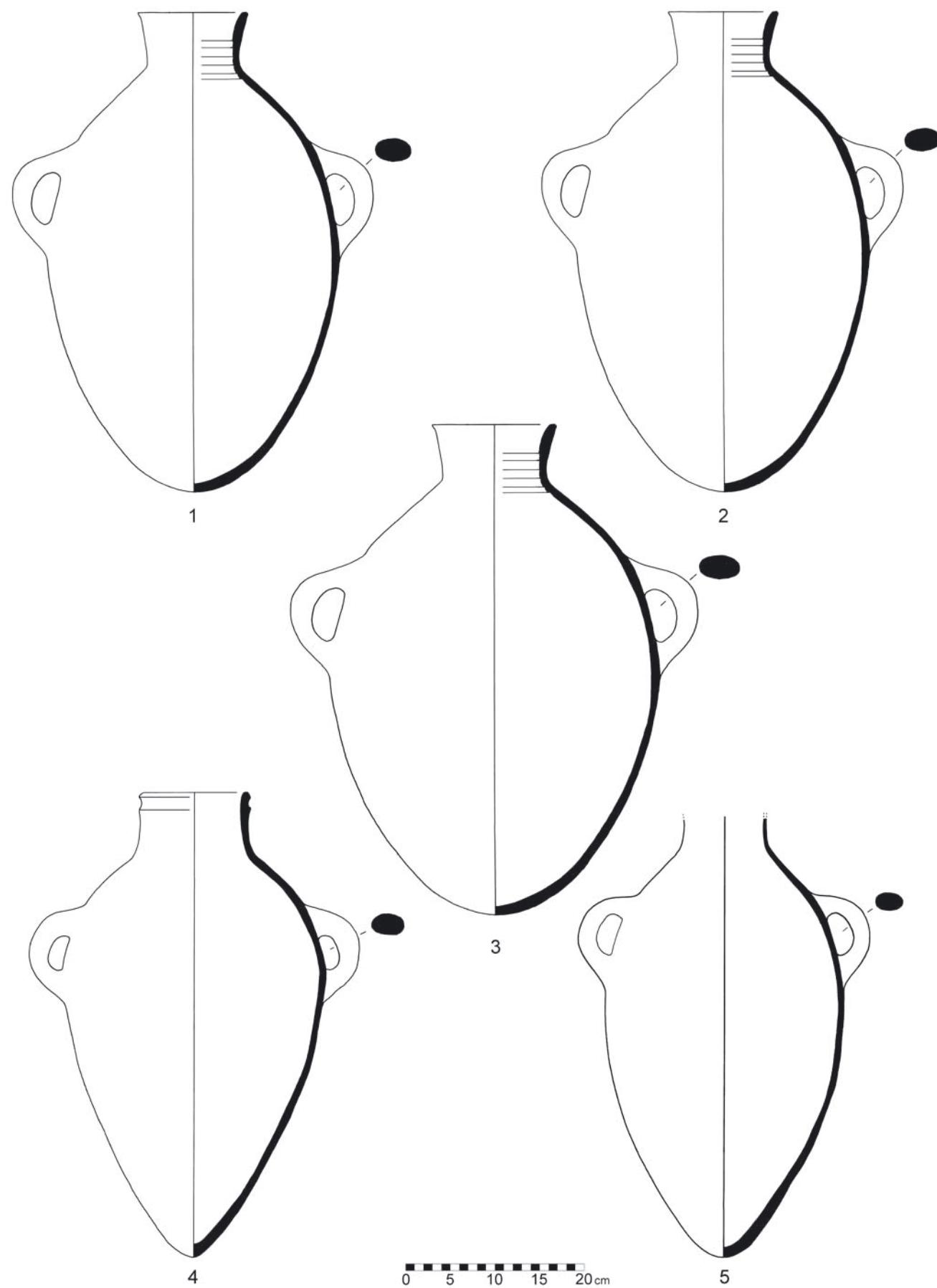


Fig. 313 Pottery from Phase IX, Area 9 East

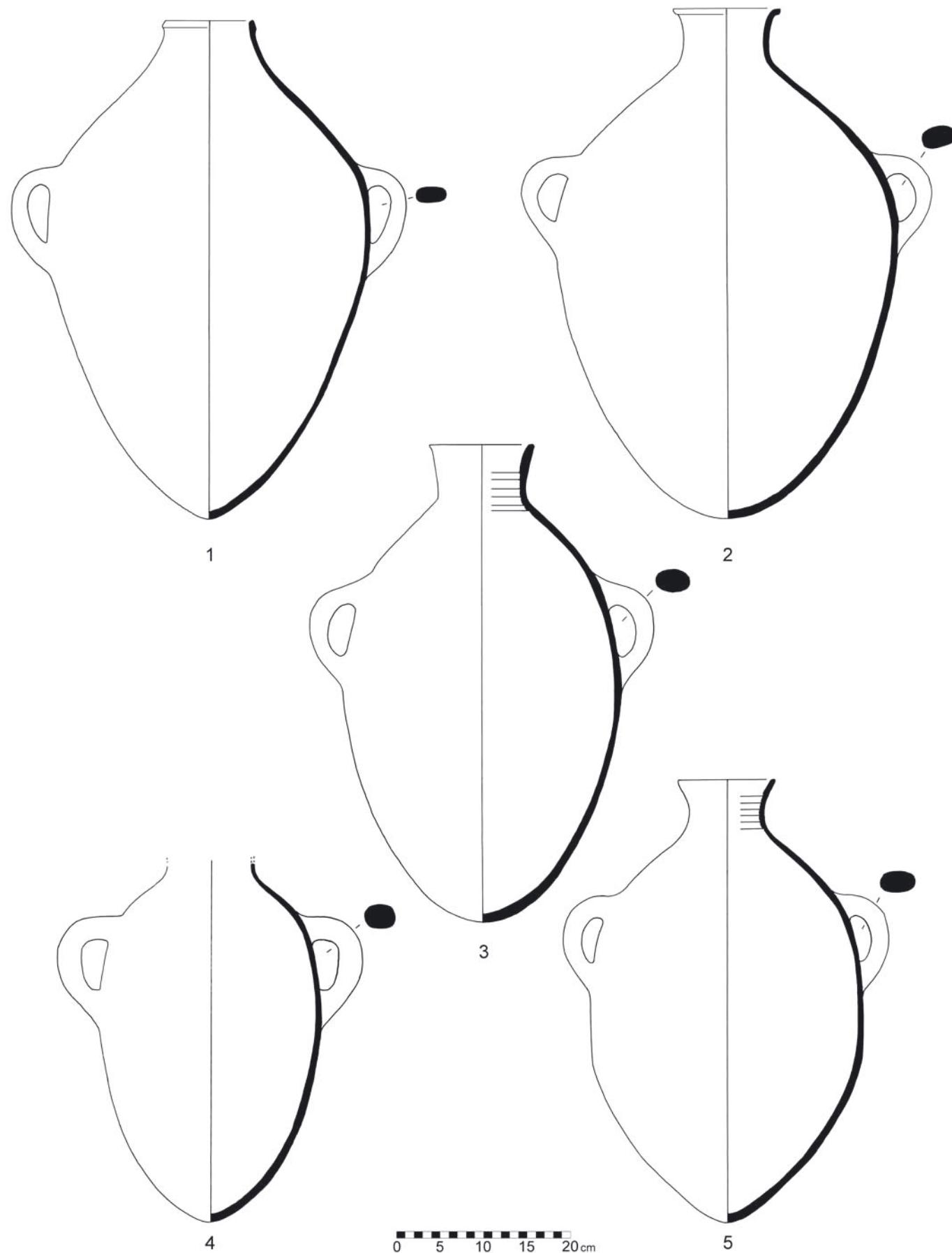


Fig. 314 Pottery from Phase IX, Area 9 East



Fig. 315 Storage jars (from left): L160-11, L160-18, L160-12 and L160-10 from Room 2, Phase IX, Area 9 East

Legend for the illustrated pottery from Phase IX,
Area 9 East

Fig. Locus No.

Description

- 313:1 160 -14 Storage jar, hard-fired, light orange fabric, light greyish-yellow core, medium-coarse, multicoloured inclusions, self slip, vertical and diagonal red wash, finger impression on both handles.
- 313:2 160 -12 Storage jar, hard-fired, light greyish-yellow fabric, medium-coarse, mainly grey inclusions, self slip (see Figs. 315 third from left and 457:7).
- 313:3 160 -16 Storage jar, hard-fired, light orange fabric, thick grey core, medium-coarse, multicoloured inclusions, self slip, vertical red wash.
- 313:4 160 -20 Storage jar, hard-fired, light orangish-brown fabric, medium-coarse, multicoloured inclusions, self slip, vertical red wash; ridge just below rim.
- 313:5 160 -26 Storage jar, hard-fired, light brown fabric, medium-coarse, mainly white inclusions, light orange slip, vertical red wash.

Legend for the illustrated pottery from Phase IX,
Area 9 East

Fig. Locus No.

Description

- 314:1 160 -10 Storage jar, hard-fired, light orange fabric, thick grey core, medium-coarse, mainly white inclusions, self slip (see Figs. 315 right, 316 and 457:8).
- 314:2 160 -18 Storage jar, hard-fired, light orange fabric interior, grey fabric exterior, coarse, mainly white and grey inclusions, light yellow slip (see Figs. 315 second from left and 457:6).



Fig. 316 Contents (flour) of storage jar L160-10 from Room 2, Phase IX, Area 9 East

- 314:3 160 -11 Storage jar, hard-fired, light orangish-brown fabric, medium-coarse, multicoloured inclusions, light orange slip, finger impression on one handle (see Figs. 315 left and 457:5).
- 314:4 160 -25 Storage jar, hard-fired, light orangish-brown fabric, medium-fine, multicoloured inclusions, self slip.
- 314:5 160 -8 Storage jar, hard-fired, light orange fabric, light greyish-yellow core, medium-coarse, multicoloured inclusions, self slip, vertical red wash, finger impression on both handles.

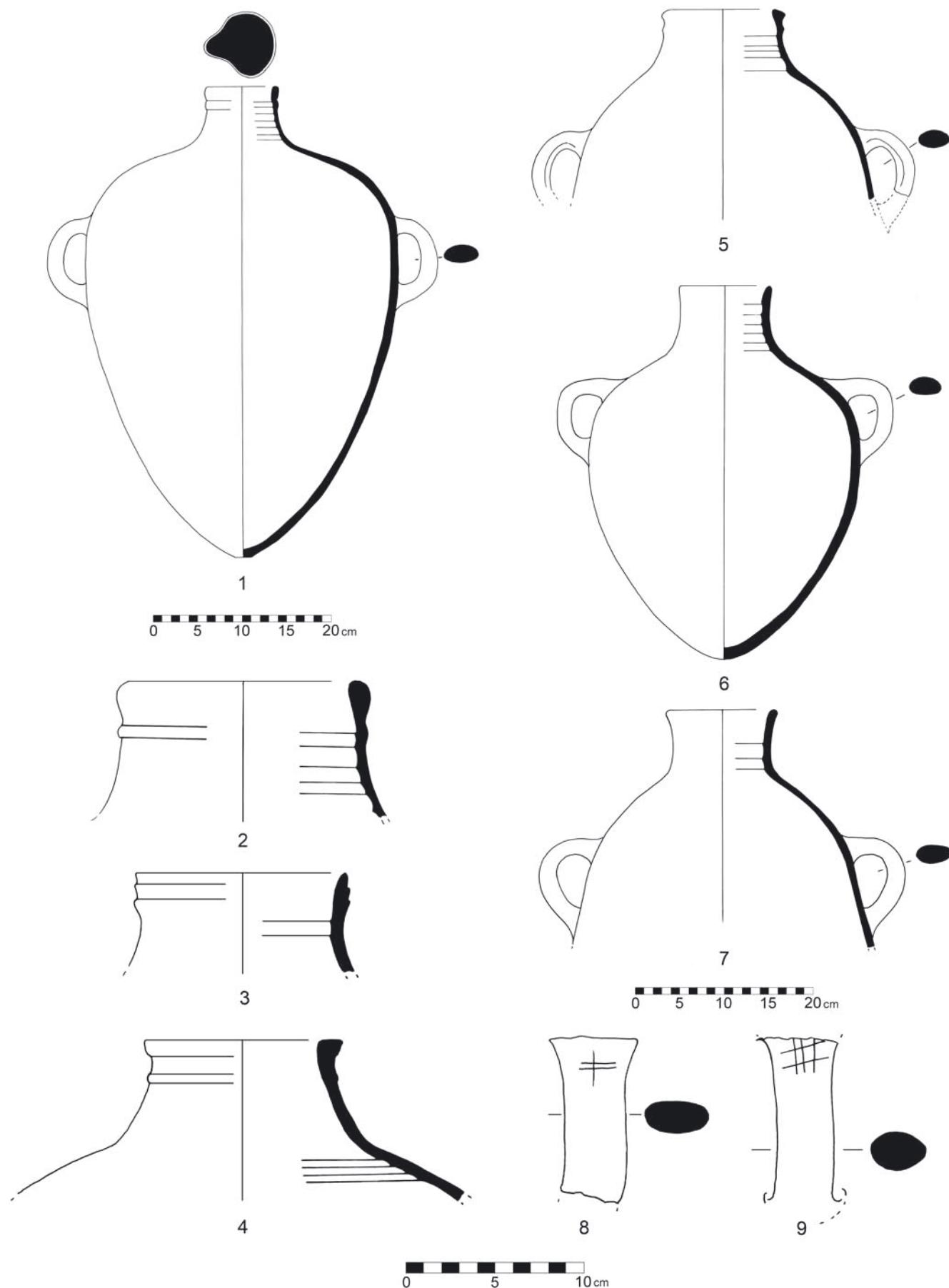


Fig. 317 Pottery from Phase IX, Area 9 East



Fig. 318 Storage jar N1400 from Room 11, Phase IX, Area 9 East



Fig. 319 Jar N1378 from Room 12, Phase IX, Area 9 East

Legend for the illustrated pottery from Phase IX, Area 9 East

Fig. Locus No. Description

- 317:1 275 N1400 Storage jar with trefoil spout, medium-hard-fired, reddish-brown fabric, grey core, medium-coarse, red slip; ridge below rim (see Fig. 318).
- 317:2 213 -2 Storage jar, hard-fired, greyish-brown fabric, coarse, mainly white inclusions, greyish-brown slip; ridge below rim.
- 317:3 369 -2 Jar, hard-fired, very light pinkish-brown fabric, medium-coarse, mainly white and grey inclusions, light yellow to orange slip.
- 317:4 396 -3 Jar, hard-fired, light reddish-brown fabric, coarse, multicoloured inclusions, orangish-yellow slip.
- 317:5 208 -5 Storage jar, medium-hard-fired, greyish-brown fabric, medium-coarse, few multicoloured inclusions, yellowish-grey slip; ridge below rim.
- 317:6 267 N1378 Jar, hard-fired, light brown fabric, medium-coarse, multicoloured inclusions, light greyish-brown slip (see Fig. 319).
- 317:7 208 -4 Storage jar, medium-hard-fired, light greyish-brown fabric, medium-coarse, light orange slip.
- 317:8 396 -2 Jar, hard-fired, light yellow fabric, coarse, multicoloured inclusions, self slip, potter's mark; double cross.

- 317:9 385 -3 Jar, hard-fired, light orangish-red fabric, thick dark grey core, coarse, mainly white inclusions, yellowish-grey slip, potter's mark.

Legend for the illustrated pottery from Phase IX, Area 9 East

Fig. Locus No. Description

- 320:1 390 -1 Jar, hard-fired, dark brown fabric, grey core, medium-coarse, mainly white inclusions, self slip.
- 320:2 395 N1456 Jar, medium-hard-fired, light red fabric, coarse, multicoloured inclusions, yellowish-red slip, finger impression on one handle.
- 320:3 395 -2 Biconical jar, hard-fired, light brown fabric, coarse, multicoloured inclusions, light yellowish-brown slip, dark red decoration.

Legend for the illustrated pottery from Phase IX, Area 9 East

Fig. Locus No. Description

- 321:1 267 N1384 Pilgrim flask, hard-fired, light brownish-red fabric, medium-fine, light yellowish-brown slip, burnished, bichrome red and black decoration (see Figs. 322 and 457:9).
- 321:2 267 -3 Pilgrim flask, light brown fabric, grey core, medium-fine, light greyish-yellow slip, brown paint (see Fig. 323).

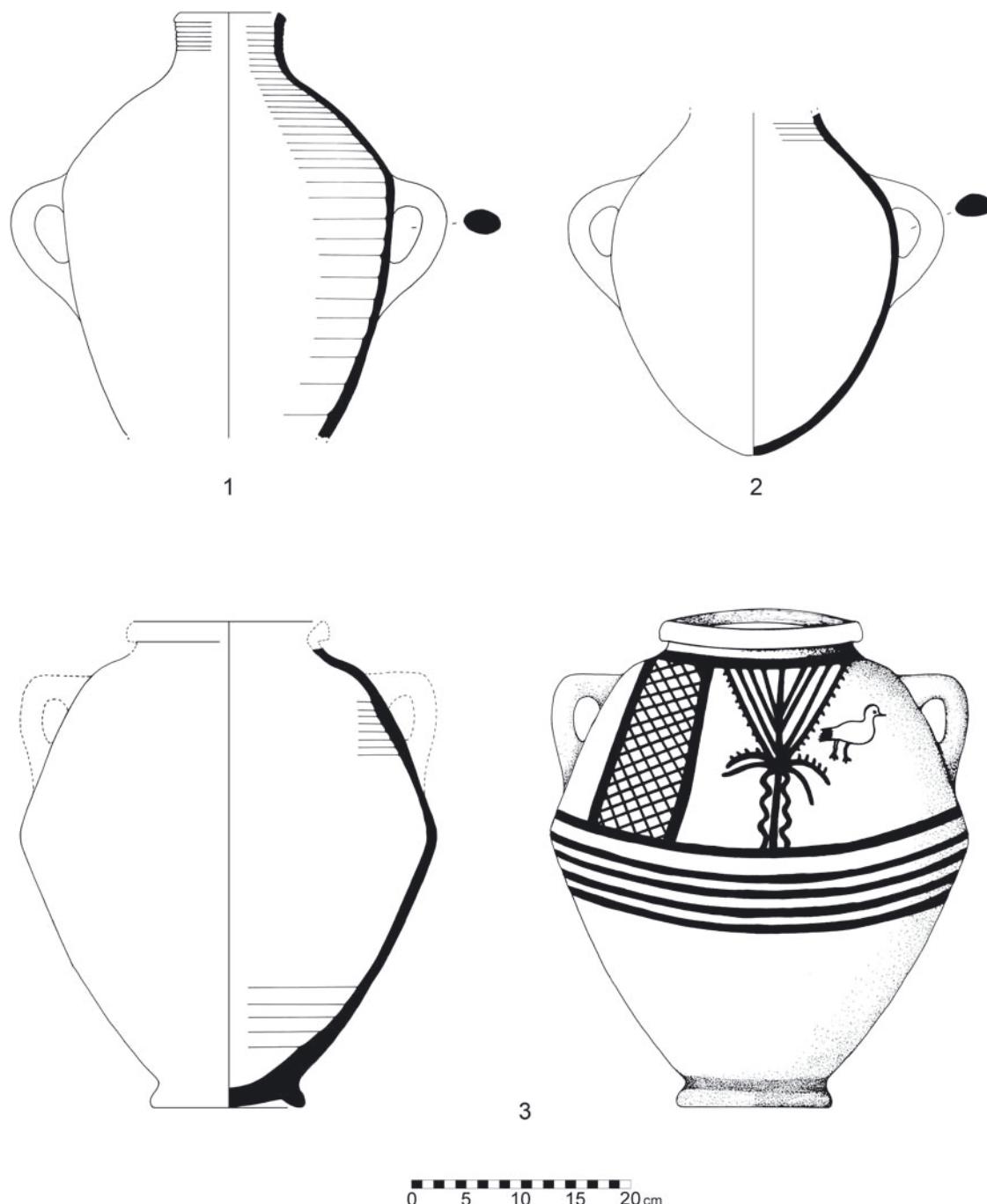


Fig. 320 Pottery from Phase IX, Area 9 East

- 321:3 371 -1 Pilgrim flask, hard-fired, light red fabric, yellow core, medium-coarse, mainly black inclusions, light red slip.
- 321:4 264 -1 Pilgrim flask, medium-hard-fired, light red fabric, greyish-brown core, coarse, multicoloured inclusions, light red slip.
- 321:5 219 N1350 Pilgrim flask, hard-fired, light brownish-red fabric, light grey core, self slip, white decoration (see Fig. 324).

- 321:6 377 N1453 Pilgrim flask, medium-hard-fired, pinkish-red fabric, medium-fine, white and grey inclusions, orange slip, dark red decoration.
- 321:7 208 -6 Globular jug, hard-fired, light reddish-brown fabric exterior, light greyish-brown fabric interior, fine, light reddish-yellow burnished slip, matt bichrome black and red decoration; Phoenician import (see Fig. 452:4).

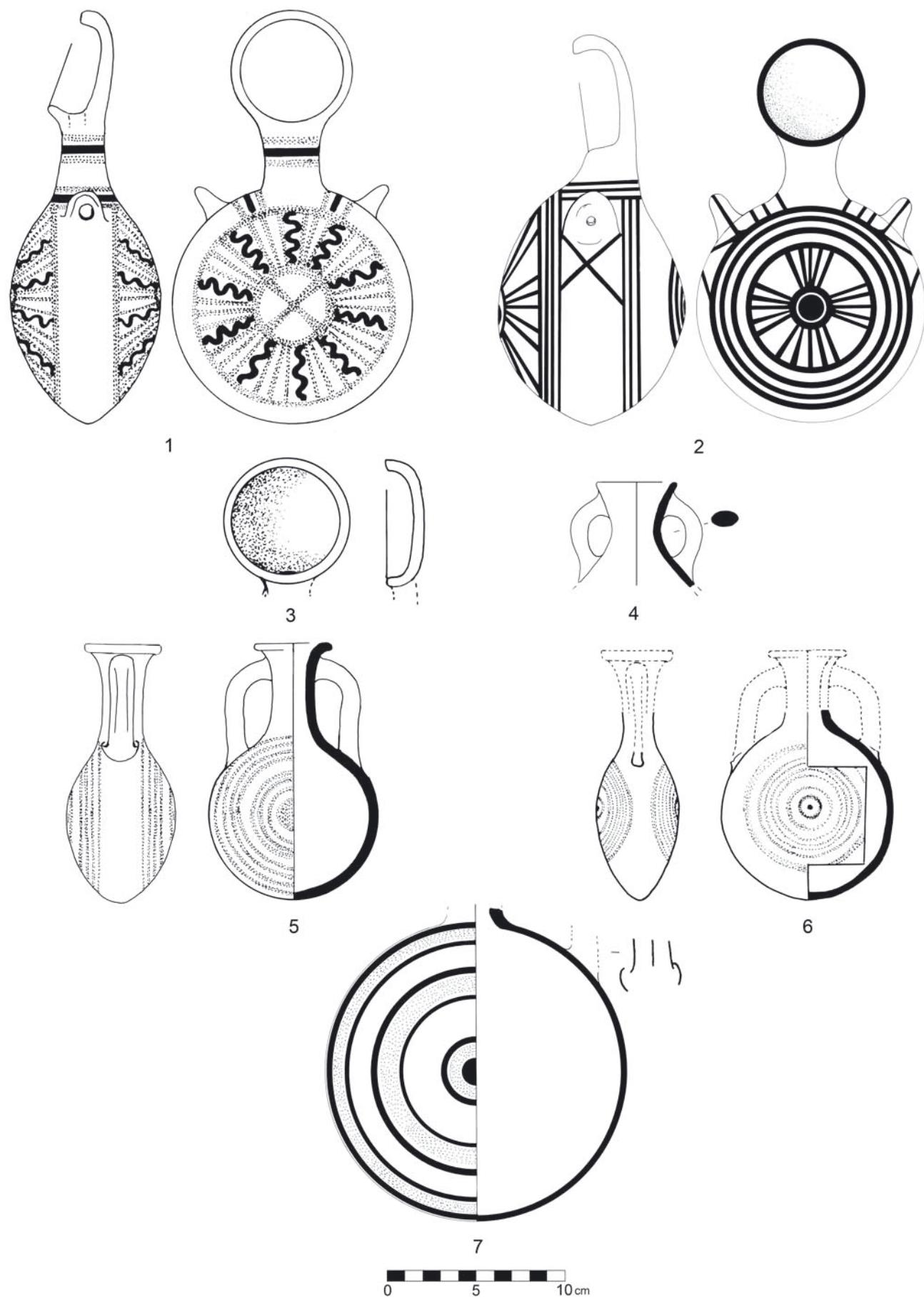


Fig. 321 Pottery from Phase IX, Area 9 East



Fig. 322 Pilgrim flask N1384 from Room 12, Phase IX,
Area 9 East



Fig. 323 Pilgrim flask L267-3 from Room 12, Phase IX,
Area 9 East

Legend for the illustrated pottery from Phase IX,
Area 9 East

Fig. Locus No. Description

- 325:1 219 N1351 Pyxis, medium-hard-fired, light brownish-red fabric, coarse, mainly white inclusions, brownish-red slip, vertically burnished, base also burnished (see Fig. 326).
325:2 244 -1 Pyxis, medium-hard-fired, light brownish-yellow fabric, coarse, mainly black inclusions, self slip.



Fig. 324 Pilgrim flask N1350 from Room 10, Phase IX,
Area 9 East

- 325:3 371 N1442 Pyxis, medium-hard-fired, light orangish-brown fabric, coarse, multicoloured inclusions, reddish-brown slip, traces of red decoration.
325:4 358 -2 Pyxis, hard-fired, light yellowish-brown fabric, medium-fine, multicoloured inclusions, yellowish-white slip, brownish-red decoration.
325:5 208 N1392 Pyxis, medium-hard-fired, light brown fabric, fine, yellow slip, dark brownish-red line decoration, traces of fire in interior.
325:6 369 -6 Pyxis, hand-made, medium-hard-fired, pinkish-yellow fabric, thick grey core, coarse, multicoloured inclusions, pinkish-yellow slip.
325:7 267 N1381 Pyxis/juglet with lug handles, hard-fired, light red fabric, coarse, mainly white inclusions, light yellow slip.
325:8 219 N1365 Double-pyxis with basket handle, wheel-made/hand-made, medium-soft fired, light greyish-brown fabric, medium-fine, light yellowish-brown slip, brownish-red paint (see Figs. 327 and 452:3).

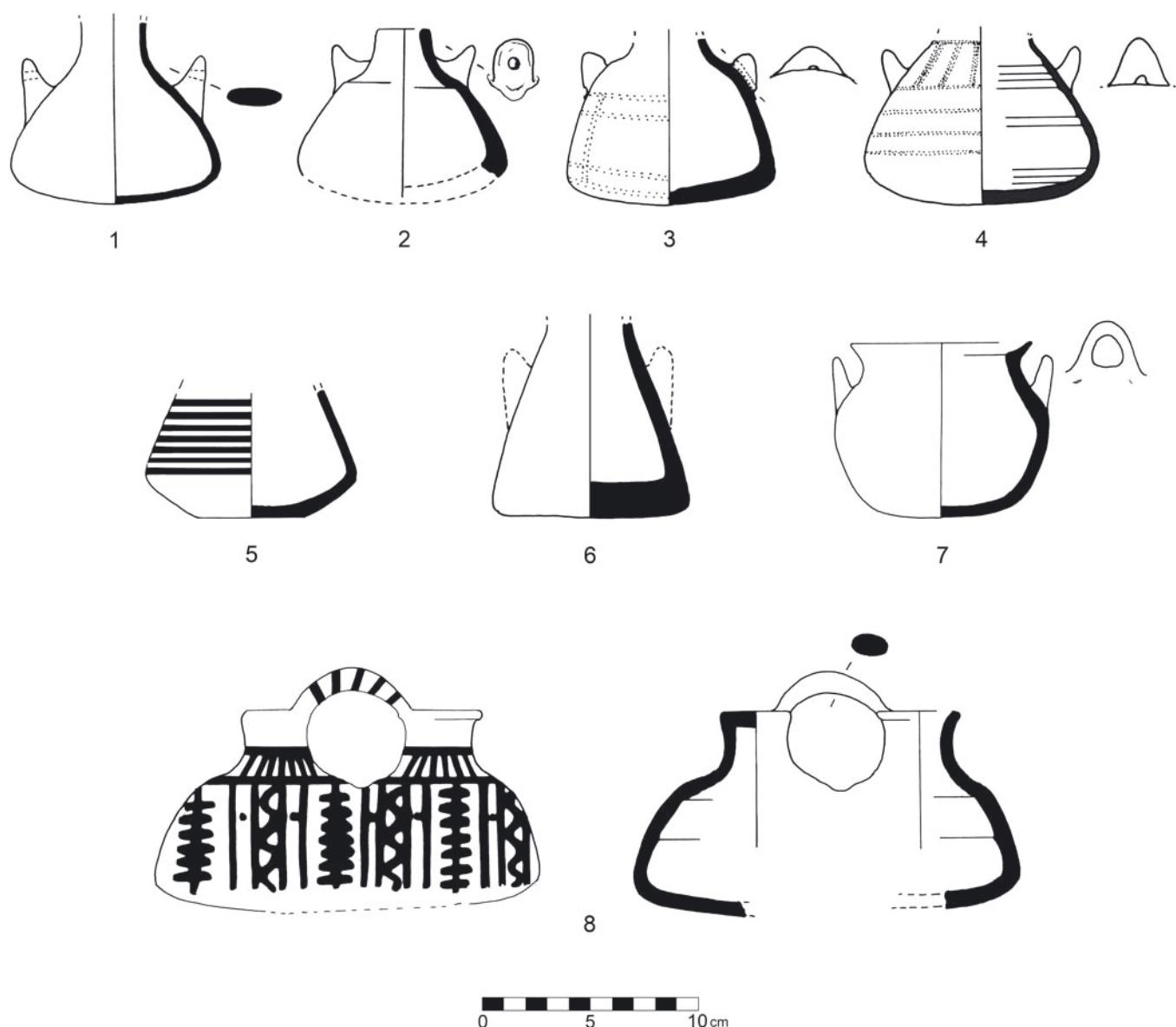


Fig. 325 Pottery from Phase IX, Area 9 East

Legend for the illustrated pottery from Phase IX,
Area 9 East

Fig. Locus No. Description

- 328:1 273 N1390/2 Chalice with cut base, light reddish-yellow slip (see Fig. 329).
 328:2 273 N1390/1 Stand, wheel- and hand-made, hard-fired, yellowish-brown fabric, coarse, mainly grey inclusions, light reddish-yellow slip, two rectangular windows, open upper part (see Fig. 329).
 328:3 354 -7 *Tannur*, hand-made, unfired, dark brown to reddish-brown fabric, very coarse, multicoloured and organic inclusions, traces of soot on surface.
 328:4 377 -5 Heater, unfired clay, partly secondarily fired.

- 328:5 377 -4 Heater, unfired clay, partly secondarily fired.

Legend for the illustrated pottery from Phase IX,
Area 9 East

- Fig. Locus No. Description
- 330:1 213 -1 Lamp, hard-fired, light greyish-brown fabric, medium-coarse, mainly black inclusions, light yellowish-brown slip.
 330:2 219 N1332 Lamp, medium-hard-fired, reddish-brown fabric, medium-fine inclusions, orange slip (see Fig. 331).
 330:3 258 N1371 Lamp, medium-hard-fired, light brown fabric, medium-fine, yellow slip (see Fig. 332).



Fig. 326 Pyxis N1351 from Room 10, Phase IX, Area 9 East

330:4 397 -1 Lamp, hard-fired, light greyish-yellow fabric, coarse, grey inclusions, light orange slip, traces of soot.

330:5 351 -1 Lamp, very soft-fired, light greyish-brown fabric, coarse, multicoloured inclusions, self slip.

Legend for the illustrated pottery from Phase IX, Area 9 East

Fig. Locus No.

Description

333:1 261 -1 Cooking pot, hard-fired, dark grey fabric, white inclusions, brown slip.

333:2 237 -8 Cooking pot, hard-fired, dark grey fabric, medium coarse, white inclusions, red slip.

333:3 371 -4 Cooking pot, hard-fired, brown fabric, black core, coarse, mainly white inclusions, self slip.



Fig. 327 Double-pyxis with basket handle N1365 from Room 10, Phase IX, Area 9 East

- 333:4 239 -1 Cooking pot, hard-fired, grey fabric, white inclusions, brown slip.
 333:5 237 -5 Cooking pot, medium-hard-fired, dark reddish-brown fabric, black and white medium-large inclusions, self slip.
 333:6 275 -3 Cooking pot, hard-fired, reddish-brown fabric, dark grey core, coarse, mainly white inclusions, self slip.

Legend for the illustrated pottery from Phase IX, Area 9 East

Fig. Locus No. Description

334:1 229 -7 Cooking pot, hard-fired, brown fabric, coarse, white inclusions, brown slip.

334:2 210 -2 Cooking pot, hard-fired, brown fabric, coarse, white inclusions, brown slip.

334:3 238 -1 Cooking pot, hard-fired, brown fabric, dark grey core, coarse, mainly white inclusions, self slip; ridge on shoulder.

334:4 244 -3 Cooking pot, hard-fired, dark brown fabric, coarse, quartz inclusions, self slip.

334:5 385 -6 Cooking pot, hard-fired, dark brown fabric, thick dark grey core, coarse, white inclusions, self slip, traces of secondary firing.

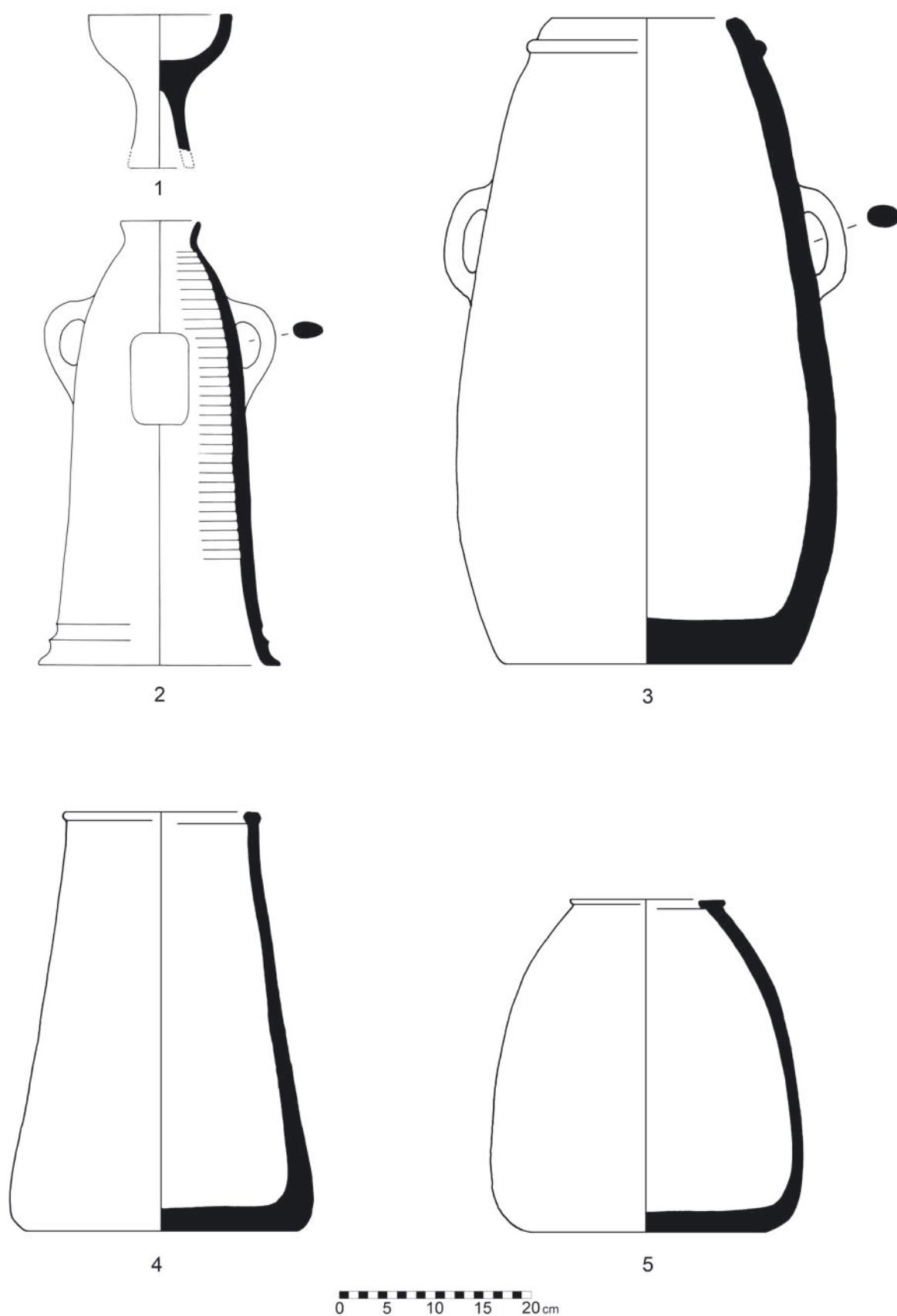


Fig. 328 Pottery from Phase IX, Area 9 East



Fig. 329 Stand N1390/1 with chalice N1390/2 as lid from Room 9, Phase IX, Area 9 East; observe traces of oily liquid



Fig. 331 Lamp N1332 from Room 10, Phase IX, Area 9 East



Fig. 332 Lamp N1371 from Room 12, Phase IX, Area 9 East

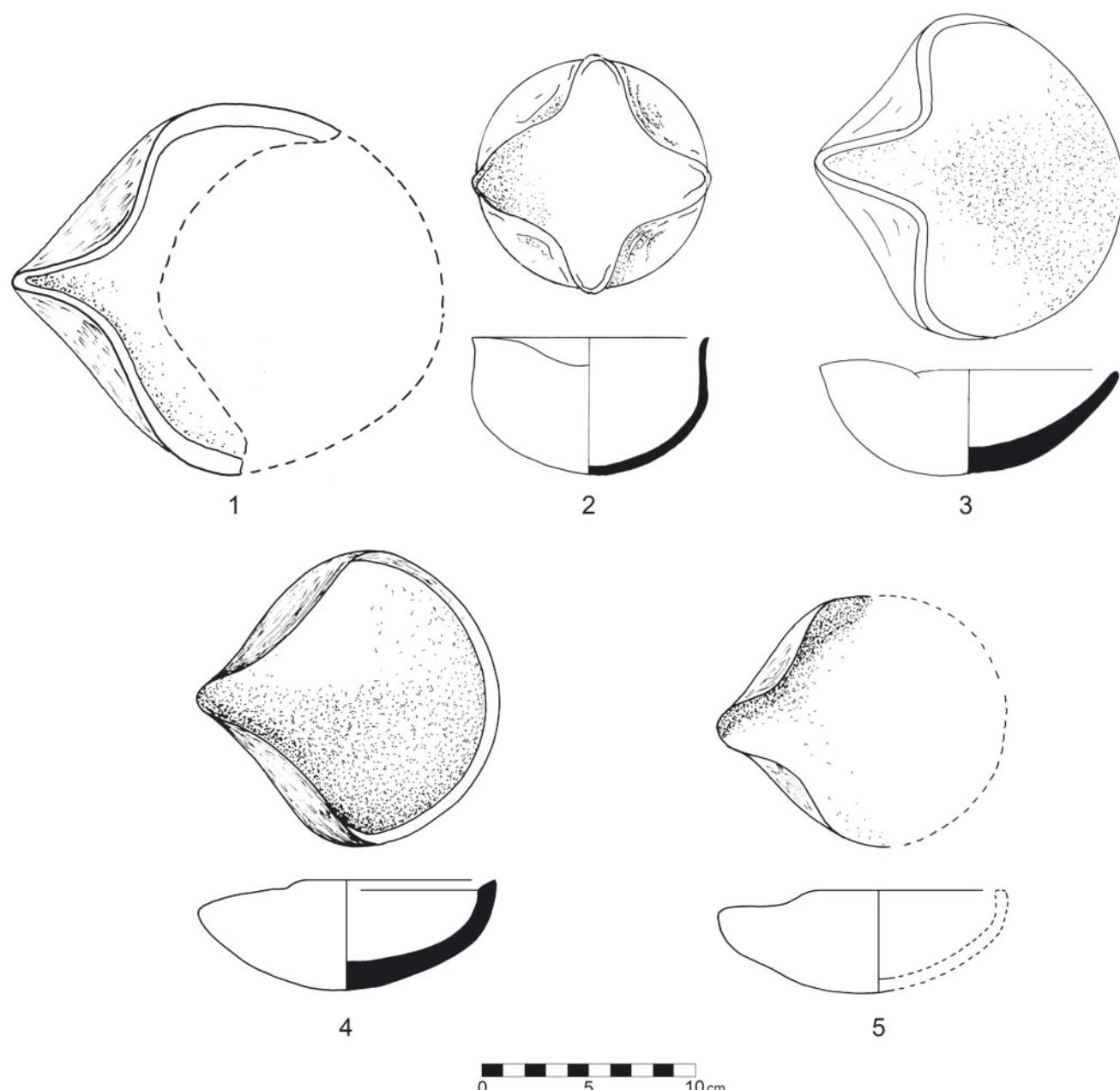


Fig. 330 Pottery from Phase IX, Area 9 East

- 334:6 229 -4 Cooking pot, hard-fired, grey fabric, dark grey inclusions, red slip.
 334:7 396 -1 Cooking pot, hard-fired, dark brown fabric, coarse, mainly quartz inclusions, self slip.
 334:8 208 -3 Cooking pot, hard-fired, dark reddish-brown fabric, quartz inclusions, self slip; decoration in form of impressed dots.

Legend for the illustrated pottery from Phase IX, Area 9 East

Fig. Locus No. Description

335:1 273 N1358 Cooking pot, medium-hard-fired, yellowish-brown fabric, thick black core, coarse, white inclusions, self slip (see Fig. 336).

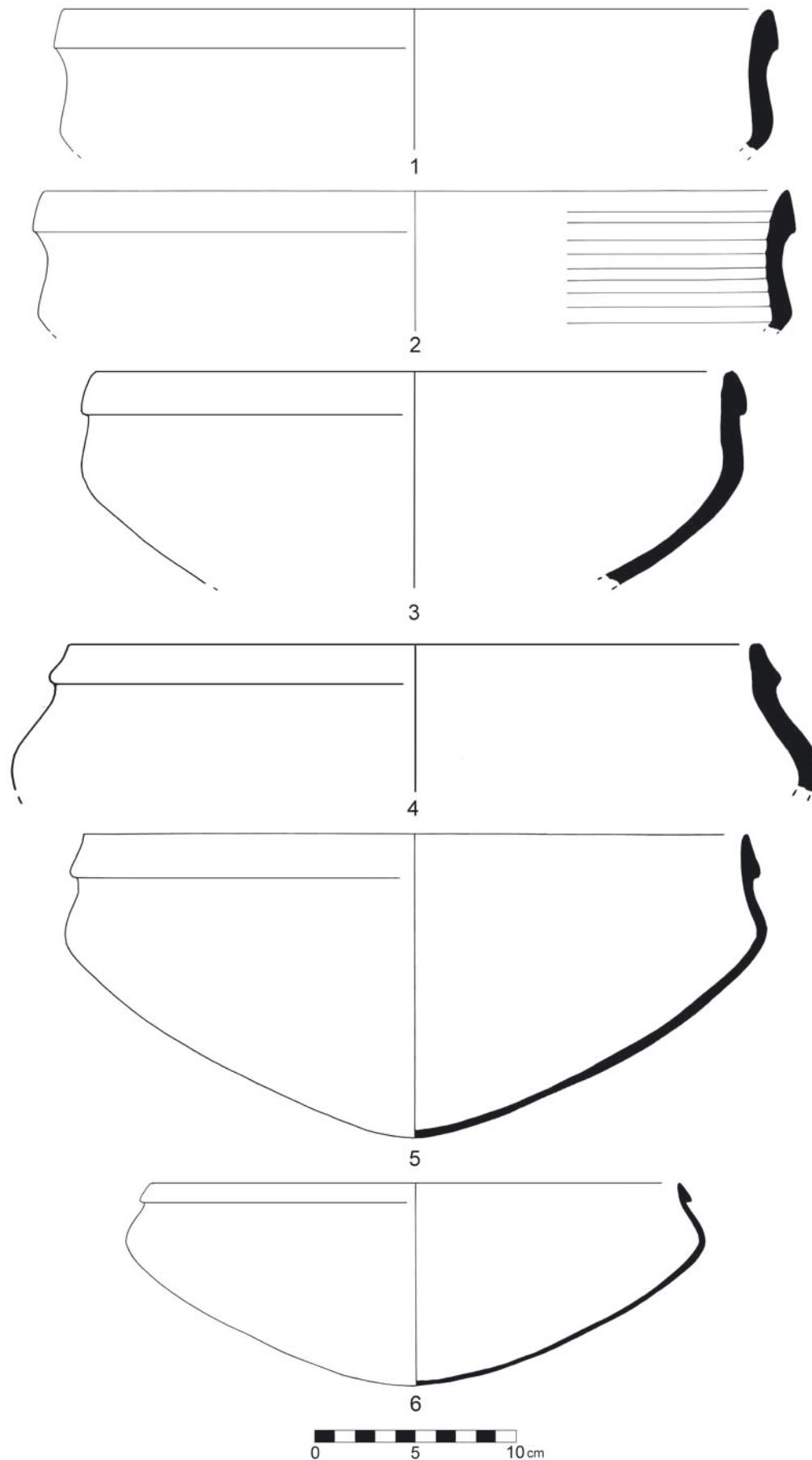


Fig. 333 Pottery from Phase IX, Area 9 East

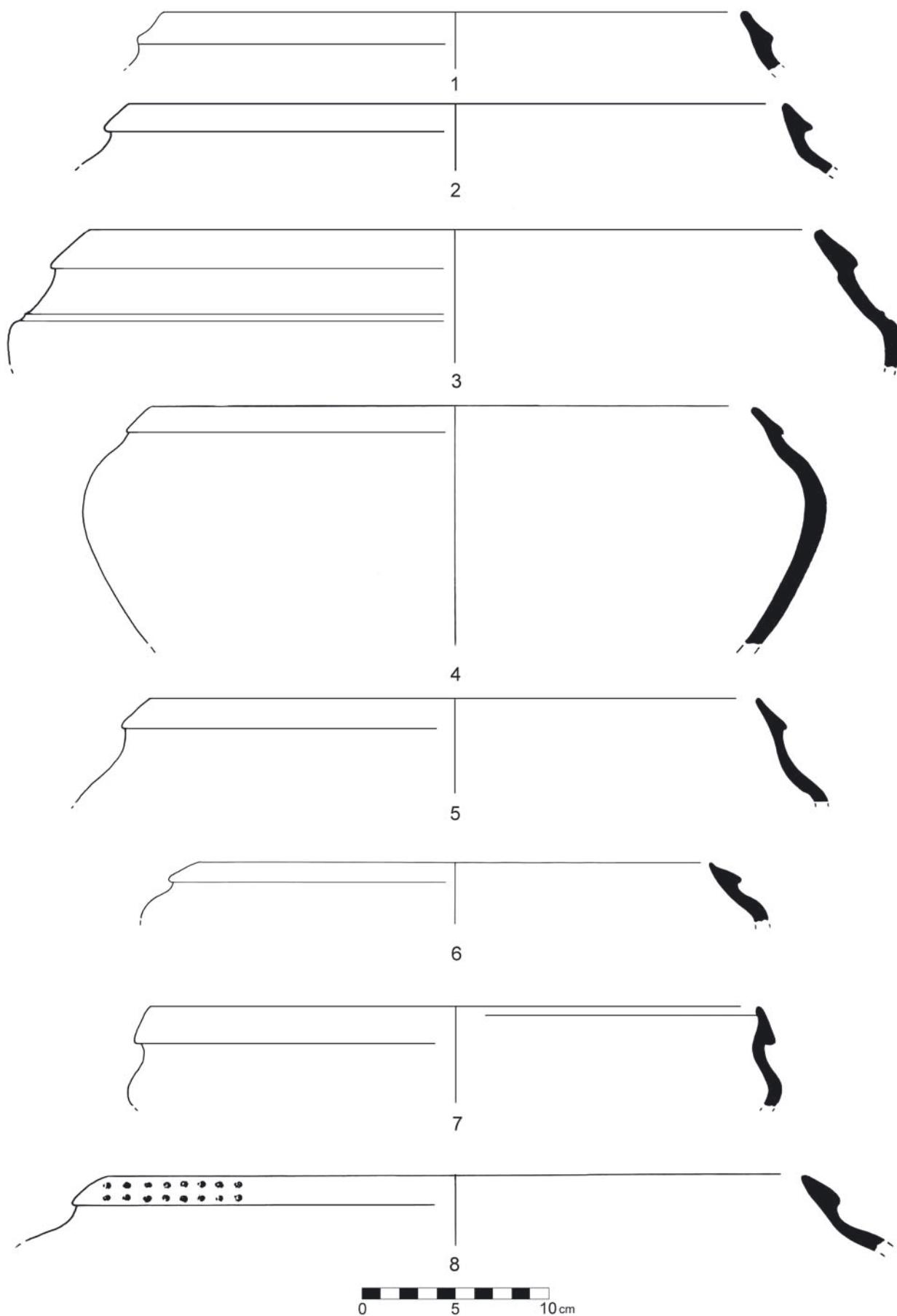


Fig. 334 Pottery from Phase IX, Area 9 East

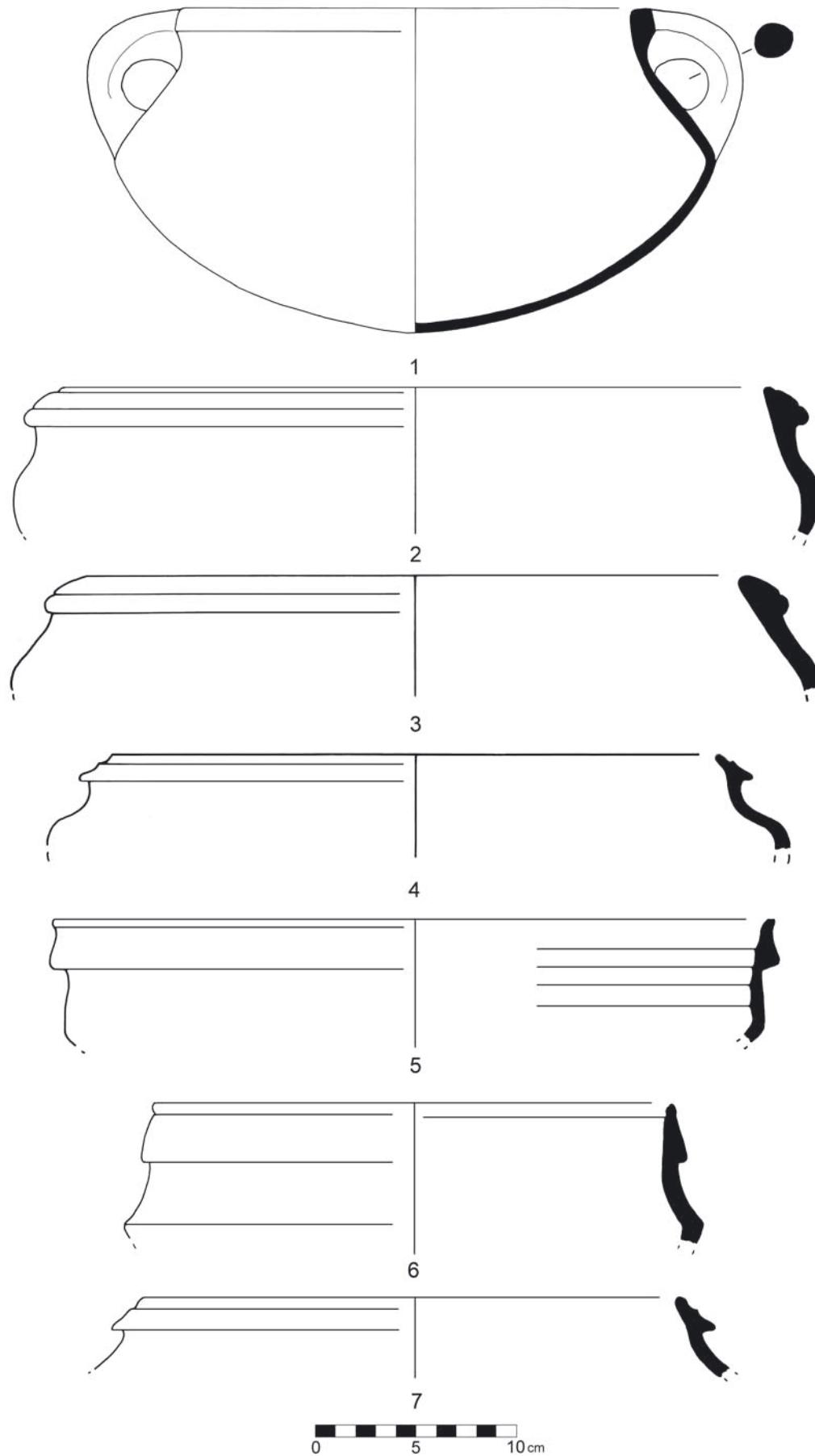


Fig. 335 Pottery from Phase IX, Area 9 East



Fig. 336 Cooking pot N1358 from Room 9, Phase IX, Area 9 East (see also Fig. 335:1)

- | | | | |
|-------|-----|----|---|
| 335:2 | 219 | -5 | Cooking pot, hard-fired, reddish-brown fabric, thick dark grey core, coarse, quartz inclusions, self slip. |
| 335:3 | 210 | -1 | Cooking pot, hard-fired, brown fabric, coarse, white inclusions, brown slip. |
| 335:4 | 249 | -1 | Cooking pot, hard-fired, dark red fabric, thick dark grey core, coarse, mainly quartz inclusions, self slip. |
| 335:5 | 359 | -1 | Cooking pot, hard-fired, reddish-brown fabric, dark grey core, coarse, black and white inclusions, self slip. |
| 335:6 | 371 | -2 | Cooking pot, hard-fired, brownish-red fabric, thick dark grey core, coarse, mainly white inclusions, self slip. |
| 335:7 | 354 | -2 | Cooking pot, hard-fired, dark grey fabric, coarse, mainly white inclusions, dark reddish-brown slip. |

Legend for the illustrated pottery from Phase IX,
Area 9 East

Fig.	Locus No.	Description
337:1	389	-1
337:2	385	-5
337:3	351	-2
337:4	369	-4

Cooking pot, medium-hard-fired, dark brown fabric, very thick dark grey core, coarse, mainly white inclusions, self slip.

Cooking pot, hard-fired, reddish-brown fabric, thick dark grey core, coarse, mainly white inclusions, self slip, traces of secondary firing.

Cooking pot, hard-fired, reddish-brown fabric, thick grey core, coarse, mainly white inclusions, light yellow slip (not used).

Cooking pot, hard-fired, dark brown fabric, thick dark grey core, coarse, mainly white and light grey inclusions, self slip.

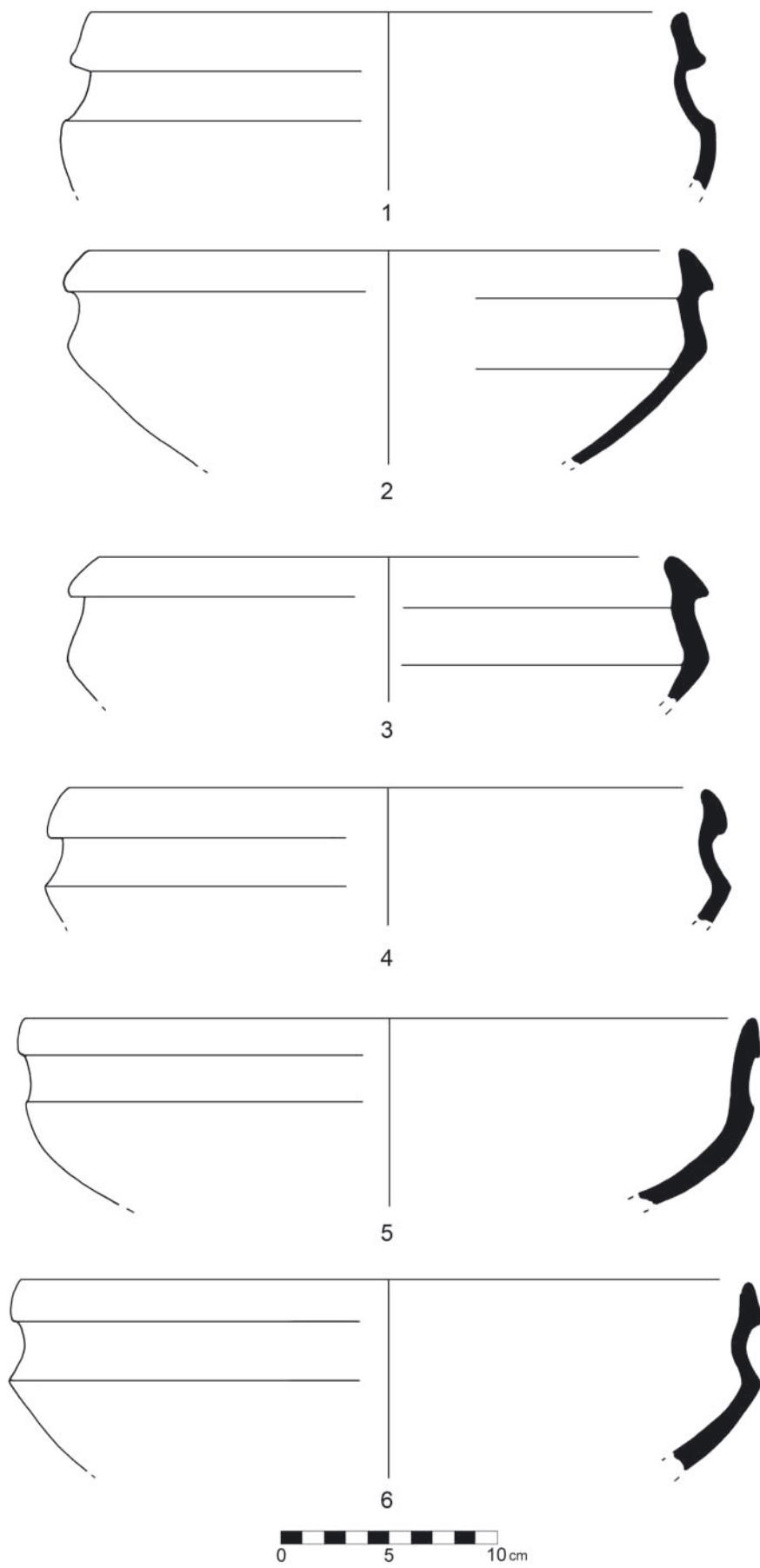


Fig. 337 Pottery from Phase IX, Area 9 East

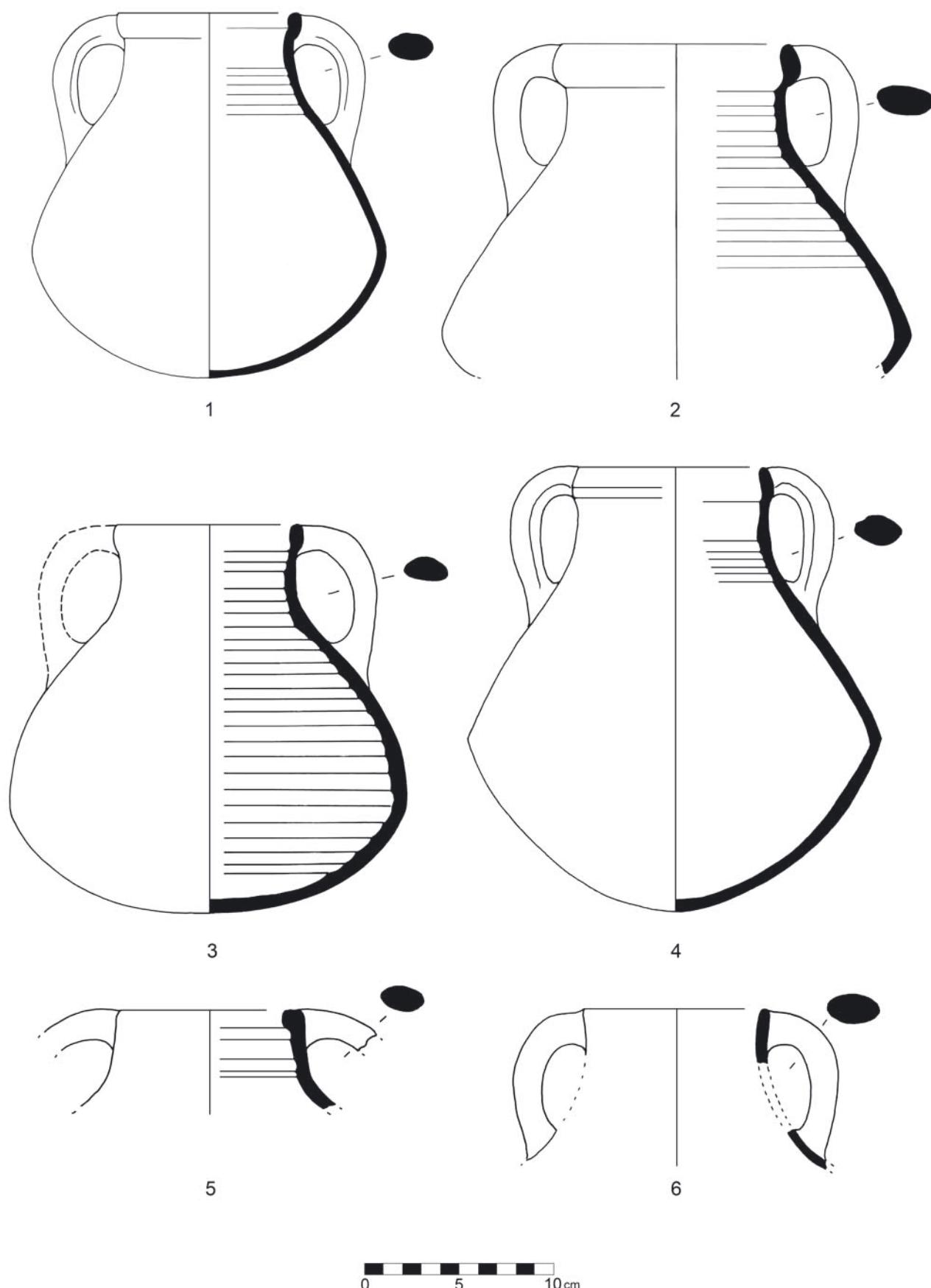


Fig. 338 Pottery from Phase IX, Area 9 East



Fig. 339 Two cooking jugs from Phase IX, Area 9 East: N1457 (upper left) from Room 21B; N1399 (upper right) from Room 4; cf. the similar shape of jug N1430 from Room 18 (two views in lower part of photograph)

- | | |
|--------------|--|
| 337:5 371 -3 | Cooking pot, hard-fired, brown fabric, black core, coarse, mainly white inclusions, self slip. |
| 337:6 369 -5 | Cooking pot, hard-fired, brown fabric, thick dark grey core, coarse, mainly white inclusions, self slip. |

Legend for the illustrated pottery from Phase IX, Area 9 East

Fig. Locus No. Description

- | | |
|--------------|---|
| 338:1 252 | N1399 Cooking jug, hard-fired, greyish-brown fabric, coarse, mainly quartz inclusions, self slip (see Fig. 339, upper right). |
| 338:2 240 -1 | Cooking jug, hard fired, brown fabric, thick black core, coarse, white inclusions, self slip, finger impression above handle. |

- | | |
|-----------------|---|
| 338:3 369 -1 | Cooking jug, hard-fired, dark brown fabric, thick dark grey core, coarse, mainly white and grey inclusions, self slip. |
| 338:4 395 N1457 | Cooking jug, hard-fired, brownish-red fabric, dark grey core, coarse, mainly white inclusions, orangish-brown slip, traces of soot below belly (see Fig. 339, upper left and 457:10). |
| 338:5 354 -3 | Cooking jug, hard-fired, dark brown fabric, thick grey core, coarse, black and white inclusions, self slip. |
| 338:6 375 -1 | Cooking jug, hard-fired, dark brown fabric, coarse, multicoloured inclusions, self slip. |

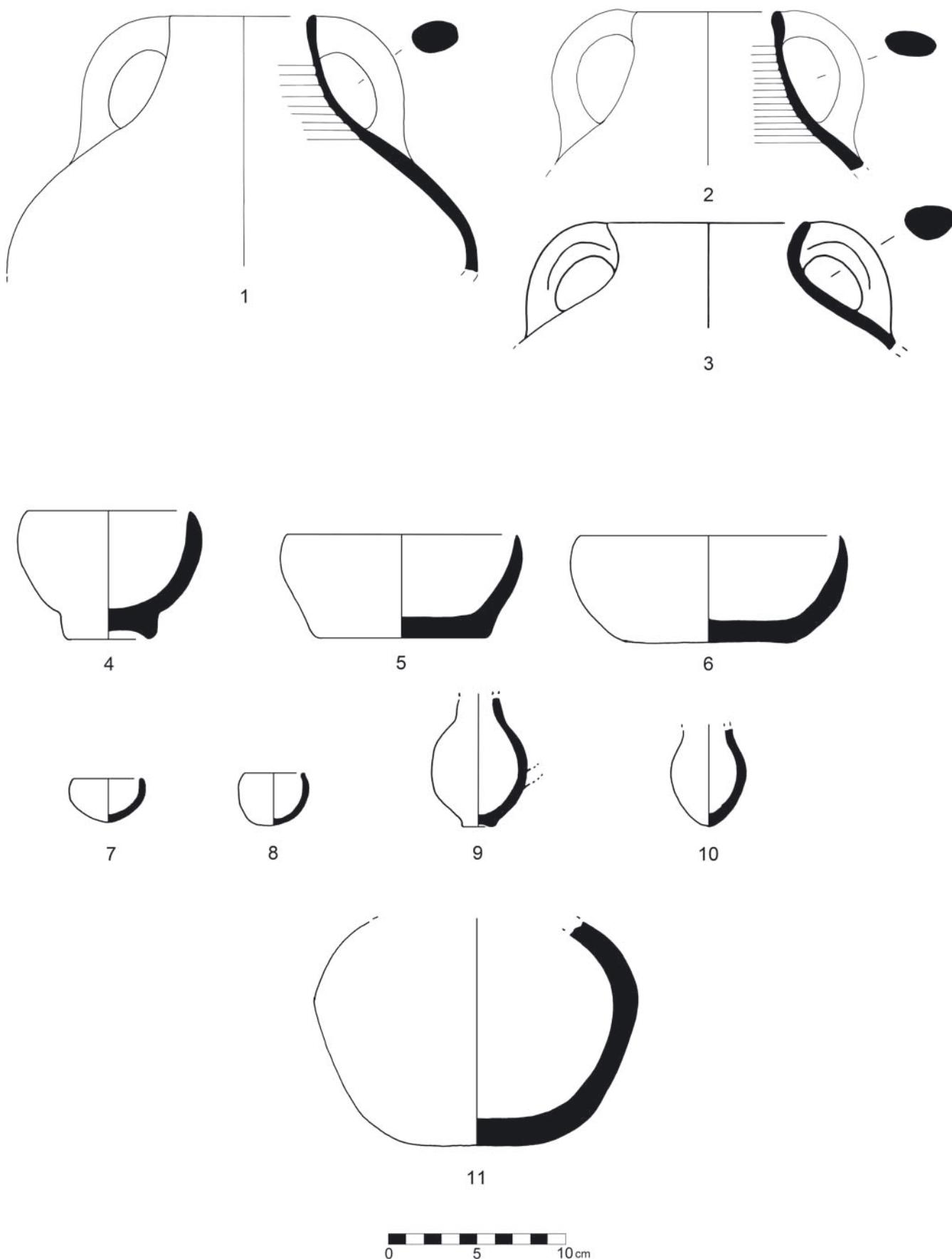


Fig. 340 Pottery from Phase IX, Area 9 East

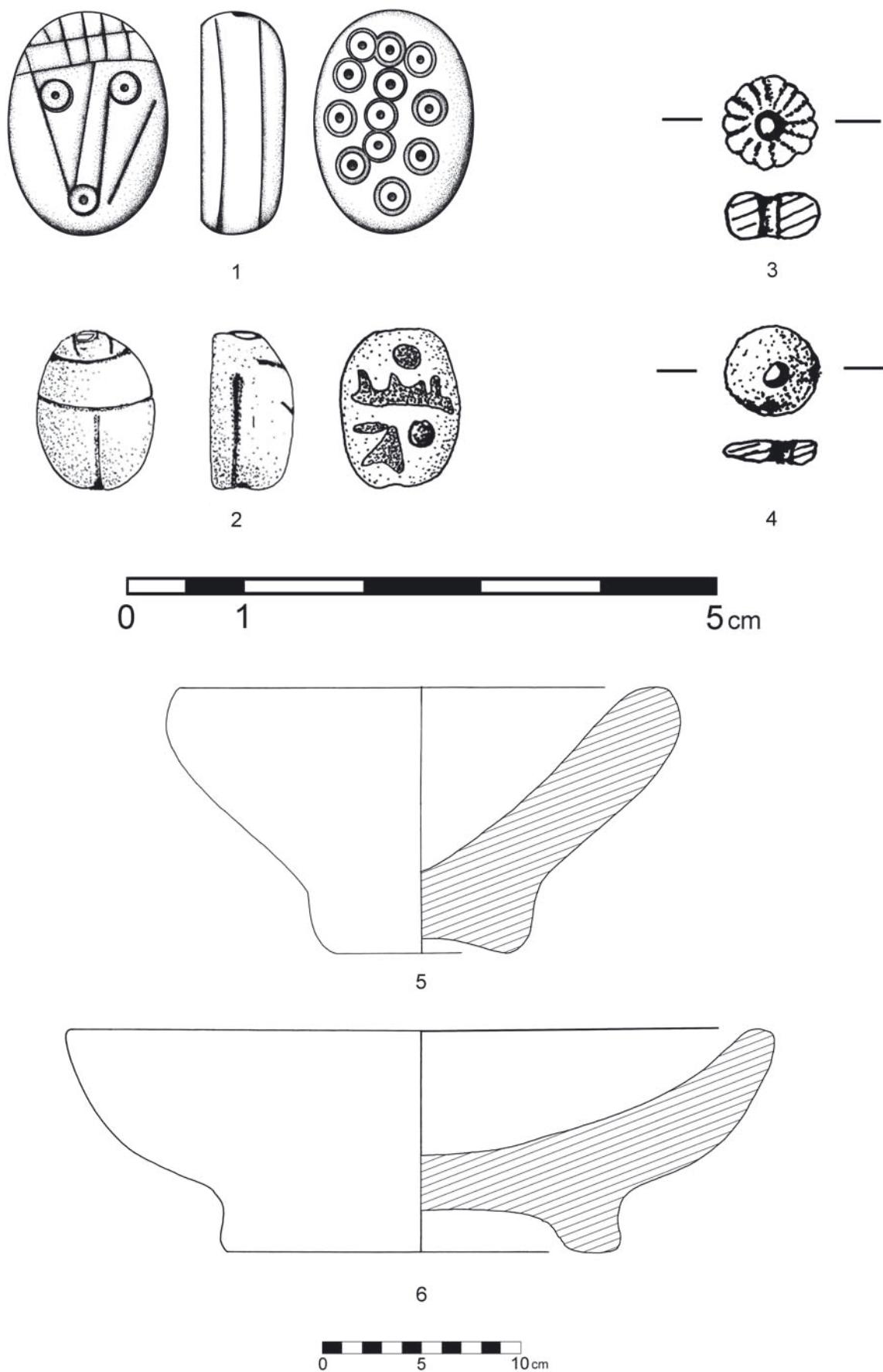


Fig. 341 Finds from Phase IX, Area 9 East

Legend for the illustrated pottery from Phase IX,
Area 9 East

Fig.	Locus No.	Description
340:1	268 -2	Cooking jug with two handles, hard-fired, brown fabric, greyish-brown core, coarse, mainly white inclusions, self slip.
340:2	268 -1	Cooking jug with two handles, hard-fired, brown fabric, coarse, mainly white inclusions, self slip.
340:3	249 -3	Cooking jug, hard-fired, dark brown fabric, thick dark grey core, coarse, mainly quartz inclusions, self slip.
340:4	377 N1446	Bowl, hand-made, medium-soft-fired, light brown fabric, fine, light yellow slip, traces of secondary firing.
340:5	397 -2	Bowl, hand-made, medium-soft-fired, dark grey fabric, coarse, white and grey inclusions, self slip.
340:6	391 -1	Bowl, hand-made, medium-soft-fired, dark grey fabric, medium-coarse, white and grey inclusions, self slip.
340:7	358 N1436	Miniature bowl, hand-made, very soft-fired, light greenish-grey fabric, medium-fine, self slip, traces of secondary firing (see also Fig. 272: 4).
340:8	354 N1431	Miniature bowl, hand-made, soft-fired, dark orangish-brown fabric, medium-coarse, multicoloured inclusions, self slip (see also Fig. 272: 3).
340:9	356 N1432	Miniature juglet, hand-made, unfired, dark orangish-brown fabric, medium-coarse, multicoloured inclusions, self slip (see also Fig. 272: 1).
340:10	351 N1429	Miniature juglet, hand-made, unfired, dark brown fabric, medium-coarse, multicoloured inclusions, self slip (see also Fig. 272: 2).
340:11	377 -8	Jug?, hand-made, soft-fired, dark yellowish-brown fabric, medium-coarse, multicoloured inclusions, self slip.

Legend for the illustrated finds from Phase IX, Area 9 East

Fig.	Locus No.	Description
341:1	267 N1388	Scaraboid, steatite, drilled decoration (see Figs. 342, 457:11 and 466:1).
341:2	267 N1389	Scarab, faience (see Figs. 343, 457:12 and 466:2).
341:3	239 N1341	Bead, faience, "Egyptian blue", fluted.
341:4	239 N1343	Bead, carnelian.
341:5	241 -4	Basalt bowl.
341:6	240 N1377	Basalt bowl.

Legend for the illustrated pottery and other finds from Phase IX, Area 9 East

Fig.	Locus No.	Description
344:1	219 N1353	Chalice(?), lamp with handle(?), wheel-made, hard-fired, greyish-brown fabric, coarse, mainly black inclusions, light orange slip.



Fig. 342 Scaraboid N1388 from Room 12, Phase IX, Area 9 East



Fig. 343 Scarab N1389 from Room 12, Phase IX, Area 9 East

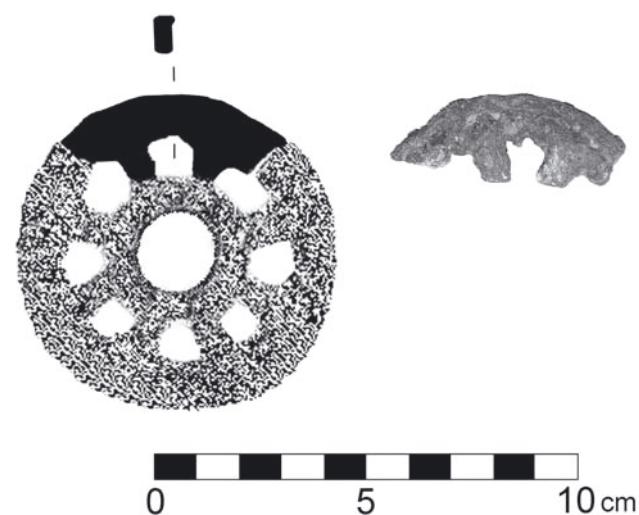


Fig. 345 Bronze wheel L389-2 from Room 21B, Phase IX, Area 9 East (reconstruction to the left)

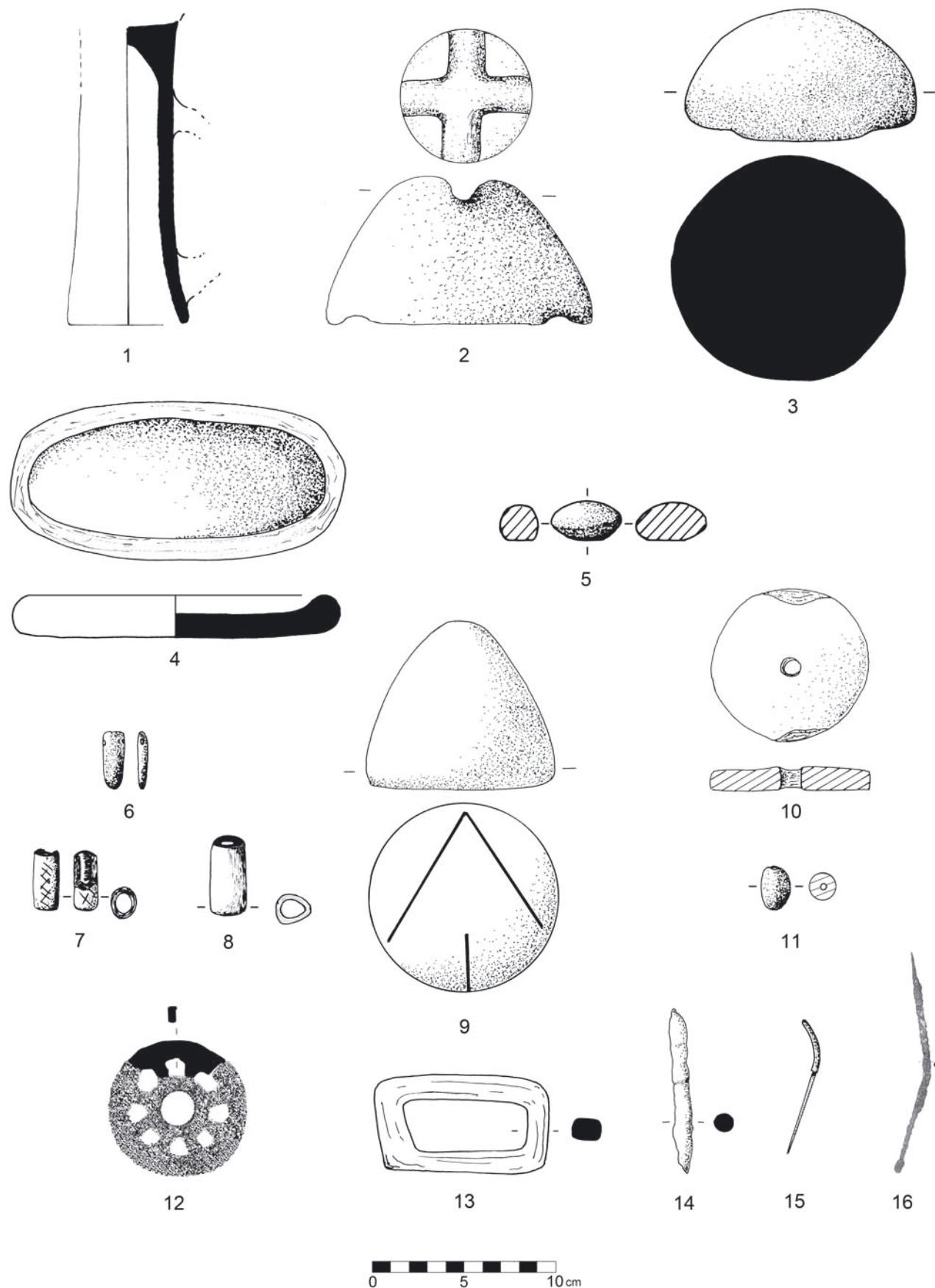


Fig. 344 Pottery and other finds from Phase IX, Area 9 East

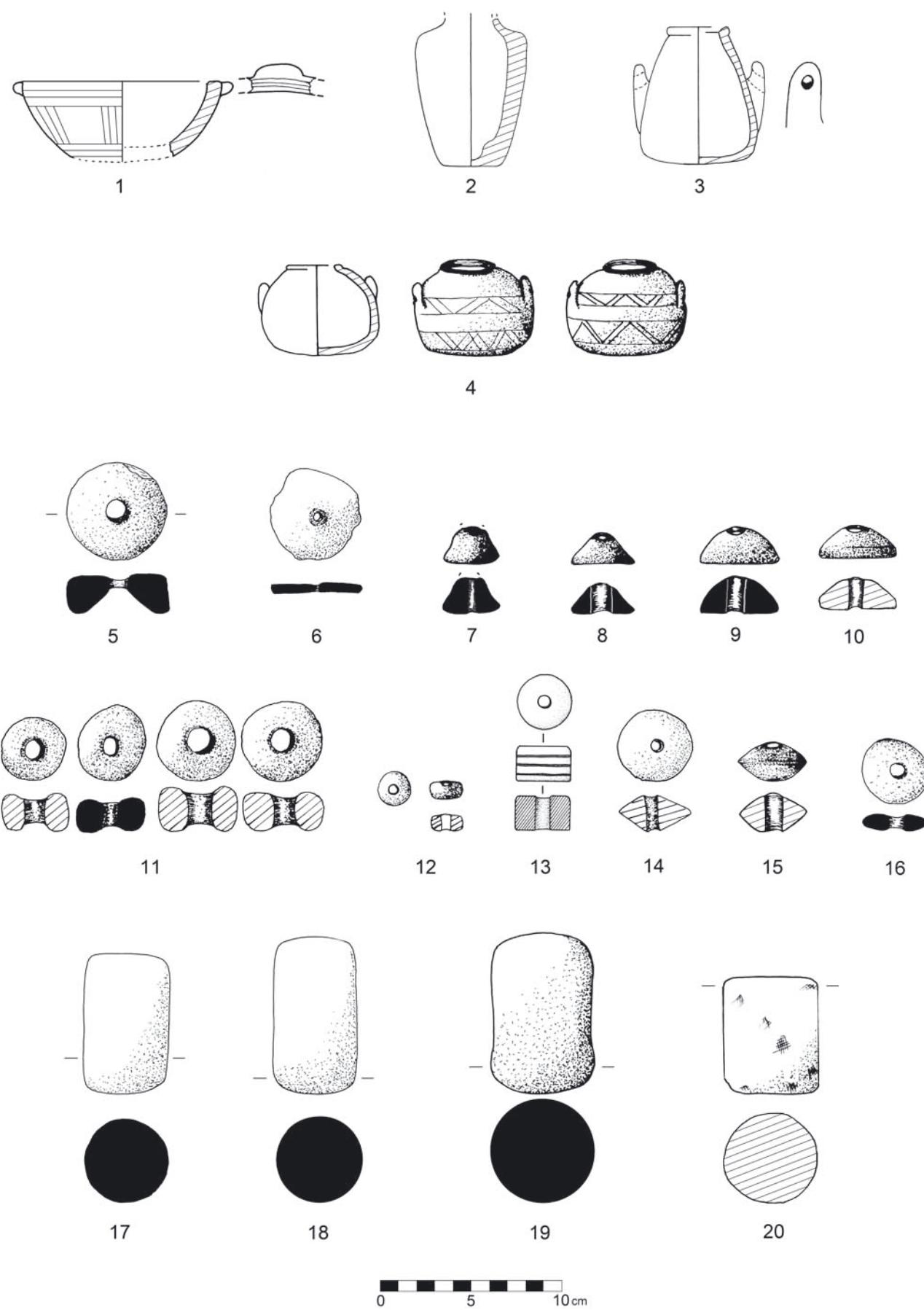


Fig. 346 Finds from Phase IX, Area 9 East



Fig. 347 Juglet of alabaster N1423 from Room 1, Phase IX, Area 9 East

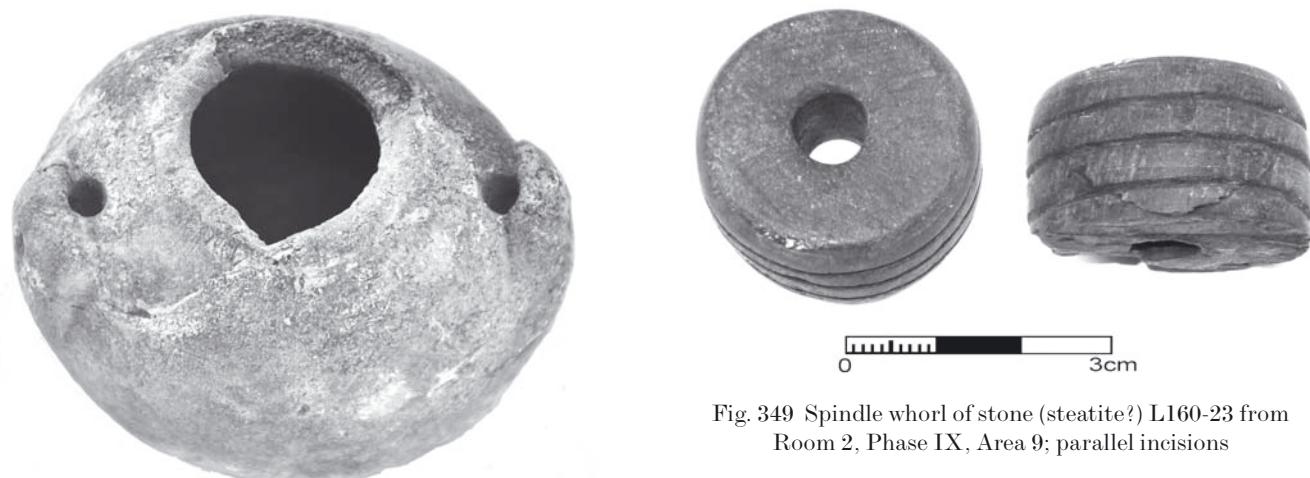


Fig. 349 Spindle whorl of stone (steatite?) L160-23 from Room 2, Phase IX, Area 9; parallel incisions



Fig. 348 Pyxis of alabaster N1435 from Room 18, Phase IX, Area 9 East

Fig. 350 Escutcheon (?) N1370 of copper alloy from Room 12, Phase IX, Area 9 East

344:2 258	N1374 Conical clay lid, hand-made, unfired, light greyish-brown fabric, coarse, self slip, impressed cross on top, line impressions on bottom.	346:12 377	N1452 Spindle whorl, stone, Wt 4.6 g.
344:3 358	N1438 Clay lid, complete, hand-made, unfired, light brown fabric, coarse, multicoloured inclusions, self slip.	346:13 160	-23 Spindle whorl, stone (steatite?), secondarily fired, Wt 18.5 g (see Figs. 349 and 457:13).
344:4 377	-6 Frying pan, hand-made, unfired, brown fabric, coarse, grey inclusions, self slip, traces of secondary firing.	346:14 244	N1363 Spindle whorl, black stone, Wt 28.5 g.
344:5 371	N1441 Weight, haematite Wt 45.5 g (see Fig. 268).	346:15 375	N1443 Spindle whorl, alabaster, Wt 29.8 g.
344:6 395	N1459 Pendant, stone.	346:16 174	N1321 Spindle whorl, fired clay, light brown fabric, self slip, Wt 15.2 g.
344:7 377	N1448 Tube (grip), bone, polished on interior and exterior, incised (see Figs. 269 and 457:14 right).	346:17 244	N1364 Loom weight, spool-shaped, hand-made, unfired, greyish-brown fabric, self slip, Wt 193 g.
344:8 359	N1439 Tube (grip), bone, polished on interior and exterior (see Figs. 269 and 457:14 left).	346:18 249	N1368 Loom weight, spool-shaped, hand-made, unfired, greyish-brown fabric, self slip, Wt 201 g.
344:9 249	N1369 Conical clay lid, hand-made, unfired; incised decoration in the shape of an arrow.	346:19 397	N1458 Loom weight, spool-shaped, hand-made, unfired, greyish-brown fabric, self slip, Wt 348 g.
344:10 258	N1375 Disk, limestone, Wt 124 g.	346:20 208	N1327 Loom weight, spool-shaped/cylindrical, basalt, smoothed surface at edges, Wt 340 g.
344:11 388	N1450 Bead (reworked sling bullet?), lead, pierced.		
344:12 389	-2 Wheel of bronze with eight spokes (see Fig. 345).		
344:13 258	N1370 Stirrup (?), copper alloy, limited corrosion, Wt 220 g (see Fig. 350).		
344:14 234	N1336 Spearhead, iron.		
344:15 247	N1367 Toggle pin, bronze.		
344:16 394	-1 Toggle pin, bronze.		

Legend for the illustrated finds from Phase IX, Area 9 East

Fig.	Locus	No.	Description
346:1	358	-1	Bowl, alabaster, incised decoration.
346:2	336		N1423 Juglet, alabaster (see Fig. 347).
346:3	267		N1382 Juglet with lug-handles, alabaster.
346:4	358		N1435 Pyxis, alabaster, incised decoration (see Fig. 348).
346:5	237		N1376 Reused ring-base, medium-hard-fired, light pinkish-orange fabric, greyish-white core, self slip, medium-coarse, dark inclusions, Wt 63.5 g.
346:6	237		N1340 Spindle whorl, clay, hard-fired, grey fabric, medium-fine, self slip, Wt 19.4 g.
346:7	354		N1434 Spindle whorl, clay, hand-made, soft-fired, dark grey fabric, medium-fine, self slip, Wt 9.8 g.
346:8	376		N1445 Spindle whorl, clay, hand-made, medium-hard-fired, light yellowish-brown fabric, medium-fine, self slip, Wt 12.7 g.
346:9	377		N1451 Spindle whorl, clay, hand-made, unfired, dark brown fabric, very coarse, brown and organic inclusions, self slip, Wt 28.3 g.
346:10	376		N1444 Spindle whorl, sandstone, Wt 28.8 g.
346:11	267		N1391 Four spindle whorls, 3 basalt, 1 fired clay with crushed shell inclusions, Wt 1.2–1.5 g.

Legend for the illustrated finds from Phase IX, Area 9

Fig.	Locus	No.	Description
351:1	219		N1354 Pestle, basalt, worn.
351:2	236		N1338 Pestle, stone, Wt 460 g.
351:3	219		N1362 Pestle, basalt, porous.
351:4	332		N1419 Pestle, grey stone.
351:5	356	-1	Pestle, basalt.
351:6	236		N1337 Pestle, basalt, Wt 303 g.
351:7	219		N1330 Pestle, basalt.
351:8	332		N1420 Weight(?), basalt.
351:9	244	-6	Tool, basalt, dice-shaped.
351:10	219		N1329 Pestle, stone, Wt 750 g.
351:11	237		N1345 Pestle, basalt, Wt 401 g.

Legend for the illustrated finds from Phase IX, Area 9

Fig.	Locus	No.	Description
352:1	160	-24	Stone bowl, basalt (see Fig. 353).
352:2	160	-19	Grinding stone, basalt.
352:3	258		N1394 Weight, basalt, Wt 750 g.
352:4	377		N1449 Donut-shaped object, basalt, upper side smooth with remains of red pigment, likely related to pottery production, Wt 2805 g.
352:5	395		N1460 Weight, basalt, Wt 1750 g.

Legend for the illustrated figurine from Phase IX, Area 9 East

Fig.	Locus	No.	Description
354	335		N1424 Clay figurine of lion, legs broken off, medium-hard fired, greyish-brown fabric, coarse, mainly black and white inclusions, light reddish-brown slip, red painted (see Figs. 458:6 and 463:2).

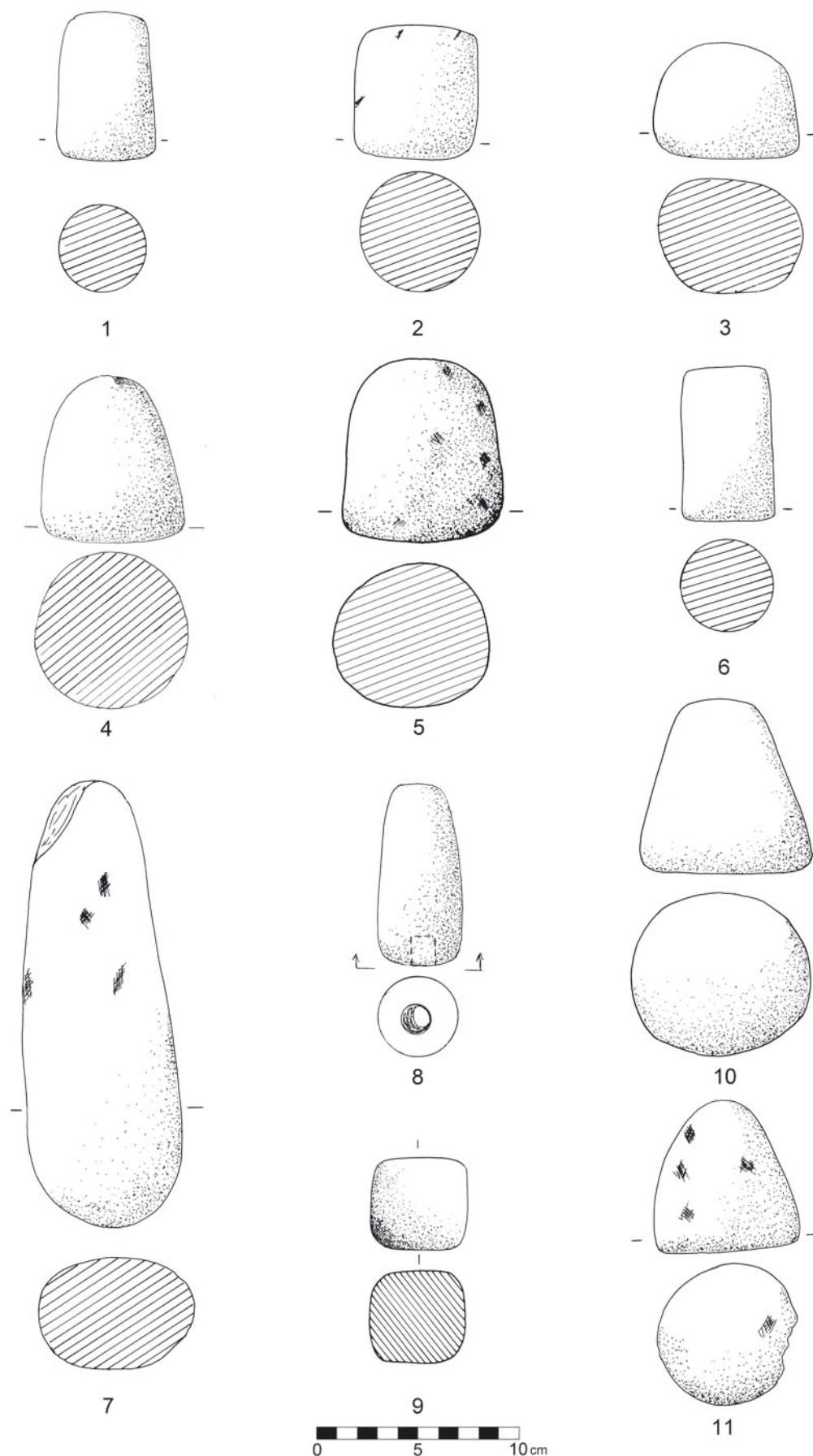


Fig. 351 Finds from Phase IX, Area 9 East

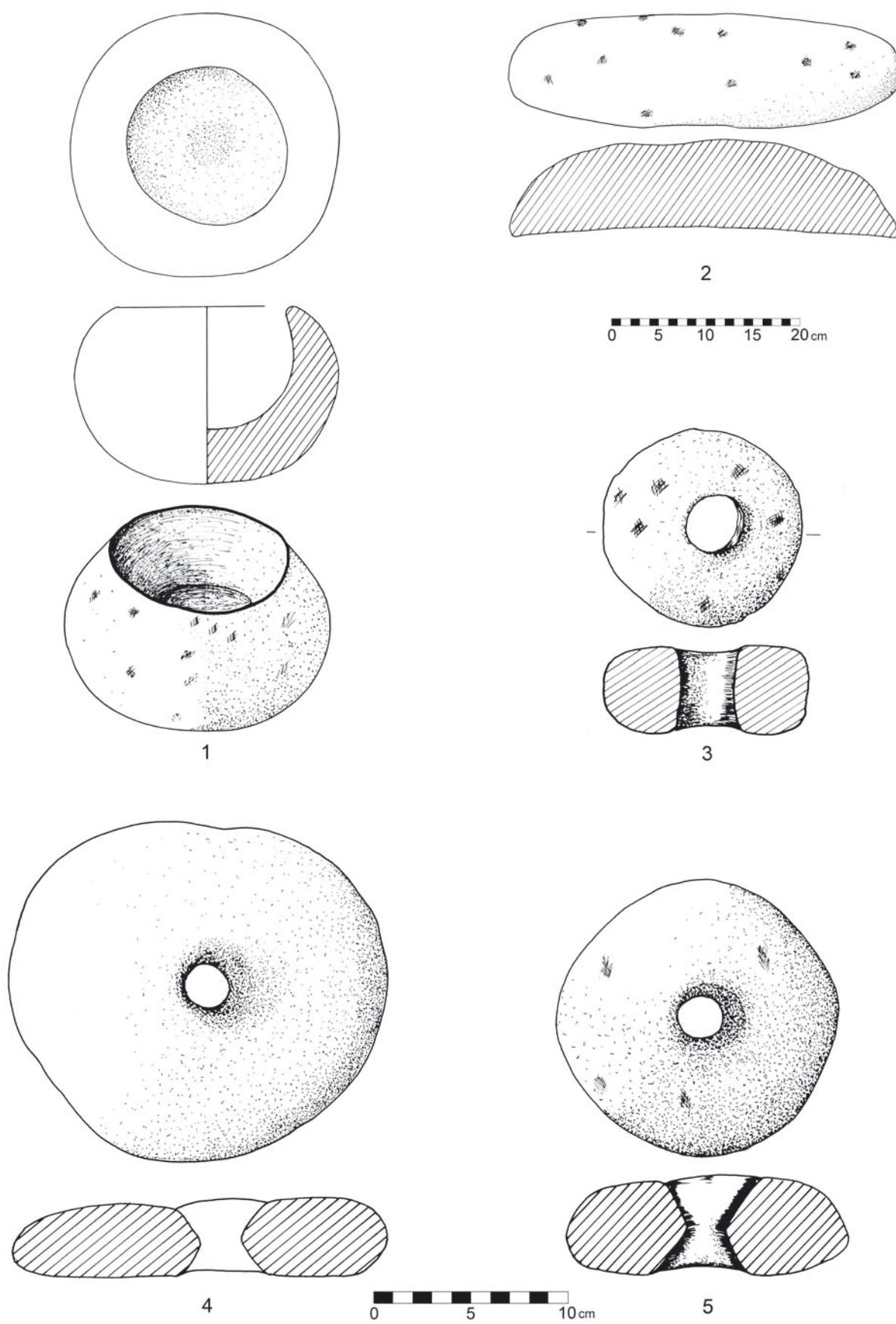


Fig. 352 Finds from Phase IX, Area 9 East

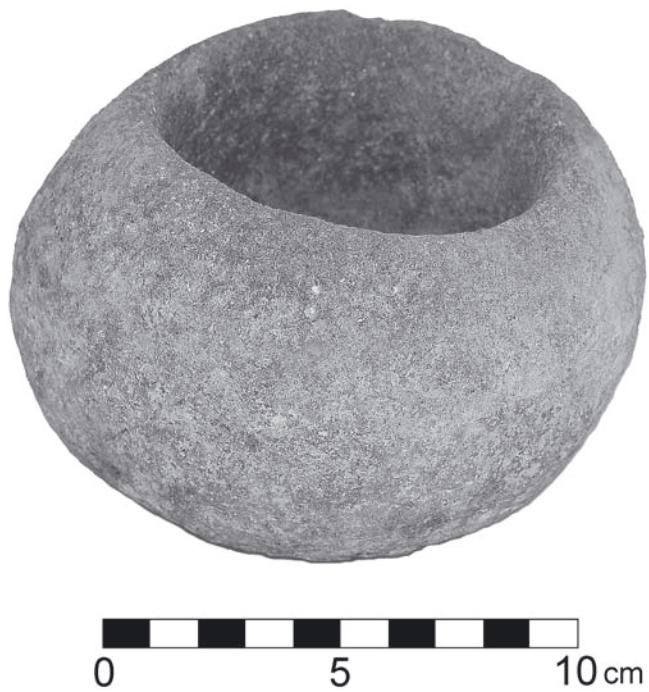


Fig. 353 Bowl of basalt L160-24 from Room 2, Phase IX,
Area 9 East

Additional finds from Phase IX, Area 9 East (listed, not illustrated)

- | Locus No. | Description |
|-----------|--|
| 219 | N1359 Jar, hard-fired, light red fabric, yellowish-brown core, medium-coarse, grey inclusions, yellowish-white slip. |
| 219 | N1360 Storage jar, hard-fired, light greyish-brown fabric, grey core, medium-coarse, mainly white inclusions, self slip. |
| 219 | N1361 Storage jar, hard-fired, light yellowish-brown fabric, coarse, multicoloured inclusions, light yellowish-brown slip. |
| 236 | N1339 Mortar, limestone, d. 20, H 12.5, d. of hole 8.5 cm. |
| 323 | N1408 Bead, faience, H 1.7, W 1.0, Th 0.5 cm. |
| 326 | N1422 Needle, bronze, L 6.7, Th middle-end 0.7, Th peak 0.2 cm, Wt 4 g. |
| 327 | N1413 Basalt weight, conical, polished, H 3.1, d. 3.5 cm, Wt 49 g. |
| 327 | N1414 Spindle whorl, bone, conical, H 0.8, d. 3.0 cm, Wt 4.8 g. |
| 327 | N1415 Bead, serpentine (?), cylindrical, L 1.5, d. of hole 0.3, d. 0.7 cm, Wt 1.3 g. |
| 330 | N1417 Ring, iron, d. 2.1, Th 0.4 cm. |
| 332 | N1421 Spearhead, iron, almost complete, corroded, L 11, W 2.9, Th 2 cm, Wt 67 g. |
| 395 | N1455 Mortar, basalt, complete, traces of red pigment on interior. |

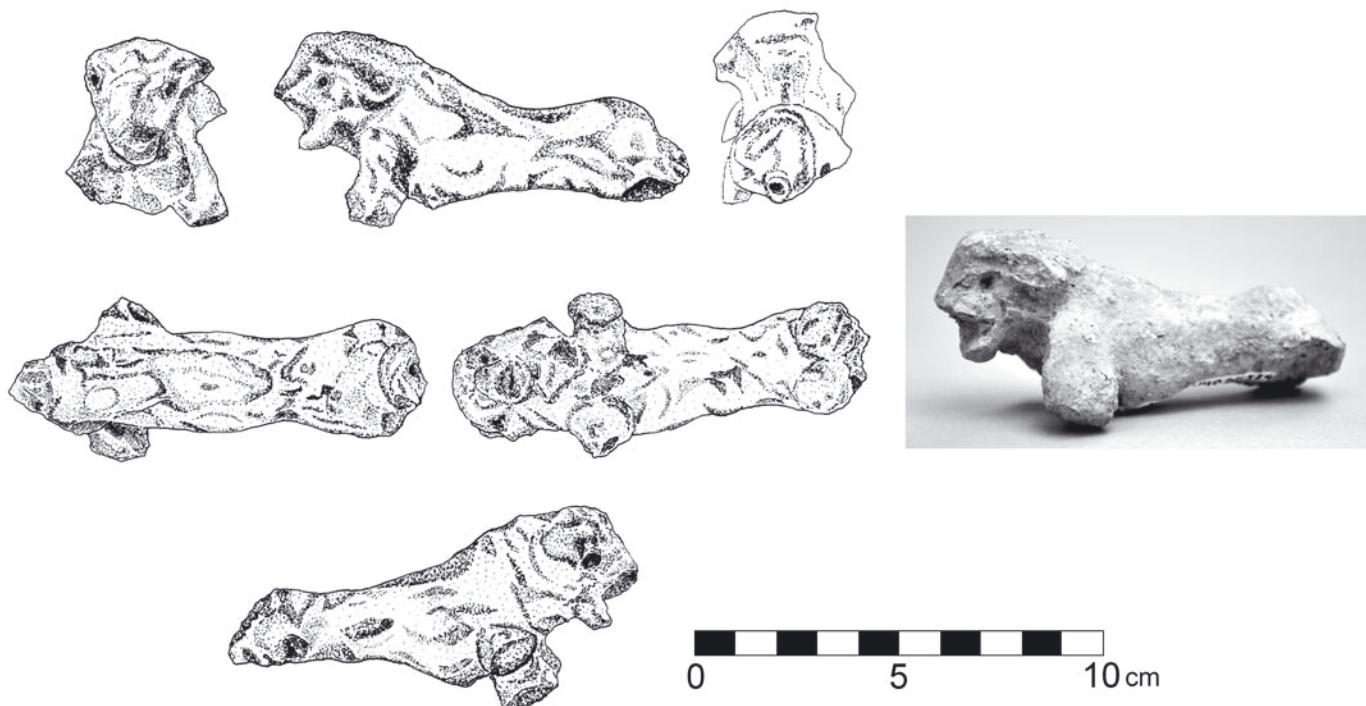
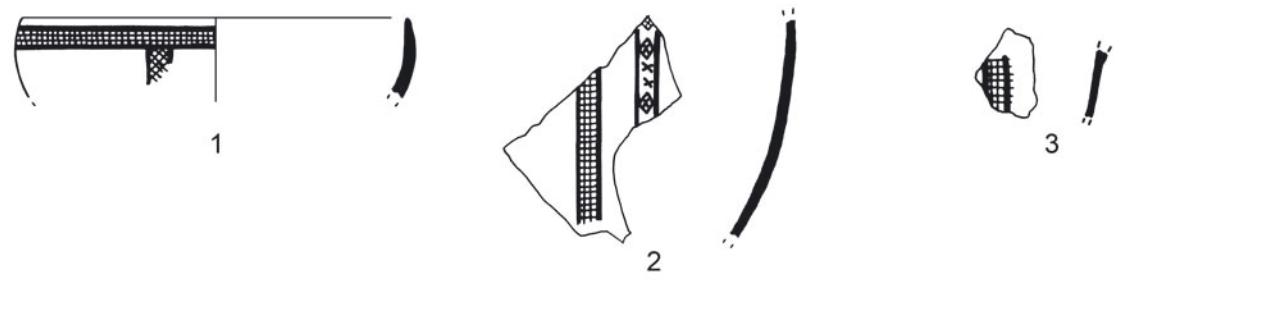


Fig. 354 Figurine from Phase IX, Area 9 East

Phase IX



Phase X

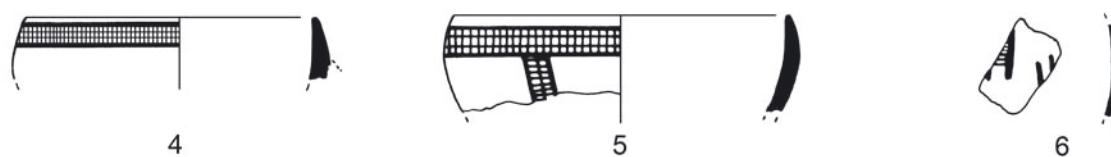


Fig. 355 Residual White Slip II from Phases IX and X, Area 9 East

PHASES X AND XI, AREA 9 EAST (Figs. 356–373)

Architecture and features

The architecture of these two phases is characterised by the reuse of the upper portions of many of the Phase IX walls in the eastern part of the exposed area. However, it is clear from the sections of the walls that the additional Phase X walls are slightly wider stone or mudbrick walls in comparison to Phase IX. Whereas the structures of the western part were in

use unchanged throughout Phases X and XI, the structures of the eastern part point to two sub-phases, Phase X followed by Phase XI. They are obviously close in time.

There are again two portions: an “annex structure” and a cell-plan structure east of it. The relative proximity of these phases to the surface, especially concerning Phase XI but also Phase X in the western part of Area 9 East, resulted in some disturbance during later periods.⁵⁹

⁵⁹ Disturbances are less common in the eastern part.

To the east is a 0.6 m wide wall (W613) of which only the stone foundation remained. Other walls (W669 and W673) are only partially preserved. To the north of W613 are a stone silo, 0.4 m in diameter, and a pierced basalt weight of approximately 2 kg (N1311). Further north are the remains of a *tabun*. Other finds from Phase X include a millstone of basalt (N1409) and a spindle whorl of a reused, pierced, sherd (N1412). We also found numerous lumps of yellow, red, brown and lilac pigments which might have been used, for example, in the production/decoration of pottery.

The next structure to the east is the largest walled space from these phases, viz. 6 m × 5 m large. It is most likely a courtyard which was partly stone-paved. There are three stone-lined Phase X installations along the southern wall (W632) which are associated with the preparation of food. In the north is a dislocated door socket of limestone (Phase XI). On the floor a substantial layer of burned debris and ash was found. Some of the finds certainly derive from more recent strata because of a disturbance (L220 in Fig. 356, and L220' in Fig. 357): the ashy disturbance, approximately 2 m × 2 m in size, is almost in the centre of the courtyard. It was difficult to ascribe with any certainty to the level from which it was dug. What are very likely intrusive finds in Phases X and XI include a Black Juglet (N1323, Phase XI), a plain juglet (N1333; Fig. 364, Phase X), two ceramic spindle whorls of recycled pottery sherds (N1325, Phase XI, N1331, Phase X) and an arrowhead of bronze (N1335, Phase X).

The cell-plan structure of Phase X is now 35.5 m in length (Fig. 356; cf. the 46 m in Phase IX). There are six rooms in the western part (see Fig. 356 A–F) which are covered by debris and ash. They are of varying dimensions, roughly 2–3 m × 2 m. Three of these rooms, C, D and F, are partly stone-paved. Room D is disturbed by a sewer (L196) which also affected to a minor extent Phase IX. The sewer dates to the Abbasid period and functioned as a drain for rainwater from higher up the tell, leading it out of the city through the array of city walls from earlier periods on which W616' is built. Large pieces of a black jar with the typical white Abbasid decoration were found embedded into the sewer. Several of these rooms contained numerous pieces of leather-hard, unfired vessels, mainly larger vessels, which proves local production of pottery. The older sub-phase, Phase X, is especially notable in Room E where two *tawabeen* preceded the kiln of the next phase, Phase XI. There are also installations of clay and a millstone in Phase X, all of which point to the preparation of food.

Room E' of Phase XI revealed quite a large, roughly circular, installation which is most likely a

kiln for firing pottery (Fig. 373). Opposite the kiln is a clay bench and south of it a small fireplace built of mudbricks.

Amongst the finds are a fish hook (N1322, Phase XI), a millstone of basalt (N1324, Phase XI), a limestone mortar (N1385, Room C Phase X), two cylindrical loom weights (N1342, N1344, Room H Phase X), a tool or pendant of terracotta (N1393, Room F Phase X) and a decorated jar with a pattern encircling the entire shoulder (N1401; Fig. 363:6, Room H Phase X). The pattern on the shoulder of the decorated jar gives the impression that the potter tried to imitate a script. According to K. Jaros (email 29 October 2010), the “sign” most frequently appearing resembles that of a *waw*, other signs look a lot like *kaph*, *samech* and *taw*. However, no interpretation is possible so far and it may be that an illiterate potter tried to imitate signs because it is difficult to see it just as decoration: the “decoration” is totally different from other similar vessels, which were much more accurately painted.

The eastern part of the cell-plan compound of Phase X consists of ten rooms (I–R) of which Rooms O and Q are only partly excavated. Seven of these rooms have beaten earth floors whereas Rooms M (Fig. 358), O and Q are stone-paved. The easternmost wall of the compound (W696) is remarkably wider than the others and seems to represent the eastern limits of the compound and possibly the city gate.

Room J was affected by looting in 2009 and only a few *in situ* finds could be secured. In Room K a pit 0.6 m deep (L366) did not reveal any finds. An arrowhead of bronze (N1433) was found next to the pit, and a spindle whorl/loom weight of stone in Room L (N1428). Room N, which was covered by a layer of broken mudbrick debris from the roof construction, and charcoal and ash, contained two skeletons (Fig. 359). These individuals obviously died in the collapsed building. Their bones were blackened by fire. According to the preserved skeletal remains and their teeth one skeleton is male, around 30 years old (Fig. 359 upper part). The other one is female, around 25–30 years old (Fig. 359: lower part). Other finds from this room are a *tabun*, a pestle of basalt (N1440), a jug with Philistine traits (L370-1), a cooking jug (L370-2) and several jars and storage jars (one of them is L370-4). The next room to the east (Room P) contained a spool-shaped, Aegean-type, loom weight of unfired clay (N1447). It should be highlighted that unfired pottery was found in several rooms, which points to local production of pottery also in Phase X.

In Phase XI additional spaces were added to the north of the compound. There is a large open space (J') north of Rooms A', C' and E'. In the south-west-

ern corner of this space were three finds: one is a ceramic spindle whorl (N1326; recycled sherd), and there is a part of a basalt bowl and a partly preserved bronze handle of a sword or a large dagger (N1328). Room I', east of J', is disturbed by a large pit (L310). The eastern part is only represented by scanty architectural remains and a partly preserved *tabun* in the eastern part of the exposed area (see Fig. 360, and the position of the walls in Fig. 446). An interesting find, however, from this area is a jar with red decoration on rim and shoulder (L355-3): Instead of the usual and very regular “framed wavy-line” decoration the wavy line is irregular and almost resembles the imitation of a script (Fig. 371:1; cf. the jar N1401 in L242', Phase X in Fig. 363:6).

Interpretation of the material evidence of Phases X and XI

There is once again a domestic compound for the preparation of food, storage and handicraft. Numerous fragments of unfired pottery and the presence of a kiln point to local production of fired earthenware. The partly preserved bronze handle of a sword or a large dagger is the first of its kind from Iron Age Tell Abu al-Kharaz. Nevertheless, Phases X and XI lack the richness of finds and their relative sophistication in comparison with the preceding Phase IX. In addition, finds from both Phases X and XI are quite scarce which may point to looting, viz. that the people who later resettled “cleaned” the area or that the area was looted after a military attack: it is obvious from the thick layer of debris and the ash that Phases X and XI also suffered severe catastrophes. Phase X produced finds which are related to the Philistine sphere of culture whereas such finds are absent in Phase XI.

The disturbance in the western part of Area 9 East (L 220, 220') most likely originates from Phase XII or even later and continues down into Phase X. It consists of ash mixed with clay and sherds of Phoenician provenance. The foundation trench dug for W629 (Phase XII) might also be responsible for this disturbance.

Legend for the illustrated pottery from Phase X, Area 9 East⁶⁰

Fig.	Locus No.	Description
361:1	233 -2	Bowl, hard-fired, greyish-brown fabric, brownish-red burnish exterior.
361:2	220 -1	<i>Bowl, red fabric, thick grey core, medium-fine, multicoloured inclusions, self slip interior; light greenish-grey slip exterior thin black band decoration on interior.</i>
361:3	202 -1	<i>Bowl, very hard-fired, orange fabric, grey core, medium-fine, self slip.</i>
361:4	215 -2	Bowl, hard-fired, light brown fabric, orangish-red slip interior and exterior, white inclusions.
361:5	215 -5	Bowl, hard-fired, light red fabric, light brownish-grey core, white inclusions, red slip.
361:6	202 -2	<i>Carinated bowl, medium-hard-fired, brownish-grey fabric, coarse, grey and white inclusions, self slip, red paint on rim and exterior.</i>
361:7	215 -1	Bowl, hard-fired, grey fabric, self slip, orange decoration on rim.
361:8	226 -2	Deep carinated bowl with trumpet handle, hard-fired, grey fabric, medium-fine, light greenish-grey slip; ridge below rim.

Legend for the illustrated pottery from Phase X, Area 9 East

Fig.	Locus No.	Description
362:1	226 -1	Goblet/chalice, medium-hard-fired, thin light-red fabric, thick dark grey core, medium-coarse, red slip interior and upper part exterior, self slip on base, decoration of concentric circles with impressed dots.
362:2	215 -6	Chalice/bowl, hard-fired, grey fabric, self slip, orange decoration on rim.
362:3	227 -1	Krater, medium-hard-fired, light red fabric, brown core, grey and white inclusions, self slip.
362:4	215 -3	Krater, hard-fired, brown fabric, grey inclusions, greyish-brown slip.
362:5	202 -3	<i>Krater, medium-hard-fired, light brownish-orange fabric, very coarse, grey inclusions, self slip, red paint interior and exterior.</i>
362:6	230 -7	Krater, medium-hard-fired, light brown fabric, grey core, medium-coarse, light yellowish brown slip, wine-red decoration.

⁶⁰ Observe that the illustrated finds from L202 and L220 are from the disturbance in the western part of Area 9 east. This disturbance may possibly emanate from as late as

Phase XII (see above). The descriptions are therefore in italics.

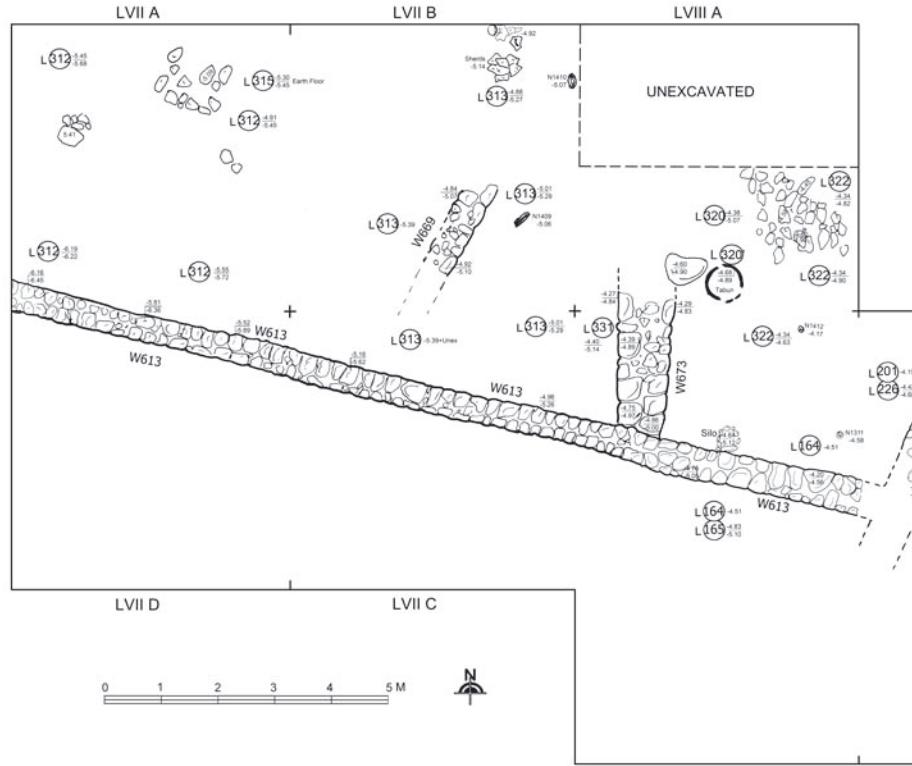


Fig. 356B Plan of Phase X, Area 9 East, western part

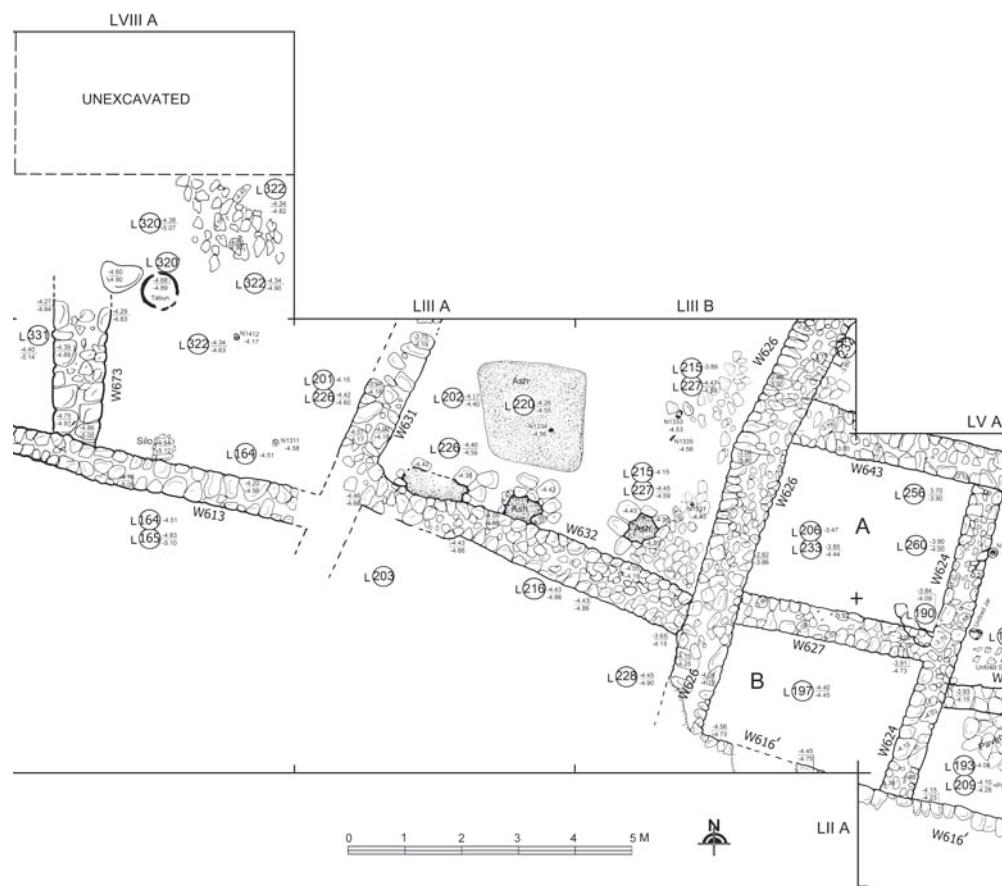


Fig. 356C Plan of Phase X, Area 9 East, western part and Rooms A and B

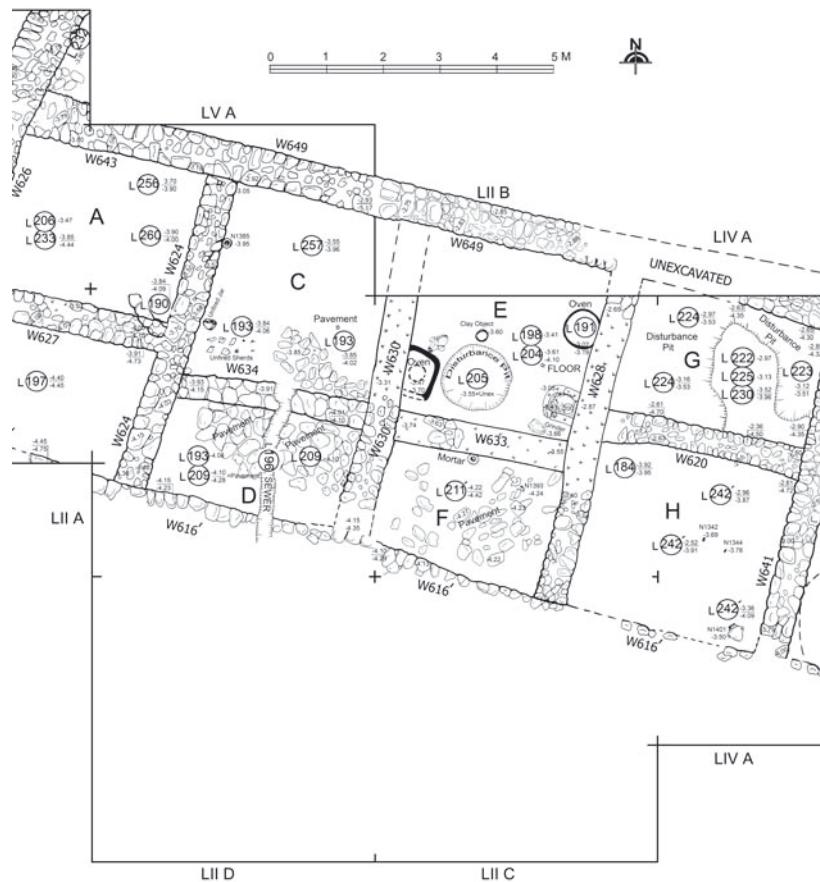


Fig. 356D Plan of Phase X, Area 9 East, Rooms A–H

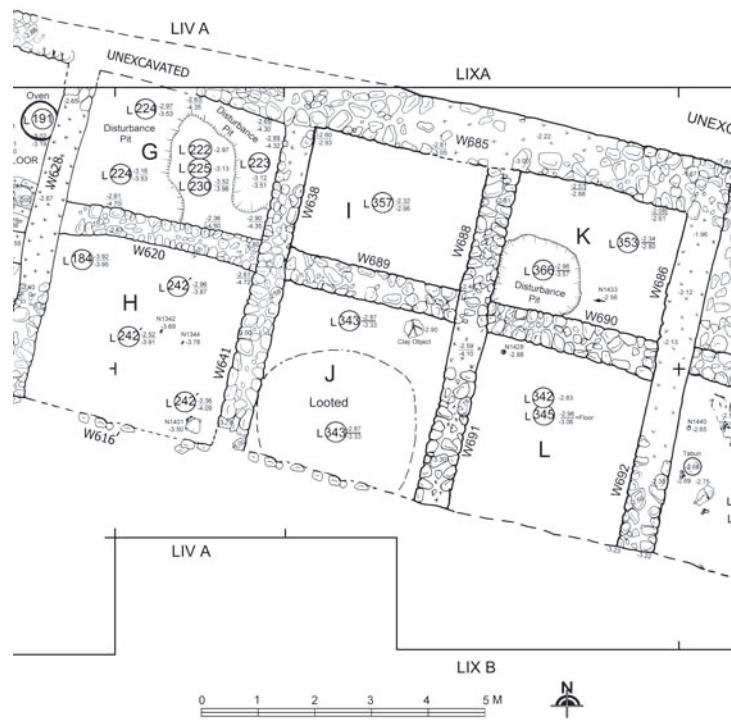


Fig. 356E Plan of Phase X, Area 9 East, Rooms G–L

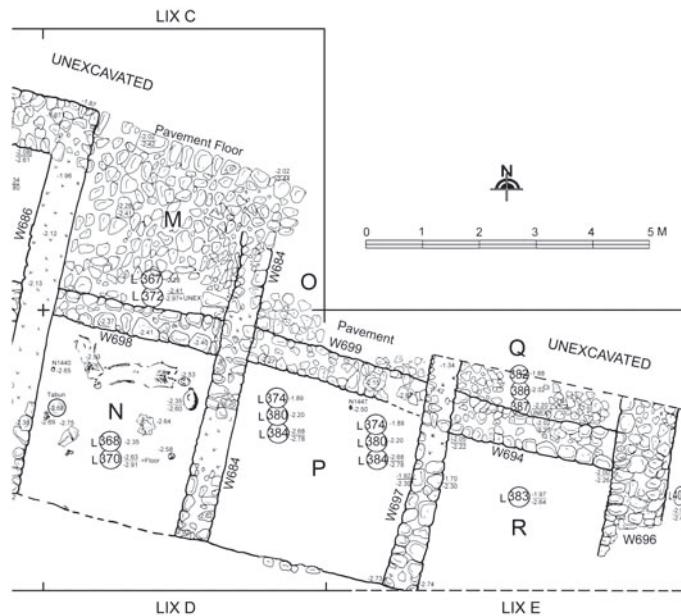


Fig. 356F Plan of Phase X, Area 9 East, Rooms M–R

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
	average dimensions		stone	mudbrick		
613	0.6	0.4	6			
616	1.0	0.4	2			city wall
619	0.5	2.5	8			only upper part Phase X/XI
620	0.55	2.1	8			only upper part Phase X/XI
624	0.7	1.8	11			only upper part Phase X/XI
626	0.8	1.1	6			
627	0.65	1.4	10			only upper part Phase X/XI
628	0.5	1.4	5	5	i.d.	only upper part Phase X/XI; upper mudbrick part preserved
630	0.45	0.7	3			
631	0.6	0.45	2-3			
632	0.6	0.5	2-3			
633	0.5	0.7	3			
634	0.4	0.3	2			
638	0.6	2.4	9			only upper part Phase X
641	0.65	2.2	9			only upper part Phase X
643	0.7	1.5	10			only upper part Phase X/XI
649	0.7	0.9	7			only upper part Phase X/XI

Table 61 Description of the walls of Phases X and XI, Area 9 East

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
	average dimensions		stone	mudbrick		
666	0.7-1.10	0.3	2-3			western part possible bench or reinforcement
669	0.4	0.2	1			disturbed
673	0.6-1.0	0.4	2			
683	0.6	0.3	2			
684	0.55	0.4	2			
685	1.0	0.4	2			
686	0.65	0.3		1-2	i.d.	reused from Phase IX
688	0.5	0.8	4			reused from Phase IX
689	0.5	0.2	1			reused from Phase IX
690	0.65	1.0	4			only upper part Phase X
691	0.65	0.3		1-2	i.d.	reused from Phase IX
692	0.65	0.6	3	1-2	i.d.	only upper part Phase X
694	0.7	0.2	1			
696	0.9	0.7	1-2			
698	0.6	1.4	8			
699	0.6	0.7	3			

Table 61 continued Description of the walls of Phases X and XI, Area 9 East

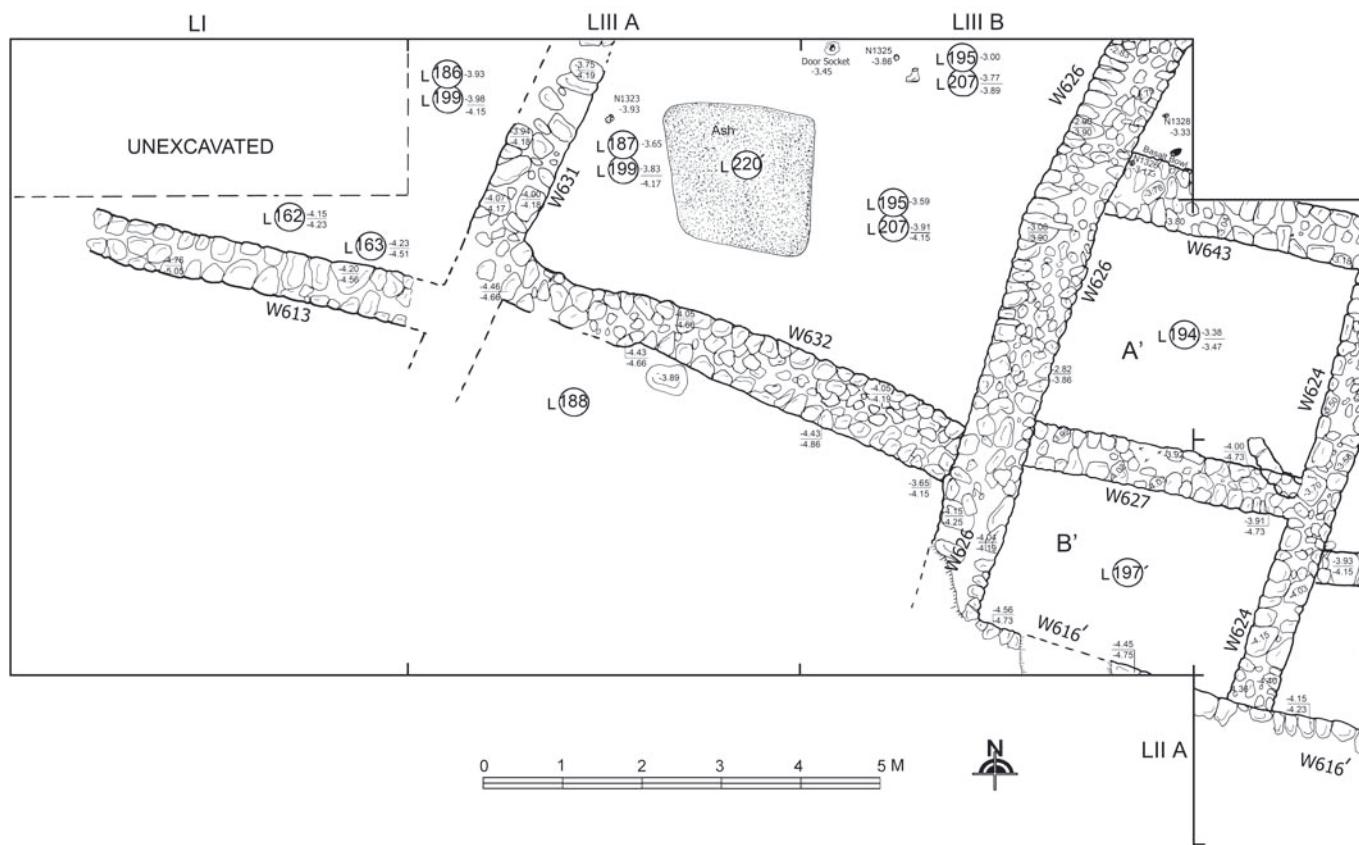


Fig. 357B Plan of Phase XI, Area 9 East, western part

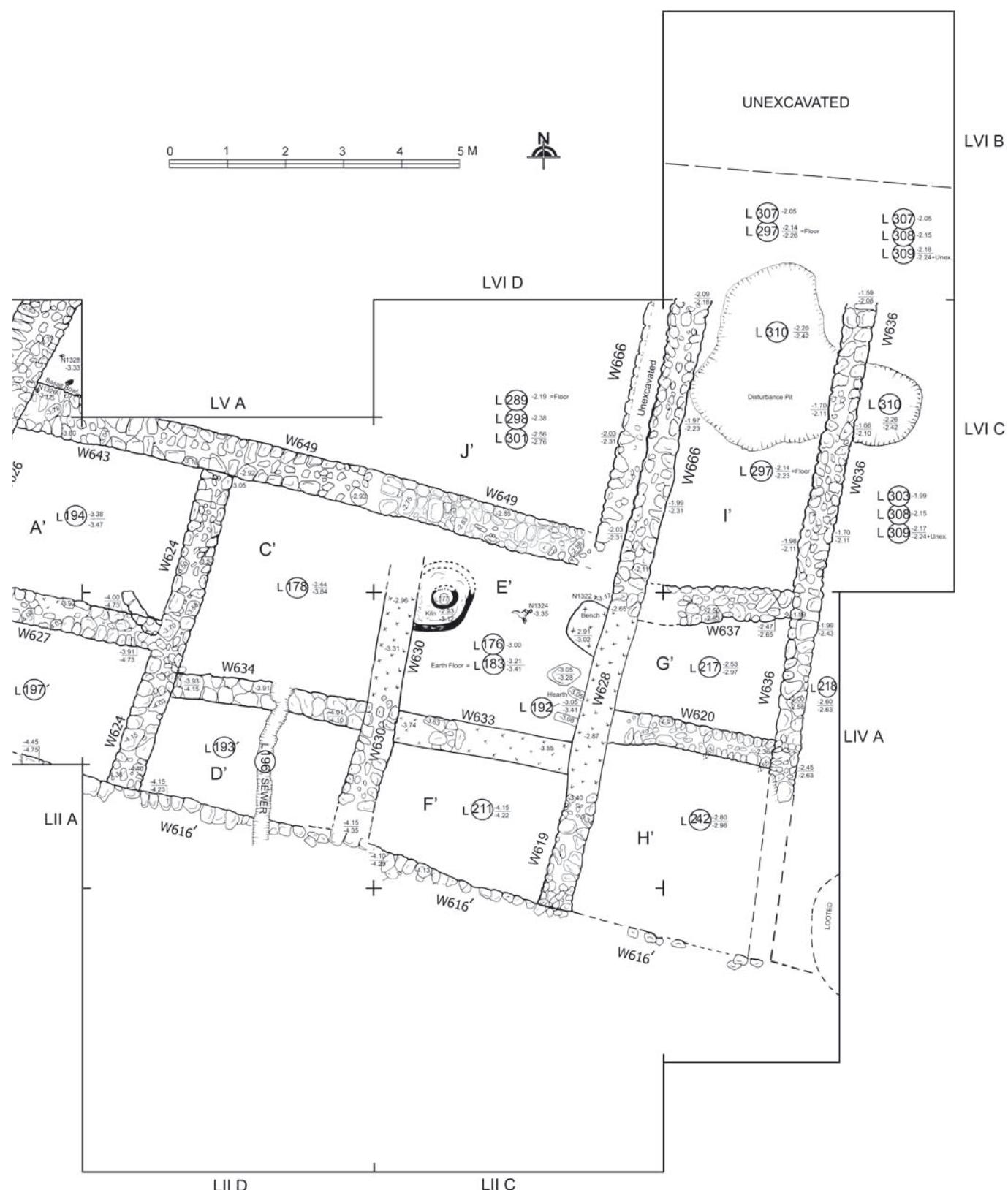


Fig. 357C Plan of Phase XI, Area 9 East, eastern part



Fig. 358 Stone-paved space (Room M) from Phase X



Fig. 359 Female (left) and male skeleton from Room N, Phase X

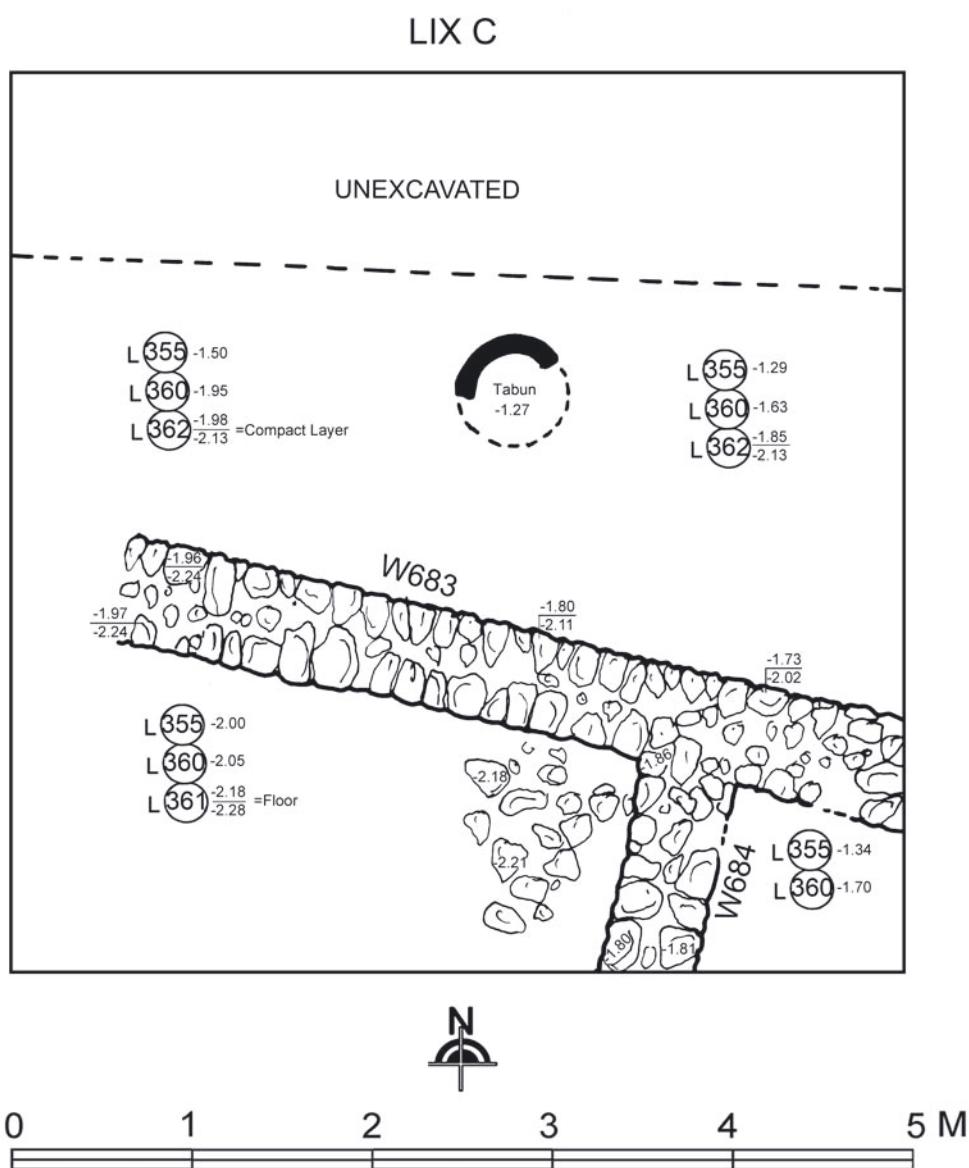


Fig. 360 Plan of Trench LIXC Phase XI, Area 9 East

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
164	fill above floor, o.d.	1	3 k, 1 l, 32 ud		N1311	
165	floor, o.d.	3	2 k, 3 j, 1 sj, 52 ud			
184	loose destruction layer, ash		1 k, 1 j, 2 sj, 40 ud			
190	fill enclosed by row of stones		1 cp			
191	tabun, loose ashy soil, d. 0.8, opening 0.1.	3	-1 cp, -2 ja, 1 k, 1 j, 1 cp, 19 sj			
193	pavement, pottery	6	1 b, 1 k, 1 sj, 24 ud			
197	surface, o.d.	1	-1 cp, 2 j, 4 sj, 95 ud			
198	destruction layer, pebbles	9	2 k, 3 j, 3 sj, 2 cp, 136 ud			
200	small pit below hearth	4	1 bjl, 1 sj, 40 ud			
201	fill, sandy soil, o.d.	1	-1 jl, 1 sj, 17 ud			
202	fill, sandy soil, o.d.	2	-1 b, -2 cb, -3 k, 8 b, 1 k, 3 j, 1 dt, 1 bj, 3 sj, 1 cp, 149 ud			
203	fill, loose, sandy	1	2 k, 3 j, 73 ud			
204	floor, hard-packed, o.d.		1 jl, 1 l, 4 sj, 86 ud			
205	pit, d. 1.2, ash, charcoal, loose	1 ud	1 b, 4 j, 1 cp, 126 ud			
206	ash, charcoal, clay, pebbles	19	-2 cp, -3 sj, 3 j, 1 jl, 5 ja, 10 sj, 1 cp, 164 ud		-1	
209	pavement					
211'	pavement, pottery	7	-1 sj, 1 b, 1 k, 3 j, 1 pyx, 1 l, 16 sj, 351 ud		N1393	
215	destruction debris, mud-brick, charcoal	30	-1 b, -2 b, -3 k, -4 Phoen j, -5 b, -6 c, 3 b, 2 cb, 5 k, 4 j, 1 dt, 2 jl, 1 ja, 5 sj, 2 cp, 131 ud			
220	much ash and sherds	2	-1 b, -2 cp, 2 b, 2 k, 3 j, 1 l, 1 sj, 3 cp, 113 ud		N1334	disturbance
221	loose, soft soil, fallen stones	1	-1 cp, 1 j, 2 sj, 23 ud			
222	mudbrick, stones, sherds	11	-1 cp, 1 k, 2 j, 1 sj, 1 cp, 79 ud			
223	depression, sherds		2 j, 1 jl, 38 ud			
224	depression, sherds		-1 ja, 1 k, 7 j, 4 sj, 1 cp, 71 ud			
225	hard surface, stones, sherds	1	-1 cp, -2 ep, 1 b, 2 k, 2 j			
226	floor, charcoal, fill	3	-1 g/c, -2 eb, -3 j, -4 j, -5 cp, 13 b, 1 c, 5 k, 6 j, 2 jl, 93 ud			
227	ash, gravel, fill		N1333 jl, -1 k		N1331, N1335	
228	gravel, hard-packed soil	19	3 b, 9 k, 7 j, 1 jl, 3 cp, 155 ud			
232	fill outside compound					not yet excavated
230	mudbrick, pebbles, sherds	8	-1 cp, -2 cp, -3 cp, -4 cp, -5 cp, -6 b, -7 k, 2 b, 1 k, 2 j, 1 jl, 1 hm, 1 ja, 14 sj, 9 cp, 225 ud			
233	ash, charcoal, mudbrick, fill	32	-1 cp, -2 b, 1 b, 1 cb, 5 k, 4 sj, 2 cp, 252 ud			
242'	ash, charcoal, pebbles	3	N1401 ja, 2 sj, 45 ud		N1342, N1344	
256	fill, mudbrick, gravel		1 k, 1 j, 1 sj, 22 ud			

Table 62 Description of the loci of Phase X, Area 9 East

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
257	fill, mudbrick, bones	2	13 ud		N1385	
260	ash, fill	2	1 sj, 6 ud			
312	fill	-1, 6	2 b, 1 c, 1 k, 2 j, 2 sj, 1 l, 81 ud			
313	fill	N1410, N1425, -4...-6, 240	-11, -2 k, 1 b, 4 j, 3 ja, 6 sj, 2 ep, 162 ud	12	N1409	
315	earth floor, o.d.	-1, 12	3 j, 2 ja, 48 ud			
320	fill, o.d.	-1, -2, 96	13 b, 1 eb, 12 k, 13 j, 3 ja, 3 sj, 4 ep, 204 ud			
320'	tabun	3	1 eb, 1 j, 17 ud			
322	fill, ash	-1, 35	4 b, 1 c, 6 k, 4 jl, 7 j, 7 sj, 1 l, 2 ep, 287 ud			
331	fill	-1, 116	-2 b, 3 cb, 1 jl, 5 j, 1 ja, 7 sj, 1 cp, 140 ud	1		
342	destruction layer, charcoal, mudbrick	67	-1 ja, 4 k, 1 j, 7 ja, 8 cp, 249 ud	6	N1428	
343	destruction layer, charcoal, mudbrick	36	2 jl, 1 j, 3 ja, 1 sj, 1 l, 3 cp, 114 ud	4		
345	floor of room, mudbrick, ash	-1, 31	1 b, 2 j, 1 ja, 2 cp, 90 ud	1		
353	fill, pebbles, mudbrick	33	2 b, 1 j, 1 cp, 73 ud	5	N1433	
357	fill, o.d.	13	1 j, 1 sj, 2 cp, 68 ud			
366	pit	12	1 j, 52 ud			disturbance
367	stone pavement	18	1 k, 1 j, 2 ep, 23 ud			
368	fill, ash, charcoal, o.d.	8	-1 ja, 1 b, 1 eb, 1 j, 3 ja, 1 sj, 86 ud		N1440	two skeletons
370	floor of room, mudbrick, ash	8	-1 j, -2 ej, -3 cp, -4 ja, 3 b, 2 j, 2 ja, 4 sj, 5 cp, 257 ud			tabun
372	fill below pavement	31	1 b, 1 jl, 2 j, 2 cp, 13 ud			unexcavated
374	fill, charcoal, mudbrick	13	-1 ep, 1 b, 6 j, 1 spj, 8 ja, 1 pyx, 1 ej, 180 ud	8		
380	fill, mudbrick	-1, -2, 35	-1 b, -2 b, -3 cp, -4 ja, 2 b, 1 eb, 5 j, 4 ja, 2 sj, 3 cp, 105 ud		N1447	fragments of tabun
382	fill, pebbles		3 j, 2 ja, 1 cp, 36 ud			
383	fill	18	-1 cp, 2 b, 2 k, 5 j, 5 ja, 1 sj, 3 cp, 1 ej, 289 ud			
384	destruction layer above floor, charcoal, mudbrick	32	-1 cp, -2 cp, 3 b, 1 c, 1 ja, 3 cp, 125 ud			fragments of tabun
386	stone pavement	3	1 ja, 16 ud			
387	fill below pavement	3	1 l, 9 ud			
401	fill, o.d.	3	1 k, 1 jl, 12 ud			
W626	inside wall	4	30 ud			
W627	inside wall		1 b, 1 cp			
W632	inside wall	4	17 ud	1		1 Abbasid sherd
W636	inside wall		1 k, 8 ud			
W685	inside wall	10	1 b, 2 j, 21 ud			

Table 62 continued Description of the loci of Phase X, Area 9 East

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
162	fill above floor, o.d.	5	68 ud			
163	floor, o.d.	1	1 cp, 66 ud			
176	destruction layer, ash, olive stones	26	-1 ja, -2 ep, -3 cp, -4 spj, -5 cp, -6 ja, 1 b, 1 k, 3 j, 1 ep, 100 ud		N1322	associated with L177
177	kiln built of clay	1	1 b, 1 ja, 1 ep, 42 ud			
178	fill, mudbrick, bones	17	1 k, 1 j, 1 jl, 1 ja, 1 ep, 1 funnel, 354 ud			
183	floor, fairly soft and smooth	18	-1 cp, -2 ja, 1 b, 1 k, 1 j, 1 sj, 84 ud		N1324	
186	fill, small stones	2	1 b, 1 k, 1 j	1		
187	fill, mudbricks, o.d	6	-1 cp, -2 k, -3 cb, 2 b, 1 jl, 1 l, 1 ja, 64 ud			
188	fill, loose, sandy	1	-1 cp, 2 b, 1 k, 1 j, 1 bj, 1 ja, 1 ep, 105 ud			
192	hearth, lined with clay	1	27 ud			
193'	pavement					
194	clay, sand, mudbrick	1	-1 ja, -2 k, -3 cp, -4 ep, -5 cp, 5 b, 1 k, 5 j, 1 dt, 2 sj, 100 ud		N1326, N1328	
195	clay, sand, mudbrick	47	2 b, 2 cb, 8 k, 6 j, 3 jl, 1 ja, 2 sj, 4 ep, 268 ud			
197'	surface, o.d.					
199	fill, o.d.	4	N1323 jl, -1 k, -2 ep, -3 cb, -4 cb, -5 ep, 7 b, 1 k, 15 j, 1 dt, 1 jl, 1 l, 2 sj, 1 ep, 136 ud	-6		
207	clay, sand, pebbles, charcoal	2	-1 k, -2 ja, -3 ep, 1 b, 3 k, 2 jl, 23 ja, 1 sj, 87 ud		N1325	
211	fill, o.d.					see L211'
217	soil surface	4	2 b, 2 k, 1 sj, 51 ud			
218	loose, soft soil, fallen stones	2	-1 cp, 1 ep, 21 ud			
220'	ash, clay					disturbance
242	ash, charcoal, pebbles	2	5 k, 5 j, 2 jl, 65 ud			
289	fill, ash, pebbles	-3, 29	-1 k, -2 eb, -4 Phoen b, 4 b, 1 cb, 7 k, 1 jl, 6 j, 1 stj, 1 ja, 1 sj, 1 l, 1 ep, 362 ud			
297	floor, o.d.	126	-1 k, 2 b, 3 k, 2 j, 1 sj, 1 ep, 180 ud			unexcavated
298	fill, ash, charcoal, mudbrick, o.d.	14	1 b, 3 k, 1 ja, 1 sj, 2 cp, 156 ud			
301	fill, mudbrick, charcoal, ash, stones, o.d.	-1, 14	10 k, 1 jl, 3 j, 3 ja, 6 sj, 1 cp, 567 ud			
303	fill, pebbles, mudbrick, o.d.	60	7 k, 1 jl, 5 j, 1 ja, 2 sj, 1 lid, 1 cp, 31 ud			
307	fill, o.d.	1	2 b, 1 j, 1 ja, 1 sj, 43 ud			
308	floor, o.d.	10	8 k, 6 j, 80 ud			
309	fill, pebbles, sand, o.d.					unexcavated
310	pit, small stones	33	2 b, 2 k, 1 jl, 1 j, 1 l, 1 kernos, 3 cp, 10 ud			
355	fill, destruction layer, ash, mudbrick	10	-1 cp, -2 ep, -3 ja, 4 b, 13 k, 1 jl, 12 j, 13 ja, 1 pf, 1 pyx, 1 l, 15 ep, 366 ud	3		remains of tabun
360	fill above floor	12	1 b, 12 k, 8 j, 4 ja, 1 pyx, 5 ep, 189 ud			
361	earth floor, charcoal, ash	8	-1 cb, -2 k, 2 jl, 1 j, 2 cp, 51 ud			
362	earth floor	28	1 b, 1 k, 2 j, 35 ud			
W683	inside wall		1 k, 1 ja, 11 ud			

Table 63 Description of the loci of Phase XI, Area 9 East

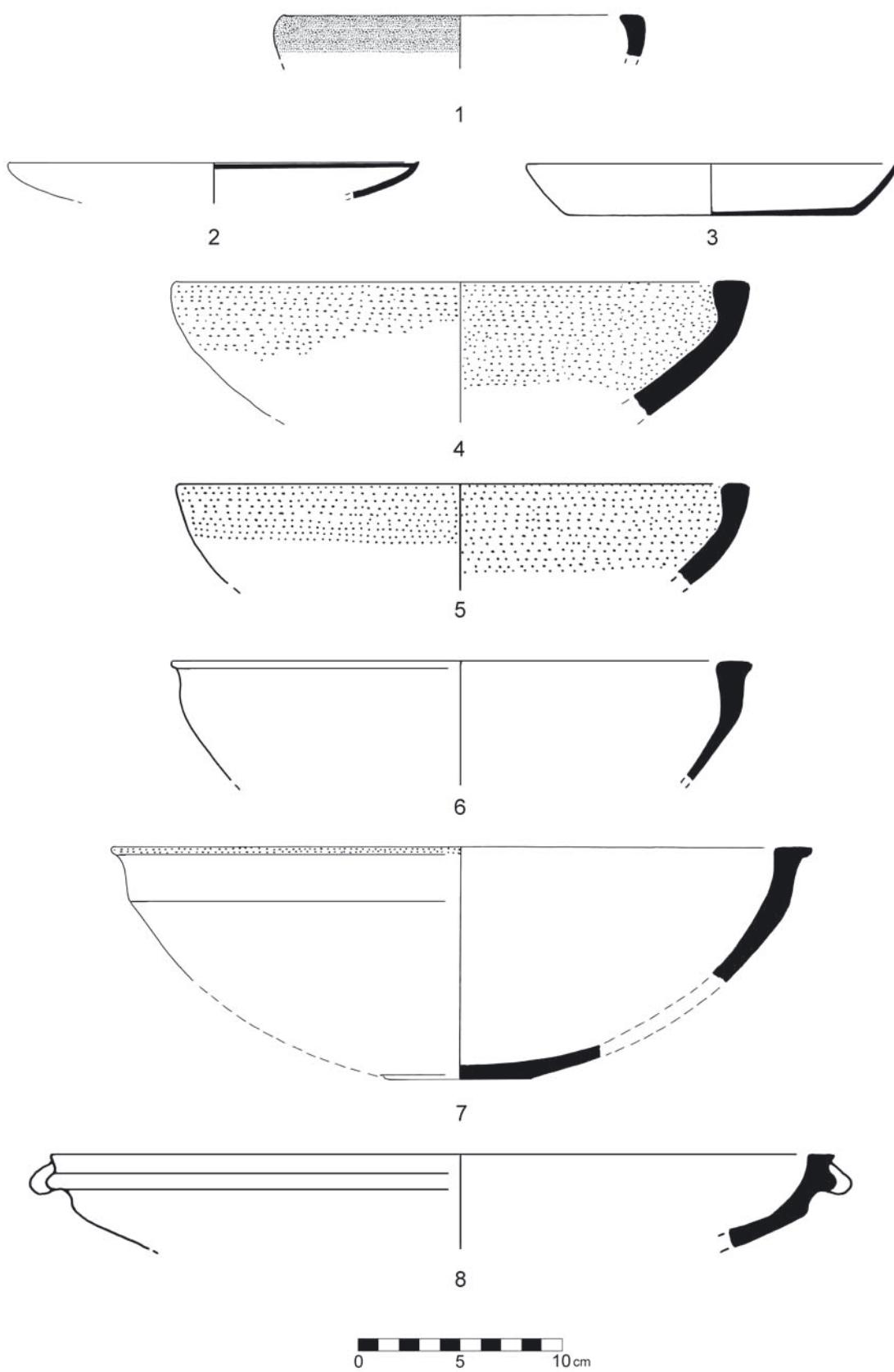


Fig. 361 Pottery from Phase X, Area 9 East

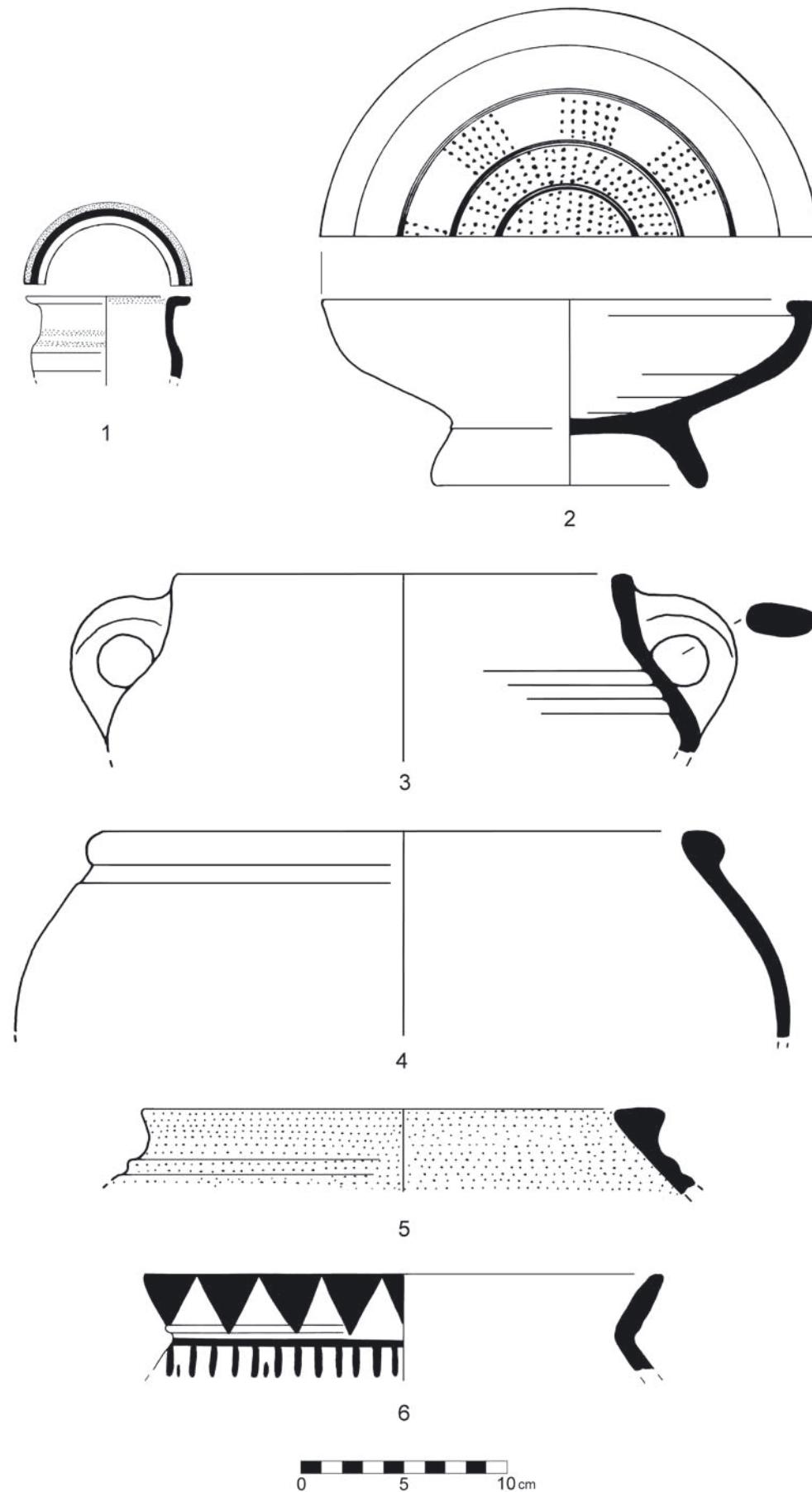


Fig. 362 Pottery from Phase X, Area 9 East

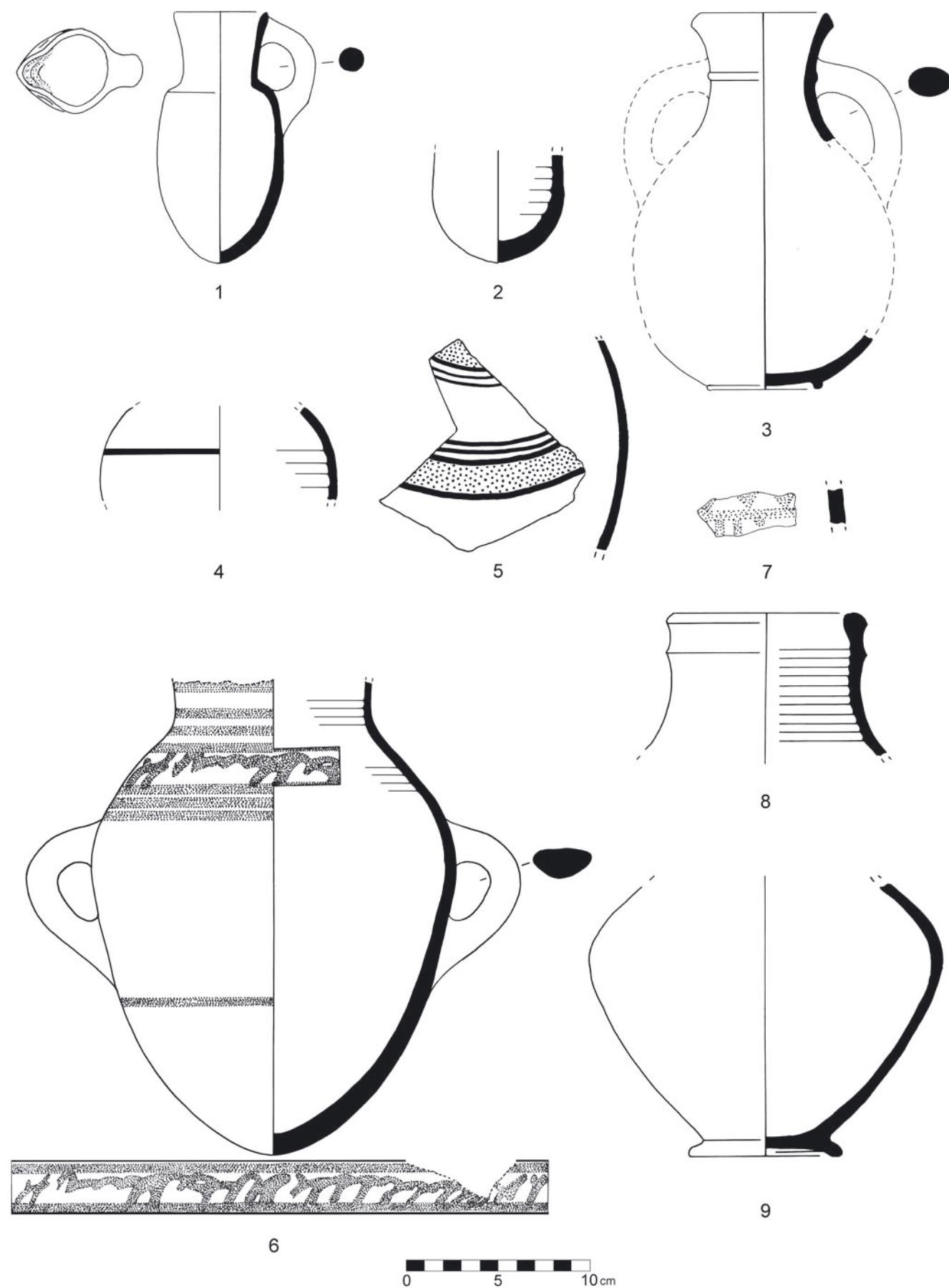


Fig. 363 Pottery from Phase X, Area 9 East

Legend for the illustrated pottery from Phase X,
Area 9 East

Fig.	Locus No.	Description
363:1	227	N1333 Juglet, hard-fired, light red core, dark grey inclusions, orange slip, traces of red decoration (see Fig. 364).
363:2	201	-1 Juglet, medium-hard-fired, light brown fabric, medium-coarse, traces of red slip, irregular base, reused as cup.
363:3	226	-4 Jug with two handles, hard-fired, light reddish-brown fabric, medium-coarse, multicoloured inclusions, self slip; neck ridge.
363:4	215	-4 Jug, very hard-fired, light grey fabric, light orange slip, dark brown decoration; Phoenician import.
363:5	226	-3 Jug, medium-hard-fired, brownish-yellow fabric, medium-fine, grey inclusions, light orange slip, thick red band and thin black band decoration.
363:6	242'	N1401 Jar, hard-fired, light brownish-yellow fabric, coarse, mainly grey and white inclusions, pinkish-yellow slip, brownish-red decoration, false (?) script on shoulder.
363:7	342	-1 Jug/jar, hard-fired, light yellowish-grey fabric, thick grey core, medium-coarse, multicoloured inclusions, light yellow slip, dark red decoration, burnished.
363:8	380	-4 Jar, hard-fired, light orangish-brown fabric, coarse, grey inclusions, light yellowish-orange slip.
363:9	370	-1 Jug, hard-fired, light greenish-yellow fabric, medium-fine, multicoloured inclusions, light yellow slip, traces of dark red decoration below base and on body, very worn.

Legend for the illustrated pottery from Phase X,
Area 9 East

Fig.	Locus No.	Description
365:1	191	-2 Jar, hard-fired, grey fabric, medium-coarse, light brown slip, dark red decoration.
365:2	224	-1 Jar, hard-fired, light reddish-brown fabric, medium-coarse, mainly black inclusions, self slip; neck ridge.
365:3	211'	-1 Storage jar, medium-hard-fired, brownish-red fabric, thick grey core, very coarse, mainly grey and white inclusions, yellowish-red/brown slip on interior and exterior.
365:4	206	-3 Storage jar, hard-fired, light greyish-brown fabric, large white inclusions, light yellow patches of paint.
365:5	368	-1 Jar, hard-fired, light yellow fabric, medium-coarse, multicoloured inclusions, light orange slip.

365:6 370 -4 Jar, hard-fired, light orangish-brown fabric, medium-coarse, mainly grey inclusions, yellowish-grey slip, circular impressions on handle.

365:7 313 -1 Lamp, medium-hard-fired, light yellowish-brown fabric, coarse, multicoloured inclusions, self slip.

Legend for the illustrated pottery from Phase X,
Area 9 East

Fig.	Locus No.	Description
366:1	197	-1 Cooking pot, hard-fired, brown fabric, coarse, white inclusions, brown slip.
366:2	191	-1 Cooking pot, hard-fired, reddish-brown fabric, dark grey core, medium-coarse, white inclusions, self slip.
366:3	230	-4 Cooking pot, hard-fired, dark reddish-brown fabric, grey core, medium-fine, self slip.
366:4	384	-1 Cooking pot, hard-fired, reddish-brown fabric, thick dark grey core, coarse, mainly white inclusions, self slip.



Fig. 364 Juglet N1333 from Phase X, Area 9 East

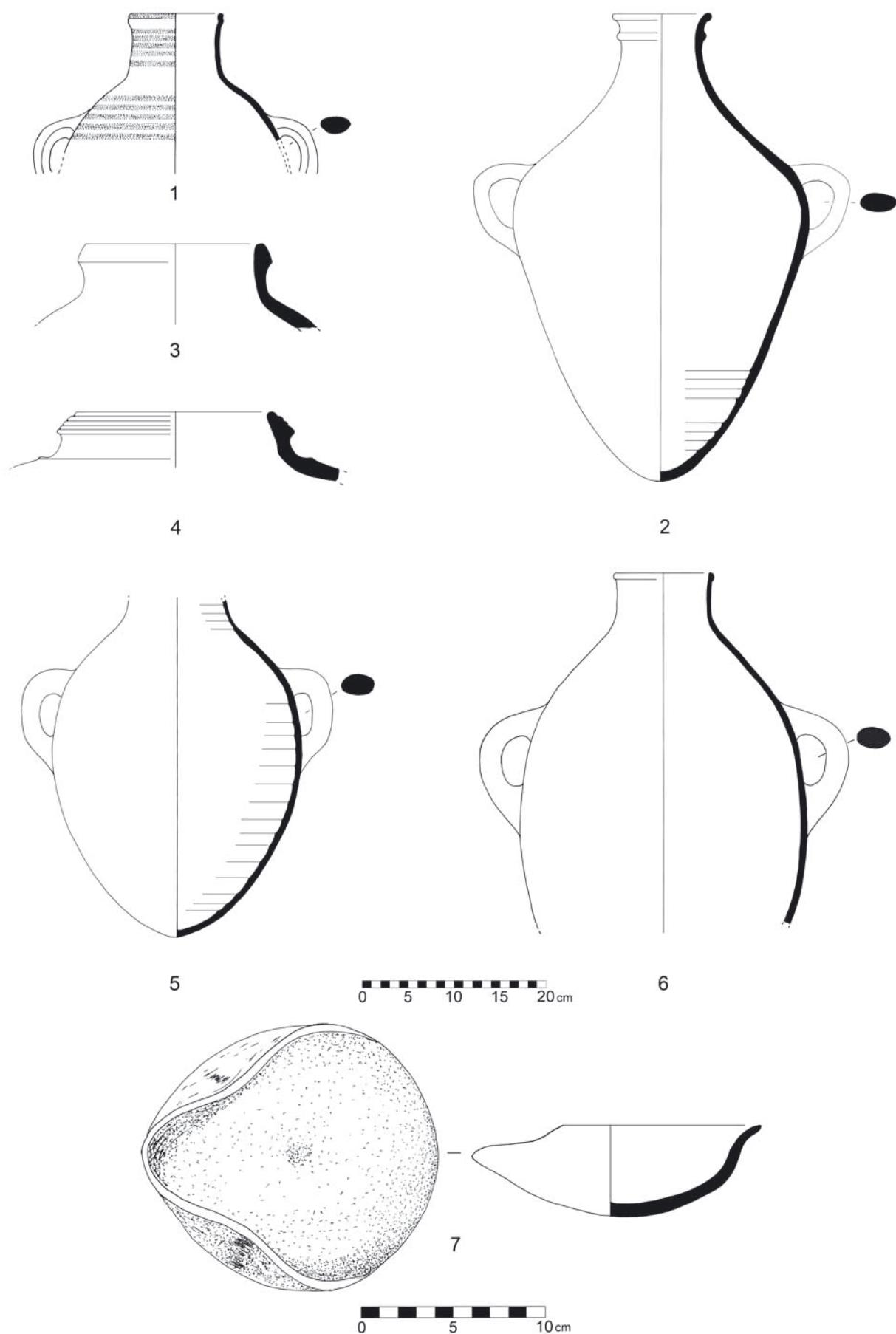


Fig. 365 Pottery from Phase X, Area 9 East

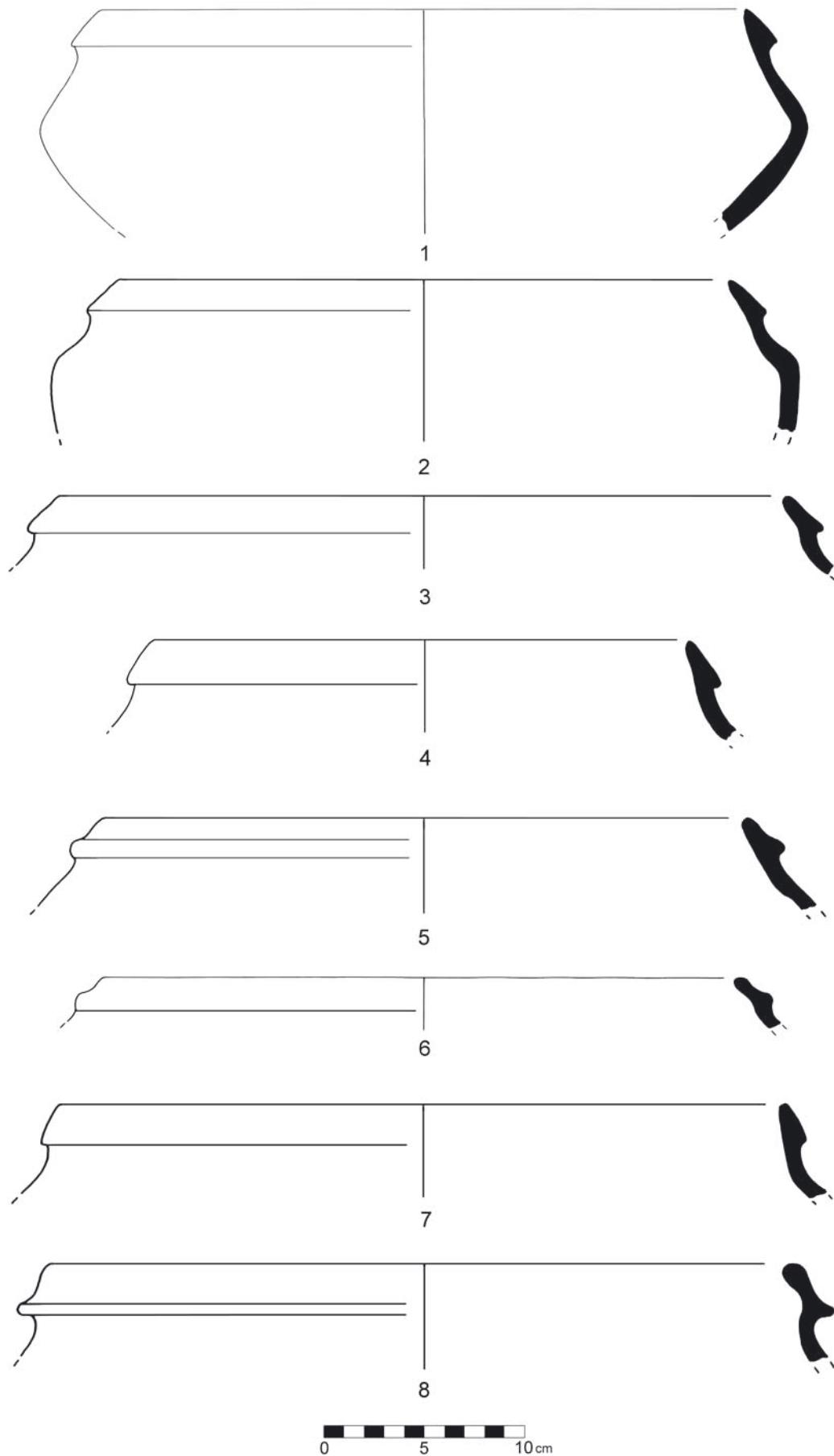


Fig. 366 Pottery from Phase X, Area 9 East

366:5	230	-3	Cooking pot, hard-fired, dark reddish-brown fabric, grey core, medium-fine, self slip.
366:6	233	-1	Cooking pot, hard-fired, grey fabric, light grey inclusions, brown slip.
366:7	230	-5	Cooking pot, hard-fired, brown fabric, grey core, medium-fine, self slip.
366:8	230	-1	Cooking pot, hard-fired, reddish-brown fabric, grey core, medium-coarse, self slip.

Legend for the illustrated pottery from Phase X,
Area 9 East

Fig.	Locus No.	Description
367:1	225	-1 Cooking pot, medium-hard-fired, brown fabric, black core, quartz inclusions, self slip.
367:2	206	-2 Cooking pot, hard-fired, dark brown fabric, dark grey core, white inclusions, self slip.
367:3	225	-2 Cooking pot, medium-hard-fired, brown fabric, black core, quartz inclusions, self slip.
367:4	380	-3 Cooking pot, hard-fired, dark brown fabric, thick grey core, coarse, mainly white inclusions, reddish-brown slip.
367:5	383	-1 Cooking pot, hard-fired, dark reddish-brown fabric, dark grey core, medium-coarse, mainly white inclusions, self slip.
367:6	222	-1 Cooking pot, hard-fired, brownish-red fabric, medium-coarse, self slip; incisions and impressions on rim.

Legend for the illustrated pottery from Phase X,
Area 9 East

Fig.	Locus No.	Description
368:1	220	-2 <i>Cooking pot, hard-fired, light brownish-red fabric, grey core, medium-coarse, white and black inclusions, self slip.</i>
368:2	226	-5 Cooking pot, hard-fired, grey fabric, medium-coarse, white and grey inclusions, self slip.
368:3	221	-1 Cooking pot, hard-fired, reddish-brown fabric, dark grey core, medium-coarse, mainly white inclusions, self slip.
368:4	384	-2 Cooking pot, hard-fired, reddish-brown fabric, thick dark grey core, coarse, mainly white inclusions, self slip.
368:5	374	-1 Cooking pot, hard-fired, reddish-brown fabric, dark grey core, coarse, mainly quartz inclusions, self slip, linear impressions on body.
368:6	370	-3 Cooking pot, hard-fired, dark brownish-grey fabric, coarse, mainly white and grey inclusions, dark reddish-brown slip.
368:7	370	-2 Cooking jug, hard-fired, dark brown fabric, thick dark grey core, coarse, mainly white inclusions, self slip.

Legend for the illustrated finds from Phase X, Area 9
East

Fig.	Locus No.	Description
369:1	242'	N1342 Loom weight, cylindrical, slightly spool-shaped, hand-made, unfired, greyish-brown fabric, coarse, self slip, Wt 233 g.
369:2	242'	N1344 Loom weight, cylindrical, slightly spool-shaped, hand-made, unfired, light greyish-brown fabric, self slip, Wt 236 g.
369:3	380	N1447 Loom weight, spool-shaped, hand-made, unfired, light brown fabric, medium-fine, self slip, Wt 359.3 g.
369:4	211'	N1393 Clay object, pendant (?), hand-made, medium-hard-fired, light brown fabric, medium-fine, light yellowish-red slip, Wt 68.5 g.
369:5	342	N1428 Spindle whorl, basalt, residual from the Early Bronze Age, Wt 47.5 g.
369:6	220	N1334 Spindle whorl, alabaster, conical shape, drilled, rough surface, Wt 45 g.
369:7	164	N1311 Weight, basalt.
369:8	368	N1440 Pestle, basalt.
369:9	257	N1385 Mortar, limestone, smooth surface.
369:10	206	-1 Stone bowl, basalt.
369:11	227	N1335 Arrowhead, bronze.
369:12	353	N1433 Arrowhead, bronze.

Additional find from Phase X, Area 9 East (listed, not illustrated)

Locus No.	Description
227	N1331 Spindle whorl made of reused potsherd, wheel-made, hard-fired, light brown fabric, medium-coarse, grey inclusions, self slip interior, white slip exterior, Th 1, d. 5.2, d. of hole 0.3 cm, Wt 36.7 g.

Legend for the illustrated pottery from Phase XI,
Area 9 East

Fig.	Locus No.	Description
370:1	199	-3 Carinated bowl, very hard-fired, medium-fine, reddish-yellow slip.
370:2	361	-1 Carinated bowl, hard-fired, light orange fabric, thick grey core, medium-coarse, mainly white and grey inclusions, light brownish-red slip.
370:3	187	-3 Carinated bowl, hard-fired, orangish-brown fabric, grey core, medium-coarse, white inclusions, light brownish-yellow slip.
370:4	199	-4 Carinated bowl, hard-fired, greenish-grey fabric, coarse, light orange slip, red paint interior and exterior.
370:5	199	-1 Krater, medium-hard-fired, pinkish-brown fabric, medium-coarse, black and grey inclusions, red slip; incised horizontal lines with attached knobs beneath the rim.

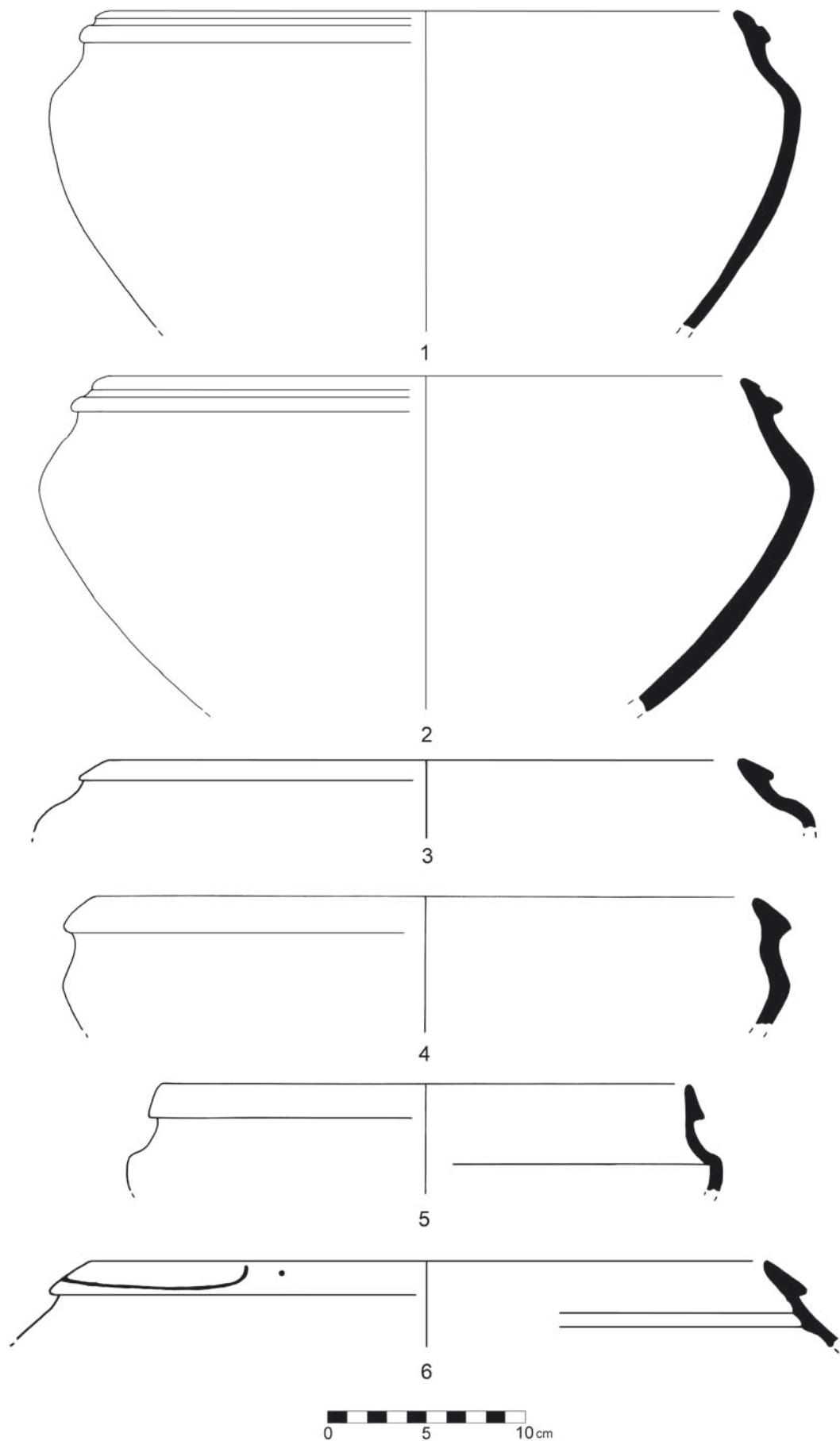


Fig. 367 Pottery from Phase X, Area 9 East

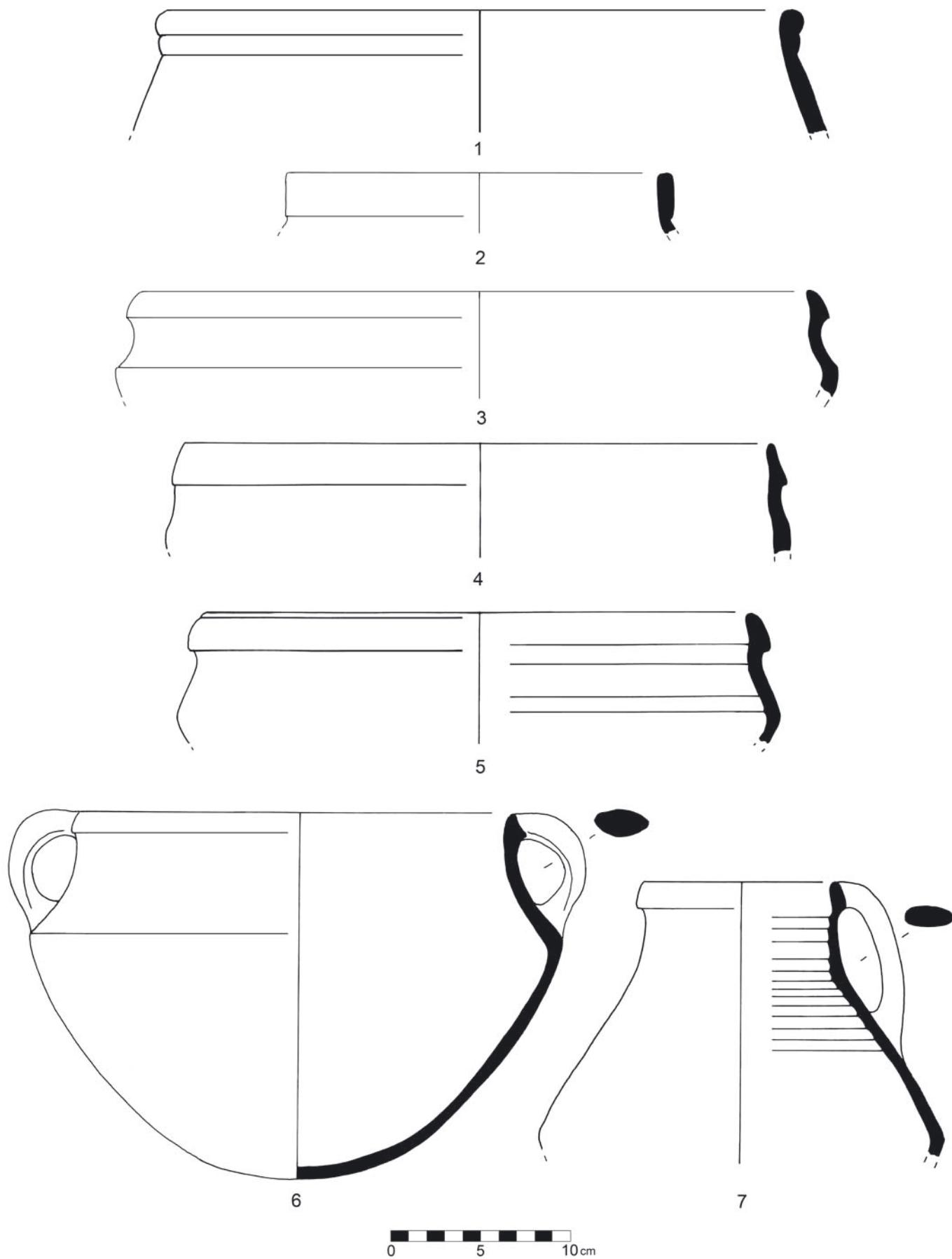


Fig. 368 Pottery from Phase X, Area 9 East

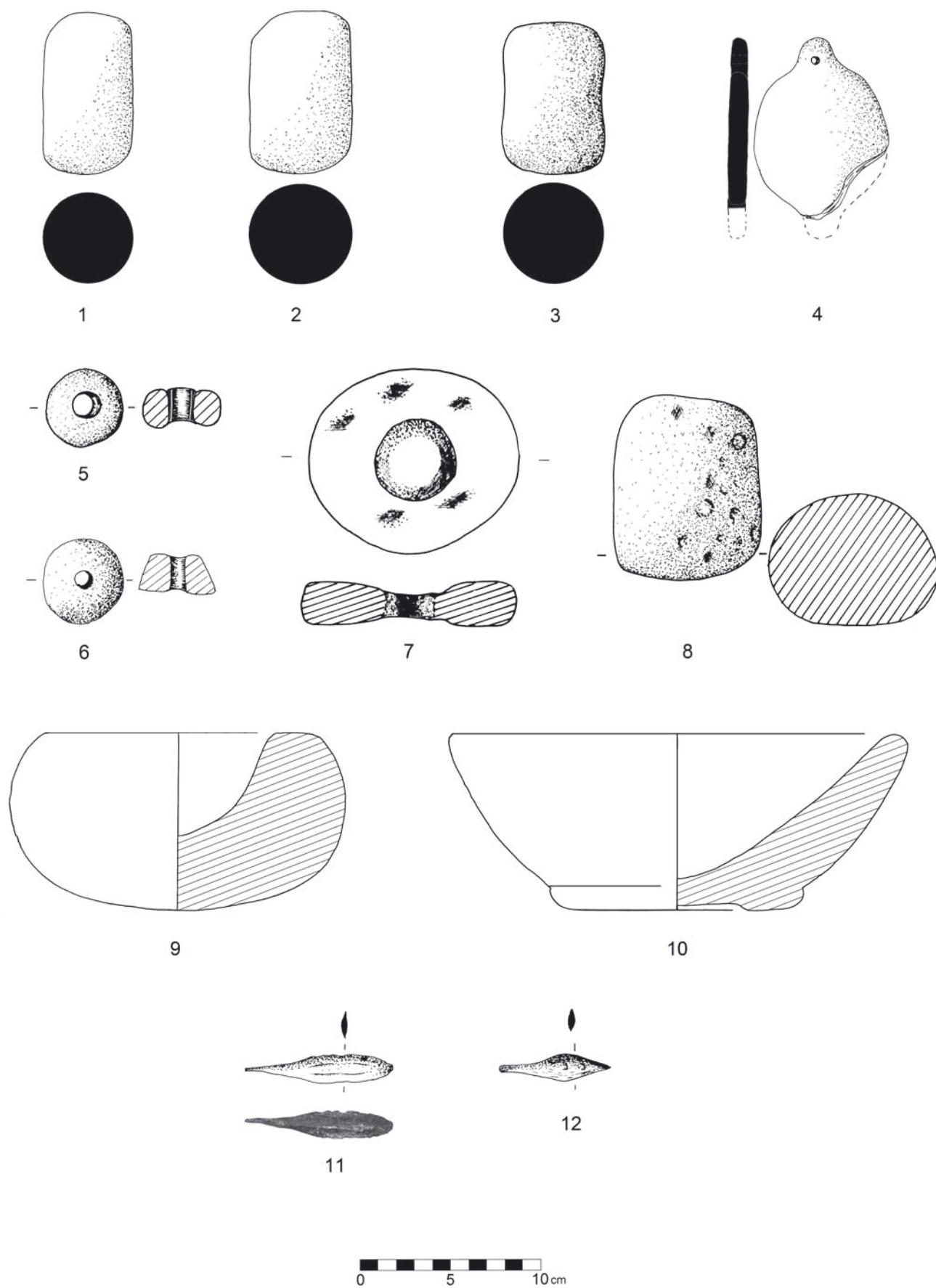


Fig. 369 Finds from Phase X, Area 9 East

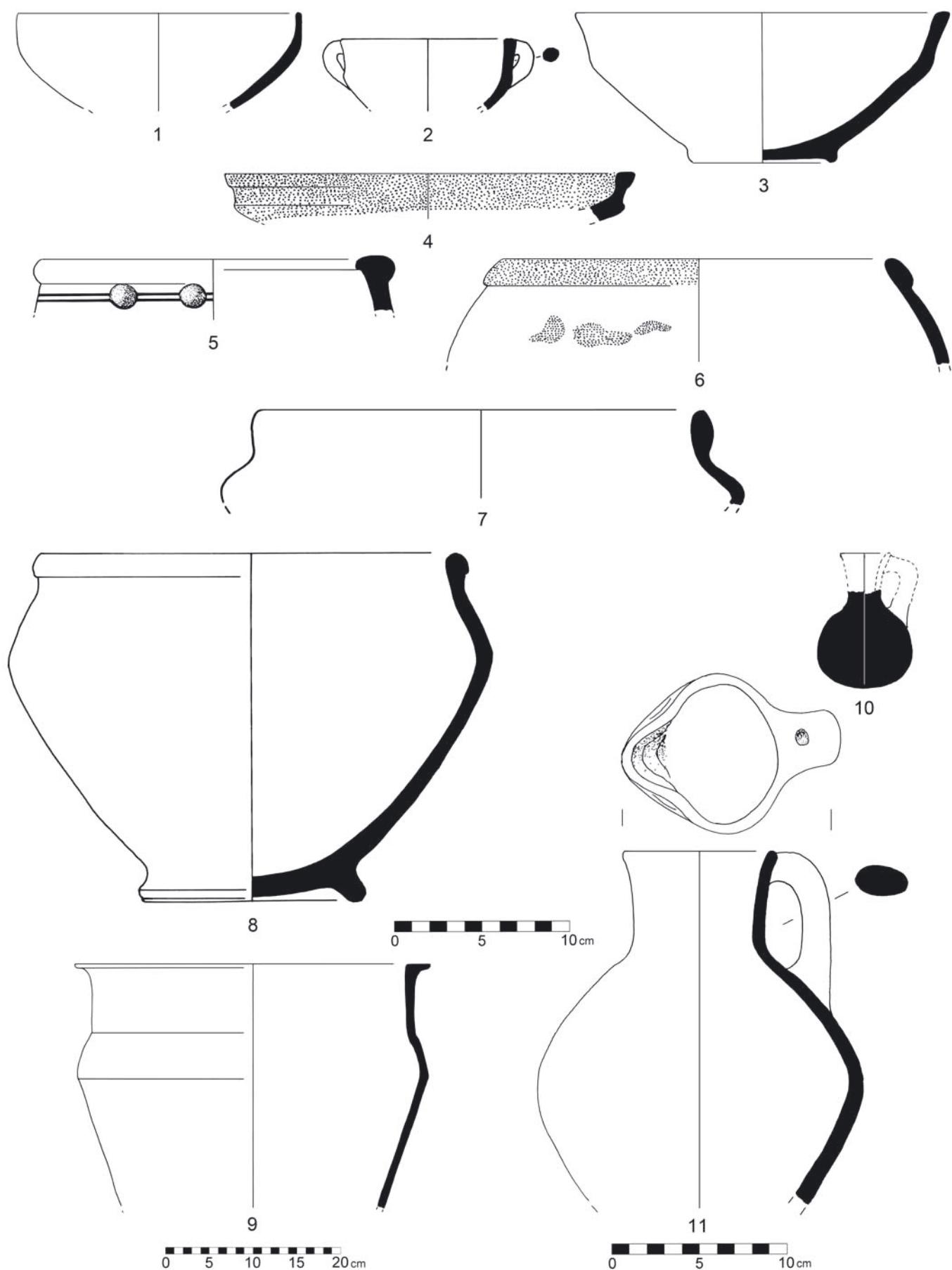


Fig. 370 Pottery from Phase XI, Area 9 East

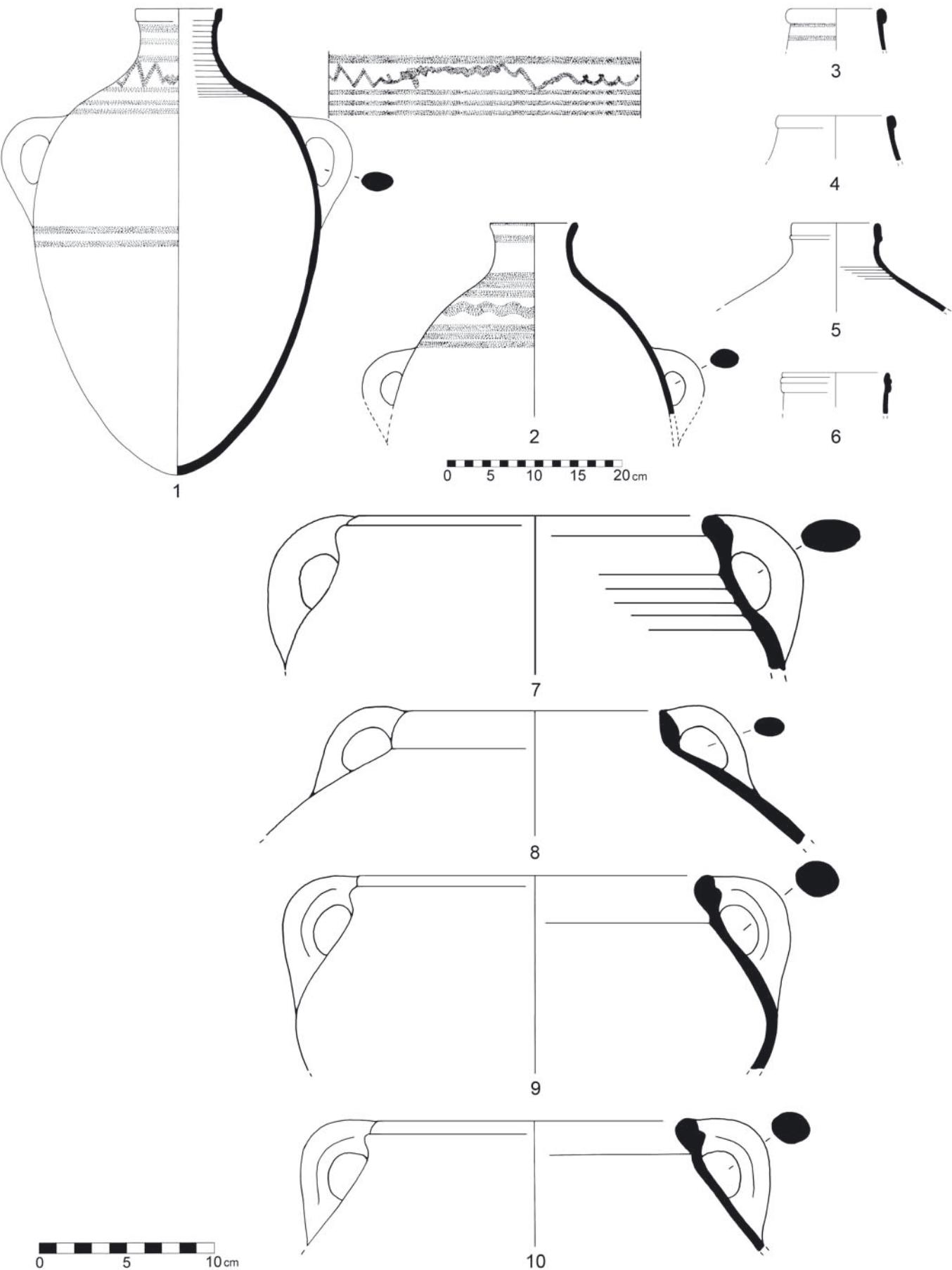


Fig. 371 Pottery from Phase XI, Area 9 East

370:6	187	-2	Krater, medium-hard-fired, yellowish-brown fabric, grey core, few white inclusions, self slip, reddish-brown paint on rim.
370:7	194	-2	Krater, hard-fired, grey fabric, dark grey inclusions, orange slip.
370:8	361	-2	Krater, hard-fired, light greyish-yellow fabric, coarse, multicoloured inclusions, light orange slip.
370:9	207	-1	Krater, hard-fired, grey fabric, white inclusions, orange slip.
370:10	199	N1323	Black Juglet, medium-hard-fired, brownish-grey fabric, few coarse inclusions, black slip, worn.
370:11	176	-4	Spouted jug, medium-hard-fired, yellowish-brown fabric, coarse, multicoloured inclusions, light pinkish-yellow slip; impression on upper part of handle.

Legend for the illustrated pottery from Phase XI, Area 9 East

Fig.	Locus No.	Description
371:1	355	-3
371:2	176	-6
371:3	183	-2
371:4	207	-2
371:5	194	-1
371:6	176	-1
371:7	188	-1
371:8	176	-2
371:9	187	-1
371:10	199	-2

Legend for the illustrated pottery and other finds from Phase XI, Area 9 East

Fig.	Locus No.	Description
372:1	207	-3
372:2	218	-1
372:3	176	-5
372:4	199	-5
372:5	176	-3
372:6	194	-3,4,5
372:7	355	-1
372:8	355	-2
372:9	194	N1328
372:10	176	N1322
372:11	199	-6

Additional finds from Phase XI, Area 9 East (listed, not illustrated)

Locus No.	Description
183	N1324 Grinding stone, hemispherical, porous basalt, L 7.8, H 4.7 cm, Wt 413.5 g.
194	N1326 Spindle whorl made of reused potsherd, wheel-made, medium-hard-fired, grey fabric, self slip, d. 4.7, Th 1, d. of hole 0.3 cm, Wt 28.3 g.
207	N1325 Spindle whorl made of reused potsherd, wheel-made, medium-hard-fired, grey fabric, red slip, d. 5.5, Th 0.9, d. of hole 0.5 cm, Wt 34.7 g.

PHASE XII, AREA 9 EAST (Figs. 374 and 375)

Architecture and features

The architectural remains of this phase, most of them visible on the surface or just below a thin layer of colluvial soil, were badly preserved due to their superficial positions. The western part is fairly well-preserved, viz. approx. 11 m (east-west) × 5 m (north-south) in size. The eastern part was approached through a 2 m wide gate. There is also a stone-paved room in this part.

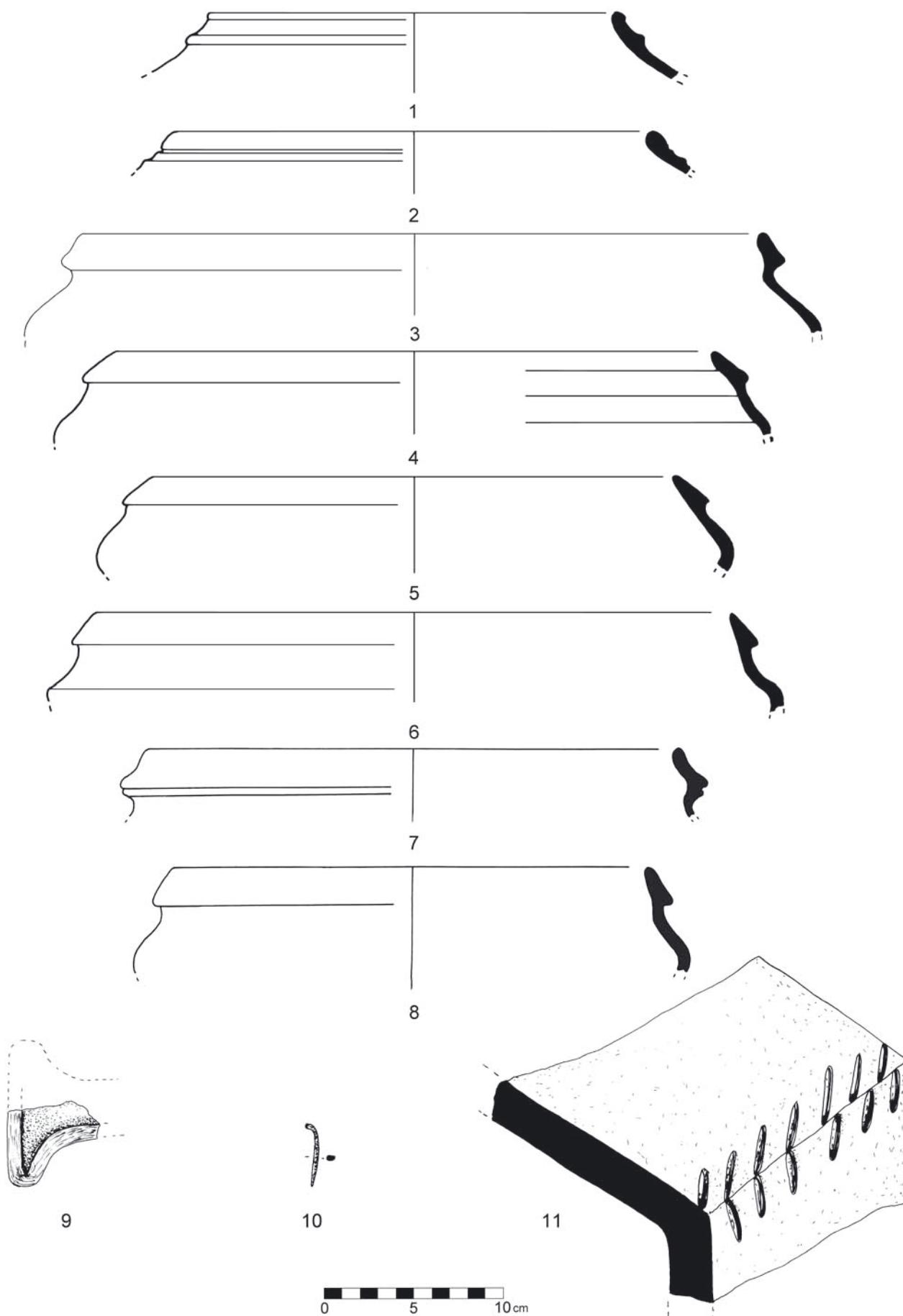


Fig. 372 Pottery and other finds from Phase XI, Area 9 East



Fig. 373 Installation of clay from L177, Phase XI,
Area 9 East

Interpretation of the material evidence

No detailed interpretation of the structures is possible because of erosion and looting. The majority of the sherds are from the second part of the Iron Age but a few intrusive sherds dating from the late Roman/Byzantine and Abbasid periods were also found. There are no other finds of significance except for a typical Iron Age loom weight of unfired clay, an arrowhead of iron (N1406) and a millstone of porous basalt (N1407).

Legend for the illustrated pottery from Phase XII, Area 9 East

Fig. Locus No. Description

- | | | | |
|-------|-----|----|---|
| 375:1 | 181 | -1 | Carinated bowl, thin-walled, very hard-fired, red fabric, grey core, medium-fine, few white inclusions, self slip interior, grey staining exterior. |
|-------|-----|----|---|

375:2	179	-1	Jug, hard-fired, light brown fabric, grey inclusions, orange slip, red decoration on rim/exterior; neck ridge.
375:3	168	-1	Jug/jar, medium-hard-fired, medium-fine, light brown inclusions, orange slip, dark red garland with leave pattern.
375:4	168	-4	Cooking pot, hard-fired, light grey fabric, medium-fine, reddish-brown slip.
375:5	168	-2	Cooking pot, hard-fired, grey fabric, medium-coarse, white inclusions, red slip.
375:6	168	-3	Cooking pot, hard-fired, grey fabric, medium-fine, few coarse inclusions, red slip.
375:7	170	-1	Cooking pot, hard-fired, light reddish-brown fabric, dark grey core, medium-coarse, few white inclusions, red slip.
375:8	W618	-1	Cooking pot, hard-fired, reddish-brown fabric, dark grey core, medium-coarse, white coarse inclusions, self slip.

Additional finds from Phase XII, Area 9 East (listed, not illustrated)

Locus No.	Description
290	N1406 Arrowhead, iron, L 8.7, W 1.4 cm, Wt 13.6 g.
290	N1407 Grinding stone, basalt, L 31, W 15.5, H 4.5 cm.

AREA 10

General information

Area 10 is synonymous with the upper plateau in the south-eastern part of the site. It includes the “official” 0-point of Tell Abu al-Kharaz (-116 m below mean sea level), from which all other levels were measured.⁶¹ Excavations were carried out in two portions of Area 10: the western portion in 1996 and 1997, Trenches XXXI-III, XXXV and XXXVI (Grids VV-WW/30-31; including our 0-point), which are approximately 124 square metres in size; this portion is fairly flat and slopes only approximately 0.5 m towards the south; and in 2001, Trenches XLIVA-D, and XLVA and B (Grids ZZ 32-33) on the south-eastern edge of the tell which are 130 square metres in size. This portion is quite flat in the west-east direction, while its southern part slopes slightly towards Area 9 to the west. The Trenches XLVA and B lie on the edge between the summit plateau and the point where the southern slope of the site begins. This is a fairly steep slope, which faces the hillock between the site and the Wadi al-Yabis. The two portions (Area 10 West and East) will be treated separately because they are

⁶¹ Observe that there a few heights in Area 10 East which are a few centimetres higher than our 0-point, viz. their values are shown without the “-”.

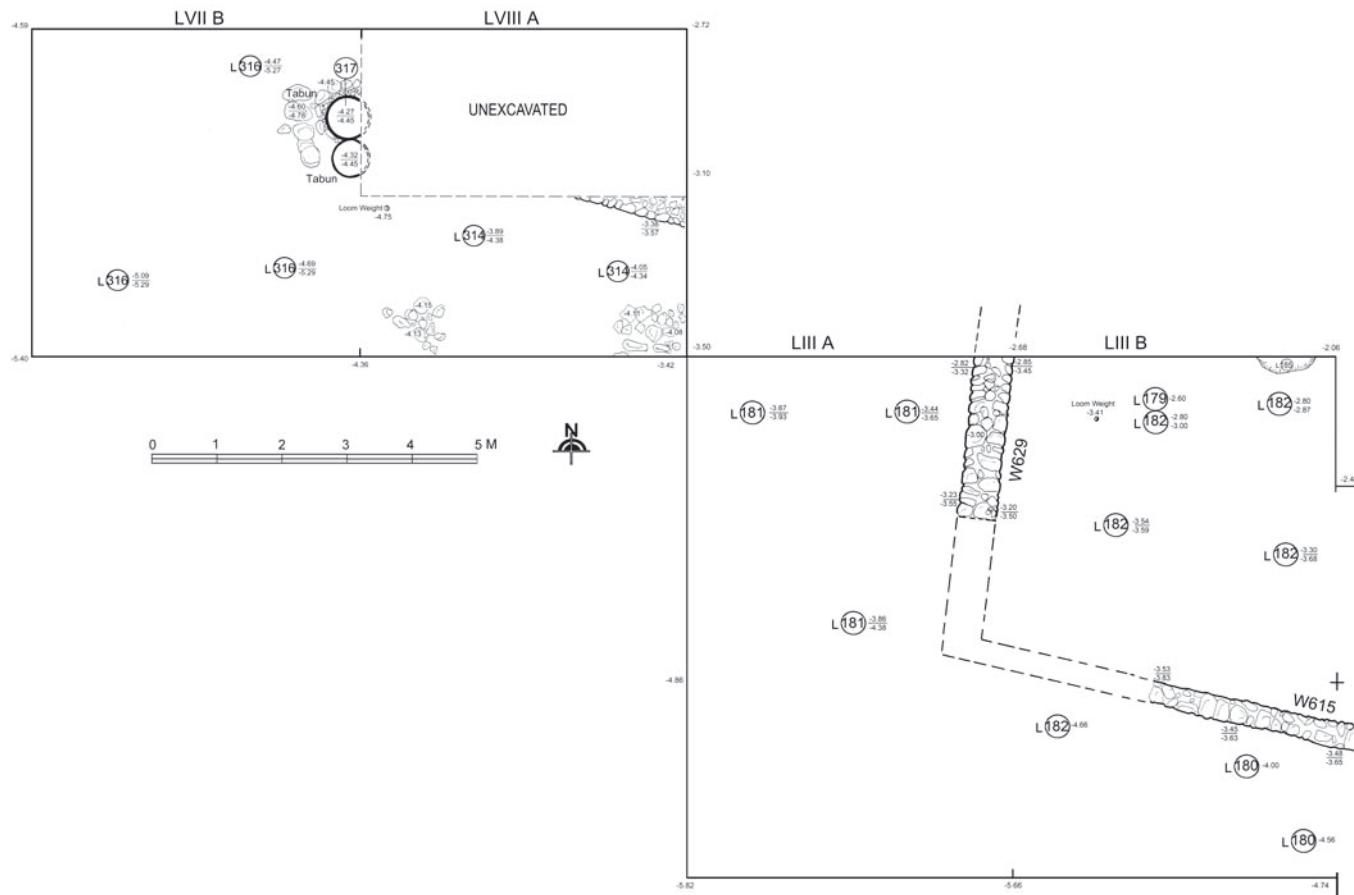


Fig. 374B Plan of Phase XII, Area 9 East, western part

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
	average dimensions		stone	mudbrick		
629	0.6	0.5	3			looted southern part
615	0.4	0.3	2			very destroyed
617	0.75	0.8	4			erosion southern part
618	0.9	0.5	3			very destroyed
659	0.4	0.5	2			
660	0.55	0.35	1			
661	0.65	0.3	2			
662	0.6	i.d.	i.d.			unexcavated
665	0.55	0.25	2			

Table 64 Description of the walls of Phase XII, Area 9 East

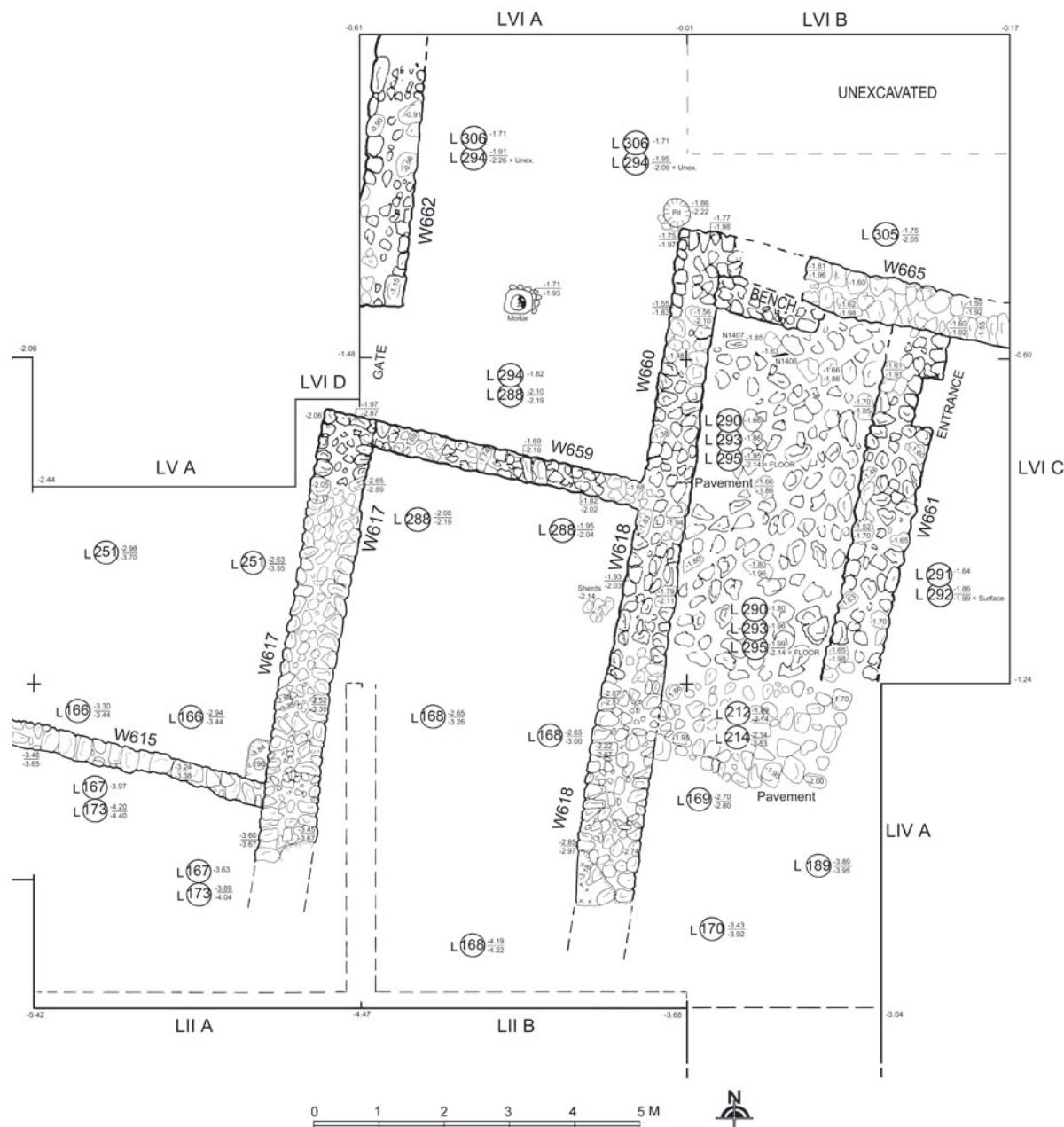


Fig. 374C Plan of Phase XII, Area 9 East, eastern part

roughly 30 m apart and a stratigraphical connection does not exist.

PHASES XIV/XV, AREA 10 WEST (Figs. 376–382)

Architecture and features: The “White Building”

This area is dominated by a monumental structure, traces of which could already be discerned on the sur-

face during the 1989 survey. It measures 10.60 m by 11.70 m as exposed.⁶² The axes of the building are oriented strictly north-south and east-west. The stone foundations of the building, which is preserved at a height of approximately 2 m, are partly constructed of rubble stone and ashlar blocks of stone. It is covered on the outside with fairly well preserved white plaster of lime and sand. The building material is locally quar-

⁶² FISCHER 1991; INGEMARSDOTTER 1997; FISCHER 1998a.

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
166	loose sandy soil, partly colluvial	6	1 k, 1 cp, 59 ud	1		
167	loose sandy soil, partly colluvial	6	273 ud			
168	loose sandy soil, partly colluvial	39	-1 j/ja, -2 cp, -3 cp, -4 cp, 1 b, 4 k, 4 j, 1 jl, 1 hm, 3 sj, 6 cp, 198 ud			
169	loose sandy soil, partly colluvial	3	2 k, 2 j, 3 sj, 63 ud			
170	loose sandy soil, partly colluvial	2	-1 ep, 1 k, 3 j, 1 jl, 57 ud			
173	fill of reddish clay		1 b, 31 ud			
179	clay, sand, partly colluvial	1	-1 j, 1 k, 1 j, 18 ud	3		
180	loose sandy soil, partly colluvial	4	3 j, 3 sj, 53 ud			
181	loose sandy soil, partly colluvial	2	-1 cb, 1 cb, 1 k, 1 j, 8 ud	3		
182	loose sandy soil, partly colluvial	15	3 b, 3 k, 2 j, 6 sj, 1 cp, 219 ud	1		
189	destruction layer, mudbrick					
212	stone pavement, some soil		1 k, 1 j, 3 sj, 27 ud	8		
214	just below pavement L212					
251	loose sandy soil, partly colluvial	6	2 k, 1 j, 11 sj, 2 cp, 112 ud			
288	fill, pebbles	6	1 b, 1 cb, 2 k, 1 j, 1 ja, 75 ud	1		
290	stone pavement, some soil		1 cb, 1 j, 23 ud	3	N1406, N1407	
291	fill, pebbles, stones		1 b, 2 k, 1 jl, 1 j, 36 ud	2		
292	hard surface, floor	3	1 b, 1 j, 1 ja, 20 ud	1		
293	fill, pebbles, mudbrick, o.d.	1	2 b, 1 cb, 5 k, 1 ja, 42 ud	1		
294	fill, mudbrick, stones	16	-1 cb, 4 b, 2 k, 1 j, 84 ud	9		
295	floor with ash, sand	4	5 k, 2 j, 1 ja, 1 cp, 49 ud			
305	fill	3	1 b, 7 k, 1 j, 2 cp, 48 ud	17		
306	compact surface with pebbles	2	1 j, 24 ud			
314	fill, o.d., partly colluvial soil	-3, -5, 47	-1 j, -4 j, 8 b, 1 cb, 7 k, 8 j, 1 Phoen j, 2 ja, 3 sj, 11, 7 ep, 1 ud	-2, 4		
316	fill, o.d., partly colluvial soil	-1, 19	9 b, 5 k, 7 j, 1 stj, 2 ja, 5 sj, 1 kernos, 5 cp, 202 ud	48		
317	tabun with stone substructure	1	11 ud			
W615	inside wall		3 ud			
W618	inside wall	1	-1 cp, 22 ud			
W659	inside wall	2	5 ud			
W661	inside wall	1	1 k, 1 j, 10 ud			

Table 65 Description of the loci of Phase XII, Area 9 East

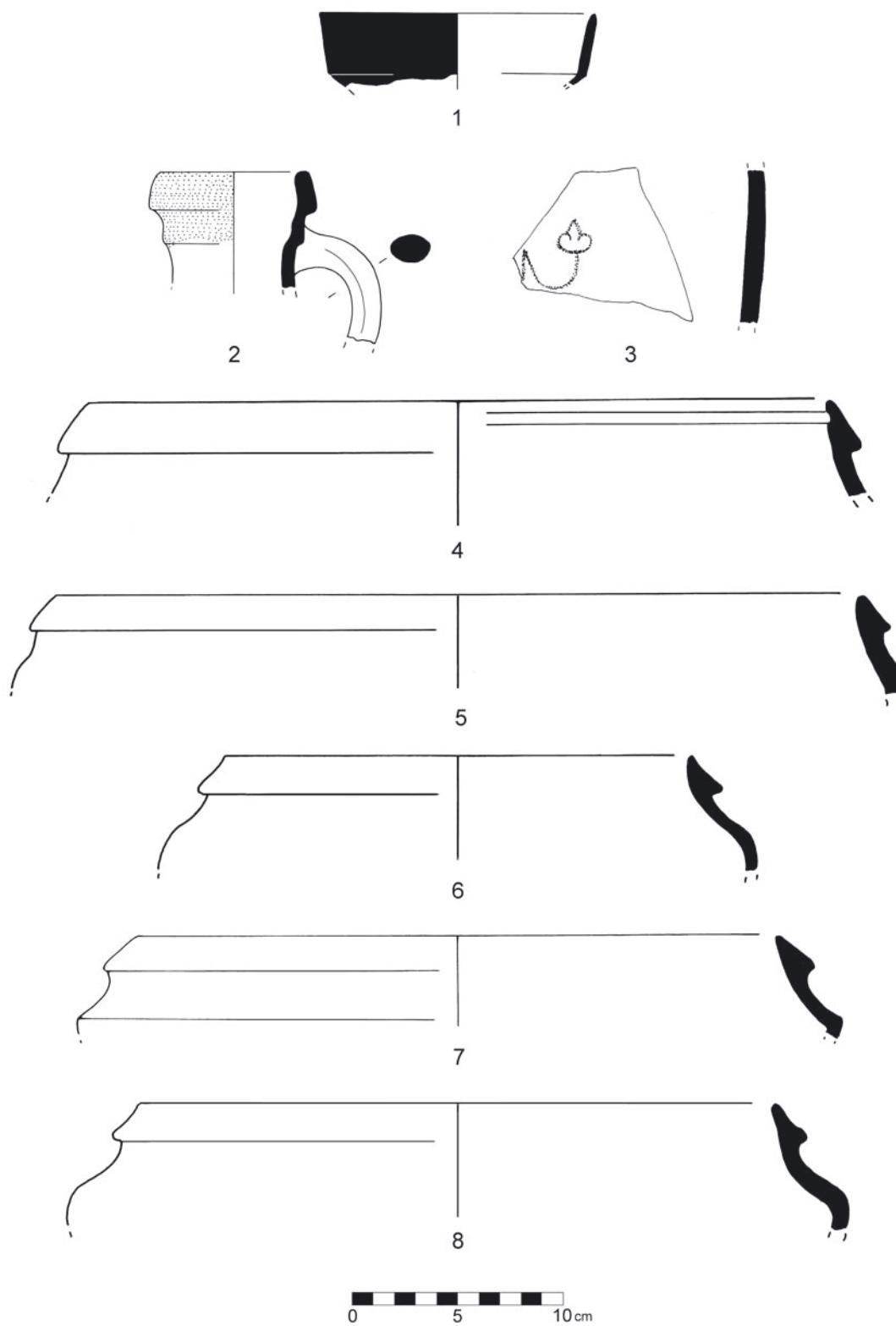


Fig. 375 Pottery from Phase XII, Area 9 East



Fig. 376 Plan of „White Building“, Area 10 West

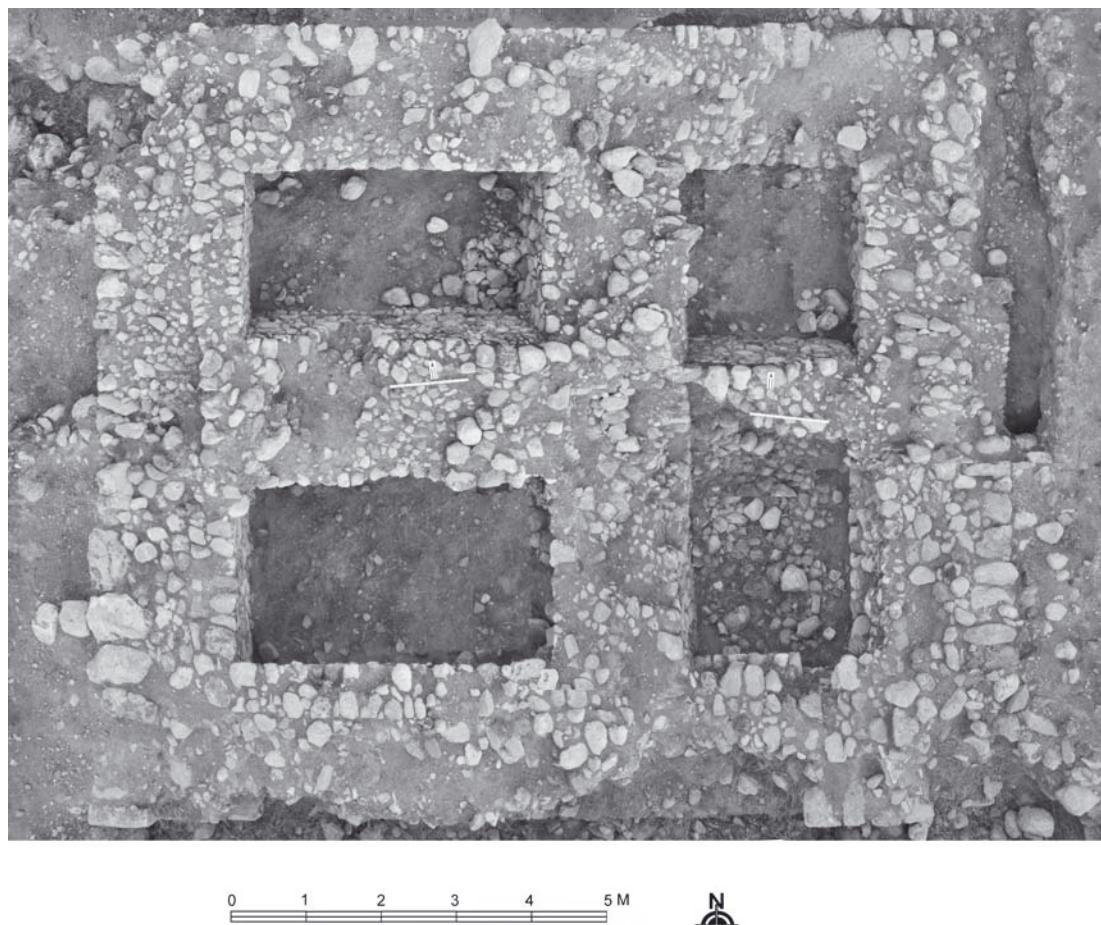


Fig. 377 View from photo-tower of "White Building", Area 10 West (compiled by T. Bürge)



Fig. 378 "White Building" looking north



Fig. 379 Plastered northern façade of “White Building”,
Area 10 West

ried limestone. Mortar was not used. The walls are approximately 1.50–2 m wide and neatly constructed with relatively flat surfaces. It became clear during the exposure of this structure that it was built, rebuilt and repaired over quite a long period (Figs. 376–379).

There are four internal rooms, in which a considerable amount of fallen stones was discovered, very likely deriving from the collapsed upper floors and structures. The north-western room measures 2.30 × 3.90 m, the south-western 2.30 × 3.80 m, and the north-eastern and the south-eastern rooms 2.30 × 2.65 m. The inner walls are either placed directly on bedrock or built on fill or they were placed in foundation trenches cut into bedrock. The still upright walls consist of 6 to 8 courses of stone. The width of the wall separating the rooms is roughly 2 m.

Everywhere around the structures an abundance of fallen stones can be seen on the surface, suggesting that the original structure was of considerable height.

Underneath the stones outside the western façade, a stone pavement can be traced. This pavement is attached to the western wall. The plaster that covers the wall goes underneath the pavement, indicating that the pavement is of a later date. Late Roman sherds could be associated with the stone pavement.

The sherds collected from the loci belonging to the interior rooms are mainly from the later part of the Iron Age period. However, there are also sherds belonging to the Bronze Age periods (mainly Late Bronze Age) and the Late Roman period. An ostrakon with graffiti from L5 in Room 1 should be mentioned (Figs. 380, 467:2 and Appendix 4).

Interpretation of the material evidence

The orientation of the building in a north-south/east-west direction is interesting. Iron Age and Late Bronze structures within the city of Tell Abu al-Kharaz are usually aligned on a south-east/north-west axis, and Early Bronze structures are commonly on a north-south/east-west axis.

Our exposed “basement rooms” could have functioned as storerooms upon which a high structure was built, suggesting a tower as part of a fortress compound which is still unexposed (cf. sites in Jordan in KOUCKY 1987b: 64). The walls are built directly on bedrock in foundation trenches, possibly to make them less vulnerable to earthquakes. It has been suggested that buildings built on bedrock resist earthquake damage much better than those built on fill or sediments (KOUCKY 1987a: 35). A fortress usually contains a tower. There are some examples of Iron Age watch towers in Jordan, e.g. at Rumeil, south-east of the Dead Sea (16 × 9 m; DE MONTLIVAUT-VILLENEUVE 1989: 492), and El Sade, between the Dead Sea and the Red Sea (with a 9 m long foundation of heavily plastered ashlar; LINDNER 1989: 506), the Plateau Fort, near the Wadi Kafra in the Jordan Valley (13.50 × 14.50 m), and at Rujm al-Makhaizin, north-east of Amman (12.20 × 12.25 m; PRAG and BARNES 1996: 44, 47). The towers are considered fairly large, and are built of trimmed megalithic stones without mortar. The towers are usually placed on high elevations near a wadi (KOUCKY 1987b: 64). The Iron Age fortress of Lehun east of the Dead Sea has western and southern walls plastered to protect them from the rain and the wind blowing from the Dead Sea Valley (HOMÉS-FREDERICQ and HENNESSY 1989: 354). In the Iron Age period, there was a system of border fortresses on both sides of the Jordan River (PRAG and BARNES 1996: 48), and perhaps our example belongs to that defence system.

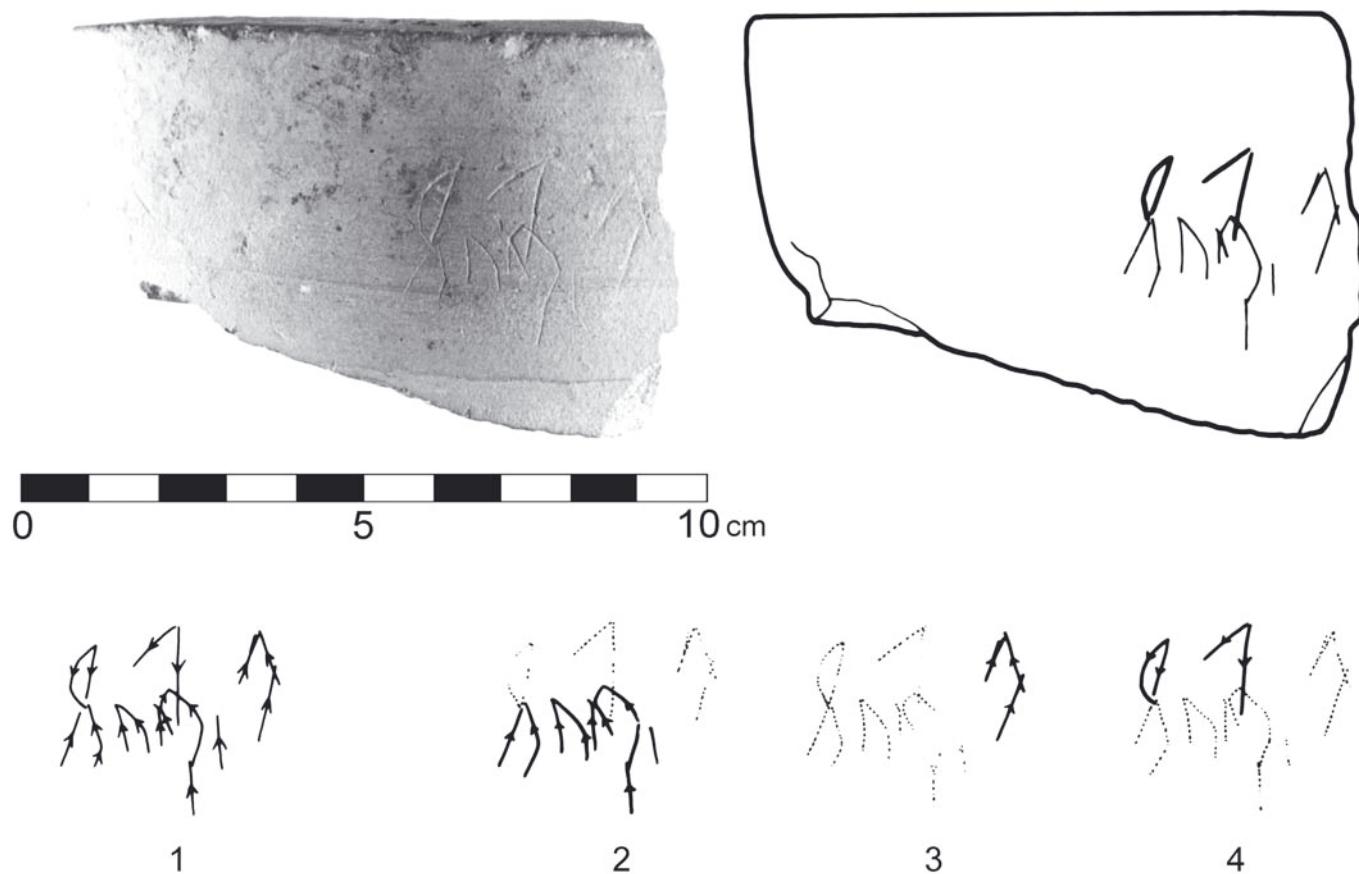


Fig. 380 Ostrakon from Room 1, L5, of the "White Building", Area 10 West. 1. Direction of incisions, 2. – 4. The three groups of signs (drawing L. Khouri).

During the Late Roman period, towers were common in central and north-eastern Jordan. Examples of Roman occupation are buildings at Lejjun, east of the Dead Sea (PARKER 1989: 360), Tell es-Sa'idiyeh, in the Jordan Valley (9.25×10.40 m; TUBB 1989: 541), Samra, 50 km north-east of Amman (HUMBERT 1989: 555), and Qasr Bshir, east of the Dead Sea (KOUCKY 1987b: 66). Watch towers from the Iron Age or the Nabataean period were reoccupied by the Late Romans to form a network of observation posts within sight of one another (PARKER 1984: 36). They make part of the Limes Arabicus, which was the Roman frontier east of the Dead Sea between 300 and 550 CE. Examples of sites containing Iron Age fortresses with towers that have been reused in the Late Roman and even Early Byzantine periods are found at Qasr Abu el-Kharaq and Qasr el Al (PRAG and BARNES 1996: 59). Late Roman masonry in general means constructions of locally quarried limestone and chert (PARKER 1989: 363). The towers were usually almost square, with side dimensions from 10–12 m.

An ostrakon which was found in the north-western room (Room 1) and which is associated with the Ammonite writing tradition suggests a dating within the 1st millennium BCE, maybe within the period of 9th–6th centuries BCE (FISCHER 1997a: 136–137; AL-GHUL and KHOURI 1998; RICHELLE 2010: 247–249; see Figs. 380, 467:2 and Appendix 4). The pottery collection from inside the building also suggests a dating within the Iron Age period. However, outside the building, large amounts of Late Roman sherds were found, which again points to reuse of the foundation of this structure in Late Roman times. It is therefore not likely that the Romans constructed this building, as they generally used mortar in their building programmes, even though there are examples of Roman structures with no mortar at all. One example is at Qasr el-Uweinid (KENNEDY 1982: 121). Furthermore, the Romans did not usually build their towers on high elevations, but in major wadis and at guarded crossings (KOUCKY 1987b: 66).

Ashlar masonry was frequent in the Bronze Age,

especially in Cyprus and other regions of the Eastern Mediterranean. Ashlar masonry in general means use of wrought blocks for structures and their approaches. The blocks do not always reach the ideal of a rectangular visible face when they are put in place. There is a more limited definition of ashlar masonry, applied to architecture of later times, which says that true ashlar blocks should have all faces worked into a perfectly rectangular shape, usually of uniform size and filling the thickness of the wall (HULT 1983: 1–2). Examples

of “coursed ashlar” masonry from the Bronze Age are found in nearby regions such as Cisjordan and the northern Levant. Coursed ashlar masonry means that the lower part of the building is ashlar and the upper part is rubble (HULT 1983: 30). It is not likely that the original structure, which partly consists of coursed ashlar masonry, is later than the Iron Age period, as the ashlar blocks are laid irregularly and the faces are not worked into perfectly rectangular shapes.

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
362	2.0	0.5-2.0	-9			
363	2.0	0.5-1.3	-9			
368	1.9	0.5-1.3	-9			
369	0.6	0.5-1.3	-9			
382	1.4	0.5-1.3	-9			
386	1.5	0.5-1.3	-9			
387	0.5	0.5-1.3	-9			
388	0.5	0.5-1.3	-9			
389	1.5	0.5-1.3	-9			
451	2.0	0.5-1.3	-9			
452	2.0	0.5-1.3	-9			
453	1.3	0.5-1.3	-9			
454	2.0	0.5-1.3	-9			
455	2.0	0.5-1.3	-9			

Table 66 Description of the walls of the “White Building”, Area 10 West, Phases XIV/XV

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
1	Room 1		20 ud		LR, Byz., Islamic sherds	
2	Room 1	3	2 b, 1 jl, 3 ja, 1 sj, 3 cp, 68 ud		4 Islamic?	
3	north of Room 1		2 b, 20 ud			
4	Room 1		1 b, 1 j, 1 k, 2 sj, 1 cp, 35 ud			
5	Room 1	1	-1 ja, 2 b, 1 cb, 5 k, 1 j, 1 jl, 1 stand, 1 lid, 22 sj, 2 cp, 157 ud	1 Assyr- ian-style b		
6	Room 1, fill					

Table 67 Description of the loci in and around the “White Building”, Area 10 West, Phases XIV/XV

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
7	Room 1, bedrock					
8	outside and west of Room 1		1 k, 5 ud			
9	outside and west of Room 1	4	1 ep, 2 h, 3 ud			
10	outside and west of Room 1	1	1 bjl, 2 sj, 52 ud		10 LR/ Byz. sherds	
11	outside and west of Room 1				22 LR/ Byz./ Islamic sherds	
12	outside and west of Room 1	1	2 b, 2 j, 1 sj, 1 cp, 39 ud		8 LR/ Byz. sherds	
13	outside and west of Room 1					
14	Room 2		1 ep, 11 ud		1 Byz.	
15	between Room 2 and 3				11 LR/ Byz. sherds	
16	Room 2		-1 ja, -2 ep, 2 b, 2 jl, 3 sj, 1 dec, 32 ud		-1, -2, 198 LR/ Byz. sherds	
17	Room 2	3	5 b, 1 jl, 1 j, 11 sj, 4 cp, 204 ud		1?, 1 Assyr- ian-style b	
18	Room 2, beaten earth floor	1	-1 ep, -2 cp, -3 cb, -4 ja, -5 k, 1 b, 2 cb, 2 k, 1 jl, 5 sj, 1 ep, 1 dec, 81 ud			
19	Room 2, inside floor L18		-1 ep, -2 sj, -3 ja, -4 b, -5 cp, 1 b, 1 k, 2 j, 2 dec, 85 ud			
20	Room 2					
21	small pit in Room 2	5	-1 ep, -2 b, -3 cp, -4 eb, 1 b, 1 k, 4 sj, 1 hm, 1 cp, 129 ud			
22	Room 2, bedrock					
23	outside and south of Room 2	3	-1 ep, -2 ja, -3 cp, 1 b, 1 j, 1 stj, 5 sj, 1 cp		529 LR/ Byz. sherds	
24	Room 3		2 j		22 LR/ Byz. sherds	
25	east of Room 3					
26	outside and east of Room 3					
27	Room 3		1 sj		7 LR/ Byz. sherds	
28	south of Room 3					
29	Room 3		-1 eb, 1 jl, 1 sj, 1 cp, 22 ud			
30	Room 3		-1 ep, 2 k, 5 sj, 26 ud			
31	Room 3	2	1 b, 1 j, 26 ud			
32	Room 3, upon bedrock		2 j, 34 ud			

Table 67 continued Description of the loci in and around the "White Building", Area 10 West, Phases XIV/XV

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
33	Room 4		2 ja, 1 sj, 2 ep, 11 ud		2 Islamic, 5 LR/ Byz. sherds	
34	Room 4	3	4 b, 1 c, 1 sj, 1 cp, 6 h, 51 ud		4 LR/ Byz. sherds	
35	north-east of Room 4					
36	Room 4	1	1 b, 1 j, 1 ja, 3 sj, 1 cp, 32 ud			
37	Room 4		-1 b, 3 b, 6 k, 2 j, 1 ja, 2 sj, 37 ud			
38	Room 4		4 b, 1 sj, 4 h, 42 ud			
39	outside and east of Room 4		1 b, 1 cp, 26 ud			
40	Room 4	1	1 b, 1 sj, 1 ep, 36 ud			
41	Room 4, bedrock					
42	outside and east of Room 4				34 LR, Byz. sherds	
43	north of Room 4		1 b, 1 k, 1 stj, 1 cp, 20 ud		20 LR/ Byz. sherds	

Table 67 continued Description of the loci in and around the “White Building”, Area 10 West, Phases XIV/XV

The few Late Bronze Age sherds discovered are probable remainders of a Late Bronze Age building, which was originally erected on this spot. Our suggested Iron Age date is mainly based on the pottery and the Aramaic ostrakon.

Legend for the illustrated pottery from the “White Building”, Area 10 West

Fig. Locus No.

Description

- 381:1 37 -1 Miniature bowl, hand-made, hard-fired, brown fabric, thick grey core, coarse, mainly quartzite inclusions, self slip.
- 381:2 21 -2 Bowl, medium-hard-fired, light brown fabric, medium-coarse, mainly grey inclusions, self slip.
- 381:3 29 -1 Carinated bowl, hard-fired, dark grey fabric, coarse, white inclusions, self slip, plastic trumpet decoration.
- 381:4 19 -4 Bowl, medium-hard-fired, light brown fabric, fine, a few grey inclusions, self slip.
- 381:5 18 -3 Carinated bowl, medium-hard-fired, light grey fabric, fine, self slip.
- 381:6 18 -5 Krater, hard-fired, yellowish-brown fabric, light grey core, medium-fine, a few light brown inclusions, light yellowish-brown slip.
- 381:7 5 -1 Jar, hard-fired, yellowish-brown fabric, coarse, mainly grey inclusions, self slip; incised inscription (see also Fig. 380).

- 381:8 19 -3 Jar, hard-fired, brownish-red fabric, light grey core, medium-coarse, multi-coloured inclusions, self slip; neck ridge.
- 381:9 18 -4 Jar, hard-fired, light pinkish-brown fabric, medium-fine, mainly white inclusions, self slip.
- 381:10 19 -2 Storage jar, hard-fired, yellowish-brown fabric, medium-coarse, mainly grey inclusions, self slip; neck ridge.
- 381:11 30 -1 Cooking pot, hard-fired, reddish-brown fabric, greyish-brown core, medium-fine, mainly white inclusions, self slip.
- 381:12 19 -5 Cooking pot, hard-fired, reddish-brown fabric, coarse, mainly white inclusions, self slip.

Legend for the illustrated pottery from the “White Building”, Area 10 West

382:1 19

-1

Cooking pot, hard-fired, greyish-brown fabric, coarse, mainly white inclusions, self slip; neck ridge.

382:2 18

-1

Cooking pot, hard-fired, greyish-brown fabric, thick grey core, coarse, mainly white inclusions, self slip.

382:3 23

-2

Jar, hard-fired, light brown fabric, medium-fine, white inclusions, self slip.

382:4 23

-3

Cooking pot, hard-fired, reddish-brown fabric, medium-fine, white inclusions, self slip.

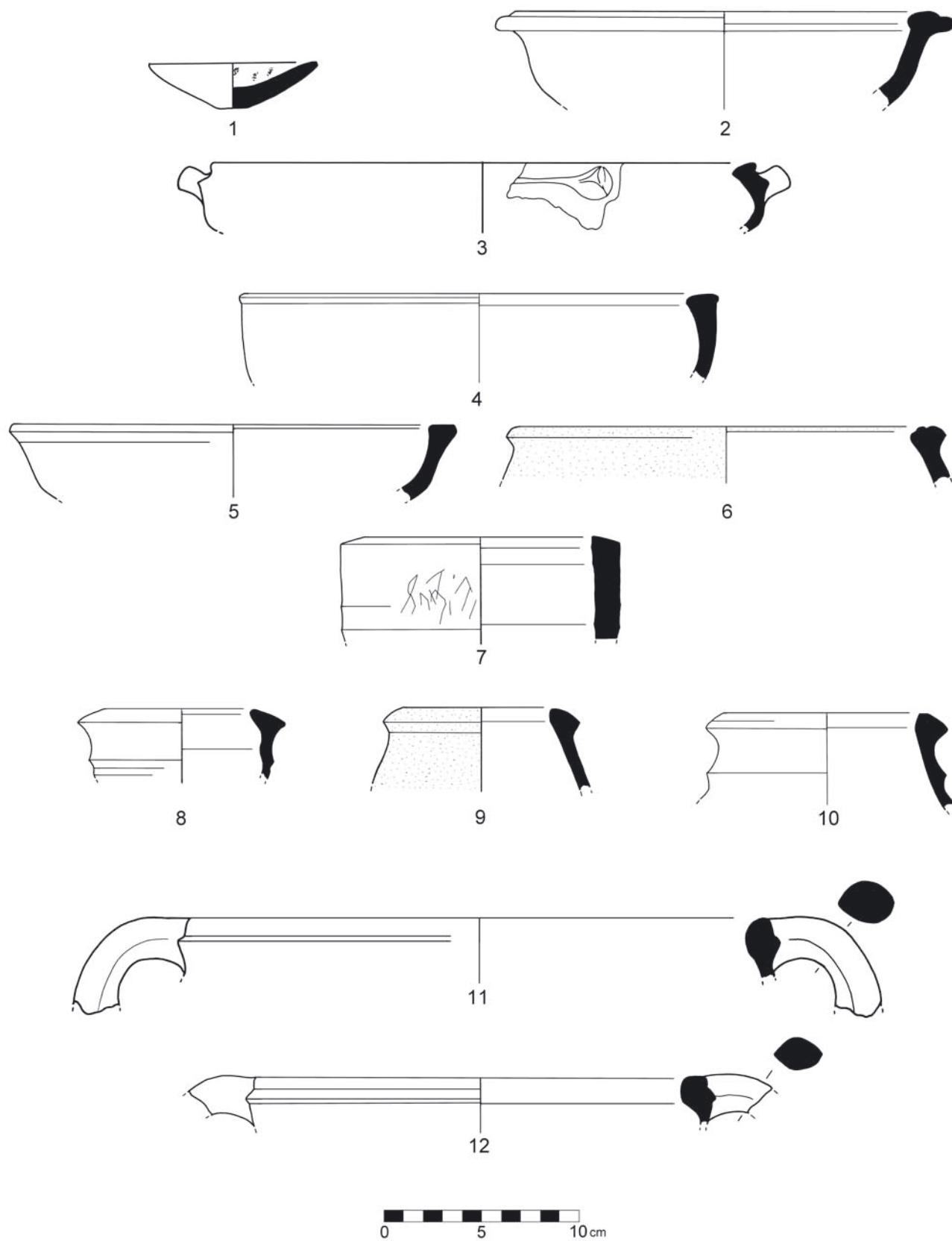


Fig. 381 Pottery from the "White Building", Area 10 West

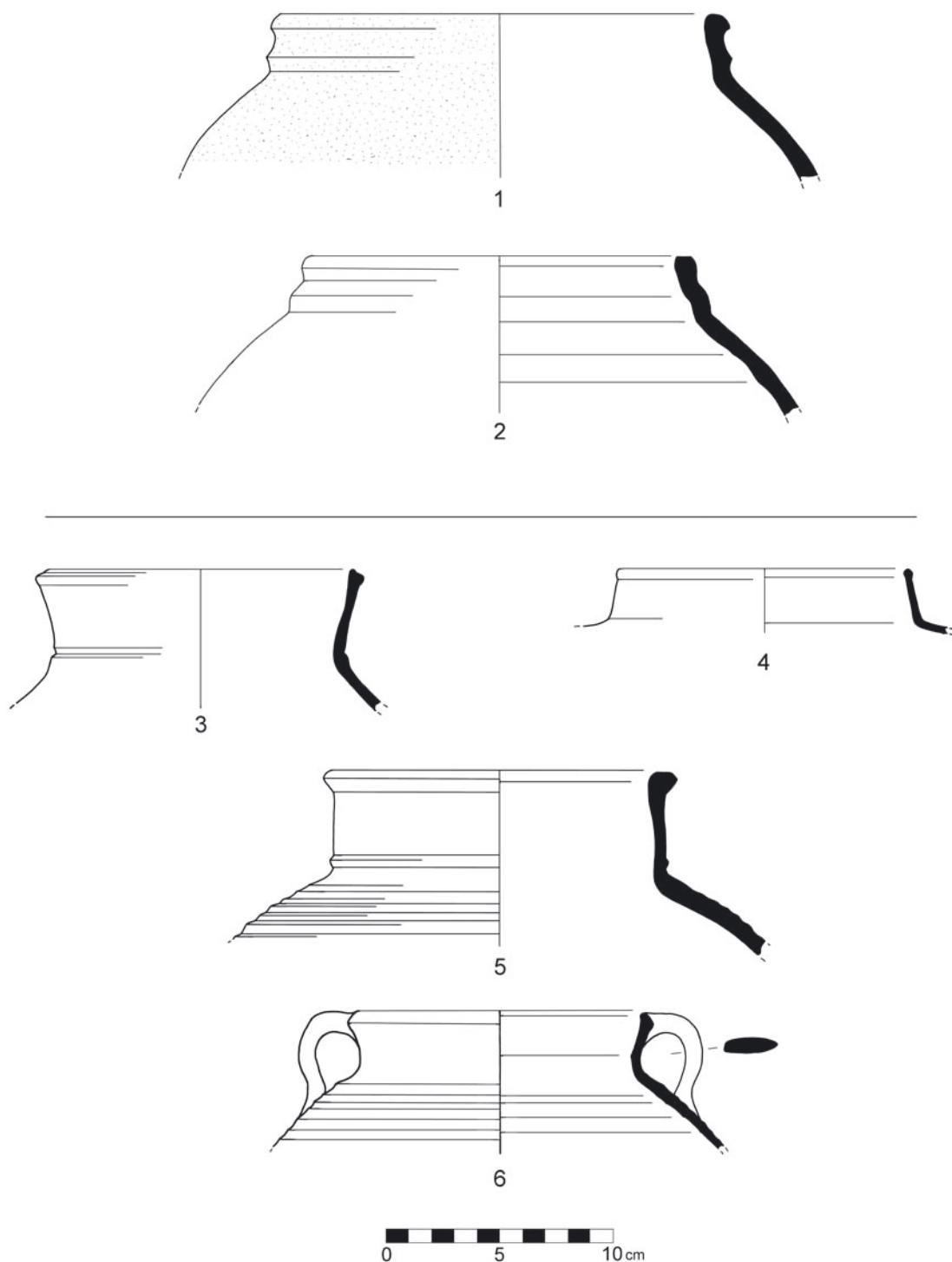


Fig. 382 Pottery from the "White Building", Area 10 West

- 382:5 16 -1 Jar, hard-fired, light brown fabric, light grey core, medium-fine, white inclusions, light brown slip.
- 382:6 16 -2 Cooking pot, hard-fired, brownish-red fabric, grey core, coarse, white inclusions, dark brown slip.

PHASES XIV/XV, AREA 10 EAST (Figs. 383–388)

Architecture and features

Due to the superficial and therefore exposed position of the Iron Age remains only one architectural phase

could be ascertained (cf. FISCHER 2005). There are, however, two phases of occupation in which the same structures were used. Therefore the finds from the lower and upper portions from inside the compound will be shown in separate figures (Phases XIV and XV, see below). The Iron Age remains are considerably disturbed during later periods, especially by the Late Romans or Byzantines who reused the Iron Age walls for seasonal buildings. Disturbances were also caused by Islamic occupation. The three walled spaces in the southern part were originally stone-paved. The northern part of the excavation area includes a *tabun* and some pillar bases. A number of pits and shallow pit

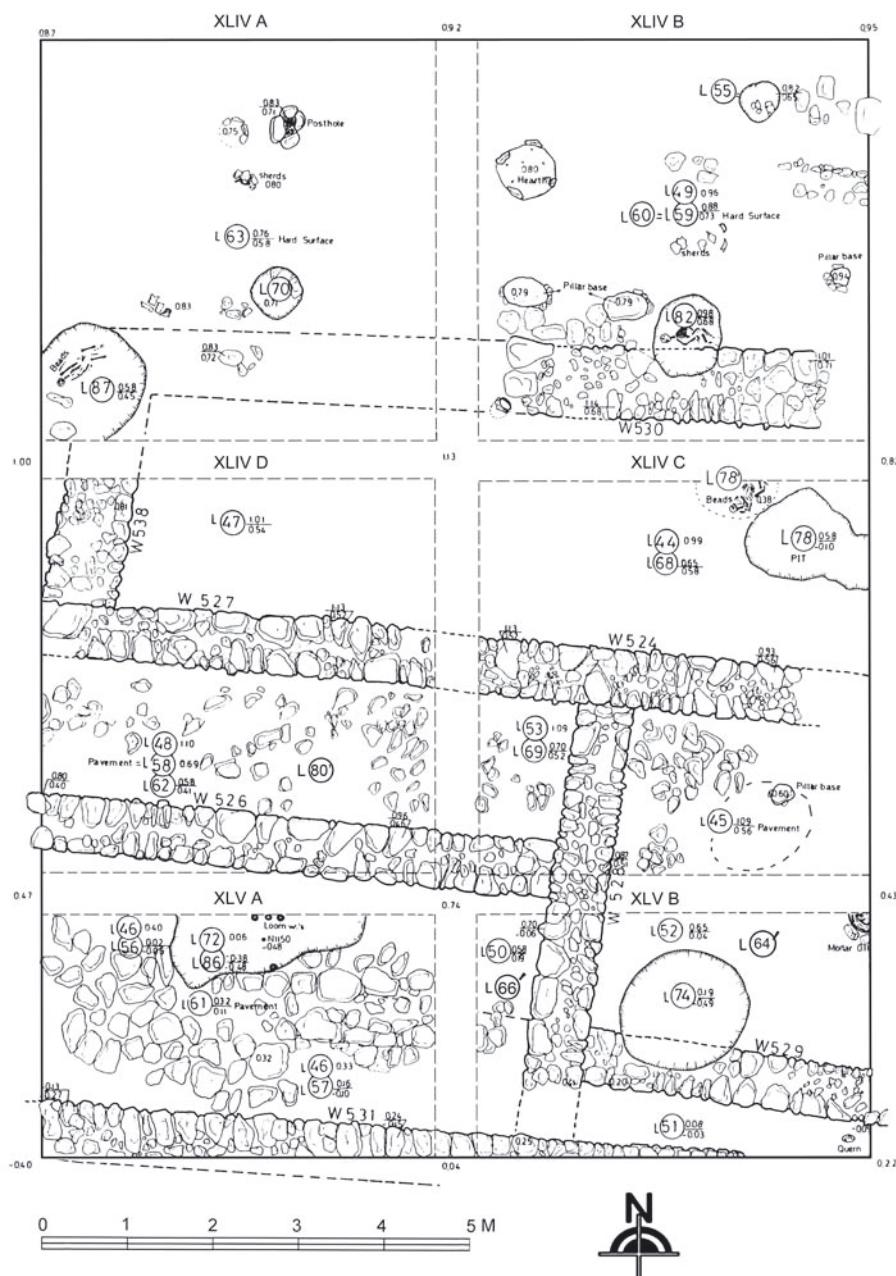


Fig. 383 Plan of Phases XIV/XV, Area 10 East

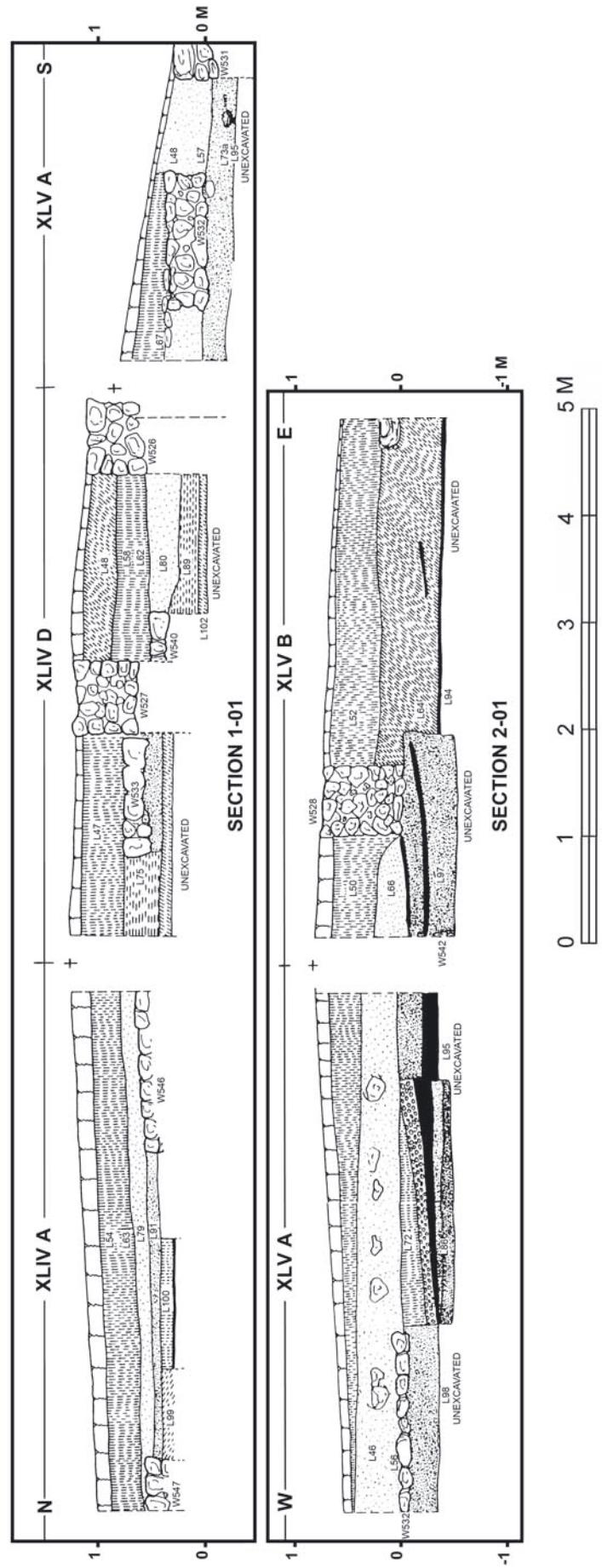


Fig. 384 Sections 1-01 and 2-01. Area 10 East, east section Trenches XLVA, XLV D and XLV B and north section Trenches XLVA and B



Fig. 385 Area 10 East looking west

graves had disturbed the stone constructions and floors (L87, 70, 55, 82, 78, 78', 72/86, 74). The shallow pit graves for infants (L78', 82, 87) are from Islamic times (see below). In a room to the south-east, a mortar and a quern were found lying on a stone foundation.

Interpretation of the material evidence

The functions of the rooms are difficult to assess. Considering the strategic position of this portion it is not impossible that the area was used for military lodging.

Although the three pit graves are much later than the Iron Age they will briefly be discussed. The burials are simple, shallow pit tombs, less than 1.2 m and only approximately 0.5 m deep. All three skeletons were placed on their right side, in a slightly foetal position. Their heads were turned to the west facing south-south-east, and their feet to the east. In one case, the hand had been placed on the left side of the cranium. According to a study of their teeth, all three children died at the age of 2 or 3. There are – unexpectedly – “tomb gifts” or, better expressed, the personal belongings of the children in the shape of necklaces of various beads still in situ around their necks (FISCHER 2005). The necklace of the infant in L78 consists of 18

beads including five molluscs of three different species, all of which derive from the Red Sea (and not from the closer Mediterranean):⁶³ three cowries (*Cypraea moneta*), one striped engina (*Engina mendicaria*) and one stromb (*Strombus decorus persicus*). Two beads of a yet unidentified material seem to be carved and resemble closed sacks. One bead was a circular carnelian bead. Finally we have ten beads, all of them very likely of man-made silicates (glass/faience/frit), of different colours. Some are black-mottled, others are yellowish-white and light green. They are mostly cylindrical in shape. The necklace of the infant L87 consists of 25 beads. These comprise eight cowries (*Cypraea moneta*) from the Red Sea, six circular carnelian beads and eleven beads of silicates of greenish-white and matt green colours resembling serpentine. There were no finds from the third grave.

With the exception of a few body sherds, mainly from post-Iron Age periods, the tombs contained no diagnostic sherds. Nevertheless, several characteristics indicate that the burials are Islamic. Firstly, the fact that all three children were oriented towards the west and facing south-southeast which is the bearing towards Mecca. Secondly, the absence of burial gifts is an Islamic feature. The necklaces cannot be regarded as actual grave gifts but must rather be understood as

⁶³ Classification by D. Reese for which I am most grateful.

Wall No.	Width (m)	Height (m)	No. of courses		Mudbrick dimensions (m)	Remarks
			stone	mudbrick		
524	0.6-0.7	0.6	3			
526	0.6-0.7	0.5	2			
527	0.6-0.7	0.6	3			
528	0.6	0.5-0.6	2-3			
529	0.6	0.3	1			
530	0.8	0.3-0.4	2			
531	?	0.4	2			LB, reused
538	0.8	0.4	2			

Table 68 Description of the walls of Phases XIV/XV, Area 10 East

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	eon	post		
44	fill	42	-1 cp, -2 b, 1 b, 3 cp, 8 h, 4 ud		39	
45	stone pavement		9 ud		9	
46	fill	7	-1 cp, 3 b, 1 ja, 32 sj, 5 cp, 78 ud		31	
47	fill above hard surface	6	1 b, 4 ja, 2 h, 139 ud		65	
48	fill		3 ud		15	
49	fill	3	-1 b, 1 b, 21 cp, 204 ud		130	
50	hard surface	4	-2 cp, 1 sj, 3 cp, 1 h			
51	fill	9				
52	hard surface	1	-1 cp, 1 b, 2 k, 1 j, 1 jl, 1 cp, 42 ud		26	
53	fill		1 j, 1 bj, 1 cp, 52 ud		20	
55	pit, d. 0.5		9 ud		3	
56	hard surface	21	1 cb, 3 j, 1 sj, 1 ep, 19 ud		2	
57	hard surface	1	91 ud		17	
58	stone pavement		1 k, 2 ud		3	
59/60	hard surface	5	-1 cp, -2 k, 9 ud		7	
61	stone pavement	1	14 ud		4	
62	hard surface	76	1 tri, 2 h, 42 ud			
63	hard surface	4, 5	-1 ja, -2 ja, -3 b, -5 j, 2 k, 2 sj, 6 h, 1 cp, 1 lid, 3 water pipes, 167 ud		5	
64'	fill below surface	-1... -3	-4 b, 67 ud			lower portion
66'	fill below surface		-1 j-dt, -2 k, 33 ud			lower portion
68	hard surface	6	1 b, 1 j, 25 ud		8	
69	hard surface	3	1 cp		9	
72	pit, irregular shape, upper part				N1150	
74	pit, d. 1.4					
78	pit, d. 1.0		-1 cp, -2 cp, -3 cp, 2 b, 4 ja, 1 dec, 1 l, 8 cp, 5 h, 176 ud			
80'	fill		-2 b, 18 ud			lower portion
86	pit, irregular shape, lower part					
W529	inside wall				N1151	
W531	inside wall		-1 cp, 1 ja, 2 ud	-2		

Table 69 Description of the loci of Phases XIV/XV, Area 10 East

personal belongings of the infants. Thirdly, some of the few sherds surrounding the pits are of Islamic date, and it should be remembered that it is customary for Bedouins to bury their members on the summit of tells. In conclusion, burial customs and pottery make it likely that the infant burials belong to the Abbasid period, probably from the first half of the 9th century CE.

Legend for the illustrated pottery from Phase XIV, Area 10 East

Fig. Locus No. Description

- 386:1 80' -2 Bowl, hard-fired, light brown fabric, coarse, grey inclusions, yellow slip, traces of red paint on rim.
- 386:2 64' -4 Bowl, hard-fired, greyish-brown fabric, coarse, multicoloured inclusions, light yellowish-brown slip, traces of red paint on rim.
- 386:3 66' -2 Krater, hard-fired, reddish-brown fabric, medium-coarse, brownish-orange slip, traces of red wash exterior; neck ridge.
- 386:4 66' -1 Jug-decanter, hard-fired, greyish-brown fabric, coarse, mainly white inclusions, red slip; neck ridge.

- 386:5 W531 -1 Cooking pot, hard-fired, brown fabric, light brown core, coarse, white inclusions, self slip.

Legend for the illustrated pottery and other finds from Phase XV, Area 10 East

Fig. Locus No. Description

- 387:1 44 -2 Bowl, hard-fired, brownish-red fabric, medium-coarse, multicoloured inclusions, self slip exterior; red wash on rim and interior.
- 387:2 49 -1 Bowl, medium-hard-fired, yellowish-brown fabric, medium-fine, multicoloured inclusions, red slip.
- 387:3 60 -2 Krater, hard-fired, light brown fabric, coarse, grey inclusions, yellowish-orange slip, red paint on rim.
- 387:4 63 -2 Jar (?), hard-fired, light brown fabric, coarse, mainly grey inclusions, light orange slip.
- 387:5 63 -1 Jar, very hard-fired, dark brown fabric, coarse, light pinkish-brown slip; neck ridge.
- 387:6 63 -3 Bowl, body sherd, hard-fired, light brown fabric, fine, light yellowish-brown slip, black and red decoration.

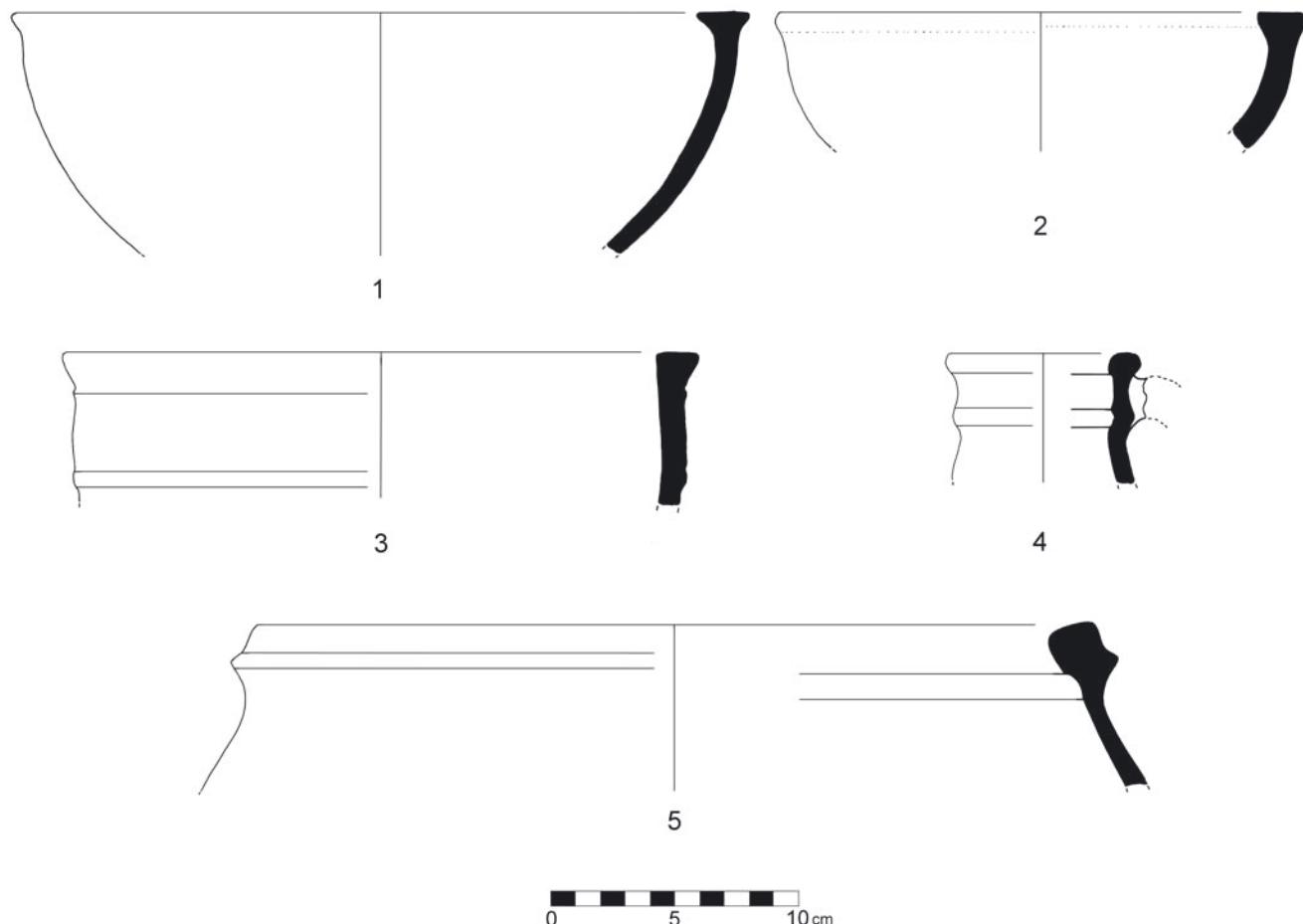


Fig. 386 Pottery from Phase XIV, Area 10 East

- 387:7 63 -5 Jug, hard-fired, red fabric, thick grey core, medium-fine, thick yellow slip, red decoration exterior.
 387:8 72 N1150 Spindle whorl, green stone (serpentine?), Wt 30 g.
 387:9 W529 N1151 Spindle whorl (?), limestone, Wt 20 g.

Legend for the illustrated pottery from Phase XV,
 Area 10 East

- Fig. Locus No. Description
 388:1 78 -3 Cooking pot, hard-fired, brown fabric, grey core, coarse, mainly quartzite inclusions, self slip.

- 388:2 60 -1 Cooking pot, hard-fired, greyish-brown fabric, coarse, white inclusions, self slip.
 388:3 50 -2 Cooking pot, hard-fired, light red fabric, coarse, white inclusions, self slip.
 388:4 46 -1 Cooking pot, hard-fired, greyish-brown fabric, coarse, white inclusions, self slip.
 388:5 52 -1 Cooking pot, hard-fired, greyish-brown fabric, coarse, white inclusions, self slip.
 388:6 44 -1 Cooking pot, hard-fired, brown fabric, grey core, coarse, self slip.
 388:7 78 -2 Cooking pot, hard-fired, brown fabric, light brown core, coarse, self slip.
 388:8 78 -1 Cooking pot, hard-fired, brown fabric, thick grey core, coarse, self slip.

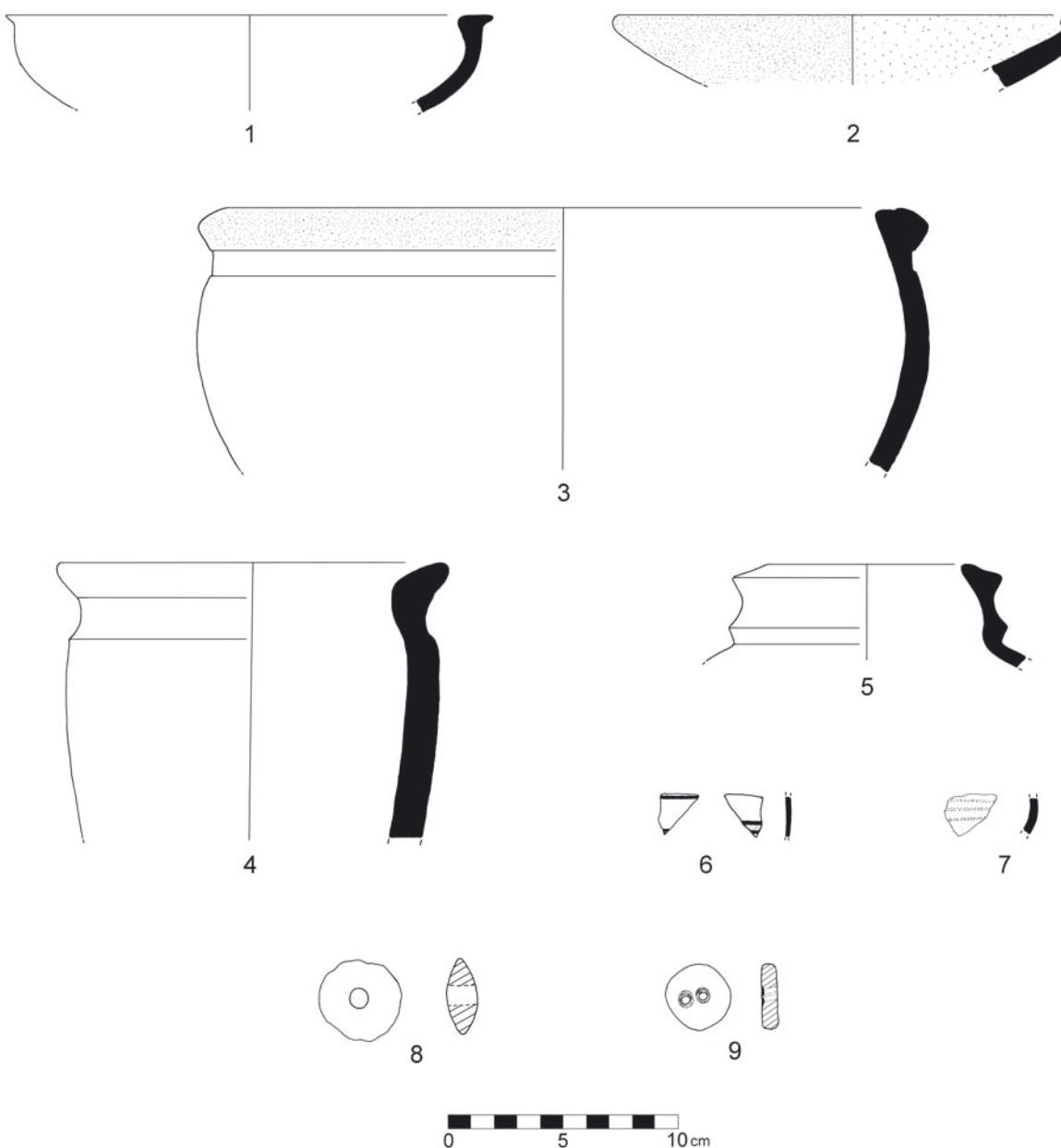


Fig. 387 Pottery and other finds from Phase XV, Area 10 East

Locus No.	Description (m)	Pottery			Other finds	Comments
		pre	con	post		
78'	pit burial	14		14	beads	Islamic pit tomb
82	pit burial		4 ud			Islamic pit tomb
87	pit burial				beads	Islamic pit tomb

Table 70 Description of the Islamic pit burials, Area 10 East

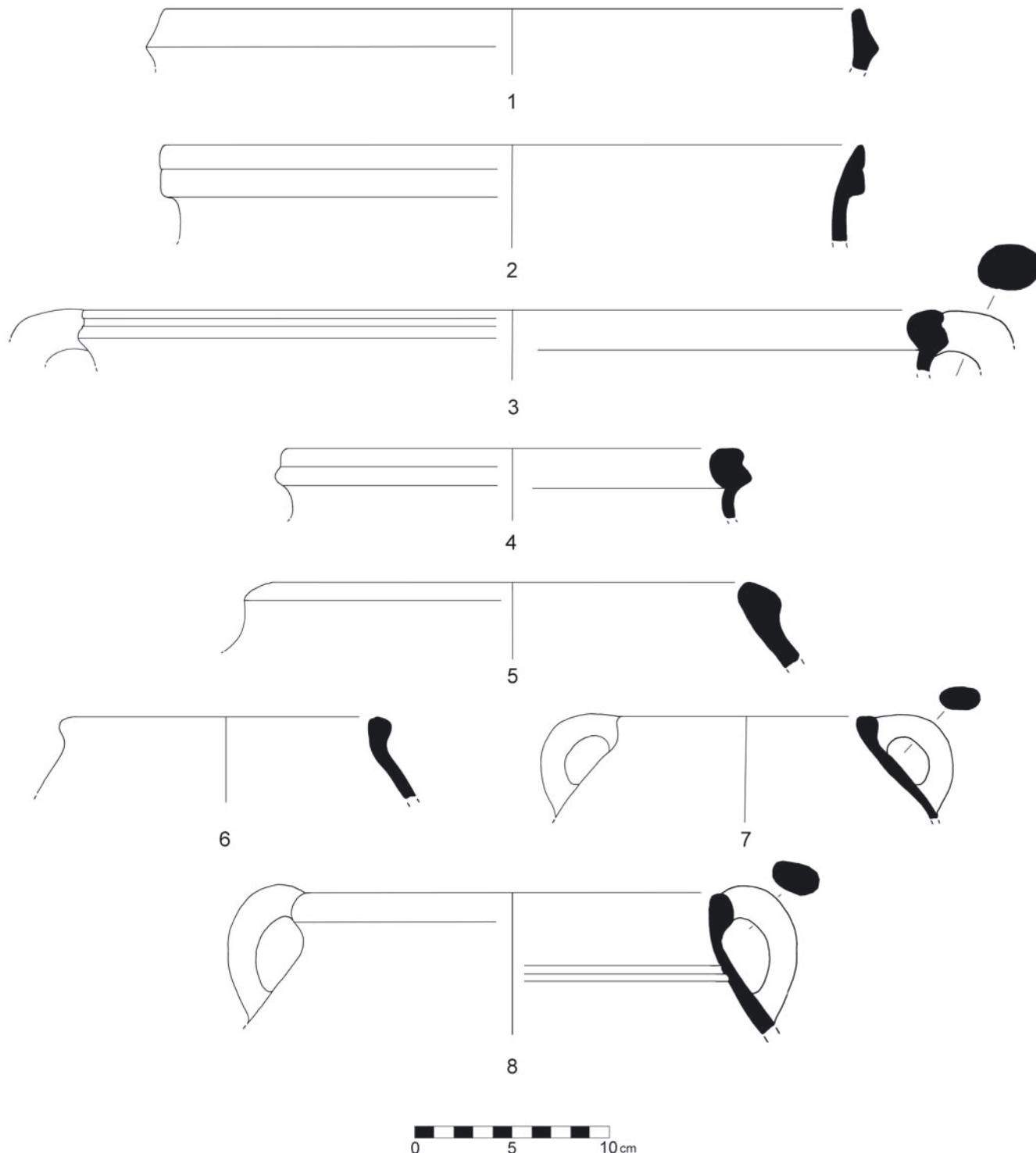


Fig. 388 Pottery from Phase XV, Area 10 East

CHAPTER 3 THE POTTERY: TYPO-CHRONOLOGICAL CONCLUSIONS

Peter M. Fischer

Introduction

The typo-chronological discussion is mainly based on vessel shapes as discussed in the previous volumes on the Early to Late Bronze Ages of Tell Abu al-Kharaz (FISCHER 2006a; 2008a). It has been demonstrated in the material from Tell Abu al-Kharaz (and nearby sites)⁶⁴ that the typological series based on shapes demonstrated a clear superiority over the typological series based on fabrics for the defining of chronologically distinct assemblages.

The vessel types are grouped according to their general shapes and assumed functions.⁶⁵ The following order of description has been used: bowls (rounded, straight-sided and carinated), incense cups, tripod bowls, chalices, goblets, kraters,⁶⁶ juglets,⁶⁷ jugs⁶⁸ and pilgrim flasks,⁶⁹ jars and storage jars,⁷⁰ lamps, pyxides,⁷¹ and cooking pots.⁷² Vessels were produced on a fast wheel, unless otherwise stated in the discussion.

The diachronic development of the vessels from Phase IX to Phase XV⁷³ will be described phase-wise, except for the types of which only a few are recorded, and general traits and certain distinctions will be highlighted.⁷⁴ Only a few references to other sites will be given in this chapter as there will be a more thor-

ough discussion in the last chapter where more parallels will be considered. Another reason to restrict the number of references in this chapter is to allow the material from Tell Abu al-Kharaz to be presented as objectively as possible, uninfluenced by typologies from related sites.

The information on fabric (colour, hardness/firing temperature, possible cores etc.), surface treatment, decoration and additional details such as the size and the colour of the inclusions⁷⁵ can be found in the descriptions of the individual vessels which are associated with specific loci and phases (see Chapter 2). The figure numbers in brackets in the headings of each figure refer to Chapter 2 where the vessels and their context are described in detail. The volumes which are recorded in the text to the figures are in litres. Figures in italics are reconstructed volumes of incomplete vessels. The statistics can be studied in Tables 71–74.

Statistics of vessel shapes

It is important to understand the recording system which is used at Tell Abu al-Kharaz and the divisions between Find Classes 1 to 4 correctly in order to interpret accurately the next tables on statistics. A short

⁶⁴ See e.g. Pella in BOURKE *et al.* 2006: 30.

⁶⁵ The majority of the vessels are produced on a wheel. There are nevertheless vessels which were thrown on a slow wheel and finished on a turntable. Consequently hand-made vessels are extremely rare. Hand-made or mould-made examples are mentioned in the text whenever they occur. All others are wheel-made.

⁶⁶ This group of vessels also includes vessels with a hole-mouth.

⁶⁷ Juglets are usually distinguished from jugs by their lower height, which is defined in this publication as below 20 cm. There are of course hybrids. Black Juglets form a separate group.

⁶⁸ Jugs include spouted jugs, jugs with false spouts and jugs with built-in sieves.

⁶⁹ The term pilgrim flask is used when the body of the vessel is manufactured from two wheel-made halves.

⁷⁰ The size of a vessel defines to which group it belongs. Subjective criteria are used.

⁷¹ The designation of such a vessel as “pyxis” does not correspond to that of similar vessel shapes from the Mycenaean sphere of culture, where they are termed “alabastra”. Nev-

ertheless, the term “pyxis/pyxides” for our vessel shapes is widely used in the Levant. It is therefore kept in order to follow conventional Levantine terminology (contra FISCHER 1997f: 24, note 41).

⁷² There are of course hybrids, and the assignation of certain vessel types to the previously defined group of vessels is based on subjective criteria.

⁷³ Phase IX is restricted to Area 9. It was sometimes difficult to distinguish Phase XIV from Phase XV contexts. Phase XV, obviously of short duration, produced only a small number of vessels: this phase will be treated together with Phase XIV.

⁷⁴ For the definition of the terms which are used in the description of the vessel types see the chapters on the pottery in FISCHER 2006a, 2008a; cf. ANDERSON 1988: 453–462.

⁷⁵ Speculations on the nature of the inclusions based only on visual examination are avoided because it is the author’s belief that only petrographic or micro-analytical analyses can provide the correct information. The results of the petrographic analysis will be presented in a forthcoming publication.

repetition of the properties of the four find classes which are presented in detail in Chapter 1 follows:

Find Class 1 are usually complete or almost complete objects, which means that there is no doubt about the vessel shape to which they belong.

Find Class 2 are all diagnostic sherds and/or restored vessels of major importance. There are rarely any doubts about the vessel shape to which they belong.

Find Class 3 are sherds which can often but not always provide the shape of a vessel, sherds with pot marks or decoration.

Find Class 4 are non-diagnostic sherds, viz. body sherds of undefined vessel shapes, and sherds without decoration.

Consequently, there are rarely any doubts concerning the group of vessels to which finds from Find Classes 1 and 2 belong. Sherds from Find Class 3 are sometimes difficult to associate with defined vessel shapes. A single sherd, for instance, may be part of a rounded or carinated bowl or a goblet, another sherd part of a krater or a jar etc. Accordingly, a reliable classification is impossible as regards sherds belonging to Find Class 4. These circumstances are mirrored in Tables 71–73.

There are 1109 sherds in total in Table 71A (Find Classes 1 and 2) and 10516 sherds in Table 72A (Find Classes 1–3). Leaving aside the logical differences in the total numbers there are obvious differences in the statistics of the classified vessels. For example, the percentage of rounded / carinated bowls is almost identical in both tables (18.8 % Classes 1 and 2, and 17.9 % Classes 1–3), but, there are differences in the distribution between the two vessel groups: 11.2 % / 7.7 % (Classes 1 and 2) and 15.9 % / 2.0 % (Classes 1–3). It had been said before that these differences depend on the possibility of misreading Class 3 sherds, which in the case of bowls is obvious: numerous sherds deriving from carinated bowls do not differ from those from rounded/straight-sided bowls. In many cases only the rim, in addition to the carinated part itself, is of diagnostic significance.

Similar figures can be seen in the distribution of kraters, 17.7 % Classes 1 and 2, and 14.0 % Classes 1–3; jugs, 7.5 % and 15.7 % respectively; and storage jars, 7.8 % and 23.3 %. These differences can be sufficiently explained by reading non-indicative vessel parts of Class 3 in a different way. The figures for the cooking vessels may appear more surprising because

cooking pot sherds are usually amongst the easiest to classify: 21.8 % Classes 1 and 2, and 14.3 % Classes 1–3. One explanation for the diverging numbers is that cooking-pot rims are amongst the most important chronological indicators, maybe representing the most important vessel group for relative dating. They are therefore more often classified as belonging to Classes 1 and 2 than sherds from other groups of vessels.

Apart from the fact that Tables 73A and B (all find classes) demonstrate the total number of excavated sherds from Iron Age contexts, namely 92059, its value in the typological discussion must be questioned, and this is – although to a lesser degree – also true of Table 72A. In consequence only Table 71A (Classes 1 and 2) will be considered in the discussion on the statistics (cf. the differences in Tables 71B and 72B). It should therefore be kept in mind that the numbers/percentage of specific vessels in Table 71A merely reflect all reliable classifications and not the total number of Iron Age shapes from the site.

BOWLS: ROUNDED AND CARINATED (Figs. 389, 390:1–5, 391–395)

General observations

Rounded and carinated bowls are the second most common type of vessels in the Iron Age assemblage. Clear diagnostic shapes of both groups – 124 / 11.2 % in the former and 85 / 7.7 % in the latter⁷⁶ – together comprise 209 diagnostic vessels/sherds from all phases (18.8 % of all shapes).

This type of vessel was used as a platter or bowl for preparing, serving and drinking/eating liquids/food-stuffs. The rim diameters vary between roughly 10 cm and 35 cm (except for the two hand-made miniature bowls from Phase IX, see Figs. 390:1 and 2). The general profile of the first group is most often convex or, less frequently, straight. The position of the carination varies in the second group, with no clear preference, from high to medium and low. The majority of the bowls show self-slip but they are occasionally also red-slipped on the interior and/or exterior, and a few are burnished. There are also those which are decorated with red bands below the rim on the exterior.

The majority of the vessels are locally produced Canaanite types. There are, nevertheless, shapes which resemble Egyptian types but all of these are manufactured from local clays (see discussion below). This should not come as a surprise since the nearby

⁷⁶ Numbers / % within each phase. All reconstructable volumes are compiled at the end of this chapter under the heading “Volumes”.

Phases	IX		X		XI		XII		XIII		XIV		XV		XIV or XV		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Vessel shapes																		
Bowls, rounded	18	9.0	15	17.4	10	6.9	24	14.5	19	11.9	29	9.6	1	14.3	8	17.8	124	11.2
Bowls, carinated	6	3.0	6	7.0	19	13.2	17	10.3	12	7.5	22	7.3	0	0	3	6.7	85	7.7
Incense cups	0	0	0	0	0	0	2	1.2	0	0	2	0.7	0	0	0	0	4	0.4
Mugs	0	0	0	0	0	0	2	1.2	0	0	0	0	0	0	0	0	2	0.2
Tripod bowls	0	0	0	0	0	0	1	0.6	2	1.3	1	0.3	0	0	0	0	4	0.4
Chalices	3	1.5	2	2.3	0	0	1	0.6	0	0	3	1.0	0	0	0	0	9	0.8
Goblets	4	2.0	1	1.2	0	0	0	0	0	0	0	0	0	0	0	0	5	0.5
Kraters	24	11.9	13	15.1	34	23.6	27	16.4	33	20.6	60	19.9	2	28.6	3	6.7	196	17.7
Hole-mouth vessels	0	0	0	0	1	0.7	4	2.4	0	0	2	0.7	0	0	0	0	7	0.6
Juglets	12	6.0	2	2.3	2	1.4	15	9.0	16	10	40	13.3	3	42.9	0	0	90	8.1
Jugs	26	12.9	4	4.7	11	7.6	16	9.7	10	6.3	15	5.0	0	0	1	2.2	83	7.5
Strainer-jugs	1	0.5	0	0	0	0	0	0	1	0.6	0	0	0	0	2	4.4	4	0.4
Decanters	0	0	0	0	4	2.8	1	0.6	1	0.6	10	3.3	0	0	1	2.2	17	1.5
Pilgrim flasks	6	3.0	1	1.2	1	0.7	1	0.6	1	0.6	2	0.7	0	0	0	0	12	1.1
Jars	22	10.9	11	12.8	12	8.3	4	2.4	7	4.4	33	10.9	0	0	7	15.6	96	8.7
Storage jars	24	11.9	3	3.5	6	4.2	11	6.7	22	13.8	19	6.3	0	0	1	2.2	86	7.8
Pyxides	8	4.0	0	0	1	0.7	0	0	0	0	0	0	0	0	0	0	9	0.8
Lamps	5	2.5	1	1.2	2	1.4	1	0.6	4	2.5	7	2.3	0	0	0	0	20	1.8
Cooking pots	30	14.9	26	30.2	40	27.8	35	21.2	30	18.8	51	16.9	1	14.3	19	42.2	232	20.9
Cooking jugs	9	4.5	1	1.2	0	0	0	0	0	0	0	0	0	0	0	0	10	0.9
Lids	1	0.5	0	0	0	0	0	0	1	0.6	1	0.3	0	0	0	0	3	0.3
Rhyta	0	0	0	0	1	0.7	0	0	1	0.6	3	1.0	0	0	0	0	5	0.5
Frying pan	1	0.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.1
Stands	1	0.5	0	0	0	0	1	0.6	0	0	1	0.3	0	0	0	0	3	0.3
Basins/troughs	0	0	0	0	0	0	2	1.2	0	0	0	0	0	0	0	0	2	0.2
Total diagnostic shapes	201	100	86	100	144	100	165	100	160	100	301	100	7	100	45	100	1109	100

Table 71A Distribution of vessel shapes between Phases (Find Classes 1 and 2)

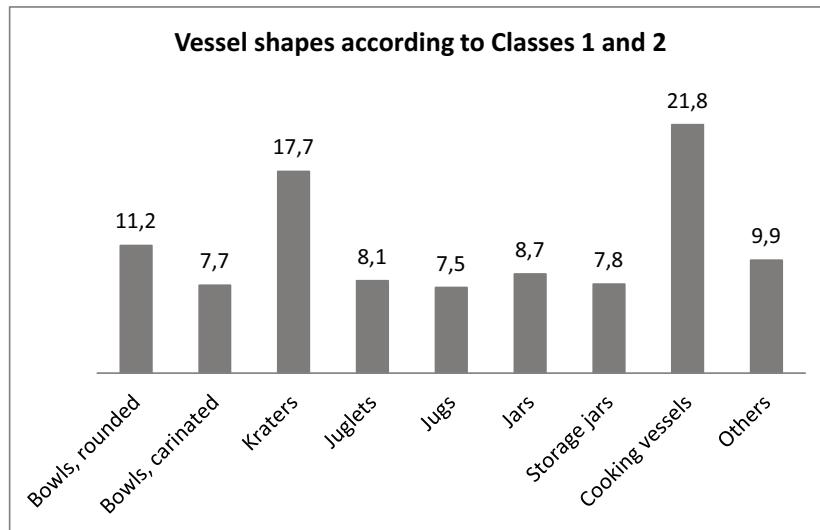


Table 71B Distribution of vessel shapes in all phases according to Find Classes 1 and 2

Phases	IX		X		XI		XII		XIII		XIV		XV		XIV or XV		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Vessel shapes																		
Bowls, rounded	174	11.5	97	14.0	144	16.0	518	22.7	241	14.2	442	14.7	7	11.9	54	15.2	1677	15.9
Bowls, carinated	9	0.6	16	2.3	25	2.8	40	1.8	37	2.2	72	2.4	0	0	7	2.0	206	2.0
Incense cups	0	0	0	0	0	0	2	0.1	0	0	2	0.1	0	0	0	0	4	<0.1
Mugs	0	0	0	0	0	0	2	0.1	0	0	0	0	0	0	0	0	2	<0.1
Tripod bowls	0	0	0	0	0	0	7	0.3	11	0.6	6	0.2	0	0	1	0.3	25	0.2
Chalices	9	0.6	7	1.0	2	0.2	5	0.2	1	0.1	4	0.1	0	0	1	0.3	29	0.3
Goblets	5	0.3	1	0.1	0	0	2	0.1	2	0.1	4	0.1	0	0	0	0	14	0.1
Kraters	211	13.9	88	12.7	179	19.9	264	11.6	268	15.7	421	14.0	9	15.3	28	7.9	1468	14.0
Hole-mouth vessels	3	0.2	1	0.1	4	0.4	15	0.7	4	0.2	4	0.1	1	1.7	1	0.3	33	0.3
Juglets	76	5.0	22	3.2	43	4.8	117	5.1	86	5.1	129	4.3	5	8.5	10	2.8	488	4.6
Jugs	364	24.0	137	19.8	132	14.7	297	13.0	241	14.2	451	15.0	4	6.8	23	6.5	1649	15.7
Strainer-jugs	3	0.2	0	0	1	0.1	4	0.2	2	0.1	0	0	3	5.1	2	0.6	15	0.1
Decanters	0	0	2	0.3	8	0.9	7	0.3	9	0.5	14	0.5	2	3.4	1	0.3	43	0.4
Pilgrim flasks	6	0.4	1	0.1	8	0.9	5	0.2	2	0.1	4	0.1	0	0	0	0	26	0.2
Jars	170	11.2	66	9.5	97	10.8	115	5.1	117	6.9	150	5.0	9	15.3	24	6.7	748	7.1
Storage jars	299	19.7	138	19.9	102	11.4	490	21.5	419	24.6	894	29.6	2	3.4	109	30.6	2453	23.3
Pyxides	10	0.7	2	0.3	3	0.3	0	0	0	0	0	0	0	0	0	0	15	0.1
Lamps	17	1.1	9	1.3	9	1.0	19	0.8	10	0.6	22	0.7	0	0	1	0.3	87	0.8
Cooking pots	147	9.7	103	14.9	137	15.3	363	15.9	249	14.6	392	13.0	17	28.8	88	24.7	1496	14.2
Cooking jugs	8	0.5	3	0.4	0	0	0	0	0	0	0	0	0	0	0	0	11	0.1
Lids	1	0.1	0	0	1	0.1	1	<0.1	2	0.1	1	<0.1	0	0	2	0.6	8	0.1
Rhyta	0	0	0	0	1	0.1	0	0	1	0.1	3	0.1	0	0	0	0	5	<0.1
Cult vessels	1	0.1	0	0	1	0.1	1	<0.1	0	0	1	<0.1	0	0	0	0	4	<0.1
Frying pan	1	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	<0.1
Stands	1	0.1	0	0	0	0	1	<0.1	0	0	0	0	0	0	1	0.3	3	<0.1
Basins/troughs	0	0	0	0	0	0	2	0.1	0	0	0	0	0	0	0	0	2	<0.1
Funnel	0	0	0	0	1	0.1	0	0	0	0	0	0	0	0	0	0	1	<0.1
Water pipes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0.8	<0.1
Total diagnostic shapes	1515	100	693	100	898	100	2277	100	1702	100	3016	100	59	100	356	100	10516	100

Table 72A Distribution of vessel shapes between Phases (Find Classes 1–3)

Beth-Shean produced Egyptian-style bowls in Area N Strata 4–3a (13th–12th cent. BCE according to MAZAR 2009a: 13, table 1.2; see also PANITZ-COHEN 2009: 202–203, and MARTIN 2009: 434–477). Phase IX also produced a number of vessels with affinities with Philistine pottery.

Phase IX (rounded bowls 18 / 9.0 %, carinated bowls 6 / 3.0 %; Figs. 389 and 390:1–5)⁷⁷

The limited number of bowls are all from Area 9 East because only this area provides secure Phase IX contexts. The bowls show traits which resemble the pottery from the outgoing Late Bronze Age assemblage of Phases VIII/VII (Figs. 389:3 and 8; cf. FISCHER 2006a: 217, fig. 255 lower) but other shapes are not at home in the Late Bronze Age tradition. Three of our Phase IX bowls resemble Egyptian types, for

⁷⁷ The figure numbers in brackets in the captions of each figure refer to Chapter 2 where the vessels and their context are described in detail.

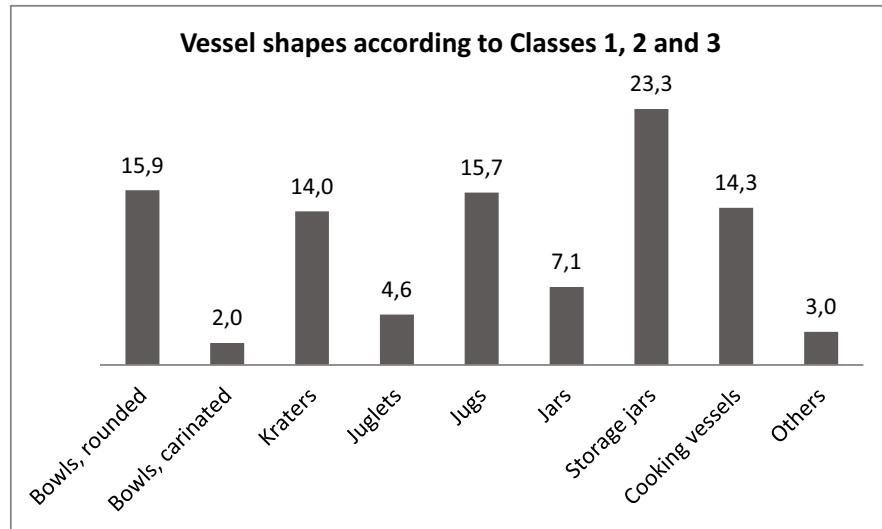


Table 72B Distribution of vessel shapes in all phases according to Find Classes 1, 2 and 3

	Diagnostic		Handles	Undiagnostic, decorated	Undiagnostic, undecorated	Total		
	No.							
	Classes 1 and 2	Class 3	Class 4			Classes 1-4		
Phase IX	201	1314	0	0	22399	23914 / 26.0		
Phase X	86	607	0	0	5463	6156 / 6.7		
Phase XI	144	754	17	12	7597	8524 / 9.3		
Phase XII	165	2112	39	35	15938	18289 / 19.9		
Phase XIII	160	1542	10	7	8786	10505 / 11.4		
Phase XIV	301	2715	46	24	18470	21556 / 23.4		
Phase XV	7	52	0	3	147	209 / 0.2		
Phase XIV or XV (Area 10)	45	311	36	5	2509	2906 / 3.2		
Total	1109	9407	148	86	81309	92059 / 100		
Total of Classes 1, 2 and 3	10516							

Table 73A Distribution of vessels / sherds between Phases (Find Classes 1–4)

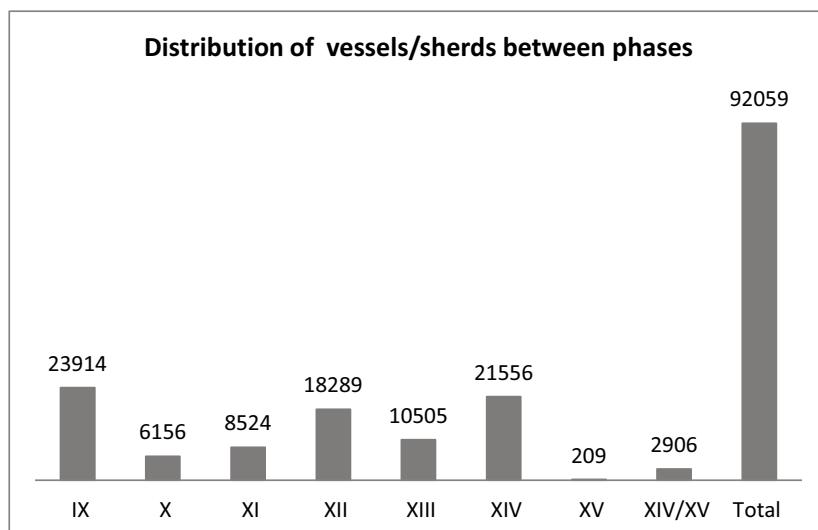


Table 73B Numbers of vessels / sherds in Phases IX–XIV (Find Classes 1–4)

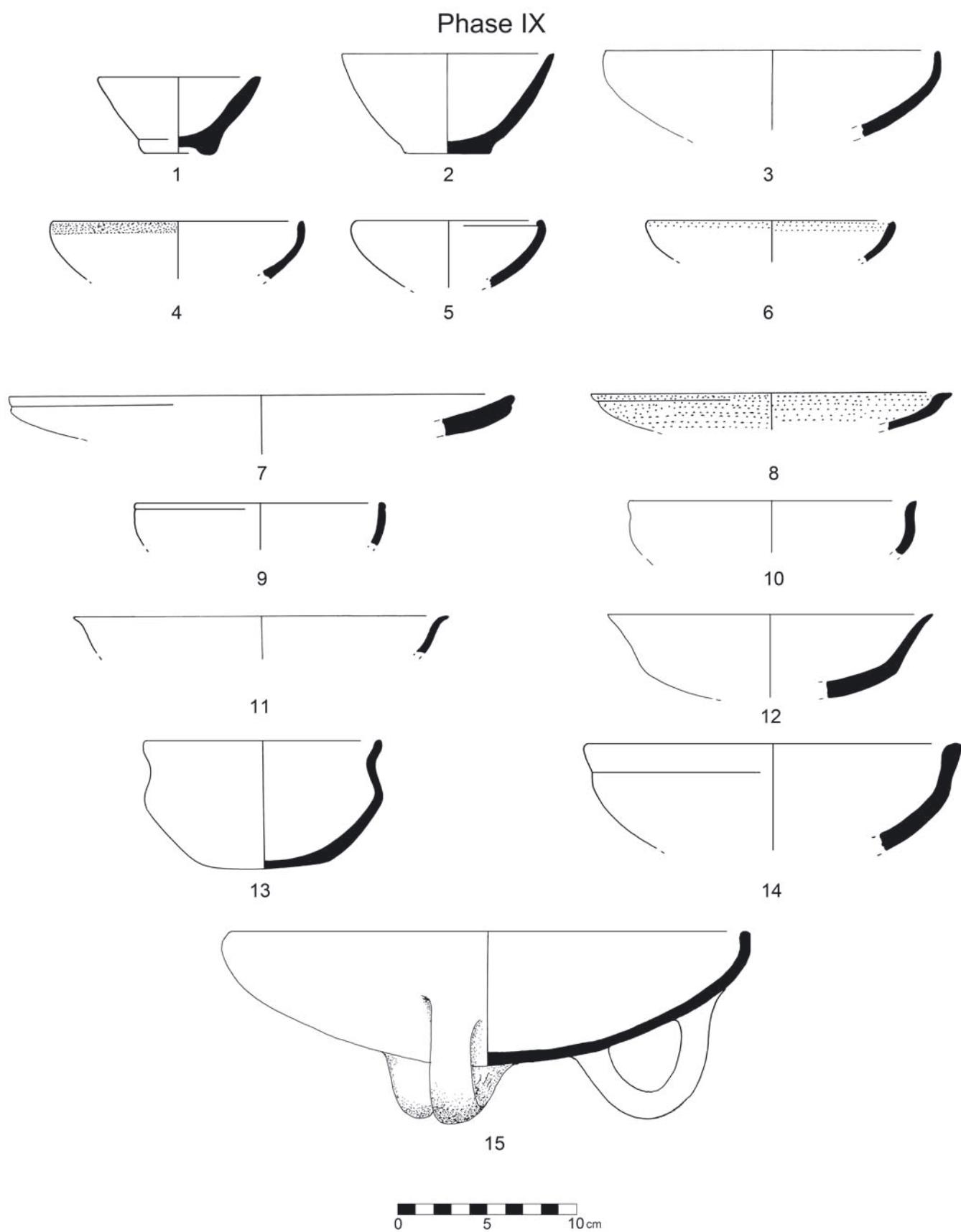


Fig. 389 Bowls and their volumes, Phase IX (in litres, reconstructed volumes of incomplete vessels in italics): 1 (280:2) = 0.08; 2 (280:1) = 0.25; 3 (280:7) = 0.85; 4 (280:6) = 0.41; 5 (280:4) = 0.19; 6 (280:5); 7 (280:9); 8 (280:10); 9 (280:8); 10 (280:11); 11 (280:13); 12 (280:14) = 0.55; 13 (280:15) = 0.57; 14 (280:16) = 1.29; 15 (280:17) = 2.69

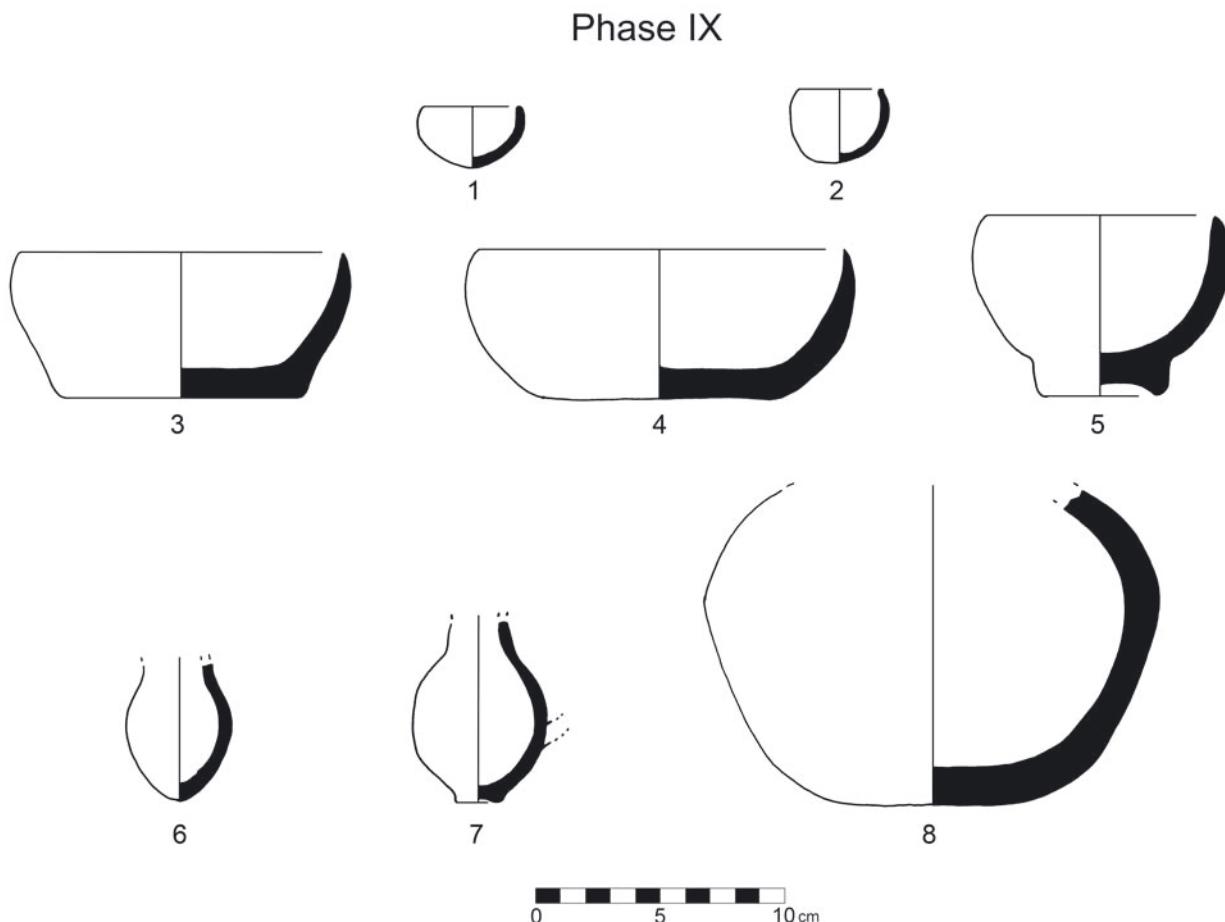


Fig. 390 Miniature/hand-made bowls, jug and juglets and their volumes, Phase IX: 1 (340:7) = 0.01; 2 (340:8) = 0.02; 3 (340:5) = 0.44; 4 (340:6) = 0.65; 5 (340:4) = 0.25; 6 (340:10) = 0.03; 7 (340:9) = 0.06; 8 (340:11)

instance, from Beth-Shean (Figs. 389:1, 4 and 7; cf. MARTIN 2009: 435, fig. 6.1, BL 70c, BL 74, CB).

A special case is represented by a bowl, 28.8 cm in diameter, standing on three loop-handles (Fig. 389:15). The use of three loop handles as a vessel support is a tradition which goes back to the Middle Bronze Age and experiences a revival in the Early Iron Age, where it is found, for instance, at Tell el-Far‘ah South (AMIRAN 1969: 198, Pl. 63:10) and Megiddo (FINKELSTEIN *et al.* 2000: 253, Fig. 11.6.11; see also ARIE 2006: 195; 280, Fig. 13.75.B17). Three loop handles as vessel support were found as late as in Phase XIV at Tell Abu al-Kharaz (see the krater in Fig. 407:2). Our so far unique vessel has a thick white slip which is exceptional in the Iron Age I assemblage at Tell Abu al-Kharaz. Although it is without painted decoration, there are certain traits which one may relate to Philistine pottery.

Several hand-made and in most cases very soft-fired bowls represent another, uncommon, group of

pottery (Figs. 390:1–5). Two of the bowls represent a special class of miniature vessels (see also the juglets in Figs. 390:6 and 7).

Phase X (rounded bowls 15 / 17.4 %, carinated bowls 6 / 7.0 %; Fig. 391)

The vessel shapes differ to some extent from the previous phase. The rims of the rounded and carinated bowls show more variations: there are in addition to simple rims also rims which are internally and/or externally thickened, which anticipate the later “T-rim” bowls (Figs. 391:1–3). One type of shallow, fairly large, bowl differs from the standard repertoire (Fig. 391:4): below an almost square rim profile is a ridge on which vestigial handles are applied just above a pronounced carination. A few of the carinated bowls show some resemblance to the tradition of the outgoing Late Bronze Age with flat bases or low ring-bases. They are occasionally red-slipped on both the exterior and interior.

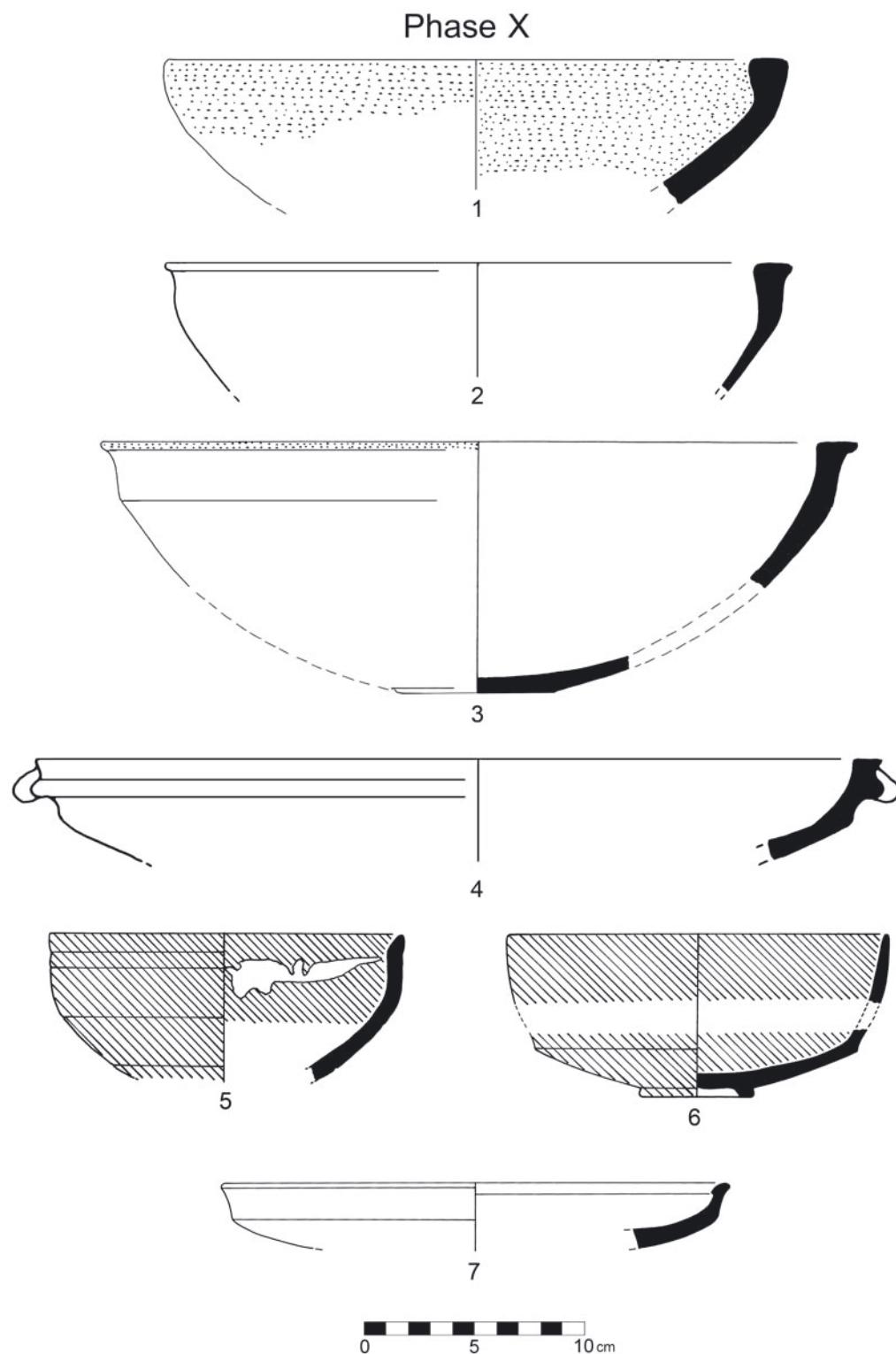


Fig. 391 Bowls and their volumes, Phase X: 1 (361:4); 2 (361:6); 3 (361:7) = 5.17; 4 (361:8); 5 (99:5) = 0.84; 6 (99:6) = 1.03; 7 (99:7)

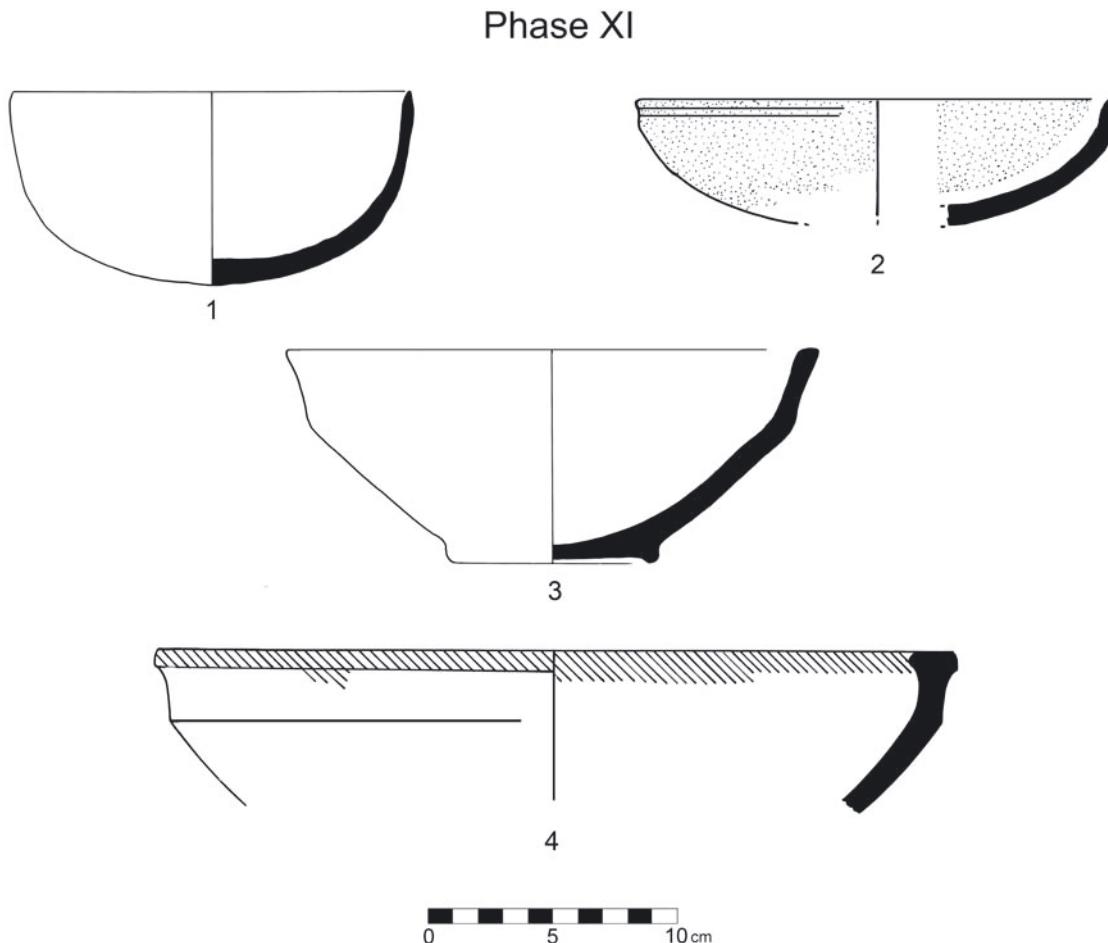


Fig. 392 Bowls and their volumes, Phase XI: 1 (242:1) = 0.92; 2 (242:3) = 0.77; 3 (370:3) = 1.33; 4 (122:1)

Phase XI (rounded bowls 10 / 6.9 %, carinated bowls 19 / 13.2 %; Fig. 392)

There are hemispherical bowls, and bowls with simple rims and a slight concavity just below the rim (Fig. 392:2). Bowls of T-rim type become more common (Fig. 392:4). The carinated bowls follow the earlier tradition. The bowls with rounded bottoms resemble Egyptian-style bowls (Fig. 392:1).

Phase XII (rounded bowls 24 / 14.5 %, carinated bowls 17 / 10.3 %; Fig. 393)

Hemispherical bowls with simple upright or incurved rims are common (Figs. 393:1 and 2). The T-rim bowl is now well established. Triangular rims are not uncommon. The plastic trumpet decoration, which forms a kind of second carination, appears in Phase XII on a carinated bowl (Fig. 393:12). Many bowls are red-slipped on the interior and/or exterior, sometimes only on the rim, and burnishing is rare.

The bowl in Figure 393:9 is different from the standard repertoire: in fact it very much resembles Egyptian-style bowls (cf. MARTIN 2009: 435, fig. 6.1, BL 74).

Phase XIII (rounded bowls 19 / 11.9 %, carinated bowls 12 / 7.5 %; Fig. 394:1–8)

There are only small differences compared to the previous phase. There is a bowl with an unusual rim (Fig. 394:6).

Phase XIV (rounded bowls 29 / 9.6 %, carinated bowls 22 / 7.3 %; Figs. 394:9–16; 395); *Phase XIV or XV* (rounded bowls 8 / 17.8 %, carinated bowls 3 / 6.7 %)

Differences in shape and general design compared with the previous phase are small. One of the most typical shapes in this phase is the painted, carinated bowl with a T-rim (Fig. 395:3). There are odd shapes in Figures 395:7 and 8, which are considered imports because of the fabric and overall design. No. 8 is especially interesting because it differs in most respects from the local ceramic repertoire: this bowl has an

Phase XII

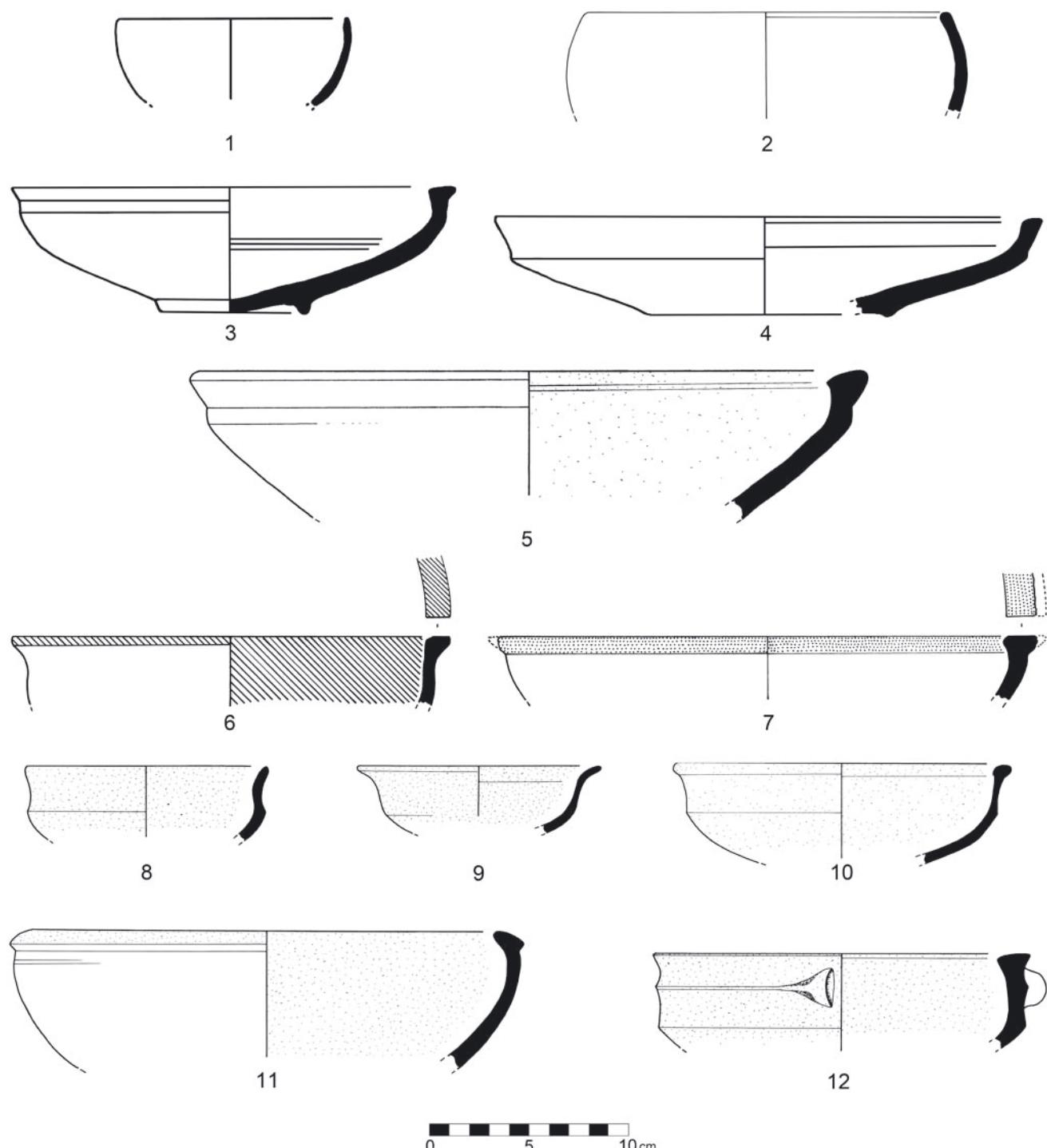
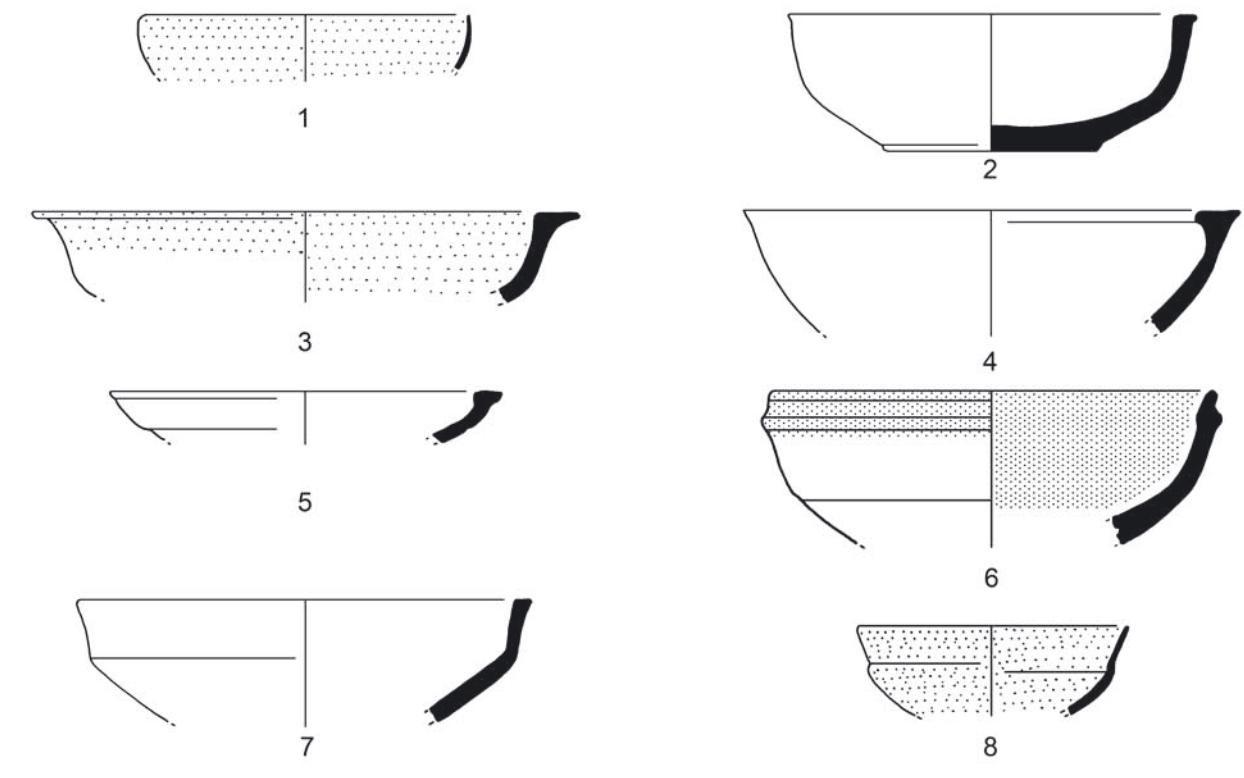
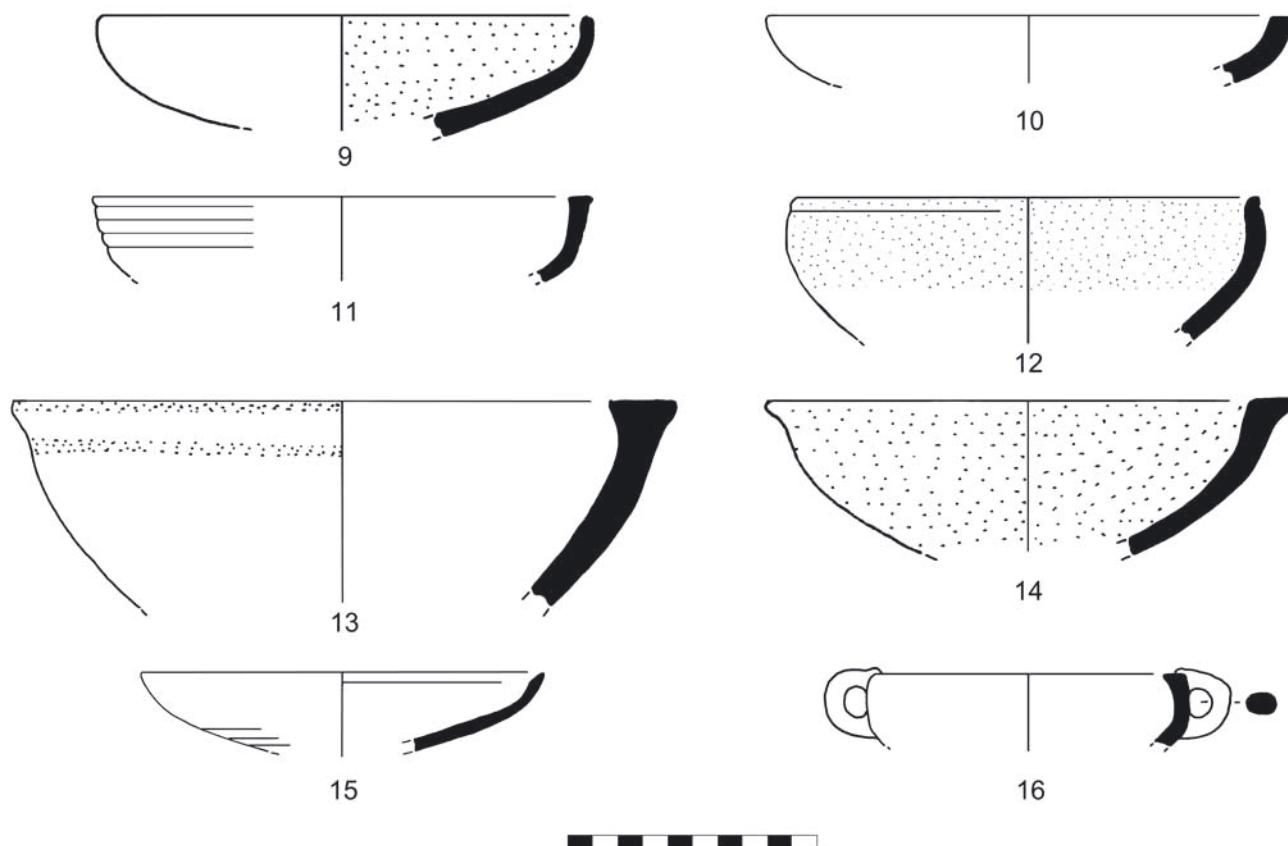


Fig. 393 Bowls and their volumes, Phase XII: 1 (149:1) = 0.39; 2 (245:1); 3 (149:7) = 1.10; 4 (149:6) = 1.42; 5 (21:10); 6 (64:1); 7 (64:2); 8 (21:2) = 0.35; 9 (21:3) = 0.20; 10 (21:4) = 0.69; 11 (21:8); 12 (21:7)

Phase XIII



Phase XIV



0 5 10 cm

Fig. 394 Bowls and their volumes, Phases XIII (1–8) and XIV (9–16): 1 (159:2); 2 (159:5) = 0.59; 3 (159:6); 4 (159:8); 5 (159:9); 6 (159:15); 7 (159:12); 8 (159:16) = 0.22; 9 (191:1) = 0.82; 10 (192:1); 11 (192:5); 12 (191:3); 13 (191:6); 14 (191:7) = 0.96; 15 (192:2) = 0.33; 16 (192:12)

Phase XIV

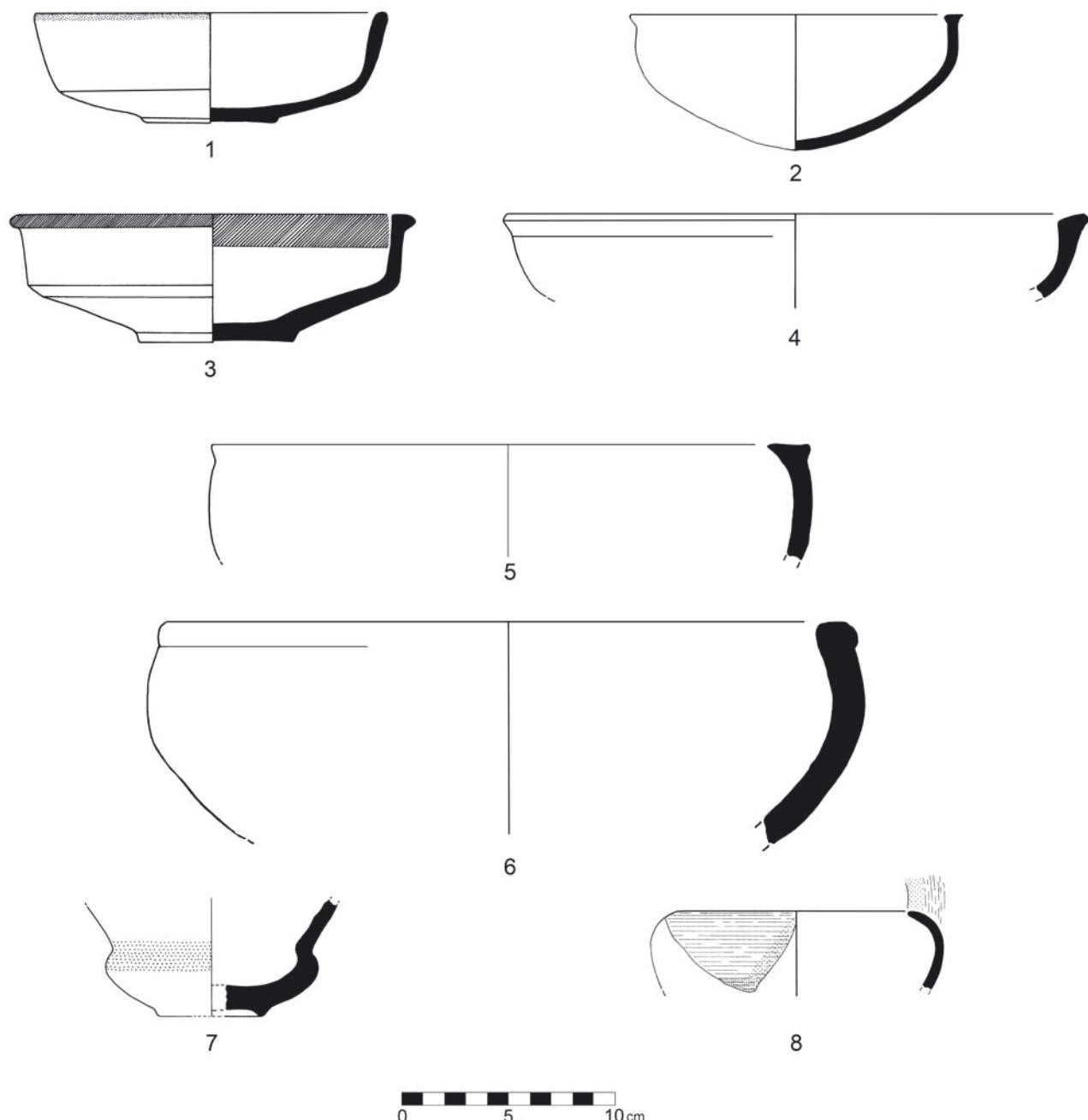


Fig. 395 Bowls and their volumes, Phase XIV: 1 (192:3) = 0.64; 2 (192:6) = 0.62; 3 (33:5) = 0.82; 4 (192:11); 5 (192:10); 6 (191:5);
7 (33:7) = 0.24; 8 (191:11)

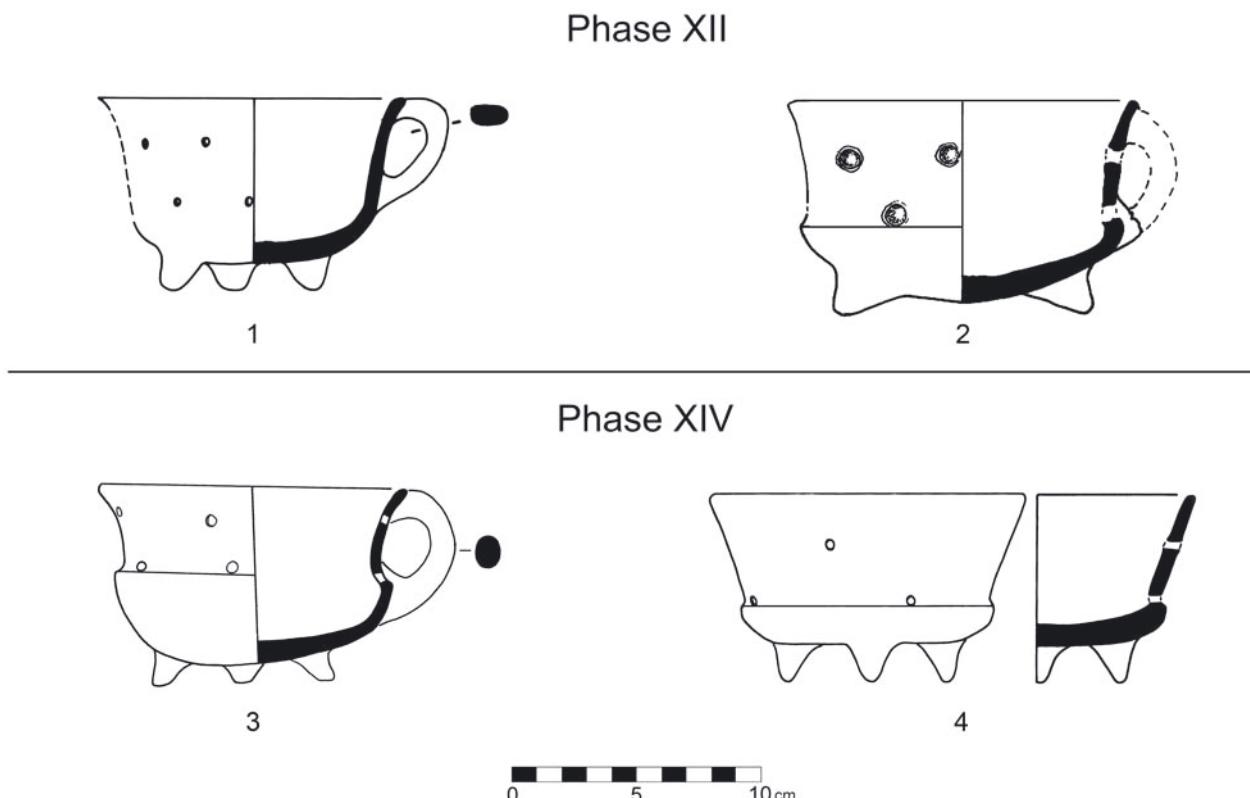


Fig. 396 Incense cups and their volumes, Phases XII (1–2) and XIV (3–4): 1 (82:6) = 0.36; 2 (125:2) = 0.66; 3 (193:1) = 0.39; 4 (193:2) = 0.38

incurved stance⁷⁸ and is very hard-fired with a light red, very fine, fabric, light yellowish-green slip with bright red spots and wheel-burnished to a high lustre, almost glazed. Another odd shape is a bowl with two vertical lug handles (Fig. 394:16).

INCENSE CUPS (Fig. 396)

Phase XII (2 / 1.2 %; Figs. 396:1 and 2)

Phase XIV (2 / 0.7 %; Figs. 396: 3 and 4)

The terminology of the shapes of these vessels is not uniform: they are named “bowls on three stump legs”, “tripod cups”, “tripod sieves”, and “Räuchertassen” / “incense cups”; other terms are also used (see e.g. AMIRAN 1969; see the thorough discussion in ZWICKEL 1990: 3–7 where he prefers the term “Räuchertassen” or “incense cups”; see also DAVIAU 2001a: 205–208).

The cups from these two phases are all discussed together since they differ only to a very small extent from each other. Some words on their function: these vessels are sometimes also termed “sieves” which does not make sense because – if this had been their princi-

pal function – the holes should have been placed in the bottom. Another explanation by DE VAUX (1951: 412) is that they could have been used for the production of cheese. Neither is this explanation convincing, because the holes are not arranged evenly and the carination would have been a hindrance when removing the mature cheese from the vessel. The author suggests instead that their main function was that of a container for burning incense. This hypothesis is supported by finds of soot and ash on the interior and exterior of our vessels (see e.g. Fig. 194 left). In addition, our vessels have the holes placed in the upper two-thirds of the bowl, which makes sense when it is used as suggested: at the bottom of the vessel burning charcoal was placed in the area where there are no holes, and the incense was placed above the charcoal permitting the fumes to evaporate through the holes. A lid may have been used. It has been suggested (DAVIAU 2001a: 207) that they were cultic vessels for scented materials which were used in domestic ceremonies but not necessarily for burning resins. The latter is contradicted by our vessels which show traces of

⁷⁸ Stance is defined as the direction of the rim in relation to the general section of the vessel.

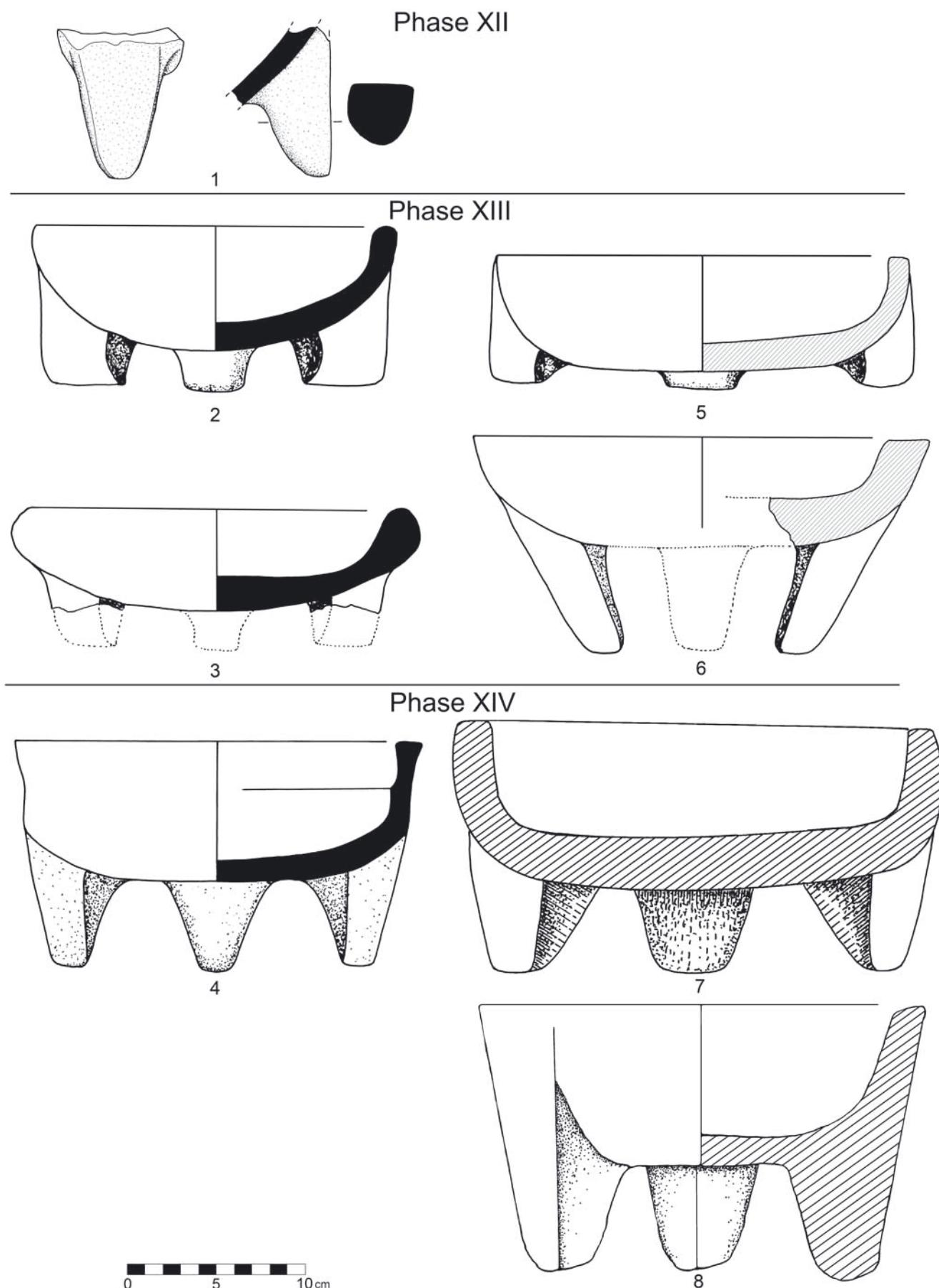


Fig. 397 Tripod bowls (1–4 clay, 5–8 basalt) and their volumes, Phases XII (1), XIII (2–3, 5–6) and XIV (4, 7–8): 1 (23:4); 2 (160:1) = 0.93; 3 (160:2) = 0.82; 4 (193:3) = 1.70; 5 (160:3) = 1.34; 6 (160:4) = 0.89; 7 (220:2) = 2.44; 8 (220:1) = 2.03

soot and ash. The author therefore maintains the term “incense cup” which includes both functions.

The first incense cups appear at Tell Abu al-Kharaz in Phase XII and are also represented in Phase XIV. There are no incense cups in Phase XIII but this must be accidental. They are fairly standardized as far as their general design is concerned: outcurved or more rarely straight profile, quite pronounced carination, one handle and standing on three stump legs. The perforations are in the upper part of the vessels and vary in size and number. These vessels show only self slip.

TRIPOD BOWLS (Fig. 397)

Phase XII (1 / 0.6 %)

Phase XIII (2 / 1.3 %)

Phase XIV (1 / 0.3 %)

The prime function of these vessels was that of mortars, as is evident from the wear on the interior, but they were certainly also used as containers, for instance, for fruit. This type of vessel is a development of the bowls of basalt with flat or ring bases from Tell Abu al-Kharaz which appear in Phase IV/1 (MB III) and continue throughout the remainder of the Middle and Late Bronze Ages (FISCHER 2008a: 355–356). These older bowls are most often fairly shallow with ring bases or more rarely with flat bases. Tripod bowls of basalt appear at the site at approximately the same time or maybe a little later. Tripod bowls of fired clay do not exist in the Middle and Late Bronze Ages, at least not at Tell Abu al-Kharaz.

The first Iron Age tripod bowl appears in Phase XII, where it is of fired clay (Fig. 397:1) and seems to represent a budget version of the more elaborated bowls of basalt (Figs. 397:5–8). The shape of this bowl is difficult to determine because only one leg is preserved but it seems to be of the fairly shallow type. The two bowls from Phase XIII (Figs. 397:2 and 3) are also fairly shallow and represent counterparts of the tripod bowls of basalt from the same phase (Figs. 397:5 and 6). The most recent bowl from Phase XIV (Fig. 397:4) is different from the others: it is deeper and has an internal carination. Its counterparts of basalt from Phase XIV are also somewhat deeper than the older types (Figs. 397:7 and 8). Ceramic tripod bowls have either self slip or light red slip, and in one case a yellowish-green slip (the latter is from Phase XIV).

CHALICES (Fig. 398)

Phase IX (3 / 1.5 %)

Phase X (2 / 2.3 %)

Phase XII (1 / 0.6 %)

Phase XIV (3 / 1.0 %)

Chalices are large serving and drinking vessels with a stem of varying height.⁷⁹ Their general profile is convex. Carinations occur. The chalices of the Late Bronze Age, although of a somewhat lower overall quality than goblets, were attributed to the group of “fine table ware” (FISCHER 2008a: 224, fig. 259). This is not valid for our Iron Age examples because they are of the same, often mediocre, quality as simple bowls. Of the nine recorded chalices three are red-slipped, two have red and brown wash, three have red paint and one is wheel-burnished. The surface treatment is not of any chronological value in the case of the chalices.

The oldest Iron Age types (Phase IX) have high stems and varying stances: incurved, inverted and upright (Figs. 398:1–3). The stems are straight downwards diverging or bulging. The chalices from Phases X–XIV (here only transitional chalice/bowl representatives of Phases X and XII in Figs. 398:4 and 5) are rounded or slightly carinated and have in general lower stems going straight downwards with diverging or flared bases. The chalice/bowl mortar of Phase X (Fig. 398:4) represents a special case: there are pattern-impressed dots in three zones at the bottom, which facilitated the grinding of foodstuffs.

GOBLETS (Fig. 399)

Phase IX (4 / 2.0 %)

Phase X (1 / 1.2 %)

Goblets are drinking vessels with a stem but without handles. They are small to medium-large vessels with a narrow opening which is most often smaller than the maximum diameter of the body. Their general profile is convex and they are proportionally much deeper than chalices. Their bases are usually somewhat raised. Goblets belong to the pottery group which can best be described as “fine table ware”.⁸⁰ All of them are red or brown slipped. One of the goblets from Phase IX is brown slipped and decorated with dark brown bands (Fig. 399:1). The single goblet from Phase X is bichrome-decorated and resembles rather

⁷⁹ The classification of vessels as bowls with high-raised ring bases or as chalices is floating.

⁸⁰ The group “fine table ware” can be defined as vessels of which the majority are of a higher quality than the remain-

ing pottery assemblage as regards production technique, fabric and surface treatment. They were very likely only used on specific occasions.

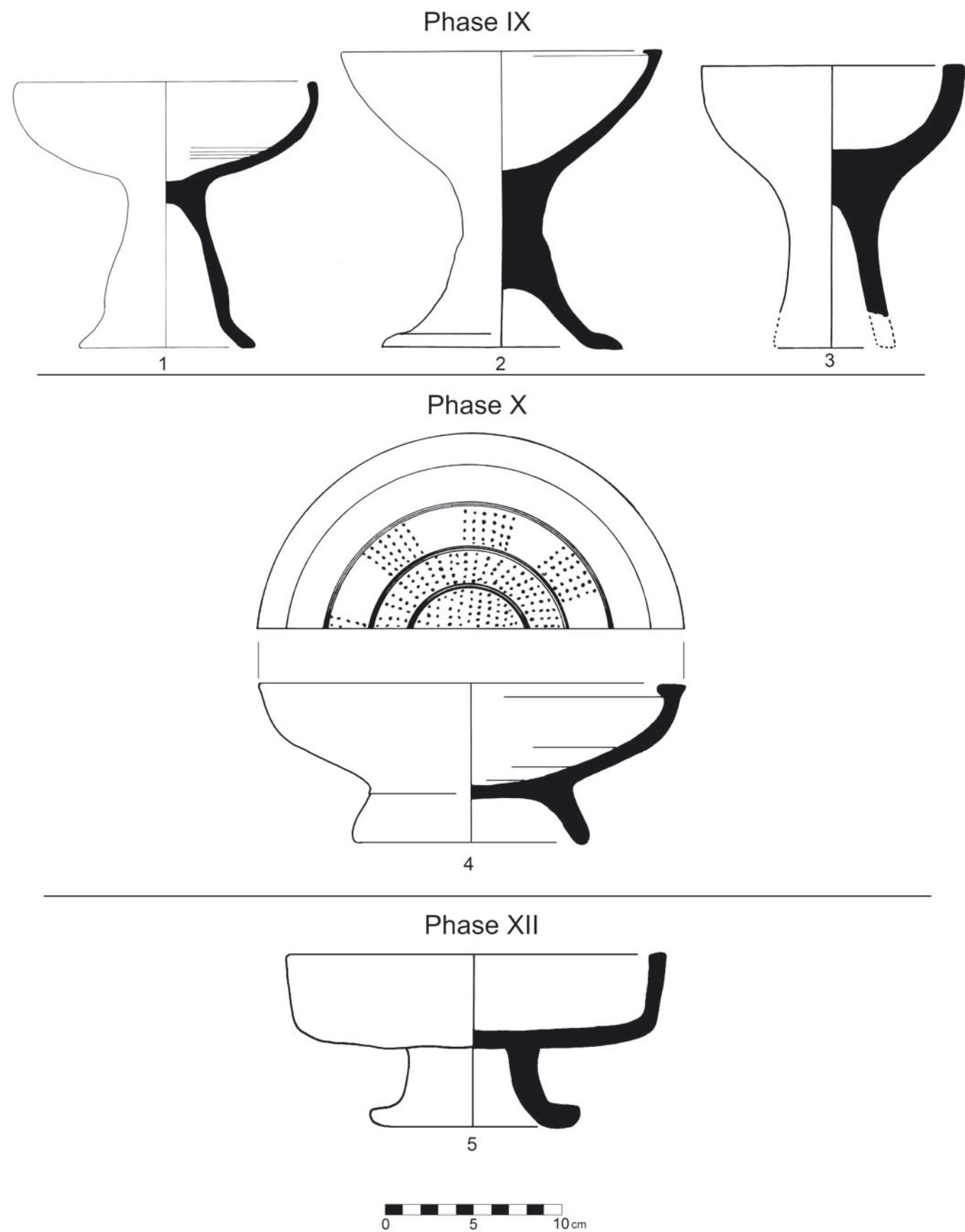


Fig. 398 Chalices and their volumes, Phases IX (1–3), X (4) and XII (5): 1 (282:1) = 0.75; 2 (282:2) = 0.78; 3 (328:1) = 0.44;
4 (362:2) = 1.39; 5 (125:3) = 1.17

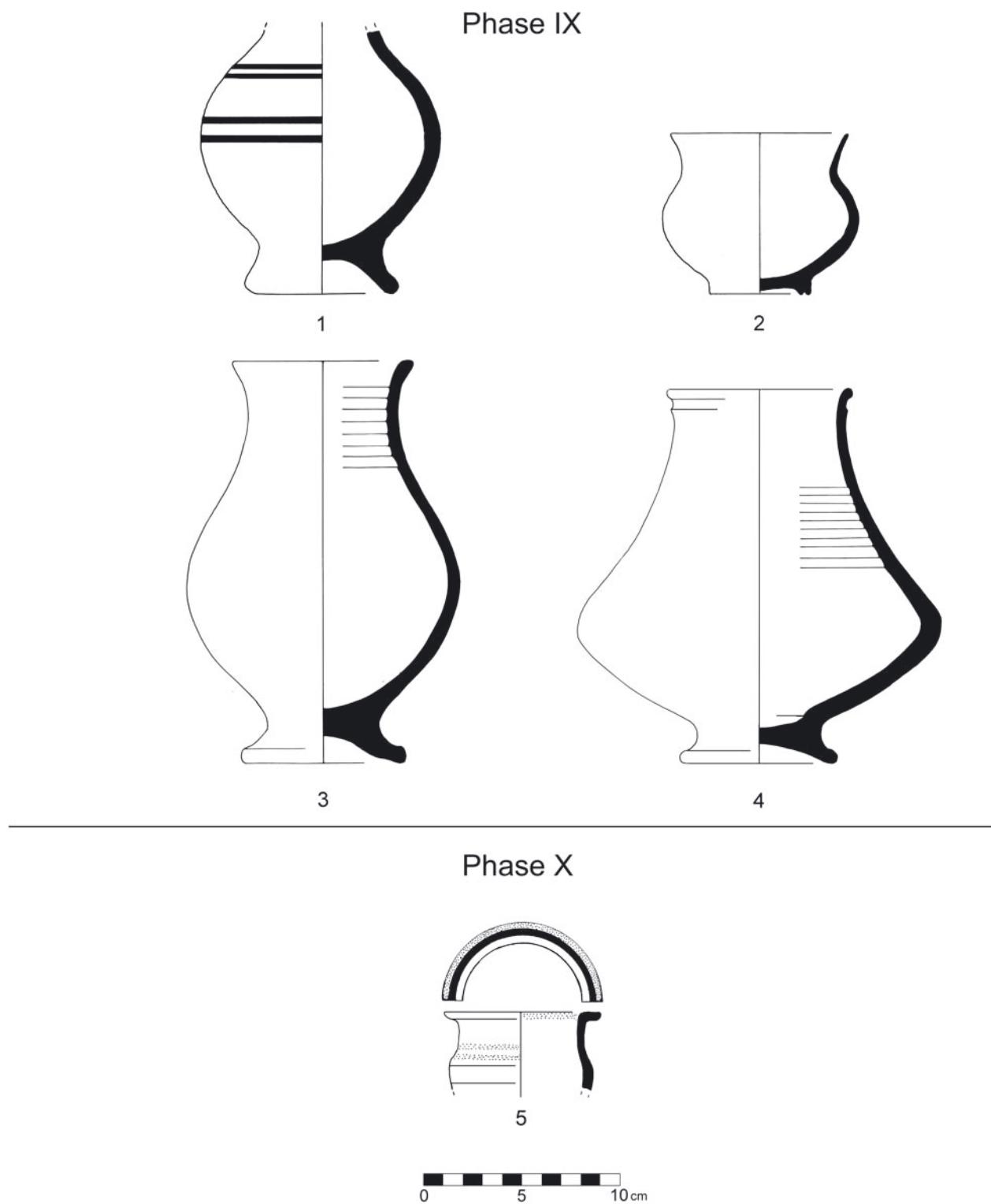


Fig. 399 Goblets and their volumes, Phases IX (1–4) and X (5): 1 (292:1) = 0.55; 2 (292:2) = 0.33; 3 (292:3) = 1.19; 4 (292:4) = 1.63;
5 (362:1)

Phase IX

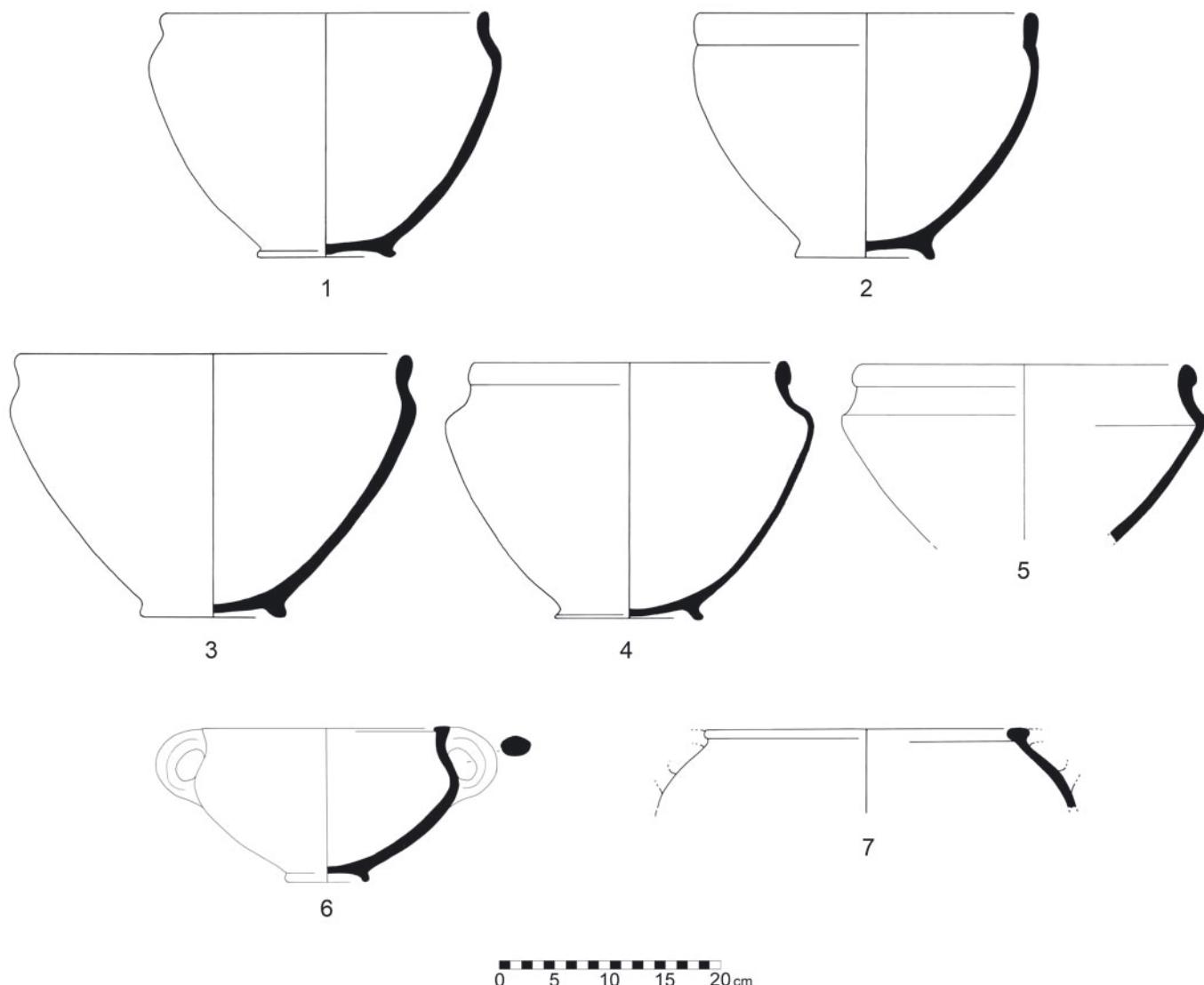


Fig. 400 Kraters and their volumes, Phase IX: 1 (288:1) = 9.86; 2 (288:2) = 9.32; 3 (288:3) = 12.43; 4 (283:4) = 11.31; 5 (285:1); 6 (287:1) = 3.08; 7 (283:1)

a representative of the Late Bronze Age (Fig. 399:5; cf. FISCHER 2006a: 222, fig. 258). It may be a residual piece. Goblets are recorded only from Phase IX and X contexts. It is, nevertheless, not unlikely that minor parts of goblets have been interpreted as bowls in the later assemblage.

KRATERS (Figs. 400–407)

Kraters are the fourth most common vessel type (196 / 17.7 %). Kraters are vessels for mixing, serving and storing liquids/foodstuffs. Kraters are in general cyma-shaped but variations, such as hole-mouth shapes⁸¹ and globular profiles, exist in addition to odd types. These vessels are deep, usually quite large with a wide mouth which, however, is narrower in most examples than the widest part of the body. The stances vary: flared, upright, everted and incurved occur. The most significant difference between the earlier and the later kraters is that the latter show more varia-

⁸¹ The hole-mouth type could as well be included in the jar group. Their distribution is as follows: Phase XI 1 / 0.7 %, Phase XII 4 / 2.4 %, XIV 2 / 0.7 %.

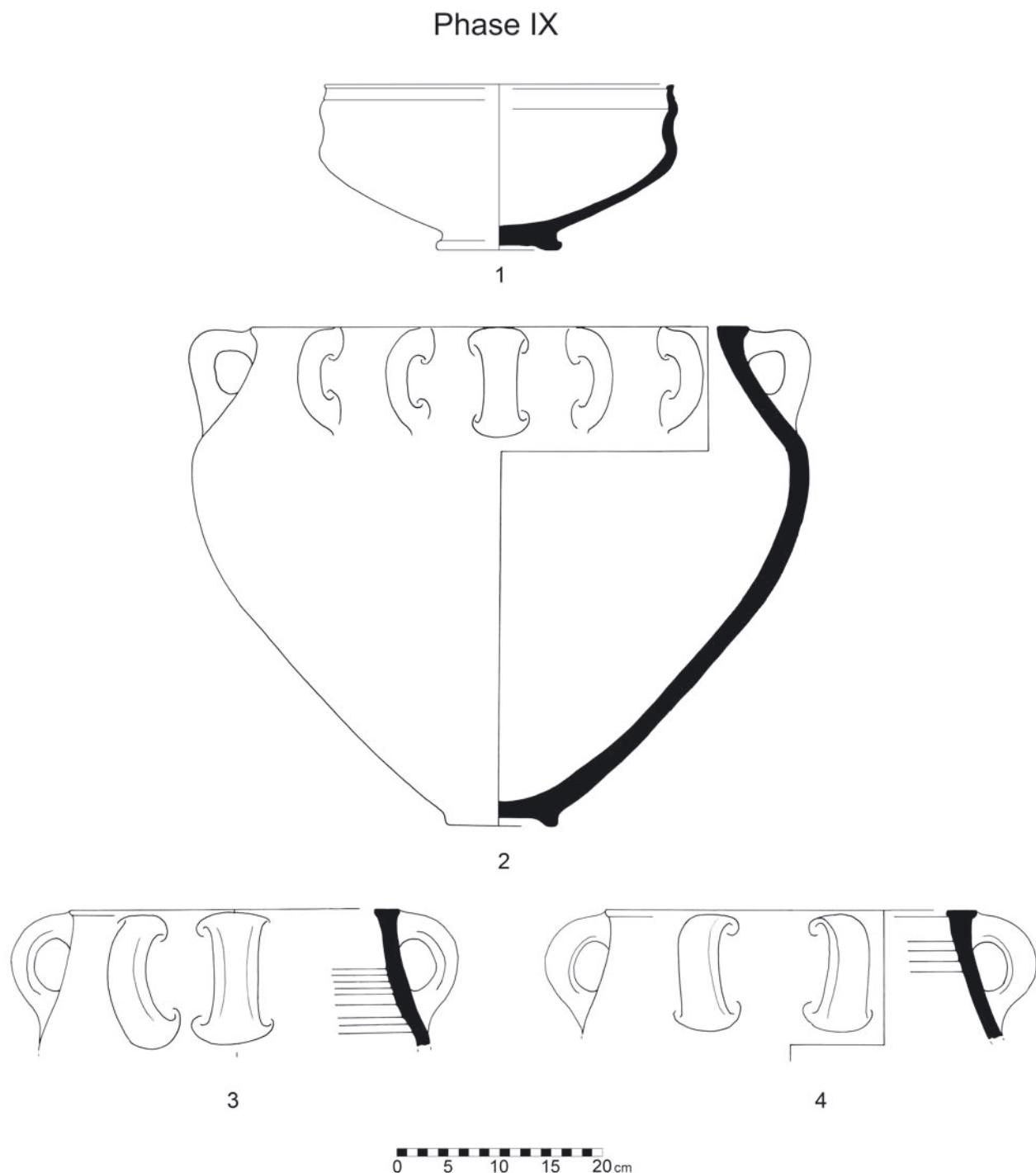


Fig. 401 Kraters and their volumes, Phase IX: 1 (290:1) = 8.49; 2 (287:2) = 67.94; 3 (287:4); 4 (287:5)

tions in their shapes. There are kraters without handles and kraters with either two, four, six or even twelve handles which are all more or less elliptical in section. Kraters most often have a ring base, sometimes a flat base, and they are rarely standing on three loop handles. Decorated kraters exist but are uncommon.

Phase IX (24 / 11.9 %; Figs. 400 and 401)

There are five principal types but all have a low ring base: one is quite a standardized cyma-shaped type without handles. It has evenly rounded or externally thickened rims and a concavity below the rim (see Figs. 400:1–5). The shoulder is most often pronounced and sometimes even carinated (Fig. 400:5). The sec-

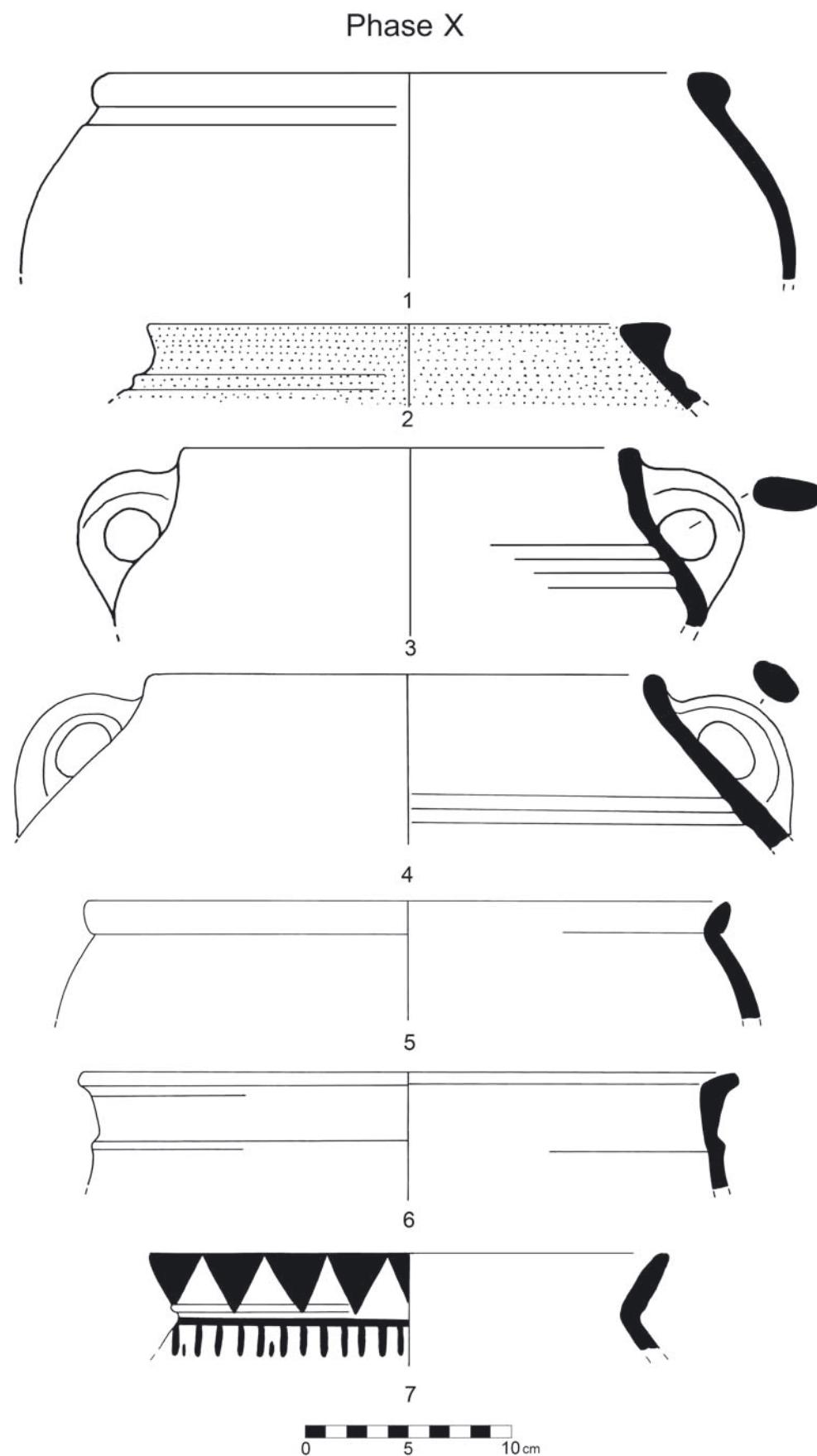


Fig. 402 Kraters, Phase X: 1 (362:4); 2 (362:5); 3 (362:3); 4 (100:7); 5 (100:1); 6 (100:3); 7 (362:6)

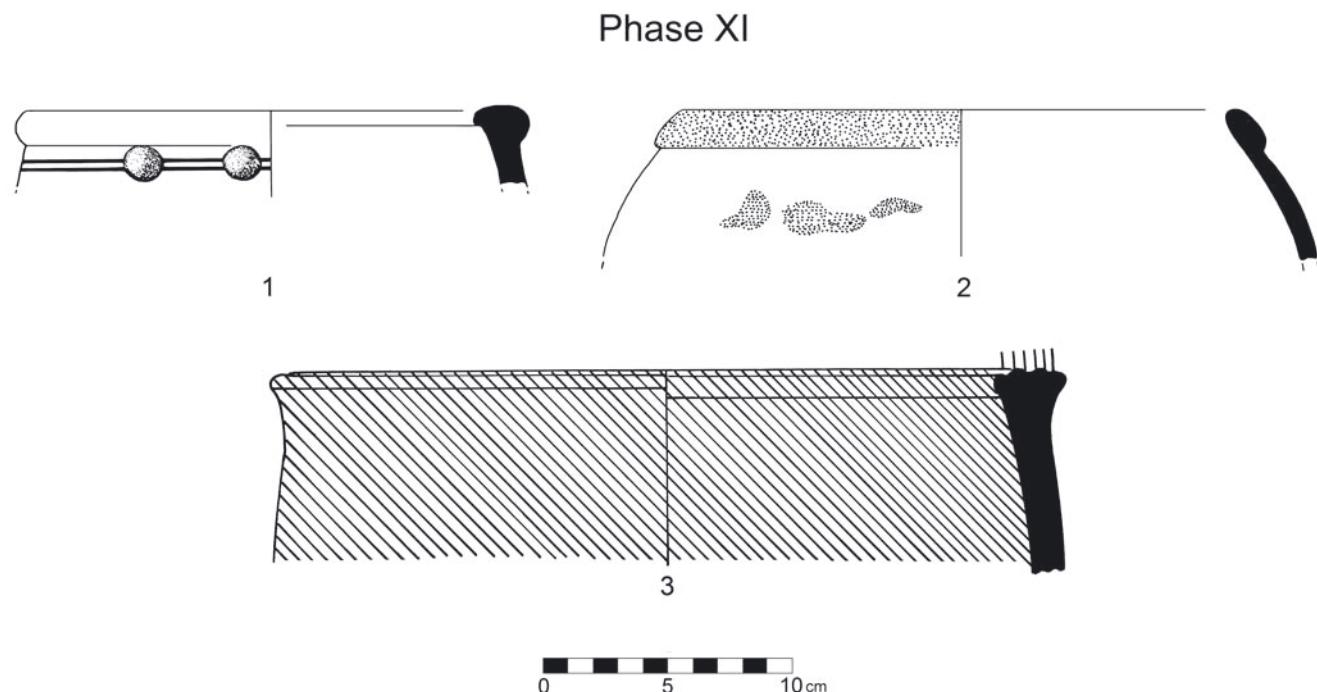


Fig. 403 Kraters, Phase XI: 1 (370:5); 2 (370:6); 3 (122:5)

ond has a flattened rim, a slight concavity below the rim and a pronounced shoulder without the typical cyma-shape, and up to twelve handles (Figs. 401:2–4). The third is quite a small krater of cyma-shape with a T-rim and two handles (Fig. 400:6). The fourth differs from the others: it has a globular shape, a pronounced T-rim and two handles (Fig. 400:7). The fifth has an upright upper profile with a slight carination just below the rim which is somewhat thickened (Fig. 401:1). All the kraters have self slip and none has painted decoration.

Phase X (13 / 15.1 %; Fig. 402)

There are greater variations in this phase where their general shapes are concerned. The typical cyma-shaped type is virtually absent and the globular shape dominates. The stances are upright or everted, the rims rounded, simple or thickened, T-shaped and triangular. There are never more than two handles. Kraters may be red-slipped or washed. One shape differs markedly from the others, viz. a krater with everted stance and an unusual decoration:⁸² dark red triangles standing above a “comb” pattern. There is a related krater from Beth-Shean Stratum N-3b which

is dated to the first half of the 12th century BCE (PANITZ-COHEN 2009: 216:e; 307, pl. 11:15; MAZAR 2009a: 13, Table 1.2).

Phase XI (34 / 23.6 %; Fig. 403)

The general shapes do not differ from the previous phase but there are certain decorative elements which are innovative: Figure 403:1 shows a krater with T-rim and plastic decoration of a band of knobs just below the rim. Figure 403:3 shows a krater with fluted incisions on the rim. Examples with more than two handles do not occur. Red slip and wash are common.

Phase XII (27 / 16.4 %; Fig. 404)

Some shapes continue from the previous phase. There is one innovative trait, namely a carination below the rim (see Figs. 404:1, 3 and 4). Kraters with two handles are most common. Surface treatment includes red slip and wash and band decoration, and incised herringbone pattern.

Phase XIII (33 / 20.6 %; Fig. 405)

Globular shapes with T-rims dominate. The majority of the kraters of this phase have two handles but there is one with three (405:9). Neck-ridges and plastic

⁸² There is another one with triangles and dots. The “comb” pattern is certainly part of another pattern but not much of this vessel is preserved.

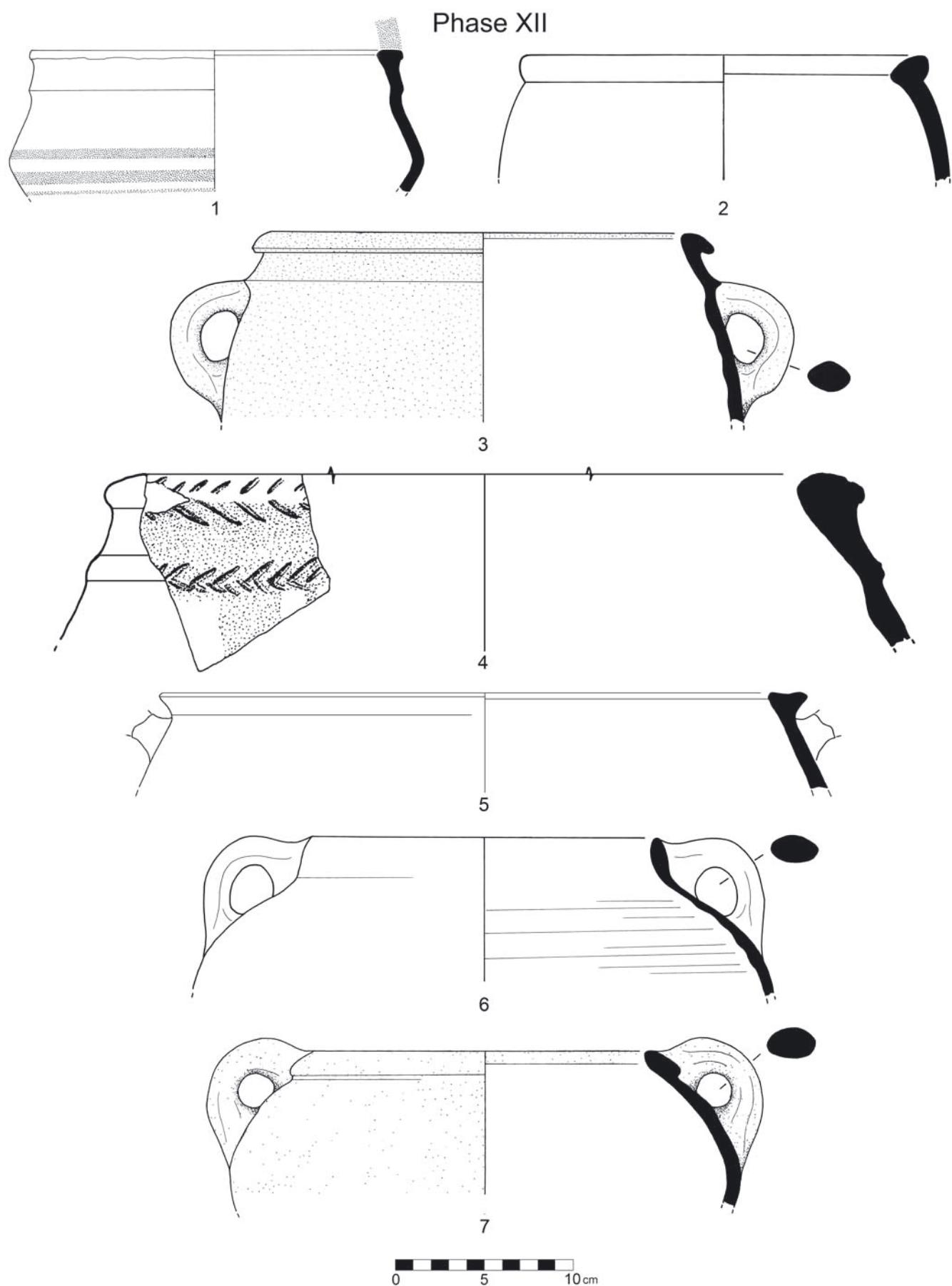


Fig. 404 Kraters, Phase XII: 1 (150:5); 2 (112:1); 3 (22:2); 4 (150:6); 5 (150:3); 6 (22:1); 7 (22:5)

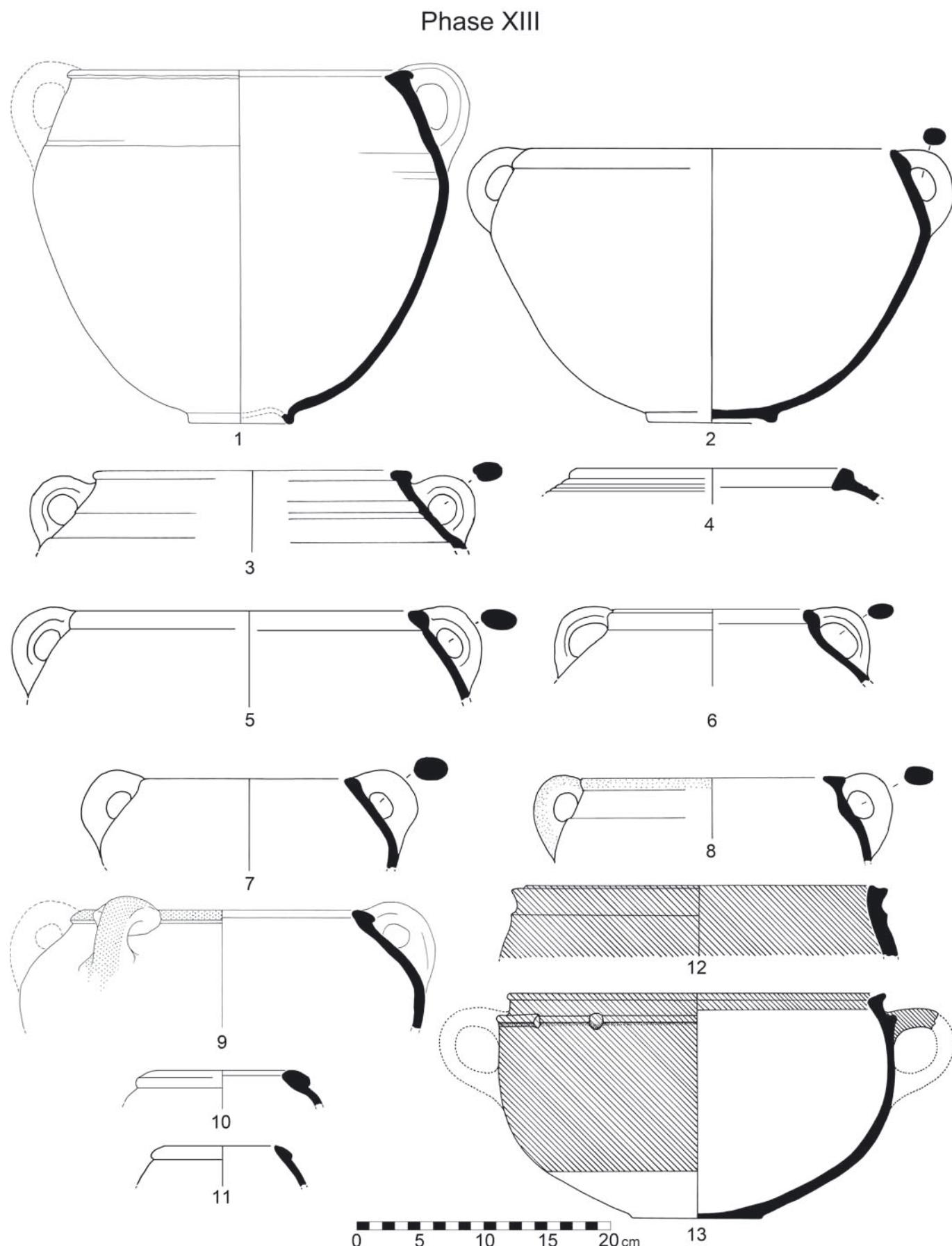


Fig. 405 Kraters and their volumes, Phase XIII: 1 (248:4) = 13.84; 2 (164:1) = 11.76; 3 (163:5); 4 (163:2); 5 (164:7); 6 (164:8); 7 (164:2); 8 (163:4); 9 (162:2); 10 (164:5); 11 (164:6); 12 (119:4); 13 (119:2) = 8.81

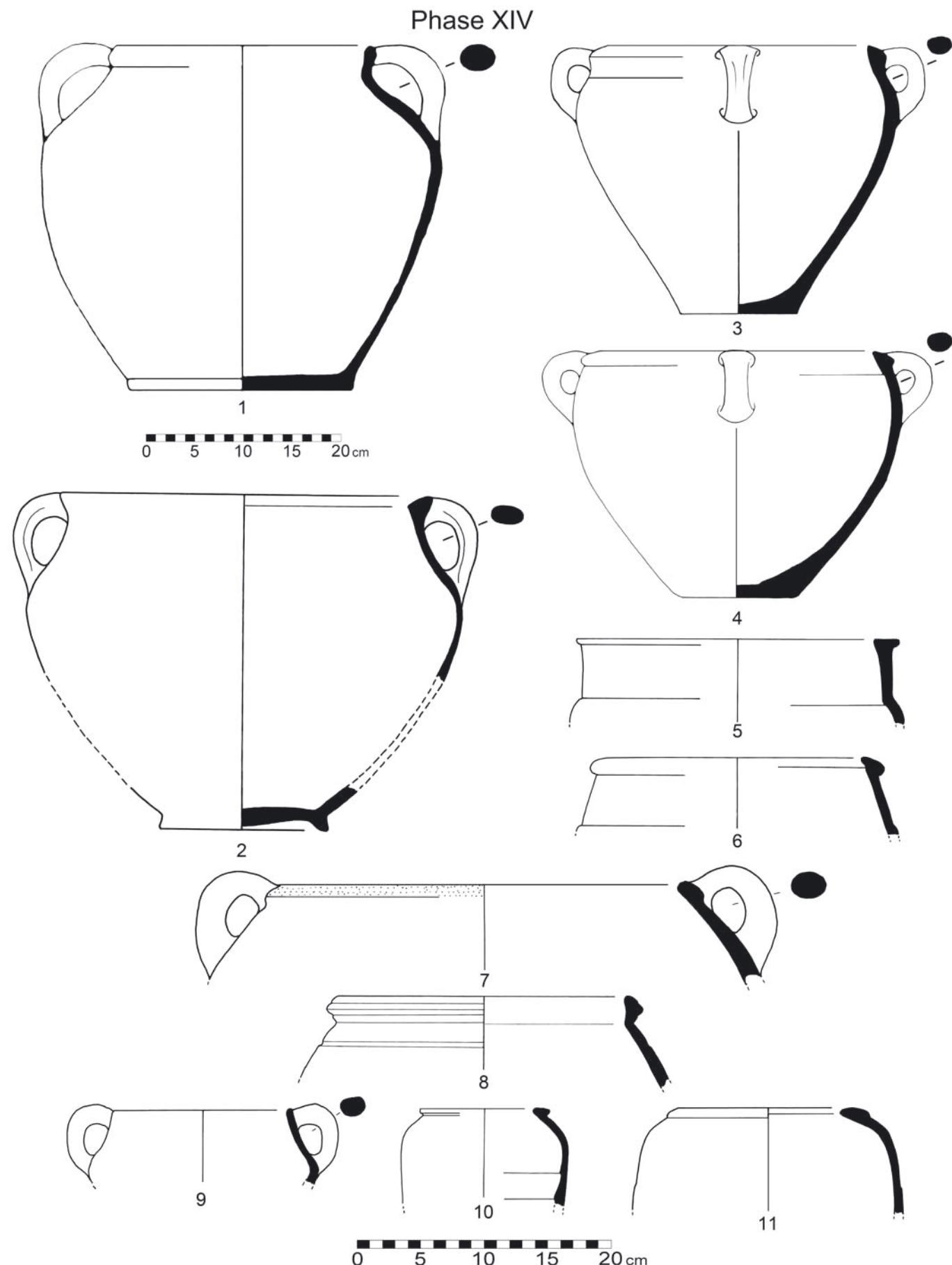


Fig. 406 Kraters and their volumes, Phase XIV: 1 (195:3) = 26.05; 2 (193:4) = 14.35; 3 (195:1) = 5.25; 4 (195:2) = 5.78; 5 (198:2); 6 (198:1); 7 (197:3); 8 (195:13); 9 (198:6); 10 (196:1); 11 (196:3)

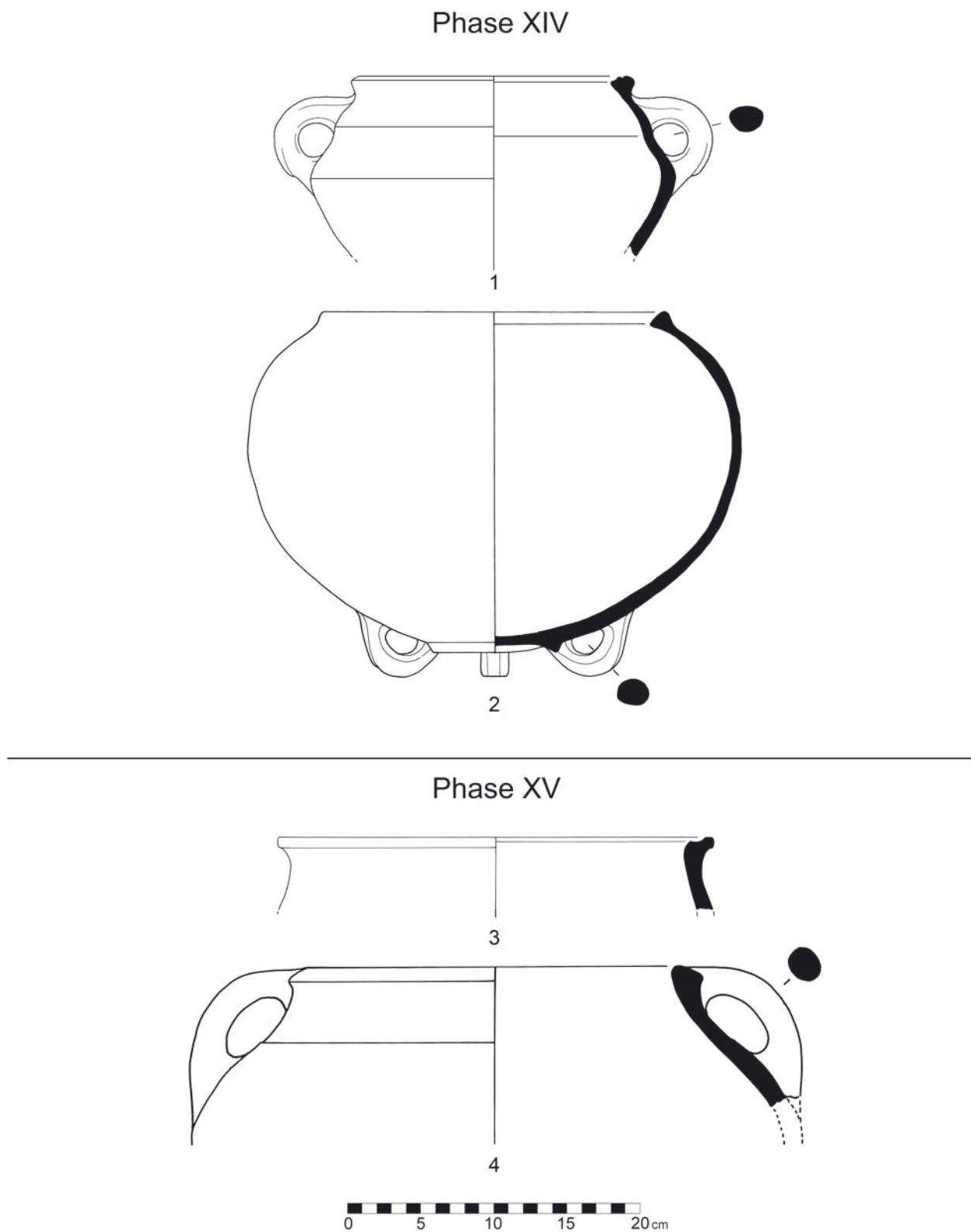


Fig. 407 Kraters and their volumes, Phases XIV (1–2) and XV (3–4): 1 (35:6); 2 (34:6) = 14.06; 3 (47:3); 4 (47:4)

trumpet/dot decoration occur (Fig. 405:13). Many of the kraters are red-slipped or washed either completely or only on the rim and handles. A new shape appears: the hole-mouth krater/jar (Figs. 405:10–11).⁸³ They are quite small and more elongated than kraters but the upper part of these vessels with their folded-over rims show close similarities with kraters.

Phase XIV (60 / 19.9 %; Figs. 406, 407:1 and 2)

The kraters with the cyma shape are revived (cf. Phase IX). The cyma-shape (Figs. 406:1 and 2) and the globular types (Fig. 406:4) dominate but there are also more than a few kraters with a convexity between rim and shoulder (Fig. 407: 1). Figure 406:8 shows a krater with an elaborate rim. The small and medium-sized hole-mouth vessel with a folded-over rim was still in production (Fig. 406:10). A new, rare, shape makes its entrance (Fig. 407:2): the globular krater with incurved stance and T-rim standing on three loop handles. It is interesting to note that a sort of amalgamation of the latter and the hole-mouth krater/jar already existed at the end of the Late Bronze Age (FISCHER 2006a: 229, fig. 263:6).

Phase XV (2 / 28.6 %; Fig. 407:3 and 4); *Phase XIV or XV* (3 / 6.7 %)

The scanty evidence from Phase XV does not allow any firm conclusions but the ceramic assemblage does not seem to differ from that of the previous phase.

JUGLETS, JUGS⁸⁴ AND PILGRIM FLASKS (Figs. 408–421)

Juglets, jugs, strainer-jugs, decanter-jugs and pilgrim flasks together belong to the third most common group of vessels (206 / 18.6 %). These are ovoid, globular and depressed globular vessels with a narrow mouth and usually one or two handles. They were mainly used for serving and storing liquids. Juglets were used as containers of more valuable liquids, such as cooking oils, scented oils and drugs.

Phase IX (juglets 12 / 6.0, Figs. 408:1–6 and 9, 409:2; jugs 26 / 12.9 %, Figs. 408:7–8, 409:1 and 3, 410, 411:1–4; strainer-jugs 1 / 0.5 %, Fig. 411:5; pilgrim flasks 6 / 3.0 %, Fig. 412)

There are three types of juglets: the slender dipper juglet (Figs. 408:1–3), the juglet with a wide body and usually a fairly wide mouth (Figs. 408:6–9), and the juglet with a low carination on the wide belly (Fig.

409:2). The latter, which is the only type which is decorated, is an import, judging by the fabric. As far as the dipper juglets are concerned they differ from those from the later part of the Late Bronze Age, namely Phases VII and VIII, by the absence of a marked shoulder (cf. FISCHER 2006a: 238, fig. 271:8–9): in Phase IX the transition from the neck to the shoulder is smooth, which resembles the dipper juglets from the outgoing Middle Bronze Age (*ibid.*: fig. 271:1). The juglet with two handles is unique (Fig. 408:4), and the juglets with wide mouths and depressed globular bellies, with either rounded or flat bases, are variations of the same theme and new at the site (Figs. 408:6–9). One of the juglets (Fig. 408:6) was found sealed with a lid which certainly also had the function of a stand.

The general shapes of the jugs differ greatly but low ring bases are a common feature in this phase. They are globular or depressed globular with one or two handles from the rim or just below the rim to the shoulder or one handle on the shoulder (Figs. 410 and 411). They are quite often decorated but lack the sophisticated and colourful patterns of the Late Bronze Age (FISCHER 2006a: 231–235). The monochrome decoration includes zigzag lines and horizontal bands. A special type is the spouted and decorated strainer-jug (Fig. 411:5). Another type of jug (Fig. 409:1) resembles Late Bronze Age shapes.

The jug with thick white slip represents a special case (Fig. 409:3). It is definitely an import according to fabric, general shape and surface treatment. There are some traits which are related to traditions of the outgoing Aegean Late Bronze Age. The monochrome decoration of semicircles and wavy lines below the neck resembles decoration on pottery from the Aegean/Cyprus/Philistia.

The pilgrim flasks (Figs. 412:1 and 2), of which the first is bichrome- and the second monochrome-decorated, are imports related to Philistine pottery. The other pilgrim flasks (Figs. 412:4–6) seem to derive from the Phoenician sphere of Culture. The globular jug of fine fabric with bichrome, matt red and black, decoration on a light reddish-yellow burnished slip is of Phoenician origin (Fig. 412:7). These types of vessels occur only in Phase IX.

In addition to the hand-made miniature bowls (see above) there is also a group of hand-made miniature juglets and a hand-made jug (see Figs. 390: 6–8).

⁸³ MAZAR (2006: 354) lists them under the heading hole-mouth jars.

⁸⁴ These include common and dipper juglets. Juglets and jugs are treated together. In earlier publications by the author

jugs were distinguished from juglets by their height, which was defined as higher than 20 cm. This criterion is still used here (FISCHER 2006a: 230).

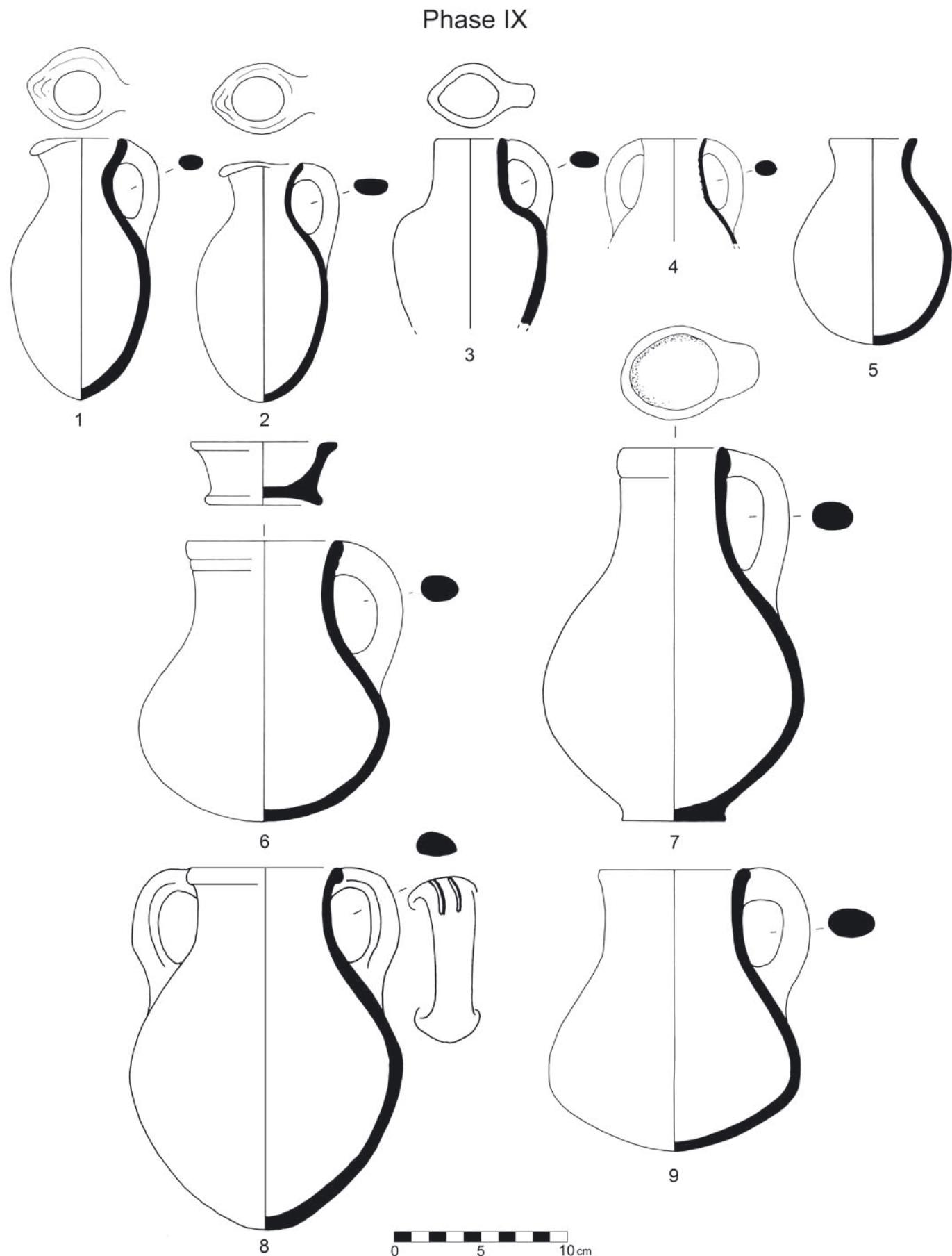


Fig. 408 Juglets (1–6, 9) and jugs (7–8) and their volumes, Phase IX: 1 (290:5) = 0.25; 2 (290:7) = 0.23; 3 (290:2) = 0.39; 4 (292:5); 5 (290:6) = 0.32; 6 (292:8) = 1.11; 7 (292:6) = 1.35; 8 (297:5) = 1.67; 9 (292:7) = 1.13

Phase IX

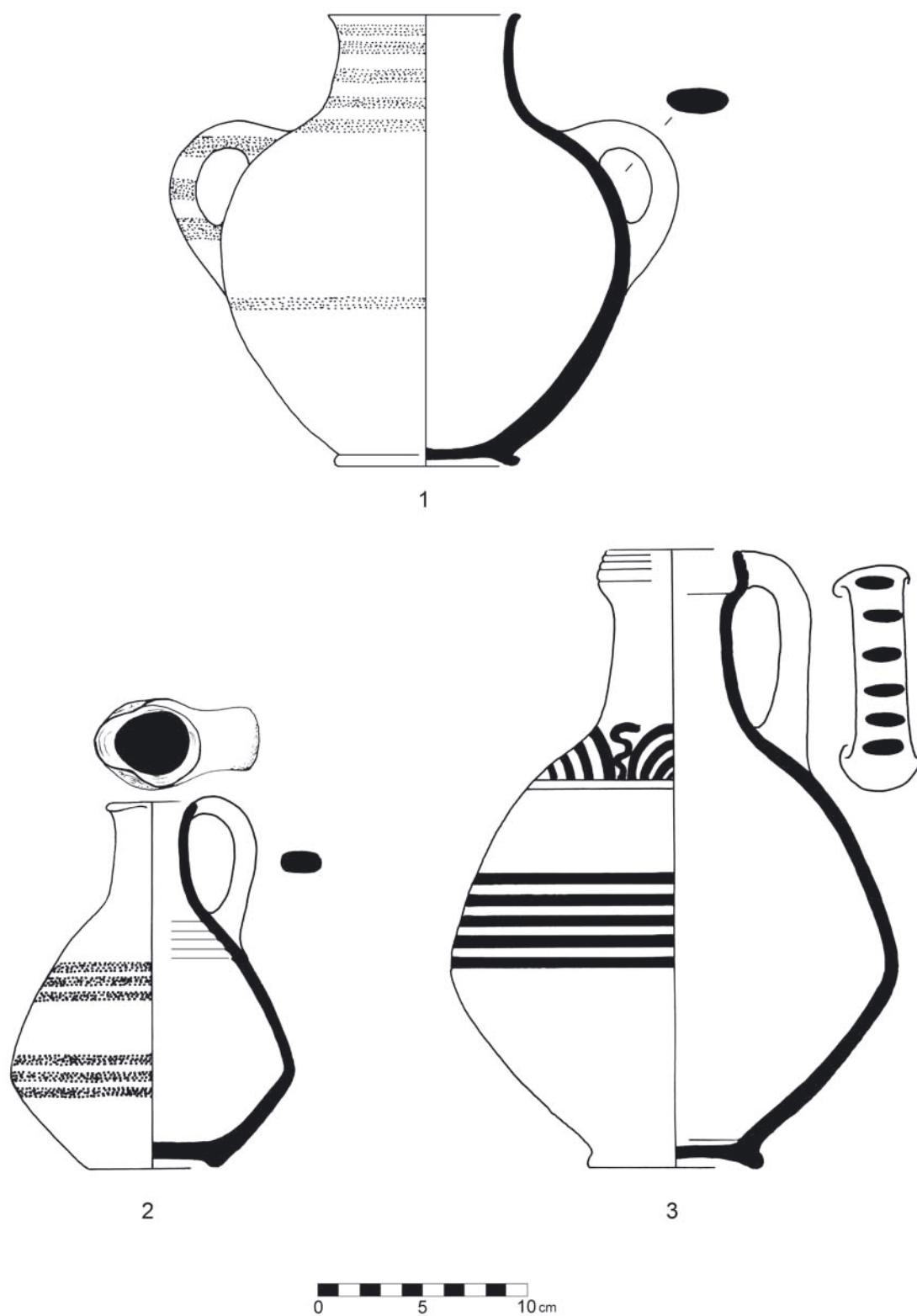


Fig. 409 Jugs (1, 3) and juglet (2) and their volumes, Phase IX: 1 (297:2) = 2.48; 2 (297:3) = 0.79; 3 (297:1) = 3.67

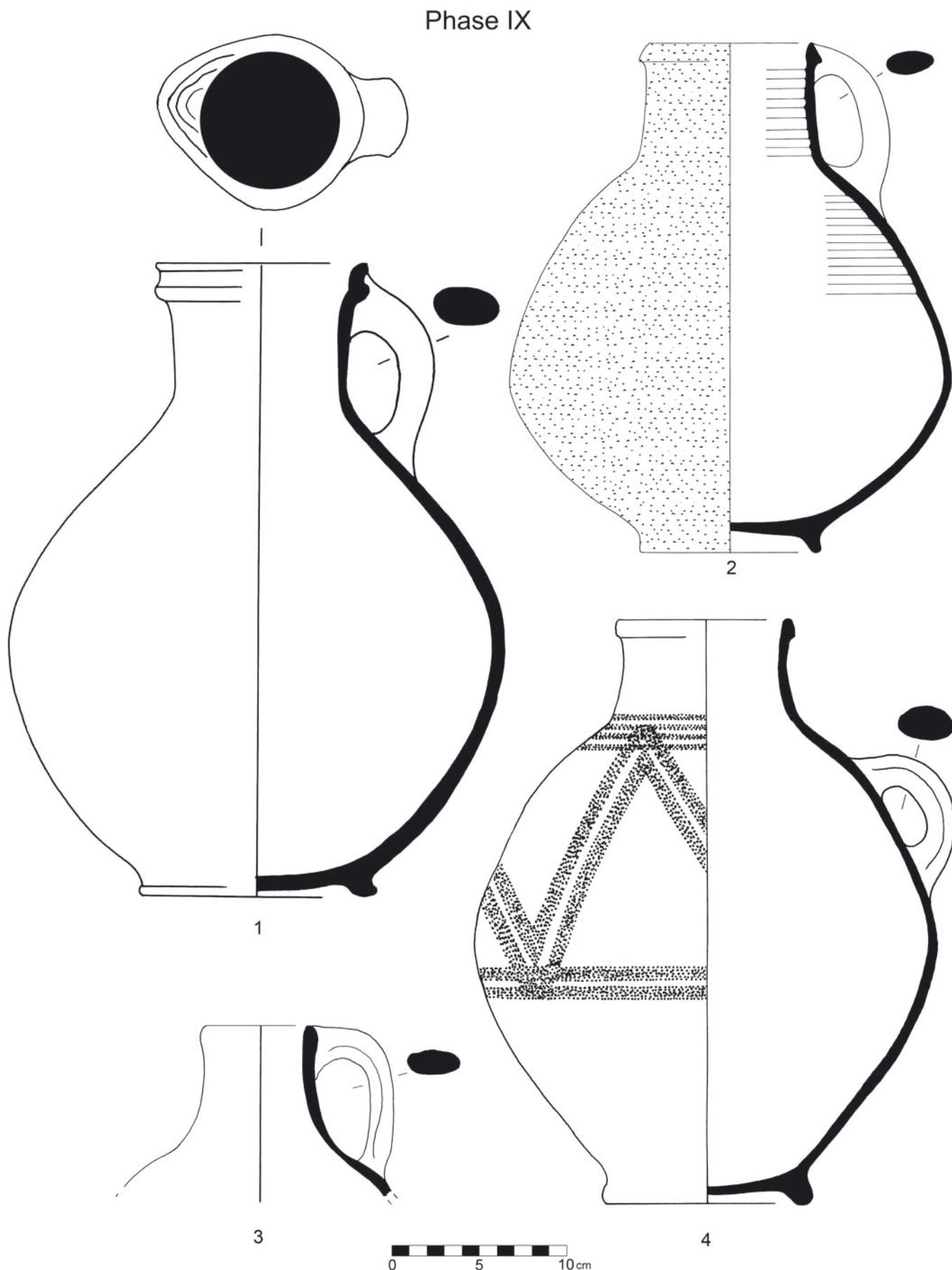


Fig. 410 Jugs and their volumes, Phase IX: 1 (305:1) = 9.79; 2 (301:5) = 6.41; 3 (301:4); 4 (301:1) = 8.28

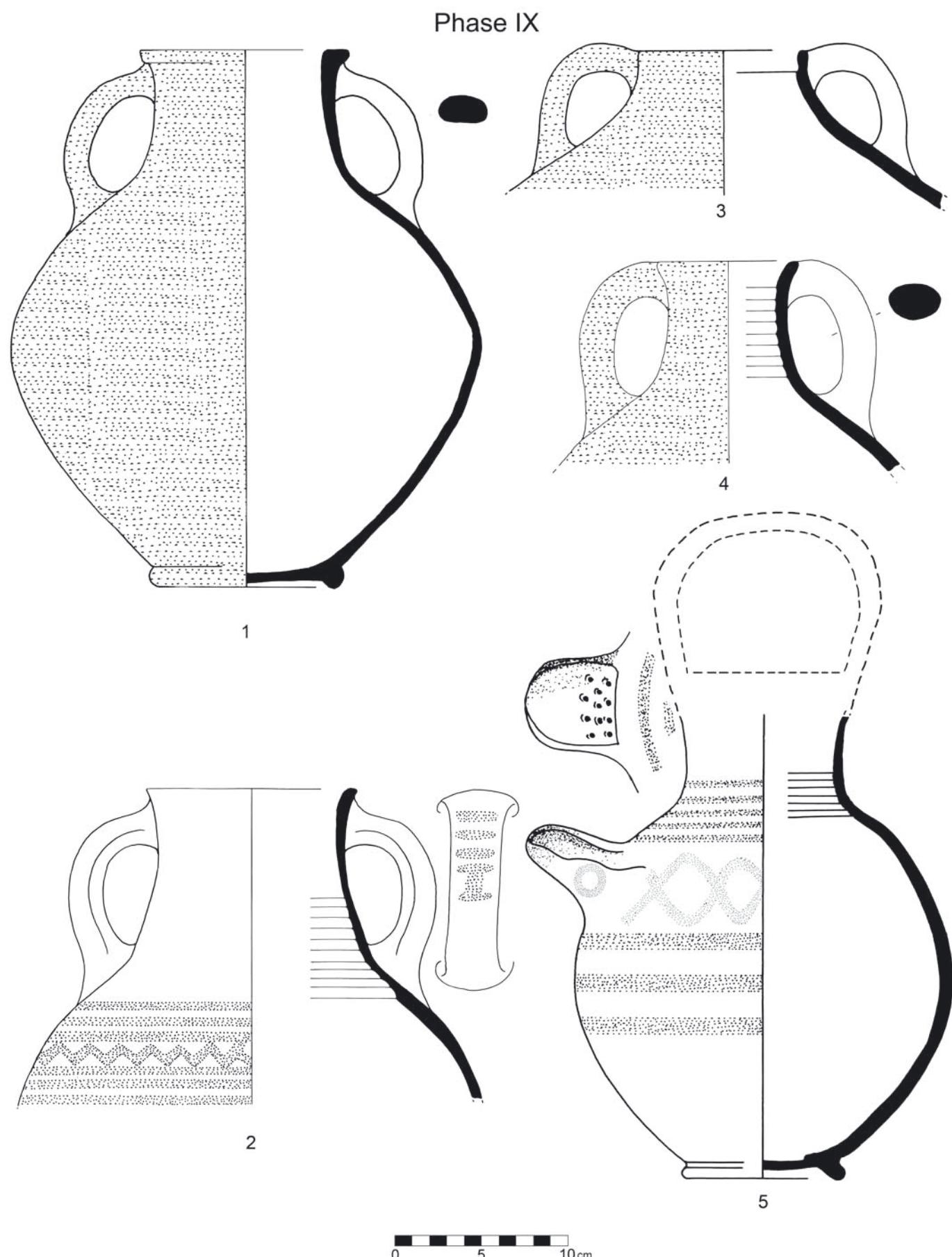


Fig. 411 Jugs and their volumes, Phase IX: 1 (302:1) = 7.59; 2 (302:4); 3 (302:3); 4 (302:2); 5 (305:2) = 4.65

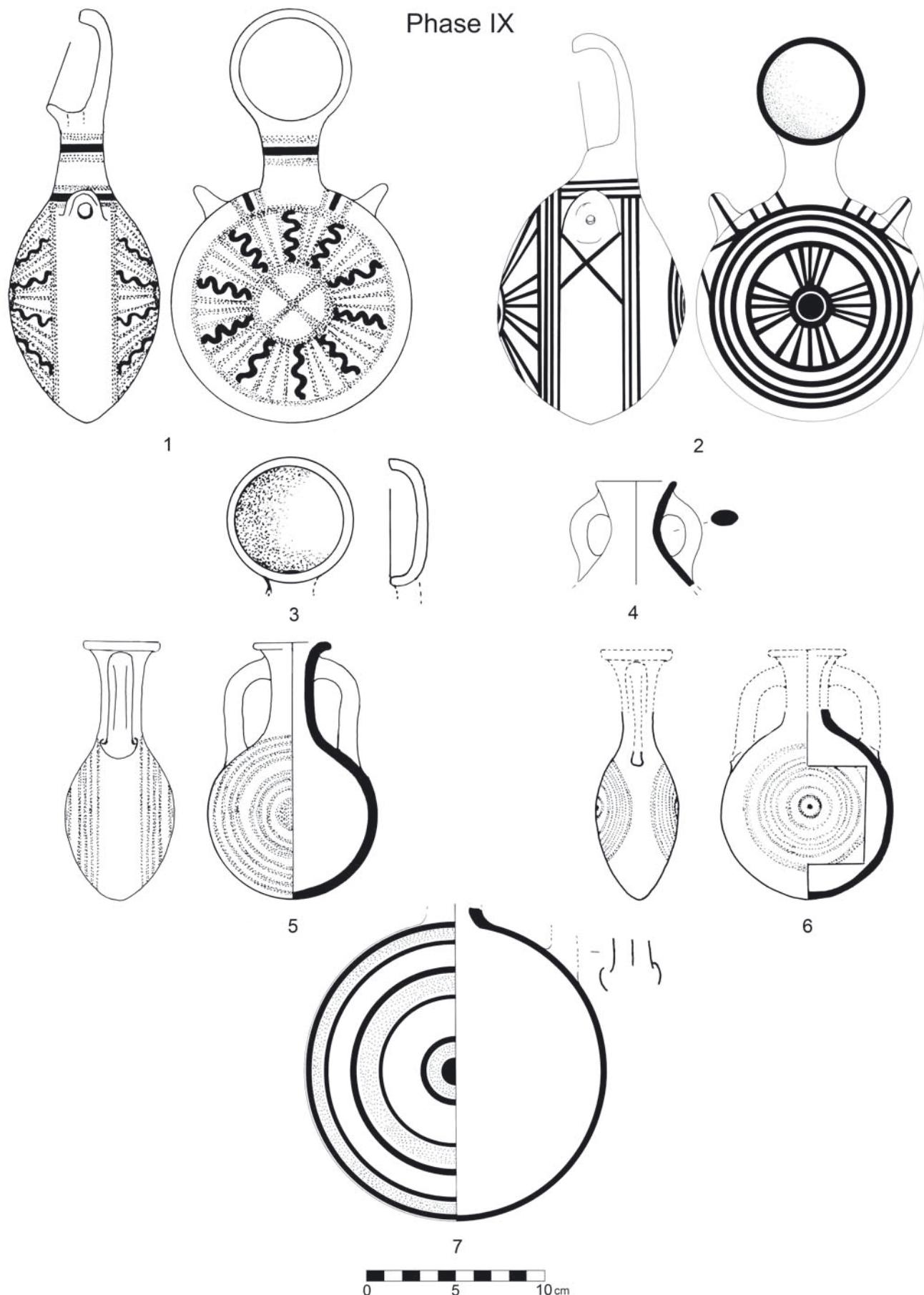


Fig. 412 Pilgrim flasks (1–6) and globular jug (7) and their volumes, Phase IX: 1 (321:1) = 0.40–0.70; 2 (321:2) = 0.50–0.75; 3 (321:3); 4 (321:4); 5 (321:5) = 0.15–0.30; 6 (321:6) = 0.10–0.25; 7 (321:7) = 2.12

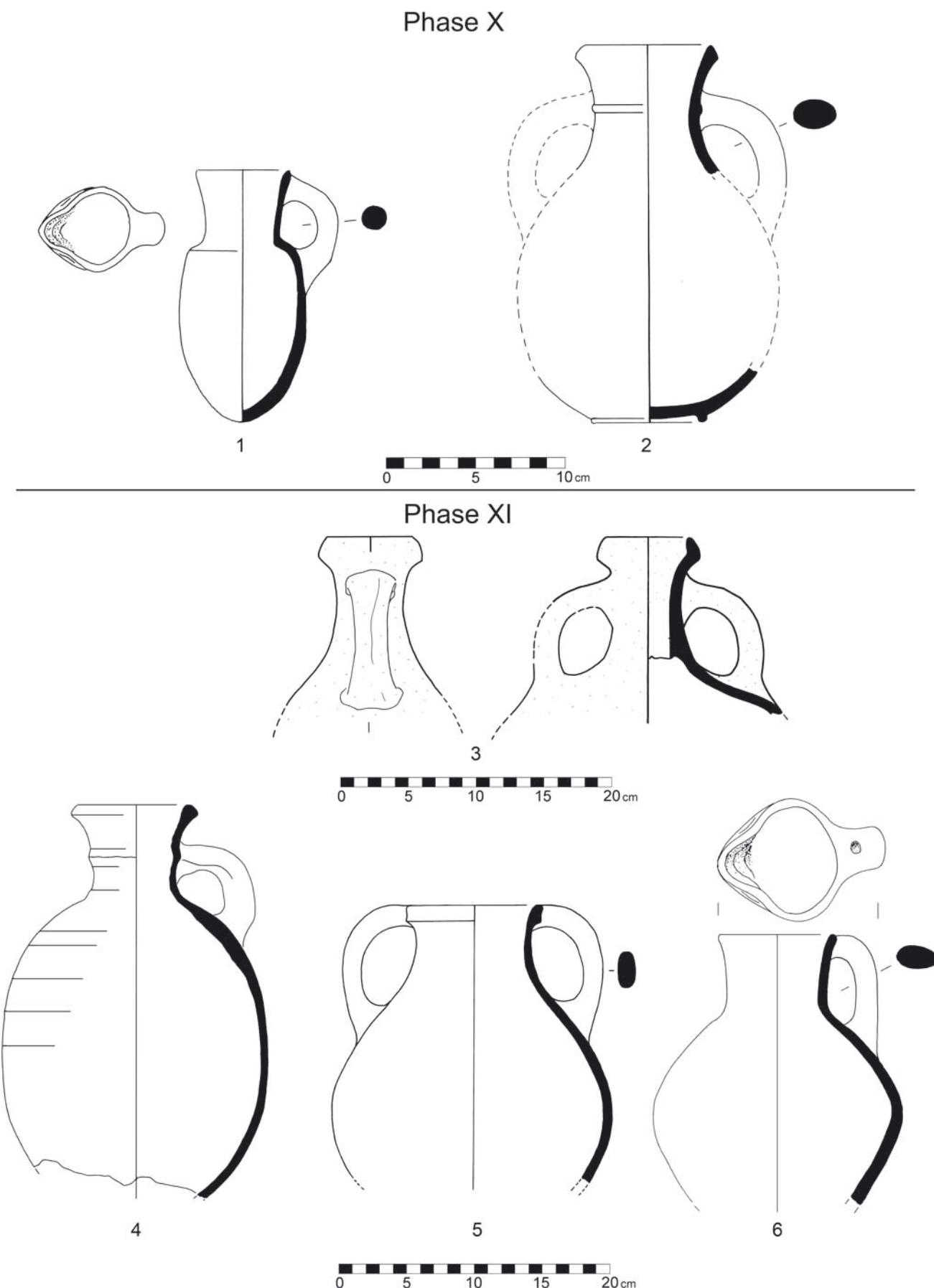


Fig. 413 Juglet (1), jugs (2, 4–6) and pilgrim flask (3) and their volumes, Phases X (1–2) and XI (3–6): 1 (363:1) = 0.24; 2 (363:3) = 1.29; 3 (89:2); 4 (242:6) = 4.01; 5 (107:1) = 3.35; 6 (370:11) = 2.20

Phase XII

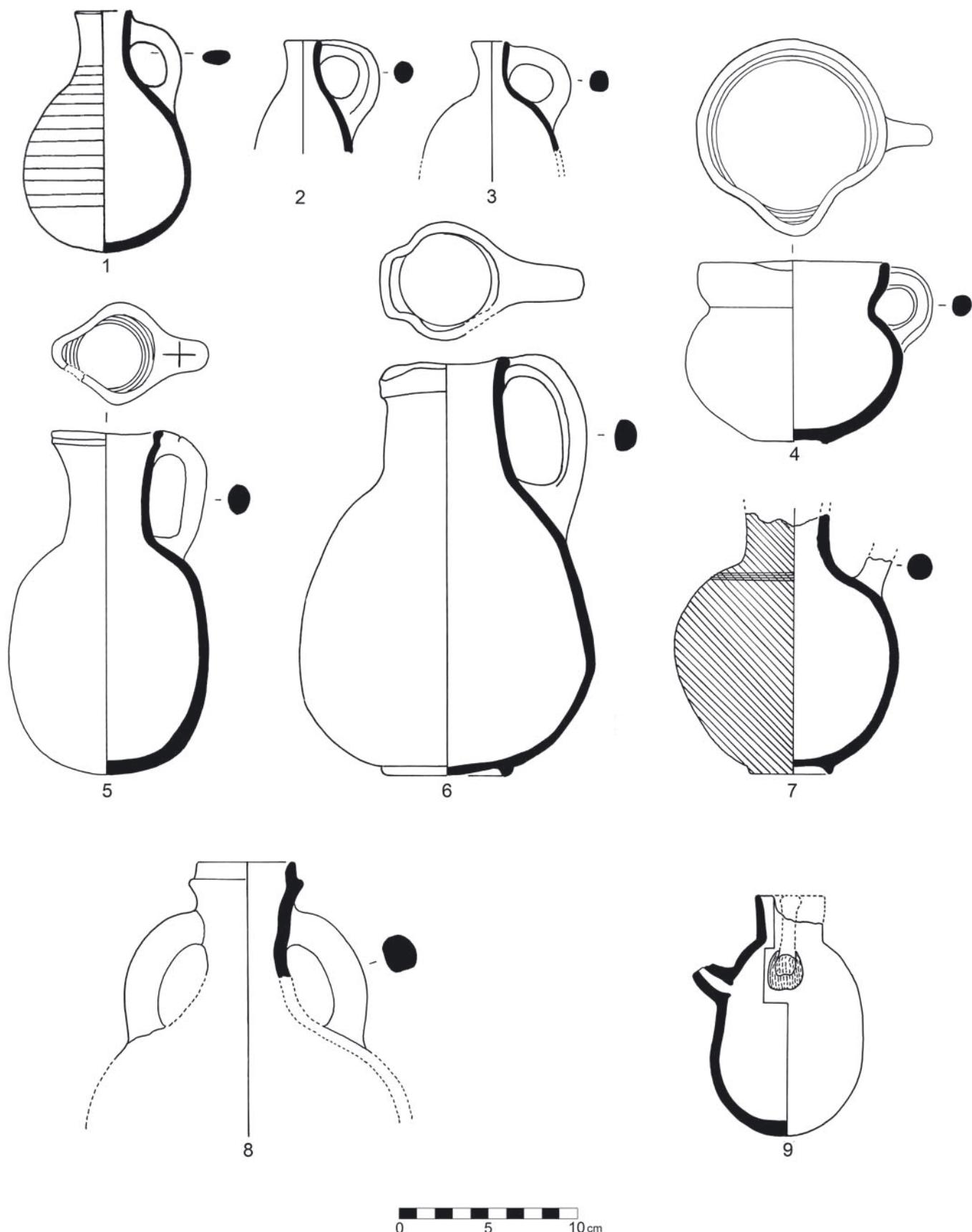


Fig. 414 Juglets, jugs, mug and pilgrim flask and their volumes, Phase XII: 1 (151:1) = 0.38; 2 (126:1); 3 (112:5); 4 (151:6) = 0.64; 5 (112:9) = 0.81; 6 (126:2) = 2.13; 7 (112:8) = 0.68; 8 (112:3); 9 (112:6) = 0.31

Phase X (juglets 2 / 2.3 %; jugs 4 / 4.7; Figs. 413:1 and 2)

The small number of vessels from these phases allow only limited conclusions. The juglet (Fig. 413:1) has a relatively wide mouth and a marked shoulder. The jug (Fig. 413:2) has two handles and a neck ridge.

Phase XI (juglets 2 / 1.4 %; jugs 11 / 7.6 %; decanters 4 / 2.8 %; pilgrim flask 1 / 0.7 %; Figs. 413:3–6)

A sort of prototype with neck ridge and one handle from the neck to the shoulder (Fig. 413:4), which will become common in later phases (cf. e.g. Figs. 418:8 and 9), appears in this phase. The other vessels do not differ from those of the previous phase. Figure 413:3 shows a typical pilgrim flask.

Phase XII (juglets 15 / 9.0 %; jugs 16 / 9.7 %; decanter 1 / 0.6 %; mugs 2 / 1.2 %; pilgrim flask 1 / 06 %; Fig. 414)

There is a group of juglets which is new in this phase: narrow mouth and bulbous body with one handle (Fig. 414:1–3). Another juglet (Fig. 414:5) is very much related to previous types, whereas the juglet with bright red slip and incised lines on the shoulder is new in the repertoire of Phase XII (Fig. 414:7). The spouted juglet is also a new shape (Fig. 414:9). The type of jug in Figure 414:6 appears for the first time and was also produced with variations later: it has the typical tapering neck on a depressed globular body and a handle from the rim to the shoulder. A new shape is the mug (Fig. 414:4). The pilgrim flask (Fig. 414:8) differs only as regards the shape of the rim from the example from Phase XI (Fig. 413:3). Vessels are mainly slipped. Decorated vessels are rare.

Imports from Phase XII are shown in Figure 415. The first three are termed “Phoenician-style” vessels in the description of the individual vessels in Chapter 2.⁸⁵ They are imports beyond any doubt because of their totally different manufacturing technique: thin and very hard fired, rarely any inclusions in a clay which resembles cretaceous clay. The slip, the excellent burnish and the decoration all point to non-locally produced vessels.

The juglet (Figure 415:4) is of the genuine Cypriote Black-on-Red Ware and not a locally produced copy: the well-levigated clay, which is thin-walled and hard-fired, and the decoration of black (dark brown) horizontal lines and circles, the latter being compass-drawn, all point to a Cypriote import of the Black-on-Red I ware.

⁸⁵ This should be considered as a “working term” because good parallels from Phoenicia itself are missing (personal communication E.J. Núñez 8 July, 2009).

⁸⁶ There is one Black Juglet from Phase XI which may derive from a disturbed context.

Phase XIII (juglets 16 / 10.0 %; jugs 10 / 6.3 %; strainer-jug 1 / 0.6 %; decanter 1 / 0.6 %; pilgrim flask 1 / 0.6 %; Figs. 416 and 417)

There is a great variation in shapes: juglets with wide mouths and two (Fig. 416:4) or three handles (Fig. 416:5), Black Juglets (Figs. 416:7 and 8), spouted juglets (one in Fig. 416:1), juglets with four lug handles and band decoration (Fig. 416:6) and those with four horizontally placed vestigial handles (Fig. 416:3). This is the phase where the Black Juglets are firmly established.⁸⁶ The jug with two handles and self slip is local copy of a Phoenician-style vessel (Fig. 416:9; cf. Figs. 415:1–3). The jug with bright red slip (Fig. 416:10) is obviously a Phoenician import.

The globular “Metallic Ware” jug with T-rim and raised neck, three handles and a juglet support is of thin, very hard-fired, Lower Cretaceous clay (Fig. 417:1). Its metallic appearance and sound when struck are typical. It is 31 cm high and its capacity is 8.50 litres. There are three horizontal concentric incisions on the shoulder just above where the lower part of the handles is attached. It is obviously from the same workshop as AM54 from Beth-Shean; however the capacity of our vessel is lower (MAZAR 2006: 358 and 359, Photo 12.53; capacity 11.62).⁸⁷ The strainer jug follows the “tapering-neck-style” from Phase XII (Fig. 417:2). The general shape of the globular jug with three zones of incised concentric lines on either side resembles pilgrim flasks (Fig. 417:3). The bichrome-decorated jug (Fig. 417:4) comes from a test trench in Area 11 which is on the eastern edge of the upper tell just to the north of Area 10 (it was found in October 2013, i.e. after the submission of the manuscript; context description in FISCHER and BÜRGE in press e).

Phase XIV (juglets 40 / 13.3 %; jugs 15 / 5.0 %; decanters 10 / 3.3 %; pilgrim flasks 2 / 0.7 %; Figs. 418–420)

This is the phase from where the vast majority of juglets with greatest variation in shape derives. In general the Black Juglets (Figs. 418:13–17) do not differ from those from Phase XIII, with one exception (Fig. 418:18); whereas this juglet has a handle from neck to shoulder, all the others have handles from the rims to the shoulders. There are plain juglets (Figs. 418:1 and 2) and a somewhat taller decorated juglet (Fig. 418:3) which resemble the shapes of their counterparts in the Black Juglet repertoire and seem to

⁸⁷ This is somewhat surprising considering that our jug is only a little smaller.

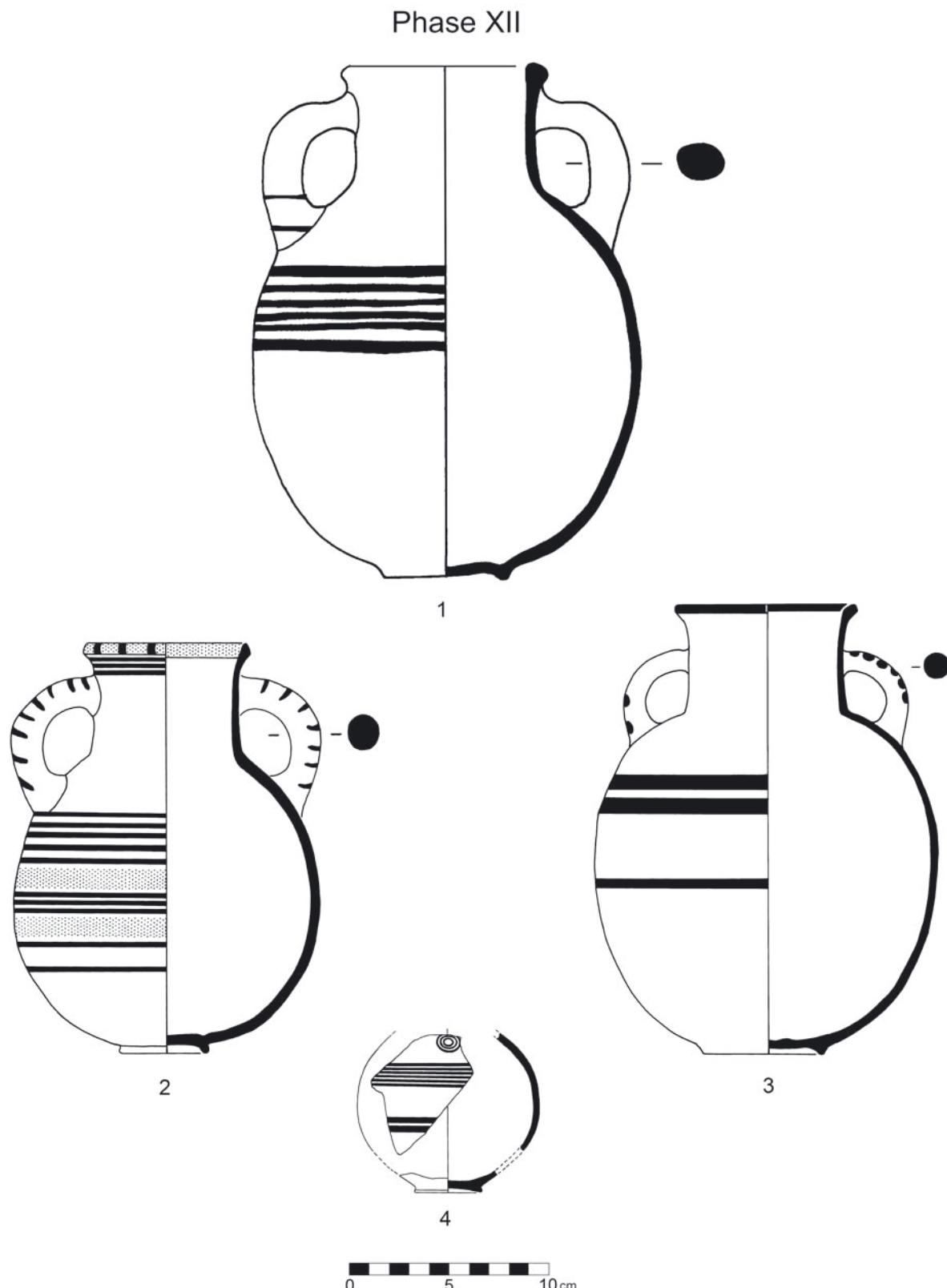


Fig. 415 Phoenician-type jugs (1–3) and Cypriote Black-on-Red I juglet (4) and their volumes, Phase XII: 1 (126:3) = 3.77; 2 (151:8) = 1.76; 3 (112:7) = 2.64; 4 (151:9)

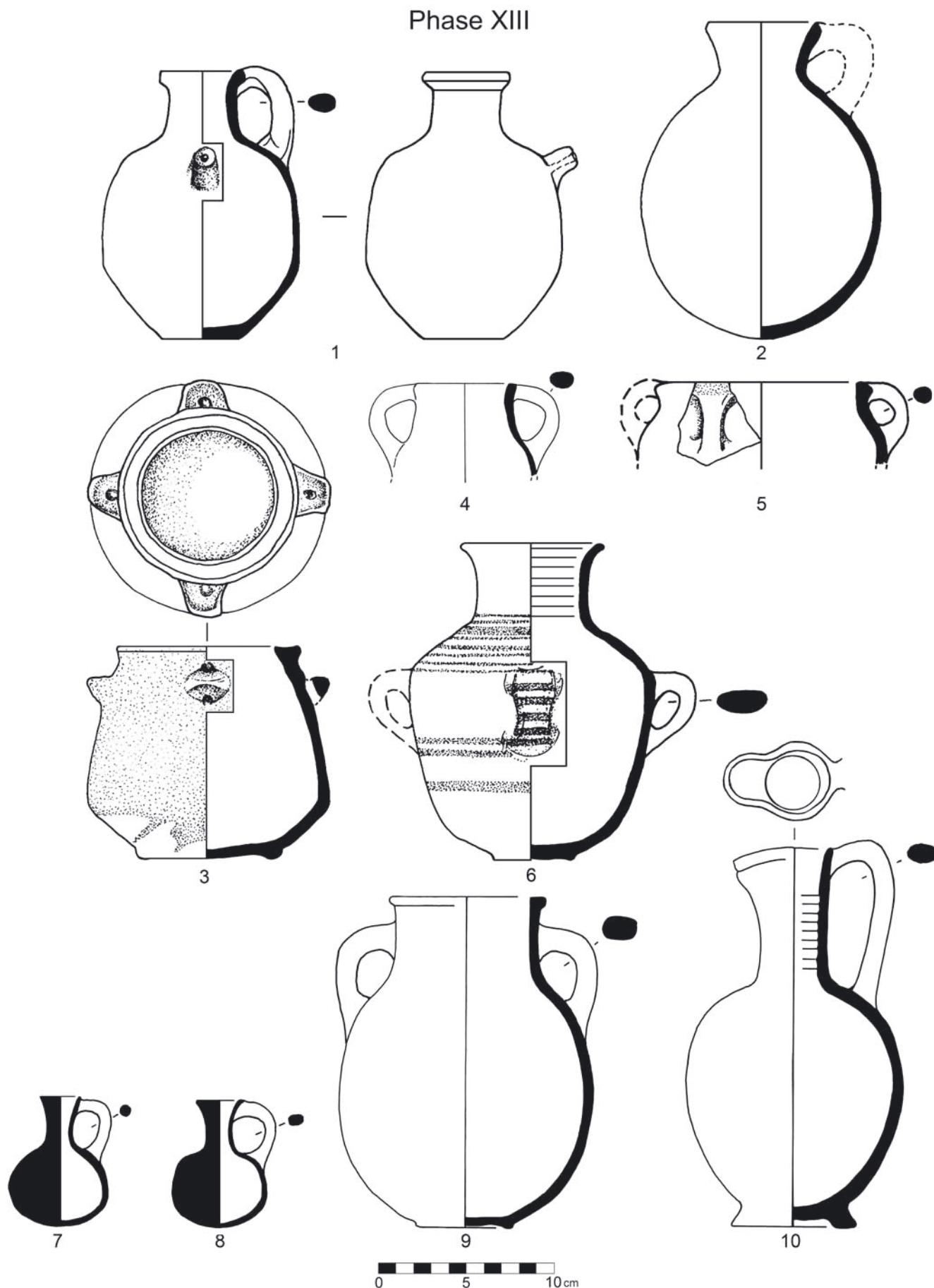


Fig. 416 Juglets and jugs and their volumes, Phase XIII: 1 (165:1) = 0.65; 2 (165:2) = 1.25; 3 (165:7) = 1.03; 4 (70:1); 5 (165:6); 6 (165:8) = 1.27; 7 (165:5) = 0.05; 8 (165:3) = 0.05; 9 (170:5) = 1.59; 10 (170:1) = 0.83

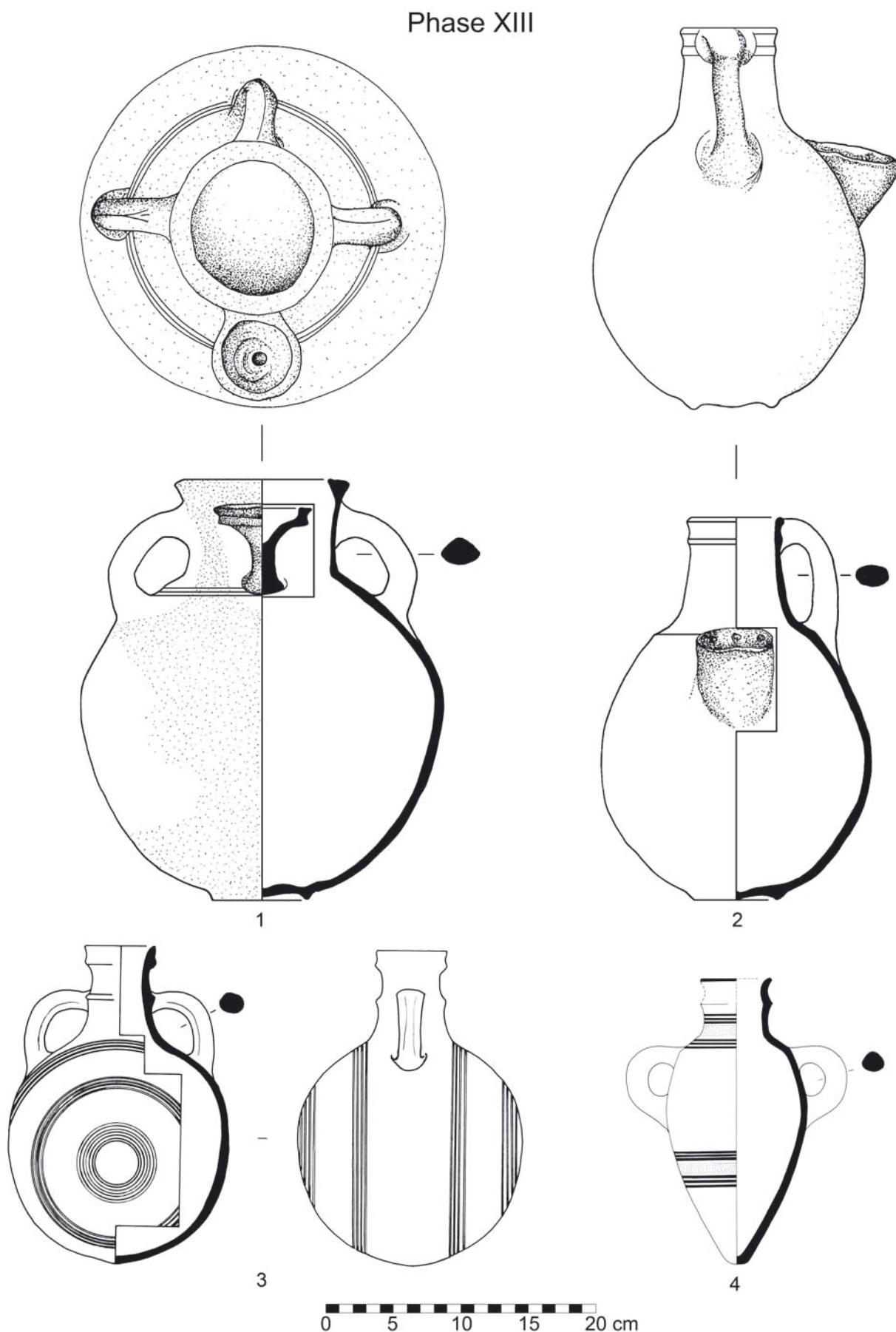


Fig. 417 Jugs and their volumes, Phase XIII: 1 (168:1) = 8.50; 2 (168:2) = 3.84; 3 (170:9) = 2.21; 4 = 0.71

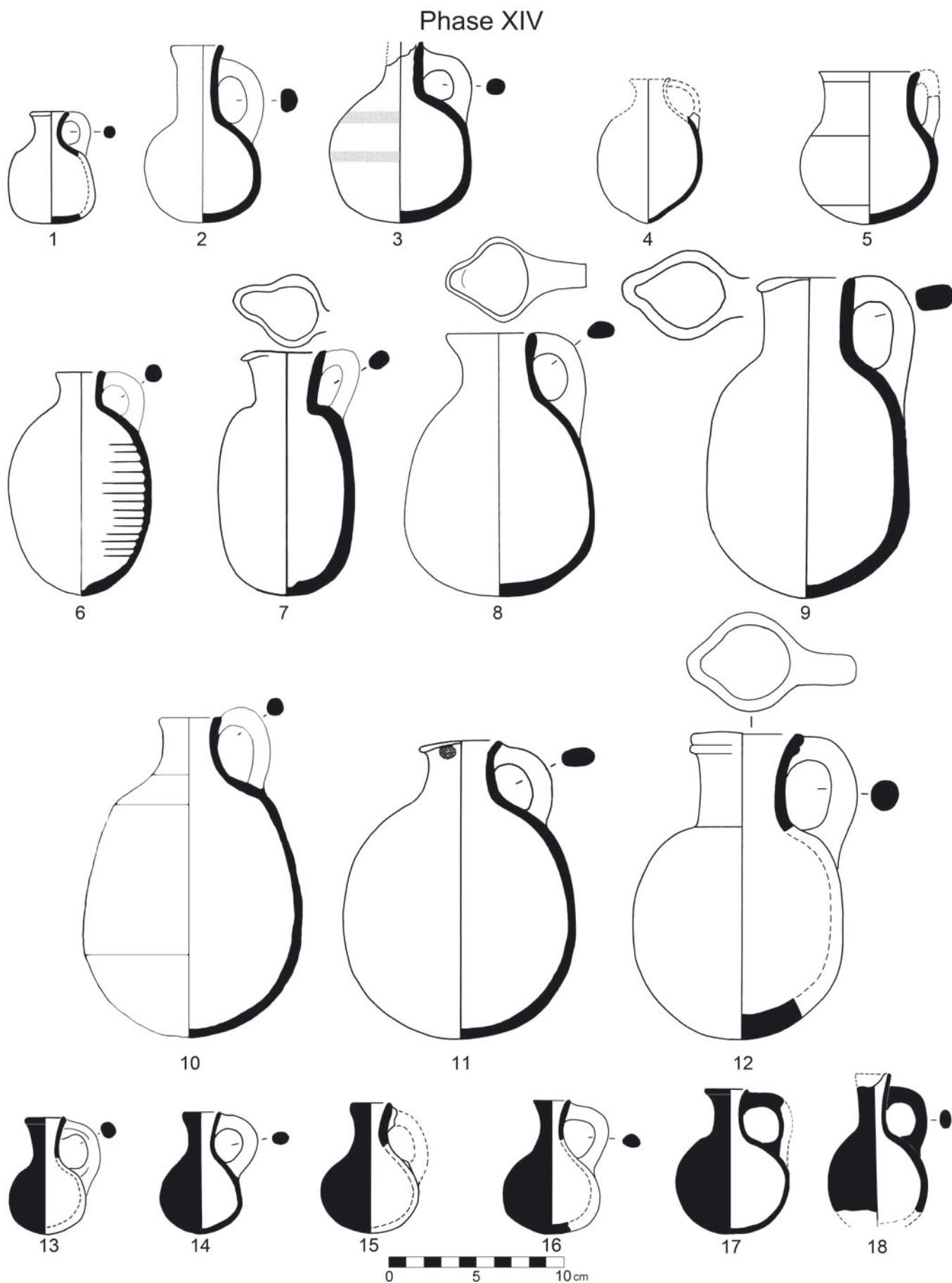


Fig. 418 Juglets and their volumes, Phase XIV: 1 (205:7) = 0.04; 2 (33:11) = 0.09; 3 (33:10) = 0.19; 4 (205:10) = 0.10; 5 (205:11) = 0.18; 6 (205:5) = 0.30; 7 (205:6) = 0.26; 8 (33:9) = 0.62; 9 (204:9) = 0.78; 10 (204:3) = 1.11; 11 (204:6) = 1.07; 12 (204:1) = 0.70; 13 (205:12) = 0.03; 14 (205:13) = 0.03; 15 (89:1) = 0.05; 16 (33:13) = 0.04; 17 (205:14) = 0.09; 18 (205:15) = 0.07

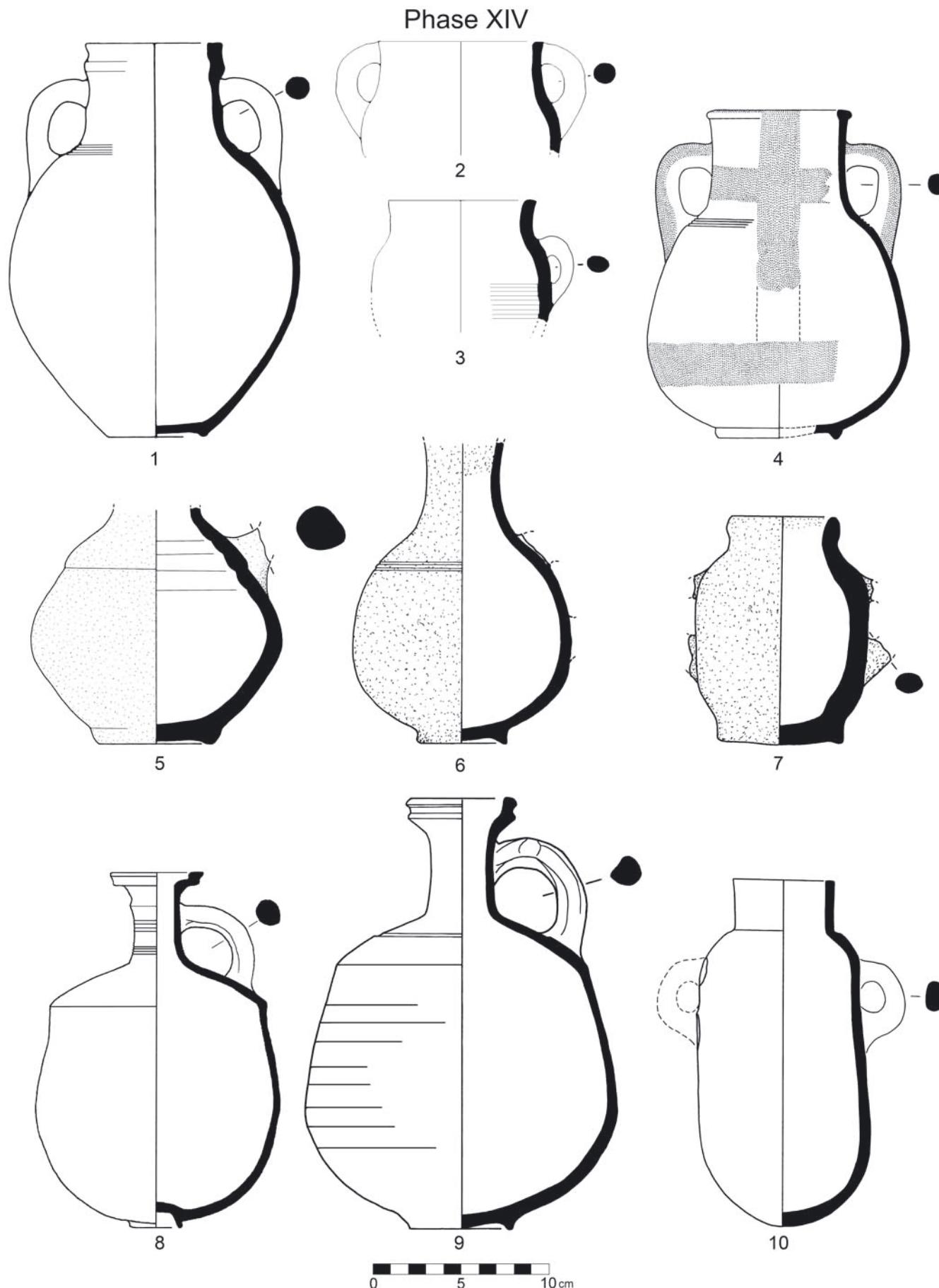


Fig. 419 Juglets and jugs and their volumes, Phase XIV: 1 (203:1) = 2.24; 2 (203:8); 3 (203:9); 4 (203:7) = 1.56; 5 (33:8); 6 (204:4) = 0.78; 7 (205:3) = 0.35; 8 (198:9) = 1.36; 9 (198:8) = 2.29; 10 (205:1) = 0.77

Phase XIV

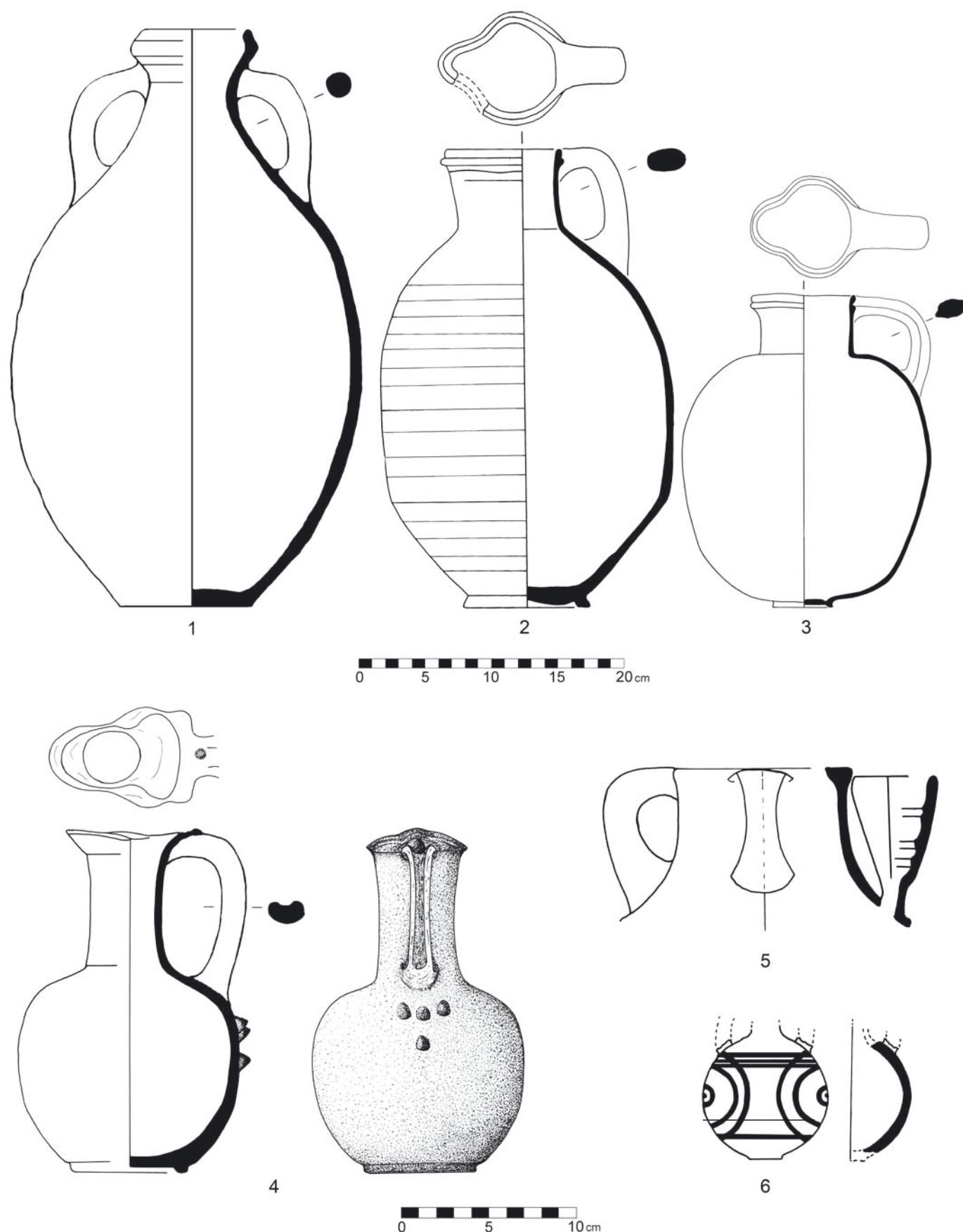


Fig. 420 Jugs and their volumes, Phase XIV: 1 (200:1) = 9.75; 2 (200:3) = 6.88; 3 (200:2) = 3.52; 4 (219:1) = 0.81; 5 (203:2); 6 (218:7) = 0.10

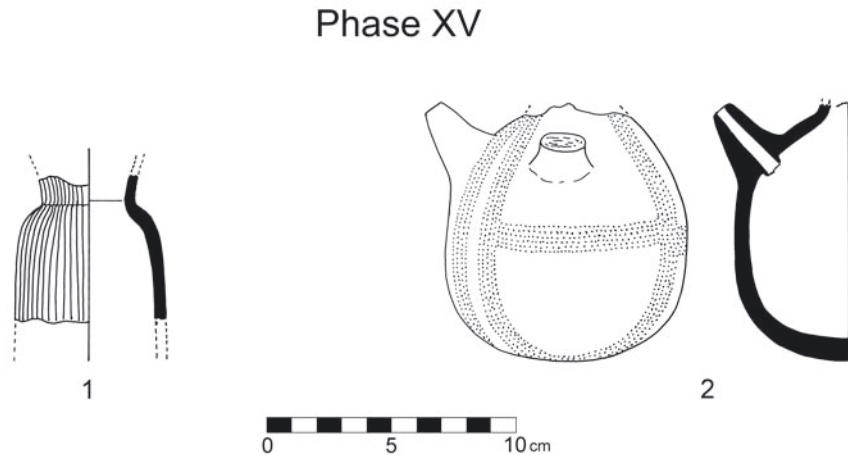


Fig. 421 Juglets and their volumes, Phase XV: 1 (47:1); 2 (47:2) = 0.32

represent imitations. Amongst the other juglets are several which first appear in the preceding Phase XII (Figs. 418: 4, 6–9, 12). The juglet with a wide mouth and one handle (Fig. 418:5) has its counterpart in Phase XIII where it has two handles (cf. Fig. 416:4). New shapes are the bulbous juglets with narrow mouths (Figs. 418:10 and 11), one of which has an “eye-impression” which makes the upper part resemble a bird (Fig. 418:11).

There are other new shapes amongst juglets and jugs but older shapes were still in use. The latter are represented, for instance, by the juglet/jug with the wide mouth and two handles (Fig. 419:2; in Phase XIII: Fig. 416:4), and the red-slipped juglet (Fig. 419:6; in Phase XII: Fig. 414:7). The general shape of the jug, which is decorated with broad red bands (Fig. 419:4), is identical with those which were described as being of the Phoenician type in Phase XII (cf. Figs. 415:1–3) and their imitation in Phase XIII (cf. Fig. 416:9). Other new shapes are a juglet with a step on the shoulder (Fig. 419:5), the low, almost cylindrical, juglet with two large vertical handles on mid-body (Fig. 419:7), and the oblong cylindrical juglet with two small handles below the shoulder. Decanter-jugs of Metallic Ware (Lower Cretaceous clay) are now well-established (Figs. 419:8 and 9).

Another new type is the tall jug with two handles from the neck to the shoulder (Fig. 420:1), and two other jugs are variations of an older style (Figs. 420: 2 and 3). The large Metallic Ware jug is a variant of the jug from Phase XIII (Fig. 420:5; cf. in Phase XIII:

Fig. 417:1). Another vessel which is Phoenician-inspired has some interesting traits (Fig. 420:4). It is a clear imitation of a counterpart in metal because of the indicated five plastic “rivets”: one on top of the handle and four below the handle. Also the concave section of the handle imitates metal handles. This vessel resembles the one in Phoenician-style from Phase XIII (Fig. 416:10). The juglet (Figure 420:6) is most likely of the genuine Cypriote Black-on-Red Ware and not a locally produced copy (BoR I).

Phase XV (juglets 3 / 42.9; Fig. 421)

There are just a few vessels which clearly belong to this phase which in fact in most spots is identical with the surface layer. One is a juglet with marked shoulder, red slip and a knife-burnish (Fig. 421:1). Another one is a spherical spouted juglet with a decoration of red bands (Fig. 421:2).

JARS⁸⁸ (Figs. 422–429)

Jars are the fifth most common vessel group (182 / 16.4 %). The main function of jars was the storage of liquids and foodstuffs, mainly grain. Large storage jars were hardly used for transportation of liquids and foodstuffs because of their size and weight. There are painted examples in Phases IX–XI. Plain jars are the rule in Phases XII–XIV.

Phase IX (46 / 22.9 %; Figs. 422–425)

There are several medium-sized jars with painted decoration (Figs. 422:1–4). The decoration consists of horizontal bands and wavy lines, and in one case a

⁸⁸ The classification of certain vessels as jugs or jars is not based on strict criteria. Transitional types are common; however, vessels which are more heavily built and most often have two handles are considered jars whereas jugs are

usually of a more slender construction with a varying number of handles. Our jar group comprises (common) jars and storage jars.

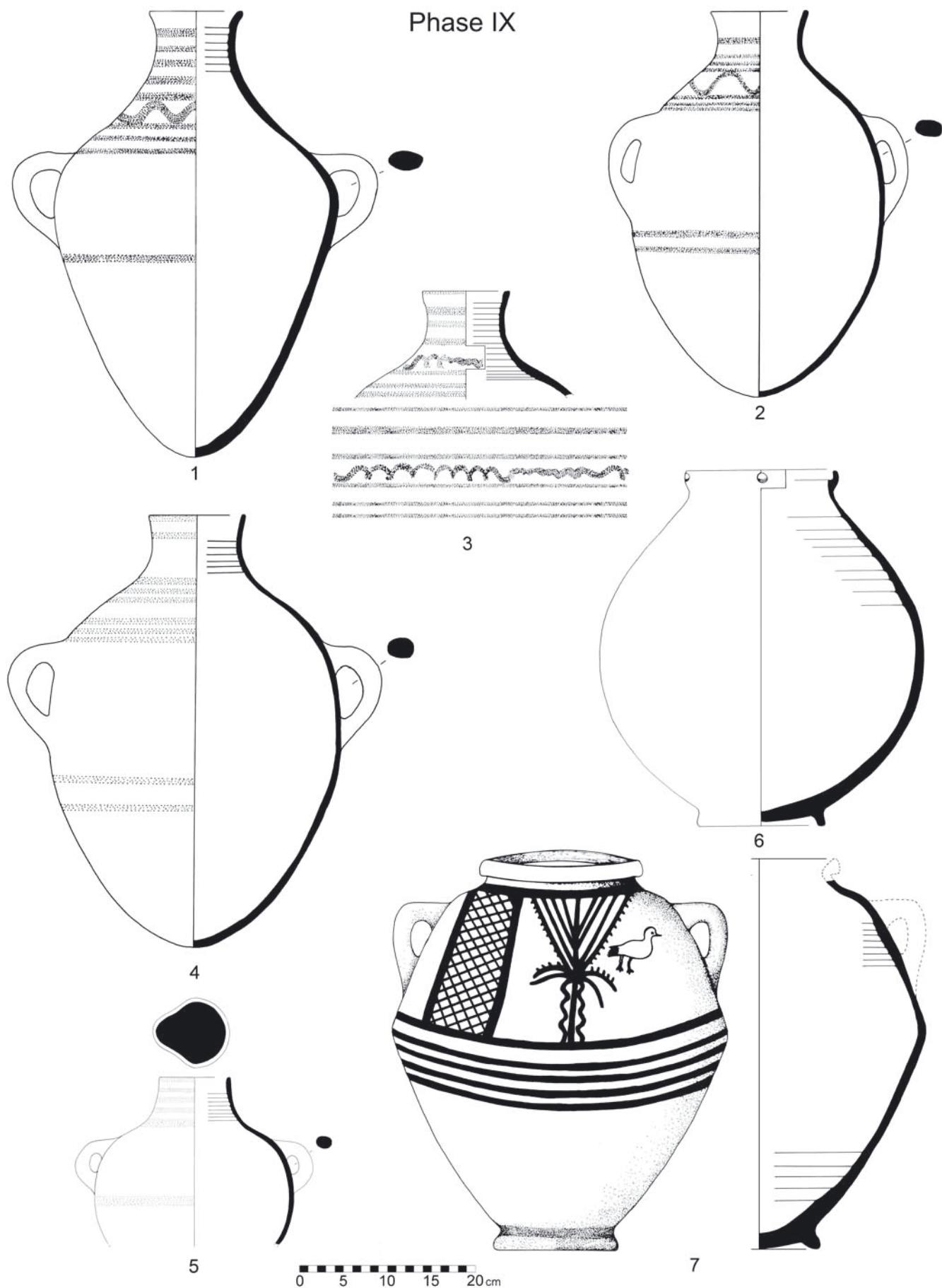


Fig. 422 Jars and their volumes, Phase IX: 1 (308:3) = 15.91; 2 (305:4) = 13.99; 3 (308:6); 4 (305:3) = 21.96; 5 (308:5); 6 (310:1) = 21.85; 7 (320:3) = 24.24

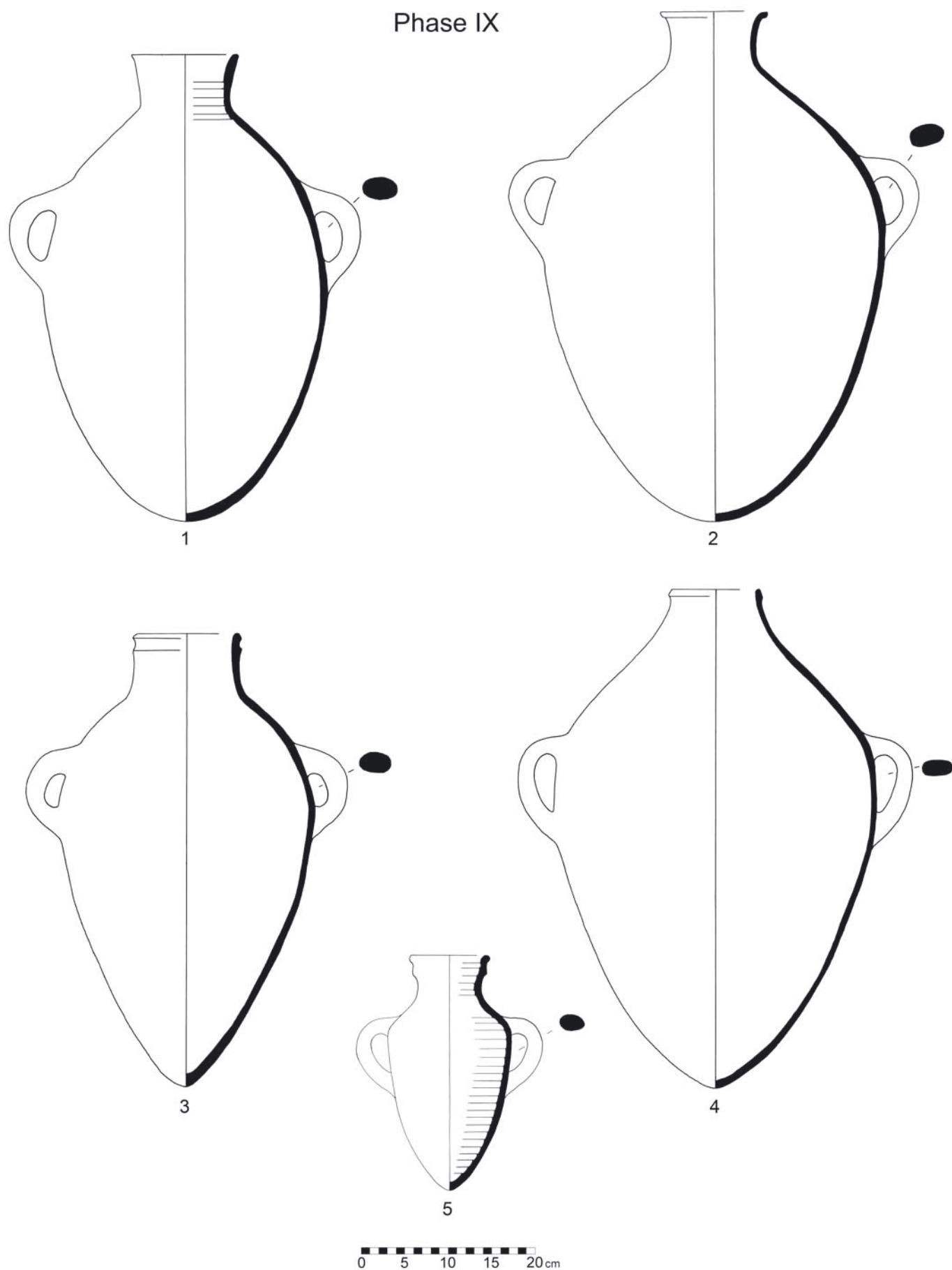


Fig. 423 Jars and their volumes, Phase IX: 1 (313:1) = 21.15; 2 (314:2) = 32.95; 3 (313:4) = 15.39; 4 (314:1) = 28.80; 5 (297:4) = 1.71

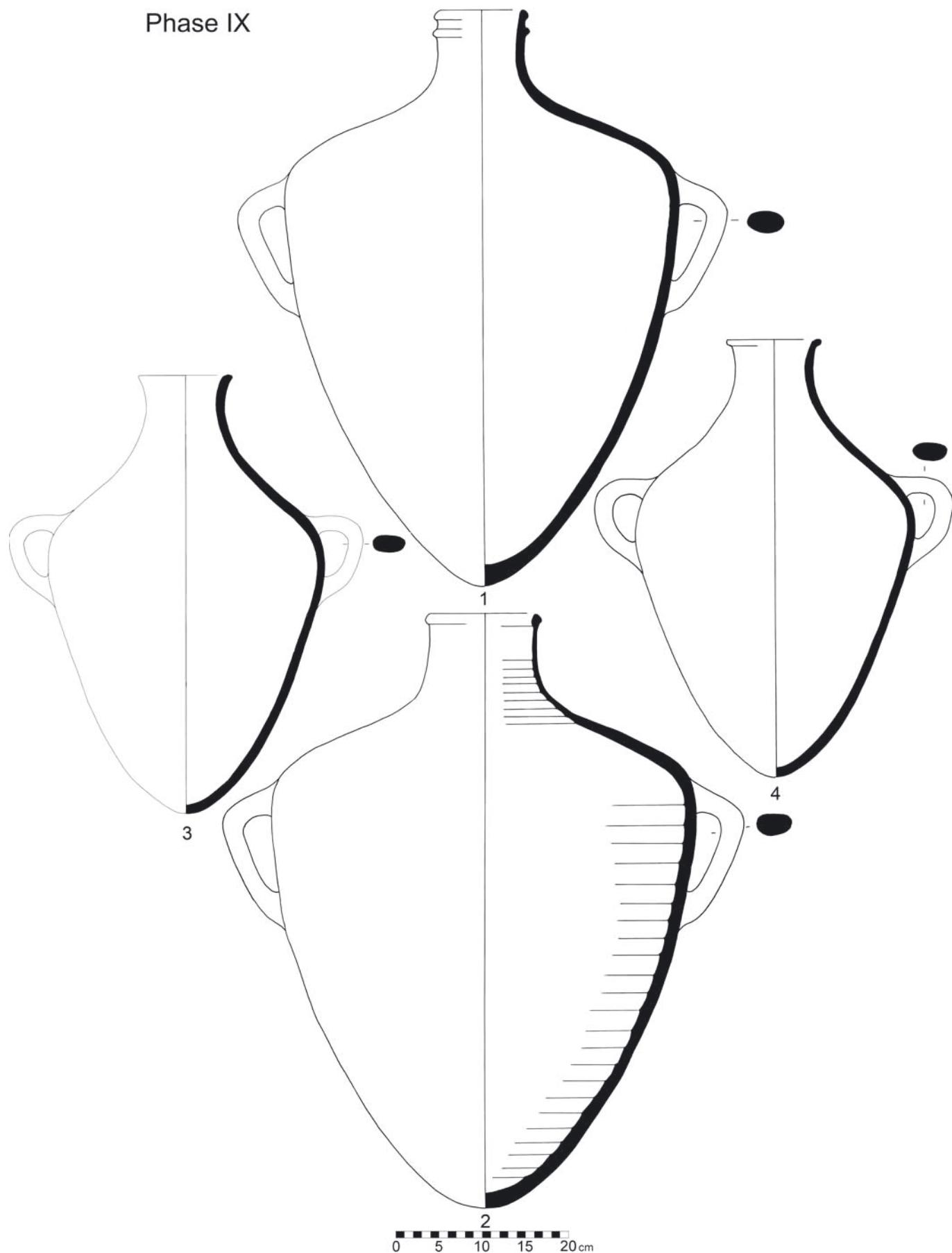


Fig. 424 Jars and their volumes, Phase IX: 1 (310:2) = 45.54; 2 (311:1) = 54.68; 3 (311:2) = 15.55; 4 (311:3) = 15.06

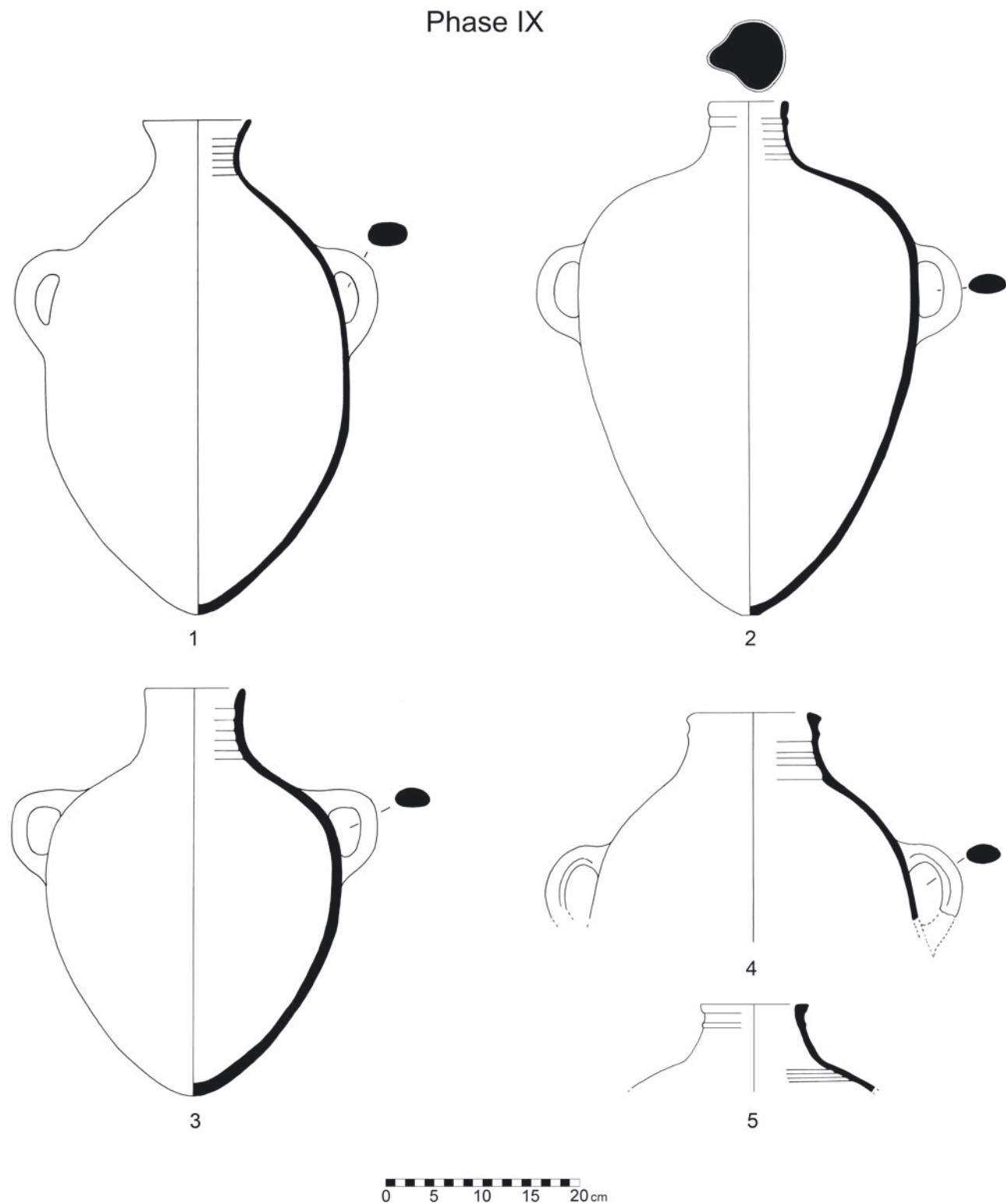


Fig. 425 Jars and their volumes, Phase IX: 1 (314:5) = 19.68; 2 (317:1) = 24.63; 3 (317:6) = 13.27; 4 (317:5); 5 (317:4)

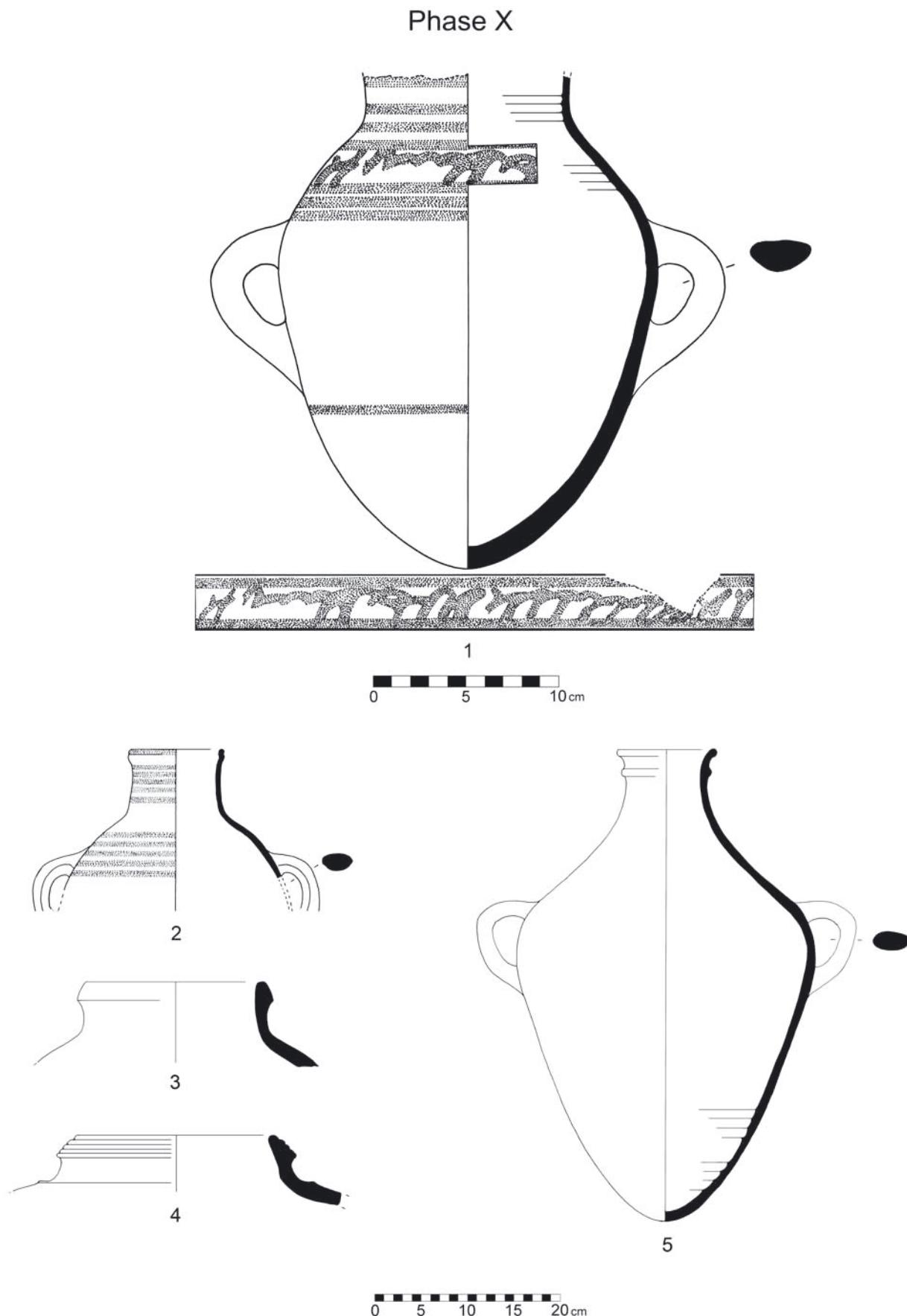


Fig. 426 Jars and their volumes, Phase X: 1 (363:6) = 4.34; 2 (365:1); 3 (365:3); 4 (365:4); 5 (365:2) = 15.96

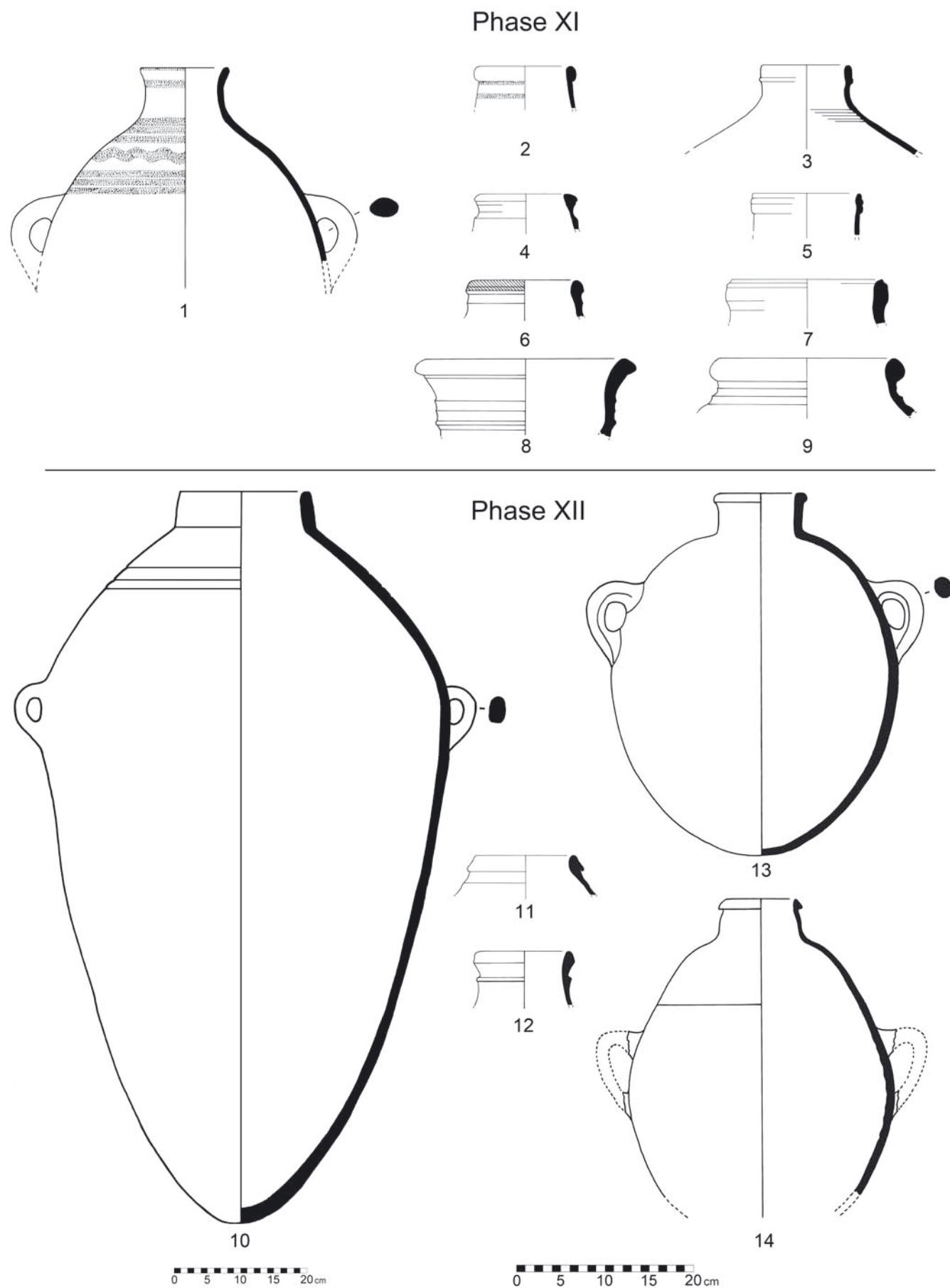


Fig. 427 Jars and their volumes, Phases XI (1-9) and XII (10-14): 1 (371:2); 2 (371:3); 3 (371:5); 4 (107:4); 5 (371:6); 6 (107:3); 7 (107:6); 8 (107:5); 9 (107:7); 10 (125:6) = 164.29; 11 (115:3); 12 (115:2); 13 (115:5) = 14.85; 14 (115:4) = 13.20

curvilinear decoration resembling a script (Fig. 422:3; cf. the similar decoration of a jar from Phase X, Fig. 426:1). Horizontal lines below the belly are a trait which only rarely occurs in the Late Bronze Age but in this phase this type of decoration is not uncommon. Their bodies are ovoid, sometimes with a marked shoulder. The painted jar with a trefoil mouth is uncommon (Fig. 422:5). The plain group which dominates includes various shapes: the ovoid type which corresponds to that of the decorated group (e.g. Figs. 423:1 and 2), the ovoid type with a somewhat pointed base (e.g. Figs. 423: 3 and 4) and the group with marked shoulders (Fig. 424). An unusual type is the globular jar with a wide mouth, a lid device and plastic knob decoration (Fig. 422:6). The small jar with a wide mouth, neck ridge and quite large handles from shoulder to belly is quite uncommon (Fig. 423:5). The most common type of rim is the simple rim but there are also thickened rims. Ridges below the rim or on the neck occur (e.g. Figs. 423:3 and 5, 424:1, 425:2 and 4, the latter with a wide mouth, and Fig. 425:5) and one of the larger jars has a trefoil mouth (Fig. 425:2).

A biconical jar with a palm-tree and bird motif (422:7) resembles Late Bronze Age types, both in shape and decoration.

Phase X (14 / 16.3 %; Fig. 426)

Painted jars are still in use (Figs. 426:1 and 2). The neck ridge of one of the jars (Fig. 426:5) is fairly pronounced and resembles a jar from Phase IX (Fig. 424:1, except for the upright rim and the lower placed handles). There are just a few, incomplete, large storage jars ("pithei"; Figs. 426:3 and 4) which do not occur in Phase IX. A very special jar is shown in Figure 426:1: ovoid in shape with a wide neck (and rim) and a decoration of horizontal bands bordering a curvilinear decoration resembling a script.

Phase XI (18 / 12.5 %; Figs. 427:1–9)

This is the last Iron Age phase at Tell Abu al-Kharaz with decorated jars (Figs. 427:1, 2 and 6). The rim of the first follows the earlier tradition of Phase IX. General traits are the greater variations in the shapes of the rims in comparison with the previous phase (Figs. 427:4–9)

Phase XII (15 / 9.1 %; Figs. 427: 10–14)

One of the largest vessels ever at Tell Abu al-Kharaz derives from this phase (Fig. 427:10, capacity 164.29 l). Its general shape with three incised lines on the shoulder is new to the site. The same can be said about the smaller jars (Figs. 427:13 and 14). Variations of the shapes of these two jars are repeatedly found in the coming Phases XIII and XIV.

Phase XIII (29 / 18.1 %; Fig. 428)

This phase, too, produced a number of large storage jars of ovoid shape. Several of them are decorated with an incised wavy line on the neck (Figs. 428:1 and 4). The smaller jars follow the tradition of the previous phase (Figs. 428:6 and 7). The rims and necks show numerous variations.

Phase XIV (52 / 17.3 %; Fig. 429)

Numerous variations of large and small jars were produced. Amongst the large jars (Figs. 429:1 and 2) is one with a capacity of 171 litres (Fig. 429:1). The second illustrated (Fig. 429:2) has a very wide mouth and a T-shaped rim which is a new trait. The smaller jars often have straight or incurved rims, sometimes neck ridges, ovoid or pear-shaped bodies, with rounded or marked shoulders, occasionally with a carination on the shoulder. They are rarely decorated with wavy lines. The small jar with a very wide mouth and pointed base is rare (Fig. 429:4).

PYXIDES (Phase IX, Figs. 430:1–8; Phase XI, Fig. 430:9)

There are too few pyxides to provide diachronic traits: eight were found in Phase IX (4.0 %) and only one in Phase XI contexts (0.7 %). It is nevertheless interesting to study the variants from Phase IX. There are two squat types with an almost low angular body profile, but the position of the small handles differs: on the first they are placed quite low on the shoulder (Figs. 430:1 and 4) and in the second case they are high up on the carinated shoulder just below the neck (Figs. 430:2 and 3). There is one squat pyxis with band decoration just above the carinated belly (Fig. 430:5). Another pyxis has a band-decoration on the belly and a kind of "simplified" metope-pattern (Fig. 430:4). Traces of metope decoration were found on a third pyxis (Fig. 430:3). One of the pyxides has an uncommon shape with a conical body profile and a flat base: this shape resembles both "standard pyxides" and bottles (Fig. 430:6). The small vessel with upright-standing horizontal lug handles is a hybrid and may as well be discussed under a different heading (Fig. 430:7). The double-pyxis is unique at the site (Fig. 430:8): two pyxides, one with a false spont, join at the shoulder/belly and are further connected by a basket handle. The decoration of brownish-red paint on a light yellowish-brown slip is also unique: it shows a kind of metope pattern with framed wavy lines, framed dots and a framed "power-line insulator" pattern on the body and framed vertical lines just above the shoulder; also the handle is decorated with encircling bands. The "pyxis" from Phase XI differs in many aspects from the others

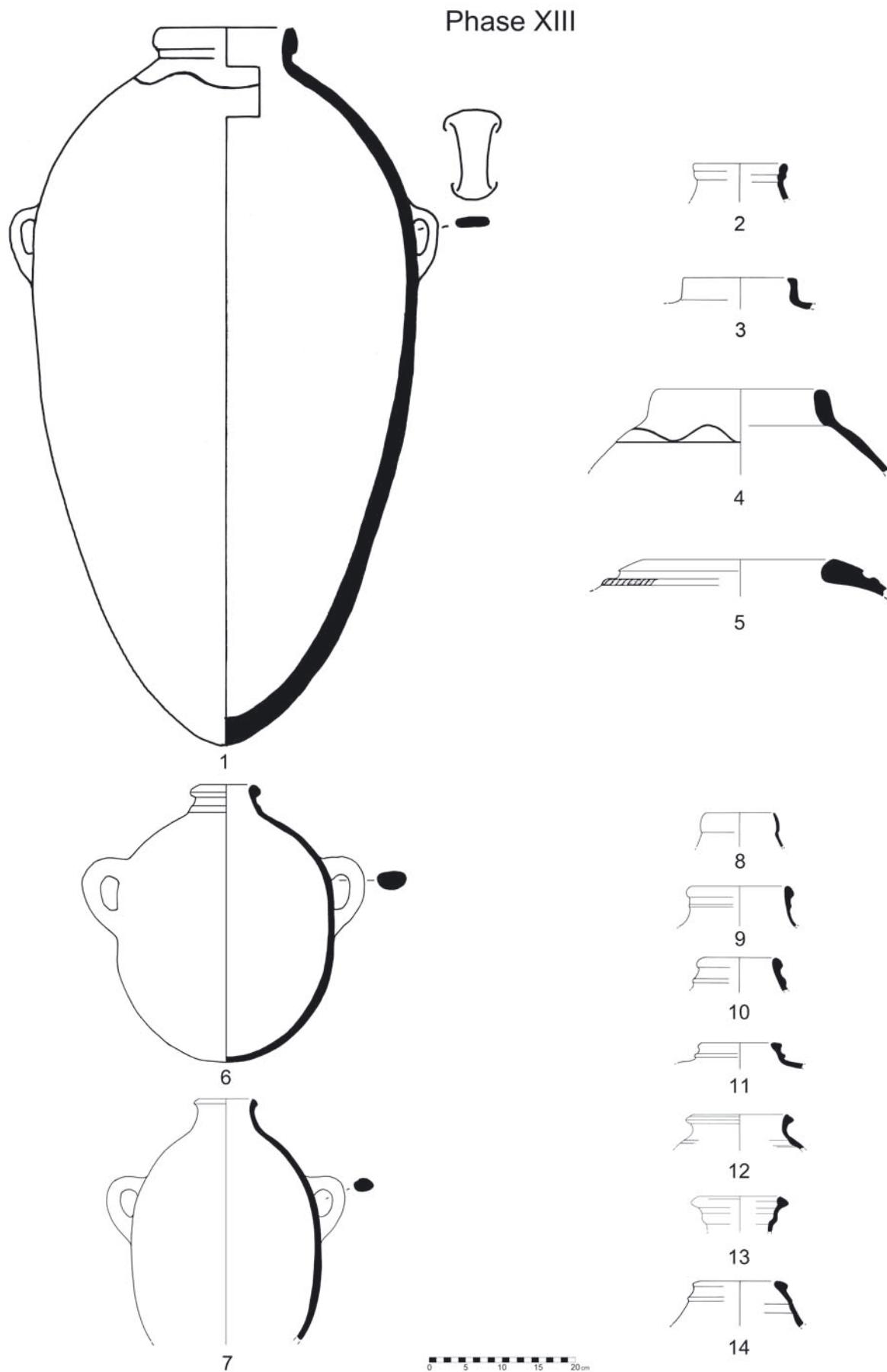


Fig. 428 Jars and their volumes, Phase XIII: 1 (174:1) = 104.49; 2 (174:2); 3 (174:3); 4 (174:4); 5 (174:5); 6 (173:1) = 13.50; 7 (173:3) = 11.27; 8 (173:4); 9 (173:5); 10 (173:6); 11 (173:9); 12 (173:10); 13 (173:12); 14 (173:13)

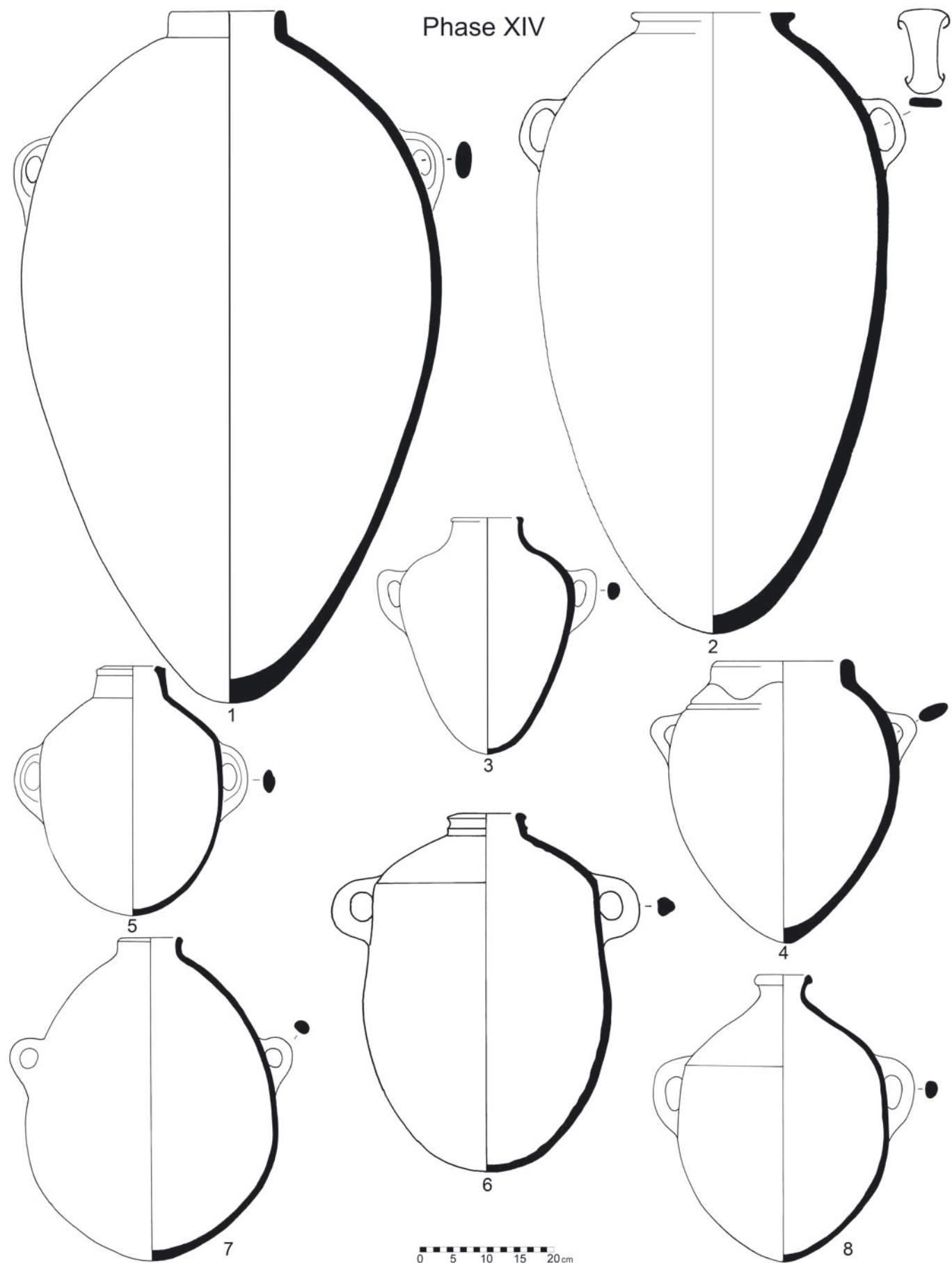


Fig. 429 Jars and their volumes, Phase XIV: 1 (208:1) = 171.38; 2 (209:1) = 102.54; 3 (208:6) = 8.22; 4 (209:2) = 18.74;
5 (208:5) = 11.09; 6 (36:2) = 32.78; 7 (208:3) = 28.24; 8 (36:4) = 16.75

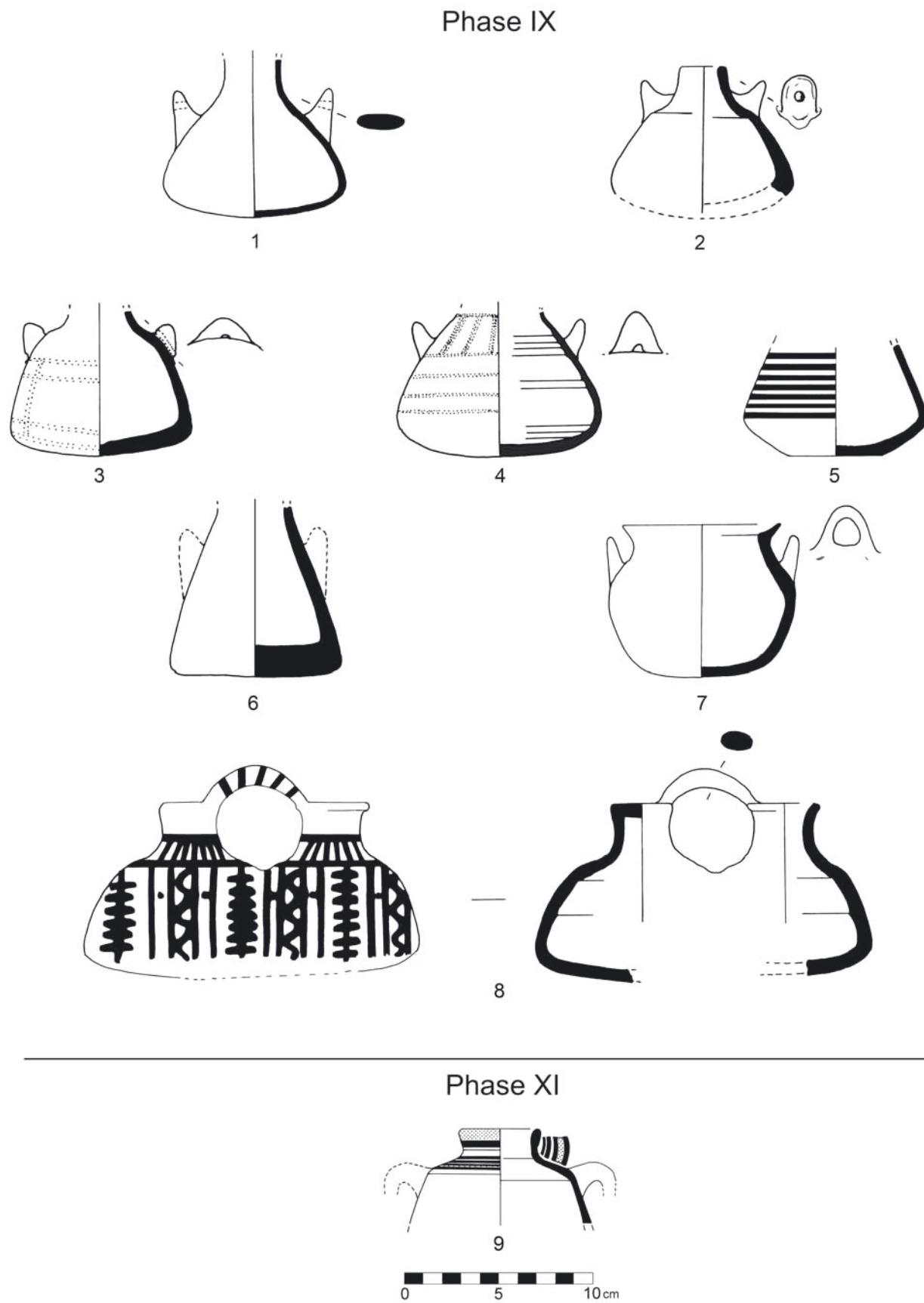


Fig. 430 Pyxides and their volumes, Phases IX (1–8) and XI (9): 1 (325:1) = 0.22; 2 (325:2) = 0.15; 3 (325:3) = 0.25; 4 (325:4) = 0.36; 5 (325:5); 6 (325:6) = 0.17; 7 (325:7) = 0.32; 8 (325:8) = 0.35; 9 (123:2)

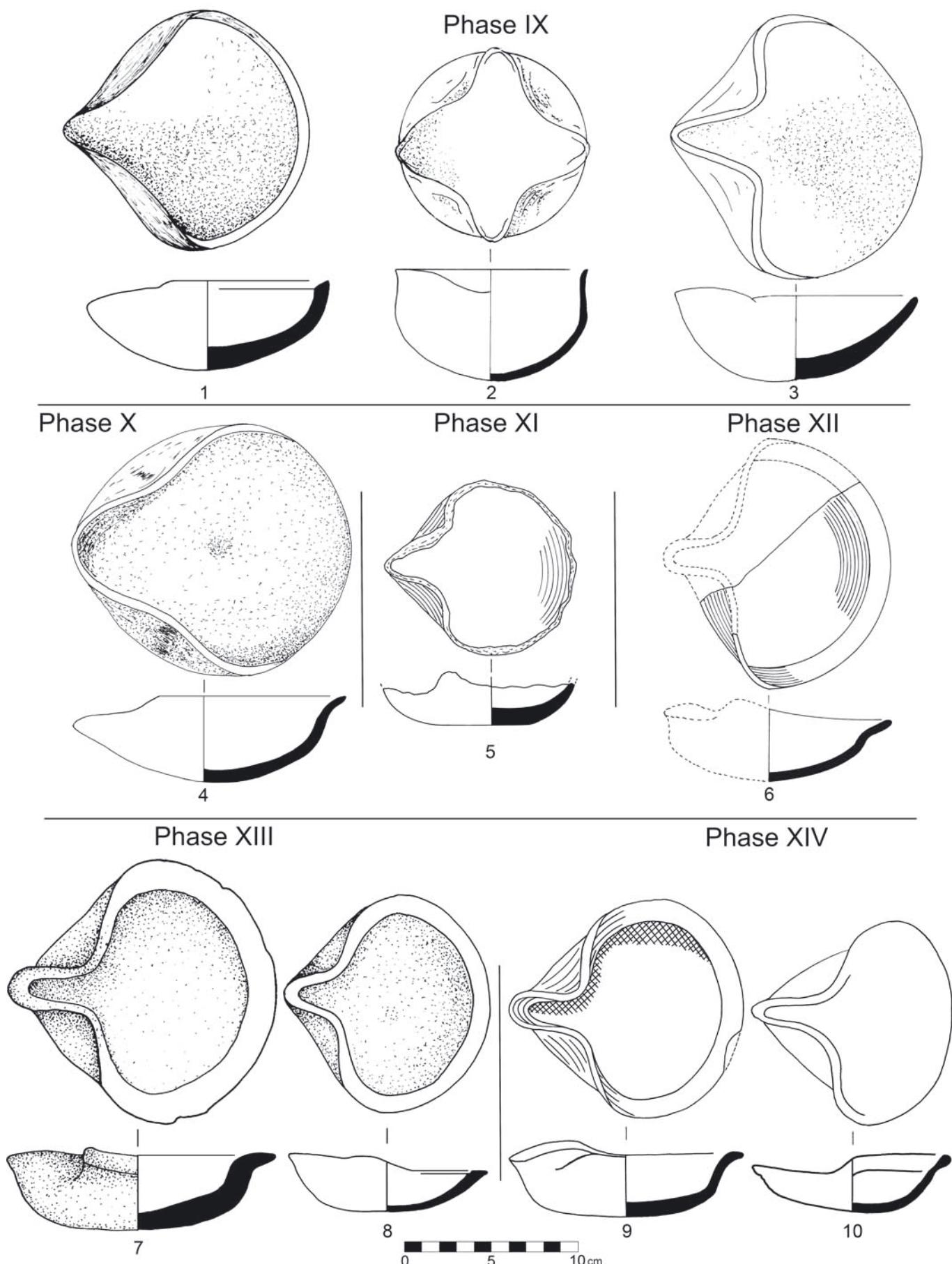


Fig. 431 Lamps and their volumes: 1 (330:4) = 0.33; 2 (330:2) = 0.38; 3 (330:3) = 0.26; 4 (365:7) = 0.44; 5 (107:10) = 0.11;
6 (115:6) = 0.21; 7 (177:8) = 0.23; 8 (177:9) = 0.09; 9 (211:1) = 0.20; 10 (211:2) = 0.10

(Fig. 430:9): it has a marked shoulder and vertical handles from the shoulder to the belly. The fine fabric is covered by a light yellowish-brown burnished slip on which a red and black band-decoration is painted.

LAMPS (Fig. 431)

There are altogether 20 lamps: 5 / 2.5 % in Phase IX, 1 / 1.2 % in Phase X, 2 / 1.4 % in Phase XI, 1 / 0.6 % in Phase XII, 4 / 2.5 % in Phase XIII and 7 / 2.3 % in Phase XIV. Lamps commonly have one spout but there are two with multiple spouts: one quite deep lamp from Phase IX has four spouts (Fig. 431:2) and another from Phase XIV has seven (Fig. 212 left). The latter was mounted on a stem which is not preserved. Although not a significant trait there is a tendency for the older lamps to be deeper with a straight rim, and for those from Phase XII onwards to have a more pinched mouth with a flared rim.

COOKING POTS (Figs. 432–442)

Cooking pots are the most common group of vessels (242 / 21.8 %). Cooking pots are one of the best chronological markers. This distinct group was used over an open fire for the preparation of foodstuffs and liquids. Consequently they usually show traces of secondary firing/blackening. The easily recognized, distinctive, fabric is usually coarse to very coarse with large inclusions (mainly calcite and/or sand) to withstand high temperatures and rapid changes of temperature (cf. RICE 1987: 228–230). Temporary storage was certainly another function considering the shapes of the rims. Some specialized rim shapes were designed to fit lids and/or strings. The latter were certainly used together with hides or tissue in order to protect the contents during storage or, during cooking, to reach higher temperatures faster. Cooking pots are not painted and the decorative elements are restricted to incisions and impressions.

The large numbers of cooking pots are certainly influenced by the tendency of these vessels to break more often than others because of the frequent chemical and physical stress to which they are exposed; moreover, the breakage pattern of a cooking pot usually produces more sherds than result from breakage of other comparable vessels which are not exposed to open fire and heat.

Phase IX (39 / 19.4 %; Figs. 432–434)

There are three distinct cooking-pot shapes, all of which are represented by complete or intact vessels: the most common is the wide-open, cyma-shaped, cooking pot with a triangular rim ranging in diameter from 38 cm to 26 cm, no handles (Fig. 432), and some-

times one or two incisions on the upper part of the rim (Figs. 432:5–7) or impressed dots (Fig. 432:3). The second type, also cyma-shaped (Fig. 433:1), which has two handles, is a derivative of the Late Bronze Age types, often only a little more than 20 cm in diameter (cf. FISCHER 2006a: 248–251); it has a rounded and slightly trimmed rim (both types 30 / 14.9 %). The third type is the so-called cooking jug (9 / 4.5 %), which differs to the largest extent from local traditions: it has a closed shape with a raised body and always has two handles; the rims differ in this group: incurved, straight and everted rims occur (Figs. 433:2–5 and 434).

Phase X (27 / 31.4 %; Figs. 435 and 436)

There are three types of open-shaped cooking pots. In the first group, the tradition from the previous phase persists: the vast majority of the cooking pots lack handles, are cyma-shaped and have the typical triangular rims (Figs. 435:5 and 6; 436:1 and 2), which sometimes bear incisions; a variant of these traditional shapes is the cooking pot with a carination at the widest part of the body (Fig. 436:1). The second group represents an innovative development of the rim profiles of the first group: the slight concavity on the upper part of the rim develops into a pronounced concavity and eventually an incurved rim (Figs. 436:3–6). The third group represents a new shape: wide mouth with upright stance/rim which is either thickened externally (folded-over; Fig. 435:2) or externally profiled (Fig. 435:3). Cooking pots of closed shape (Fig. 435:1) occur only sporadically in Phase X.

Phase XI (40 / 27.8 %; Fig. 437)

The triangular-rim type with derivatives still exists (Figs. 437:1–3). The simple, thickened rim from Phase X is also still in use (Fig. 437:4). A new type is the cooking pot with a slightly thickened rim and a carination below the rim (Fig. 437:5). Another type has a stepped inverted rim with two handles (Fig. 437:6). Yet another new type is the cooking pot with a narrow mouth and simple externally thickened rim and handles (Fig. 437:7).

Phase XII (35 / 21.2 %; Fig. 438)

A faded derivative of the cooking pot with a triangular rim is still in use (Fig. 438:1). The common repertoire of cooking pots in this phase includes those with thickened and slightly incurved rims (Fig. 438:3) and carinations below the rim (Fig. 438:2) which both stem from Phase XI. A new shape which is a development of the earlier so common triangular rims appears (Fig. 438:5): the triangular shape is reduced to an external thickening below the rim. The majority of the cooking pots have handles.

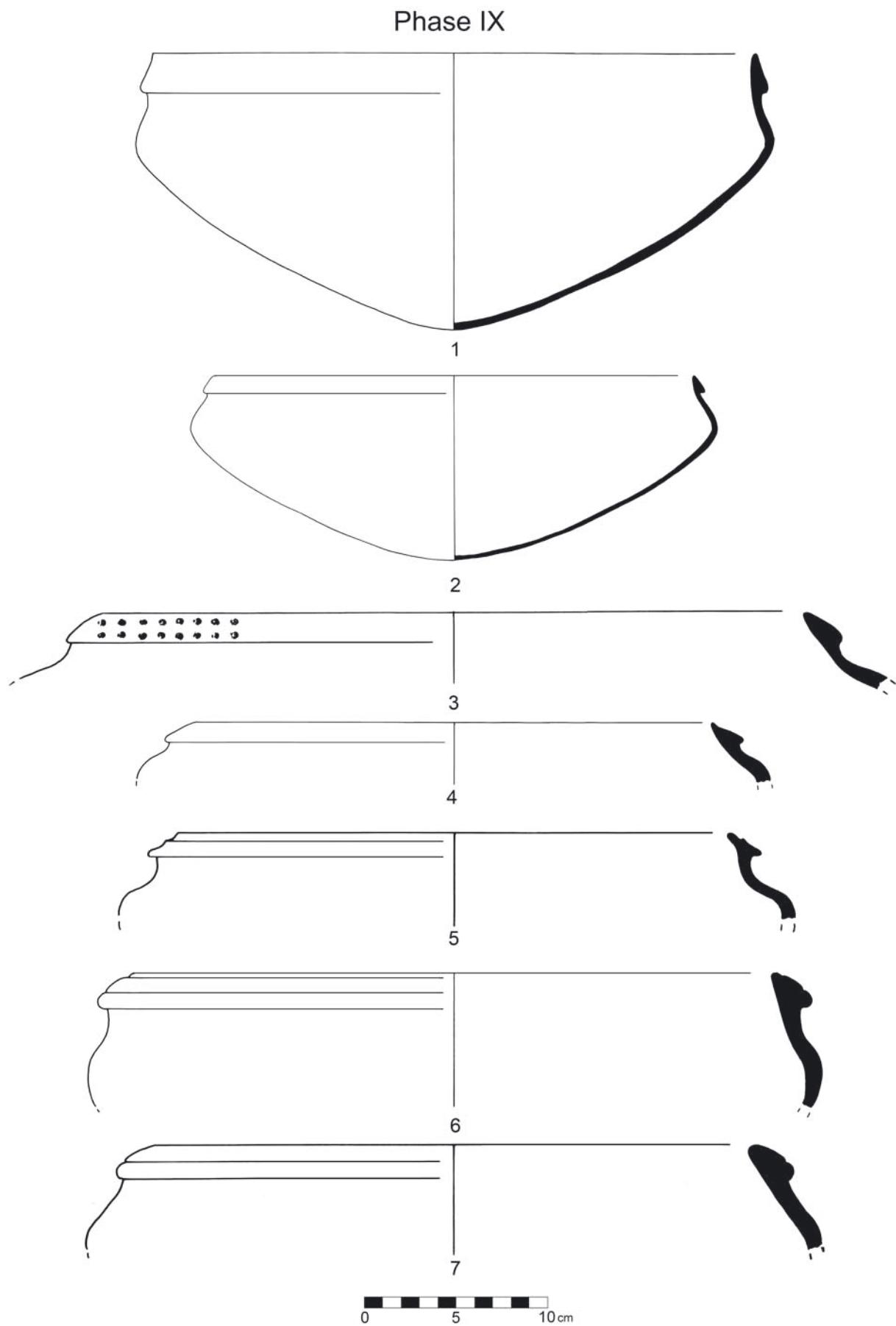


Fig. 432 Cooking pots and their volumes, Phase IX: 1 (333:5) = 8.42; 2 (333:6) = 3.72; 3 (334:8); 4 (334:6); 5 (335:4); 6 (335:2); 7 (335:3)

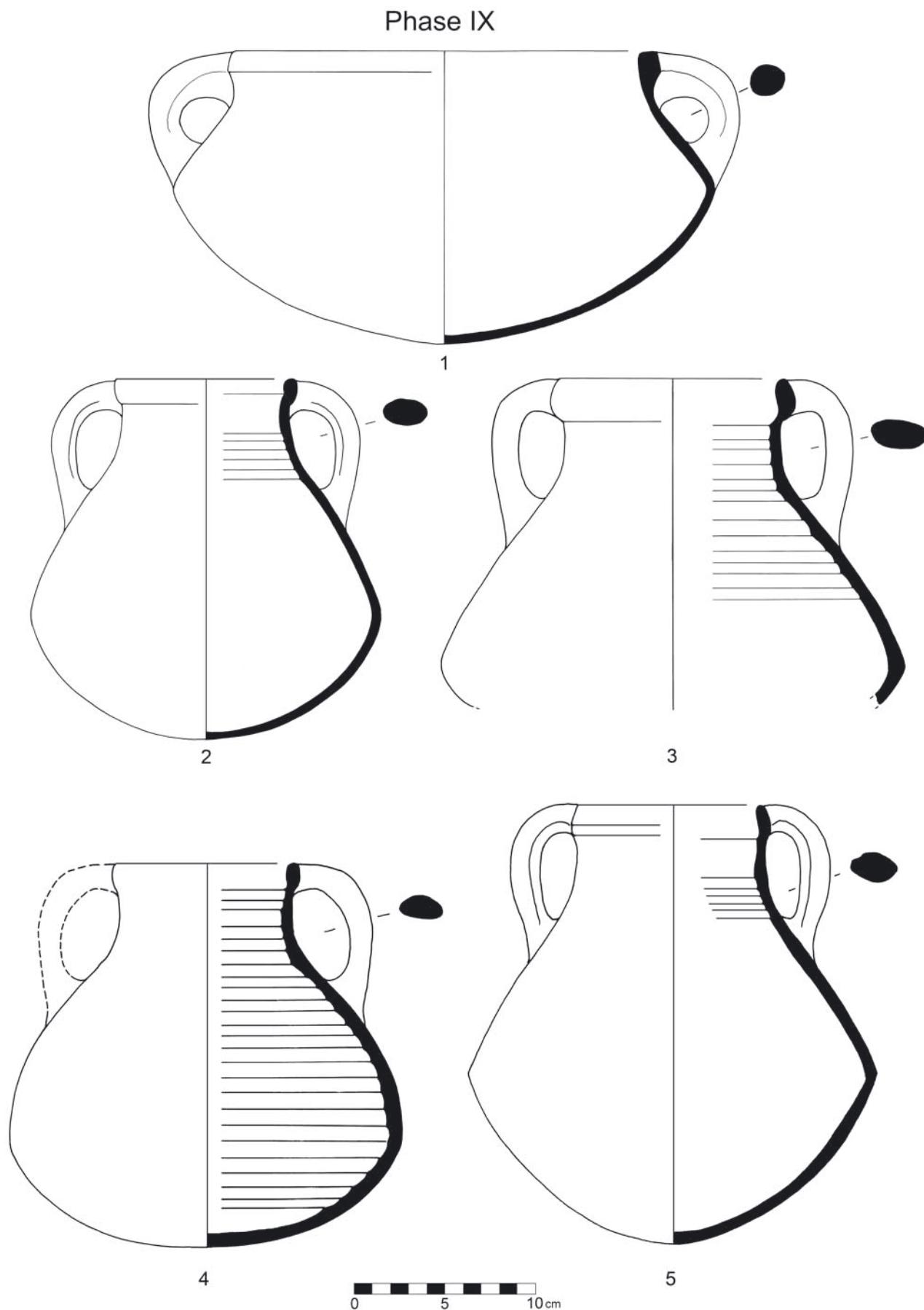


Fig. 433 Cooking pot/jugs and their volumes, Phase IX: 1 (335:1) = 6.46; 2 (338:1) = 2.67; 3 (338:2) = 4.55; 4 (338:3) = 3.50; 5 (338:4) = 3.93

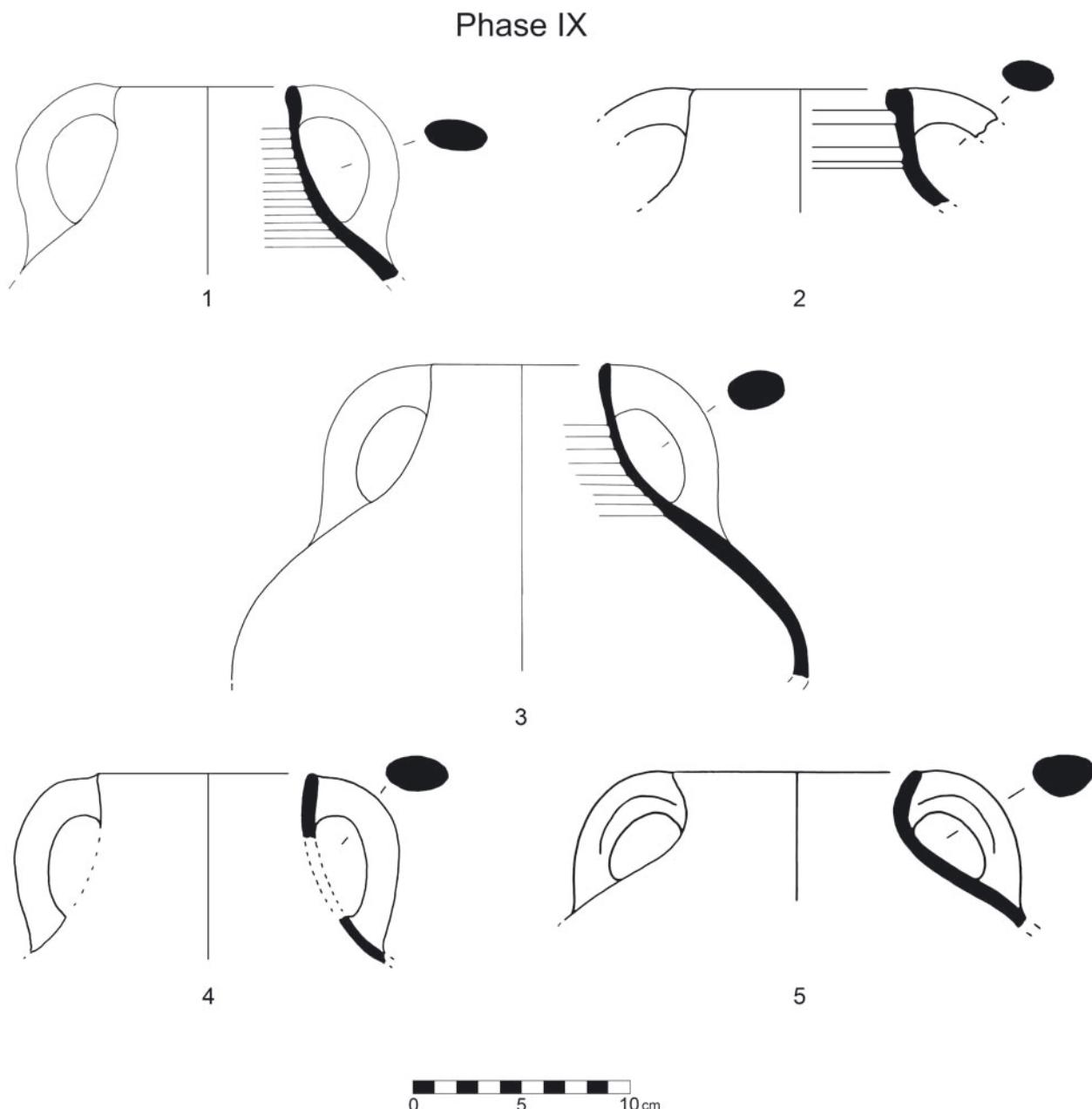


Fig. 434 Cooking jugs, Phase IX: 1 (340:2); 2 (338:5); 3 (340:1); 4 (338:6); 5 (340:3)

Phase XIII (30 / 18.8 %; Figs. 439 and 440)

The type with the external thickening below the rim and handles from the previous phase becomes common (Figs. 439:1–3). Other variants are cyma-shaped cooking pots with derivatives of the triangular-rim type (Fig. 440:1), the externally thickened-rim type (Fig. 440:2) and the type with an upright, rounded rim (Fig. 440:3). Other variants also occur (Figs. 439:4–8). An odd type is the small cooking pot with an externally and internally thickened rim, a carination low on the body and handles (Fig. 439:9).

Phase XIV (51 / 16.9 %; Figs. 441 and 442:1–8)

Simple upright or inverted, rounded or trimmed rims are common (Fig. 441). The type with the external thickening below the rim and handles from the previous two phases is still in use (Figs. 442:1 and 2). Harbingers of the cooking-pot type which becomes common in the later part of the Iron Age appear (Fig. 442:3–8).

Phase XV (Fig. 442:9)

While there are cooking pots from Area 10 which derive from either Phase XIV or XV there is only one

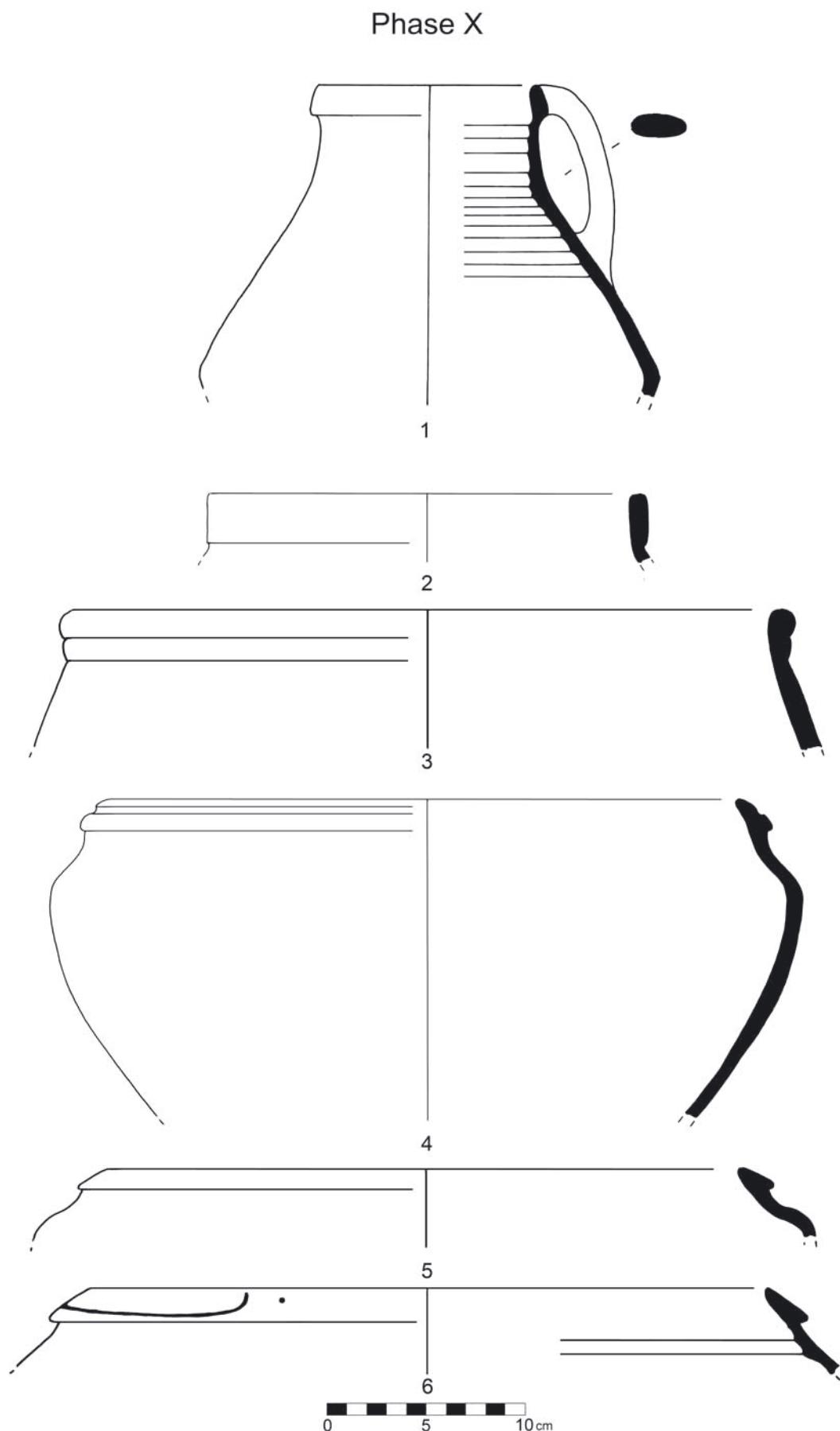


Fig. 435 Cooking jug/pots and their volumes, Phase X: 1 (368:7) = 4.36; 2 (368:2); 3 (368:1); 4 (367:1); 5 (367:3); 6 (367:6)

Phase X

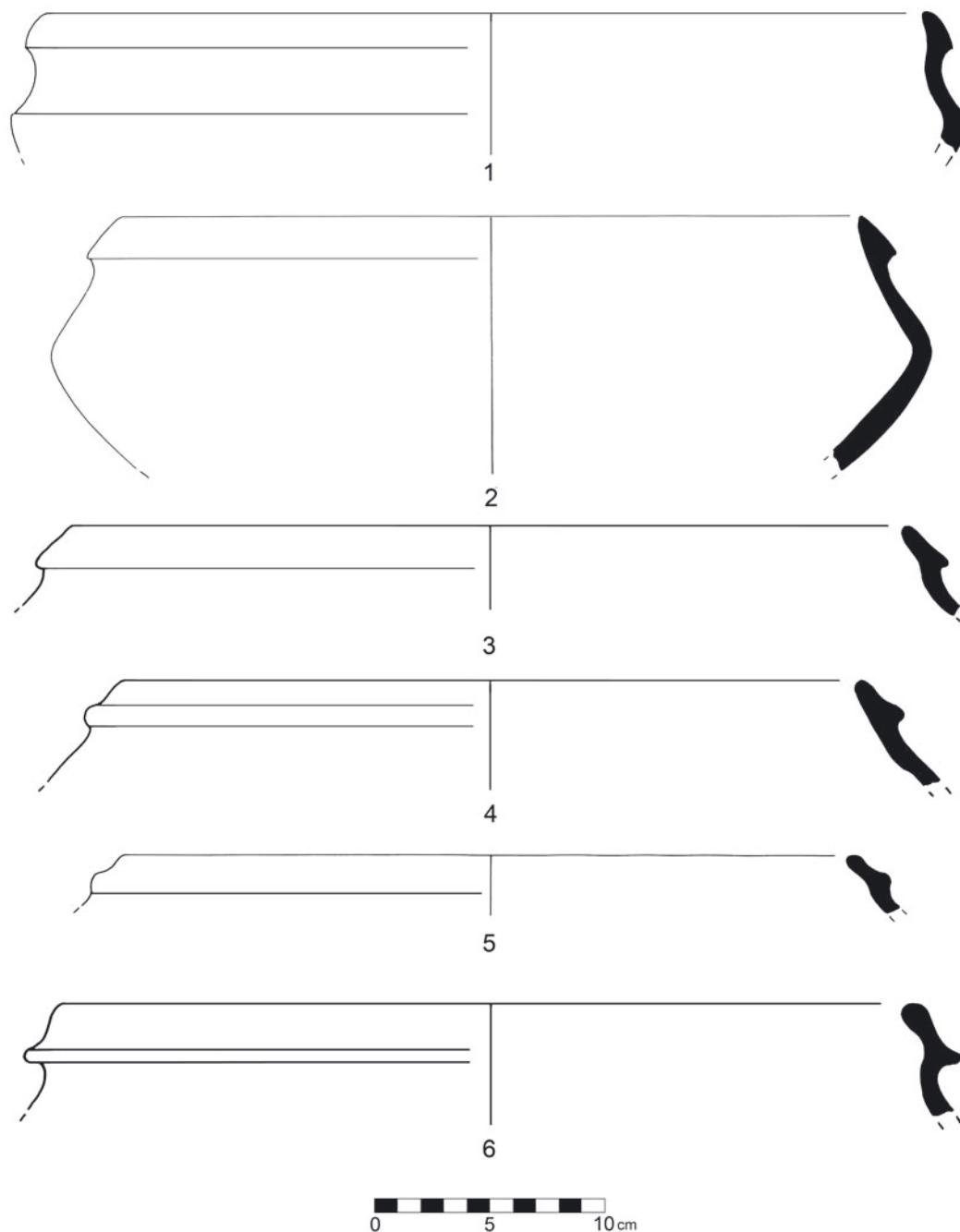


Fig. 436 Cooking pots, Phase X: 1 (368:3); 2 (366:1); 3 (366:3); 4 (366:5); 5 (366:6); 6 (366:8)

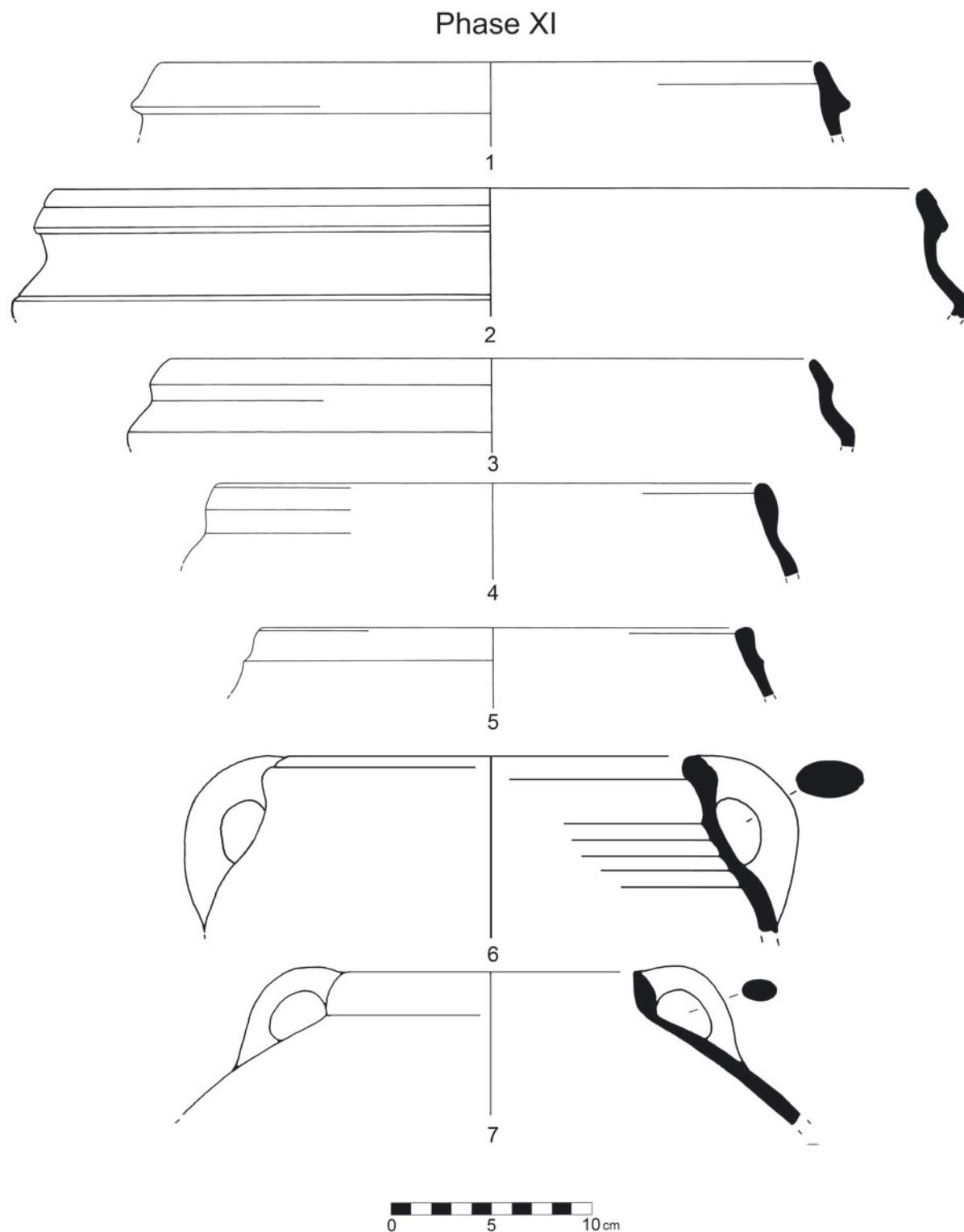


Fig. 437 Cooking pots, Phase XI: 1 (108:1); 2 (108:4); 3 (108:9); 4 (108:2); 5 (108:3); 6 (371:7); 7 (371:8)

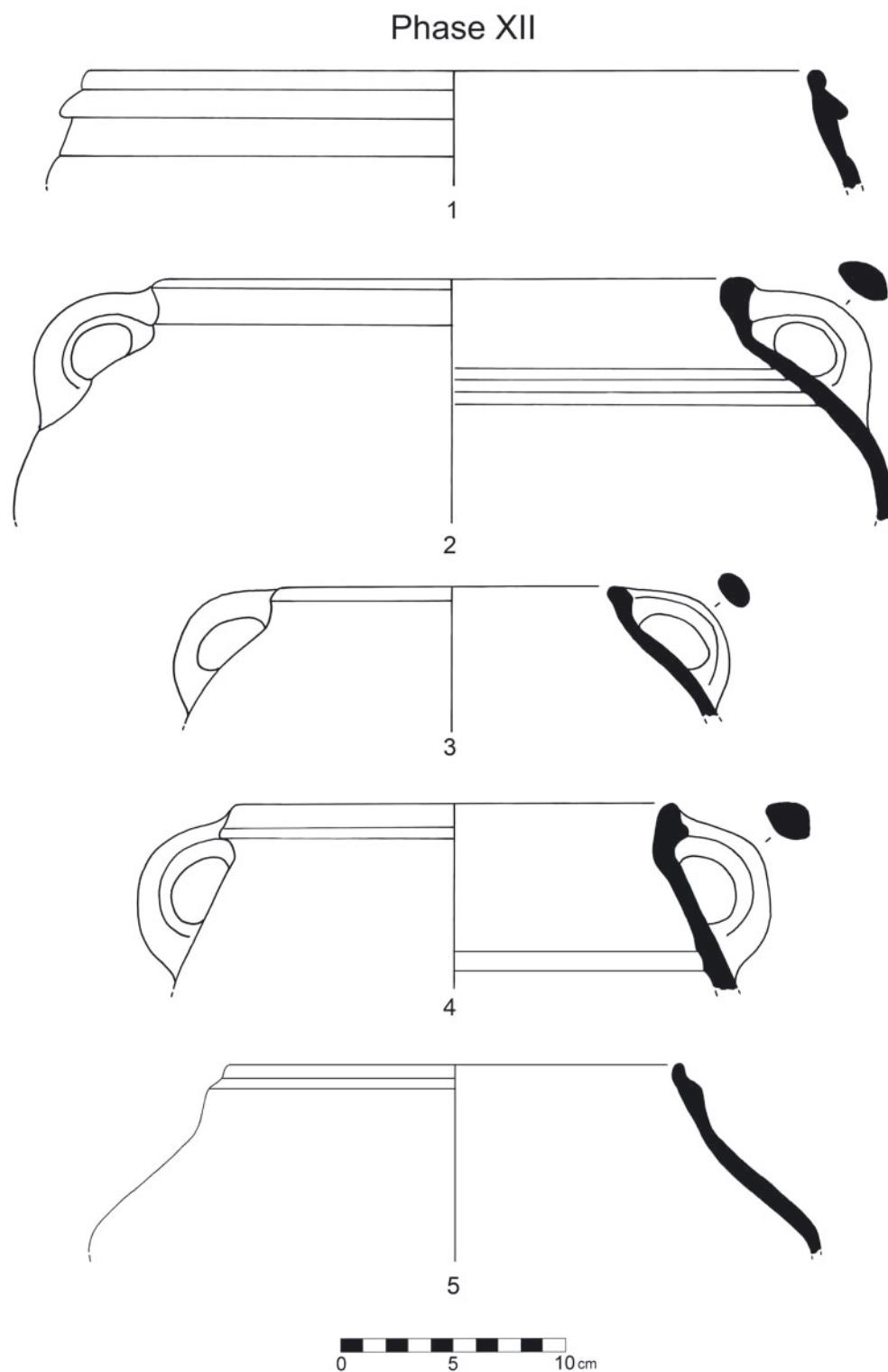


Fig. 438 Cooking pots, Phase XII: 1 (116:1); 2 (116:3); 3 (116:4); 4 (116:5); 5 (155:6)

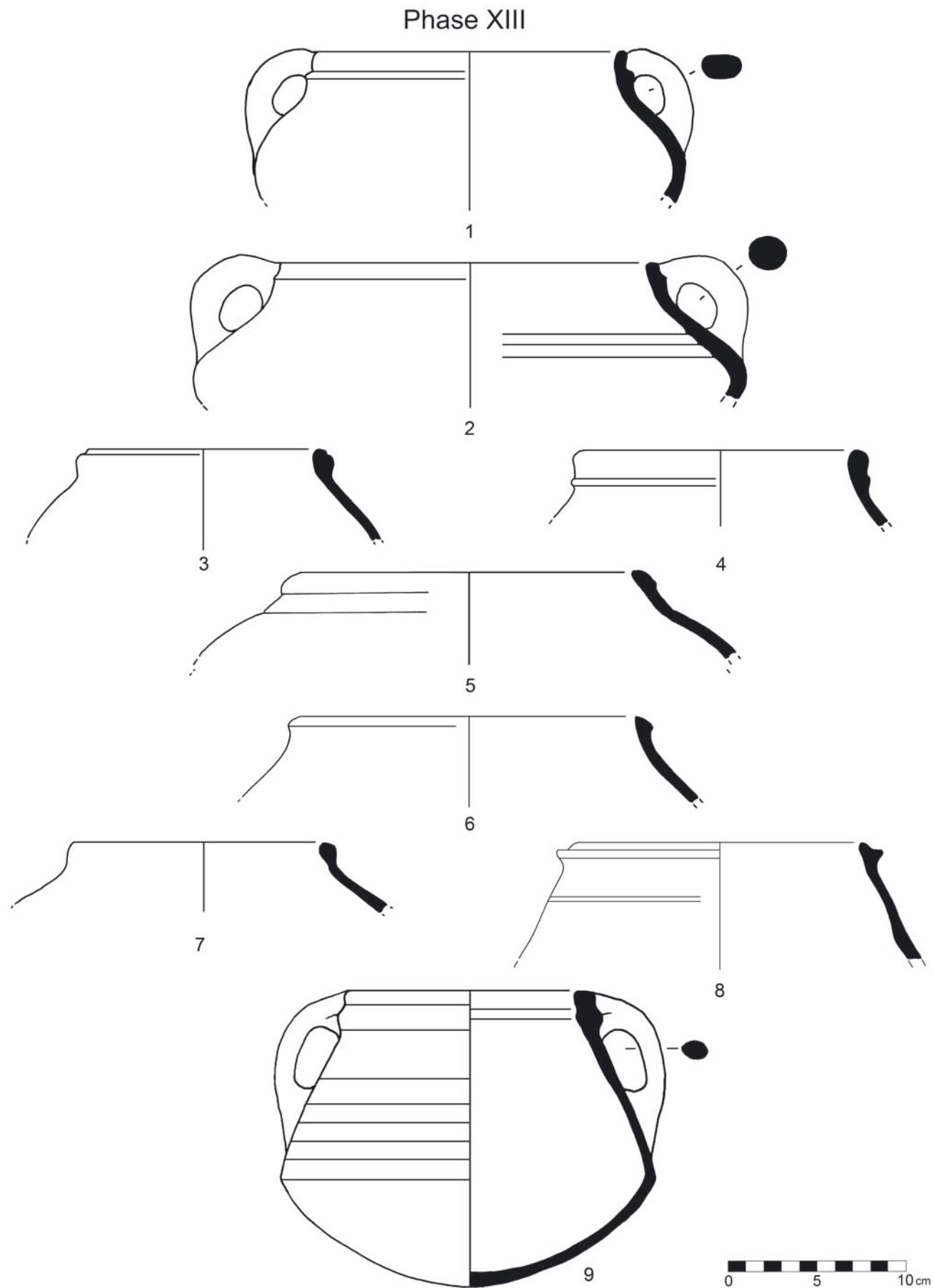


Fig. 439 Cooking pots and their volumes, Phase XIII: 1 (175:3); 2 (175:4); 3 (177:2); 4 (176:2); 5 (177:1); 6 (177:4); 7 (177:3); 8 (176:3); 9 (176:1) = 3.01

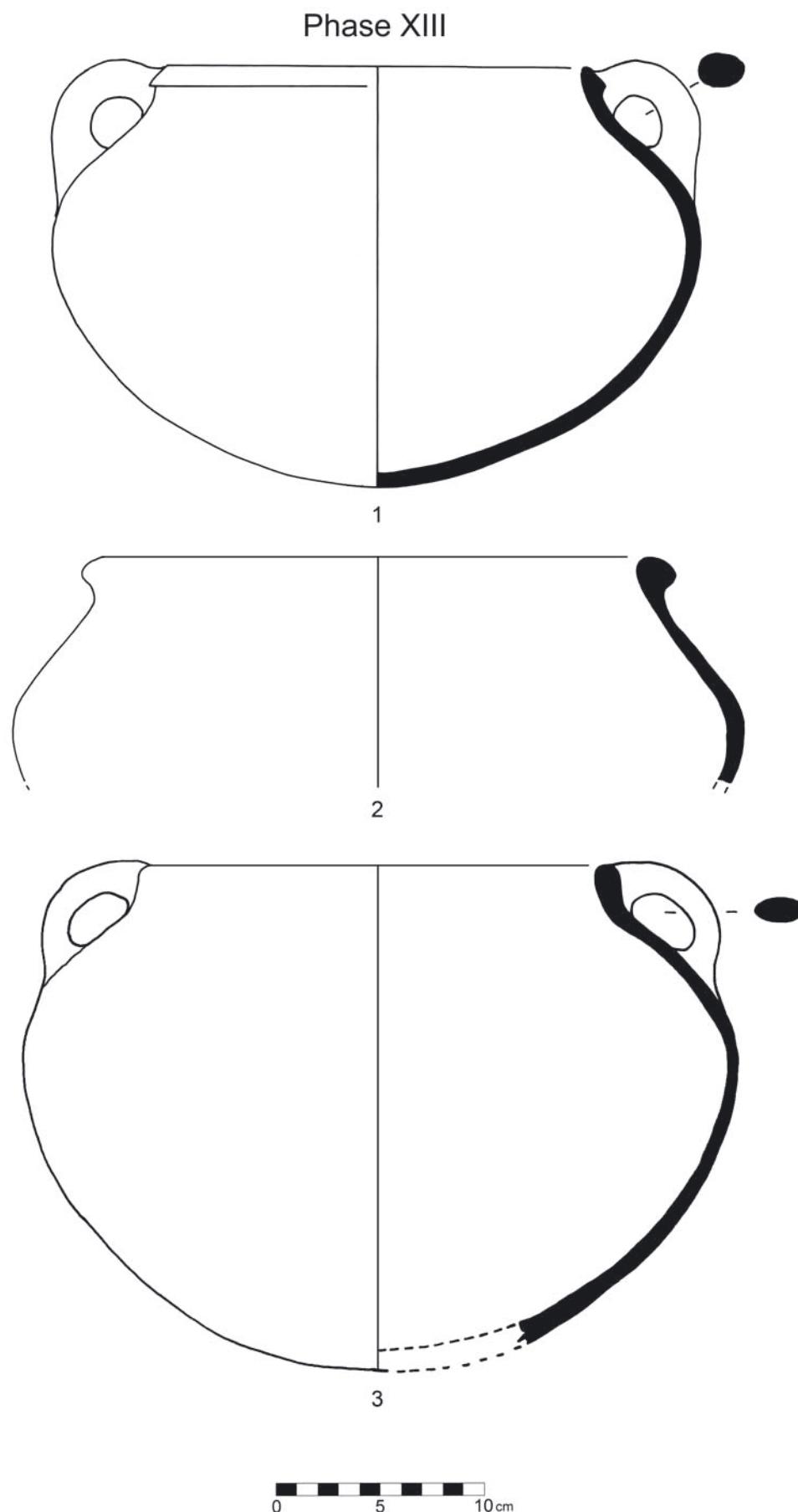


Fig. 440 Cooking pots and their volumes, Phase XIII: 1 (175:1) = 8.55; 2 (177:7) = 13.46

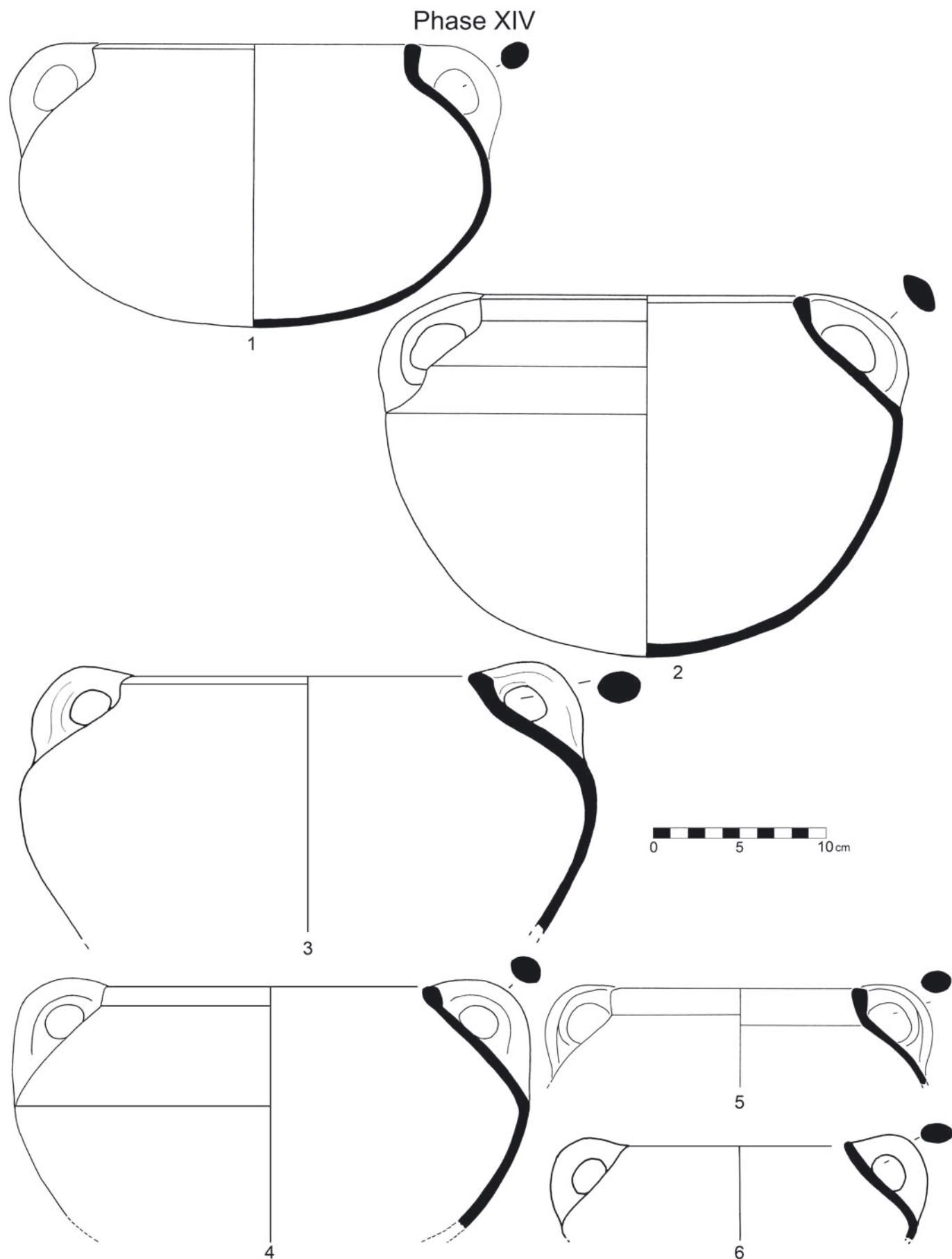


Fig. 441 Cooking pots and their volumes, Phase XIV: 1 (211:5) = 5.99; 2 (213:2) = 8.13; 3 (215:1); 4 (38:2) = 7.23; 5 (215:2); 6 (216:6)

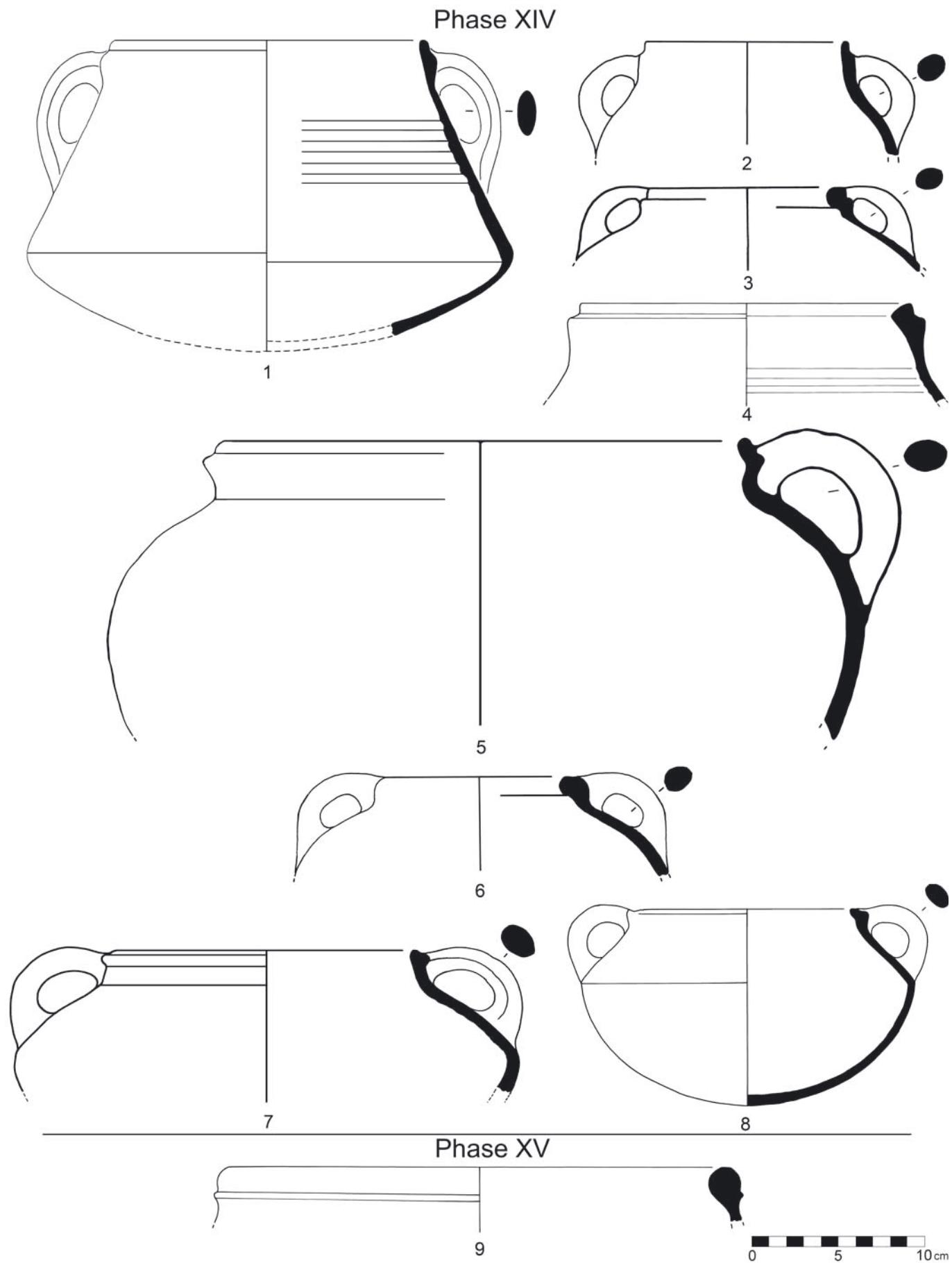


Fig. 442 Cooking pots and their volumes, Phases XIV (1–8) and XV (9): 1 (213:3) = 6.27; 2 (218:4); 3 (218:3); 4 (37:1); 5 (217:3); 6 (218:2); 7 (37:4); 8 (37:2) = 1.86; 9 (47:5)

from a secure Phase XV context. It is a development of the cooking pot with the thickened rim and the small carination just below the rim (see Fig. 442:3 from Phase XIV).

VOLUMES

Table 74 shows the diachronic distribution of vessel types which are complete or almost complete. The volumes are given in litres. Reconstructed volumes of incomplete vessels are in italics. The calculation of the volumes has been carried out with the “Pot_Utility1.05” programme.

Vessel type / pottery	Phases						
	IX	X	XI	XII	XIII	XIV	XV
Rounded /straight bowls	0.08		0.92	<i>0.39</i>			0.82
	0.25		<i>0.22</i>				
	0.25						
	0.44						
	0.65						
	<i>0.19</i>						
	<i>0.41</i>						
	<i>0.85</i>						
Carinated bowls	0.57	1.03	1.33	1.10	0.59	0.62	
	2.69	<i>0.84</i>	<i>0.77</i>	1.42	<i>0.22</i>	0.64	
	<i>0.55</i>	<i>5.17</i>		<i>0.20</i>		0.82	
	<i>1.29</i>			<i>0.35</i>		<i>0.24</i>	
				<i>0.69</i>		<i>0.33</i>	
							0.96
Miniature bowls	0.01						
	0.02						
Incense cups				0.36		0.38	
				0.66		0.39	
Tripod bowls					0.82	1.70	
					0.89	2.03	
					0.93	2.44	
					1.34		
Chalicees	0.44	1.39		1.17			
	0.75						
	0.78						
Goblets	0.33						
	1.19						
	1.63						
	<i>0.55</i>						
Kraters	3.08		6.25		8.81	5.25	
	8.49				11.76	5.78	
	9.32				13.84	14.06	
	9.86					26.05	
	11.31					14.35	
	12.43						
	67.94						
Juglets	0.14	0.24		0.31	0.05	0.03	1.36
	0.23			0.38	0.05	0.09	1.56
	0.25			0.64	0.65	0.09	<i>0.03</i>
	0.32			0.81	0.83	0.18	<i>0.04</i>
	0.79			<i>1.76</i>	1.03	0.26	<i>0.04</i>
	1.11			0.68	1.25	0.30	<i>0.05</i>

Table 74 Vessel types and volumes

Vessel type / pottery	Phases						
	IX	X	XI	XII	XIII	XIV	XV
Juglets	1.13				1.27	0.35	0.07
	1.35				1.59	0.62	0.10
	0.39					0.77	0.10
						0.78	0.19
						0.81	0.70
						1.07	0.78
						1.11	
Miniature juglets	0.03						
	0.06						
Jugs	1.67	1.29	2.20	2.13	2.21	2.24	
	2.12		3.35	2.64	3.84	2.29	
	2.48		4.01	3.77	8.50	3.52	
	3.67					6.88	
	6.41					9.75	
	7.59						
	8.28						
	9.79						
	4.65						
Pilgrim flasks	0.10 - 0.25						
	0.15 - 0.30						
	0.40 - 0.70						
	0.50 - 0.75						
Jars / storage jars	1.71	21.96	15.96	21.95	14.85	13.50	8.22
	13.27	24.63	4.34		164.29	104.49	11.09
	13.99	28.80	11.93		13.20	11.27	16.75
	15.06	32.95	20.22				18.74
	15.39	45.54					28.24
	15.55	54.68					32.78
	15.91	10.16					102.54
	19.68	16.23					171.38
	21.15	24.24					
	21.85						
Pyxides	0.32						
	0.35						
	0.15						
	0.17						
	0.22						
	0.25						
	0.36						
Lamps	0.26		0.11	0.21	0.09	0.10	
	0.33				0.23	0.20	
	0.38						
	0.26						
Cooking pots	3.72	8.48			3.01	1.86	
	6.46				8.55	5.99	
	8.42				13.46	8.13	
						6.27	
						7.23	
Cooking jugs	2.67	4.36					
	3.50						

Table 74 continued Vessel types and volumes

Vessel type / pottery	Phases						
	IX	X	XI	XII	XIII	XIV	XV
Cooking jugs	3.93						
	4.55						
Tananeer/ovens	15.60						
	17.35						
	40.92						
Frying pan?	0.15						

Vessel type / alabaster	Phases						
	IX	X	XI	XII	XIII	XIV	XV
Bowl	0.17						
Juglet /pyxis	0.11						
Small jar	0.08						
Pyxis	0.09						

Table 74 continued Vessel types and volumes

CHAPTER 4 RADIOCARBON DATING

Eva Maria Wild* and Peter M. Fischer

I. RADIOCARBON DATES FROM TELL ABU AL-KHARAZ

Introduction

Forty radiocarbon dates from the Iron Age Phases IX–XIV from Tell Abu al-Kharaz were obtained with the AMS (Accelerator Mass Spectrometry) technique at the VERA (Vienna Environmental Research Accelerator) laboratory. Two other dates were provided by ORAU (Oxford Radiocarbon Accelerator Unit).

In order to avoid a time offset between the date of the individual layer/event and the calibrated ^{14}C date of the ^{14}C sample, short-lived plant material, e.g. seeds, was preferred for dating. In cases where seeds were not available and charcoal had to be used instead, the charcoal samples were inspected by the archaeologist and only those originating from twigs were selected for ^{14}C dating.

Material

The ^{14}C samples from the cultural Phases IX to XIV (Table 75A) originate from three different areas at Tell Abu al-Kharaz, viz. Areas 3, 7 and 9 (see Fig. 9). The origin of the individual samples and their assignment to the different cultural phases are described below.

Phase IX

Area 9 East: A thick debris of burnt charcoal and mudbricks covered one of the best preserved compounds ever excavated at Tell Abu al-Kharaz: the walls of 21 exposed rooms (state autumn 2012) were preserved up to a height of 2.5 m. The noticeable remains of combustion may be the result of a hostile attack or an earthquake. In either case, we know that the inhabitants were not able or did not want to return to the city after the catastrophe to search through the collapsed remains for valuable goods, because all the finds were *in situ* and there are no signs whatsoever of later disturbances. Hundreds of complete objects were unearthed from this compound. It is therefore evident that all the samples are from the same period, i.e. the period prior to the catastrophe. Therefore dat-

ing of the short-lived samples should yield a very close *terminus post quem* for the conflagration. The samples were taken during the excavations in 2009 and 2010.

The following samples are all from the floors of this compound and consist of short-lived botanical remains, such as seeds of barley and millet, chickpeas, and twigs: VERA-5268 / VERA-5268HS, VERA-5266HS / VERA-5266HS2, VERA-5267HS, VERA-5544HS, VERA-5545 / VERA-5545HS, VERA-5546 / VERA-5546HS, VERA-5550 / VERA-5550HS, VERA-5547HS, and VERA-5548 / VERA-5548HS. The suffix “HS” in the VERA-laboratory number of the sample indicates that the dated material consisted of humic acids.

Area 7: Another sample which is ascribed to Phase IX, VERA-5078HS, originates from the easternmost part of Area 7 close to the city wall (twigs from the 2008 season of excavation). It should be noted that there is no stratigraphic connection with Area 9 (see Fig. 9).

Phase X

Area 9: Two samples, both twigs, come from the occupation succeeding the catastrophe layer of Phase IX: VERA-5270HS and VERA-5271HS, both from the excavations in 2010.

It is difficult to assess, from the find material alone, whether Phase X succeeded Phase IX fairly soon after the collapse of the compound or whether there was a time delay between the catastrophe and the new settlement. Judging from the undisturbed catastrophe layer of Phase IX it is, however, most plausible that there was a time delay: weather and wind might have created a fairly flat “blanket” which covered most of the remains of Phase IX and the new settlers built directly on this flat surface. It should also be highlighted that Phases X and XI can only be distinguished in the eastern part of Area 9 whereas the structures of the western part were in use unchanged throughout Phases X and XI. Consequently, these two phases are relatively close in time.

* University of Vienna, Faculty of Physics, VERA-Laboratory, Währinger Straße 17, A-1090 Vienna, Austria.

Phase XI

Area 9: There is one sample of olive stones from Area 9 East: VERA-5543HS (Phase XI, 2010).

Area 7: There are two dates of a sample of twigs from this area, which is quite remote from Area 9: VERA-5081 / VERA-5081HS (2008).

Area 3: The sample consists of charred bone from a tomb to the north-west of Area 9: OxA-4377 (1992).

Phase XII

Area 3: A sample of twigs derives from the floor of the room where the remarkable "Sphinx handle" was found: VERA-1412 (1998).

Phase XIII

Area 7: All samples originate from the western part of Area 7 and from the same year of excavation (2009): VERA-5284HS (seeds from vessel), VERA-5282HS (seeds), VERA-5283HS (seeds from floor), VERA-5275HS (twigs from same space as VERA-5283HS), VERA-5277 / VERA-5277HS (charred material from ash of oven), and VERA-5278HS (seeds from same space as VERA-5277).

Phase XIV

Area 7: There are two groups of samples. One group consists of samples from twigs from the workshop in the easternmost part of Area 7 (2008): VERA-5073 / VERA-5073HS (twigs), VERA-5074HS, VERA-5069 / VERA-5069HS, VERA-5070 / VERA-5070HS, VERA-5075HS, VERA-5076HS; and the other group of samples of twigs is from a domestic building in the westernmost part of Area 7 (2009): VERA-5279 / VERA-5279HS, and from the central part of Area 7, twigs from the floor of a domestic building, OxA-5088 (1993).

Method

At the VERA laboratory the samples were chemically pre-treated with the ABA (acid-base-acid) method. In most cases the laboratory's standard ABA procedure, frequently used for archaeological samples, was applied (see e.g. WILD *et al.* 2008). The pre-treated samples were combusted in sealed quartz tubes containing CuO (and some silver wire) to convert the carbon of the samples into CO₂. Then the CO₂ was graphitised by the method adapted by J. Vogel (see WILD *et al.* 2008, VOGEL *et al.* 1984) for the production of AMS ¹⁴C targets. The ¹⁴C determinations of the targets

were performed with the VERA AMS system following the protocol for ¹⁴C measurements of archaeological samples described in STEIER *et al.* 2004.

Unfortunately ~50 % of the submitted samples dissolved completely during the NaOH step of the ABA pre-treatment. For these samples the humic acids were precipitated by acidifying the alkaline solution with HCl. After washing with bi-distilled H₂O the precipitate was dried and used as dating material.

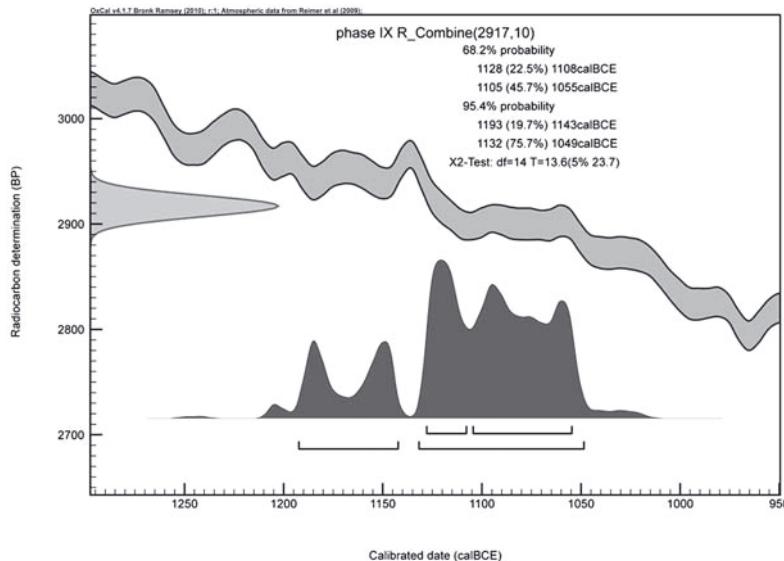
Usually the humic acid fraction of radiocarbon samples is avoided in ¹⁴C dating, because it is assumed that this fraction could be contaminated with humic acids which have been transported by groundwater from other layers of a sediment profile to the sample. Therefore the ¹⁴C content of carbon from the transported humic acid fraction may be divergent from that of the sample (see e.g. ALON *et al.* 2002). Triggered by the experience that many Bronze and Iron Age samples from the Middle East region did not survive the entire ABA pre-treatment and the fact that the ¹⁴C data from humic acids yielded dating results in agreement with the archaeological expectations, a comparison of the dating results from fully ABA-treated samples and the dates yielded by the humic acid fraction extracted from these samples has been performed, whenever possible, over the last few years. The results of this study (see WILD *et al.* 2013) showed that for the ~ 50 samples from the investigated Middle Eastern sites the humic acid fraction and the regularly dated residue after the ABA treatment agreed within uncertainties. In the ABA/ humic acids study 13 samples from Tell Abu al-Kharaz were also included. The results demonstrate the reliability of the ¹⁴C ages derived solely by humic acid dating.

Results and discussion

Table 75A lists the uncalibrated ¹⁴C ages of the investigated samples from Tell Abu al-Kharaz together with the corresponding calendar time periods resulting from the calibration of the ¹⁴C dates with the calibration program OxCal version 3.10 or 4.1. (e.g. BRONK RAMSEY 1995 and 2001) and the calibration curve IntCal09 (REIMER *et al.* 2009).

The Phase IX samples from Area 9 East are ascribed to a single destruction event and a mean value was calculated from the 15 available ¹⁴C data⁸⁹ with the R_combine option of OxCal, which also provides a χ^2 test of the data set. The result of the χ^2 test

⁸⁹ It should be noted that, although the ¹⁴C ages are not normally distributed, for young sample ages (<30 kyrs) a normal distribution of the ¹⁴C ages may be assumed (see e.g. WARD and WILSON 1978).



Plot 1: Calibration plot of the combined ^{14}C data from Phase IX, Area 9 East, generated with OxCal4.1. The calculated mean value, the calendar time ranges with their respective probabilities and the result of the χ^2 -test are displayed in the plot.

does not contradict the assumption that the ^{14}C data are normally distributed and supports the archaeological assignment of the samples to the single event (see Plot 1). The combined data yield a very precise ^{14}C age of 2917 ± 10 ^{14}C yrs BP. Unfortunately the calibration curve in the relevant time period is rather flat and also exhibits some wiggles. Therefore the high precision of the uncalibrated ^{14}C age does not translate into a similar precision of the calendar time period. If we argue on the basis of the usual 95.4 % probability (the true date falls with a probability of 95.4 % into a certain time period), which corresponds to the probability of the $\pm 2\sigma$ interval in the Gaussian distribution, we cannot exclude the time range between 1193 BCE and 1143 BCE – the probability, however, is only 19.7 %. Therefore – ignoring an 11-year period with a lower probability – we conclude that the Phase IX destruction event must have occurred between 1193 BCE and 1049 BCE. If we reduce the probability to 68.2 % (corresponding to a $\pm 1\sigma$ interval in the Gaussian distribution) the time frame for this event is narrowed to the time span between 1128 BCE and 1055 BCE.

A further reduction of the calendar time ranges of calibrated ^{14}C dates would be possible with Bayesian sequencing, which also utilises archaeological information in addition to the ^{14}C data. From an undisturbed sequence of archaeological layers the positions of the sample in the sequence give a relative chronology, telling whether a sample is coeval with other samples, or younger or older. A prerequisite for achieving accurate and precise calendar ages with the Bayesian method is that the archaeological layers are undis-

turbed. Further undetected gaps and gaps of unknown duration in a sequence are disadvantageous for the construction of an accurate model. At Tell Abu al-Kharaz the sequence excavated and dated so far probably has some minor gaps and therefore at the moment it is not possible to obtain a model with agreement indices (A_{model} and A_{overall}) of >60 % as recommended by BRONK RAMSEY (2009).

Inspecting the unsequenced calibrated dates of Phases IX to XII reveals that the ^{14}C dates follow roughly the sequence of the phases. Nevertheless, it is also obvious that some scatter of the dates occurs in Phase XI, where the twigs from Area 7 yielded a significantly younger age than the olive stone from Area 9.

From Phase XII on, the calibration of the ^{14}C data produces already broad time ranges which are caused by the well known *Hallstatt plateau* in the calibration curve. Considering the calendar date of 732 BCE, the well-documented conquest of the area by the Neo-Assyrian empire, as a *terminus ante quem* for the end of Phase XIV, it was at least possible to calculate for the Phases XII to XIV a short Bayesian sequence. After the removal of two dates with low agreement indices from Phase XIII (VERA-5282HS and VERA-5275HS) from the model an overall agreement index of ~90 % was achieved.

Although very preliminary, this sequence pins down the transition from Phase XIII to XIV in the time span from 787 BCE to 759 BCE (95.4 % probability).

In the future we will try to improve and extend the model for sequencing for a larger time period.

Lab. No.	Material	Area/ Locus	$\delta^{13}\text{C}$ (‰)	14C BP	Calibrated 2σ			Phase
VERA-5266HS	twigs	9/160	-27.6 ± 1.0	2890±40	1220BCE	(92.6 %)	970BCE	IX
					960BCE	(2.8 %)	930BCE	
VERA-5266HS_2	twigs	9/160	-29.0 ± 1.0	2880±40	1210BCE	(95.4 %)	920BCE	IX
VERA-5267HS	grain-twigs	9/160	-24.9 ± 1.1	2925±40	1270BCE	(95.4 %)	1000BCE	IX
VERA-5268	twigs	9/160	-25.4 ± 1.2	2940±40	1270BCE	(95.4 %)	1010BCE	IX
VERA-5268HS	twigs	9/160	-29.6 ± 1.8	2865±40	1200BCE	(95.4 %)	910BCE	IX
VERA-5544HS	twigs	9/208	-23.5 ± 1.5	2900±35	1260BCE	(1.7 %)	1230BCE	IX
					1220BCE	(93.7 %)	970BCE	
VERA-5545	twigs	9/219	-26.8 ± 2.8	2855±35	1130BCE	(95.4 %)	910BCE	IX
VERA-5545HS	twigs	9/219	-17.9 ± 1.8	2955±35	1300BCE	(95.4 %)	1040BCE	IX
VERA-5546	chickpeas	9/237	-24.5 ± 1.9	2920±35	1260BCE	(5.5 %)	1230BCE	IX
					1220BCE	(89.9 %)	1000BCE	
VERA-5546HS	chickpeas	9/237	-22.3 ± 1.3	2920±35	1260BCE	(5.5 %)	1230BCE	IX
					1220BCE	(89.9 %)	1000BCE	
VERA-5550	millet	9/267	-7.2 ± 1.7	2985±40	1380BCE	(95.4 %)	1050BCE	IX
VERA-5550HS	millet	9/267	-6.4 ± 1.7	2915±35	1260BCE	(4.3 %)	1230BCE	IX
					1220BCE	(91.1 %)	1000BCE	
VERA-5547HS	seeds-twigs	9/239	-26.0 ± 0.8	2960±35	1310BCE	(95.4 %)	1050BCE	IX
VERA-5548	grain	9/244	-25.9 ± 1.1	2940±35	1270BCE	(95.4 %)	1020BCE	IX
VERA-5548HS	grain	9/244	-26.7 ± 1.1	2895±35	1220BCE	(95.4 %)	970BCE	IX
VERA-5078HS	twigs	7/38	-25.7 ± 0.6	2875±40	1210BCE	(95.4 %)	920BCE	IX
VERA-5270HS	twigs	9/164	-26.9 ± 0.7	2880±35	1210BCE	(95.4 %)	930BCE	X
VERA-5271HS	twigs	9/165	-28.2 ± 2.9	2800±35	1050BCE	(95.4 %)	840BCE	X
VERA-5543HS	olive stones	9/176	-30.1 ± 0.9	2930±35	1260BCE	(95.4 %)	1010BCE	XI
VERA-5081	twigs	7/39	-26.9 ± 0.6	2710±35	920BCE	(95.4 %)	800BCE	XI
VERA-5081HS	twigs	7/39	-26.7 ± 0.6	2725±40	980BCE	(2.9 %)	950BCE	XI
					940BCE	(92.5 %)	800BCE	
OxA-4377	charred bone (tomb)	3/93	-22.1	2910±65	1296BCE	(0.01)	1286BCE	XI
					1267BCE	(0.99)	911BCE	
					1201BCE	(0.09)	1179BCE	
					1166BCE	(0.91)	998BCE	
VERA-1412	twigs	3/365	-27.0 ± 0.8	2535±30	800BCE	(28.6 %)	750BCE	XII
					720BCE	(66.8 %)	540BCE	
VERA-5284HS	seeds	7/515	-28.0 ± 1.2	2515±40	800BCE	(95.4 %)	500BCE	XIII
VERA-5282HS	seeds	7/505	-25.2 ± 1.5	2685±35	910BCE	(95.4 %)	790BCE	XIII
VERA-5283HS	seeds	7/507	-23.0 ± 1.5	2515±35	800BCE	(95.4 %)	520BCE	XIII
VERA-5275HS	twigs	7/432	-25.8 ± 0.7	2475±35	770BCE	(87.3 %)	480BCE	XIII
					470BCE	(8.1 %)	410BCE	
VERA-5277	ash from oven	7/452	-26.7 ± 1.2	2565±20	810BCE	(83.9 %)	750BCE	XIII
					690BCE	(10.4 %)	660BCE	
					610BCE	(1.0 %)	590BCE	
VERA-5277HS	ash from oven	7/452	-27.7 ± 0.9	2575±25	810BCE	(84.7 %)	750BCE	XIII
					690BCE	(8.9 %)	660BCE	
					610BCE	(1.8 %)	590BCE	
VERA-5278HS	seeds	7/469	-27.5 ± 1.3	2575±25	810BCE	(84.7 %)	750BCE	XIII
					690BCE	(8.9 %)	660BCE	
					610BCE	(1.8 %)	590BCE	

Table 75A Radiocarbon dating of Tell Abu al-Kharaz Phases IX–XIV

Lab. No.	Material	Area/ Locus	$\delta^{13}\text{C}$ (‰)	14C BP	Calibrated 2σ			Phase
VERA-5073	twigs	7/365	-24.8 ± 0.6	2565 ± 40	810BCE	(51.4%)	730BCE	XIV
					700BCE	(14.6%)	660BCE	
					650BCE	(29.5%)	540BCE	
VERA-5073HS	twigs	7/365	-26.8 ± 0.5	2595 ± 40	840BCE	(76.3%)	740BCE	XIV
					690BCE	(8.5%)	660BCE	
					650BCE	(10.7%)	550BCE	
VERA-5074HS	twigs	7/384	-29.2 ± 0.6	2555 ± 40	810BCE	(44.2%)	720BCE	XIV
					700BCE	(51.2%)	540BCE	
VERA-5069	twigs	7/342	-26.0 ± 0.5	2465 ± 40	770BCE	(95.4%)	410BCE	XIV
VERA-5069HS	twigs	7/342	-25.1 ± 0.6	2475 ± 40	770BCE	(85.9%)	480BCE	XIV
					470BCE	(9.5%)	410BCE	
VERA-5070	twigs	7/353	-27.8 ± 0.5	2450 ± 35	760BCE	(23.8%)	680BCE	XIV
					670BCE	(71.6%)	400BCE	
VERA-5070HS	twigs	7/353	-27.9 ± 0.6	2470 ± 40	770BCE	(95.4%)	410BCE	XIV
VERA-5075HS	twigs	7/344	-27.9 ± 0.6	2520 ± 40	800BCE	(95.4%)	510BCE	XIV
VERA-5076HS	twigs	7/344	-26.6 ± 0.6	2485 ± 40	780BCE	(88.9%)	480BCE	XIV
					470BCE	(6.5%)	410BCE	
VERA-5279	twigs	7/476	-26.1 ± 0.7	2505 ± 25	780BCE	(95.4%)	530BCE	XIV
VERA-5279HS	twigs	7/476	-27.4 ± 1.6	2550 ± 25	800BCE	(55.3%)	740BCE	XIV
					690BCE	(18.1%)	660BCE	
					650BCE	(22.0%)	550BCE	
OxA-5088	twigs	7/42	-24.6	2495 ± 45	796BCE	(0.96)	481BCE	XIV
					441BCE	(0.04)	413 BCE	
VERA-5269HS	charcoal	9/160	-27.1 ± 2.0	3455 ± 35	1890BCE	(95.4%)	1680BCE	Outlier
VERA-5276	olive pits	7/440	-26.3 ± 1.3	>modern				Outlier

Table 75A continued Radiocarbon dating of Tell Abu al-Kharaz Phases IX–XIV

2. REFLECTIONS ON THE RADIOCARBON DATES FROM PELLA

Peter M. Fischer

Material

Unpublished ceramic material from Pella and information about the local sequence of Iron Age occupation, i.e. Phases 1–8, where Phase 1 is transitional Late Bronze Age/early Iron Age and Phase 8 is Iron Age III/Persian, have – in connection with a cooperative research project – kindly been forwarded to the author by S. Bourke, the director of the excavations at Pella. As regards parallels to the Tell Abu al-Kharaz material from the ceramic corpus of Pella, which are

supported by radiocarbon, only those from Phases 1–5 are here relevant for comparative studies (Table 75B).⁹⁰

Nineteen radiocarbon dates from the Iron Age Phases 1–5 from Pella were obtained with the AMS (Accelerator Mass Spectrometry) technique at the VERA laboratory. Eighteen samples were seeds or olives, and one was charcoal. In five cases, only the humic acids could be dated (VERA-5297HS, VERA-5305HS, VERA-5307HS, VERA-5314HS and VERA-5317HS). In addition to the standard ABA dating of three samples their humic acid fractions were also dated for comparative studies (VERA-5304HS, VERA-5313HS and VERA-5311HS). The archaeological contexts from which the samples

⁹⁰ Twenty-four samples from Pella have been forwarded by the author to the VERA-laboratory, University of Vienna, where they were helpfully processed by E.M. Wild. Kind support has been received by M. Bietak (SCIEM 2000). Of

these, five dates are from the second half of Late Bronze Age (Phases III–IV; not shown in table) and 19 dates from Iron Age I–IIA in Table 75B).

derived were conventionally dated prior to the radiocarbon dating, mainly according to the pottery sequences (see “Location” and “Phase” in Table 75B).

Results

The dates shown by VERA-5304/HS agree well with the conventional date for the transition Late Bronze Age/Iron Age in the (earlier part of the) 12th century although the spread is considerable. The dates given by VERA-5313/HS are far too low for this transitional period.

There are five datings from Iron Age I contexts: Two of them (VERA-5311/HS) are from a domestic context and in agreement with the expected date. The dates of two other samples (VERA-5299 and VERA-5300), which come from an Iron Age I pit (Pella Phases 2–3), seem to be too high according to the archaeological context and would better fit somewhere in the second half of the Late Bronze Age. The last sample (VERA-5312) is from an Iron Age I pit (Phases 2–3): its date is too low, relative to the expected date.

Two dates are from transitional Iron Age I/IIA. One sample (VERA-5309) is from a pit (Phases 3–4) and is dated as expected. The other one (VERA-5315) is from a domestic context: Its offered date is far too high compared with the anticipated one.

Eight dates are from Iron Age IIA and B contexts (Phases 4–5). The samples are from the “palace, the west palace and the temple” (VERA-5297HS, VERA-5302, VERA-5305HS, VERA-5306, VERA-5307HS, VERA-5310, VERA-5314HS and VERA-5317HS). The radiocarbon dates correspond well with the dates which are based on stratigraphy and the material evidence.

Comparison with the Tell Abu al-Kharaz dates and conclusions

There are no samples from Tell Abu al-Kharaz which are contemporaneous with those from Pella Phase 1, which then again show a considerable spread. The samples from Pella Phases 2–3 have counterparts in the sample material from Tell Abu al-Kharaz, at least as far as Phase 3 is concerned, which should correspond to Tell Abu al-Kharaz Phase IX. The Pella samples from “Iron Age I pit” (Phases 2–3) are either too high or too low, whereas the “Iron Age I domestic” sample fits sufficiently with the dating of Tell Abu al-Kharaz Phase IX: it seems that the organic material from the Pella pits contained both residual remains and intrusive matter.

The radiocarbon dates of the sample from “Iron Age I/IIA pit” from Phases 3–4 is in accordance with the suggested date of the archaeological context and comparable with those from Tell Abu al-Kharaz Phase X. However, the dates of the sample from the “Iron Age I/II domestic” context (again Phases 3–4) are higher than expected.

The Phase 4–5 samples from Pella, viz. “palace, west palace and temple”, which are placed by the excavator in Iron Age IIA, are comparable with VERA-5081HS from Phase XI at Tell Abu al-Kharaz. The radiocarbon dates are in agreement with the expected dates.

It could be demonstrated that Pella also provided humic acid dates which are in close agreement with the respective dates of the ABA-treated samples (cf. WILD *et al.* 2013, and above concerning the dating of the HS-material from Tell Abu al-Kharaz).

Lab. No.	Material	Location	$\delta^{13}\text{C} (\text{\textperthousand})$	14C BP	Calibrated 2σ		Pella Phases	
VERA-5304	seeds	LB/IA fortress	-22.2 \pm 0.7	3020 \pm 35	1400BC	(95.4%)	1130BC	1
VERA-5304HS	seeds	LB/IA fortress	-22.9 \pm 1.0	3025 \pm 40	1410BC	(95.4%)	1130BC	1
VERA-5313	seeds	LB/IA fortress	-23.6 \pm 1.9	2745 \pm 40	1000BC	(95.4%)	810BC	1
VERA-5313HS	seeds	LB/IA fortress	-20.3 \pm 0.7	2800 \pm 35	1050BC	(95.4%)	840BC	1
VERA-5299	seeds	IA I pit	-18.2 ± 0.7	3040 \pm 40	1420BC	(94.3%)	1190BC	2-3
					1150BC	(1.1%)	1130BC	
VERA-5300	olive	IA I pit	-20.7 \pm 0.7	3070 \pm 35	1430BC	(95.4%)	1250BC	2-3
VERA-5311	seeds	IA I domestic	-17.6 \pm 0.8	2940 \pm 35	1270BC	(95.4%)	1020BC	2-3
VERA-5311HS	seeds	IA I domestic	-21.6 \pm 3.3	2925 \pm 35	1260BC	(95.4%)	1010BC	2-3
VERA-5312	seeds	IA I pit	-27.1 ± 1.5	2735 \pm 35	980BC	(3.4%)	950BC	2-3
					940BC	(92.0%)	800BC	
VERA-5309	olive	IA I/IIA pit	-22.7 ± 0.5	2810 \pm 35	1060BC	(91.6%)	890BC	3-4
					880BC	(3.8%)	840BC	
VERA-5315	seeds	IA I/II domestic	-19.1 ± 1.1	3025 \pm 35	1400BC	(91.8%)	1190BC	3-4
					1180BC	(1.7%)	1160BC	
					1150BC	(1.9%)	1130BC	
VERA-5297HS	seeds	IA II palace	-19.7 \pm 0.7	2745 \pm 35	980BC	(95.4%)	810BC	4-5
VERA-5302	seeds	IA II palace	-30.9 \pm 1.3	2715 \pm 35	930BC	(95.4%)	800BC	4-5
VERA-5305HS	seeds	IA II palace	-26.4 ± 1.8	2725 \pm 35	970BC	(1.2%)	960BC	4-5
					940BC	(94.2%)	800BC	
VERA-5306	seeds	IA II temple	-27.2 \pm 0.8	2770 \pm 35	1010BC	(95.4%)	830BC	4-5
VERA-5307HS	seeds	IA II west palace	-18.8 ± 0.7	2820 \pm 40	1120BC	(93.7%)	890BC	4-5
					870BC	(1.7%)	850BC	
VERA-5310	seeds	IA II palace	-20.7 ± 0.8	2885 \pm 35	1210BC	(92.7%)	970BC	4-5
					960BC	(2.7%)	930BC	
VERA-5314HS	seeds	IA II west palace	-23.3 \pm 1.3	2670 \pm 35	900BC	(95.4%)	790BC	4-5
VERA-5317HS	charcoal	IA IIIA palace	-24.1 \pm 0.7	2795 \pm 35	1040BC	(95.4%)	840BC	4-5

Table 75B Radiocarbon dating of Pella Phases 1-5

CHAPTER 5 DISCUSSION AND CONCLUSIONS

Peter M. Fischer

I. THE PEOPLE AND THEIR LAND: ENVIRONMENT, SUBSISTENCE, SETTLEMENT AND ETHNICITY⁹¹

Climate

The climate of the Southern Levant has been discussed in general in the previous volumes.⁹² Since the people's choice to settle at Tell Abu al-Kharaz was not only dependent on the site's specific topographic/strategic position but also on the climatic conditions, an overview of the climate from the end of the last glacial period to approximately the mid-first millennium BCE will be presented here. Emphasis will be put on the outgoing second and the beginning of the first millennia BCE.

After around 20000 BP the climate varied greatly, alternating between cold/humid and warm/dry. This can be deduced from findings from the "Soreq cave" which was discovered in 1968 near Nahal Soreq west of Jerusalem (see e. g. BAR-MATTHEWS *et al.* 1993). It is a karst cave which was formed by dissolution of the rock by water percolation. It has numerous types of stalactites, stalagmites, and curtains of flowstones. The speleothemes from this cave date from 17000 to 15000 BP. The lamina of speleothemes shows a high degree of variability. This variability, which reflects climate fluctuations, did not favour sedentary life in the drier parts of the Near East. It has been suggested that after ca. 15000 years BP the climate was increasingly becoming similar to the present Mediterranean regime of relatively cold humid winters and warm dry summers (ISSAR and ZOHAR 2007: *passim*).

Moving towards the end of the Chalcolithic period in the first half of the 4th Millennium BCE the data show quite an abrupt decline in precipitation around the mid-fourth millennium (Fig. 443).⁹³ A short period of increased precipitation followed, lasting approximately a century. After that the decline in precipitation continued and the lowest peak for the entire Hol-

ocene was reached around 3200 BCE. Shortly after this period Tell Abu al-Kharaz was settled for the first time in the Early Bronze Age IB period. This low-precipitation trend continued for about two centuries until quite abruptly the climate became cool and very humid around 3000 BCE which is the time when the Early Bronze Age societies of Tell Abu al-Kharaz flourished, which may be related to the climate (the Early Bronze Age city was abandoned about 2900 BCE⁹⁴ and not resettled before the end of the Middle Bronze Age; see FISCHER 2008a: 381). The cool and humid period lasted with a few interruptions for about seven centuries (ISSAR and ZOHAR 2007: 105). A short phase of drier climate occurred at approximately 2600 BCE and was followed by a more humid phase and again by abrupt ups and downs in the precipitation pattern of the region.

The second half of the third millennium BCE witnessed one of the most serious climatic events during the Holocene. Evidence gathered from all over the northern hemisphere of the world shows that the climate became warmer on a global scale towards the end of the millennium. In the Mediterranean countries and the Near East a period of about three to four centuries of climatic setbacks began, starting around 2400 BCE and reaching the peak of the dry period around 2200 BCE which lasted for about a century. The levels of the lakes dropped, perennial rivers turned into seasonally dry beds, the desert expanded and in many area soils became increasingly saline.

The climate became slightly more humid in the next two centuries, and at approximately 2000 BCE it began to deteriorate again, reaching a low from 1900 to 1800 BCE. After the 19th century BCE the climate improved, although not reaching optimal conditions which prevailed during certain parts of the third millennium BCE. It is, however, evident that these climatological improvements provided a stable base for the

⁹¹ Parts of the following discussion are included in FISCHER 2006a and 2008a (Chapters 8). However, certain information is repeated here for more convenient access to the crucial background.

⁹² FISCHER 2006a: 305 and 306; 325 and 326; FISCHER 2008a: 307 and 308; 329 and 330.

⁹³ Cf. though MIGOWSKI *et al.* 2006 who report a "major wet phase" 3600–1500 BCE. Their results are based on the study of Dead Sea sediments.

⁹⁴ Several earthquakes are suggested (see below and Table 83).

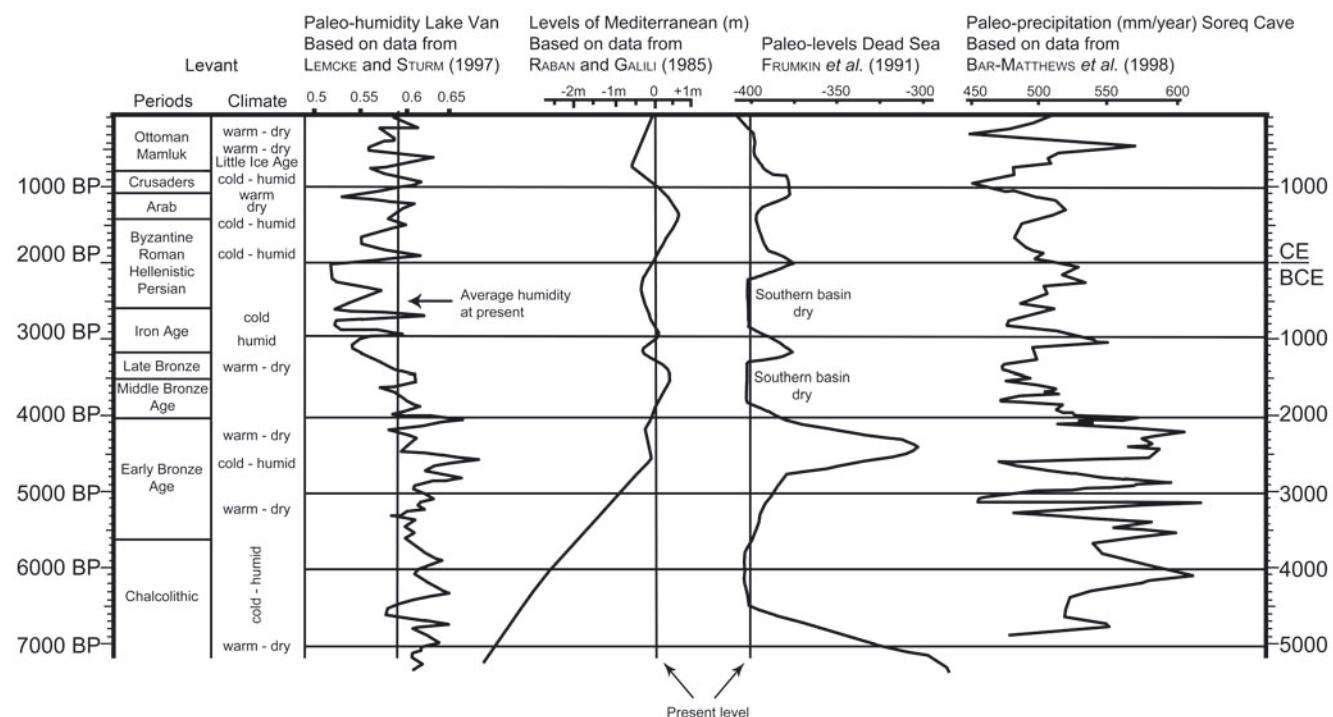


Fig. 443 Diachronic paleo-hydrology and climate in the Levant (courtesy A.S. Issar 2012; adjusted after ISSAR 2003: 9, fig. 1.3; drawn by T. Bürg)

thriving societies of the Middle Bronze Age. It was at the outgoing Middle Bronze Age, around 1600 BCE, that Tell Abu al-Kharaz was resettled again. From then on the site was occupied during the Late Bronze Age and the entire Iron Age until – intermittently – Islamic times.⁹⁵ A warm, dry phase started around 1600 BCE and continued until around the mid-second millennium BCE, i.e. the beginning of the Late Bronze Age.

The warm climate peaked during the mid-Late Bronze Age, viz. between 1500 and 1400 BCE. A slightly more humid climate soon followed, reaching the average line at ca 1300 BCE.⁹⁶ By 1200 BCE the warm spur switched to a cold and humid phase with its peak around 1100 BCE. This change in climate is global (ISSAR 2003: *passim*). It may be amongst the main causes of the movement of peoples from Eurasia

which most likely also had an effect on the Jordan Valley in general and Tell Abu al-Kharaz in particular. The earliest Iron Age I occupation at Tell Abu al-Kharaz corresponds to Phase IX around 1100 BCE. This date is in accordance with numerous radiocarbon dates from primary contexts at Tell Abu al-Kharaz (see Chapter 4). Phase IX produced a new type of architecture and Aegean/Philistine-type pottery, which appear for the first time at the site and which coincide with the period after the arrival of the s.c. Sea Peoples in the Southern Levant.⁹⁷

As concluded by ISSAR (2003: *passim*) and ISSAR and ZOHAR (2007: *passim*) it is of the utmost importance to consider the impact of climatic changes in relation to *where* they took place. In the Levant, the warm and dry periods of the Late Bronze Age in the middle of the second millennium BCE would have

⁹⁵ There are also stray finds of Mamluk origin after the Islamic (Abbasid) settlement.

⁹⁶ Cf. FINNÉ *et al.* (2011: 3169 and *passim*) who state that there are a number of problems which severely hamper interpretations and comparisons of records, especially when it comes to short-term, small-amplitude climate variability. Considering a longer-term variability they suggest for our area: mainly wetter than average 3400–2600 BCE; and for the period 2600 BCE–600 CE: drier conditions

mainly dominate the climate picture of the Eastern Mediterranean, but there are periods of increased moisture creating more benign climate.

⁹⁷ In this volume the term “Sea Peoples” is used in the sense of a wide-spread cultural phenomenon, a part of which is the southeast movement of peoples of various ethnic origin (at several occasions but mainly in the 12th century BCE). See Area 9; BÜRGLE forthcoming.

negatively affected the desert margins, which at present receive between 200 to 400 mm of rain per year. At the same time, it would affect positively the flow of the Nile. Later on the cold and humid period, which became more extreme towards the end of the second millennium BCE at the beginning of the Iron Age, undoubtedly had a positive effect on most of the Levant although not on the regime of the Nile due to the weakening of the monsoon system.

The trigger for the movement of peoples through south-eastern Europe and the arrival of the Sea Peoples in the Southern Levant might have been the cooler climate, which had unfavourable effects in certain areas, e.g. northern Italy, the Balkans and western Asia. The vanishing of the Mycenaean culture, the decline and collapse of the Hittite empire (e.g. MÜLLER-KARPE 2009), the fall of Ras Shamra-Ugarit and Amurru (LAGARCE and LAGARCE 1988; KANIEWSKI *et al.* 2011), destruction layers in Cyprus (FISCHER 2011b; 2012b), all took place at the beginning of the 12th century BCE. These events are supposed to have been caused, at least partly, by various tribes of the Sea Peoples. We know from written sources that the Sea Peoples even attacked the then superpower, Egypt, in the 8th year of the reign of Ramses III, viz. 1175 BCE.

The paleo-climatic proxy data (Fig. 443 and references) show that after this period of cold and humid climate came a warmer and dryer period around 1000 BCE culminating in a low humidity peak around 850 BCE (cf. MIGOWSKI *et al.* 2006).⁹⁸ After that the climate steadily improved and reached quite favourable conditions in the Hellenistic period, i.e. around 300 BCE.

Today the Central Jordan Valley where the site is situated is a semi-arid to arid area, with an annual rainfall of no more than 250–300 mm, which comes in principle only during the winter months (cf. AL-FATAFTEH 1991). The average annual temperature in the area around Tell Abu al-Kharaz is approximately 23°C, and in the area of the Wadi al-Yabis, situated at a higher altitude, 22.3°C. The temperature during the winter months, which here include the period from late autumn to early spring, is fairly pleasant. The lowest temperature is in January, which has a daytime average of approximately 20°C and one of approximately 13°C when day and night temperatures are combined. These mid-winter temperatures may be considered quite pleasant but from time to time the

summer temperatures, which often exceed 40°C, are almost unbearable. The average day/night temperature in August is approximately 30.5°C.

The local “micro-climate” is a positive factor conducive to the choice and long use of this mound for settlement. The specific topography of the site has some beneficial influence on its climate. The isolated tell is situated on the foothills of the mountain plateau to the east, which rises to around 1000 m above mean sea level. The altitude of the site (summit –116 m), although only little more than 100 m above the Jordan Valley floor, which at this latitude is approximately 200–250 m below mean sea level, has a beneficial effect as regards cooling winds/temperature and – to some extent – precipitation.

Access to water

Access to water during the first phase of the occupation at Tell Abu al-Kharaz in Early Bronze Age IB until roughly 3000 BCE (Phases IA–B) must have been the most important prerequisite for the survival of a community in this area, especially during the summer months. This was obviously a very dry period, with the lowest precipitation peak ever in the settlement history of the site. A similar situation, although not of the same magnitude, occurred during the period of the outgoing Middle and the beginning of the Late Bronze Age when the warm and dry climate peaked between 1500 and 1400 BCE (Phases V and VI).

Perennial water sources were the Wadi al-Yabis immediately to the south of the site, and the River Jordan which runs a few kilometres to the west, roughly in the centre of the Jordan Valley. Nevertheless, the most important and reliable all-year water supply was from the easily accessible perennial Wadi al-Yabis during all periods including the Iron Age. Its source lies around 1100 m above mean sea level. It flows almost due west to where it joins the River Jordan, approximately 25 km from its source and 250 m below mean sea level. The highest annual precipitation in Jordan, which is approximately 600 mm, is recorded close to the headwaters of the Wadi al-Yabis (cf. MABRY *et al.* 1988: 275), which is quite remarkable considering the proximity to the semi-arid / arid zone of the Jordan Valley. It has been suggested (cf. FISCHER 2006a) that there may once also have been a channel through which water was transported from further up the Wadi al-Yabis, passing the site through the small valley between the site and the hillock to the south of it,

⁹⁸ MIGOWSKI *et al.* (2006: 427) suggest a “general climate deterioration” after 1500 BCE according to the sediment record of the Dead Sea.

which separates the site from the natural course of the Wadi al-Yabis further south. It is also very likely that the River Jordan, although at some distance from the settlement, was a life-saving water source which was certainly utilized during years of drought when the local water supply from the wadi might not have been sufficient. During the winter months, when precipitation was frequent, the small wadis around the tell were certainly utilized as the nearest water source, in addition to the springs in the eastern foothills.

Structures and objects from the Iron Age occupation of the site itself provide additional information on the water supply. Plastered cisterns served as water reservoirs throughout the year (cf. the cistern in Figs. 80, 81, 84, 86, which once contained approximately 50 cubic metres of water). During the winter months rainwater was collected in them through a system of small channels, whereas during the summer months they served as containers for water which was brought from the nearest water source. Several of the largest storage jars from the site could hold more than 100 litres of water and were used as water containers.⁹⁹ It has been suggested that the maintenance of the on-site water reservoirs by daily replenishment during the summer months was centrally organized in order to ensure the survival of the community on the site (FISCHER 2006a).

Food plants (Tables 76A and B)

The arable land, with alluvial/colluvial soil around the site, is fertile. Dry farming may have been possible and was certainly practised during certain periods of the year, but productive agriculture during the entire year was and is only possible with irrigation systems, traces of which are present everywhere in the plain surrounding the tell.

The species of the major cereal crops which are present in the floral remains of floated Iron Age soil are dominated by the grains of barley.¹⁰⁰ Einkorn/emmer wheat is present but in much smaller quantities than in the previous periods: the charred plant assemblage from the Iron Age is dominated by hulled two-rowed barley with only minor amounts of wheat. There is also evidence of the cultivation of millet and chickpeas (Fig. 304), legumes, grapes and olives. In a recently published study ZEIST *et al.* (2009) summarized the intensity of olive cultivation in the Hula area, which admittedly is at some distance from Tell Abu al-Kharaz but which is worthwhile to have in mind as regards the situation around the site in the Iron Age. From a sediment core of the Hula Lake they concluded that olive cultivation was thriving in the Early Bronze Age, declined in the Middle and Late Bronze Ages, and virtually disappeared in the Iron Age.

Charred plant remains from Tell Abu al-Kharaz			Phasing		
Latin name	Plant part	Common name	EB	MB/LB	IA
			Orig. volume (l.)		
			7,661	0,9	0,047
			Vol. sorted (l.)		
			2,711	0,9	0,047
Rumex sp.	nutlet	dock	3		
cf. Rumex sp.	nutlet	dock	1		1
Chenopodium sp.	nutlet	goosefoot etc.	4		
Amaranthus sp.	seed	amaranth	1		
cf. Amaranthus sp.	seed	amaranth	3		1
Caryophyllaceae/Chenopodiaceae	seed	campion/goosefoot families indet.	2		1
Fumaria sp.	fruit	fumitory	1		
Cruciferae/Leguminosae indet.	seed	brassica/legume	1		
Vicia/Lathyrus sp.	seed	vetch/tare/vetchling	4		1
Medicago sp.	seed	medick	15		

Table 76A The charred plant remains (total amount)

⁹⁹ Many rooms contained large storage jars, of which some were filled with grain and others were found “empty”. These “empty” jars were certainly water containers.

¹⁰⁰ It should be pointed out that the sorted volume of Iron Age plant remains is much lower than for the earlier periods.

This is demonstrated by the absence of non-cereal major crops in the tables. However, during the course of the project, and after the flotation project, further evidence has been collected (see e.g. Fig. 304). Additional flotation of Iron Age soil is planned.

Charred plant remains from Tell Abu al-Kharaz			Phasing		
Latin name	Plant part	Common name	EB	MB/LB	IA
			Orig. volume (l.)		
			7,661	0,9	0,047
			Vol. sorted (l.)		
			2,711	0,9	0,047
Trifolium campestre/dubium type	seed	trefoil	7		
cf. Lotus/Trifolium sp.	seed	trefoil/clover	1		
Scorpiurus muricatus L.	seed	-	146		
cf. Scorpiurus muricatus	seed	-	1		1
Leguminosae indet.	large seeded	legume indet.	10		
Leguminosae indet.	medium seeded	legume indet.	4		
Leguminosae indet.	small seeded	legume indet.	1		
cf. Leguminosae indet.	medium seed	legume indet.	4		
cf. Euphorbia sp.	seed	spurge	4		
Pistacia sp.	stone	pistacia	6		
Malva sp.	seed	mallow	3		
cf. Bupleurum sp.	fruit	hare's ear	10		4
Umbelliferae indet.	fruit	carrot family	1		
cf. Umbelliferae indet.	fruit	carrot family	1		
Buglossoides sp.	nutlet	gromwell+C100	5		
cf. Buglossoides sp.	nutlet	gromwell			1
cf. Labiate	caryopsis	mint family	1		
Lolium sp.	caryopsis	rye-grass	2167	224	1
cf. Lolium sp.	caryopsis	rye-grass	41		
Bromus secalinus type	caryopsis	brome grass	74		
Trisetum type	caryopsis	oat grass	12	16	
Gramineae indet.	caryopsis	grass indet.	71		10
Gramineae (large seeded)	caryopsis	large-seeded grass	15		
Gramineae (medium seeded)	caryopsis	medium-seeded grass	33		3
Gramineae (small seeded)	caryopsis	small-seeded grass	8		
cf. Scirpus sp.	nutlet	club-rush	1		
Indeterminate	seed/fruit	indeterminate	67		
Indeterminate	goat/sheep dung		1		
Mineralised seeds					
Silene gallica L.	seed	small-flowered catchfly	4		
cf. Ononis sp.	seed	restarrow	1		
Mercurialis annua L.	seed	annual mercury	2		
Echium sp.	nutlet	bugloss	1		
Modern contaminants					
Indeterminate	seed				4
Major crops - Non-cereals					
Ficus carica L.	pip	fig	15		
Vicia ervilia (L.) Willd.	seed	bitter vetch	1		
Vicia faba L.	seed	broad bean	14		
cf. Vicia faba	seed	broad bean	4	65	
Lens culinaris Medicus	seed	lentil	43		
cf. Lens culinaris	seed	lentil	3		
cf. Lathyrus sativus	seed	grass pea	3		
Linum usitatissimum L.	seed	cultivated flax	5		
Vitis vinifera L.	fruit	grape	5		

Table 76A continued The charred plant remains (total amount)

Charred plant remains from Tell Abu al-Kharaz			Phasing		
Latin name	Plant part	Common name	EB	MB/LB	IA
			Orig. volume (l.)		
			7,661	0,9	0,047
			Vol. sorted (l.)		
			2,711	0,9	0,047
Vitis vinifera L.	seed	grape	62		
Olea europaea L.	stone	olive	3		
Major crops - Cereals					
Triticum monococcum L.	glume base	einkorn wheat	4		
Triticum monococcum L.	spikelet fork	einkorn wheat	22		
Triticum cf. monococcum (two grained)	caryopsis	einkorn wheat	10168	4341	
Triticum cf. monococcum	glume base	einkorn wheat	42		
Triticum cf. monococcum	spikelet fork	einkorn wheat	38		
Triticum monococcum/dicoccum (two grained)	caryopsis	einkorn/emmer	2037	1536	
Triticum monococcum/dicoccum	caryopsis fragment	einkorn/emmer	4799	960	
Triticum monococcum/dicoccum (single grained)	caryopsis	einkorn/emmer	708	768	
Triticum monococcum/dicoccum	glume base	einkorn/emmer	917		1
Triticum monococcum/dicoccum	spikelet fork	einkorn/emmer	349		
Triticum monococcum/dicoccum	basal rachis node	einkorn/emmer	1		
Triticum cf. diocecum	caryopsis	emmer wheat	1178	384	
Triticum cf. diocecum	glume base	emmer wheat	303	16	
Triticum cf. diocecum	spikelet fork	emmer wheat	562		
Triticum diocecum (Schrank) Schuebl.	caryopsis	emmer wheat	19		
Triticum diocecum (Schrank) Schuebl.	glume base	emmer wheat	12		
Triticum diocecum (Schrank) Schuebl.	spikelet fork	emmer wheat	133		
Triticum diocecum (Schrank) Schuebl.	rachis internode	emmer wheat	2		
Triticum diocecum/aestivum	caryopsis	emmer/bread wheat	2	1	
Triticum durum/aestivum	caryopsis	macaroni/bread wheat	2		
Triticum cf. durum/aestivum	caryopsis	macaroni/bread wheat	4		
Triticum cf. durum/aestivum	rachis internode	macaroni/bread wheat	4		
Triticum sp.	caryopsis	wheat indet.	171		5
Triticum sp.	rachis internode	wheat indet.	4		
cf. Triticum sp.	caryopsis	wheat indet.	10		3
Hordeum sativum indet.	caryopsis	barley indet.	2510	1975	31
Hordeum sativum indet.	rachis internode	barley indet.	36		
Hordeum sativum (hulled)	caryopsis	hulled barley	1835	9985	18
Hordeum sativum L. (hulled - straight)	caryopsis	hulled barley (straight)	1287	3273	20
Hordeum sativum L. (hulled - twisted)	caryopsis	hulled barley (twisted)	20	64	1
Hordeum sativum (cf. hulled)	caryopsis	hulled barley	103		
Hordeum sativum (naked)	caryopsis	naked barley	8		
Hordeum sativum (cf. naked)	caryopsis	naked barley	114		
Hordeum sp.	caryopsis	barley sp.	19		
cf. Hordeum sp.	caryopsis	barley sp.C181	34		
Avena sp.	awn fragment	oat	2		
Avena sp.	caryopsis	oat	3		
cf. Avena sp.	caryopsis	oat	1		
Cereal indet.	caryopsis	cereal indet.	120	64	1
Cereal indet.	culm node	cereal indet.	2		

Table 76A continued The charred plant remains (total amount)

Charred plant remains from Tell Abu al-Kharaz			Phasing		
Latin name	Plant part	Common name	EB	MB/LB	IA
			adjust vol. (l.)		
			1,6	0,1	0,3
Latin name	Plant part	Common name			
Rumex sp.	nutlet	dock	9		
cf. Rumex sp.	nutlet	dock	2		3
Chenopodium sp.	nutlet	goosefoot etc.	1		
Amaranthus sp.	seed	amaranth	2		
cf. Amaranthus sp.	seed	amaranth	9		3
Caryophyllaceae/Chenopodiaceae	seed	campion/goosefoot families indet.	7		20
Fumaria sp.	fruit	fumitory	2		
Cruciferae/Leguminosae indet.	seed	brassica/legume	1		
Vicia/Lathyrus sp.	seed	vetch/tare/vetchling	10		8
Medicago sp.	seed	medick	39		
Trifolium campestre/dubium type	seed	trefoil	15		
cf. Lotus/Trifolium sp.	seed	trefoil/clover	2		
Scorpiurus muricatus L.	seed	-	298		
cf. Scorpiurus muricatus	seed	-	1		3
Leguminosae indet.	large seeded	legume indet.	10		
Leguminosae indet.	medium seeded	legume indet.	11		
Leguminosae indet.	small seeded	legume indet.	3		
cf. Leguminosae indet.	medium seed	legume indet.	1		
cf. Euphorbia sp.	seed	spurge	1		
Pistacia sp.	stone	pistacia	12		
Malva sp.	seed	mallow	7		
cf. Bupleurum sp.	fruit	hare's ear	5		13
Umbelliferae indet.	fruit	carrot family	3		
cf. Umbelliferae indet.	fruit	carrot family	1		
Buglossoides sp.	nutlet	gromwell	11		
cf. Buglossoides sp.	nutlet	gromwell			20
cf. Labiate	caryopsis	mint family	1		
Lolium sp.	caryopsis	rye-grass	2158	25	8
cf. Lolium sp.	caryopsis	rye-grass	164		
Bromus secalinus type	caryopsis	brome grass	152		
Trisetum type	caryopsis	oat grass	21	2	
Gramineae indet.	caryopsis	grass indet.	118		33
Gramineae (large seeded)	caryopsis	large-seeded grass	33		
Gramineae (medium seeded)	caryopsis	medium-seeded grass	92		10
Gramineae (small seeded)	caryopsis	small-seeded grass	21		
cf. Scirpus sp.	nutlet	club-rush	1		
Indeterminate	seed/fruit	indeterminate	150		
Indeterminate	goat/sheep dung		2		
Mineralised seeds					
Silene gallica L.	seed	small-flowered catchfly	1		
cf. Ononis sp.	seed	restarrow	5		
Mercurialis annua L.	seed	annual mercury	7		
Echium sp.	nutlet	bugloss	1		
Modern contaminants					
Indeterminate	seed				13

Table 76B The charred plant remains adjusted to represent 100 cc of total charred remains

Charred plant remains from Tell Abu al-Kharaz			Phasing		
Latin name	Plant part	Common name	EB	MB/LB	IA
			adjust vol. (l.)		
			1,6	0,1	0,3
Major crops - Non-cereals					
<i>Ficus carica</i> L.	pip	fig	35		
<i>Vicia ervilia</i> (L.) Willd.	seed	bitter vetch	1		
<i>Vicia faba</i> L.	seed	broadbean	18		
cf. <i>Vicia faba</i>	seed	broadbean	4	7	
<i>Lens culinaris Medicus</i>	seed	lentil	121		
cf. <i>Lens culinaris</i>	seed	lentil	12		
cf. <i>Lathyrus sativus</i>	seed	grass pea	4		
<i>Linum usitatissimum</i> L.	seed	cultivated flax	20		
<i>Vitis vinifera</i> L.	fruit	grape	9		
<i>Vitis vinifera</i> L.	seed	grape	144		
<i>Olea europaea</i> L.	stone	olive	6		
Major crops - Cereals					
<i>Triticum monococcum</i> L.	glume base	einkorn wheat	8		
<i>Triticum monococcum</i> L.	spikelet fork	einkorn wheat	36		
<i>Triticum</i> cf. <i>monococcum</i> (two grained)	caryopsis	einkorn wheat	1705	482	
<i>Triticum</i> cf. <i>monococcum</i>	glume base	einkorn wheat	78		
<i>Triticum</i> cf. <i>monococcum</i>	spikelet fork	einkorn wheat	40		
<i>Triticum monococcum/dicoccum</i> (two grained)	caryopsis	einkorn/emmer	916	171	
<i>Triticum monococcum/dicoccum</i>	caryopsis fragment	einkorn/emmer	874	107	
<i>Triticum monococcum/dicoccum</i> (single grained)	single caryopsis	einkorn/emmer	183	85	
<i>Triticum monococcum/dicoccum</i>	glume base	einkorn/emmer	863		8
<i>Triticum monococcum/dicoccum</i>	spikelet fork	einkorn/emmer	354		
<i>Triticum monococcum/dicoccum</i>	basal rachis node	einkorn/emmer	2		
<i>Triticum</i> cf. <i>dicoccum</i>	caryopsis	emmer wheat	489	43	
<i>Triticum</i> cf. <i>dicoccum</i>	glume base	emmer wheat	401	2	
<i>Triticum</i> cf. <i>dicoccum</i>	spikelet fork	emmer wheat	176		
<i>Triticum dicoccum</i> (Sehrank) Schuebl.	caryopsis	emmer wheat	72		
<i>Triticum dicoccum</i> (Sehrank) Schuebl.	glume base	emmer wheat	10		
<i>Triticum dicoccum</i> (Sehrank) Schuebl.	spikelet fork	emmer wheat	166		
<i>Triticum dicoccum</i> (Sehrank) Schuebl.	rachis internode	emmer wheat	4		
<i>Triticum dicoccum/aestivum</i>	caryopsis	emmer/bread wheat	4	1	
<i>Triticum durum/aestivum</i>	caryopsis	macaroni/bread wheat	2		
<i>Triticum</i> cf. <i>durum/aestivum</i>	caryopsis	macaroni/bread wheat	8		
<i>Triticum</i> cf. <i>durum/aestivum</i>	rachis internode	macaroni/bread wheat	8		
<i>Triticum</i> sp.	caryopsis	wheat indet.	323		22
<i>Triticum</i> sp.	rachis internode	wheat indet.	8		
cf. <i>Triticum</i> sp.	caryopsis	wheat indet.	44		60
<i>Hordeum sativum</i> indet.	caryopsis	barley indet.	1814	219	570
<i>Hordeum sativum</i> indet.	rachis internode	barley indet.	57		
<i>Hordeum sativum</i> (hulled)	caryopsis	hulled barley	761	1109	332
<i>Hordeum sativum</i> L. (hulled - straight)	caryopsis	hulled barley (straight)	670	364	350
<i>Hordeum sativum</i> L. (hulled - twisted)	caryopsis	hulled barley (twisted)	12	7	20
<i>Hordeum sativum</i> (cf. hulled)	caryopsis	hulled barley	163		
<i>Hordeum sativum</i> (naked)	caryopsis	naked barley	3		
<i>Hordeum sativum</i> (cf. naked)	caryopsis	naked barley	54		

Table 76B continued The charred plant remains adjusted to represent 100 cc of total charred remains

Charred plant remains from Tell Abu al-Kharaz			Phasing		
Latin name	Plant part	Common name	EB	MB/LB	IA
			adjust vol. (l.)		
			1,6	0,1	0,3
Hordeum sp.	caryopsis	barley sp.	49		
cf. Hordeum sp.	caryopsis	barley sp.	12		
Avena sp.	awn fragment	oat	4		
Avena sp.	caryopsis	oat	9		
cf. Avena sp.	caryopsis	oat	3		
Cereal indet.	caryopsis	cereal indet.	250	7	8

Table 76B continued The charred plant remains adjusted to represent 100 cc of total charred remains

Domesticated animals and game

Domesticated animals

There are plenty of grazing grounds for domesticated animals on the foothills, which cannot be used for agriculture. The results of our osteological investigation show that caprines, viz. goats and sheep, were most abundant in the Early Bronze Age. There is a fairly high degree of similarity between the Early and Middle/Late Bronze Age samples, but the findings suggest a different situation during the Iron Age: the still predominant caprines were significantly less important and cattle much more important than formerly. No clear contrast can be seen in the case of pigs although they are at their most abundant during the Iron Age. However, the figures for pigs show that they were obviously of subordinate economic value. Equid, dog, cat and fox remains attest the presence of ani-

mals whose importance to the human community may have lain in other attributes than their ability to provide meat.

Game

The quantity of remains of other animals hunted for food in the Tell Abu al-Kharaz assemblage is comparatively small, although fallow deer and gazelle were clearly of some significance. Deer are more abundant in the Iron Age sub-sample and this may run concurrently with the decrease in the relative abundance of gazelle. Bear and fox may have been hunted for meat and furs. Hippopotamus may also have been hunted locally, although the few items attributable to this animal, pieces of ivory, may equally well have been acquired by trade. Non-mammalian taxa were represented by small amounts of bird bone, and very small amounts of fish, crab, frog and tortoise/terrapin.

	Total ident. frags.	%	Weight (g)	%
Caprines	2250	69.1	18647	40.5
Cattle	679	20.9	21057	45.8
Pig	108	3.3	1444	3.1
Fallow deer	90	2.8	2625	5.7
Gazelle	67	2.1	547	1.2
Dog	18	0.6	588	1.3
Equid	15	0.5	901	2.0
Rodent	11	0.3	2	-
Cat	9	0.3	22	-
Fox	4	0.1	10	-
Brown Bear	2	0.1	148	0.3
Hippo	2	-	14	-
Total identified	3255	100.1	46005	99.9

Table 77 Overall representation of mammalian taxa at Tell Abu al-Kharaz based on total numbers of identified fragments and on bone weights

	EB		MB/LB		IA	
	n	%	n	%	n	%
Caprines	854	80.1	254	81.2	719	65.8
Cattle	180	16.9	53	16.9	318	29.1
Pig	34	3.0	6	1.9	56	5.1
Total	1068	100.0	313	100.0	1093	100.0

Table 78 Numbers and percentages of identified bone fragments of caprines, cattle and pig in the Early and Middle/Late Bronze Ages and the Iron Age

	EB		MB/LB		IA	
	g	%	g	%	g	%
Caprines	6493	52.2	1809	55.0	6522	38.1
Cattle	5515	44.3	1396	42.5	9923	57.9
Pig	431	3.5	83	2.5	695	4.1
Total	12439	100.0	3288	100.0	17140	100.1

Table 79 Weights and percentages of identified bone fragments of caprines, cattle and pig in the Early and Late Bronze Ages and the Iron Age

	Fallow deer		Gazelle	
	Fragments	Weight	Fragments	Weight
Early Bronze Age	1.2	1.6	2.4	1.8
Late Bronze Age	2.2	3.0	4.2	3.0
Iron Age	5.4	11.0	1.2	0.7

Table 80 Abundance of fallow deer and gazelle remains relative to those of the three most abundant taxa. Abundance of identified fragments and weights of identified fallow deer and gazelle are expressed as a percentage of the combined total of identified fragments/combined weights of caprines, cattle and pig for each period sub-sample

Building material and fuel

The relatively flat plateau of the mound, which is mainly of Marly limestone,¹⁰¹ is convenient for the construction of buildings. Building material is abundantly at hand all around the mound in the shape of smooth stones of convenient size for the construction of domestic, administrative, religious and defensive structures. Clay, the raw material for the production of mudbrick for the superstructures of these buildings and also for the manufacture of fired earthenware, was available in the nearby wadis. Forests for the supply of wood and fuel were more common during earlier periods, and also in the Iron Age, in the immediate vicinity of the site than today. However, even today

the vegetational situation in the Wadi al-Yabis area upstream is different from that in the Jordan Valley (the *Ghor*): in the *Ghor*, which is shaped mainly from post-Pleistocene deposition by different wadis, acacia predominates amongst the larger plants; the foothills with their predominantly colluvial soil are dominated by open scrub oak forest; in the Cretaceous limestone mountains, where terra rossa and rendzina soils are common, and where the Wadi al-Yabis has its source, a mixed forest of pine, oak and pistachio prevails. In consequence, wood for building material and fuel¹⁰² may be assumed to have been accessible within a reasonable distance.

¹⁰¹ There are also some conglomerates, especially in the western part of the tell where the bedrock is exposed.

Security and control

Apart from the favourable topographical situation as regards access to water, and plenty of arable land and grazing grounds, it is by no means surprising that precisely this mound was chosen by the first colonizers as a place for their settlement. It is one of the few restricted mounds in the area, with its fairly flat top rising approximately 60 m above its surroundings, and it is totally isolated from the surrounding foothills which lead up the Transjordanian high plateau to the east. Therefore, the preconditions for defence and control of large parts of the Jordan Valley are optimal. Not only could a large area in all directions be surveyed from the top of the mound, but also the rocky western slope, facing the Jordan Valley, and the steep northern and eastern slopes are all natural obstacles to potential invaders. The weakest part of the site as regards defence is the southern part of the tell, which slopes only moderately downwards to the area of the Wadi al-Yabis. This part had to be secured especially, and the excavations revealed evidence that this had been done in the shape of massive defence systems during all periods. It also seems quite probable, on the evidence of the topographical situation and the defence systems of the site, that the walled part of the mound was utilized as a refuge in times of war: people who dwelt in the immediate surroundings of Tell Abu al-Kharaz moved there during unsafe times, not only for protection but also to take part in the defence of the town. The large supply of handy stones on the plateau, which could be utilized for defence, i.e. as missiles, was no doubt recognized as an asset.

The following area could be overlooked from the summit of Tell Abu al-Kharaz from the north-west to the south-west: the hills around Nazareth, Mount Tabor, Beth-Shean and the various parts of the Beth-Shean Valley, parts of the Harod Valley, the Samarian hills (today's West Bank) and the area north of Tell es-Sa'idiyeh. The view to the east is restricted by the rising hillocks – that is western Gilead which is the name of the landscape in the Old Testament. The eastern hillocks are the outcrops of the Transjordanian plateau further to the east.

The population and their land

The following discussion on the people of Tell Abu al-Kharaz and their habitat is meant as a continuation of the comprehensive argumentation in Chapters 8 of

Volumes I and II (FISCHER 2006a and 2008a). When these volumes were published in 2006 and 2008 the results of eleven seasons of excavations were presented (1989–2001). Since then another five seasons of excavations have taken place from 2008 to 2012. These five seasons have been devoted to the Iron Age settlement of the site in order to find and to expose the earliest Iron Age remains. The expedition has succeeded in finding and presenting the complete Iron Age sequence of the site, thanks to exceptional discoveries from the early Iron Age in 2009–2012.

Demographic studies of ancient societies of which no written sources have survived suffer from a highly hypothetical approach with many uncertainties. Several methods of estimating the population figures and the area of land which is needed for the survival of the societies of the site were presented by the author in Volumes I and II. It has been said that the total area which is occupied by the mound of Tell Abu al-Kharaz is 12 ha (30 acres), and the “flat”, walled, plateau approximately 1.5 ha (3.75 acres).

It is important to consider the number of people living permanently inside a well-protected city in comparison to the number of people dwelling there during unsafe times. It is most likely that as many people as possible tried to settle within the walled settlement for reasons of safety even during times of peace and not only when times became unsafe and the need for the security offered by the defence system became more urgent. In the case of Tell Abu al-Kharaz it is therefore suggested that there was quite a high population density within the limits of the town wall, which was no doubt further increased when people who lived outside the town moved into it for protection in times of danger, at the same time providing increased manpower for defence purposes.

When the upper plateau of Tell Abu al-Kharaz was settled for the first time in the Early Bronze Age a maximum population of roughly 100 permanently dwelling families is offered for the most densely occupied sub-periods of the Early Bronze Age, namely Phases IB and II. This is a hypothetical number supported by the material evidence (FISCHER 2008a: 332–337). Continued hypothetical considerations suggest a population of 450 individuals using the low family size estimate or 650 using the high estimate for the approximately 1.5 ha area on the summit.¹⁰² In the publication on the Middle and Late Bronze Age of Tell

¹⁰² Amongst additional sources of fuel were certainly low vegetation, harvest and food residues, and dried dung.

¹⁰³ WATSON (1979) and ZORN (1994) suggested 4.5 individuals

per average family, and 6.5 individuals per average family is proposed by ANTOUN (1972).

Abu al-Kharaz (FISCHER 2006a: 331–335) we have demonstrated that a theoretical “all-time-high” population of 1000 individuals, for instance during unsafe times, would have had sufficient space for their dwellings on the walled plateau of the tell. We also demonstrated that the natural resources in the surroundings of the tell were adequate to feed at least such a population and their livestock. These figures are also valid for the Early Bronze Age and the Iron Age.

Another demographic approach is tested here by including the figures of the frequency of the most common find group at any excavation in the Levant or elsewhere, the ceramics. Therefore the amount of ceramic vessels/sherds and the length of occupation of the three “main periods” of Tell Abu al-Kharaz, which is based on radiocarbon dating, are shown in Table 81.

There are, however, some caveats which must be considered when the pottery statistics are interpreted. The main goal of the latest four seasons of excavation was to gather additional information on the Iron Age, i.e. the excavations stopped at a level where the earliest Iron Age occupation was completely exposed: a good example for this is the quite large Area 9 (East) of approximately 700 square metres. In general, contexts predating the Iron Age were left alone unless “islands” of earlier occupation appeared in the Iron Age strata (see the publications of such Late Bronze Age “islands” from Area 9 in BÜRGE in press; see additional islands with Late Bronze Age remains from Area 7 in SCHILK 2010). The same aims also guided earlier excavations when Iron Age strata were the main priority, for example, those in Area 3 (Trenches XII and XLIII) and Area 10 (Trench XLIV).

Another point to consider is the size of the hitherto opened area, which is roughly 3200 square metres from all seasons of excavation. This corresponds to approximately 20 % of the total plateau area, i.e. 80 % of the plateau has not yet been excavated.¹⁰⁴

It is also crucial when studying the statistics in Table 81 to consider the stratigraphic situation of the site. The most recent Iron Age occupation is in principle visible on today’s surface or can be reached just a few centimetres below the colluvial soil. There are only a few spots in the excavated area where Islamic (Abbasid) and, more rarely, Late Roman structures covered the Iron Age strata. This means that erosion, earthquakes and human activities have certainly contributed to the deposition of Iron Age material along the steep slopes or at the foot of the tell in places where excavations were not carried out. To sum up: on one

hand, the Iron Age material is over-represented as a result of certain project aims, and, on the other hand, superficial Iron Age strata are no longer preserved and consequently do not appear in the statistics. Nevertheless, it is most likely that the Iron Age material is overrepresented considering all the factors.

Period	No. of vessels/ sherds	Years of occupation
Early Bronze Age		
Phases IA-B	20804	
Phases IIA-B	23468	
Phases IIIA-B	2989	
mixed contexts	999	
Total	48260	200-250
Middle/Late Bronze Age		
Phase IV/1	1753	
Phase IV/2	1152	
Phase V	7969	
Phase VI	2193	
Phase VII	902	
Phase VIII	334	
Total	14303	300-350
Iron Age		
Phase IX	23914	
Phase X	6156	
Phase XI	8524	
Phase XII	18289	
Phase XIII	10505	
Phase XIV	21556	
Phase XV	209	
Phase XIV or XV	2906	
Total	92059	c. 500

Table 81 Distribution of vessels/sherds from Early Bronze to Iron Age (imports are included)

It can be seen from the statistics that Iron Age ceramics (92059) outnumber those from the Early, Middle and Late Bronze Age periods (14303 + 48260). It is also obvious that the Iron Age occupation (450–500 years) lasted longer than any of the earlier main periods, i.e. the Middle and Late Bronze Ages (300–350 years), and the Early Bronze Age (200–250 years). By adjusting the figures of the ceramics to a 100-year interval the situation is made different: approximately 21400 vessels/sherds are from the Early

¹⁰⁴ Additional unexcavated parts of the settlement where excavations stopped at a certain level are in all areas.

Bronze Age, just 4400 from the Middle and Late Bronze Ages, and 19400 from the Iron Age. This leads to several questions. Why are the figures for the Middle and Late Bronze Ages so low when those for the other two periods are roughly in the same range (the Iron Age figures being roughly 10 % lower than those of the Early Bronze Age)?

The following discussion is based on the assumption that each population used approximately the same number of vessels in each household during a given period of time. In the author's opinion the explanation for our figures is fairly simple: the Early Bronze Age civilization came to a violent end and the site was abandoned for more than a millennium. When the Middle Bronze Age people arrived after this long occupational lacuna they found a fairly flat surface without any obvious signs of earlier structures (with the exception of the defence structures). This flat surface was the result of precipitation, wind and erosion, and convenient as a stable surface for their new structures: they only rarely came in contact with earlier structures and most often only when they dug foundation trenches for their structures, i.e. the Early Bronze Age structures were left alone – to the benefit of Early Bronze Age archaeology!

Concerning the Middle and Late Bronze Age ceramics, which are “missing” in our statistics: this phenomenon also can sufficiently be explained. The arrival of the Iron Age people took place within a relatively short time after the “collapse” of the Canaanite Late Bronze Age culture. They must have recognized the Late Bronze Age structures which lay quite superficially or even on the surface. In order to create a flat and stable base for their own structures the Iron Age people were forced to remove older structures and certainly also finds. This can easily be proved in Area 9 East, where Late Bronze Age structures were removed and the lengthy Iron Age I cell-plan structure was built directly upon the city wall of the previous period. The conveniently nearby steep slope was certainly used to deposit the Late Bronze Age debris. There were just a few Late Bronze Age finds within the area of excavation, and these are mainly from the destruction layer of Phase V (Late Bronze Age IB after 1450 BCE; see FISCHER 2006a: 374, table 70). Further evidence to support this hypothesis is the area west of the Iron Age I compound of Area 9 East where Late Bronze Age “islands” were left alone by the Iron Age people: we were able to excavate amazingly well-preserved and colourfully decorated Late Bronze Age pottery from the destruction layer of Phase V (BÜRGE in press). The same can be said about the situation in Area 7 situated on the other, northern, side of the tell

where similar “islands” from Phase V were excavated (SCHILK 2010). This means that many of in particular the later Late Bronze Age structures, including their floors, were removed by the Iron Age settlers whenever Iron Age structures were built but others were left alone.

In consequence of these facts and plausible hypotheses it still seems that in the Early Bronze Age the city was most intensively occupied in comparison with the other two main periods of occupation but during a shorter time span compared with the Iron Age. The situation in the Middle and Late Bronze Ages cannot be sufficiently explained through the pottery statistics because of the listed possible explanations. Another fact to consider is the limited area of the plateau which is excavated, which means we do not know if the three periods are evenly distributed in the same pattern in the still untouched 80 % of the plateau area as in the excavated portions.

The people of Tell Abu al-Kharaz and their possible ethnic background

Stratigraphical observations point to a break in the settlement sequence after the last Late Bronze Age occupation of Phase VIII. Consequently, the settlers of Phase IX were immigrants, wherever they arrived from, whether they came from the immediate neighbourhood or from farther afield. This has to be kept in mind throughout the following discussion.

In order to discuss the possible ethnic background of the Iron Age I population of Tell Abu al-Kharaz of Phase IX we have to study the architecture and certain find groups and rely entirely on their interpretation. This involves some subjectivity because of the lack of relevant written sources.

An outstanding innovation during the earliest Iron Age occupation at the site is the architectural layout of the Phase IX compound, i.e. the cell plan of the structure (Figs. 250, 251A and B, 279, 452:2). The reconstructions of our cell plan structure make it obvious that the excavated remains in fact represent a basement which must have been accessed via ladders from the upper storey, because there are no external entrances to each pair of rooms, the rooms of each pair being connected via doorways. The reconstruction of the once existing upper storey (Figs. 279, 452:2), and, in particular, the position of one of the possible entrances in the northern wall, are hypothetical, since the upper storey has been destroyed. There is nothing like this structure in the immediately preceding Late Bronze Age Phase VIII or earlier Late Bronze Age phases at the site (viz. Phases VIII–V; FISCHER 2006a: 337–347). This specific architectural layout is also

unique in the Transjordanian Jordan Valley or the remainder of Jordan in the early Iron Age.¹⁰⁵

Our search for good parallels was not successful. Despite a number of differences, however, there is a structure at Tell el-Oreme/Kinneret on the north-western shore of the Sea of Galilee which very remotely resembles our compound (Complex I in Field I; MÜNGER *et al.* 2011: 77–78). The Kinneret complex, which has a less standardized layout than that from Tell Abu al-Kharaz, belongs to the local Phase V, which lasted from roughly 1050–950 BCE and was destroyed by an earthquake according to the excavators.¹⁰⁶ This is a later date than our radiocarbon-supported dates for the destruction event of Phase IX would permit. Phase V at Kinneret continues in many ways the layout of the previous Phase VI, which is the foundation phase of the Iron Age occupation at the site (starting around 1100 BCE; MÜNGER *et al.* 2011: 77–78). At least, both the Tell Abu al-Kharaz compound and that of Kinneret demonstrate centralized city planning.

In addition to the innovative architecture there are numerous objects which are foreign in design and material compared to the traditional Canaanite material which was prevalent at the site in the outgoing Late Bronze Age (see below). The mobile finds from Phase IX display unmistakable Philistine, Aegean, Cypriote, Phoenician and – to a limited extent – Egyptian influences. This concerns specific finds such as groups of ceramics, loom weights, a bronze wheel and a scaraboid (see below under the heading “3. Interregional synchronization”). Vessel shapes which display clearly identifiable Aegean influences are, for instance, pyxides of earthenware (Figs. 325, 326, 430) and alabaster (Figs. 346:3 and 4, 348), the double-pyxis with the false spout and basket handle (Figs. 325:8, 327, 430:8, 452:3), the strainer-jug with the basket handle (Figs. 305:2, 307, 411:5), and the cooking vessels of a closed shape, i.e. the cooking jugs (Figs. 338, 339 upper row, 340:1–3, 433:2–5, 434). Decorative elements on our ceramic material resemble Aegean patterns of decoration, for example, the concentric-semicircle pattern, which are common on numerous Late Helladic IIIC vessels from the Mycenaean sphere of culture (e.g. MOUNTJOY 1986: 198, fig. 263) and from Cyprus (FISCHER 2012b: 94, fig. 3:1). I suggest that

this Aegean-influenced pattern arrived with the Sea Peoples in the Levant and has been used on modified Canaanite shapes, for instance, on our jug with the thick white slip and the red-painted pattern of semi-circles and bands (Figs. 297:1, 298, 409:3, 452:6). The decorative pattern on our two pilgrim flasks with cup mouths (Figs. 321:1 and 2, 322, 323, 412:1 and 2), i.e. the centrally placed wheelspoke pattern and other details, is at home in Cisjordan and has been described as belonging to the Philistine sphere of culture (cf. DOOTHAN 1982: 221, pl. 3).

Cooking jugs appear for the first time at Tell Abu al-Kharaz in Phase IX (Figs. 338, 339 (upper row), 340:1–3, 433:2–5, 434). They represent a hybrid type as the result of an amalgamation of the typical Aegean cooking jug of a closed shape and a flat base (compiled by YASUR-LANDAU 2010: 124–132), with the standard Canaanite cooking pot of an open shape with a rounded base. This hybrid type is represented in various sites in and around Philistia and other sites (e.g. BEN SHLOMO *et al.* 2008: 232, fig. 6, Type 7). The appearance of this type is dated to the later Iron Age I period but A. Maeir admits that an earlier appearance may be possible.¹⁰⁷ There is an exception to the flat-based standard Aegean cooking jug, namely cooking vessels standing on three legs with a convex base (see YASUR-LANDAU cited above). A find from Area 9, Room 10, Phase IX, may represent one of the legs of the tripod Aegean-type cooking pot (A in Fig. 260) but the remainder of the vessel is missing. It may be the case that this object – if it is the broken-off leg of a tripod Aegean cooking vessel – was reused in the basement as a tool or fell down as part of such a vessel when the upper storey of the compound collapsed, or is some other kind of tool/handle.

At Tell Abu al-Kharaz the open and the closed shapes were found together in the same rooms of the Phase IX compound (in five of the 21 rooms; see Table 82). There are 28 open cooking pots and nine closed cooking jugs from this building. It should be highlighted again that the cooking jug appears at Tell Abu al-Kharaz for the first time in Phase IX and was used only in this and the next phase, Phase X.

A highly interesting phenomenon is represented by the exclusive use of a new type of loom weight in Phase

¹⁰⁵ The Late Bronze Age II casemate system from Tell Abu al-Kharaz Phase VI (see FISCHER 2006a: 211, fig. 251), and suggested casemate system from Tall Zira'a from the 14th and 13th centuries BCE, are totally different (VIEWEGER and HÄSER 2007: 153–154). The Iron Age I structures from the latter do not resemble the cell-plan structures from our Phase IX; cf. *ibid.* 152, 160.

¹⁰⁶ To the best of the author's knowledge the published Kinneret dates are not based on radiocarbon (with reference to my meeting with S. MÜNGER in Bern, Switzerland, December 2011).

¹⁰⁷ Personal communication with A. Maeir (email 28 November 2012).

IX: loom weights from this phase are exclusively of the slightly spool-shaped type of unfired clay or, rarely, of the more cylindrical type of stone (Fig. 346:17–20). They were also used in Phase X and represent a chronological parallel to the use of the cooking jugs in Phases IX and X.

The spool-shaped type of loom weight is not an uncommon find in LH IIIC Tiryns and other contemporary mainland sites (RAHMSTORF 2003). In Chania, Crete, the oldest spool-shaped loom weight is from a LM IIIA2 context. It is not found in LM IIIB1 – obviously by chance since it appears again in LM IIIB2 (BRUUN-LUNDGREN 2011: 382). However, the majority of these spool-shaped loom weights from Chania come from LM IIIC contexts (BRUUN-LUNDGREN in BRUUN-LUNDGREN and WIMAN 2000: 176–178; BRUUN-LUNDGREN 2011: 382), that is from the 12th century BCE. In Cyprus, they appear in Kition alongside the pyramidal loom weights in LC IIIA contexts (KARAGEORGHIS and DEMAS 1985: pl. 201) and in Maa-Paleokastro, also in LC IIIA contexts (KARAGEORGHIS and DEMAS 1988: pl. 189). These contexts are roughly dated to the 12th century BCE. Parallels from Philistia include spool-shaped or cylindrical loom weights from Ashkelon (STAGER 1991: 36–37), Ashdod (DOTHAN and PORATH 1993: 64, 193, figs. 24:3–5, pl. 39:4), Qubur al-Walaydah (LEHMANN 2011: 294, 314, fig. 15), Gath (CASSUTO 2012: 469–470) and Tel Miqne/Ekron (SHAMIR 2007: 44, fig. 1). They are also reported from outside the nucleus of Philistine occupation.

An extraordinary find of metal is a part of a small bronze wheel which originally had eight spokes (see drawing with reconstruction and photograph in Fig. 344:12, 345). A similar wheel, but smaller and with six spokes, was found in Tell Qasile, Stratum XII (dated to the mid-12th century BCE; MAZAR 1986: 13–14, fig. 6:4). Bronze wheels with eight spokes are reported from Philistine Tel Miqne-Ekron where they are interpreted as parts of four-wheeled cult stands (DOTHAN 2002: 4–8 who refers to Cypriote parallels). Dothan's reconstruction is partly based on literal sources and partly on the evidence of two four-wheeled stands from Cyprus. One of the latter is most likely from Larnaka/Kition (uncertain provenance, dated to LC III; see CATLING 1964: 207–208 with discussion, pl. 35a–d; BUCHHOLZ and KARAGEORGHIS 1971: 158, 460, pl. 1685, a, b). The other one is of unknown provenance (see CATLING 1964: 208–210 with discussion, pl. 36a; BUCHHOLZ and KARAGEORGHIS 1971: 158, 461, pl. 1686; CATLING 1984: pl. XI:1, 2; now in the British Museum,

Inv. No. 1946.10.–17.1). Both examples have wheels with six spokes. Other wheels with four, six, or ten spokes are attested from Enkomi (compiled by CATLING 1964: 210, pl. 36e–g; *idem* 1984: pl. XI:3, 4, 6; all of them dated to the 12th century). The function of these stands remains unclear and it is doubtful if all the retrieved wheels or fragments of wheels can be reconstructed as parts of four-wheel stands. It is, however, likely that the tradition of making miniature wheels originates from Cyprus, and that our wheel was imported/bought by locals or came with immigrants.

The scaraboid with the stylized head of a horse instead of that of the back of the standard beetle is certainly an import (Figs. 341:1, 342, 457:11). It is a very rare find and only two ambiguous references to insecure contexts from the area around Philistia were found (see Appendix 4): one is from Beth-Shemesh (KEEL 2010a: 312–313, no. 216, dated to Iron Age I-IIA) and the other from Tell el-Far'ah South (KEEL 2010b: 422–423, no. 947).

Imports from Phoenicia and maybe further north are not uncommon finds in Phase IX. One is the globular jug with a double handle (Figs. 321:7, 412:7, 452:4). The decoration reflects both Phoenician and Cypriote influences. Other imports from the north are several small pilgrim flasks (Figs. 321:3–6, 324, 412:3–6).

The debate on the relationship between material culture and ethnicity is too well known to justify quoting all the prevailing (and differing) views. One can argue, for instance, that certain exotic and aesthetically appealing ceramics, which are alien to local tradition, could have been acquired by trade (see tough contra-arguments e.g. by TUBB 2000: 182). This is certainly not the case as regards the “exotic and aesthetic” value of cooking vessels. Cooking vessels do not belong to the group of objects which were acquired because of their aforementioned looks. It is rather the case that their shape and physical properties based on traditional cooking habits, i.e. how and for what these vessels should and could be used, were given priority when they were produced/acquired and utilized. There are several possible explanations for their ending up in our Phase IX compound: they were locally produced but display influences from the Aegean and Philistine spheres of culture,¹⁰⁸ traded, or brought there by their owners when they immigrated. The same can be said about the spool-shaped loom weights, which are a manifestation of a certain tradition in tex-

¹⁰⁸ Petrography has not yet been carried out.

tile production and which are widely accepted as being connected to the Sea Peoples. The origin of this type of loom weight is still under discussion and mainland Greece, Balkan and central Europe have been considered as places of their origin (cf. e.g. RAHMSTORF 2003 and 2005).

After presenting the most important traits of Phase IX, which comprise a number of novelties that contrast with the traditional Canaanite culture of the previous phases at Tell Abu al-Kharaz, can we now draw any conclusions upon the ethnicity of the people of Phase IX based on the material evidence? In the absence of reliable historical sources we have to trust our interpretation of the material culture if we wish to discuss ethnicity. It has to be stated that local finds which represent the continuation of the Canaanite culture of the outgoing Late Bronze Age outnumber objects which show influences from abroad. One could simply summarize this phenomenon as an amalgamation of local culture and foreign influences, i.e. from Cisjordan and further west, and from the central and northern Levant. Nevertheless, in my opinion during times of widespread migrations and increased mobility of individuals and groups, of which the 12th century BCE is an excellent example, one should not overlook the possibility of immigration of families or individuals to Tell Abu al-Kharaz from far away.

We know from written Egyptian sources and reliefs that groups of the Sea Peoples, for instance the Sherden, who are depicted with horned helmets, and the Peleset, with feathered headdresses, were incorporated into the troops of Ramses III as mercenaries in his battle against the Libyans only three years before they turned against the pharaoh himself (see selected refs.: SANDARS 1978: 118–119; BIETAK 1993: 293; PEDEN 1994; CIFOLA 1994; REDFORD 2000; CLINE and O'CONNOR 2003; cf. also YASUR-LANDAU 2010: 171–186). The pharaoh obviously took advantage of their fighting skills and their function seems to have been mainly a military one, at least as the Egyptian sources convey, but they must also have had other functions in times of peace of which we do not have any information. They certainly lived together with their families, probably integrated into Egyptian society, and their skills were considered an important source in unruly periods.

This scenario could also be applied to the situation at Tell Abu al-Kharaz half a century later when the specific skills of certain groups of Sea Peoples, for

instance in military competence including defence, building technique and handicraft, were in demand and possibly allowed them to become integrated into the society that settled at Tell Abu al-Kharaz in Phase IX. The question of whether individuals related to the Sea Peoples were responsible for the strict architectural layout of our cell plan compound is difficult to answer because good parallels are missing. It may even be the case that this building technique was an *in situ* invention of the people who arrived at this obviously abandoned site and had to organise themselves immediately as far as defence and accommodation were concerned: they built this compound as a combined defence and living quarter on this strategic spot on the edge of the upper plateau from where the Wadi al-Yabis could easily be accessed. A counterargument against the “*in situ* invention” could be that the skilfully composed supporting walls of the basement point to a constructor with experience from similar endeavours. This leads to the question to which at present no definite answer can be given: who and from where?

Let us return to the mobile finds which show influences from far away. An explanation which should not be overlooked could be that females, who were related to the Sea Peoples, came to Tell Abu al-Kharaz during the course of intermarriage with indigenous people and brought their traditional cooking and weaving techniques to the site.¹⁰⁹ It could be argued that pottery from Phoenicia may have been acquired as luxury goods because of its appealing appearance, or – in accord with the cooking pots and weaving tools – that this group of finds came to the site with another group of Sea Peoples, namely those who took the land route through Phoenicia on their way south, joining those who came by sea to the southern Levantine shore and eventually moving eastward to the Jordan Valley. If this hypothesis holds true it would mean that local people and two groups of immigrants lived in symbiosis at Tell Abu al-Kharaz in Phase IX. Summarizing the question of the ethnic background of the population of Phase IX: the ethnic picture certainly is extremely complex and there are at present no simple answers to the questions: exactly who, precisely where and accurately when.

“Foreign” elements became rarer in the find assemblages following the violent destruction of Phase IX, i.e. Phases X and XI. The cooking jug is still in use in Phase X but it vanishes in Phase XI. These observa-

¹⁰⁹ Females are assumed, based on the traditional view that cooking (see the new cooking jugs) and weaving (see the new spool-shaped loom weights) were carried out by women at that time.

tions may point to assimilation of the cultural traits which are usually connected to the Sea Peoples by the dominating local material culture. Comparing the fate of the cooking jugs with that of the Canaanite, wide open-shaped, cooking-pot type with the triangular rim: the latter is still in use in Phase X but it starts to vanish in Phase XI. By Phase XII it is very rare (or may be even just residual) and it was eventually and definitely superseded by the cooking pot with the medium-wide mouth in Phase XIII (Figs. 439, 440). This type is certainly the result of constant development, improvement and adaption to changed habits and/or habitat.

II. WRITTEN SOURCES, ADMINISTRATION AND POLITICS

Very little is known about the true nature of the administration and politics of the small urban centre of Tell Abu al-Kharaz which is based on written sources from the Iron Age. The few ostraka from our Iron Age strata do not enlighten us about this subject. Other written sources, even those of secondary significance, for instance Egyptian texts dealing with nearby urban centres such as Pella or Beth-Shean, are scarce. Written sources from Beth-Shean are from the outgoing Late Bronze Age and the beginning of the Iron Age but they are not of any value for the nearby Tell Abu al-Kharaz (see the overview with further references in MAZAR 2009a: 5, 7–11). The same can be said about the situation at Pella (SMITH and POTTS 1992: 83).

The closest we can come to written sources dealing with the Iron Age of this specific area and period is the Old Testament. Few scholars today doubt that Old Testament texts related to the Iron Age reached their present form earlier than the end of the Iron Age or even later. Consequently the reliability of these texts concerning events which happened hundreds of years earlier can be questioned but – with a lot of reservation – they should maybe not be rejected as pure fiction. Therefore the events in which the ancient landscape of Gilead and specifically the town of Jabesh Gilead played an important role in Old Testament narratives will briefly be presented here.

The name Jabesh Gilead has been preserved in the name of the Biblical landscape Gilead and the Wadi al-Yabis, a tributary of the Jordan River just south of Tell Abu al-Kharaz and approximately 6 km south of Pella. The extent of the region of Biblical Gilead is not exactly defined. It covers approximately today's North-West Jordan from the Wadi al-Yarmouk at the Syrian border in the north to, in the south, the Wadi

al-Mojib (River Arnon) east of the Dead Sea (cf. OTTOSSON 1969: 9). Although expressing some reservations the present author has referred in the previous two volumes to GLUECK's (1951: 268–275) discussion of the possible identification of Tell Abu al-Kharaz with the city of Jabesh Gilead (FISCHER 2006a: 19; FISCHER 2008a: 19). This city is mentioned several times in the Old Testament (I Sam. 11:1–13; 31: 10–13; II Sam. 2:5–6; 21:12; I Chron. 10:11–12; Judges 21:8–14).

The author's position is a long way from that of earlier generations of archaeologists who tried to identify any site of excavation in the Southern Levant with possible candidates in the Old Testament. Nevertheless, since the site's identity has been discussed at length by others I will refer to this discussion and add new archaeological evidence which has been unknown to the people discussing the location of Jabesh Gilead. Eusebius of Caesarea (c. 263–339 CE; Onomasticon 110:11–13) claimed that Jabesh Gilead is six Roman miles from Pella on the road to Gerasa (Jerash). This claim by Eusebius could at best refer to several candidates. It is not unlikely that by his time the memory of Jabesh Gilead had vanished and his placing of Jabesh Gilead was as arbitrary as that of other researchers after him who identified Tell al-Maqlub with Jabesh Gilead. Tell al-Maqlub lies along the Wadi al-Yabis some 6 km east of Tell Abu al-Kharaz in quite an isolated area with no direct access to the Jordan Valley. Nevertheless, none of those who participated in this discussion had access to properly classified archaeological material, i.e. material from the first half of the Iron Age. In 1989 during the author's survey at Tell al-Maqlub Iron Age sherds were found on surface although very much corroded. These sherds did not permit any proper classification facilitating placement in the Iron Age sequence. In contrast, we know from our excavations at Tell Abu al-Kharaz that in principle the entire Iron Age sequence, anywhere in which the following narratives should be placed, is represented.

Glueck claims that Tell Abu al-Kharaz is the only site which agrees with all Biblical narratives concerning Jabesh Gilead and should be identified with it. He refers to Saul's battle against the Ammonite Nahash who besieged Jabesh Gilead. He argues that the distance between the area where Saul assembled his army in order to fight the Ammonites at Jabesh Gilead/Tell Abu al-Kharaz is much shorter than that to Tell al-Maqlub. The time aspect of this story in the Old Testament of the battle at Jabesh Gilead is in favour of Tell Abu al-Kharaz. He also points to the general topographic position of Tell Abu al-Kharaz in compari-

son with that of Tell al-Maqlub. The superior position of Tell Abu al-Kharaz from where large parts of the Jordan Valley including Beth-Shean (see below) can be overlooked is an even better argument. Tell al-Maqlub is much more remote from the Jordan Valley and is out of sight of events which have taken place in the Jordan Valley.

The proximity of Tell Abu al-Kharaz to Beth-Shean, some 15 km to the north-west of Tell Abu al-Kharaz, is another argument of Glueck. When Israel's first king Saul and his sons were defeated by the Philistines at Mount Gilboa their bodies were impaled on the city walls of Beth-Shean according to the narratives of the Old Testament. This battle, if historically correct, can probably have occurred around 1000 BCE (see MAZAR 2012: 38) which corresponds to our Phase X. The city of Beth-Shean is visible from Tell Abu al-Kharaz but not from the quite distant Tell al-Maqlub. The inhabitants of Jabesh Gilead then stole their bodies from the walls of Beth-Shean, brought them to Jabesh Gilead, burned them and buried them there. Because of safety reasons all this was carried out during one night in a hostile area, which would not be possible if they started from and returned to Tell al-Maqlub via a steep mountain path.

It is in fact impossible to decide whether these Old Testament narratives are pure fiction or refer to events which in theory could have taken place or been written down as modified tales of real events in an altered time frame. In a recent article MAZAR (2012) discusses the events which led to the defeat of King Saul in the battle against the Philistines and what happened to his and his sons' bodies after the battle at Mount Gilboa. The problem – as he pointed out – is that the walls from where they hung down are missing today. However, according to Mazar, they could have been removed when the Romans built their city at lower Beth-Shean.

Another narrative in the Old Testament mentions that the people of Jabesh-Gilead did not join the expedition of the Israelite tribes against Benjamin and as punishment their city was destroyed and their maidens seized and given to the Benjamites.

In conclusion, none of the written sources provide usable information concerning the administration and politics of Tell Abu al-Kharaz in the Iron Age.

III. ECONOMY, EXCHANGE OF GOODS AND COMMUNICATION ROUTES

The main sources of the prosperity of the Iron Age population of Tell Abu al-Kharaz were horticulture and cattle-breeding, and trade. The botanical analy-

ses demonstrated the species of the major cereal crops which are present in the floral remains of floated Iron Age soil and are dominated by the grains of hulled two-rowed barley. Einkorn/emmer wheat is also present but in much smaller quantities than in the previous periods. There is also evidence of the cultivation of millet. Other products of economic importance were grapes, olives, chickpeas and other legumes.

Fertile grazing grounds for domesticated animals are everywhere in the vicinity of the site. The results of our osteological investigation show that caprines, viz. goats and sheep, were most abundant in the Early Bronze Age. There is a fairly high degree of similarity between the Early and Middle/Late Bronze Age samples, but the findings suggest a different situation during the Iron Age: the still predominant caprines were significantly less important and cattle much more important than formerly. No clear contrast can be seen in the case of pigs although they are at their most abundant during the Iron Age. However, the figures for pigs show that they were obviously of subordinate economic value. Equid, dog, cat and fox remains attest the presence of animals whose importance to the human community may have lain in other attributes than their ability to provide meat.

The quantity of remains of other animals hunted for food in the Tell Abu al-Kharaz assemblage is comparatively small, although fallow deer and gazelle were clearly of some significance. Deer are more abundant in the Iron Age sub-sample and this may run concurrently with the decrease in the relative abundance of gazelle. Bear and fox may have been hunted for meat and furs. Non-mammalian taxa were represented by small amounts of bird bone, and very small amounts of fish, crab, frog and tortoise/terrapin.

Surplus from horticultural products and from gathering were certainly traded. Wood from the forests to the east was an additional trading resource. Trade in incense might have flourished. Traded animal products were another source of income. Products from handicraft could also have been traded. These included textiles, locally produced vessels of earthenware, beadwork, basketwork, needlework on fabric and rawhide, stoneworking and woodworking.

Iron ores are not far away from the site in the eastern hillocks towards the Transjordanian plateau. There is evidence, especially from the eastern part of Area 7 (workshop Area 7; see Chapter 2) that iron objects were produced there. These are dominated by arrowheads. We found remains of a destroyed furnace and small casting installation, and traces of a blacksmith's activities. It also seems that copper/bronze was cast and worked in this workshop.

All these products were traded for coveted goods, for instance, copper and bronze which was imported because there are no copper ores in the area. Other imports are ceramics from Cisjordan, Phoenicia and Cyprus. These vessels could have been imported for their contents but it seems most likely that they were brought to Tell Abu al-Kharaz because of their “exotic” and appealing appearance, especially where the ceramics from Cyprus and Phoenicia are concerned. These attractive goods might also have come from caravans passing the valley from which the rulers of Tell Abu al-Kharaz claimed tribute.

The question of which trading routes were used by the people of the settlement has its answer in the strategic position of the site in the Jordan Valley. An important trading route was undoubtedly the north-south Transjordanian main road, which connected Tell Abu al-Kharaz, passing Pella, to Tell es-Shuna, and further north to the Sea of Galilee, 35 km north of the site, and from there to Lebanon and Syria. To the south this trading route passed Tell es-Sa'idiyah and Tell Deir 'Alla towards the Dead Sea some 70 km south of Tell Abu al-Kharaz. There were also trade routes from the northern shore of the Dead Sea to Cisjordan and the southern Shephelah and the western Negev. Another similarly important trade route was the one to the north-west, which made it possible to reach Beth-Shean, Megiddo and the Mediterranean Sea in the Mount Carmel area, a distance of approximately 80 km or an expected journey of 2–3 days for traders.

IV ARCHITECTURAL FEATURES AND INSTALLATIONS (Figs. 444–451)

It has been shown in Chapter 2 that there are seven architectural phases of Iron Age occupation, i.e. Phase IX to XV. In several cases when it was not possible to divide with any certainty the architecture of one phase which was used in two phases they are schematically depicted in both phases. Only summarizing remarks will be presented here since the architectural remains of the seven Iron Age phases have been described in detail in Chapter 2.

The defence system of the Iron Age occupation at Tell Abu al-Kharaz is based on the incorporation of structures which were originally built in the Early Bronze Age, and later on reused and enhanced in the Middle and Late Bronze Ages. One example is from Area 2 North-West: there is a tower-like structure which was (re)used in Phase XII and most likely even

later (Fig. 80). It is at least 10 m × 8 m in size with walls more than 1 m wide and was built against the Early Bronze Age city wall (W439 in Fig. 80). The foundation of this structure, which has stone-paved internal rooms, certainly goes back to the Late Bronze Age and maybe even to the later part of the Middle Bronze Age. Another example is from Area 7 (FISCHER 2006a: 182, fig. 220) where the Late Bronze Age city wall functioned as the base for Iron Age defence structures. Yet another example is from Area 9 East where the Iron Age structures were built directly on the levelled Late Bronze Age I city wall from Phase V which rested on the city wall from Phase II, i.e. the Early Bronze Age II.¹¹⁰

There was in fact no need for the Iron Age settlers to build totally new defence systems because of the presence of convenient structures from the previous periods of occupation which were levelled and altered, and rebuilt. The Early Bronze Age II city wall, for instance, is 4–5 metres wide and still preserved to a height of approximately 3 m at several spots (FISCHER 2008a: 338, fig. 312). On top of this wall were the Middle/Late Bronze Age city walls with another metre or so. In addition, newly built Iron Age defence structures are visible in Area 2 as a tower belonging to Phase XII (Fig. 63) and another (rebuilt) one in the same area in Phase XIII (see Fig. 65). Area 7 shows a similar pattern: there is a tower in Phase XII (Fig. 146) and on top of this another one with a slightly different orientation in Phase XIII (Fig. 157). From Phase XIII there is evidence of a possible small gate in Area 1. This gate is connected with a stone-paved room for soldiers who guarded it.

Summarizing the observations on the defence systems of the Iron Age phases, it can be stated that the city was extremely well defended: the steep slopes in addition to man-made structures would have made it fairly difficult to conquer the city. Nevertheless, certain massive destruction layers have most likely been caused by assailants (see below). It is however clear that attacks must have resulted in considerable loss in manpower by any assailant before the city could be conquered.

There seems to be a diachronic trend as regards the intensity of usage of the upper plateau area of the tell for building activities. The amount of architectural remains bears witness to an intensive usage of the southern part of the tell in the oldest Iron Age phases (IX–XI), whereas the northern and western parts

¹¹⁰ See Figs. 250, 251A and B where the southern wall of the Iron Age I compound rests on the city wall of the Late Bronze Age.

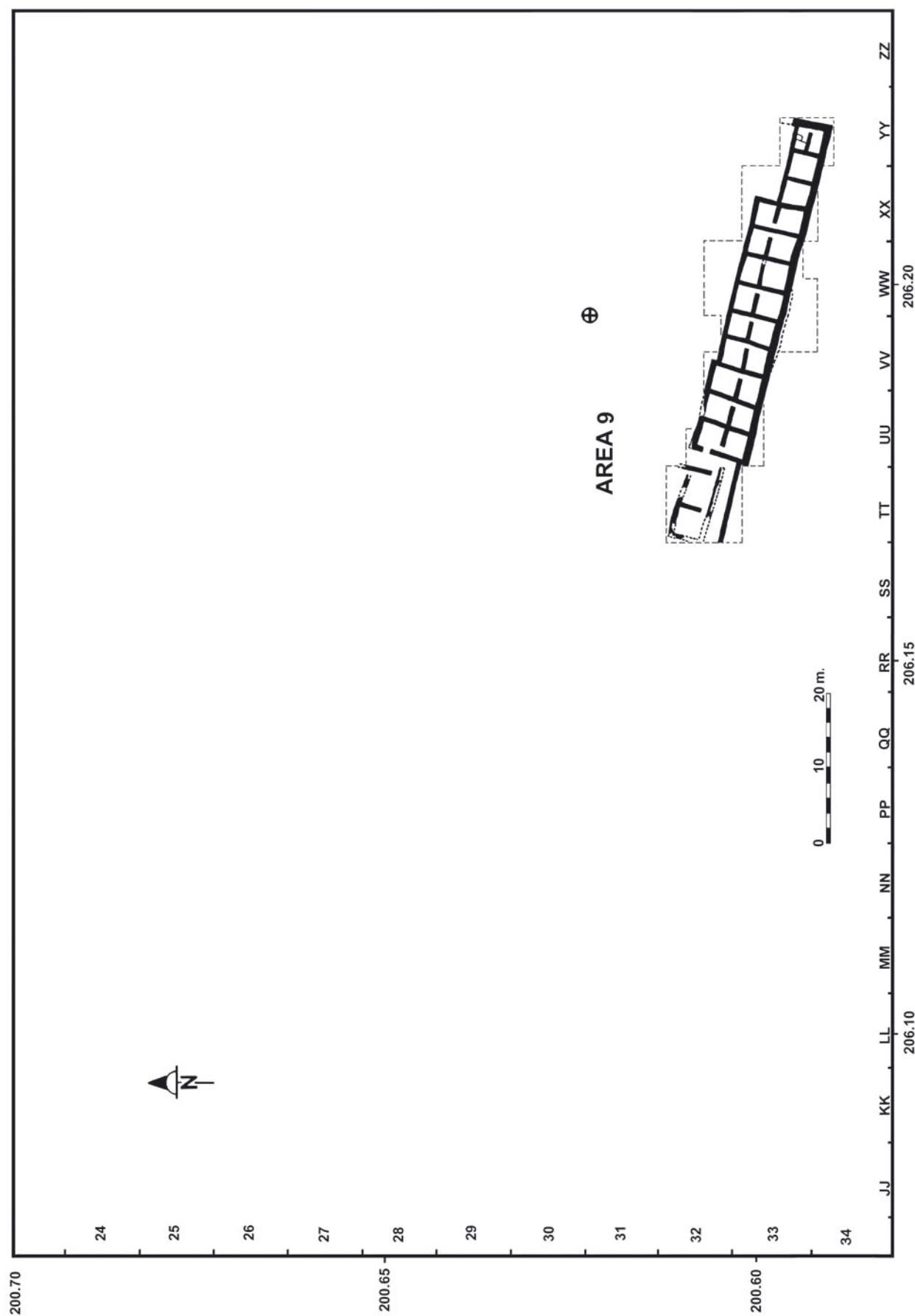


Fig. 444 Schematic overview of the architecture of Phase IX (compiled by T. Bürgi)

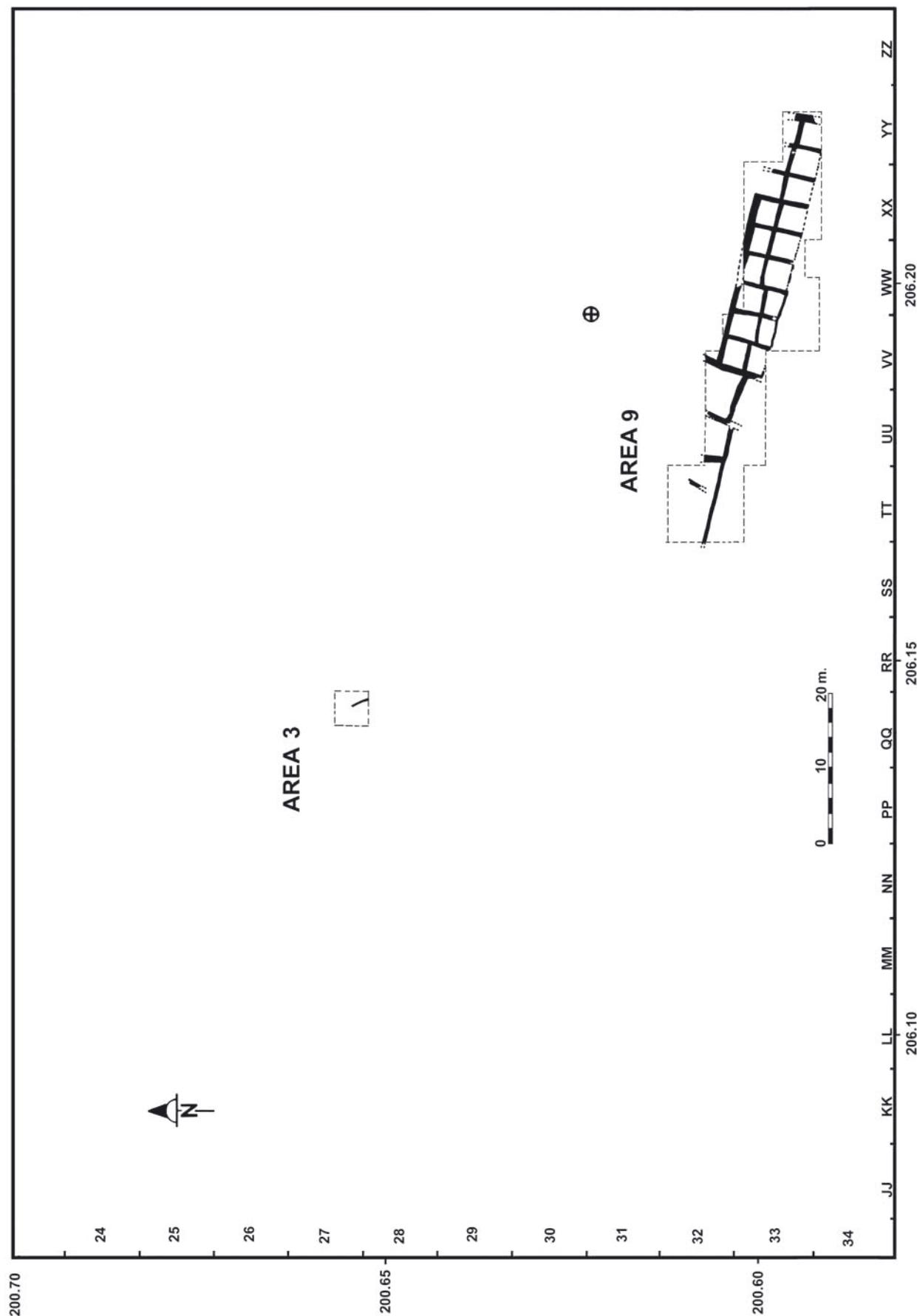


Fig. 445 Schematic overview of the architecture of Phase X (compiled by T. Bürgi)

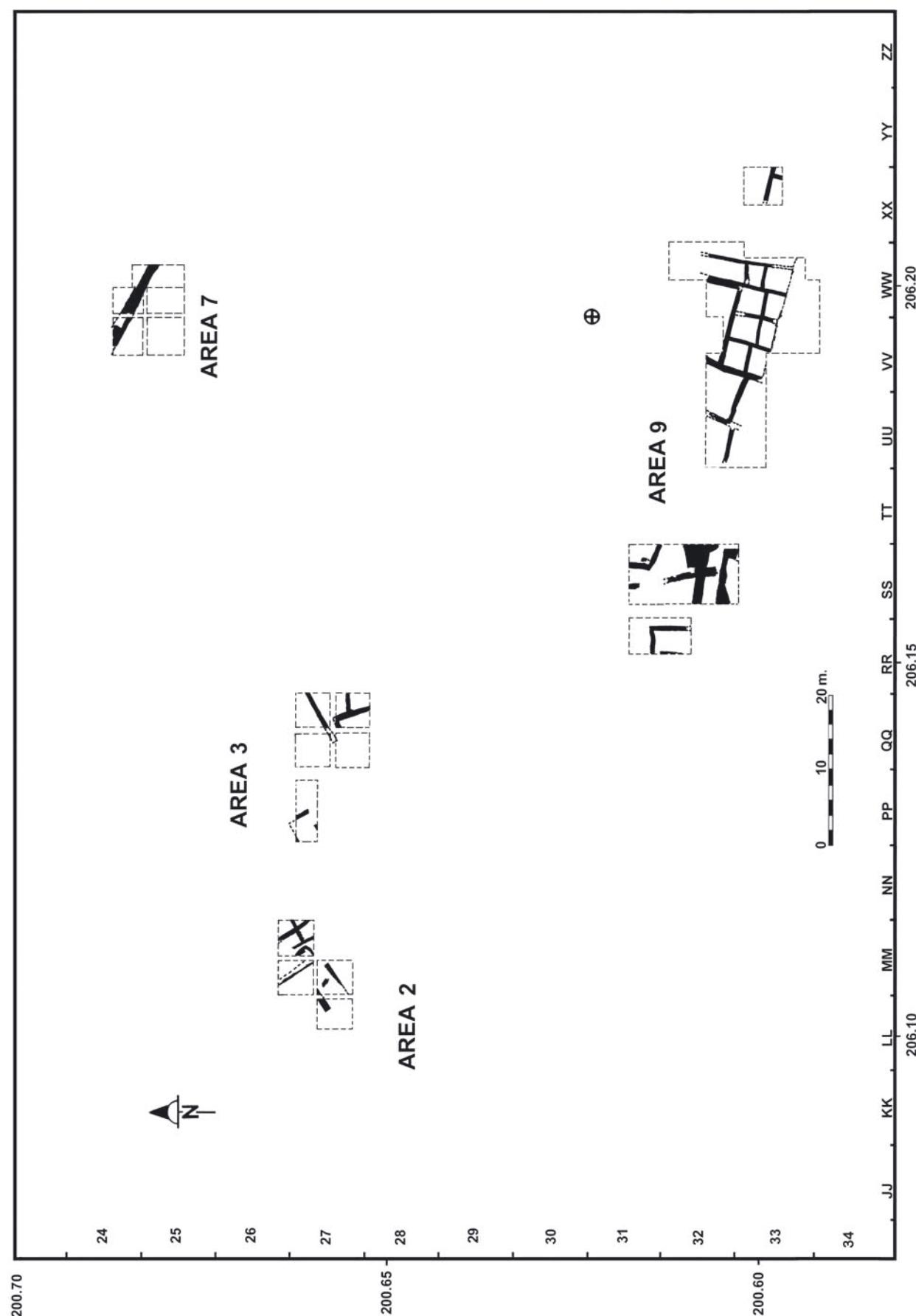


Fig. 446 Schematic overview of the architecture of Phase XI (compiled by T. Bürgi)

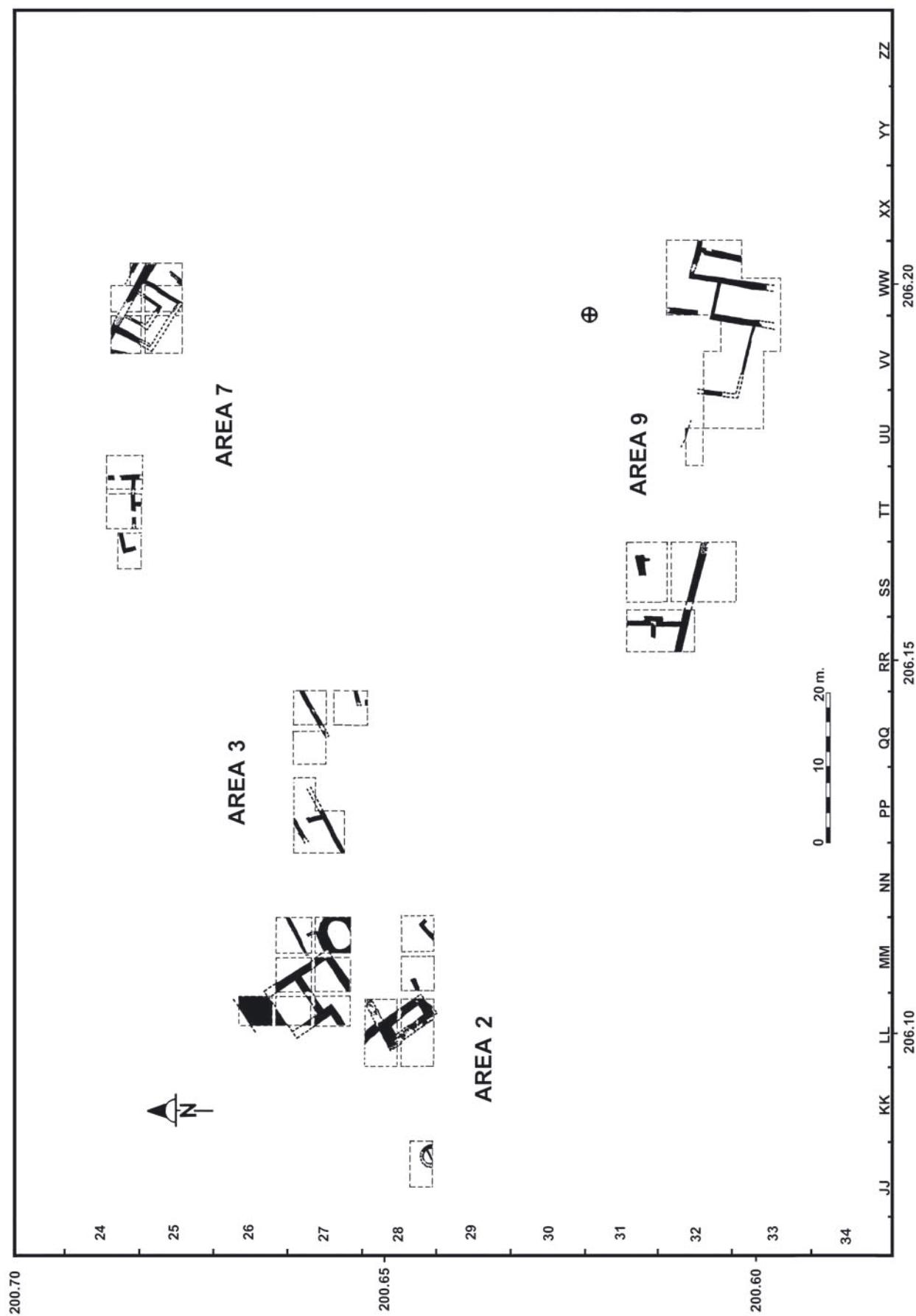


Fig. 447 Schematic overview of the architecture of Phase XII (compiled by T. Bürge)

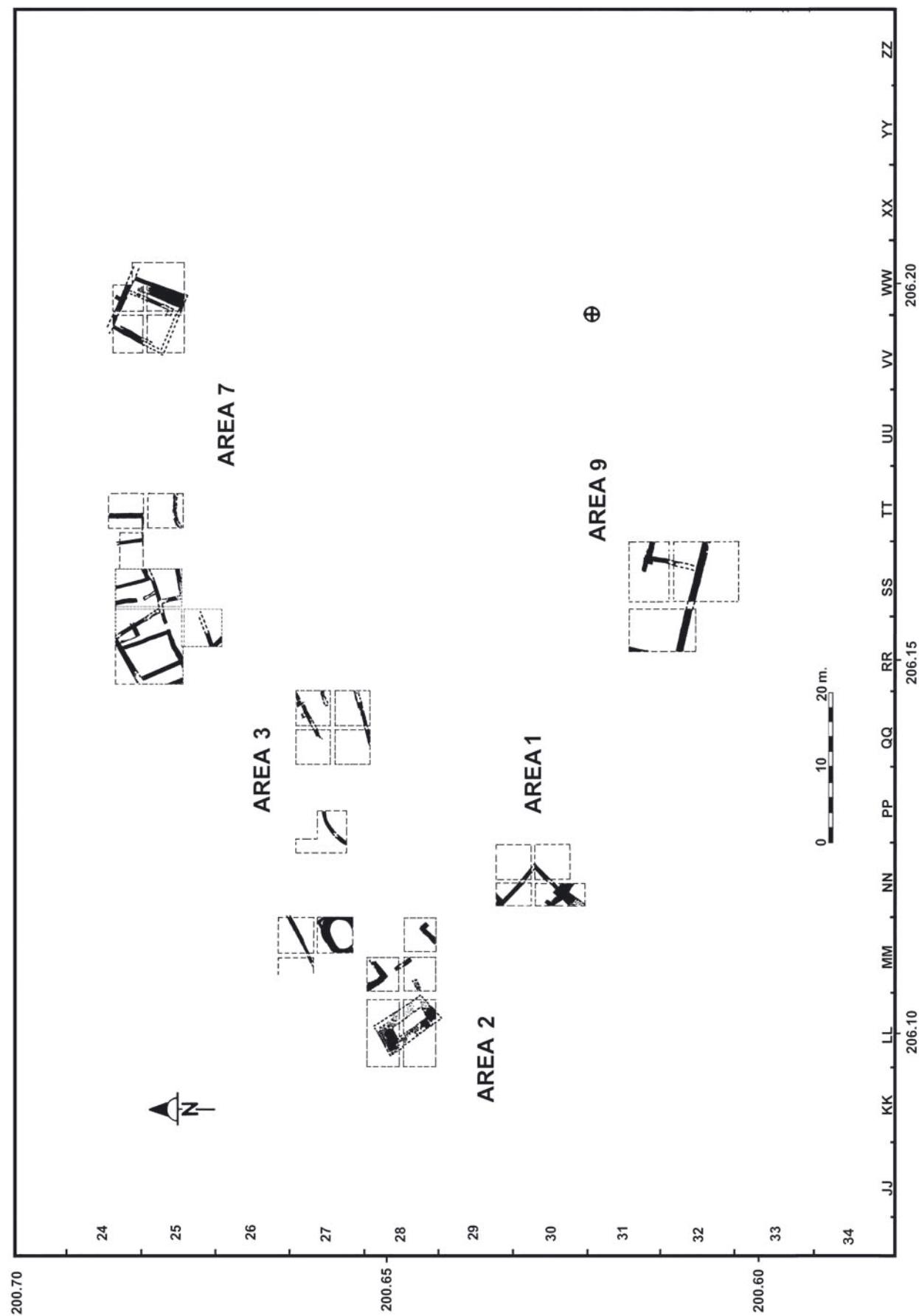


Fig. 448 Schematic overview of the architecture of Phase XIII (compiled by T. Bürge)

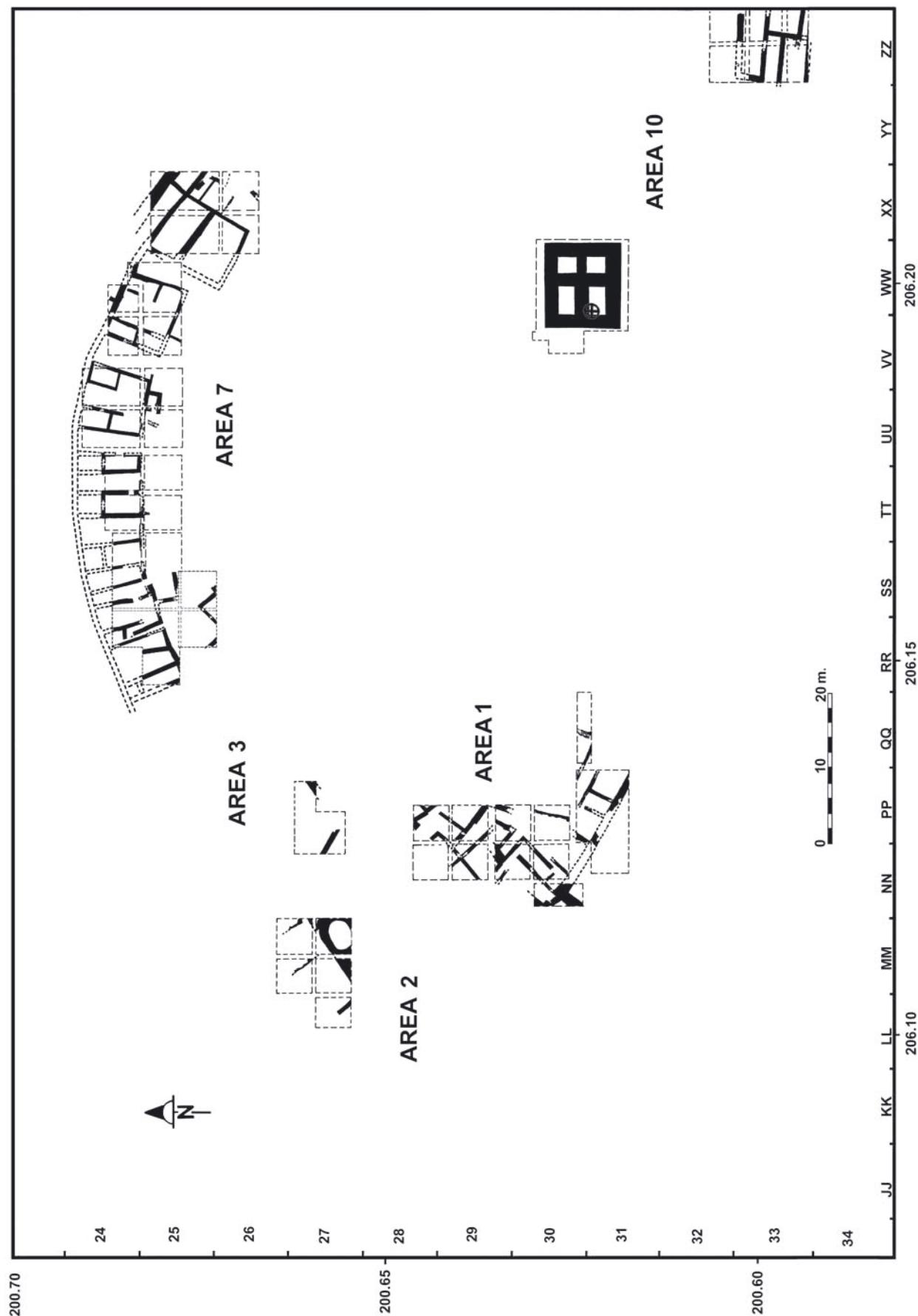


Fig. 449 Schematic overview of the architecture of Phase XIV (compiled by T. Bürgi)

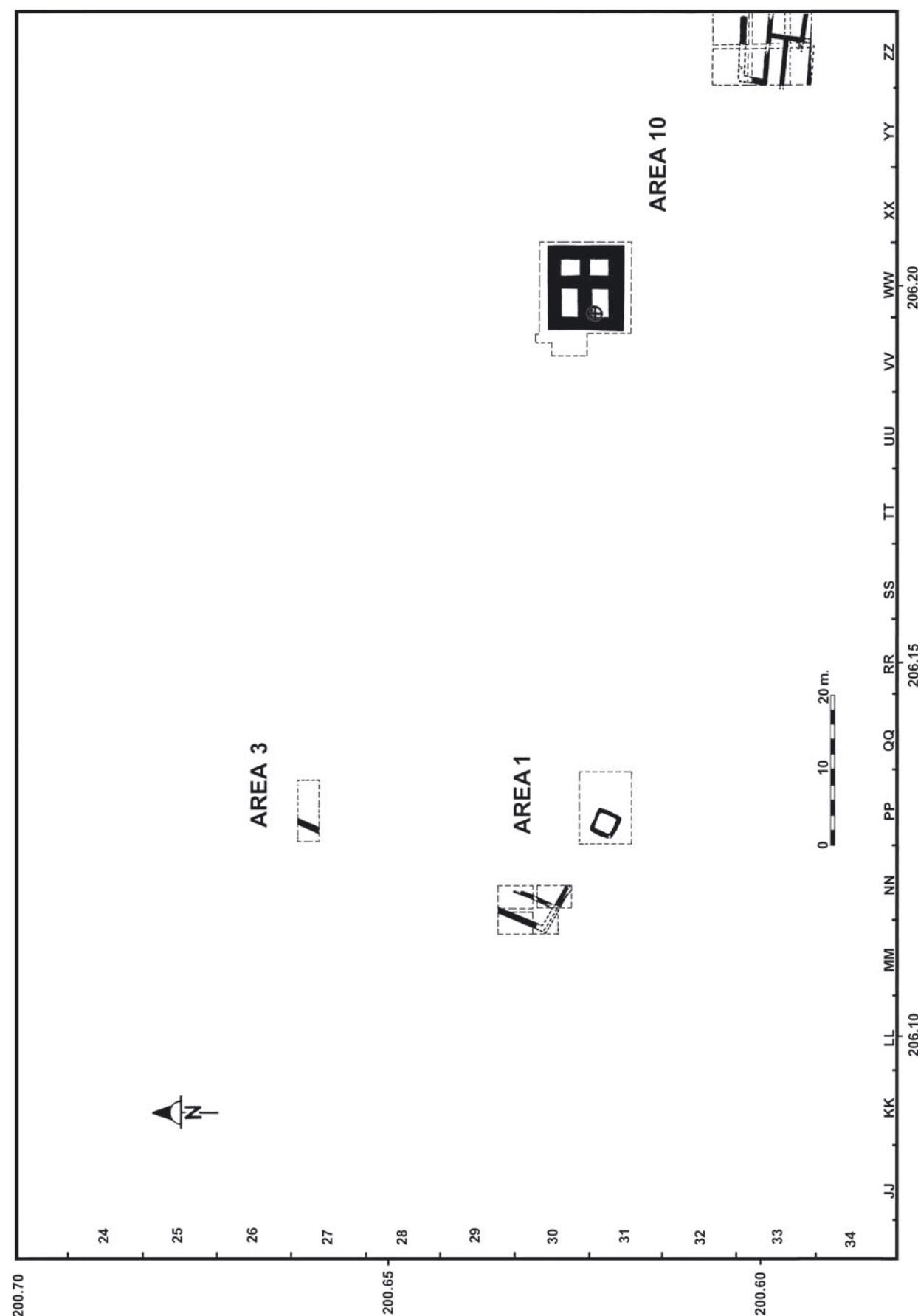


Fig. 450 Schematic overview of the architecture of Phase XV (compiled by T. Bürge)

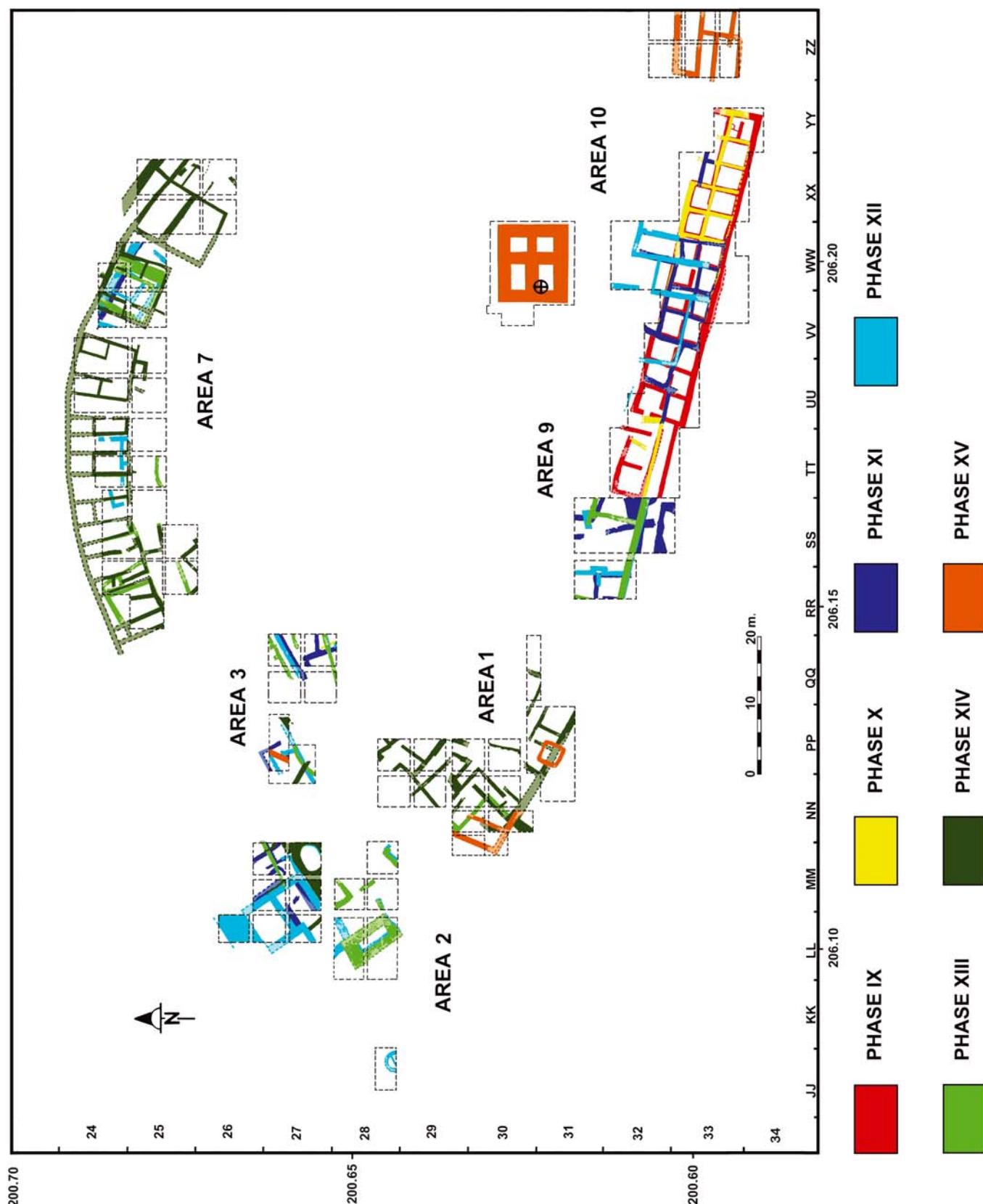


Fig. 451 Schematic overview over the Iron Age structures of Phases IX–XV (compiled by T. Bürgi)

were mainly used in the later Iron Age phases and especially in Phase XIV.¹¹¹

The early Iron Age Phase IX compound from Area 9 (Fig. 250) with its cell-plan structures including 22 rooms (state 2012) is unique for the Transjordanian Jordan Valley (see reconstructions in Figs. 279, 452:2). There is a structure from Tell el-'Oreme/Kinneret on the north-western shore of the Sea of Galilee which resembles our structure (Complex I in Field I; MÜNGER *et al.* 2011: 77–78). The Kinneret complex belongs to Phase V which lasted from roughly 1050–950 BCE, i.e. somewhat later than the date of our compound. It was destroyed by an earthquake according to the excavators. Phase V continues in many ways the layout of the previous Phase VI which is the foundation phase of the Iron Age occupation at the site (starting around 1100 BCE; see ref. above). Both the Tell Abu al-Kharaz compound and that of Kinneret demonstrate careful and centralized city planning. At both sites the task of constructing such compounds was difficult because the steep slopes had to be terraced and levelled. Our reconstruction assumes that the excavated remains in fact represent a basement which was accessed via ladders from the upper storey because there are no external entrances to each pair of the rooms which are connected via entrances. Some of the units of the complex at Kinneret also seem to have had a “second storey”. There are, however, differences between the layout of the structures at Tell Abu al-Kharaz and Kinneret. Whereas the Tell Abu al-Kharaz compound was built on the edge of the tell transversally to the steep slope and its structures were an integrated part of the defence system, the Kinneret complex which was built along the slope is domestic in nature and bordered by a street. It is, however, evident from the finds from the Phase IX compound that its function also was domestic. It seems that the walled spaces of the Tell Abu al-Kharaz compound are more standardized than those from Kinneret but this may depend on the local topography. The Phase IX compound was destroyed by a violent conflagration maybe caused by an assault.

The Phase X structures which were built on top of the collapsed Phase IX compound in Area 9 resemble in certain aspects the older structure in that older walls were reused but there are differences (Fig. 445): the cell-plan design of the structures is still used but they are less standardized and more sloppily built. In addition, the western part of the Phase X compound is totally different from the architectural layout of the

previous structure. In accordance with the layout of the previous phase there seems to have been an upper storey from which the basement could be approached via ladders because external entrances between each pair of rooms are missing. The structures of Phase X were partly destroyed.

The settlers of Phase XI in Area 9 (Fig. 446) reused almost unchanged many of the structures from Phase X. Not much can be concluded from the structures of Phases X and XI in the other areas (see though the interpretation of the architectural remains in Chapter 2). Phase XI was also destroyed by a conflagration as witnessed by a lot of ash and other debris covering the remains of this phase.

The tower-like structures in Area 2 and Area 2 North-West (see above), and that from Area 7 – all from Phase XII – have already been mentioned but some information will be added (Fig. 447): the tower of Area 2 is approximately half the size of the tower in Area 7. There is no entrance to the inside of the tower, which indicates that the structure was compact and served as an observation platform, very likely reached by a ladder. The tower in Area 7 was destroyed in a conflagration, traces of which can be seen everywhere inside and outside the tower. Only the ground floor remains and therefore it is not possible to estimate the original height of the structure. The considerable amount of fallen stone around the structure suggests that there were probably several additional storeys which could be reached via wooden ladders.

The largest cistern so far discovered at Tell Abu al-Kharaz comes from Area 2 North-West, just to the south-east of the north-western tower (Figs. 80, 81). Its interior is of stone and very well constructed: it is over 4 m deep, oval in shape, approximately 4 m × 3 m, sealed with clay between the stones, and carefully plastered. The original water capacity of this cistern is estimated at approximately 50 cubic metres.

The Phase XII structures in Area 9 are totally different from those of the previous phases of occupation. Their function is difficult to assess because of erosion. Nevertheless, the large dimensions of the structures and their closeness to the summit of the tell makes it likely that they had an administrative function. The 4 m wide opening between the two structures may point to a portion of the southern city gate in Phase XII.

A test trench, Trench X, in the western part of Area 2, where erosion is most manifest, exposed a kiln for firing pottery (Fig. 71). An approximately 0.6 m

¹¹¹ This is quite a tentative judgment considering that only about 20 % of the upper plateau is excavated.

wide circular stone wall surrounds the structure, which is 3.2 m in diameter, thus giving an internal space with a diameter of roughly 2 m. The internal space is partly separated by a 1.4 m long and 0.3 m wide mudbrick wall with an opening to the west. A thick layer of ash covers most the internal space. The few sherds from the kiln area fit best the pottery repertoire of Phases X–XII.

Architectural remains from Phase XIII are best preserved in the northern part of the tell in Area 7 (Fig. 448). Whereas the western part of Area 7 produced several non-standardized domestic structures a new tower was built on top of the ruins of the tower from Phase XII. It is integrated into the city wall. It is somewhat larger than the tower from the previous phase and has a slightly different orientation. The stratigraphical evidence proves that the new tower was constructed quite soon after the demolition of the previous tower. It is difficult to estimate the original height of the tower since only its foundation remains, but there must have been additional storeys which could be reached by wooden ladders, judging by the large amount of building material all around the structure. The remains of the stone foundations of the new tower on Area 2 demonstrate that it was somewhat altered in comparison with the older phase which reflects the situation in Area 7. Also Phase XIII came to a violent end and the city was destroyed judging by the substantial remains of ashy debris everywhere.

Phase XIV is best represented in Areas 7 and 1 (Fig. 449 and reconstructions in Figs. 190 and 452:1). This phase is also present in all the other areas with the exception of Area 9 where erosion of the superficial layers is manifest. The structures in Areas 2, 3 and the eastern part of Area 10 allow only limited conclusions (see Chapter 2).

The principal use of Area 7 shifted in Phase XIV in comparison with Phase XIII. There are now five domestic structures, and, to the east, a workshop for the production of iron and bronze objects in the easternmost part of what has so far been exposed (Figs. 182, 190). The five domestic buildings to the west of the workshop are fairly standardized. These five houses are built along the former edge of the upper plateau of the tell against the city wall. The city wall is partly preserved in the easternmost and westernmost parts but demolished in the remaining part of the area due to erosion. The ground plans of four of the houses, the exception being the most westerly, are similar and all of them comprise four rooms/spaces and partly roofed courtyards. The necessary adaptation to the curving edge of the tell influenced their general shape: whereas the easternmost house is

almost square, being 8.5 m × 9 m, the next one to the west is more trapezoidal in shape, being 9 m × 8/9 m, the next is square again, 9 m × 9 m as reconstructed. Too little is preserved/excavated of the two westernmost houses for it to be possible to report their dimensions. The easternmost three houses show annex structures built against the southern façade of the houses. There are also walls between the houses, creating protected working spaces. It is very possible that at least the domestic structures had two storeys as did parts of the workshop complex. Ash and collapsed portions of the ceilings were found everywhere in the buildings of Area 7, which were apparently destroyed by fire. It does not seem conceivable that the structures were destroyed by an earthquake, since the foundation walls were found quite intact.

In Area 1, too, Phase XIV is the best preserved Iron Age phase (Fig. 26). There are two compounds which are separated from each other by a zigzag alley. In the central part of Area 1 is a square structure, approximately 9 m × 9 m in size, which is built against the city wall and which was destroyed in a conflagration. This structure shows certain similarities with structures from Area 7. The Area 7 structures, similar in size, were interpreted as towers from two successive periods but built within a relatively short time. This compound, which lies attached to the city wall and close to a gate, also seems to be a tower, most likely with more than one storey, viz. the excavated portion of the building is the basement. It might have been inhabited by the guards and their families until it was destroyed by fire.

The dominating structure in Area 10, where the summit of the tell is situated, is what is known as the “White Building” (Figs. 376–379). It is quite monumental, measuring 10.60 m by 11.70 m as exposed. The axes of the building are oriented strictly north-south and east-west. The stone foundations of the building, which are preserved to a height of approximately 2 m, are partly constructed of rubble stone and ashlar blocks of stone. It is covered on the outside with fairly well preserved white plaster of lime and sand which might be a later feature. The building material is locally quarried limestone. Mortar was not used. The walls are approximately 1.50–2 m wide. It became clear during the exposure of this structure that it was built, rebuilt and repaired over quite a long period. There are four internal rooms, in which a considerable amount of fallen stone was discovered, very likely deriving from the collapsed upper floors and structures. The north-western room measures 2.30 × 3.90 m, the south-western 2.30 × 3.80 m, and the north-eastern and the south-eastern rooms 2.30 ×



Fig. 452

1. Reconstruction of Phase XIV (8th century BCE) in Area 7 (looking north-west): metal workshop to the right, domestic houses with four rooms surrounding courtyard and upper storey to the left (drawing by M. Al-Bataineh)
2. Reconstruction of Phase IX (ca. 1100 BCE) compound in Area 9 East (looking north): basement as excavated to the right; ground floor reconstructed (drawing by M. Al-Bataineh)
3. Double-pyxis with false spot from Phase IX (N1365; see also Figs. 325:8, 327, 430:8)
4. Portion of belly of Phoenician jug from Phase IX (L208-6; see also Figs. 321:7, 412:7)
5. Bowl with thick white slip from Phase IX (N1372; see also Figs. 280:17, 281, 389:15)
6. Monochrome decorated jug with thick white slip from Phase IX (N1352; see also Figs. 297:1, 298, 409:3)
7. Stand with chalice-lid *in situ* from Phase IX (N1390; see also Figs. 259, 328:1, 2 and 329). Observe traces of fatty liquid on exterior

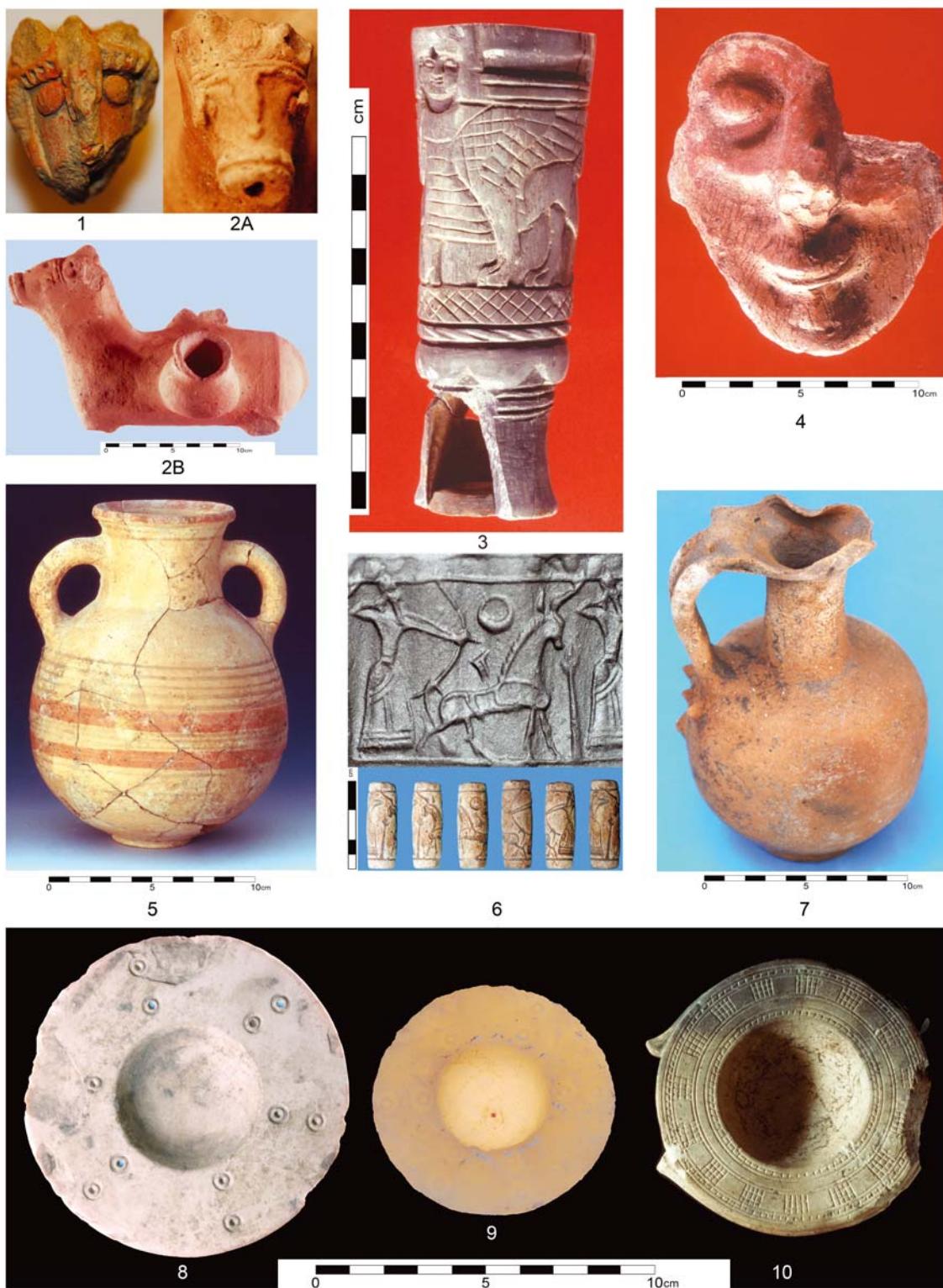


Fig. 453

1. Bridled camel from Phase XIII (N1093; see also Figs. 179:11, 463:1)
- 2A. Bridled equid with two containers from Phase XIV (N1085; see also Figs. 223:1, 224, 462:3)
- 2B. Bridled equid with two containers (see 2A)
3. Carved handle of bone from Phase XII ("Sphinx handle" N553; see also Figs. 127, 464)
4. Mask of smiling youngster with beard, red painted, from Phase XII (N504; see also Figs. 117, 462:2)
5. Phoenician-type jug from Phase XII (N754; see also Figs. 151:8, 152, 415:2)
6. Neo-Assyrian cylinder seal with impression from Phase XIV (N1161; see also Figs. 229, 467:1)
7. Ceramic imitation of Phoenician jug of metal from Phase XIV (N1226; see also Figs. 219:1, 420:4)
8. Cosmetic palette of limestone from Phase XII (N1110; see also Figs. 156, 465:1). Observe remains of blue paste in the drilled decorations
9. Cosmetic palette of alabaster from Phase XIII (N1116; see also Figs. 179:1, 465:2). The light source is behind the object: observe remains of blue paste in the depressions of the flat part, and lilac-red paste in the centre of the concavity
10. Cosmetic palette of limestone from Phase XIV (N954; see also Figs. 39:3, 465:3)

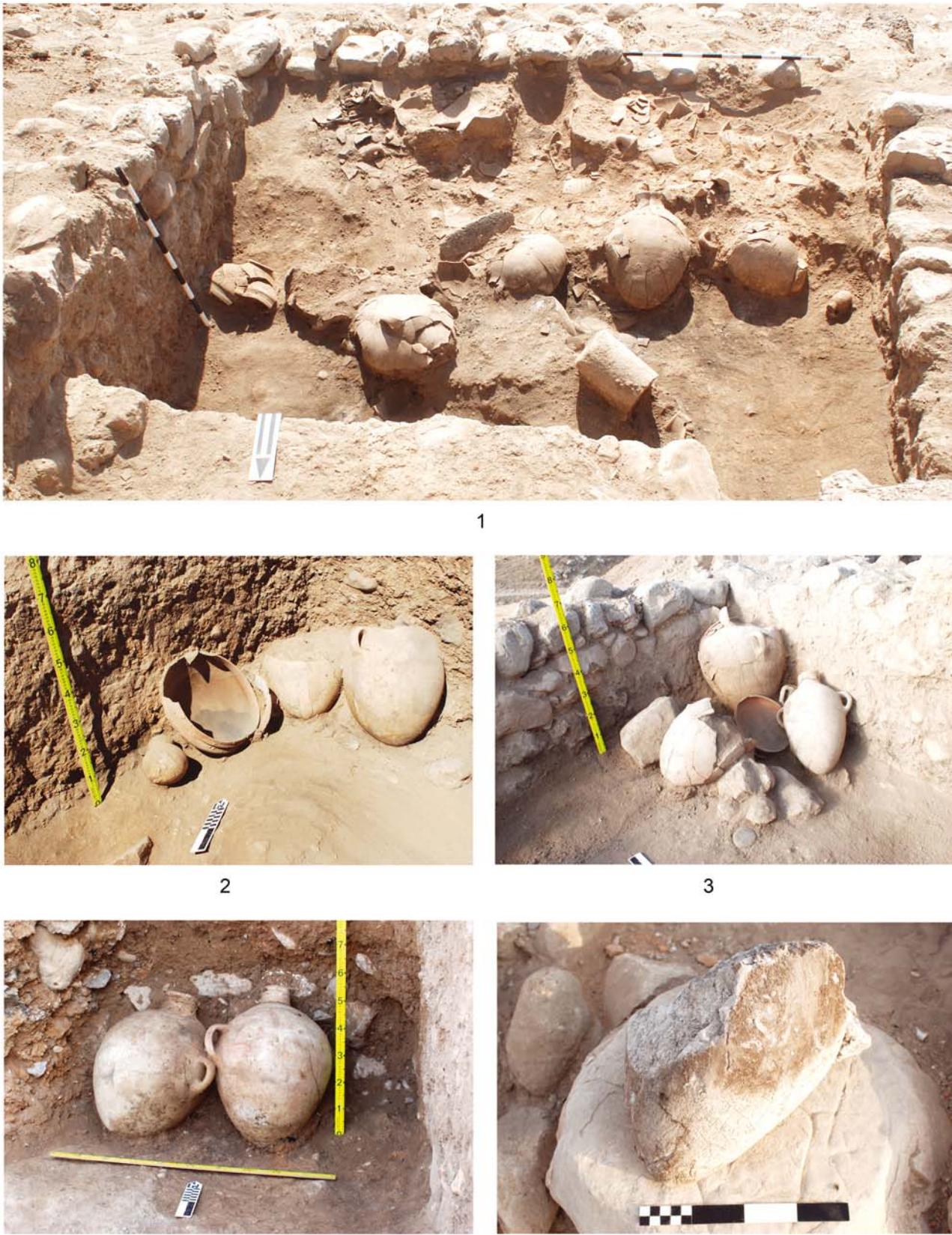


Fig. 454 Phase IX, Area 9 East:

1. Room 2 during excavation after removal of roof debris
2. Room 8, north-western corner
3. Room 10, south-western corner
4. Room 11 during excavation, storage jars leaning against northern wall
5. Barley flour from storage jar (Room 2)

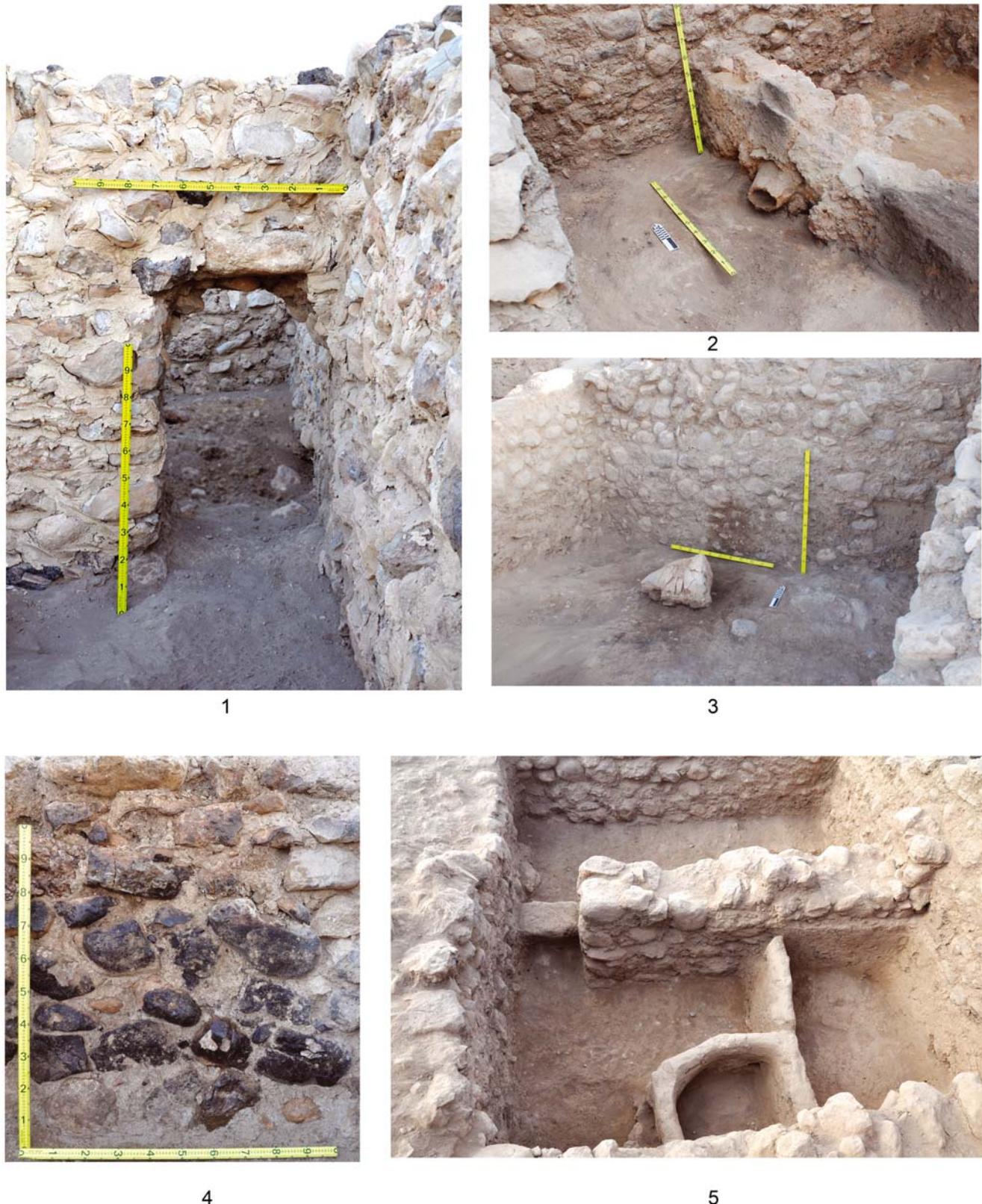


Fig. 455 Phase IX, Area 9 East:

1. Photograph showing the state of preservation of one of the doorways: looking north from Room 14 into Room 13
2. Basement floor of Room 14: collapsed roof of basement / floor of upper storey with *tannur* fallen down from upper storey
3. *Tannur* exposed (see Fig. 455:2)
4. Room 19 northern wall blackened by fire
5. Rooms 21 A and B looking south; grain silo in foreground (Room 21 A)



Fig. 456 Phase IX, Area 9 East:

1. Wooden beam from Room 1
2. Contents of vessels from Room 12: millet (up) and chickpeas (down)
3. Sealed vessel from Room 12 (N1379/1; see also Figs. 292:8, 295 and 296)
4. Late Bronze Age-type jug from Room 19 (L377-2; see also Figs. 297:2 and 299)
5. Jug with clay balls from Room 12 (N1398; see also Figs. 302:1 and 303)
- 6.-8. Juglets from Room 2 (L160-1, L160-21 and L160-2); see also Figs. 291, 290:5-7)
9. Juglet/goblet N1397 from Room 11 (N1397; see also Figs. 292:3 and 293)



Fig. 457 Phase IX, Area 9 East:

- 1.-3. Kraters from Room 2 (L160-3, L160-22 and L160-15A; see also Figs. 288 and 289)
4. Storage jar from Room 11 (L275-5; see also Figs. 308:2 and 309)
- 5-8. Storage jars from Room 2 (L160-11, L160-18, L160-12 and L160-10; see also Figs. 314:1-3, 313:2 and 315)
9. Bichrome-decorated pilgrim flask with cup-mouth from Room 12 (N1384; see also Figs. 321:1 and 322)
10. Cooking jug from Room 21B (N1457; see also Figs. 278 upper right corner, 338:4 and 339 upper left)
11. Scaraboid of steatite from Room 12. (N1388; see also Figs. 341:1, 342 and 466:1)
12. Scarab of faience from Room 12 (N1389; see also Figs. 341:2, 343 and 466:2)
13. Spindle whorl of stone (steatite?) from Room 2 (L160-23; see also Figs. 346:13 and 349)
14. Polished bone-tubes from Rooms 16 (left) and 19 (N1439 and N1448; see also Figs. 269 and 344:7 and 8)



Fig. 458

1. Jug with false spout from Phase XIII, Area 7 (N1119; see also Figs. 168:1 and 169)
2. Jug/decanter from Phase XIV, Area 7 (N731; see also Figs. 198:9 and 199 right)
3. Black Juglet from Phase XIV, Area 1 (N939; see also Figs. 30 and 33:13)
4. Jug with 41 astragals from Phase XIV, Area 7 (N730; see also Figs. 187B and 200:2)
5. Figurine of female holding a tambourine (N874; see also Figs. 248:6 and 462:1)
6. Figurine of Lion from Phase IX, Area 9 East (N1424; see also Figs. 354 and 463:2)
7. Fibula, bronze with iron needle preserved from Phase XIV, Area 7 (N1250; see also Fig. 225:12)
8. Fire rake of iron from Phase XIV, Area 7 (N1173; see also Figs. 225:1 and 226)
9. Tripod bowl of basalt from Phase XIII, Area 7 (N1284; see also Figs. 160:3 and 161)
10. Bichrome-decorated jug from Phase XIII, Area 11 (N1461; see also Fig. 417:4)

2.65 m. The inner walls are either placed directly on bedrock or built on fill or they were placed in foundation trenches cut into bedrock. The still upright walls consist of six to eight courses of stone. The width of the wall separating the rooms is roughly 2 m. Everywhere around the structures an abundance of fallen stones can be seen on the surface, suggesting that the original structure was of considerable height. Outside the western façade, a stone pavement can be traced. This pavement is attached to the western wall. The plaster that covers the wall goes underneath the pavement, indicating that the pavement is of a later date. Late Roman sherds could be associated with the stone pavement.

Very little is left of the most superficial Iron Age Phase XV (Fig. 450). It seems though that this is not only due to erosion but mainly to the fact that – after the catastrophe which brought Phase XIV to a violent end – the city of Tell Abu al-Kharaz had become an impoverished small settlement.

V. CHRONOLOGY

A. Relative chronology (By P.M. Fischer)

1. Local chronology

The division of the Iron Age occupation of Tell Abu al-Kharaz into the seven phases, that is Phases IX–XV, is based on the architectural evidence which is discussed in Chapter 2 and above.

2. Regional synchronization (By P.M. Fischer and T. Bürge)

General considerations

Specific diagnostic vessel shapes from Tell Abu al-Kharaz which were selected for comparative studies of vessels from other sites are in Figs. 389–442 (see Chapter 3) where they are arranged according to vessel type and phase. These vessels and their find contexts are also described in detail, in Chapter 2 in connection with the reports on the various phases and their associated loci and architectural structures. There, the descriptions include their exact positions directly as an object placed on the relevant plan or section, or within their corresponding loci on the plans. In addition general shape, production technique, fabric, inclusions and surface treatment are reported.¹¹²

In correspondence to the previous volumes the references to comparable vessel types from other sites

are in most cases restricted to more recent literature on the results of excavations of settlements which demonstrate a reasonably reliable stratigraphy. Tomb/cave material or material from insecure stratigraphical contexts is referred to very restrictively and many times only to demonstrate the geographical spread of certain vessel types. The reason for referring mainly to more recently published material is the awareness of the majority of today's scholars of the importance of distinguishing between well-stratified, mixed, isolated and unstratified contexts, which is essential in connection with the perpetual discussion on relative and absolute chronology. It is, however, impossible altogether to neglect older publications of certain key sites, even when the authors do not make use of adequate recording and presenting techniques.

It must also be emphasized that the main point of listing selected *comparanda* is not to establish or to support a particular relative or absolute chronological framework for Tell Abu al-Kharaz, because this relies entirely on the site's own advantageous stratigraphical sequence of occupation and radiocarbon dates, but to demonstrate similar cultural traits elsewhere and to establish a certain cultural synchronism. This becomes evident by citing *comparanda* from other sites which are beyond the chronological time frame of the proposed occupational sequence for Tell Abu al-Kharaz (see below).

Phase IX

A total of 23914 sherds derive from this phase, which corresponds to 26.0 % of the Iron Age assemblage. The largest Iron Age ceramic assemblage is from this phase (see also Tables 73A, B).

It is a general observation that there are bowls which resemble those from the outgoing Late Bronze Age assemblages of Phases VII/VIII from Tell Abu al-Kharaz (cf. FISCHER 2006a: 217, fig. 255 lower) but other shapes are new.

Beth-Shean offers parallels through bowls which are similar to Egyptian shapes (Figs. 389:2, 8 and 13). Our bowls resemble those from Beth-Shean S-5-S3 and N-4-N-3 (MARTIN 2009: 435, fig. 6.1, BL 70c, BL 74, CB). These bowls are dated to the outgoing Late Bronze Age and Iron Age IA (MAZAR 2009a: 13, table 1.2).

Fairly good parallels to our bowl in Figure 389:2 come from Pella Late Bronze Age/early Iron Age, i.e. Phase 1 in the Iron Age sequence (1250–1180 BCE,

¹¹² See also "Chapter 1: Introduction and Vade Mecum". Petrography is forthcoming.

Fig. 459:1 and 2).¹¹³ This is, however, a shape which is also produced later. Another parallel is from Tel Rehov Stratum D-4 which is dated to Iron Age IB (11th century BCE; MAZAR 2005: 206, fig. 13.7:1), and still others come from Megiddo Level K-5 (ARIE 2006: 250, fig. 13.51:1, which is dated to the 11th century BCE according to the lowered dates by FINKELSTEIN *et al.* 2000: 265). From Tell Keisan Stratum 9e (11th century BCE according to BRIEND and HUMBERT 1980: pl. 79:3), Tell Qasile Stratum XII Temple 319 (1150–1100 BCE, MAZAR 1985: 163, fig. 11:10, but here with disk base) and Dan Stratum V (late 12th century BCE; BIRAN 1994: 153:112:3) come shapes which are similar to our Figure 389:13. The general shape of the latter is also represented at Tell es-Sa'idiyah Burial Phase 1 pithos burial T.228 (suggested date 13th–12th centuries BCE, GREEN 2006: 361, fig. A.1.3; see also *idem* 2009).

The shape of our, for the site unique, large bowl with thick white slip, standing on three loop handles (Fig. 389:15), has a parallel in the shape of a decorated bowl from Megiddo from a Phase VIB context which is dated to the 11th century BCE (LOUD 1948: pl. 74:10; see FINKELSTEIN *et al.* 2000: 253, fig. 11.6.11; 265; see also ARIE 2006: 195; 280, fig. 13.75.BI7 from Level K-5, Iron Age I), and from Iron Age I at Tel Qasile (Type BL13, MAZAR 1985). A vessel with a similar shape is reported from Kinneret Stratum V (“Main Iron Age IB occupation”, suggested date 1050–950 BCE, MÜNGER *et al.* 2011: 84, fig. 22 upper row; the stance/rim is different).

There is one partially preserved chalice CH71 from S-3a at Beth-Shean, which is dated to the end of Iron Age IA (MAZAR 2009a: 13, table 1.2; PANITZ-COHEN 2009: 209, pl. 66:7) and corresponds in shape to our Figure 398:3. Our chalice with the inverted rim (Fig. 398:2) is similar to another one of Tell Qasile Stratum XII Courtyard 110 (1150–1100 BCE, MAZAR 1985: 169, fig. 14:6) and Dan Stratum V (BIRAN 1994: 153:112:2; see above).

A goblet from Phase VII (UME excavations)¹¹⁴ which is dated as early as the end of the Late Bronze Age (JAMES and McGOVERN 1993: fig. 10:10) can be compared with our goblet in Figure 399:3; another

similar goblet, although more rudely made, is illustrated in PANITZ-COHEN (2009: 211, photo 5.10; here dated to S-3?, viz. Iron Age IA). Tell Deir 'Alla offers other parallels to our goblets from the Late Bronze Age temple (FRANKEN 1992: 40, figs. 4–3:15 and 4–24:6).

Our undecorated kraters without handles (Fig. 400:1–5) have a long life span at many other sites, i.e. from the later Late Bronze Age to the Iron Age IIa. They are reflected in a krater from Pella Late Bronze Age/early Iron Age, i.e. Phase 1 in the Iron Age sequence (Fig. 459:3). Our krater in Figure 400:2 corresponds in general to a krater from Pella Phase 2 (Iron Age IA, suggested date 1180–1130 BCE, Fig. 459:10) and others from Phase 3 (Iron IB, suggested date 1130–1050 BCE, Fig. 460:3 and 4). It also corresponds to Beth-Shean KR74 (PANITZ-COHEN 2009: 218–220), which is the most common krater shape in early Iron Age contexts at Beth-Shean. It already appears in Phase VII (UME), for example at the outgoing Late Bronze Age, and continues from S-5 to S-2, viz. Iron Age IB. It is most common in S-2, i.e. Iron Age IB. This krater type corresponds to K1 at Megiddo, which is common in Strata VIB and A (ARIE 2006: 196–197) and which is dated to the 11th and 10th century BCE respectively. Megiddo Level K-5 again produced a krater which is similar to our kraters in Fig. 400:1–4 (ARIE 2006: 250, fig. 13.51:4). Yoqne-'am Stratum XVII (second half 11th century BCE) provides a krater shape which is similar to ours in Figure 400:4 (ZARZECKI-PELEG 2005: 48, fig. I.9:7). Tel Dor also shows some parallels (Iron Age I-IIA, GILBOA and SHARON 2003: 12, fig. 2:14–16). Our krater in Figure 400:6 is mirrored in a krater from Dan Stratum V (late 12th century BCE; BIRAN 1994: 153, fig. 112:4). It is also reflected in a krater from Qubur al-Walaydah close to Wadi Ghazzeh where a very similar shape is dated to Iron Age IA (LEHMANN *et al.* 2009: 10, fig. 7:9). Our krater in Figure 400:6 has counterparts at Pella Phase 2 (Iron Age IA, suggested date 1180–1130 BCE, Fig. 459:11 and 12).

The undecorated, multi-handled, kraters (Fig. 401:2–4) are common in Strata N-4–3a and S-5–2 at Beth-Shean (KR72a in PANITZ-COHEN 2009: 220–223).

¹¹³ All “suggested dates” concerning the Pella material are offered by S. Bourke. The unpublished ceramic material from Pella and the local sequence of Iron Age occupation, i.e. Phases 1–8 where Phase 1 is transitional Late Bronze Age/early Iron Age and Phase 8 is Iron Age III/Persian, have – in connection with a cooperative research project – kindly been forwarded to the author by S. Bourke, the

director of the excavations at Pella (see Figs. 459–461). As regards parallels from the ceramic corpus of Pella only those from Phases 1–6 are here relevant for comparative studies. See also the radiocarbon dates from Pella in Chapter 4, Table 75B.

¹¹⁴ University Museum Excavations 1921–1933, University of Pennsylvania.

A parallel also comes from Tell el-'Umayri (HERR *et al.* 2002: fig. 4.15:5) and another from Tell el-Far'ah North (CHAMBON 1984: pl. 47:5, Stratum VIIa, 12th–11th centuries BCE). Others again are from Megiddo Strata VIB and VIA (ARIE 2006: 198).

There are also plenty of shapes from Stratum 9c at Tell Keisan corresponding to our kraters (BRIEND and HUMBERT 1980: pl. 78), to the goblets in Figure 399:1 and 3 (*ibid.* pl. 73:4), to our cooking pots with open and closed shapes in Figures 432–434 (*ibid.* pl. 77:1–5), to the pilgrim flasks in Figure 412:5, 6 (*ibid.* pl. 75), to the pyxides in Figure 430:1–5 (*ibid.* pl. 70:1), and to the jars, for instance, Figure 423:3 (*ibid.* pl. 69:2).

Our one-handled jugs (Fig. 410) are related to Pella Phase 1 (1250–1180 BCE, Fig. 459:4). The decorated jug with the strainer-spout in Figure 411:5 has a fairly good parallel at Beth-Shean S-3, second half of Iron Age IA (PANITZ-COHEN 2009: 415, pl. 65:5). A similar vessel is from Yoqne'am Stratum XVII (second half 11th century BCE; ZARZECKI-PELEG 2005: 59, fig. I.17:7, but here bichrome-decorated) and from Cave 4 in the Baq'ah Valley. This cave is dated to Iron Age IA (McGOVERN 1986: 159, fig. 53:42; see also the next chapter, “3. Interregional synchronisation”).

The jug with the thick white slip and the monochrome decoration in Figure 409:3 represents a special case: good parallels from our region are rare but the decorative elements, for instance the concentric groups of semicircles on the shoulder of the jug, which are a typical decorative pattern on Mycenaean vessels (see below), are mirrored in jugs from Beth-Shemesh and Afula (compiled in DO THAN 1982:190, fig. 56), and in a juglet from Strata 9a-b at Tell Keisan which is dated roughly to the 11th century BCE (BRIEND and HUMBERT 1980: pl. 61:3).

An almost identical bichrome-decorated pilgrim flask with a cup mouth and pierced lug handles compared to ours in Figure 412:1 comes from Megiddo Stratum VIB (LOUD 1948: pl. 74:16). Our pilgrim flask (Fig. 412:2) is similar to that in Yoqne'am Stratum XVII (second half 11th century BCE; ZARZECKI-PELEG 2005: 71, fig. I.24:2). Another pilgrim flask which is related to our Figure 412:5 and 6 is from Tel Dor Stage 1, Phase G/9 (GILBOA *et al.* 2008: 128, fig. 5:3). The destruction of Phase G/9 is dated to late 11th/early 10th century BCE (*ibid.* 133–134).¹¹⁵ A similar, decorated, parallel comes from Tel Mor (BARAKO 2007: 121, fig. 3.29:4).

The globular jug with a double handle (Fig. 412:7) and light reddish-yellow burnished slip has a matt bichrome decoration of narrow black lines enclosing wide red bands and a black dot in the centre. It shows quite a high manufacturing quality in the fabric and surface treatment. A somewhat related jug comes from Tell es-Sa'idiyah Phase 2 (suggested date 12th–11th centuries BCE; GREEN 2006: 366, fig. A.6.6; see also PRITCHARD 1980: fig. 40.1 from T.140), and another one from Yoqne'am Stratum XVII (second half 11th century BCE; ZARZECKI-PELEG 2005: 59, fig. I.16:8; here the centre decoration is missing; see also *ibid.* 77, fig. I.28:1 and 2).

The decorated jar in Figure 422:4 has an excellent parallel at Pella Phase 3 (Iron Age IB, suggested date 1130–1050 BCE, Fig. 460:5). Tell Keisan Stratum 9a-b produced an equivalent to our Figure 423:5, the small jar with wide mouth, large handles and somewhat pointed base (see BRIEND and HUMBERT 1980: pl. 57:3). A derivative of the small jar is from Beth-Shean S-4, viz. the first half of Iron Age IA (PANITZ-COHEN 2009: 232, fig. 5.5: SJ72). A decorated storage jar from Beth-Shean Stratum N-4, which is dated to the end of the Late Bronze Age, shows traits reflected in our Figure 422:2 (PANITZ-COHEN 2009: 291, pl. 3:5). The storage jar in Figure 425:4 has a counterpart at Pella Phase 3 (Iron IB, suggested date 1130–1050 BCE, Fig. 460:6). It also resembles a jar from Tell es-Sa'idiyah (suggested date 11th century BCE; GREEN 2006: 366, fig. A.6.7) and others from Tell Deir 'Alla Iron Age Phases F-H (likely 11th century BCE; FRANKEN 1969: figs. 62.30; 65.5–27; 67.33–52).

From Tell el-Far'ah North (CHAMBON 1984: pl. 60:12, Stratum VIIa) and from Megiddo Stratum VIB (UME) come pyxides of similar shape and decoration to those in Figure 430:1–5 (FINKELSTEIN *et al.* 2000: 254: fig. 11.7:2). The double-pyxis (Fig. 430:8) resembles one from Megiddo Stratum VIIA (LOUD 1948: pl. 68:8) or another one from Megiddo Stratum VIB (LOUD 1948: pl. 73:13; 11th–10th centuries BCE according to Finkelstein).

Table 82 demonstrates that the closed cooking jug and the traditional open cooking pot (roughly 1:3) appear in the same rooms of the Phase IX compound. There are numerous parallels to cooking jugs in Cis-jordan. Megiddo Level K-5 (= VIB, Iron Age I, 11th–10th century according to low chronology of Finkelstein) offers a closed cooking pot (ARIE 2006: 250, fig.

¹¹⁵ Residue analyses from such flasks from Israel produced Far Eastern spices (pers. communication A. Gilboa 14 March, 2012).

13.51:10) which corresponds to that in Figure 434:5. There are also numerous examples which correspond to this cooking pot shape from Philistia itself, for instance, Ashdod (DOTHAN and PORATH 1993: fig. 17:4 and 5) and Tel Miqne/Ekron (DOTHAN 1998: pl. 6:8) where they were found together with the Canaanite standard cooking-pot type with the triangular rim. Another parallel to our cooking pots (Figs. 433:2–5) comes from Tell Qasile Stratum XI (1100–1050 BCE, MAZAR 1985: 193, fig. 26:11), and to Figure 433:2 from Pella Phase 3 (Iron IB, suggested date 1130–1050 BCE, Fig. 460:8). A closed cooking pot parallel to our Figure 434:5 is from Yoqne'am Stratum XVII (second half 11th century BCE; ZARZECKI-PELEG 2005: 54, fig. 1.14:30). Our cooking pots in Figures 433:2–5 are similar to Philistine-labelled cooking pots from Qubur al-Walaydah from Iron Age IB context (LEHMANN *et al.* 2009: 10, fig. 12:1–3; here both one- and two-handled).

There are many parallels to our open cooking pots with triangular overhanging rims (Fig. 432) but only a few will be mentioned, for instance, from Pella Phase 2 (Iron Age IA, suggested date 1180–1130 BCE, Fig. 459:13), and from Megiddo (ARIE 2006: 250, fig. 13:51:7–9). Also Beth-Shean produced open and closed cooking pots which correspond to our shapes (PANITZ-COHEN 2009: 226, fig. 5.4; here all of them are from the first half of the Iron Age IA).

In summary, the parallels include material which is dated at other sites mainly from the end of the Late Bronze Age, viz. the 12th century BCE, to the 11th century BCE (inclusive).

Phase X

From this phase derive a total of 6156 sherds, which corresponds to 6.7 % of the Iron Age assemblage (see also Tables 73A, B).

The bowl with the low carination (Fig. 391:6) resembles a Phase 3 bowl from Pella (Iron Age IB, 1130–1050 BCE, Fig. 460:1) and the bowl with the high carination (Fig. 391:2) another one from Phase 3 at Pella (Fig. 460:2). The “ridged” bowl in Figure 391:4 is similar to a bowl from Tell el-Far'ah North (CHAMBON 1984: pl. 56:3; Stratum VIIb, (11th-) 10th century BCE). Tell Keisan offers again numerous counterparts to our Phase X assemblage. Our bowl in Figure 391:7 has equivalents in Keisan Stratum 9c (BRIEND and HUMBERT 1980: pl. 79, 11 and 13) and Tell es-Sa'idiyah burial T.73, Phases 2–3 (suggested date 12th–11th (10th) centuries BCE; GREEN 2006: 361, fig. A.1.8), and our Figure 391:5 also in Keisan Stratum 9c (BRIEND and HUMBERT 1980: pl. 79:5) and Tell es-Sa'idiyah from Phase 1 pit burial T.146 (suggested date 12th–11th centuries BCE, GREEN 2006: 361, fig. A.1.5). Some of the bowls in Figure 391 have fairly similar counterparts from the recent excavations at Kinneret (“Main Iron Age IB occupation”, 1050–950 BCE, MÜNGER *et al.* 2011: 84, fig. 22, upper row). There is a certain resemblance between our bowl with a raised base in Figure 398:4 and Type BL58 from Beth-Shean S-1 (Iron Age IIA, MAZAR 2006: 330 and 331). The krater in Figure 402:2 corresponds to a similar vessel from Lachish Stratum V, Locus 49 (10th century, AHARONI 1975: pl. 41:14). The krater in Figure 402:6 has a parallel in Beersheba, Stratum VIII (1050–1025, HERZOG 1984: 45, fig. 20:8).

Certain decorative elements, for instance the triangles on our krater in Figure 402:7, are similar to a krater from Beth-Shean Stratum N-3b which is dated to the 12th century BCE (PANITZ-COHEN 2009: 307, pl. 11:15). This pattern also occurs on a krater from Pella Phase 2 (Iron Age IA, suggested date 1180–1130 BCE,

Phase IX compound		
Room No.	No. of cooking pots	No. of cooking jugs
1	–	–
2	–	–
3	–	–
4	–	1
5	3	–
6	–	1
7	1	–
8	2	–
9	2	–
10	1	–
11	1	2
12	–	–
13	1	–
14	4	1
15	6	2
16	1	–
17	–	–
18	2	1
19	1	–
20	2	–
21A	–	–
21B	1	1
Total	28	9

Table 82 Distribution of cooking pots and cooking jugs in the Phase IX compound

Fig. 459:9). A similar pattern with triangles is reported on a krater from Tel Miqne-Ekron Stratum IX (Phase 11A), Late Bronze Age IIB (KILLEBREW 1998: 385, fig. 3:5, here the decoration is placed just above the belly). It should be highlighted that the general shape of the Tel Miqne-Ekron krater is reflected in one of our kraters from Phase IX (Fig. 400:6, but here plain). However, it cannot be excluded that our krater sherd from Phase X in Figure 402:7 is residual because the remainder of the vessel has not been found. From Pella Phase 4 comes a krater (Iron IIA, suggested date 1050–950 BCE, Fig. 460:9) which resembles our Figure 402:5 in shape. Krater Type KR51 from Beth-Shean (see above), which has an almost vertical stance and which is most common in S-1 (Iron Age IIA), is similar to our krater in Figure 402:3.

Taanach Period IIB (Iron Age IIA, 10th century BCE, RAST 1978: 163, fig. 47: 4 from the “cultic structure”) provides a fairly good parallel as regards the general shape of our chalice/bowl in Figure 398:4 which was used as a mortar, and the bowls in Figure 391:5 and 6 (*ibid.* 164, fig. 48:1 and 2). The jug in Figure 413:2 is also similar to that from Taanach Period IIB (*ibid.* 139, fig. 37: 1).

The Phase X cooking jug (Fig. 435:1) does not differ from those from Phase IX (see refs. above). Our cooking pots with open shapes and triangular overhanging rims (Figs. 435:2–6, and 436) correspond mainly to Beth-Shean Type CP54 which is the most common cooking-pot type in late Iron Age I and IIA (MAZAR 2006: 340–342; see also CP 1 from Qasile in MAZAR 1985: 52–53). Figure 436:5 corresponds to a cooking pot from Pella Phase 3 (Iron IB, suggested date 1130–1050 BCE, Fig. 460:7). A counterpart to our cooking pot in Figure 436:6 is from Tell el-Far‘ah North (CHAMBON 1984: pl. 52:2, Stratum VIIb) which produced several more parallels. This type is also represented at Tell Zera‘a (VIEWEGER and HÄSER 2005: fig. 8:16; here no chronological differentiation within the Iron Age). Similar shapes are from Kinneret Iron Age IB (MÜNGER *et al.* 2011: 84, pl. 22 third row nos. 3–5). The rim of our unusual cooking pot in Figure 435:3 is reflected in a cooking pot from Beth-Shean S-2, floor level, which is dated to Iron Age IB (PANITZ-COHEN 2009: 423, pl. 69:12). There are other cooking-pot shapes with variations of the triangular rim from Beth-Shean S-2 (but also later) which have counterparts in the Phase X material. Similar types are from Keisan, where they are common in Stratum 9c and

later (BRIEND and HUMBERT 1980: pl. 77:1 and 2, 11th century and later).

In summary, the parallels include primarily material which is dated at other sites in the 11th to the 10th centuries BCE, with the exception of the krater sherd in Figure 370:7 which may be residual.

Phase XI

From this phase derive a total of 8524 sherds, which corresponds to 9.3 % of the Iron Age assemblage (see also Tables 73A, B).

Our carinated bowl in Figure 392:4 has a counterpart in Rehov Stratum VI (Iron Age IIA, roughly 980–950 BCE, MAZAR 2005: 219, fig. 13.18:5). The bowl in figure 392:2 is similar to another one from Rehov Stratum VI (*ibid.* fig. 13.18:3), as is Figure 392:3 from the same stratum (*ibid.* fig. 13.18:4, but here with a flat base). From Megiddo Level L-3 (Palace 6000; corresponding to University of Chicago Strata VA-IVB, 9th century BCE according to FINKELSTEIN *et al.* 2000: 300) comes a carinated bowl which has a similar shape to ours in Figure 392:3 (FINKELSTEIN 2006: 306, fig. 15.3: 7).

The krater in Figure 403:3 shows some traits which are reflected in a krater from Rehov Stratum VI (MAZAR 2005: fig. 13.18:9). Figure 403:2 is similar to the krater KR55 which appears in P-8 at Beth-Shean (beginning of Iron Age IIB, after 840/830 BCE, MAZAR 2006: 335–337). A jug from Rehov Stratum V (mid-Iron Age IIA, around 930 BCE, MAZAR 2005: 226, fig. 13.23:15), is similar to ours in Figure 413:6.

Our one-handled jug with a neck ridge (Fig. 413:4) has a counterpart at Tell el-Far‘ah North Period IIB (“cultic structure” from Iron Age IIA, 10th century BCE, RAST 1978: 139:1, here with a wider mouth and neck) and at Pella Phase 4 (suggested date Iron Age IIA; 1050–950 BCE, Fig. 460:10, here with a more narrow mouth and neck). The two-handled jug¹¹⁶ in Figure 413:5 has a counterpart in Tell es-Sa‘idiyeh Phases 2–3 (suggested date 11th–10th centuries BCE, GREEN 2006: 365, fig. A.5.6).

The jar in Figure 427:4 has a parallel at Pella Phase 4 (Iron IIA, suggested date 1050–950 BCE, Fig. 460:11).

Cooking pots with triangular overhanging rims are still in use (Fig. 437:1 and 2). Parallels are from Beth-Shean (Type CP54) which there has a long life span from S-1 to P-7, i.e. Iron Age IIA-B (MAZAR 2006: 340–342). They have a similar long life span at Keisan

¹¹⁶ In his thesis GREEN (2006) describes it as a “cooking pot”. However, the vessel may have had another function (email from Green to the author 22 March 2012).

where they were still found in Strata 8 to 6 (Iron Age IIA-B; BRIEND and HUMBERT 1980: pls. 49, 52 and 55). Tell Zera^a produced a similar type (VIEWEGER and HÄSER 2005: fig. 8:19). Whereas it was the standard type in the previous phases at Tell Abu al-Kharaz it is now outnumbered by cooking pots with profiled and thickened rims (Figs. 437:4–6). Our cooking pot in Figure 437:3 is a derivative of the cooking pot with the triangular overhanging rim: it does not appear as CP55 at Beth-Shean until P-8 from where there are three recorded (beginning of Iron Age IIB, around 840/830 BCE, MAZAR 2006: 340). The cooking pot in Figure 437:5 has counterparts at Pella Phase 5 (Iron Age IIA, suggested date 950–830 BCE, Figs. 461: 3 and 4).

In summary, the parallels include primarily material which is dated at other sites mainly in the 10th and 9th centuries BCE.

Phase XII

From this phase derive a total of 18289 sherds, which corresponds to 19.9 % of the total Iron Age assemblage. The third largest assemblage is from this phase (see also Tables 73A, B).

Our rounded bowls in Figures 393:1 and 2 have parallels at Beth-Shean (MAZAR 2006: 325, fig. 12.1: 4–327: BL53). BL53 is most common in P-8 and P-7 (Iron Age IIB, 840/830–732 BCE according to Mazar). The thin-walled bowl with a flaring stance in Figure 393:9 has a counterpart at Beth-Shean (*ibid.* BL59). This type is also most common in P-8 and P-7. The same is true of our rounded bowl with the thickened and obliquely cut rim in Figure 393:11 (*ibid.* BL52). The latter has a good parallel from Lachish Stratum IV, Locus 63 (9th century BCE, AHARONI 1975: pl. 44:4). The carinated bowl with trumpet decoration (Fig. 393:12) is related to a bowl from Hazor Stratum VI (BEN-AMI *et al.* 2012: 444, fig. 6.5:7; approx. first half 8th century BCE). Tell es-Sa‘idiyah produced a bowl which is similar to ours in Figure 393:4 (Stratum VII, suggested date 825–790 BCE, PRITCHARD 1985: fig. 3:9).

Incense cups (Fig. 396) appear at Tell Abu al-Kharaz in this phase and continue at the site throughout the Iron Age. From Tell Deir ‘Alla comes a comparable vessel (Iron Age IIB, VAN DER KOOLJ and IBRAHIM 1989: 97, fig. 61) and also from Pella Phase 5 (Iron Age IIA, suggested date 950–830 BCE, Fig. 461:1). Tell es-Sa‘idiyah produced a similar incense cup in Stratum VII (suggested date 825–790 BCE, PRITCHARD 1985:

figs. 1:19, 5:11, 12 and 21). At Beth-Shean it seems that they appear in S-1, i.e. beginning of Iron Age IIA and continue in P-8, Iron Age IIB (MAZAR 2006: 372 and 373; 413: pl. 13:6; 425: pl. 19:8–10). However, the Beth-Shean examples and, for instance, the vessels from Taanach IIB (Iron Age IIA, RAST 1978: fig. 51:3) and Tell el-Far^aah North Stratum VIIb and c (10th–9th centuries, CHAMBON 1984: 213, pl. 54:12 and 13) are all different in shape.¹¹⁷

The kraters in Figure 404:2 and 7 have corresponding shapes in Beth-Shean KR55 and KR56 both of which are most common in P-8 and P-7 (Iron Age IIB, MAZAR 2006: 338). Our krater in Figure 404:6 is equivalent to KR51 at Beth-Shean which starts already in S-1 but which is also well-represented in P-8 and P-7 (MAZAR 2006: 335). The kraters with neck ridges in Figure 404:3 and 4 have counterparts at Rehov Stratum V (Iron Age IIA, MAZAR 2005: 227, fig. 13.24:7), and an equivalent to the krater in Figure 404:7 has been found in Stratum IV at Rehov (also Iron Age IIA, MAZAR 2005: 239, fig. 13.35:12). Tell es-Sa‘idiyah produced krater shapes which are similar to our Figure 404:5 (Stratum VII, suggested date 825–790 BCE, PRITCHARD 1985: fig. 1:10 and 12).

Our juglets with narrow necks and wide bodies (Figs. 414:1–3) appear in P-8 and continue in P-7 at Beth-Shean (MAZAR 2006: 367). There are also some of these juglets in Tell el-Far^aah North Stratum VIId (9th–8th centuries BCE, CHAMBON 1984: pl. 51:13 and 14). The spouted juglet (Fig. 414:9) is similar to one from Hazor (BEN-AMI *et al.* 2012: 471, fig. 6.23:5) which belongs to Phase VIIb (second half of 9th century BCE). A new shape in Phase XII is the mug in Figure 414:4. A parallel, JG58, comes from Beth-Shean: it appears in P-8 and continues in P-7 (MAZAR 2006: 364, fig. 12.7; here called “trefoil-rim jug”). These mugs continue until the later part of the Iron Age (see e.g. Tell Deir ‘Alla Phase VII which is dated to around 700 BCE, GROOT 2011: pl. VI:3). Our red-slipped jug with three concentric incisions on the shoulder (Figure 414:7) is of Phoenician style: it has a counterpart in P-7 at Beth-Shean (JG58 in MAZAR 2006: 364, photo 12.64, pl. 40:6; but here with a flat base).

The shape of our jug with two handles (Fig. 414:8) appears at Beth-Shean in P-8 and continues into P-7 (MAZAR 2006: 431, pl. 22:6, but here with one handle). The jug in Figure 414:5 has the same chronological distribution at Beth-Shean (*ibid.* 431, pl. 22:5).

¹¹⁷ See ZWICKEL 1990 for additional references, especially from Transjordan.

An excellent parallel to our complete monochrome- and bichrome-decorated “Phoenician-type”¹¹⁸ jugs in Figure 415:1–3 is from Tell el-Far‘ah North Stratum VIIId (9th–8th centuries BCE, CHAMBON 1984: pl. 46:8) and Megiddo Stratum VB (9th century according to FINKELSTEIN *et al.* 2000: 282, fig. 11.28:2; for dates see above). Derivatives of this type of jug were found in contexts of Phase XIII (Fig. 416:9) and XIV (Fig. 419:1 and 4). Also Hazor (BEN-AMI *et al.* 2012: 466, fig. 6.21:1 and 2) produced related shapes in Strata VIII–V, viz. 9th–8th centuries BCE. Our Cypriote Black-on-Red I juglet in Figure 415:4 has a parallel, *inter alia*, from Megiddo Stratum VB (FINKELSTEIN *et al.* 2000: 281, fig. 11.27:5) but also later in Strata VA–IVB (*ibid.* 288, fig. 11.32:1; see also SCHREIBER 2003: 4 and refs.).

The most common storage jar in Strata P-8 and P-7 at Beth-Shean is type SJ53 (MAZAR 2006: 346, fig. 12.4). It corresponds to our vessel in Figure 427:13.

A derivative of the once so popular cooking pot with the triangular rim is in Figure 438:1: it shows some shared traits with CP54 from Beth-Shean which is most common in P-8 and P-7 (MAZAR 2006: 340, fig. 12.3: CP54). It is noticeable that the fossil type for Iron Age IIB at Beth-Shean, the CP56 (*ibid.*), is not represented in the Phase XII material at Tell Abu al-Kharaz although some traits of this type start to appear in our assemblage.¹¹⁹ Figure 438:4 is reflected in a cooking pot from Tell el-Far‘ah North Stratum VIIId which is dated to the 9th–8th centuries BCE (CHAMBON 1984: pl. 52:5 and 6).

In summary, the parallels are primarily material which is dated at other sites mainly in the (10th) 9th and 8th centuries BCE.

Phase XIII

From this phase derive a total of 10505 sherds, which corresponds to 11.4 % of the Iron Age assemblage (see also Tables 73A, B).

There are numerous parallels to bowls from this phase but only a few will be mentioned. Our bowls in Figure 394:2–7 have counterparts in P-8 and P-8a at Beth-Shean (Iron Age IIB, MAZAR 2006: 423, pl. 18, *passim*). Hazor Stratum V, second half of 8th century BCE, produced counterparts to the bowl in Figure 394:6 (BEN-AMI *et al.* 2012: 439, fig. 6.2:7). The red-slipped carinated bowl (Fig. 394:8) depicts a shape which is foreign to the standard vessel forms from our

Iron Age contexts: it belongs to the Neo-Assyrian tradition and may have been locally made or imported (see “interregional chronology”).

Our kraters have parallels at Beth-Shean in P-8 and P-7, i.e. Iron Age IIB (all MAZAR 2006: 335, fig. 12.2): Figure 405:1 (KR56), Figure 405:2 and 9 (KR55), and Figure 405:4 (KR53). The hole-mouth kraters/jars in Figure 405:10 and 11 correspond to SJ59 at Beth-Shean in P-8 and P-7 (*ibid.* 354). Related shapes, the “gutter-rim kraters” from Hazor, already appear there in Stratum X–IX but became most popular in Phase VIII (BEN-AMI *et al.* 2012: 448, fig. 6.8:1 in particular; here dated to Stratum VIIIA, viz. roughly mid-9th century BCE). Another related but larger shape is from Hazor Stratum VIIb (BEN-AMI 2012: 260, fig. 3.13:10; dated to approx. mid-9th century BCE).

This is the phase where the Black Juglets are well established at Tell Abu al-Kharaz (Fig. 416:7 and 8). They appear at Beth-Shean in P-8 and continue in P-7 (MAZAR 2006: 309–310, JT54). At Rehov they are reported from Stratum IV, late Iron Age IIA (MAZAR 2005: 240, fig. 13.36:11 and 12). At Megiddo they are in Strata VA–IVB but here with pointed bases (second half of 9th century according to FINKELSTEIN *et al.* 2000: 289, fig. 11.33:1 and 4; 297, fig. 11.39:1, 6, and 12, the last with a round base). Tell es-Sa‘idiyah produced similar black juglets in Stratum VI (suggested date 790–750 BCE, PRITCHARD 1985: fig. 7:1–4).

Our large globular jug with three handles and juglet support (Fig. 417:1) corresponds to almost identical vessels from Beth-Shean P-7 (MAZAR 2006: 358 AM54, pl. 38:1), Megiddo H3 (8th century BCE, FINKELSTEIN *et al.* 2000: 306, fig. 11.46:14) and Tell el-Far‘ah North (CHAMBON 1984: pl. 46:9 and 10, Stratum VIIId which he dates to 9th–8th centuries BCE). From Hazor Stratum V comes a similar vessel (BEN-AMI *et al.* 2012: 465, fig. 6.20; dated to the second half of the 8th century BCE). Another one is from Tell es-Sa‘idiyah Stratum VI (suggested date 790–750 BCE, PRITCHARD 1985: fig. 9:13).

Our Phoenician jug (Fig. 416:10) resembles another one from Tell el-Far‘ah North (CHAMBON 1984: 49:21, Stratum VIIId); it is also related to an example from Hazor (BEN-AMI *et al.* 2012: 468, fig. 6.22:9; here dated to Stratum VIIIA, first half 9th century BCE). The shape of the plain two-handled jug (Fig. 416:9) is almost identical with the monochrome- and bichrome-

¹¹⁸ This should be considered as a “working term” because good parallels from Phoenicia itself are missing (personal communication F.J. Núñez 8 July, 2009). However, these vessels are certainly imports to the site.

¹¹⁹ A. Mazar declares that the mention of CP56 in P-9 in Table 12.8 should be discarded (email 5 March, 2012).

decorated jugs from Phase XII (Figs. 415:1–3). A parallel to this undecorated jug comes from Tell es-Sa‘idiyeh Stratum VII (suggested date 825–790 BCE, PRITCHARD 1985: fig. 5:4).

The neck-ridged jar (Fig. 428:7) corresponds to Beth-Shean SJ52b from P-8 and P-7 (MAZAR 2006: 346–349, but here with a marked shoulder). Type I storage jars from Hazor which correspond to our neck-ridged jar have a life span from Phases VIII–IV, mainly 9th and 8th centuries BCE (BEN-AMI *et al.* 2012: 457–458).

The cooking pot with the triangular rim is no longer in use. Our cooking pots in Figure 439:1–3 are variants of CP56 from Beth-Shean where its life span covers P-8 to P-7 (MAZAR 2006: 340, fig. 12.3). Figures 439:1 and 2 are similar to Pella Phase 6 (Iron Age IIIB, suggested date 830–730 BCE, Fig. 461:6). Our cooking pot with a pinched rim in Figure 439:8 has a parallel in Hazor Stratum VI (BEN-AMI *et al.* 2012: fig. 6.11:6, dated approx. first half 8th century BCE) and Lachish Stratum IV, Locus 63 (AHARONI 1975: pl. 44:5). Tell es-Sa‘idiyeh produced a cooking-pot type which is almost identical with ours in Figure 439:6 (Stratum VII, suggested date 825–790 BCE, PRITCHARD 1985: fig. 3:30–32). The cooking pots in Figure 440 are all similar to two cooking pots from Pella Phase 6 (Iron Age IIIB, suggested date 830–730 BCE, Figs. 461:7 and 8).

In summary, the parallels consist primarily of material which is dated at other sites mainly in the second half of the 9th, and the 8th centuries BCE.

Phase XIV

From this phase derive a total of 21556 sherds, which corresponds to 23.4 % of the Iron Age assemblage (see also Tables 73A, B). The next largest Iron Age pottery assemblage is from this phase.

The shape of our bowls with T-rims (Figs. 394:13 and 14, 395:2–4) is reflected in BL56 at Beth-Shean, which has quite a long life span from S1–P7 (Iron Age IIA–B, MAZAR 2006: 330). The bowl in Figure 395:4 is very similar to another one from Tell Deir ‘Alla (Phase VII dated around 700 BCE, GROOT 2011: pl. IV:25) and from Pella Phase 6 (Iron Age IIIB, suggested date 830–730 BCE, Fig. 461:5). This T-rim bowl type is the most common in P-8 and P-7 at Beth-Shean (MAZAR 2006: 324 and 325). There are also several bowls of this type from Tell es-Sa‘idiyeh in Stratum V (suggested date 750–730 BCE, e.g. PRITCHARD 1985: fig. 10:17).

There is a small bowl which shows affinities with Assyrian vessels (Fig. 395:7). Shapes which are similar to this bowl come, for instance, from Tell el-Far‘ah North Strata VIIId and VIIe (9th/8th–7th centuries

BCE, CHAMBON 1984: pl. 61:1–11; cf. ANASTASIO 2010: 107, pl. 15:1–10). The general shape of this bowl is also comparable with a vessel from Tell Deir ‘Alla (Phase VII, dated around 700 BCE, GROOT 2011: pl. II:31). The shape of the “closed”, thin-walled and burnished, bowl in Figure 395:8, which is an import, is similar to a group of bowls from Tell Deir ‘Alla (Phase VII dated around 700 BCE, GROOT 2011: pl. IV:4). The small bowl with handles (Fig. 394:16) resembles another one from Beth-Shean P-8 (MAZAR 2006: 333, BL60, but here with everted rim).

The krater in Figure 406:4 is similar to type KR55 at Beth-Shean P-7 (MAZAR 2006: 445, pl. 30:2). The hole-mouth kraters/jars (Fig. 406:10 and 11) are reported only from Beth-Shean in P-8 and P-7 (MAZAR 2006: 345 and 346). Certain traits of our large globular krater standing on three loop handles (Fig. 407:2) are visible in a vessel from Megiddo Stratum IV (9th century BCE, FINKELSTEIN *et al.* 2000: 320, fig. 11.57:2).

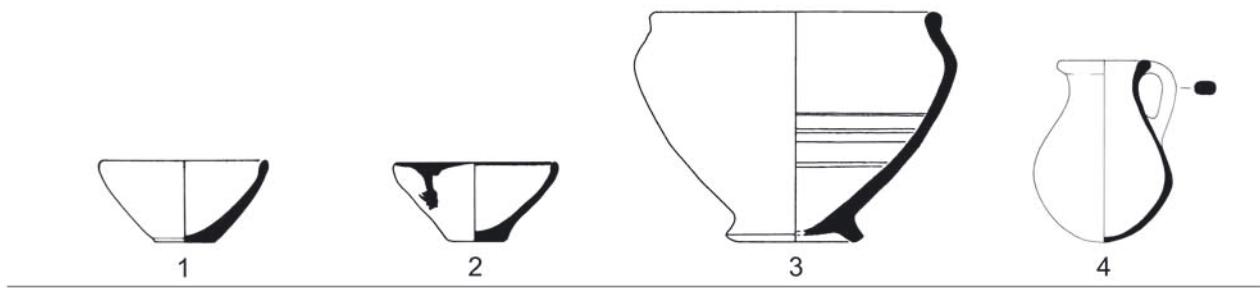
The red-slipped, Phoenician-type, juglet (Fig. 419:6) corresponds to one from Beth-Shean P-7 (JG58 in MAZAR 2006: 463, pl. 40:6) and is similar to another one from Megiddo H-3 (8th century BCE, FINKELSTEIN *et al.* 2000: 305, fig. 11.45:5).

The juglet with the elongated body (Fig. 419:10) is in principle comparable with JT56 from P-8 and P-7 at Beth-Shean (MAZAR 2006: 431, pl. 22:12 and 13, but here the handles are placed differently). Our jugs in Figures 419:1 and 4 are derivatives of the jugs in Phase XII (Figs. 415:1–3). The former has an equivalent in P-7 at Beth-Shean (*ibid.* 467, pl. 42:17) and at Rehov in Stratum IV which is dated to the later part of the 9th century BCE (MAZAR 2005: 240, fig. 13.36:2).

A frequently found type in this phase is the “jug-decanter” (Fig. 419:8 and 9), which is common in P-8 and P-7 at Beth-Shean (MAZAR 2006: 360, JG55). Another one comes from Megiddo H-3 (8th century BCE, FINKELSTEIN *et al.* 2000: 315, fig. 11.53:3). Tell el-Far‘ah North also has parallels in Stratum VIIId (9th–8th centuries BCE, CHAMBON 1984: pl. 61:27–29). The large globular jug with three handles and juglet support (Fig. 420:5) is a derivative of our Phase XIII (Fig. 417:1) which is found in P-7 at Beth-Shean (see above). It is also common at Tell es-Sa‘idiyeh in Stratum V (suggested date 750–730 BCE, PRITCHARD 1985: fig. 11:11–13).

The neck-ridged jar in Figure 429:6 corresponds to SJ52 at Beth-Shean, where it is most common in P-8 and P-7 (MAZAR 2006: 345–346), and to a jar from Megiddo H-3 (FINKELSTEIN 2006: 314, fig. 15.8:4). Type II storage jars (“Hippo” jars) from Hazor, which correspond to our neck-ridged jar in Figure 429:6, have a life span from Phase XB to VII; they are less

Phase 1



Phase 2

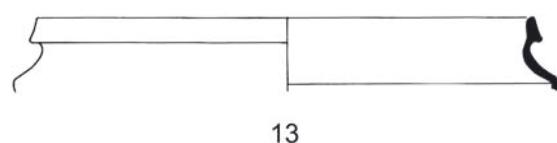
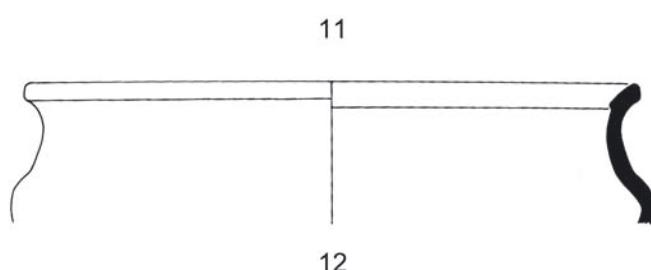
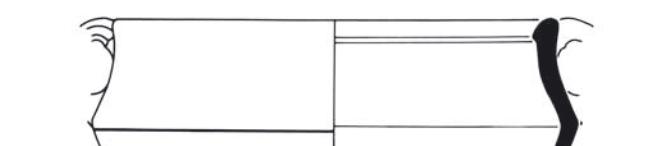
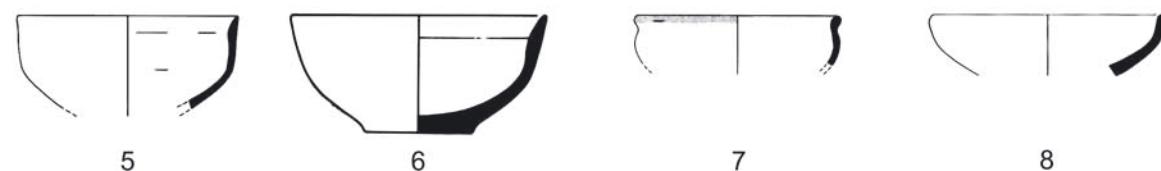
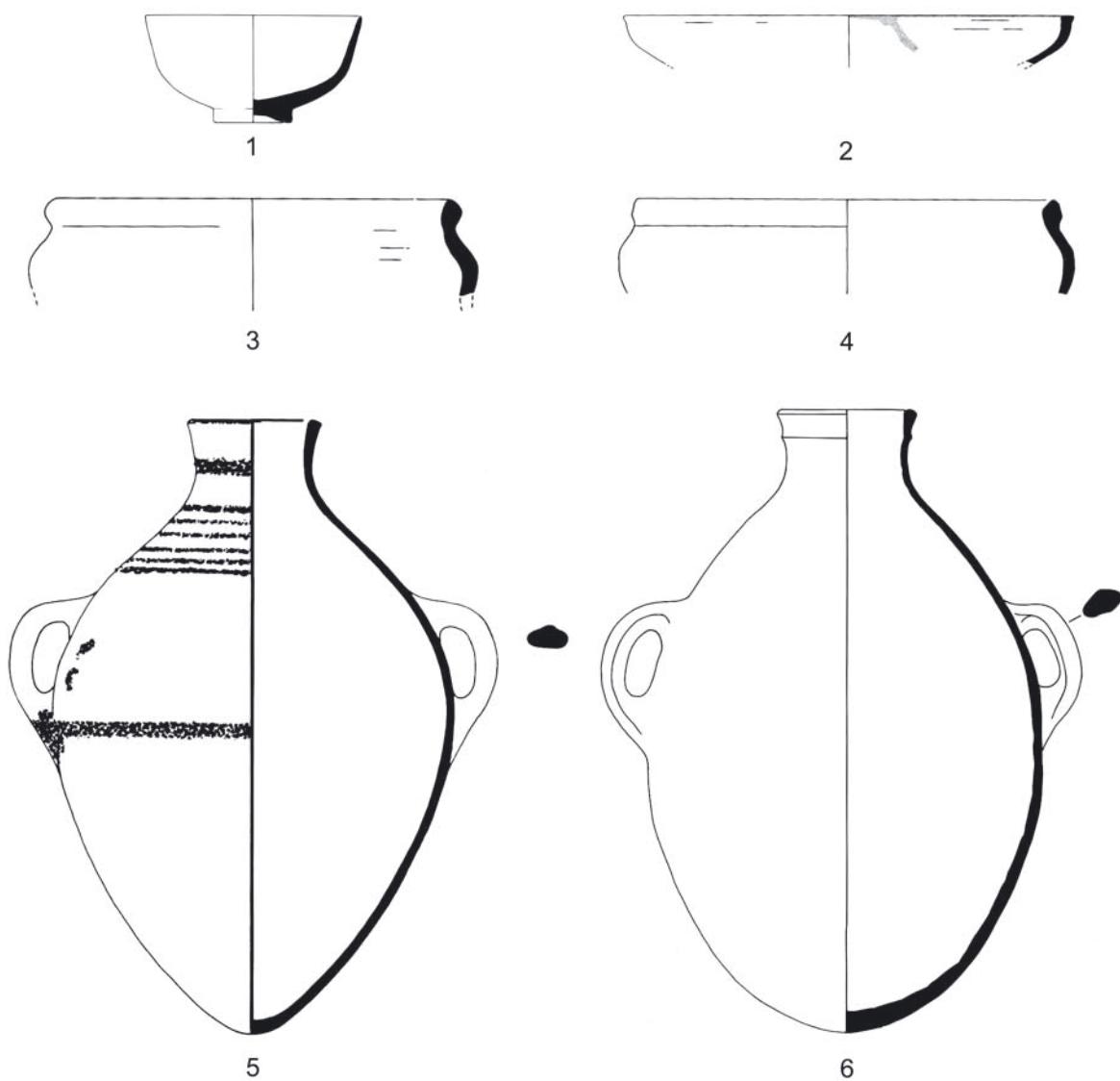


Fig. 459 Pottery from Pella Phases 1 and 2

Phase 3



Phase 4

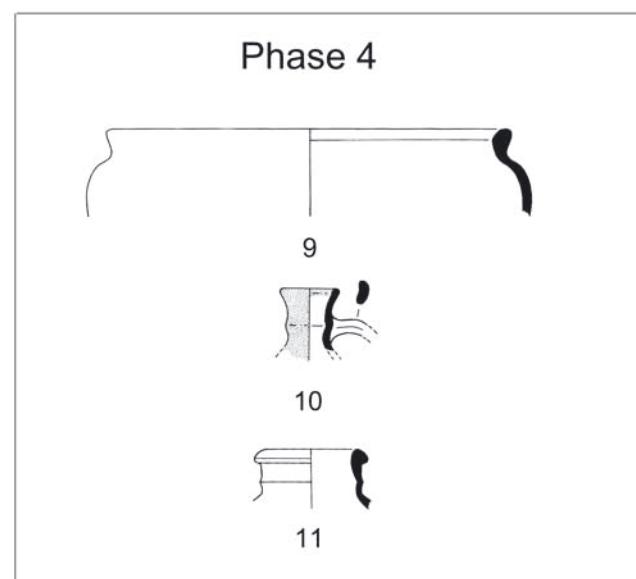


Fig. 460 Pottery from Pella Phases 3 and 4

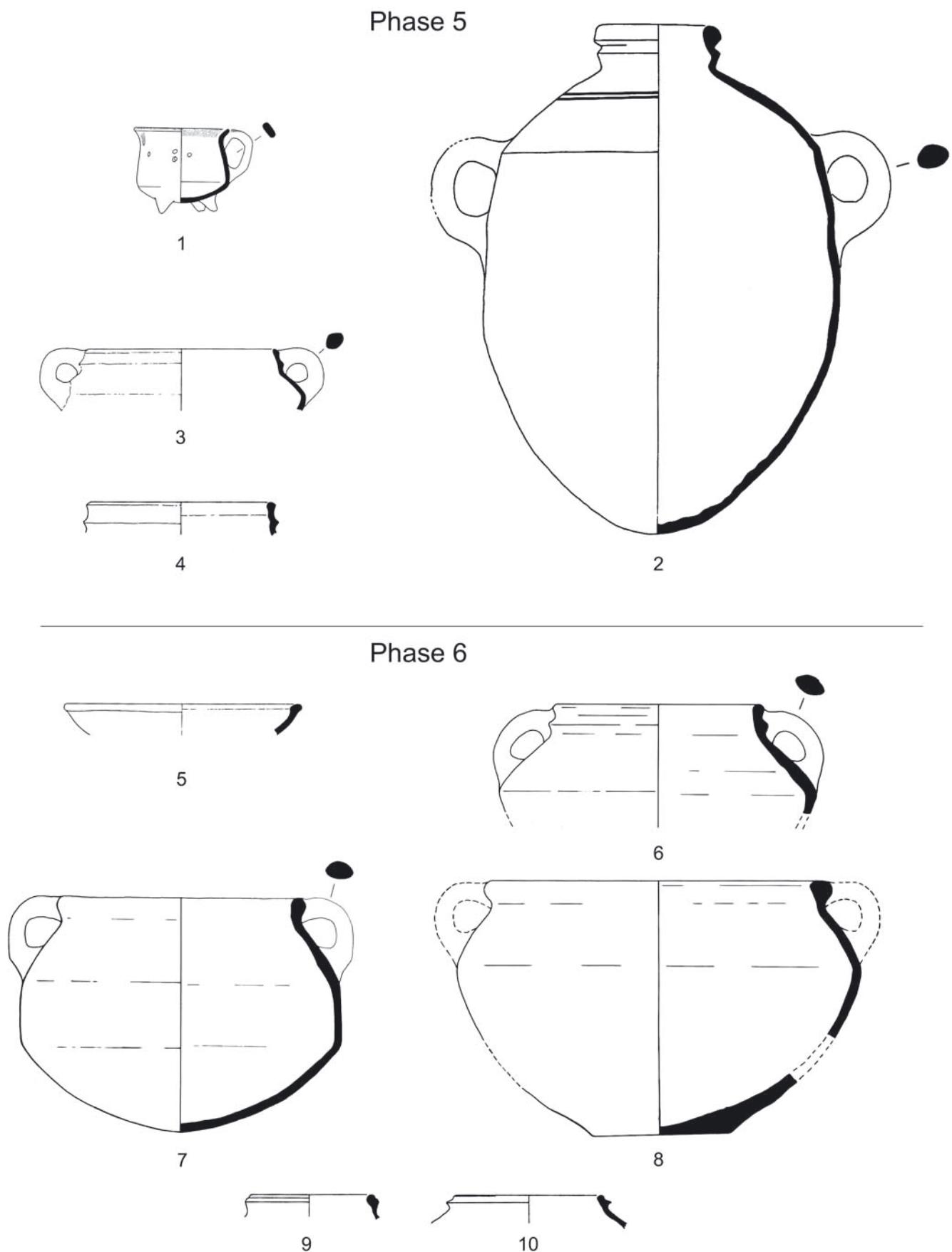


Fig. 461 Pottery from Pella Phases 5 and 6

frequently found in the later part of the Iron Age II (BEN-AMI *et al.* 2012: 457, 459). Another parallel from our jar is from Pella Phase 5 (Iron Age IIA, suggested date 950–830 BCE, Fig. 461:2).

It is interesting to note that the most common cooking-pot types from this phase (Fig. 441) with upright or inverted, often thickened, rims have no good parallels from Beth-Shean. However, related types are from Pella Phase 6 (see above in Phase XIII). Type CP56 (MAZAR 2006: 340) is similar to another of the common types at Tell Abu al-Kharaz (Figs. 442:3 and 4). These two vessel shapes are also reflected in Pella Phase 6 (Iron Age IIB, suggested date 830–730 BCE, Figs. 461:7 and 8) and Tell Zera'a (VIEWEGER and HÄSER 2005: fig. 8:21).

In summary, the parallels are primarily material which is dated at other sites mainly in the second half of the 9th, and 8th centuries BCE.

Phases XIV or XV

From Phase XV derive a total of 209 sherds, which corresponds to 0.2 % of the Iron Age assemblage (see also Tables 73A, B). The remains of this phase are in principle on the present surface. Consequently it has suffered considerably from erosion and later activities. Secure separation of Phase XV from Phase XIV was only possible in Areas 1 and 3. The two phases could not be satisfactorily separated in Area 10. From these mixed phases derive a total of 2906 sherds, which corresponds to 3.2 % of the total Iron Age assemblage. The pottery does not differ very much from that of the previous Phase XIV. There are though a number of sherds which date to the latest Iron Age phase, i.e. the traditional Iron Age IIC.

3. Interregional synchronization¹²⁰

Phase IX

There are similarities between some of our bowls (e.g. Figs. 389:2, 8 and 13) and those of Egyptian shapes from Beth-Shean. Accepting the dates of the nearby “Egyptian garrison” at Beth-Shean would point to a date in the outgoing Late Bronze Age and the beginning of the Iron Age, viz. within the 12th century BCE.

Other types and shapes which are foreign to the local pottery repertoire include two vessels with quite a thick white slip: one is the plain bowl standing on

three loop-handles (Fig. 389:15) and the other is the jug with the monochrome decoration including concentric semicircles (Fig. 409:3) which may both have been produced in the same workshop. This specific arrangement of the concentric semicircles on our jug is also observable in a Submycenaean lekythos (FS 124; see MOUNTJOY 1986: 198, fig. 263). The same pattern is fairly common in Late Helladic IIIC contexts (roughly 1190–1050 BCE). It should also be noted that the semicircle-decoration can be found on a stirrup jar from the current excavations of the author at Hala Sultan Tekke, Cyprus, which was a thriving city in the 12th century BCE (FISCHER 2012b: 94, fig. 3:1). It seems that this Aegean-influenced pattern has arrived with the Sea Peoples in the Levant and has been used on a modified Canaanite shape.¹²¹

It has been mentioned that Tell Deir 'Alla offers other parallels to our goblets (Fig. 399: 1–4) from the Late Bronze Age temple (FRANKEN 1992: 40, figs. 4–3:15 and 4–24:6). From the same compound as the goblets from the Tell Deir 'Alla temple come Mycenaean stirrup jars which predate the temple context (Late Helladic IIIA2–IIIB according to VAN DER KOOIJ 2006: 219). The type of goblet in our Fig. 399:3 has a wide distribution; it is reported, for instance, from Sarepta in Stratum D1 (ANDERSON 1988: 627, pl. 33:18; according to p. 423 Strata D2 and D1 are dated 1025/1000–850/825 BCE).

Our decorated, spouted, strainer-jug with a broken-off rim and most likely a basket handle¹²² (Fig. 411:5) has a good parallel from Ashdod Stratum XIIIb in Area G which is dated to Iron Age IA (DOTHAN and PORATH 1993: 15, 175, fig. 15:10). This type of jug is somewhat related to Mycenaean counterparts which were produced throughout the Late Helladic IIIC (FS 159: cf. MOUNTJOY 1986: 203; see also DOTHAN and PORATH 1993: 56).

The globular jug with a double handle (Fig. 412:7) and light reddish-yellow burnished slip has a matt bichrome decoration of narrow black lines enclosing wide red bands and a black dot in the centre. The general shape and the decorative pattern reflect both Phoenician and Cypriote influences. A similar globular jug comes from Tyre Stratum XIII-1 (BIKAI 1978: pl. XXXIII:25). Bikai dates this stratum to after 1070/50 BCE, viz. the end of Tyre XIV (*ibid.* 66), or SCHREIBER (2003: 208) according to a tentatively

¹²⁰ References to comparable material are in the previous sub-chapter under the heading “regional synchronization”.

¹²¹ AMIRAN (1969: 266–269) shows a collection of “Philistine” vessels with the concentric semi-circle decoration.

¹²² There are no traces of a handle on the belly, shoulder or neck. It is therefore most likely that the vessel had a basket handle.

revised chronology 1100–1050 BCE (SCHREIBER 2003: 208). However, all these dates are mainly based on Gjerstad's chronology (see e.g. GJERSTAD 1948: 421–422) and not supported by radiocarbon. Schreiber's dates on Tyre, for instance, reflect this very well: they seem to be mainly based on Cypriote ceramics and the conventional Biblical chronology. More recent comparative dates for Tyre XIII are presented by NÚÑEZ CALVO (2008: 83, fig. 33): Tyre XIII corresponds in Phoenician terms to Early Iron a (second half 11th century BCE) which is contemporaneous with Al-Bass Period 1 and "Kouklia" in Cyprus. GILBOA (1999: 9) considers the narrow black lines enclosing wide red bands a typical Cypriote trait (*ibid.* 7, fig. 5). Of interest is the Cypriote vessel from Paleopaphos *Skales* Tomb 49 (*ibid.* fig. 5:9 and 10, and further references to Iron Age IB material).

Several of our pilgrim flasks are imports. The two pilgrim flasks with cup mouths (Fig. 412:1 bichrome-, and Fig. 412:2 monochrome-decorated) have no good parallels in Phoenicia or Cyprus. The centrally placed wheelspoke pattern is a reminder of decoration on Philistine vessels, and our vessels may be ascribed to the Philistine sphere of culture. The general shape of our pilgrim flask (Fig. 412:5) is reflected in a vessel from Tyre Stratum XIII-2 (BIKAI 1978: pl. XXXVII:3 but here undecorated; see also NÚÑEZ CALVO 2008: 83, fig. 33).

The double-pyxis with a basket handle (Fig. 430:8) and one false spout resembles composite vases (and stirrup jars) from the Mycenaean sphere of culture (cf. MOUNTJOY 1986: 170, fig. 217 where the examples from Perati are dated to Late Helladic IIIC Middle, i.e. around 1100 BCE). The metope decoration on our double-pyxis is again a trait which is often found on vessels from the Southern Levant in the Late Bronze and early Iron Ages. In the Aegean this vessel type, the "rounded alabastron" (FS 80–86), flourished from Late Helladic I–IIIC Early.

Our closed cooking pots of the type illustrated in Figures 433:2–5 and 434 are represented in Phase IX and occur only sporadically in Phase X (see Fig. 435:1). This type of cooking pot shows Aegean and possibly Philistine traits (cf. the general Aegean type in YASUR-LANDAU 2010: 128–129 and the Philistine offspring, *ibid.* 232). In Palestine the majority of this type of cooking pots from, for instance, Pella, Megiddo, Tell Qasile, Yoqne'am, Ashdod, Ashkelon, Tel Miqne/Ekron and Qubur al-Walaydah are dated to the (out-

going 12th and) 11th century BCE. At Tell Abu al-Kharaz this type appears together with the Canaanite standard cooking-pot type with the triangular rim (see in our Figs. 432–434 where both types from the same building are illustrated). It is worthwhile noticing that this closed type is very closely related to cooking pots from the current excavations of the author at Hala Sultan Tekke, Cyprus, which was a thriving city in the 12th century BCE (FISCHER 2011b; 2012b).

In summary, parallels from outside Palestine and those which demonstrate foreign influences from Palestine itself include material which is dated to the 12th and, mainly, 11th centuries BCE.

Phases X and XI

There is almost no material for intercultural synchronization from these two phases. They are very much related and obviously close in time. The assemblage of one of the best chronological indicators, the cooking pot, demonstrates that the cooking pots with closed shapes are rare in Phase X (Fig. 435:1) and totally missing in Phase XI. The standard Canaanite cooking pot type with the triangular rim and the rounded base dominates in both phases.

The shape of the krater with the triangular pattern from Phase X (Fig. 402:7) is reported from Late Bronze Age IIB and Iron Age IA contexts in both Cis- and Transjordan: it is possible that our sherd is residual.

Phase XII

There are three (almost) complete and several incomplete, monochrome- and bichrome-decorated, burnished jugs (Fig. 415:1–3). There are some traits, for instance the shape of the base and handles and the horizontal burnishing, which are typical of vessels from the cemetery of Al-Bass, Period III (roughly beginning 8th century onwards).¹²³ The general shape of these vessels also occurs in the western Mediterranean, Carthage, Malta, and even in the Tartessian area in Spain, where they are called "Urnas de Cruz del Negro" (AUBET 2009: 83). There is a very faint resemblance between the shapes of our jugs and some Black-on-Red II (IV) amphorae from Cyprus (GJERSTAD 1948: 70–71, pl. XL). It seems that these jugs were produced in an elusive centre, the location of which is not known to date. However, considering the

¹²³ This date seems to be based on parallels from other sites (AUBET 2004: 465, fig. 312). Al-Bass may be the principle cremation necropolis of Tyre throughout the Iron Age. I am grateful to E.J. Núñez for much of this information.

distribution of these vessels in Palestine a production centre in the north of Palestine is suggested.

Our red-slipped jug with three concentric incisions on the shoulder above a spherical body (Fig. 414:7) is of Phoenician style (cf. similar Phoenician vessels from Cyprus in BIKAI 1987: pls. XV and XVI; dates insecure). Amongst others one parallel is reported from Sarepta which produced a similar globular-shaped vessel from Stratum C1 (ANDERSON 1988: 635, pl. 37:1; according to p. 423 Strata C2 and C1 are dated 850/825–650? BCE).

There are some genuine Cypriote Black-on-Red I juglets from the site (see e.g. Fig. 415:4).¹²⁴ SCHREIBER (2003) suggests a date around 950 BCE for the production start of BoR Ware, and that it was in use throughout at least the 9th century BCE.¹²⁵

In summary, parallels to imports include primarily material which is dated at other sites mainly in the (10th) 9th and 8th centuries BCE.

Phase XIII

The red-slipped carinated bowl (Fig. 394:8) depicts a shape which is foreign to the standard vessel forms from our Iron Age contexts:¹²⁶ It obviously belongs to the Late Assyrian tradition and may have been locally made or imported (cf. ANASTASIO 2010: 107, pl. 15:1–10; he places this type in IA 2 and 3, i.e. from mid-8th century BCE).

The plain Phoenician-type jug (Fig. 416:9) is almost identical with the monochrome- and bichrome-decorated jugs from Phase XII (Figs. 415:1–3). It seems to be a late “budget version” of the jugs with identical shapes from the previous phase.

In summary, the parallels which are related to imports are dated mainly in the 8th century BCE.

Phase XIV

Another Assyrian-type vessel comes from this phase (Fig. 395:7). It seems to be a local copy of the Late Assyrian bowls (see above) which have a rounded base (see above).

A vessel which can be compared with our unusual globular krater standing on three loop-handles (Fig. 407:2) comes from Amathus Tomb 111/10 in Cyprus (BIKAI 1987: pl. VIII:130, proposed date “after 700 BCE” (*ibid.* 69)).¹²⁷ The Cypriote vessel is of obvious later date (as proposed) and may have been influenced

by prototypes from the Levant. A Cypro-Geometric (BoR I) juglet comes from a possibly disturbed context (Fig. 218:7 and context description in Chapter 2; Fig. 420:6).

Another import is the red-slipped, Phoenician-type, juglet with three concentric incisions on the shoulder above a slightly pear-shaped body (Fig. 419:6; cf. similar Phoenician vessels from Cyprus in BIKAI 1987: pls. XV and XVI; dates insecure). A similar one is from Sarepta from Stratum C1 (ANDERSON 1988: 635, pl. 37:1; here dated 850/825–650? BCE according to p. 423; see also our Phase XII juglet in Fig. 414:7).

The Phoenician-type jug with the imitation of rivets (Fig. 420:4) is a copy of metallic prototypes. It fits Phoenician metropolitan standards but is devoid of any surface finish. Similar vessels come from Cyprus. BIKAI (1987: 53, pl. XIV) ascribes these vessels to the “Salamis Horizon”, the beginning of which is problematic (850 BCE?, *ibid.* 69) but whose first half corresponds to Al-Bass cemetery Period II (AUBET 2004: 465). The end of the “Salamis Horizon” (end of Al-Bass III) is tentatively placed around 750 BCE (NÚÑEZ CALVO 2008: 83, fig. 33). The period of Al-Bass II and III combined corresponds to Tyre X-IV (AUBET 2004: 465, fig. 312; NÚÑEZ CALVO 2008: 83, fig. 33). It seems that this type is usually dated earlier than our context would allow. However, this obvious copy of other vessels lacks the standard surface finish of such vessels, namely the thick red slip, and may therefore be a very late copy of earlier originals, a kind of “survivor”.

The jugs in Figures 419:1 and 4 are derivatives of the Phoenician jugs in Phase XII (Figs. 415:1–3). However, they seem to represent local copies of an older, imported, prototype.

Phase XV

The pottery from this superficial and consequently fairly disturbed phase is mainly from the conventional Iron Age IIC period. From the terminal Iron Age comes a scarab of blue faience (N38, Fig. 47:12) which is of the Egyptian Naukratis-type. The suggested date for this scarab from the 26th Dynasty is 620/600 to shortly after 550 BCE (e.g. EGGLER and KEEL 2006: 278, 1).

¹²⁴ These are Cypriote imports and not local copies.

¹²⁵ Cf. the much lower chronology of GJERSTAD 1948: 423 and 423.

¹²⁶ There are a few other sherds which may belong to this vessel type.

¹²⁷ This date is by no means a fixed date. Bikai points to several problems.

B. Absolute chronology and chronological conclusions

The uncalibrated and calibrated dates can be studied in Table 75A in Chapter 4 (see also Plot 1 in the same chapter). The radiocarbon samples from Phase IX, Area 9 East, are from a single destruction event. The exact date of this destruction cannot be resolved by radiocarbon alone. This is due to the flat calibration curve – which also exhibits some wiggles – in the area of the determined mean value, viz. 2917 ^{14}C years BP (see Plot 1 in Chapter 4). This determined mean value is very precise with an uncertainty of only ten ^{14}C years. Therefore – ignoring an eight-year period with a lower probability – we conclude that the phase IX destruction event must have occurred between 1193 BCE and 1049 BCE on the basis of the usual 95.4 % probability. If we reduce the requested probability to 68.2 % the time frame for this event is narrowed from 1128 BCE to 1055 BCE. In any case, a date later than 1049 BCE is not possible for the destructive event of Phase IX taking both 1σ and 2σ probabilities into consideration.

The unsequenced calibrated dates from Phase X onward follow very well the occupational sequence. There is, however, some scatter in Phase XI. From Phase XII onward, the calibration of the radiocarbon date produces broader time ranges which are caused by the well known Hallstatt plateau in the calibration curve. Considering the calendar date of 732 BCE, the well-documented conquest of the area by the Neo-Assyrian empire, as a *terminus ante quem* for Phase XIV, it was possible to calculate a short Bayesian sequence for the Phases XII to XIV. After removing two dates with low agreement indices from Phase XIII (VERA-5282HS and VERA-5275HS) an overall agreement index of ~90 % was achieved: the transition from Phase XIII to XIV is within the time span from 787BCE to 759BCE (95.4 % probability).

Table 83 shows the complete Bronze and Iron Age occupation of the site including the proposed duration of the various phases as a result of the previous discussion on relative and absolute chronology, and earlier publications.

Phases ¹²⁸	Duration BCE	Periods	Comments
IA-B	3150–3050	EB IB	Chalcolithic sherds but earliest structures in Phase IA (EB IB), possible earthquake ends Phase IA; much preserved of Phase IB, many well-preserved structures, first city wall, flourishing society with rich find assemblage, imports from Egypt (Naqada IIIB) and Lebanon (Proto Metallic), major catastrophe/conflagration (earthquake?), possibly short occupation lacuna
IIA-B	3050–3000	EB II	Well-preserved, massive city wall with possible tower, well-preserved domestic compounds, flourishing society, imports from Lebanon, probable earthquake ends Phase IIA, immediate reoccupation in Phase IIB (similar material) which ends in a major catastrophe/conflagration (earthquake?)
IIIA-B	3000–2900	EB II	Small scale reoccupation (“squatter occupation”), typical EB II pottery, minor destruction ends Phase IIIA, another destruction ends the Early Bronze Age occupation
Lacuna	2900–?1800	EB III-MB I	Site abandoned for 1100 (?) years
IV/0	18th cent.	MB I	Presence of people ascertained through early Tell el-Yahudiyeh Ware
IV/1	c. 1600	MB III	Little preserved, reuse of the EB defence system, industrial activities, typical late MB pottery, imports from Cyprus, Lebanon, general conflagration/destruction
IV/2	1600–1525	MB/LB	Limited material preserved, city wall with casemate system, tower, commercial activities, imports from Lebanon from Phase IV/1 or 2, Chocolate-on-White Ware parallel with Tell el-Dab'a e/2, general conflagration/destruction ends this phase
V	1525–1450	LB IA	Well-preserved, casemate system, commercial activities (bakery), pottery production, rich find assemblages incl. Cypriote Base-ring I, Cypriote White Slip I from Phase IV/2 or V, imports from Lebanon, violent conflagration/destruction
VI	1450–1400	LB IB	Limited material preserved, partial repair, casemate system, new structures, Cypriote early White Slip II from Phase VI (or VII), no clear traces of destruction
VII	1400–1350	LB IB/C-IC	Well-preserved small temple with rich finds, Cypriote White Painted Wheel-made, White Slip II (bowls and tankard) and Base-ring I, conflagration/destruction
VIII	1350–?	LB IC-II	Scanty remains, much destroyed by Iron Age settlers, likely destruction
Lacuna		LB II	
IX	1100–1050	IA IB	Well-preserved, flourishing multicultural society, centralized planning, reuse and improvement of older defence installations, cell-plan structures with upper storey, Sea Peoples/Philistine-related finds, (direct/indirect) contacts with Cyprus, Phoenicia and the Aegean sphere, Egyptianizing pottery, major catastrophe/conflagration (assault)
X	1050?–930	IA IB/(IIA)	Moderately well-preserved, only regional cultural connections, certain repair of cell-plan structures, destruction
XI	930–850	IA IIA	Moderately well-preserved, only regional cultural connections, repair of older structures, destruction/conflagration
XII	850–800	IA IIA/B	Fairly well-preserved, new towers, contacts with Cyprus and Phoenicia, destruction/conflagration
XIII	800–770	IA IIB	Fairly well-preserved, new towers, non-standardized domestic structures, contacts with the Cyprus, Phoenicia and the Neo-Assyrian cultural sphere, destruction/conflagration
XIV	770–732	IA IIB	Well-preserved, prosperous society, new towers, fairly standardized interconnected domestic structures (4-room house type, more than one storey), metal workshop, contacts with the Cypriote, Phoenician, and Neo-Assyrian cultural sphere, destruction/conflagration – most likely by Assyrian invaders
XV	732–600	IA IIC	Little preserved (on today's surface), impoverished small settlement

Table 83 Summarizing comments and suggested dates for the Bronze and Iron Age occupation of Tell Abu al-Kharaz

¹²⁸ Pre-Iron Age periodization according to FISCHER 2006a, 362–374 and 2008, 340–385. First evidence of another phase, Phase IV/0, comes from the excavations in 2013.

APPENDIX 1 FIGURINES

Teresa Bürge

INTRODUCTION

Eleven human and animal clay figurines or fragments were discovered in the Iron Age strata from Tell Abu al-Kharaz. Two are from Area 2 NW, two from Area 3, four from Area 7 and three from Area 9. The material includes two anthropomorphic and nine zoomorphic figurines or rhyta.

This study mainly makes use of Iron Age material from the Southern Levant as *comparanda*, although in some cases it was also opportune to consider material from Phoenicia, Greece and the Aegean, Egypt and Mesopotamia. Previous comprehensive studies on clay figurines from Palestine, which amongst other aspects deal with classification and chronology, were done by PILZ (1924), PRITCHARD (1943), HOLLAND (1975, 1977, 1995)¹²⁹ and ^cAMR (1980; Transjordan). The fact that there is no complete up-to-date study on clay figurative art in the Southern Levant is only one reason for the difficulty of drawing conclusions on the meaning and function of the figurines. Other reasons are that a part of the material comes either from old excavations or the antiquities trade and the original context is uncertain. Only in a very few cases were figurines recovered in a primary context. The objects are often not complete or even reconstructable. Due to the relatively low number of attested figurines an exact typology is impossible.¹³⁰ For all these reasons, most known Iron Age figurines from the Southern Levant are at best roughly dated. Therefore, in this study the dating of cited parallels is only specified if the object is discussed at length.

Although all the figurines are illustrated and described in Chapter 2, a description, drawings and photographs will also be presented in this chapter in order to provide an overview of the complete evidence.

¹²⁹ HOLLAND's study from 1975 is his unpublished PhD-thesis, which unfortunately is not available. His 1977 study is a part of it featuring finds from Jerusalem, his 1995 study being almost identical to the 1977 one.

¹³⁰ This is also valid for clay figurines from the Bronze Age; cf. AL-AJLOUNY *et al.* 2011: 99 regarding the Early Bronze Age.

¹³¹ The term *tambourine* is most frequently used when these figurines are described (see e.g. HILLERS 1970; CHAMBON 1984: 73; VAN DER KOOL and IBRAHIM 1989: 104; BECK 1995: 162–168; BECK 1999). However, a *tambourine* denotes a drum with cymbals around the rim, while none of the pre-

1. ANTHROPOMORPHIC FIGURINES AND VESSELS

Figurine of a woman holding a hand-drum (N874)

Description

The figurine depicts the upper part of the body of a slender woman standing upright (Figs. 248:6, 458:5 and 462:1). It is hand-made, hard-fired, and of light red fabric with a thick grey core. The clay is coarse and has multicoloured inclusions. The figurine is finished with a light red slip; traces of glaze are visible on the back of her left shoulder. Head and legs are not preserved. The breasts were separately made and attached to the chest and are well accentuated. The fingers are indicated. The woman is holding a disc-shaped object in both hands against the left side of her chest, just under her breast.

Context

The object was found in Area 9, Trench XXIV, L1 (Fig. 247; published in FISCHER 1996a: 103, fig. 2:1; *idem* 2001: 314, fig. 11). From the stratigraphy and associations with other finds it can be dated to Phase XIII, viz. to the beginning of the 8th century BCE (see Table 83).

Parallels

On the strength of several other figurines of women holding round or disc-shaped objects, which are richer in detail and therefore easier to interpret, the round object held by the figurine can be identified as a drum (see though interpretations as a *tambourine*).¹³¹ The woman's left hand supports the bottom of the instrument,¹³² while her right hand rests upon it. The drum

served figurines show any renderings of such cymbals (MEYERS 1991: 18). This feature, viz. the *tambourine* itself, can only be traced from the 13th century CE on (SENDREY 1969: 373). Furthermore, a *tambourine* is usually played by shaking the instrument or hitting it with the knuckles – neither gesture appeared to be rendered in any of the known examples. In order to avoid anachronisms the term (frame) drum or hand (frame) drum will be used below for this instrument, as already suggested by MEYERS (1987: 120; 1991: 18, 21), BURGH (2004: 128) and PAZ (2007: 11).

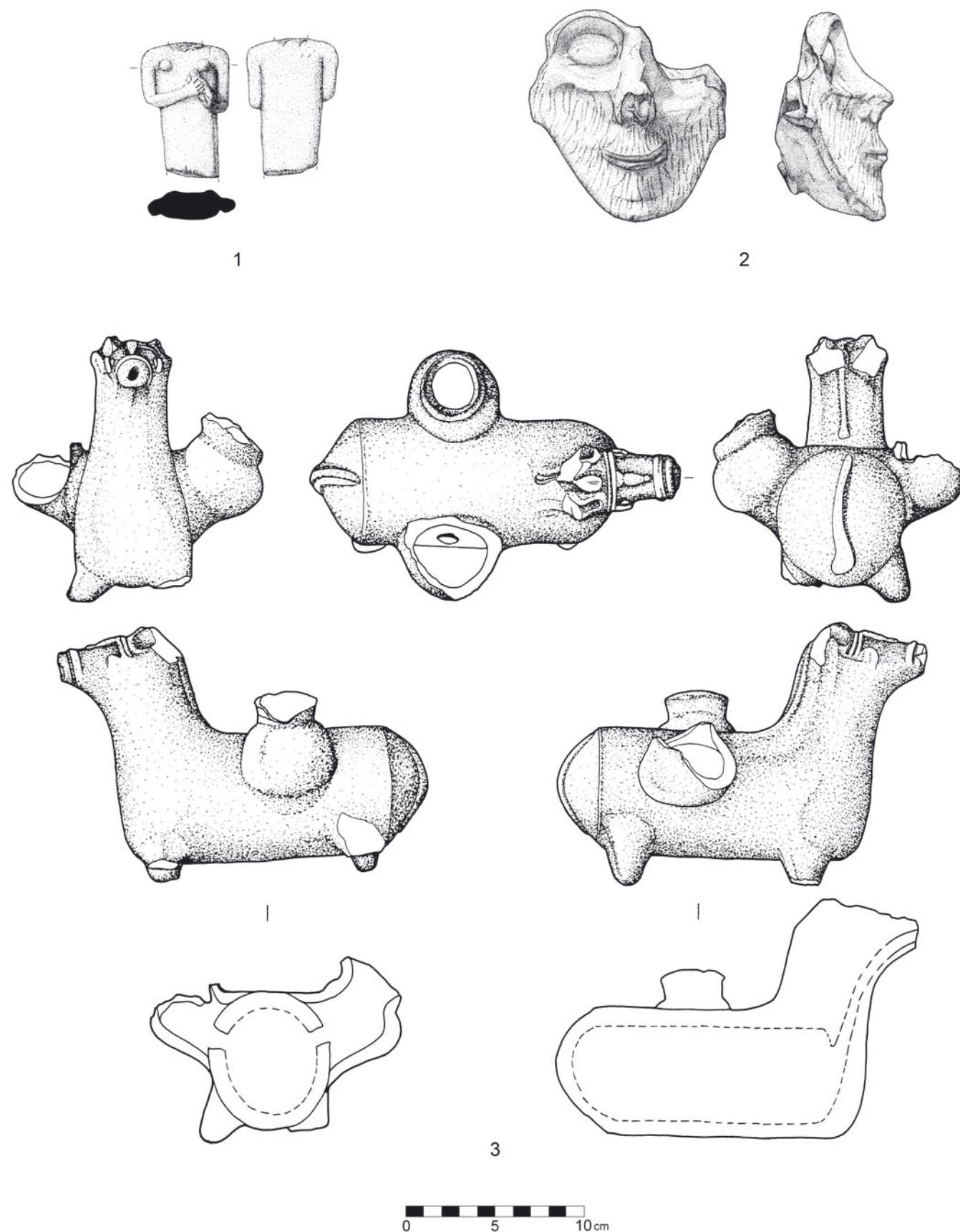


Fig. 462 1. Figurine of female with drum (N874); 2. Head of male (N504); 3. Rhyton (N1085)

is held perpendicular to the body and shown from the side.

A wide variety of drums are known from Mesopotamian and Egyptian art and literature from the fourth millennium BCE onwards (RASHID 1984: 68–77; TEETER 1993: 69). The earliest examples for female figurines with drums are attested in Mesopotamia from the late third or early second millennium onwards (OPIFICIUS 1961: 207–208; BARRELET 1968: 75), whereas in Palestine such figurines became most popular during the Iron Age (“Women holding Disc” in PRITCHARD 1943: 19–21, 54–55). Clay figurines of predominantly female hand-drum players are known from many sites in the Southern Levant, especially from northern Palestine and the coastal region but also from Transjordan (see catalogues in *‘AMR* 1980: 51, 59–64; PAZ 2007: 13–49; SUGIMOTO 2008: 115–132). The best known example of a drummer figurine performing amongst other musicians is represented in the ‘Musician’s Stand’ from Ashdod (DO THAN 1970; MAZAR and BEN-SHLOMO 2005: 31–42; BEN-SHLOMO 2005: 180–184, figs. 3.76–78). As regards Transjordan, a shrine found near Kerak ornamented by two female drummers should be mentioned (Amman Museum: J. 5751; *‘AMR* 1980: 95, 131–136, fig. 104a, b, pl. 18).

Apart from these two extraordinary examples of drummer figurines, there are two types of fairly uniform representations, which together form the majority of drummer figurines. One group are mould-made, the women often wearing headdresses or hats and jewellery (see examples in PAZ 2007: 36–38).¹³² Such plaque figurines are known from Beth-Shean (JAMES and McGOVERN 1966: 339, fig. 112:5), Tel Rehov (discussed and illustrated in PAZ 2007: 21–25, 37, figs. 2.2.1, 2, 4–6), Tell Deir *‘Alla* (VAN DER KOOIJ and IBRAHIM 1989: 105, fig. 128), Tell el-Far‘ah North (CHAMBON 1984: pl. 63:1, 2), Hazor (YADIN *et al.* 1960: pl. LXXVI:12, 13; TADMOR 2012: fig. 7.1:1), Megiddo (HARRISON 2004: pl. 25:6 = LOUD 1948: pl. 243:20), Tell Jatt (HOROWITZ 2001), Tell Ta‘annek (the mould for a figurine!; LAPP 1964: 39–41; HILLERS 1970), Khirbet

al-Mudayna (DAVIAU 2006: 27, fig. 5:C) and Tel *‘Ira* (BECK 1999, 2002b with further parallels,¹³⁴ which might also be a man as suggested by BURGH 2004).

The other group consists of wheel-made and hand-finished figurines with a hollow conical body ('pillar figurines'; see SUGIMOTO 2008: *passim*). They wear a simple dress, viz. a kind of trumpet-shaped skirt, and no jewellery (see examples in PAZ 2007: 44; further description and interpretation of this type in MEYERS 1991: 19). Figurines of this type were found in Akhziv (DAYAGI-MENDELS 2002: 145–147), Shiqmona (ELGAVISH 1993), Hazor (the fragments of a drum; TADMOR 2012: fig. 7.2:2), Tell Gemmeh (PETRIE 1928: pl. XXXV:14), Wadi ath-Thamad (DAVIAU 2001b: 321, fig. 4), Sarepta (PRITCHARD 1988: fig. 11:28a,b (sitting on a chair), 29, 30) and Tyre (BIKAI 1978: pl. LXXXI:2).¹³⁵ There are additional examples from Cyprus, e.g. from Amathus (KARAGEORGHIS 1987: pls. II–VII), Kition-Kathari (SMITH 2009: 145, fig. IV.20.) and Kamelarga (KARAGEORGHIS 1999: 146–150). A figurine of unknown provenance now in the Semitic Museum at Harvard University (discussed by MEYERS 1987) also belongs to this group.

The drummer from Tell Abu al-Kharaz is hand-made and more stylized than the two types described above. It is naked (?) and has no ornament and therefore belongs to neither of the types mentioned. PAZ (2007: 45–49 with examples) established a third group, the “hybrid figurines (type C)”, which also covers our type.¹³⁶ Such ‘hybrid’ figurines were e.g. found in Amman (*‘AMR* 1980: 86–87, fig. 82, pl. 15:2; also PAZ 2007: 47–48; C.14), Irbid (SUGIMOTO 2008: 146, T1), Tell er-Rumeith (*‘AMR* 1980: 52, 59–60, figs. 12, 28, 29, pls. 3:4; 4:4), Tell el-Mazar (*‘AMR* 1980: 60, fig. 30, pl. 5:1), el-Meshhed, next to Mount Nebo (GLUECK 1934: 24, 26–27, fig. 8; also discussed in *‘AMR* 1980: 60–61, figs. 31a, b, pls. 5:2a, 6), Khirbet al-Mudayna (DAVIAU 2006: 27, fig. 5:B) and Samaria (BRAUN 1999: 252, fig. IV/1–7; also PAZ 2007: 46). All these objects differ considerably from each other as regards their size, style, execution and finish. The figurine from Tell Abu

¹³² The drums depicted in the figurines discussed are small round hand drums made by stretching one or two parallel membranes of hide or skin over a wooden frame (SENDREY 1969: 262). They are played by striking with the palm or fingers.

¹³³ These figurines often appear to press the discs horizontally to their body. Therefore, the identification of the disc as a drum was challenged by MEYERS (1987: 119; 1991: 19) and DEVER (2005: 179) who argued that this is an unrealistic position for playing a drum. LAPP therefore identified this object as a loaf (1964: 40; rejected in *idem* 1967: 36), AMIRAN (1967) as a sun disk, PETRIE (1928: 17) and DEVER (2005:

179) as a cake. However, depicting the drum perpendicular to the body is difficult for the manufacturing of mould-made figurines (KLETTER 1996: 36; KEEL and UEHLINGER 2010: 188). See also discussion in BRAUN 1999: 108–109 and TADMOR 2006.

¹³⁴ BURGH (2004) suggested that this figurine represents a cross-dressing man or eunuch rather than a woman.

¹³⁵ Fragments of drums were found in Horvat Qitmit (BECK 1995: 162–168) and Yoqne‘am (TADMOR 2005: 354–356).

¹³⁶ SUGIMOTO (2008: *passim*) refers also to this type as ‘pillar figurines’.

al-Kharaz is stylistically related to female torsos in various stances (holding a baby, clutching the breasts) which were found in Beth-Shean (e.g. JAMES and McGOVERN 1966: 329, fig. 107:7, 337, fig. 111:2; MAZAR 2009b: 532, fig. 9.1) or Tell er-Rumeith (‘AMR 1980: 53, fig. 15, pl. 4:2) and are hand-made, naked with accentuated breasts and without any ornament. One figurine represented in this class, also originating from Beth-Shean (JAMES and McGOVERN 1966: 337, fig. 111:1, from Lower Stratum V, dated to the 10th century), holds a drum and appears to be almost identical with our object. It was found in a similar state of preservation to that of the figurine from Tell Abu al-Kharaz: Head and lower part of the body are missing. Due to the fragmentary state of preservation of the discussed parallels, it is impossible to get a picture of how this type of figurines originally appeared.

Despite the above-stated differences between the three groups, all the figurines mentioned have their body postures in common – especially the position of their arms with the left hand supporting the drum from below and the right hand striking it is uniform.

Discussion and interpretation

Although, as mentioned above, in some cases the identification of the round object and the sex of the drummer is controversial (see also discussion with further references in ‘AMR 1980: 110–113), female-drummer figurines from Palestine clearly outnumber depictions of male drummers. This observation is supported by references to female musicians playing the hand frame-drum in the Old Testament,¹³⁷ where they were mentioned in connection with the victory celebrations of the Israelite warriors (Exodus 15:20; I Sam 18:6) or in other cultic ceremonies (Judges 11:34; Psalms 68:26).¹³⁸ According to both the archaeological and the written record a tradition of women playing the drum existed at least from the Iron Age II onwards, the period to which most of the known figurines could be assigned (PRITCHARD 1943: 54; MEYERS 1987: 120; DAYAGI-MENDELS 2002: 146; ZIFFER 2010: 81). A strong association of frame-drums and women still persists today in many regions of the Middle East (DOUBLEDAY 1999: 101). This evidence resulted in several studies on such drummer-figurines from such aspects as musical performance (BRAUN 1999), gender

(DOUBLEDAY 1999; BURGH 2004; PAZ 2007) or the identification of the figurine (HILLERS 1970; ‘AMR 1980: 118–128; MEYERS 1991, 1993; BECK 1999, 2002 a, b; SUGIMOTO 2008; KLETTER and SAARELAINEN 2011). It is proved by the record in the Old Testament and by archaeological finds – for example the ‘Musician’s Stand’ from Ashdod and other depictions – that the drum was an essential component of musical ensembles.

Nevertheless, the identification of the depicted musicians and the function of the figurines in general have to be examined in their archaeological context, which ranges from private or public buildings and structures (e.g. Tel ‘Ira or Tell el-Far‘ah North), tombs (e.g. Akhziv or Amathus) to shrines (e.g. Ta‘annek or Horvat Qitmit) or temples (e.g. Beth-Shean; see references above).¹³⁹ The context of the drummer figurine from Tell Abu al-Kharaz is difficult to interpret (see description above). As already insisted by FOWLER (1985: 343) a figurine itself does not prove that its findspot belongs to a cultic structure if there are no other indications to suggest such a function, nor can it give any hint concerning its context.

Regardless of their context, the elaborate plaque figurines, especially, and also other types of drummer figurines were often connected with some kind of cult (HOROWITZ 2001: 319), more specifically the cult of Astarte (SUGIMOTO 2008: 67–87), or a fertility rite (‘AMR 1980: 119; PAZ 2007: 118). Others suggested an identification of the figurine with a cultic participant (KEEL and UEHLINGER 2010: 188) or with goddesses (HILLERS 1970: 612–616 with Ashera or Anath; ‘AMR 1980: 118–128 with Ishtar; recently KLETTER and SAARELAINEN 2011: 25). Figurines from burials may have had the function of entertaining the gods and/or the deceased with music (KARAGEORGHIS 1987: 1; DAYAGI-MENDELS 2002: 145). An alternative interpretation is the function as a toy (FOWLER 1985: 342 with discussion and further references). This may be valid for other types of figurines but it is not convincing in the case of the drummer figurines and cannot be proved. In short, conclusions on the identity and function of our figurine based on parallels is not possible.

The same uncertainty concerns an exact dating of the figurines: As no detailed typology is available, the figurines can only be dated if their stratigraphical

¹³⁷ Identified with the Hebrew *top* (MEYERS 1991: 21; BRAUN 1999: 50–51 with etymology and discussion; PAZ 2007:11).

¹³⁸ Although the exact dating of the composition of these passages is controversial, many of them can be ascribed to the Iron Age II. See discussion in PAZ 2007: 83–85.

¹³⁹ The majority, however, do not originate from clear archaeological contexts. As stated above a number of figurines were acquired through the antiquities trade, making it impossible to trace their archaeological context, let alone their place of origin and date.

context is unambiguous. Even in this case, it is plausible that an object like a figurine could be kept as an heirloom for more than one generation and could therefore clearly predate its context. The figurine from Tell Abu al-Kharaz can – from its context and stratigraphy – be dated around 800 (see above). Although there are some examples dating from as early as the 11th century (e.g. Tell 'Ira and Tell Gemeh; see references above), most of the drummer figurines are – as stated above – predominantly attributed to the Iron Age II. Their appearance lasted at least until the sixth century, which is attested by a figurine from Carthage (CULICAN 1975: 84, 78, fig. 31). The drummer from Tell Abu al-Kharaz thus fits well into the evidence of the majority of the Levantine drummer figurines.

The distribution of the sites where mould-made drummer figurines and, in particular, figurines with trumpet-shaped skirts were found suggests that either this depiction originates from a Phoenician tradition or that there is at least a strong Phoenician influence (TADMOR 1982: 172; KLETTER 1996: 35–36). This fact is supported by the finds from Cyprus and from Punic sites. Most of the figurines of PAZ's "Hybrid type" come – like our figurine – from sites in Jordan (Tell Deir 'Alla, Tell er-Rumeith, el-Meshhed or Tell el-Mazar) or close to the Jordan River (Beth-Shean). This suggests that a special tradition of manufacturing was prevalent in Transjordan, which may have been inspired either by Phoenician/coastal (TADMOR 1982: 172) or by Mesopotamian conceptions (as pointed out by AMR 1980: 124–126) or by both (see discussion in WINTER 1983: 121–127).

Head of a young male with beard (N504)

Description

The object depicts the head of a young bearded male (Figs. 117, 453:4, 462:2). It is hand-made, hard-fired, of light brown medium-coarse fabric with multicoloured inclusions. It is finished with a self slip; red paint on the upper part of the face is visible. The lower part of the face is covered with long incisions (made before firing), which indicate a beard. The left eye is not preserved. The right eye is modelled as an oval knob. The tip of the nose is broken, the slender lips are bent to a smile. Although the face is considerably smaller than life-sized it is naturalistically rendered: The traits are accurately modelled and the object itself is of high quality.

The fracture at the back of the head suggests that it was a part of an anthropomorphic vessel or attached to a vessel. Since no other parts of the presumptive vessel were found no conclusions about the original vessel type can be drawn.

Context

The object comes from Area 3 (FISCHER 1994a: 130, 133, 136, fig. 6:1; *idem* 2000b: 461, 470, fig. 3:6; *idem* 2001: 314, fig. 8; *idem* 2008b: 209, 212), Trench XID (Fig. 111). It was recovered in an open space between two buildings which may have served as a courtyard (see description in Chapter 2). The whole structure and its finds – the mask included – were attributed to Phase XII, which is dated to the second half of the 9th century (see Table 83).

Parallels and discussion

Iron Age anthropomorphic vessels which may be compared to the object from Tell Abu al-Kharaz are known from Beth-Shean (ROWE 1940: pl. XLVIA:3–4; JAMES and McGOVERN 1993: figs. 78:2, 79:1; MAZAR 2009b: 539 fig. 9.5.), Tell Qasile (MAZAR 1980: 78–82), Jerusalem (GILBERT-PERETZ 1996: 83, 120, fig. 18:6–7, pl. 10:9), Ashdod (BEN-SHLOMO 2005: 199, fig. 3.87.), Gezer (MACALISTER 1912: 414, fig. 499), Beth Shemesh (GRANT 1931: pl. XXVII – second row, third from the left), Tell Beit Mirsim (ALBRIGHT 1943: 26–27, pl. 32:17), Tel Batash-Timnah (MAZAR and PANITZ-COHEN 2001: 209, Photo 139) and Horvat Qitmit (BECK 1995: 43–54). In total about 20 to 30 such vessels from the Late Bronze¹⁴⁰ and Iron Ages are known from the Southern Levant (MAZAR 2009b: 539; see also discussion in MAZAR 1980: 80) but only a fraction of them are well enough preserved to allow a reconstruction of the whole vessel. Their bad state of preservation makes comparisons extremely difficult. Another aspect is that these vessels differ considerably from each other, thus making any classification intricate. On many of the vessels the faces are depicted in a very stylized way which does not at all resemble the object from Tell Abu al-Kharaz.

Regarding stylistic criteria, another type of human representation in clay can be compared to our object, viz. human masks. Such masks do not belong to a vessel, are often smaller than life-sized and are painted red and/or black (MAZAR 1980: 84; BROWN 1992: 18).

Masks are known from the Phoenician sphere of culture (CULICAN 1975; STERN 1976) but were also found in neighbouring areas. Iron Age finds from the

¹⁴⁰ See examples in BEN-SHLOMO 2005: 199.

southern Levant include masks from Beth-Shean (JAMES and McGOVERN 1993: fig. 79:2), Tel Qasile (MAZAR 1980: 84–85, fig. 21), Tel Dor (STERN 2011), Ashdod (BEN-SHLOMO 2005: 199–200, fig. 3.87.), Akhziv (CULICAN 1975: 56, figs. 10, 12; DAYAGI-MENDELS 2002: 156–159), Sarepta (ANDERSON 1988: 564–565, pls. 29:7–8, 30:22, 38:10; PRITCHARD 1988: fig. 16), Hazor (YADIN *et al.* 1960: 115, pl. CLXXXIII) and Tyre (BIKAI 1978: pl. 24:7; first half of the 9th century). Further evidence of Iron Age clay masks is attested in Cypriote sites, e.g. in Kition (KARAGEORGHIS 1976: pl. XVI), Kition-Kathari (SMITH 2009: 122, fig. IV.1., 123, fig. IV.2, 124, fig. IV.3.), Enkomi (LAGARCE and LAGARCE 1973; COURTOIS 1982) and Amathus (CULICAN 1975: 66, fig. 19) in addition to two more masks of unknown provenance (CAUBET and COURTOIS 1975). Finds from Punic sites are represented by several masks from Carthage (PICARD 1967; see further examples in CINTAS 1946: 32–64). A tradition of creating masks is also apparent in Greece and the Aegean from the 7th century on (PICARD 1967: 49–55).

The most striking parallel was found in Kition-Kathari, Cyprus (Floor I, Bothros 20; see SMITH 2009: 123, fig. IV.2.). Only the chin, a part of the mouth and the left cheek of the bearded man are preserved. The mask appears to be manufactured in the same way: The beard is indicated by long incisions and painted (black). The smiling lips and the eminent chin are almost identical with our object. Since the context of the mask from Kition-Kathari is dated to 1000–850 (SMITH 2009: xviii, Table 4) it is possible that the two objects were produced during the same period. Another close parallel to the item from Tell Abu al-Kharaz is the mask of a bearded man from Akhziv (CULICAN 1975: 56, fig. 10; DAYAGI-MENDELS 2002: 158, fig. 7.22.); in comparison with the object from Tell Abu al-Kharaz the high cheekbones are equally eminent. In contrast the beard is painted and does not cover as much of the face. It also shows a faint smile but the lips are not curved as much. A third parallel comes from Sarepta (PRITCHARD 1988: figs. 16:8a, b; see also MARKOE 1990: 15, fig. 4) and an almost identical object dating to the 12th century is from Enkomi (COURTOIS *et al.* 1986: pl. 29:9): On these two masks the beard is characterized by circular incisions. Unfortunately on both items only the lower part of the face is preserved.

A connection with a third class of human depictions, namely with Cypro Archaic and Archaic Greek coroplastic art, was already made by FISCHER in the preliminary report (1994a: 130) due to the faint “Archaic” smile of the man. The affinity to Archaic

kouroi (and also to *korai*) concerning traits and physiognomy – especially compared to sculptures dating from the second half of the 6th century (e.g. KARAGEORGHIS 1993: pl. XIV:2, 4; BOARDMAN 1978: figs. 121, 166) – is striking. A direct link is not possible, however, as the bearded man from Tell Abu al-Kharaz belongs to a clearly older phase. Although from the 7th century onwards Levantine masks began to copy Greek attributes (BROWN 1992: 18), which becomes even more evident from the 6th and 5th century on (CULICAN 1975: 51), it is not clear how the idea and the type of masks were transmitted (see general discussion in VANDENABEELE 1986). Since Greece and the Levant were already connected by trade in earlier centuries, a mutual influence is already conceivable in the 9th century. It is however not excluded that the object was imported from Cyprus (cf. the parallel from Kition-Kathari, see above) or the Phoenician sphere of culture.

Possible function and interpretation of the mask

Both anthropomorphic vessels and masks had a connection with cultic performance. Life-sized masks could be worn by worshippers or priests during a ritual (MAZAR 1980: 84; DAYAGI-MENDELS 2002: 159–160), smaller masks hung on statues (BROWN 1992: 20) or used as votive objects in connection with burial customs (YADIN 1970: 221, 223). An apotropaic character of the masks was suggested by MAZAR (1980: 85), PRITCHARD (1988: 70–71), BROWN (1992: 20) and STERN (2011: 328). However, the exact function of anthropomorphic vessels remains unclear. Studies are further complicated by the fact that the known anthropomorphic vessels occur very sporadically within one region and one period (MAZAR 1980: 81).

As regards the object from Tell Abu al-Kharaz, the evidence is too scanty to draw any conclusion about its function – even more since our find is part of a larger object.

2. ZOOMORPHIC VESSELS AND ANIMAL FIGURINES

A rhyton of a pack horse or donkey (N1085)

Description

The rhyton depicts a horse or donkey with a bridle and two attached vessels or sacks (?), which are connected through the hollow trunk with the animal's muzzle (Figs. 223:1, 224, 453:2A, B, 462:3). It is medium-hard-fired, of medium-coarsely levigated clay with mainly black inclusions, and has a brown fabric with a brownish-grey core. It is covered by a light brown slip. Traces of red paint are visible. The body of the animal is wheel-made and has a volume of

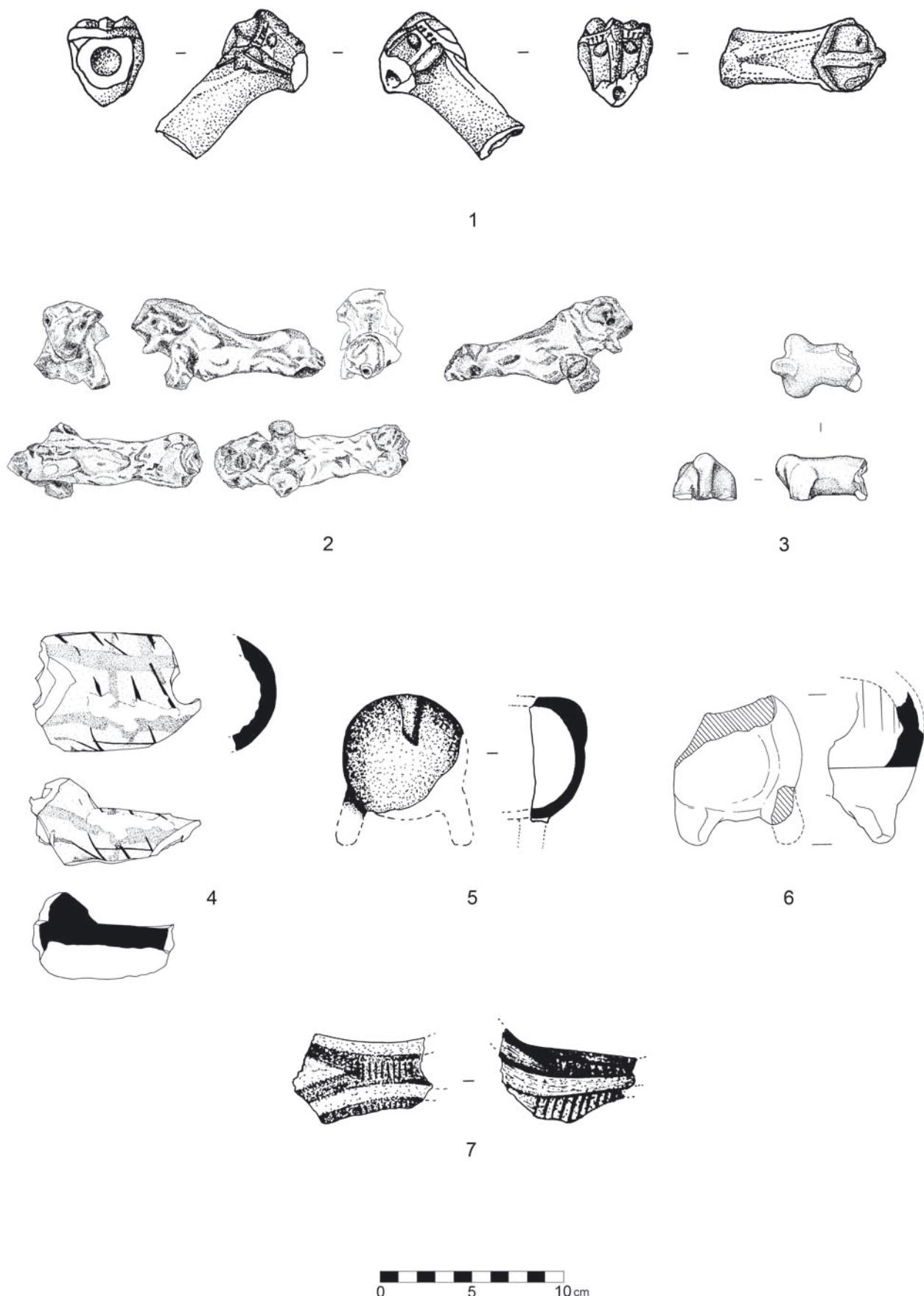


Fig. 463 1. Zoomorphic rhyton (N1093); 2. Figurine of felid (N1424); 3. Zoomorphic figurine L454-2; 4. Zoomorphic rhyton (N1052);
5. Zoomorphic rhyton (L472-2); 6. Zoomorphic rhyton (L7-2); 7. Zoomorphic rhyton (L471-1)

approximately 0.3 l. Legs, tail, vessels, mane, ears, eyes and bridle are applied. The bridle is only visible on the animal's forehead and muzzle and consists of a decorated browband, a noseband, a frontlet/noseguard and blinkers. Other parts of a harness are not depicted.

Context

The object was discovered in Area 7, Trench XXXIX B (FISCHER 1998a: 221, fig. 10; *idem* 1998b: 587, fig. 15; *idem* 2000b: 461, 470, fig. 3:7; *idem* 2001: 314, fig. 9; *idem* 2008b: 209–210, 212). According to the stratigraphy it is associated with Phase XIV, which was destroyed in 732 BCE (see Table 83). It was found outside the large compound of Area 7 (see Fig. 182), just south of House 2. This house consists of four rooms with a courtyard in the middle (see description in Chapter 2). An annex is built against the southern wall of the house. The finds inside the house include two *tawabeen*, jugs, juglets, cooking pots and storage jars. In the annex a bronze dagger with a bone or ivory handle (N1084) and outside the house a lamp (N1081) were found close to the rhyton.

Background and parallels

A tradition of manufacturing pack animals in Palestine – most often bovines, donkeys, mules and later also horses and camels – can be traced from the Chalcolithic period onwards (EPSTEIN 1985). This tradition persisted through the Early Bronze Age (STAUBLI 2001: 102, note 28 with a list; AL-AJLOUNY *et al.* 2011; AL-AJLOUNY *et al.* 2012), was apparently absent in the Late Bronze Age and became stronger again during the Iron Age. Such vessels dating from the Iron Age were found in Jericho (HOLLAND 1982: 556, fig. 225:7, unstratified), Tel Miqne-Ekron (BEN-SHLOMO 2008: 37, fig. 9:2), Tell Beit Mirsim (BEN-ARIEH 2004: 88, fig. 2.56, bovine or equine), Beth Shemesh (GRANT 1929: 167), Megiddo (LOUD 1948: pls. 247:8, 248: 9 = HARRISON 2004: pl. 22:12; both referred to as bovines by the excavator) and Lachish (TUFNELL 1953: pls. 30:23, 29, 30; animal not defined). A bridled camel from the Collection Mildenberg is also carrying two vessels (ZAHLHAAS 1996: 150, no 121; also KEEL and STAUBLI 2001: 4; Kat. 21). Pack animals also appear in Cyprus and the Aegean, especially in the Geometric Period (GUGGISBERG 1996: pls. 34:1, 2, 42:3), furthermore, three donkeys with panniers were found in Medinet Habu (dating to the 21–25 Dynasties; TEETER 2010: 122–123).

The stylized barrel-shaped body and the short legs of the rhyton from Tell Abu al-Kharaz are very similar to the bovine or equine vessels from Megiddo, Tell

Beit Mirsim, Lachish and Tel Miqne-Ekron; (BEN-SHLOMO 2008: 31, fig. 5:1, 32, fig. 6) or from other Iron Age sites in the southern Levant (see references in BEN-SHLOMO 2008: 32), from Tyre (BIKAI 1978: pls. VI:1, LXXXIII:6) and from Cyprus (from the sixth century BCE on; KARAGEORGHIS 1996: pl. XVIII: 4–7). This shows that the bodies of equine and bovine rhyta were not differentiated. Therefore an identification of the animals is often problematic, especially if the head is formed in a standardized way or if it is not preserved. However, the vessel from Tell Abu al-Kharaz can without any doubt be identified with an equine in specific due to its mane. Its closest parallel – also a horse (marked by its mane) with two containers – comes from Tel Miqne-Ekron (BEN-SHLOMO 2008: 37, fig. 9:2) and is dated to the Iron Age I (Stratum VA; see BEN-SHLOMO 2008: 36). It is somewhat smaller, having a capacity of 0.17 litres, and it is not bridled. Another vessel comes from Tel Beit Mirsim and was identified by the excavator as bull or donkey (BEN-ARIEH 2004: 23, 88, fig. 2.56); it has no bridles.

Functions and discussion

The domestication of the donkey in the Chalcolithic and the introduction of the domesticated horse in the third millennium BCE in the Ancient Near East (OWEN 1991; OATES 2003; HYLAND 2003: 8–12; DREWS 2004: 6–9) had a strong impact on trade, transport and economy during the Bronze and the Iron Ages before but also after the appearance of the camel (see CORNELIUS 2007 and discussion below). In fact, rhyta and figurines from equines outnumber – together with bovines (see also the objects from Tell Abu al-Kharaz below) – figurines of other animals, such as caprids, felids or birds. During the Iron Age II depictions of camels become more and more frequent (STAUBLI 2001: 102; see also discussion below). Equines were important means of transport and also used as mounts. The impact of these animals on the economy during the Iron Age is reflected in the frequent depiction of equines and especially of pack horses or donkeys (KEEL and STAUBLI 2001: 37; BEN-SHLOMO 2008: 36). Therefore, according to BEN-SHLOMO (2008: 36), laden animals should not necessarily be considered as related to a divinity or to a cult. Since they were also found in burial contexts, KEEL and STAUBLI (2001: 37) point out that they may have symbolized wealth, prosperity and blessing beyond death.

The exact function of rhyta is enigmatic: Rhyta are frequently referred to as libation vessels and connected to cultic activities (BEN-SHLOMO 2010: 40–41; NOVACEK 2011: 78), as their capacity is usually limited

to not more than half a litre. The two attached vessels on the horse's back may also have served to pour two liquids and blend them inside the animal's body.

Horse figurines (?) are also mentioned in the Old Testament (2 Kings 23:11), in connection with King Josiah's cleansing of Jerusalem's temple of these zoomorphic figurines.¹⁴¹ Suggested secular functions include feeding bottles (NOVACEK 2011: 78), children's toys (KENYON 1956: 186) and teaching tools (MCADAM 1997: 139). All these functions are problematic, as they are contradictory to the enormous technical craftsmanship of the vessels (see conclusions below).

The context of the pack horse from Tell Abu al-Kharaz hints at a connection between the figurine and either a private cult or some other private use. As described above, the finds next to the figurine include a bronze dagger with a bone or ivory handle (N1084) and a lamp (N1081). This suggests that cultic ceremonies may have been performed either in the annex or outside the house. The dating of N1085 to the 8th century corresponds to the Greek Geometric Period and fits in general well with the dating of most of the pack animals from the Southern Levant.

A camel rhyton (N1093)

Description

Only the head and the neck of the animal are preserved (Figs. 179:11, 453:1, 463:1). The neck is hollow and wheel-made, the head hand-made. The figurine is hard-fired and has a medium-fine, light brown fabric with a grey core. It is finished with a red slip and decorated with white paint: two stripes down the neck and one broad band around it. Ears, eyes and an accurately decorated bridle are applied. The depicted and preserved parts of the bridle include headpiece, cheek straps, browband and frontlet/noseguard and most likely bridle reins. The browband is decorated with vertical incisions. Although the front part of the muzzle is broken it is evident that the head of the spout served as a spout of a zoomorphic vessel.

Context

The object comes from Area 7 (FISCHER 2001: 314, fig. 10; *idem* 2008b: 210, 212) and belongs to the context of Phase XIII, which is dated to the beginning of the

8th century (see Table 83). It was found next to a cistern in Trench XLD (see Fig. 158) in an open space, some metres south of a large compound (see description in Chapter 2).

Identification, parallels and discussion

The figurine depicts an equine or – since its neck is long and narrow in comparison to most equine vessels (cf. also N1085 above) and no mane is depicted – more likely a camel.¹⁴²

The camel, or more precisely the one-humped dromedary, was domesticated in the Arabian Peninsula. Sometime during the end of the Bronze Age it was introduced in the Levant (ARTZY 1994: 133; GRIGSON 1995: 259; *idem* 2012) and became gradually more important – especially during the Iron Age II – with the emerging frankincense trade (KEEL and STAUBLI 2001: 44). Amongst the earliest evidence of the camel in close proximity to Tell Abu al-Kharaz is the depiction of a camel caravan on a sherd from Tell Deir 'Alla dated to the Late Bronze Age (IBRAHIM and VAN DER KOOLJ 1983: 581, pl. CXXVII, 2; KNAUF 1987a, b).

The identification of the camel amongst figurines or rhyta appears to be problematic, especially if only the head is preserved: The camel is mentioned extremely rarely amongst the published animal figurines (e.g. in Busayra: SEDMAN 2002: 384–385, pl. 10.78; or Jerusalem: GILBERT-PERETZ 1996: 116, fig. 14:12), whereas equines occur frequently. The head of the aforementioned bridled camel from the Collection Mildenberg (ZAHLHAAS 1996: 150, no 121; also KEEL and STAUBLI 2001: 4; Kat. 21) has the same iconography and the same way of bridling as several “horses” heads, which challenges the “traditional” classification of many of the “horses” heads. It is self-evident that an object from the antiquities trade with uncertain provenance cannot be used as the basis for a definite identification. The discrepancy between the growing impact of the camel and the absence of camel figurines needs again to be challenged. It must be assumed that at least some of the “horses” heads have in fact to be identified as camels.¹⁴³ Such objects include figurines from Beth-Shean (JAMES and McGOVERN 1966: 329, figs. 107:3, 6), Tell Deir 'Alla (VAN DER KOOLJ and IBRAHIM 1989: 103, figs. 131, 154), Tell es-Sa'idiyeh (PRITCHARD 1985: fig. 169:4?), Tell el-Far'ah

¹⁴¹ These figurines are not further described, and it remains doubtful whether they imply also pack horses.

¹⁴² As will be explained below, figurines of camels and equines are difficult to distinguish if only the head is preserved. Therefore, the vast majority of them are usually identified

as horses, which does not mean that camels are rarely depicted.

¹⁴³ This problem was also referred to by SEDMAN (2002: 381). Some heads are, however, clearly identifiable as equines due to the typical shape or the depiction of a mane or long ears.

(CHAMBON 1984: pl. 65:2, 4), Hazor (YADIN *et al.* 1960: pl. LXXVI:17; YADIN *et al.* 1961: pl. CCXVI: 16), Megiddo (LOUD 1948: pl. 246: 27, 29), Jerusalem (GILBERT-PERETZ 1996: 118, figs. 16:1, 2, 7, 8), Tel Batash-Timnah (MAZAR and PANITZ-COHEN 2001: 210, Photo 141), Lachish (TUFNELL 1953: pl. 32:7), and Busayra (SEDMAN 2002: 382, pl. 10.69, 384, pls. 10.74, 76, 385 pl. 10.79; these objects were referred to as camels in ^cAMR 1980: 214–216, figs. 173–177). A solid torso of a saddled camel (with hump!) from the 8th or 7th century is known from Amman (^cAMR 1980: 216, fig. 178, pl. 50:1).

The most similar parallel to our N1093 is from Tell el-Far^aah (DE VAUX 1952: pl. XV:11; also CHAMBON 1984: pl. 65:1; from Stratum VIIb, dated roughly to the 10th century) and is, however, a solid figurine of a horse, which is clearly identifiable as such due to the characteristic shape of the head and its mane. The bridle includes the same elements, viz. browband and frontlet (the headpiece is either not preserved or not visible on the photograph). The browband is also decorated with incisions and bridle and eyes are applied – and not incised as on many other examples. It differs from the figurine from Tell Abu al-Kharaz in that the cheek straps are not depicted and the horse's head and neck appear to be rendered in a very “naturalistic” way. This figurine is according to the stratigraphy of earlier date than the other rhyton from Tell Abu al-Kharaz (N1085), viz. around 800 (see above).

It seems evident that the camel rhyton had a similar function to the pack horse (N1085) described above. Camels had a similarly great impact on the economy from the Iron Age II onwards for trade and transport. Another aspect, pointed out by TEETER (2010: 130), is that camels were valued as exotic and rare animals, at least in earlier periods of the Iron Age.

Figurine of a felid (N1424)

Description

The figurine is hand-made, medium-hard-fired and of a coarse, greyish-brown fabric with mainly black and white inclusions (Figs. 354, 458:6 and 463:2). It is covered by a light reddish-brown slip, and traces of red colour are visible on the head. The body is complete, the legs broken. Rudiments of the ears are visible as well as incised eyes. Its jaw is wide open. A hole on the

hindquarters might have served to attach a tail made of clay or hair (?). The shape of the body and the short muzzle indicate that the depicted animal is a felid, most likely a lion, to judge from the relatively large head. Although its legs are broken, the fractures hint at a reconstruction of the lion standing with all feet on the ground rather than being recumbent.

Context

The felid was found in Area 9, Trench LVIIB, just north of W668 (see Fig. 250), the outer wall of an early Iron Age compound from Phase IX (see Chapter 2). The context is not clear-cut: a Late Bronze Age “insula” was discovered north of W668, not far from the find spot of the figurine (see BÜRGE in press). However, the level where the object was recovered corresponds to the floor level of the compound from Phase IX. In particular, the hard-fired fabric of the figurine is reminiscent of Iron Age counterparts. Therefore, the object belongs with some certainty to Phase IX, which was destroyed in the first half of the 11th century BCE (see Table 83).

Parallels and discussion

The lion was an animal frequently encountered in Bronze and Iron Age Palestine, which is proved by finds of bones (e.g. in Tell es-Sa'idiyeh, see MARTIN 1988: 83) and its ubiquity in the figurative art of the ancient Near East, e.g. on seals and other artefacts. Representation of lions can also be found on head cups from Tel Qasile (MAZAR 1980: 101–103, fig. 34), Tel Miqne-Ekron (BEN-SHLOMO 2008: 35, fig. 8; *idem* 2010: 128, fig. 3.69), Khirbet ed-Dawwara (NA'AMAN 2012: 4, fig. 2), or Tell es-Safi-Gath (DOTHAN 1982: 230, pl. 15, 232, fig. 7; MAEIR 2006: figs. 3, 4), which are strongly associated with the Philistines (generally DOTHAN 1982: 229–234). Seven stands from Yavneh are supported by lion figurines (KLETTER *et al.* 2010: pls. 7:2, 9:2, 13:1, 20:1, 51–52, 69–70, 101–103:1, 114:2–115:2; BEN-SHLOMO 2010: 130–131) and a stand from Tell Ta'anek has applied lions (BECK 2002a: 403, fig. 8). Furthermore, a faience head of a lion was found in Megiddo (Stratum V; LOUD 1948: pl. 246:30).

However, solid clay figurines of lions appear rarely.¹⁴⁴ A large lion or lioness head of clay was found in Ashdod, Stratum VIII (8th century; DOTHAN and

¹⁴⁴ Felids are not even mentioned in HOLLAND's (1977, 1996) classification of animal figurines.

PORATH 1982: 32–33, fig. 18:2, pl. XVIII:1), and belongs to a large statue originating in an Iron Age IIA stratum. It is decorated with red paint on white slip emphasizing ears, mane and whiskers. It is more elaborate and detailed than the figurine from Tell Abu al-Kharaz. A torso of a lion with an incised mane was found in Tell es-Sa'idiyeh (‘AMR 1980: 231, fig. 185, pl. 51:1). Two lions' heads with applied details, one from Tell el-Mazar (‘AMR 1980: 231–232, fig. 186, pl. 51:2), the other one of uncertain provenance (Jordan University Museum, without number; discussed in ‘AMR 1980: 232–233, figs. 187a, b, pl. 51:3a, b, c) should be mentioned. Lions (or lionesses) are attached on the rim of two bowls from Tell Deir ‘Alla (‘AMR 1980: 263–264, figs. 199, 200a, b, c, pls. 56:1, 2, 3). However, their recumbent position and their closed jaw form a contrast to the figurine from Tell Abu al-Kharaz. Another example from Cisjordan is a solid hand-modelled figurine of a roaring lion, which was found at Beit Aula near Hebron and is dated to the 8th or 7th century (KEEL and UEHLINGER 2010: 215, 217, fig. 206a). Similar to the lion from Tell Abu al-Kharaz is the lion's wide opened jaw. It is standing with all four feet on the ground and raises its tail. The closest parallel to our object comes from Sarepta (ANDERSON 1988: pl. 38:7, from Substratum C1, dating from the transition between 8th and 7th century). On this hand-made figurine, too, the legs are broken, but they hint at the same body posture as that of the object from Tell Abu al-Kharaz. The head is formed in a similar way; the muzzle is well accentuated and due to its better state of preservation more detailed. Furthermore, two figurines from Medinet Habu, dated roughly between Dynasties 21–26 (1070–525) (TEETER 2010: 137–138) should be mentioned. Although being rather distant parallels, their relatively simple way of manufacturing resembles the figurine from Tell Abu al-Kharaz.

Lions generally have a wide variety of connotations, power and threat being amongst the most important aspects (see discussion in STRAWN 2005: 46–67). These aspects are further symbolized by the open jaw of the lion from Tell Abu al-Kharaz. The ferocity of the animal may lead to the conclusion that the lion also had a function as guardian (also ‘AMR 1980: 240–241). The suggestion that these figurines are connected with a deity (STRAWN 2005: 89–107; ‘AMR 1980: 237–243 compares them with Mesopotamian depictions of lions) – which may apply in other regions or on depictions of lions in other contexts – cannot be proved in the case of southern Levantine figurines from the Iron Age, as there is too little evidence. With reference to KEEL and UEHLINGER (2010: 215) they rather express the respect of humans for this animal.

A bull or horse figurine (L454-2)

Description

The solid clay figurine is hand-made, hard-fired, and has a fine, light pinkish-brown fabric with a thick grey core (Figs. 87:5, 463:3). It is finished with a self slip. Only the hind part of the torso with the two (broken) hind legs is preserved; the head is missing. A thick tail is visible on the hindquarters; it ends between the hind legs. The smooth and even finish of this figurine is striking.

Context

The object was recovered in Area 2 North-west, Trench XXXIVA (see Fig. 86). According to the stratigraphy, context and associated pottery it belongs to Phase XIV, which was destroyed in 732 BCE (see Table 83).

Identification and parallels

The strong build of the figurine suggests that this animal is a bull. In fact, a figurine very similar in shape from Khirbet ad-Dabba (WHITING *et al.* 2008: 274–275, fig. 11:11; head not preserved) was identified as a bull, but the animal's tail is more slender. Our figurine may also depict a horse due to its long and thick tail. It also corresponds to a similar object from Jerusalem which unambiguously shows a horse (HOLLAND 1977: 138, fig. 7:21). Another figurine, also depicting a horse, from Tell el-Mazar (‘AMR 1980: 147–148, fig. 123, pl. 31:1) has a similar body shape. Its tail applied between the hind legs greatly resembles the object from Tell Abu al-Kharaz. A definite identification of the animal is problematic.

3. VARIOUS ZOOMORPHIC FRAGMENTS

Fragment of an equine rhyton (N1052)

Description

The object is hand-made, medium-hard-fired, of a fine, light brown fabric with a light grey core. The surface has a light brown slip and is decorated with red and black paint. It shows a part of the back and the base of the neck with a mane of an equine (Figs. 79:11, 463:4).

Context

N1052 was discovered in Area 2 North-west, Trench XXXIVB. According to the stratigraphy it belongs to Phase XI/3 (see Fig. 78) dating to around 900 BCE (see Table 83).

Discussion

The bichrome ladder-shaped pattern on the back of the animal brings to mind considerably earlier Aegean-style decorated figurines, e.g. from the earliest Iron Age I levels at Tel Miqne-Ekron (BEN-SHLOMO and PRESS 2009: 59, figs. 16–18; BEN-SHLOMO 2010: 101, fig. 3.52). As on these examples the decoration appears not to follow any naturalistic features of the animal. In the case of the objects from Tel Miqne-Ekron this decoration is linked to Mycenaean decorative traditions (BEN-SHLOMO 2010: 101). However, these traditions can hardly apply to the object from Tell Abu al-Kharaz, which dates to around 900 BCE.

Two fragments of equine or bovine rhyta (L472-2 and L7-2)

Description

Both fragments show the hindquarters with broken hind legs of an equine or bovine.

The body of L472-2 is wheel-made and medium-hard-fired (Figs. 223:2, 463:5). The fabric is light red on the exterior, grey in the interior and coarse with multicoloured inclusions. It is covered with a light orangish-brown slip and red paint. The two hind legs and a short tail are applied.

L7-2 has a wheel-made body and hand-made legs (Figs. 248:5, 463: 6). It is hard-fired, of a light red fabric with a thick grey core. The fabric is coarse with mainly black inclusions. It is finished with a self slip and red paint.

Context

L472-2 was found in the large compound of Area 7, Phase XIV and thus belongs to the structure from which the pack horse (N1085) comes (see Fig. 182). It was recovered inside House 5 (in Trench XLIXA) which was destroyed 732 BCE (see Table 83).

L7-2 was discovered in Area 9, Trench XXIV (Fig. 247). Being associated with Phase XIII (first part of 8th century BCE; see Table 83) it belongs to the same layer as the drummer figurine (N874; see above).

Discussion

Both objects are of the same type as the equine rhyta (N1085) discussed above. They have wheel-made bodies which can be reconstructed as bottle-like shapes. As already explained an identification of such stylized figurines is hardly possible if the head is missing. Although neither bulls nor horses or donkeys have as short tails as L472-2, it resembles the ‘token’ tail of Iron Age IIB–C bull vessels from Tel Miqne-Ekron

(BEN-SHLOMO 2010: 111–112, figs. 3.58, 3.59). However, an identification of this figurine as a bull from this scanty evidence would be too far-fetched.

Fragment of a bovine (?) figurine or rhyton (L103-1)

Description

The figurine has a hand-made, hollow body. It is very hard-fired, of a light yellowish-brown fabric and coarse with multicoloured inclusions. It is finished with a pink slip and covered with red paint on the exterior. It depicts the hindquarters, possibly of a bovine. One hind leg is complete, the other one broken. The figurine is not illustrated because of its very fragmentary preservation.

The preserved dimensions are: W 4.5, L 3.5, H 3.5 cm.

Context

The object was found in Area 3, Trench XII, outside a small walled compound (see Chapter 2). It belongs to Phase XI (suggested date around 900 BCE; see Table 83).

Further remarks

Its extremely short, almost stump-like, legs may justify identification of this animal with a bovine rather than a horse.

Fragment of an animal rhyton (L471-1)

Description

The object is wheel-and-hand-made, hard-fired, and has a dark grey, medium-fine fabric. It is covered with a thick brownish-red slip. It shows the back and withers of an animal (Figs. 223:3, 463:7).

Context

The object comes from Area 7, Phase XIV (destroyed 732 BCE; see Table 83). It was found within the same compound as the laden animal (N1085) and not far from the rhyton L472-2, in the westernmost room of House 4 (Trench XLIXB; see Fig. 182). Other finds from this room include a jug with a trefoil mouth (N1282), a juglet (N1278) and a tripod bowl of fired clay (N1280; see Chapter 2).

Further remarks

Possible parts of a mane are visible on the withers, which might justify an identification as an equine.

Also the narrow shape of the body hints at an equine rather than a bovine. The pattern on the back is unusual. It might either depict the coat colours of the animal or indicate a harness, or both.

CONCLUSION

The Iron Age material from Tell Abu al-Kharaz shows a wide variety of different animal and human figurines and rhyta. The areas which yielded most and also the best preserved figurines are Areas 7 and 9. This is not surprising, since the Iron Age strata of these two Areas are those with the largest number of finds. Three animal rhyta (N1085, L472-2 and L471-1) were recovered in or around different houses belonging to the large compound in Area 7, Phase XIV. The earliest phases of the Iron Age, viz. Phases IX and X, are underrepresented,¹⁴⁵ whereas the latest one, viz. Phase XV, did not contain any figurines. Most of the figurines come from Phases XI, XIII and XIV. However, such a low number of examples does not allow any statistical conclusions to be drawn.

Figurines may make it possible to study (religious) beliefs and habits of the people who produced and/or owned them. Hence many theories on the function and meaning of the figurines have been developed. They range from profane and practical functions to various cultic aspects.

Concerning profane uses it was suggested that rhyta might have served as feeding bottles (NOVACEK 2011: 78) and animal figurines in general as children's toys or "bric-à-brac" (KENYON 1956: 186; FOWLER 1985: 342). These assumptions are however problematic, as many of the figurines show high technical craftsmanship – also the rhyta from Tell Abu al-Kharaz. Relating to Neolithic sites it was suggested that figurines were used as toys after having been utilized in cultic activities (VOIGT 2000: 267) or as teaching tools (MCADAM 1997: 139). Leaving aside the question whether it is legitimate to compare the functions of Neolithic and Iron Age figurines (which are moreover of a fairly different type), this seems at least possible for the less elaborate figurines, such as the lion (N1424) or the bull/horse figurine (L454-2). Another

profane purpose is offered by BEN-SHLOMO, who suggests that zoomorphic vessels just represented "fashionable decorative ware" (2008: 42).

Rhyta and figurines are often connected with some cultic activity. Rhyta – frequently used as synonymous with libation vessels (e.g. in MAZAR 2009b: 541–543) – were used in sacrifices. In particular bull-shaped vessels may have contained the blood of the sacrificed animals (MARINATOS 1986: 31; HÄGG 1990: 183–184; BEN-SHLOMO 2008: 41–42), since these animals played an important role in the cult in the Levant (FLEMING 1999), but also in Egypt, Cyprus and the Aegean (RICE 1998: 116–152, 198–219, 237–250). This does not necessarily apply to equine rhyta. As regards the laden animal (N1085) from Area 7 it is conceivable that the two vessels were used as filling spouts in order to mix two different liquids inside the animal's body. It is not impossible that such a function was also connected to religious practices.

Although attempts have been made to link animal and human figurines with various deities (e.g. by HILLERS 1970; *et al.* 1980: *passim*), it is more legitimate to assume that each animal and each human figurine represented different aspects: horses, donkeys and bulls reflected their impact on agriculture and trade, the lion shows the respect for this strong animal. A figurine of a musician could symbolize the tradition and appreciation of musical performance, whereas the meaning of the mask remains enigmatic. Possibly all or at least some of these connotations were linked to religious perceptions and the figurines used as votive objects (as suggested by NOVACEK 2011: 14). However, for an outsider it is often difficult to distinguish between domestic or communal ritual and games or amusements (RENREW 1985: 21), which makes definite statements on the meaning of the figurines difficult.

At least the three objects discussed from the compound in Area 7 allow some conclusions:

They demonstrate that animal rhyta belonged to the inventory of a household. Furthermore, the context of the laden animal (N1085) from House 2 suggests that it was used in a (cultic?) ritual.

¹⁴⁵ The lion figurine (N1424) was attributed to Phase IX. Phase X did not yield any figurines.

APPENDIX 2 THE SPHINX HANDLE

Peter M. Fischer

CONTEXT

This object (N553) was found in L84, Area 3, Trench XII, just west of the central plateau of the tell (Figs. 9, 124 and 127). The context is Phase XII. The bone object was found on the floor of one of the rooms (L84) which was extended to form Trench XLIII (wherein L365 is the continuation of L84) in order to find the boundaries of this room and to obtain samples for radiocarbon dating.

The oblong room is about 3 m wide (NW/SE), and at least 5 m long. It is only partly excavated. It is entered from the north-east through a courtyard or second room. The entrance in W518/119, flanked by larger stones, is 1.10 m wide, and has a stone threshold and sockets for door leaves. The floor of the room, covered by about 1 m of debris of collapsed mudbrick tiles and ash, is carefully paved with small stones, with clay between them. The remains inside the burnt-down building show signs of intense heat. The bone object was found on the floor of the room, embedded in clay, which no doubt explains how it could survive the fire so well. However, it has been affected by the surroundings, showing a light-grey, but still burnished and almost glazed, surface. A ring of bronze was also found on the floor. A great deal of pottery was collected from the floor of the room, which includes some intact or complete shapes. The pottery repertoire from this room included bowls, chalices, an incense cup, kraters, a trough, two jugs, of which one is of likely Phoenician origin, a strainer-jug, juglets, a hole-mouth krater/jar, storage jars, cooking pots and a lamp (see a selection of (partly) complete shapes in Figs. 125 and 126). Additional finds are connected with the production of textiles: These are two bone shuttles, two limestone spindle whorls and six loom weights of secondarily fired clay (some in Fig. 125). There are also quite a few pieces of charcoal along the wall to the south-east (W517) which most likely derive from a burnt-down loom which had been leaning against the wall.

DESCRIPTION OF THE SPHINX HANDLE (Figs. 127, 453:3, 464)

The dimensions are as follows (in cm): height 12.5, upper part 5.5×4.1 , lower part 4.1×3.3 , maximum

bone thickness 0.9; dimensions of the bottom stopper: 2.8×1.8 tapering to 2.3×1.3 , thickness 0.4; diameter of dowel holes 0.2. Surface treatment: burnished to a high gloss.

The bone object is virtually complete; all that is missing is some minor fragments from the lower part. It was cut from a long bone, most likely the femur or tibia of a bovid. It is oval, hollow and slightly wider at the top than the bottom. The rim at the top is pierced by two dowel holes. The base was closed by an oval stopper which was found loose inside the object, somewhat out of position. The stopper neatly fills the bottom and would have been held in position with a material such as resin. We suggested in our previous reports that our object represents the handle of, for instance, a fan or flywhisk (FISCHER and HERRMANN 1995) or a sceptre (FISCHER 2009b).

The main zone of decoration occupies much of the upper two-thirds of the piece. The design consists of two sphinxes walking to the left. The bodies are shown in profile, while the heads are represented frontally. The modelled full and fleshy faces are framed by heavy wigs, and below the chins are curving, undecorated collars. The aprons are decorated with horizontal lines. The bases of the wings are incised with criss-cross lines and the main wing-feathers are also incised. The sphinxes' tails are curled upwards and are partially concealed by the wing tips. No musculature is indicated on the shoulder or body. The front edges of the paws are modelled. The sphinxes' heads extend to the top and are linked by a frame consisting of a moulded rim and a band with incised lines. There is a dowel hole at the centre of each forehead. The sphinxes are walking on a band decorated with criss-cross lines above a convex band with a twisted-rope motif. Below is a band of hanging palmettes above a ribbed frame. The bottom is plain and flares out slightly. The relief is low with incised details.

PARALLELS IN BONE

Nimrud

The closest parallels to the bone object from Tell Abu al-Kharaz come from the Burnt Palace at Nimrud, where they were excavated by W. K. Loftus in the



Fig. 464 The Sphinx handle

nineteenth century and published much later by BARNETT (1957). Although most of the published pieces are made of elephant ivory, there is a coherent group of six pieces made of bone.

By far the most similar object as regards the principal shape and decorative elements is S 68, BM 126568 (BARNETT 1957: 196, pl. XLI). The more fragmentary Nimrud piece is slightly larger, measuring roughly 14.4 × 4 cm. It has a similar plain, slightly splayed foot with a ribbed band separating it from the row of hanging palmettes. The main design area is framed above and below by guilloche bands instead of the criss-cross frame below the Abu al-Kharaz sphinxes. There is a plain moulding around the top edge of the rim. The design consists of a pair of sphinxes, couchant to the left, separated by a short plant. They are wearing a fluted crown of indeterminate type, above a misunderstood version of the pharaonic headcloth. Their faces are full and fleshy, and the bases of their wings and shoulders are decorated with criss-cross lines.

The very fragmentary S 63, BM 126581 (*ibid.* 196, pl. XL) is similar in form and size to the Tell Abu al-Kharaz piece, although the decorative elements are entirely different. It is somewhat shorter than our object (original height approximately 12.0 cm, width at top 5.7 cm, width at base 4.2 cm). There is a similar plain, slightly splayed foot with a ribbed band separating it from the row of hanging palmettes. The main design consists of the remains of a pair of antelopes, framed above and below by plain bands, with another wide moulded band above. This is decorated with the remains of two pairs of hanging volutes, separated by a curved moulding. The antelopes are shown grazing to the left. A surviving horn is decorated with a criss-cross design, and the neck with incised lines. Between their legs are small hummocks, again decorated with a criss-cross design. One of the missing (unpublished) pieces, ND 1525, was found by the British School of Archaeology in Iraq in the Long Room of the Burnt Palace, and is now in the Iraq Museum. It does not retain its original edges, and it shows part of the central register of a bone handle with the hindquarters of an antelope to the left above a mound with criss-cross decorations. The Iraq Museum piece forms a photographic join with S 63, BM 126581.

Other pieces of bone which replicate elements of the design of the Tell Abu al-Kharaz object are the tall S 70, BM 123864 (*ibid.* 196, pl. XL), and the fragmentary S 67, BM 126567 (*ibid.* 196, pl. XL). Other related pieces are S 69, BM 118105 (*ibid.* 196, pls. XLIV–XLV) and S 56, BM 126564 (*ibid.* 195, pl. XXXIX).

Hazor and Tell en-Nasbeh

A fragmentary bone handle from Hazor Stratum VI (YADIN 1958: 16, pls. CL–CLI; WINTER 1981: 115, n. 108) is comparable with S 70, BM 123864, and S 67, BM 126567. The principal design is a four-winged man associated with a plant bearing a fan-like top and two buds. It is framed above and below with a raised band with incised lines. Another larger fragment of a bone handle depicting horned animals was recently found in Stratum VI at Hazor (HARUSH 2012: 564, 565, fig. 13.1:1). A fairly close parallel to the handle from Hazor is from Tell en-Nasbeh (McCOWN 1947: pl. 55). The context of the latter is unfortunately not known.

PARALLELS IN IVORY

Hazor

There are a few ivories which may have been made in the same workshops as the bone group. The most notable of these are a pyxis from Hazor and ivory fragments from Nimrud. The Hazor pyxis measures only 7.5 cm in height and was found in Stratum V (YADIN 1958: 41, pl. CLV). The design occupies the lower zone of the pyxis and depicts a male figure kneeling to the right, hands raised to a palmette plant, and behind him a winged sphinx or griffin advancing left.

Nimrud

There are two fragments of furniture panels found in Room SW 37 at Fort Shalmaneser, Nimrud. One is ND 9729 (HERRMANN 1986: 143, no. 549, pl. 127) which shows the front of a human-headed sphinx. The physiognomy is similar to those of the sphinxes of S 68, BM 126568, and S 70, BM 123864: curved nose, prominent chin, and fleshy cheeks. However, more striking than a general facial resemblance is the unusual form of the fan crown, unique among the Fort Shalmaneser sphinxes, and similar to that worn by the sphinxes on the bone objects. The second panel fragment, ND 9607 (*ibid.* 138, no. 518, pl. 115), also shows the front of a human-headed sphinx with sun-disc and uraeus-crown on the *nemes* headcloth. The form of the folds of the headcloth can be compared with that of the Nimrud sphinxes of S 68, BM 126568, while the physiognomy is similar to that of the group as a whole.

POSSIBLE FUNCTION AND PROVENANCE

The function of the object from Tell Abu al-Kharaz was most likely that of a handle, for instance, of a sceptre, fan or flywhisk. It may be the case that the surface of the object was already intentionally polished during the manufacturing process but the shiny

surface may also be the result of frequent use as a handle. The well-preserved Tell Abu al-Kharaz piece has a pair of dowel holes perforating the rim at the top, which have not survived on the fragmentary Nimrud examples. These dowel holes must have been used to fix something to the object. The context in which the handle was found is interesting. In addition to the pottery there are finds which clearly connect this room with the production of textiles: bone shuttles, loom weights, spindle whorls and the likely remains of a wooden loom. Therefore, it may also be possible that the object represents the handle of a tool which was used during the production of textiles.

The presence of similar material on two adjacent sites in Palestine is of particular significance in any attempt to define the possible location and date of the centre of production of this group of bone and ivory objects. That rather more pieces were found at Nimrud than at Hazor and Abu al-Kharaz is of little relevance, for the Assyrian habit of sweeping luxury goods from all over their empire to their capital cities is too well known to need documentation.

The bone and ivory group, which shows a devolved kinship with Egyptian iconography, may have been made in a Palestinian workshop. The discovery of the Abu al-Kharaz handle is of considerable importance, for it has permitted the better definition of a coherent group, identification of the possible location of the centre of production, and more realistic dating of their production and final deposition.

CHRONOLOGY

Concerning relative chronological consideration, most of the dates of published parallels to our pottery types from Phase XII are from the 9th or 8th centuries BCE. We date our Phase XII to the second half of the 9th century BCE (see Table 83). This is also valid

where the comparable objects from Palestine are concerned. The handle from Hazor Stratum VI is placed in the 8th century BCE by the excavator (BEN-TOR *et al.* 2012: 3).

A considerable part of the 1998 season of excavation was devoted to extracting datable radiocarbon samples from the room in which the sphinx handle was found. Three samples were taken from the floor for radiocarbon dating: one of burnt mudbrick with straw, the second of animal bone, and the third of charcoal from small twigs. The first two samples were analysed at the Oxford Radiocarbon Accelerator Unit. Neither sample yielded enough carbon for a reliable determination. This accords with our earlier experiences with bone samples from the site, where it seems that the local environment causes most of the bone protein to be lost over time.

The third sample was successfully analysed by the Vienna Environmental Research Accelerator (sample no. VERA-1412; see Chapter 4). The spread of the dates is considerable, which is explained in the plateau of the calibration curve after roughly 750 BCE. The only means of resolving this problem would be a radiocarbon data set based on a number of consecutive stratified samples which would allow sequencing. However, such samples are not available at present. The highest 1σ and 2σ data sets, both 800–750 BCE, are nevertheless interesting concerning our first publication on the sphinx handle (FISCHER and HERRMANN 1995): we suggested a date around 800 BCE for the context of the sphinx handle. This date was solely based on the internal occupational sequence and parallels from other sites. It should though be kept in mind that our carved bone object was a prestige good and might have been kept as an heirloom for generations before its ultimate destruction, thus making a 9th century production date for the object possible.

APPENDIX 3 COSMETIC PALETTES OF STONE

Peter M. Fischer

DESCRIPTION OF THE COSMETIC PALETTES

Cosmetic palettes from Tell Abu al-Kharaz were found in Phases XII–XIV (Fig. 465). These saucer-like objects are usually made of polished limestone but there is an example from the site which is made of semi-translucent alabaster (Fig. 465:2). All of them are decorated with drilled or incised patterns.

The cosmetic palettes of stone from Tell Abu al-Kharaz are represented by three types, which will be depicted chronologically:

Type 1 (N1110, Fig. 465:1; see also Figs. 156, 453:8; find position in plan Fig. 147): polished limestone, fairly shallow centrally placed depression, drilled decoration on the flat side in the shape of outer rings surrounding central dots which are arranged radially in six pairs; an intense blue paste was found in some of the drilled circular depressions; dimensions (cm): d. 9.5, H 2.0, d. of central depression 6.5; Wt 337 g. This is the oldest cosmetic palette from Phase XII, Area 7.

Type 2 (N1314, Fig. 465:2; see also Figs. 179:1, 453:9; find position in plan Fig. 158): polished alabaster, fairly deep centrally placed depression, drilled decoration on the flat side in the shape of outer rings surrounding central dots which are arranged radially in six pairs, one centrally placed dot at the bottom of the depression; it still contained pigments of two colours: one is of intense light-blue in the drilled decorations on the flat side, and the other of lilac colour in the drilled decoration in the centre of the depression; dimensions (cm): d. 7.0, H 2.7, d. of central depression 3.8. This item is from Phase XIII, Area 7.

Type 3 (N954, Fig. 465:3; see also Figs. 39:3, 453:10; find position in plan Fig. 26): polished limestone, small ledge handles in the shape of two double trumpets, the flat side is decorated with a geometrical pattern displaying from the outer perimeter a plain band, followed by an engraved rope pattern, a plain concentric circle, two concentric circles with 15 plain and 15 cross-hatched patterns (each showing 3×4 square fields) between them, a plain band flanked by two concentric circles and another rope decoration; dimensions (cm): d. 7.8, H 2.2, d. of central depression 4.5. This item is from Phase XIV, Area 1.

DISCUSSION

Parallels to these objects can be found almost everywhere in the Levant. THOMPSON (1971 and 1972) collected most of the evidence from Cis- and Transjordan which was available at that time. They are usually dated to Iron Age II, i.e. they are most common in contexts from the 9th and 8th centuries BCE but earlier (and later) examples are recorded, too.

Selected references from Transjordanian sites which produced such finds include Tawilan, Amman, Tell el-Mazar, Dhiban and Tell Deir 'Alla (see refs. in BIENKOWSKI 1995: 85–86, 304, fig. 9.15:2–7, 305, fig. 9.16:1; parallels to our Type 3: fig. 9.15:3). More recent material is reported from Tell Johfiyeh (LAMPRICH 2007: 547, pl. 1,01; similar to our Type 3 but without ledge handles). In addition to material from older excavations in Cisjordan (THOMPSON 1971 and 1972: *passim*), more recent material comes, *inter alia*, from Hazor (BEN-TOR 2012: 580–583; parallels to our Types 1 and 2 in fig. 15.2:2–4; to Type 3: fig. 15.3:1–3), and Beth-Shean (YAHALOM-MACK and MAZAR 2006: 491–492; parallel to our Type 2 of alabaster in fig. 13.8:2 and Photo 13.31 which is probably from P7, 8th century BCE). Palettes from the upper and lower time range which are similar to our Type 3 are from a fill from Hazor Stratum IX (around 900 BCE, BEN-TOR 2012: 581, fig. 15.3:1) and two others from Hazor Strata Vb and IV (8th–7th centuries BCE, *ibid.* fig. 15.3:2 and 3; the latter obviously with ledge handles). Another, plain, palette from the upper time range is from Keisan Level 8–7 (980–850 BC, BRIEND and HUMBERT 1980: pl. 83:9).

The majority of scholars are now in agreement that the function of these objects was that of mixing cosmetics. Nevertheless one should not exclude the possibility that they were used to grind medicines. The most commonly used material for the production of these objects has been limestone. More rarely used natural materials were alabaster, sandstone, marble, basalt and flint. Man-made materials include glass and faience (cf. THOMPSON 1971 and 1972).

Our Types 1 and 2 have remains of an intense blue substance in the circular incisions. This is also reported from other sites, mainly blue and green coloured sub-

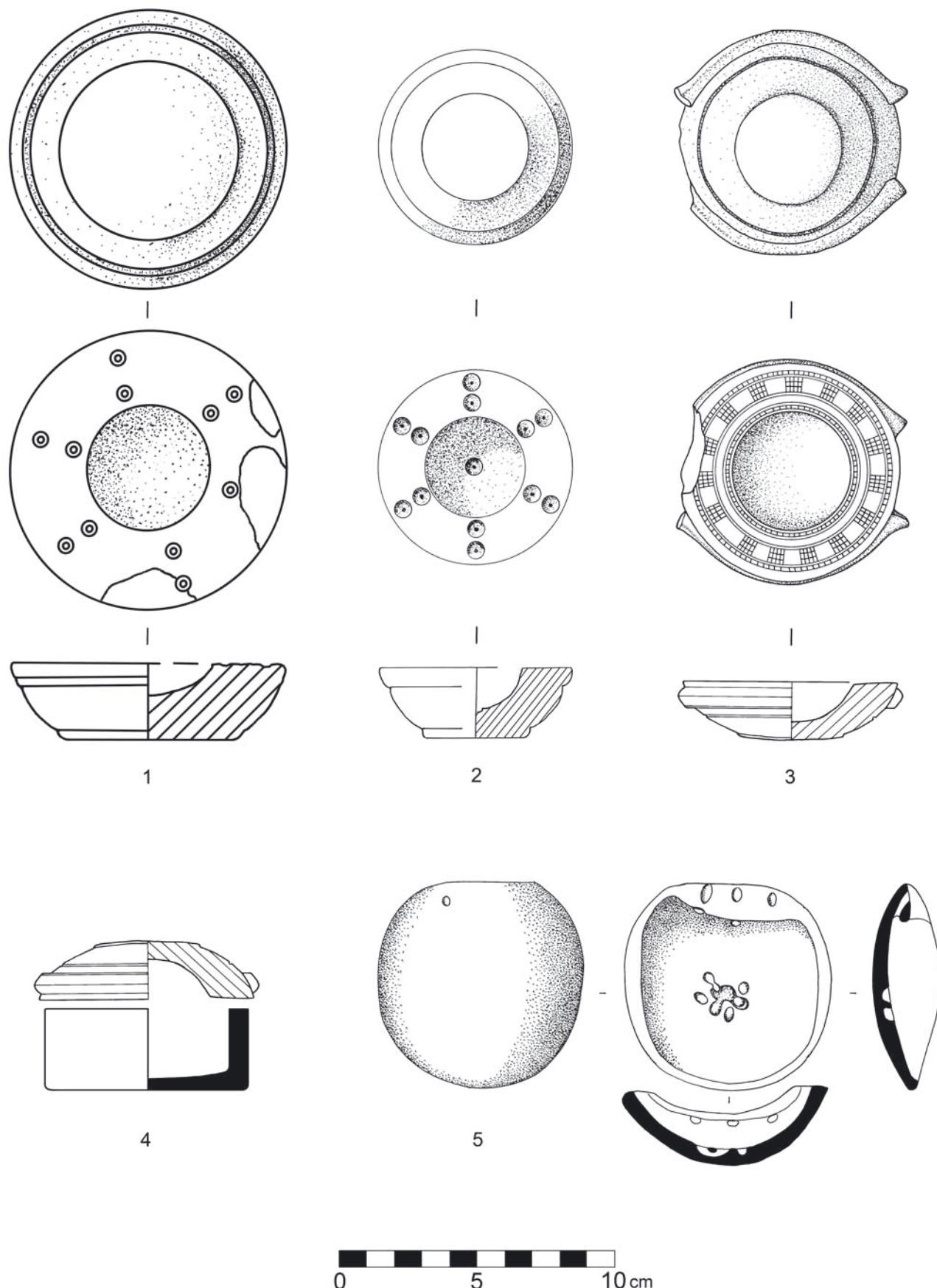


Fig. 465 The cosmetic palettes from Tell Abu al-Kharaz

stances (cf. Beth-Shean, YAHALOM-MACK and MAZAR 2006: 491; see also THOMPSON 1971: 64). One can interpret this phenomenon in two different ways: firstly, that it is a decorative inlay, and secondly that it represents the actual cosmetic paste. As far as our Type 2 is concerned, which depicts two colours, blue and lilac, it seems to make more sense that it is de facto a decorative element. Nevertheless, it cannot be excluded that these coloured substances are leftovers from the cosmetics used.

Where were they produced? Based on the fact that they are quite uniform as far as the general design and decoration is concerned the author suggests just a few production centres, maybe even just one or two (see the drilled decoration contra the incised decoration which represent two differing decoration techniques).

Who were the consumers? There is no proof that these items were only used by females, who are frequently mentioned in the literature as the likely consumers. It is the strong belief of the author that both genders used cosmetics (which is supported, for instance, by sex-related tomb material from various sites in Cyprus; see FISCHER 1986b: 28–43). The high level of workmanship certainly indicates that these objects were used by an upper class clientele (cf. BARAG 1985: 73). All our cosmetic palettes were found in domestic contexts in connection with rich find assemblages which would support this statement.

How were they used? The smaller flat surfaces of these cosmetic palettes are usually described as

“bases”. Considering the undeniable fact that these “bases” are very well worked, i.e. polished to a high lustre and sometimes even decorated (see e.g. a cosmetic palette from Tell el-Qudeirat which is decorated with a rosette; GERA 2007: 225, fig. 13.4.1; dating from the second half of the 8th century), the author suggests that the palettes had a double function: Firstly, they were used as lids on containers which hold the cosmetics (or medicines); and secondly, after removing the lids from the containers they were turned upside-down and used to mix or grind various substances (see suggested reconstruction in Fig. 465:4). The ledge handles of the refined cosmetic palettes made it easier to grip the lid. To the best of the author’s knowledge containers are unknown but this does not exclude containers of perishable materials, for instance, wood/bark or leather.

Another object, a worked shell form a Phase XIV context, is here included in the discussion on cosmetic palettes (N67, Fig. 39:4, 465:5; find position close to W2 in Fig. 26). Its dimensions (cm) are: L 7.6, W 7.4, H 2.7. The almost circular, yellowish-white, alabaster-like shell was highly polished and has three holes on one side, several pattern-drilled depressions at the bottom of the concave part and one small drilled depression on the convex side. The shell may have been used as a “budget version” of the cosmetic palettes of stone.

APPENDIX 4 NOTES ON THE GLYPTIC MATERIAL AND OSTRAKA

Peter M. Fischer

INTRODUCTION

The glyptic material consists of two scarabs, one scaraboid, one impression and one cylinder seal. Inscriptions are represented by two ostraka. The material has been published in preliminary reports and catalogues. Here the material is collated and some additional comments will be made.

THE OBJECTS AND THEIR CONTEXTS

1. *Scaraboid* (N1388; Figs. 341:1, 342 and 466:1; from Room 12: find position in plan in Fig. 250)

Dimensions (cm): $1.8 \times 1.3 \times 0.7$, d. of hole 0.2; material: steatite.

The scaraboid derives from the early Iron Age compound, Phase IX, Area 9 East. It is from L267, which is in Room 12, one of the 22 hitherto excavated rooms of the basement of this compound (see Figs. 250 and 251; further context description and interpretation in Chapters 2 and 5). Room 12 contained numerous complete vessels from a primary context. The finds include storage jars, jugs, juglets and a lamp. One of the small vessels is of alabaster in the shape of a pyxis. From the same locus derive two pilgrim flasks which are related to the Philistine sphere of culture. Our scaraboid was found together with the scarab N1389.

The scaraboid shows the incised representation of the head of an animal, which we interpret as a stylized horse, instead of the common representation of the beetle's pronotum and the wings. In addition to the triangular, linear, outlines of the head, the nose and the mane are indicated. Three drilled circles with a centrally placed dot indicate the eyes and the muzzle. There are also 13 identical circles with dots on the base. Parallels are rare but there is one from Tell el-Far'ah South (KEEL 2010b: 422–423, no. 947), which is somewhat related to ours and which is dated to the 19th – 20th Dynasty: The upper part of the object is almost identical to ours with linear straight lines indicating a mane and two drilled circles with a dot in the middle for the eyes (?) while the lower part is not preserved. Similarly, it has five circles with dots on the base. This type of decoration is used during MB IIB and appears again in the Iron Age I. There is a compa-

table chronological situation concerning the bowl standing on three loop handles (N1372; see Figs. 280:17, 281, 389:15 and 452:5) which first appears in the Middle Bronze Age and has a revival in the early Iron Age.

Another related scarab comes from Beth-Shemesh (KEEL 2010a: 312–313, no. 216). Also here – but engraved into the base – each of the four triangular heads has three circles indicating the eyes and the muzzle of rams or bulls, and the manes are also indicated. One of the main differences between our item and that from Beth Shemesh is that the style of the former is strict linear (except for the drilled circles) and that the latter is executed in a curvilinear style.

2. *Scarab* (N1389; Figs. 341:2, 343 and 466:2; from Room 12: find position in plan in Fig. 250)

Dimensions (cm): $1.3 \times 1.0 \times 0.7$, d. of hole 0.2; material: light yellow medium-hard composition.

The context is also early Iron Age and it derives from the same compound as the scaraboid, i.e. Phase IX, Area 9 East, L267, Room 12. Concerning the context description, see above.

A rather mediocre version of “Men-Kheper-Re” (= Tuthmosis III’s throne name) is depicted. However, this is not clear beyond doubt, and one of the signs could also read “user/woser”. The hieroglyphs are certainly locally executed which makes a definite reading difficult. It may be an heirloom but scarabs with the name of Tuthmosis were also mass-produced long after his reign (MÜNGER 2005, 395).

3. *Scarab* (N38; Figs. 47:12 and 466:3, find position in plan Fig. 44)

Dimensions (cm): $1.7 \times 1.1 \times 0.8$, d. of hole 0.2; material: bright Egyptian Blue of quite hard composition.

The context is Phase XV/2, Area 1, L30, which is the most recent Iron Age phase of which almost no architectural remains are preserved. In fact this phase represents today’s surface. It should also be highlighted that the scarab was found close to a cistern which seems to have been in use for a considerable period.

A walking lion with its tail bent above its back is depicted. Above the tail is a line. Naukratis scarabs

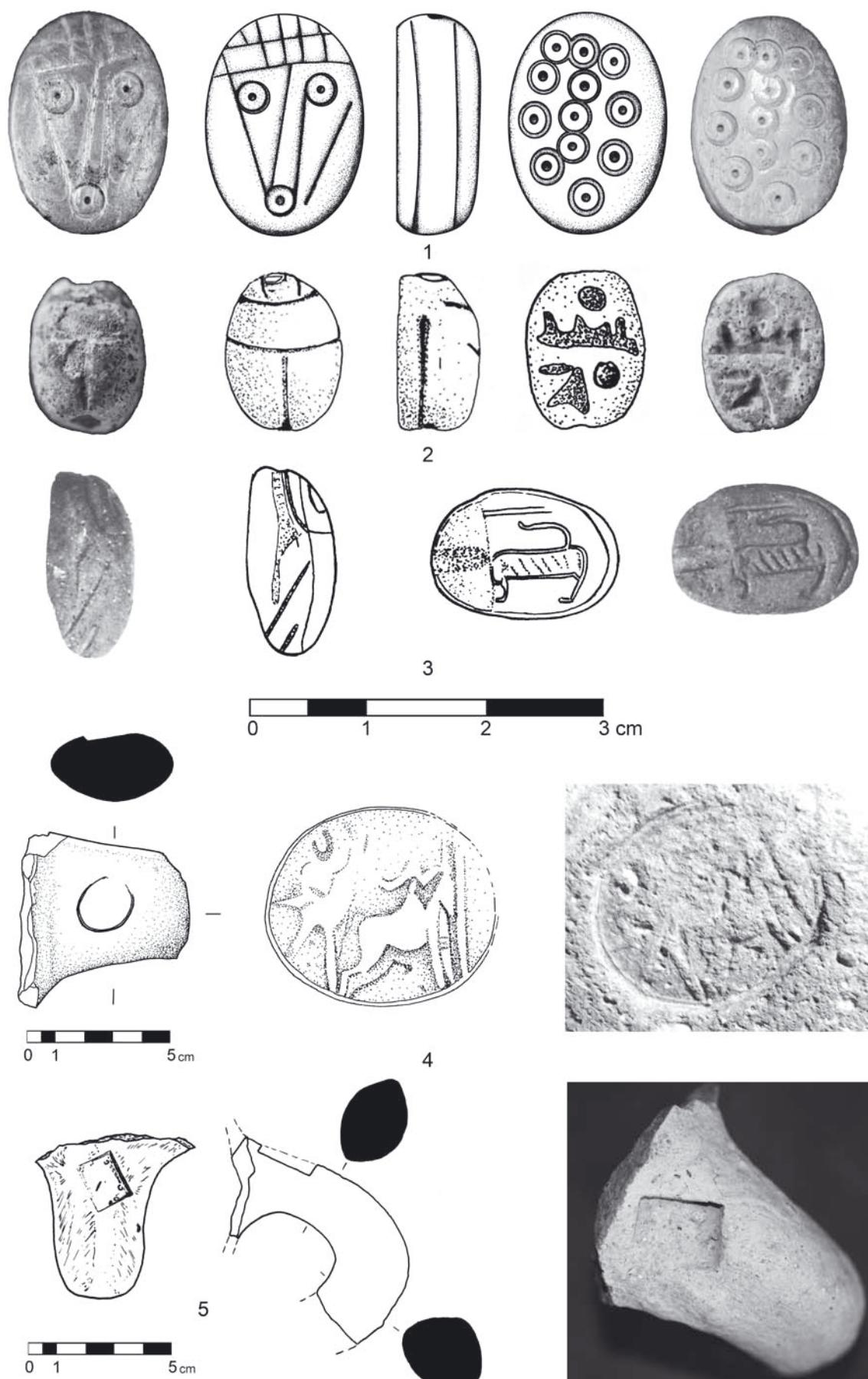


Fig. 466 1. Scaraboid (N1388). 2. Scarab (N1389). 3. Scarab (N38). 4. Seal impression (TXXXIVC-coll-1)

usually show walking lions with a sun disc above the back. However, the sun disk can be absent when the head of the lion is turned backwards (cf. GORTON 1996: 73–88, 95; see also EGGLER and KEEL 2006: 278:1 and 279:1). This group of scarabs is usually dated to the 26th Dynasty (620/600 to shortly after 550 BCE).

4. Seal impression (Trench XXXIVCL463-1; Fig. 87:6, 88 and 466:4)

Dimensions (cm): 2.0 × 1.75; impression on handle of Iron Age II storage jar: wheel-made, hard-fired, light brown fabric, grey core, coarse, multicoloured inclusions, self slip. The handle derives from the surface layer in Area 2 North (not on plan).

The impression is not clear. A quadruped with a w-shaped sign (horns?) faces a vertical line (tree?). Behind the animal is a standing human being (?). A moon crescent may be depicted above the scene (cf. EGGLER and KEEL 2006: 278:3 and 279:3).

The only “parallel” is from Tell Abu al-Kharaz itself (see cylinder seal N1161 below). The basic arrangement resembles battle scenes on Neo-Assyrian cylinder seals (cf. HERBORDT 1992: pls. 4:1 and 6:5–7; see also PORADA 1948: pl. 107:722).

5. Seal impression (Trench XLIXBL516; Figs. 174:6 and 466:5, find position in plan Fig. 158)

Dimensions (cm): 1.7 × 1.4; impression (and fingerprints) on handle of storage jar: wheel-made, hard-fired, brownish-red fabric, thick grey core, coarse, multicoloured inclusions, self slip. It is from an open space between two houses in Area 7 West, Phase XIII (see L516 in Chapter 2).

The impression is not clear because of the coarse fabric. An interpretation is not possible.

6. Cylinder Seal (N1161; Figs. 229, 453:6 and 467:1, find position in plan Fig. 182; see also SCHMIDL 2009: 145–147)

Dimensions (cm): 2.9 × 1.0–1.1, d. of hole 0.3, Wt 5.2 g; material: steatite, traces of brownish-red pigment in depressions.

The seal derives from L348 in Trench XLVIB, Area 7. It belongs to Phase XIV. It was found inside one of the spaces of a compound which is interpreted as a workshop for the production of bronze and iron objects, mainly arrowheads (see Chapter 2).

The seal is engraved with fairly deep, hand-cut lines. Between two collars there is one scene depicting a human figure and an ungulate. Other motifs are a crescent moon, a pair of wedge-shaped elements and a tree-like element with branches at the top. The bearded human figure, obviously a man, which fills the entire space between the two collars, is depicted in profile, facing left (as seen on the seal). Only one foot

is slightly indicated. The figure is clad in a belted, full-length skirt which leaves the upper part of the body naked. He has a high, split headdress. His right arm is stretched away from his body, the left one is raised up to his face with elbow at the level of his shoulder in order to aim, or draw, a bow which is nearly two-thirds the size of its owner. The fairly detailed arrow points at an ungulate whose head is turned away to face a tree. The depiction of its four legs is relatively detailed, showing joints and hooves. A long, S-curved horn and an ear are shown. The mane and tail are depicted. The latter ends in a tassel between the hind legs. Lines across the body seem to indicate a harness. The crescent moon and the pair of wedges cover the space between the bow and the animal's neck.

This seal is definitely an import. The scene shows the well-known motif of archer and prey, with the prey being attacked from behind. However the standing archer is found predominantly on faience seals (COLLON 2001: 3). The relatively common feature of a stylized tree or plant might denote the sacred tree which is defended by the archer (PORADA 1948: 73). The seal is engraved in the so-called “linear style” which is typical of Neo-Assyrian seals, commonly dated between the ninth and eighth centuries BCE (COLLON 2001: 2–3). There are several related scenes with archer, various animals including winged human-headed ones or monsters but they are normally not as deeply cut as in our seal (cf. TEISSIER 1984: 34; BRENTJES 1983: 153). This style continues into the seventh to sixth centuries BCE (TEISSIER 1984: 34). PORADA (1948: 72) favours a connection between the Kassites and the evolution of the linear style in Neo-Assyrian times due to the non-realistic but ornamental or decorative way of depicting scenes. HERBORDT (1992: *passim*) and COLLON (2001: *passim*) prefer categorization according to motifs instead of style and technique as suggested by PORADA (1948: *passim*).

The most striking parallel was published by COLLON (2001: 29; cf. also COLLON 1987: no. 337, originally published in WISEMAN 1959: pl. 51): it shows an archer pointing his bow towards a winged bull facing the attacker. Above the bull are other comparable elements such as a tree, even though less stylized, a crescent moon and two wedges, in this case separated from each other. Another one depicting the standing archer with a similar garment is shown by PARKER (1962: pl. XI, 3) or the stylized tree which is shown on a tablet from Nimrud (HERBORDT 1992: pl. 16, 5; cf. PARKER 1955: 121, fig. 21, pl. 28, 1). Crescent, wedges and standing archer are not uncommon (see e.g. COLLON 2001: 19, 27, 28, 31). There are seals with animals which are a kind of mixture between bull and horse

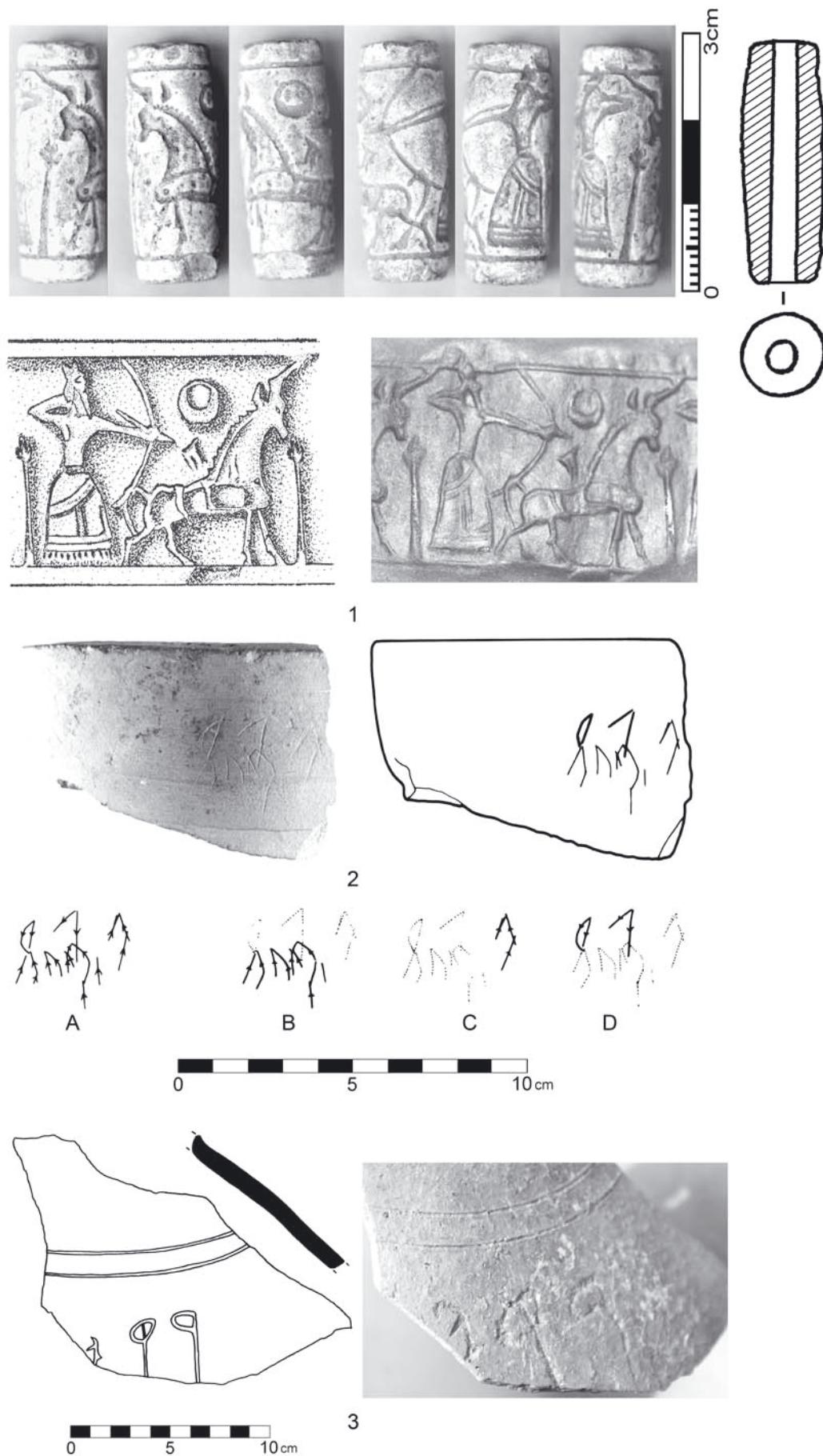


Fig. 467 1. Neo-Assyrian cylinder seal (N1161). 2. Ostrakon 1 (TXXXIVL5-1). 3. Ostrakon 2 (Trench XLVIB L356-1).

(*ibid.* 24 and 25), or where a bull has been re-modelled as a horse (KIST 2003: 338). Another example is shown by DOUMET (1992: 137–138) where an archer with a similar garment is aiming at a horned quadruped. Other seals with comparable elements are: KEEL-LEU and TESSIER (2004: 168 and 170); PORADA (1948: 617 and 621); and TESSIER (1984: no. 163, 167, 168).

In addition to a “parallel” from Tell Abu al-Kharaz itself (see seal impression above) there are no exact counterparts to our cylinder seal in Jordan. There are just two motifs which – to a very limited extent – can be compared with that on our cylinder seal: One is a stylized motif on a scarab from Khirbet an-Nuhas (EGGLER and KEEL 2006: 126:1 and 127:1), and another one, even more abstractly depicted, on a conoid from Sahab (EGGLER and KEEL 2006: 267, 14).

It seems to be evident that our cylinder seal is imported from the Assyrian sphere of culture. The unfortunately extensively damaged seal which is similar to ours (PARKER 1962: pl. XI:3) could point to Nimrud as the area of origin but this remains a conjecture. Finally, the motif and style support a date in the 9th or 8th century BCE.

The remains of a red colour in the depressions of the seal are interesting. Concerning the seal of fairly bright steatite from Tell Abu al-Kharaz one could argue that the red colour was added to enhance the motifs. There may be another explanation: In 2011, the Swedish Cyprus Expedition at Hala Sultan Tekke uncovered a Late Bronze Age cylinder seal of black chlorite which also had remains of a red colour in the depressions (FRANZ 2012). An accumulation of murex shells in one of the rooms close to the find spot of the seal points to the production of purple dye in the building where the seal was found. I have at several occasions suggested that the Hala Sultan Tekke cylinder seal could have been used to roll the motifs of the coloured seal, for instance, on fabric. The function of the seal from Tell Abu al-Kharaz was maybe the same.

7. *Ostrakon 1* (Trench XXXI, L5-1; Figs. 380 and 467:2, find spot in Fig. 376; see also AL-GHUL and KHOURI 1998: 155–161)

Rim and part of neck of jar (d. of rim approx. 15 cm, Th approx. 1 cm), wheel-made, hard-fired, yellowish-brown fabric, coarse, mainly grey inclusions, self slip; inscription; Figure 467:2 shows how the incisions were done (A), and three groups of signs (C–D).

This ostrakon was found in the north-western room (Room 1) in L5 in the “White Building” of Area 10 close to the 0-point of the site. The date of the foundation of this structure, which is interpreted as a tower, is placed in Phase XIV or possibly XV.

The incised signs seem to represent a writing exercise (cf. FISCHER 1997a: 136–137; AL-GHUL and KHOURI 1998; RICHELLE 2010: 247–249). The signs themselves are associated with the Ammonite writing tradition, which suggests a dating within the 1st millennium BCE, maybe 9th – 6th centuries BCE. The pottery collection from inside the building also suggests a dating within the second half of the Iron Age. However, outside the building, large amounts of Late Roman sherds were found, which points to reuse of the foundation of the structure in Late Roman times.

8. *Ostrakon 2* (Trench XLVIB, L356-1; Figs. 219:3 and 467:3, find spot in Fig. 182; see also RICHELLE 2010: 247–249).

Neck of storage jar, wheel-made, hard-fired, reddish-brown fabric, medium-coarse, mainly white inclusions, light reddish-brown slip.

This ostrakon derives from the same compound as our cylinder seal (N1161, see above). It was found inside one of the spaces of this compound which is interpreted as a workshop for the production of bronze and iron objects, mainly arrowheads (Phase XIV, see Chapter 2).

The partly preserved inscription is possibly Aramaic (RICHELLE 2010: 247–249). There are three letters “R”, “Q” and most likely “Y”. The interpretation is speculative but it could be read as a name/owner, a measure or information about the contents. Richelle suggest the name of the owner which may be a combination of a verb and a god or just a nickname. A likely reading could be: “... the God has benevolently looked upon (somebody)...”

BIBLIOGRAPHY

- ABEL, F.-M.
- 1967 *Géographie de la Palestine II*. Third Edition. Paris.
- AHARONI, Y.
- 1975 *Investigations at Lachish: The Sanctuary and the Residency (Lachish V)*. Tel Aviv University. Publications of the Institute of Archaeology 4. Tel Aviv.
- AL-AJLOUNY, F., DOUGLAS, K. and KHRISAT, B.
- 2011 Spatial Distribution of the Early Bronze Clay Figurative Pieces from Khirbet ez-Zeraqōn and its Religious Aspects. *Ancient Near Eastern Studies* 48: 88–125.
- AL-AJLOUNY, F., DOUGLAS, K., KHRISAT, B. and MAYYAS, A.
- 2012 Laden Animal and Riding Figurines from Ḥirbet ez-Zeraqōn and Their Implications for Trade in the Early Bronze Age. *Zeitschrift des Deutschen Palästina-Vereins* 128/2: 99–120.
- AL-FATAFTEH, A.
- 1991 *Towards Science and Technology Strategies and Policies and the Agriculture and Water Section. A Sectorial Report*. The Higher Council for Science and Technology. Amman.
- AL-GHUL, O. and KHOURI, L.
- 1998 Ein Graffito aus Tell Abū Ḥaraz. *Zeitschrift des Deutschen Palästina-Vereins* 114,2: 155–161.
- ALBRIGHT, W.F.
- 1943 *The Excavation of Tell Beit Mirsim, Vol. III. The Iron Age*. The Annual of the American Schools of Oriental Research 21/22. New Haven.
- ALON, D., MINTZ, G., COHEN, I., WEINER, S. and BOARETTO, E.
- 2002 The use of Raman spectroscopy to monitor the removal of humic substances from charcoal: Quality control for ¹⁴C dating of charcoal. *Radiocarbon* 44, 1: 1–11.
- AMIRAN, R.
- 1967 A Note on Figurines with ‘Disks’. *Eretz-Israel* 8: 71*, 99–100.
- 1969 *Ancient Pottery of the Holy Land*. Jerusalem.
- ^cAMR, A.-J.
- 1980 *A Study of the Clay Figurines and Zoomorphic Vessels of Trans-Jordan during the Iron Age, with Special Reference to their Symbolism and Function*. Unpublished PhD thesis, University of London.
- ANASTASIO, S.
- 2010 *Atlas of the Assyrian Pottery of the Iron Age*. Subartu XXIV. Turnhout.
- ANDERSON, W.P.
- 1988 *Sarepta I. The Late Bronze and Iron Age Strata of Area II, Y. The University Museum of the University of Pennsylvania Excavations at Sarafand, Lebanon*. Publications de l’Université Libanaise. Beyrouth.
- ANTOUN, R.T.
- 1972 *Arab Village: A Social Structural Study of a Transjordanian Peasant Community*. Indiana University Publications 29. Bloomington.
- ARIE, E.
- 2006 Chapter 13: The Iron Age I Pottery from Levels K-5 and K-4, 191–298, in: FINKELSTEIN, I., USSHAKIN, D. and HALPERN, B., 2006.
- ARTZY, M.
- 1994 Incense, Camels and Collared Rim Jars: Desert Trade Routes and Maritime Outlets in the Second Millennium. *Oxford Journal of Archaeology* 13: 121–147.
- AUBET, M.E. (ed.)
- 2004 *The Phoenician Cemetery of Tyre-Al Bass: Excavations 1997–1999*. BAAL, Hors-série 1. Beirut.
- AUBET, M.E.
- 2009 *Tiro y las colonias fenicias de Occidente*. Critica Arqueología.
- AUGUSTINOVIC, A. and BAGATTI, B.
- 1952 Escursioni nei dintorni di Ajlun. *Liber Annus* 2: 227–314.
- BAR-MATTHEWS, M., AYALON, A. and KAUFMAN, A.
- 1998 Middle to Late Holocene (6,500 yr period) Paleoclimate in the Eastern Mediterranean Region from Stable Isotopic Composition of Speleothemes from Soreq Cave, Israel, 203–214, in: ISSAR, A. and BROWN, N. (eds.), *Water, Environment and Society in Times of Climate Change*. Dordrecht.
- BAR-MATTHEWS, M., AYALON, A., MATTHEWS, A., HALICZ, L. and SASS, E.
- 1993 The Soreq Cave speleothems as indicators of palaeoclimate variations. Geological survey of Israel. *Current Research* 8: 1–3.
- BARAG, D.
- 1985 Phoenician Stone Vessels from the Eighth-Seventh Centuries BCE. *Eretz-Israel* 18: 72*–73* (English summary), 215–232 (Hebrew).
- BARAKO, T.J.
- 2007 *Tel Mor – The Moshe Dothan Excavations, 1959–1960*. IAA Reports, No. 32. Jerusalem.

- BARNETT, R.D.
- 1957 *A Catalogue of the Nimrud Ivories. With Other Examples of Ancient Near Eastern Ivories in the British Museum*. London.
- BARRELET, M.-T.
- 1968 *Figurines et reliefs en terre cuite de la Mésopotamie antique. Potiers, termes de métier, procédés de fabrication et production*. Bibliothèque Archéologique et Historique, 85. Paris.
- BECK, P.
- 1995 Chapter 3: Catalogue of Cult Objects and Study of the Iconography, 27–197, in: BEIT-ARIEH, I., BECK, P. and FREUD, L., *Horvat Qitmit: An Edomite Shrine in the Biblical Negev*. Monograph Series of the Sonia and Marco Nadler Institute of Archaeology No. 11. Tel Aviv.
- 1999 Chapter 7: Clay Figurines, §2. Human Figurine with Tambourine, 386–394, in: BEIT-ARIEH, I. (ed.), *Tel 'Ira: A Stronghold in the Biblical Negev*. Tel Aviv.
- 2002a The Cult Stands from Ta'anach: Aspects of the Iconographic Tradition of Early Iron Age Cult Objects in Palestine, 392–422, in: NA'AMAN, N., ZEVULUN, U. and ZIFFER, I. (eds.), *Imagery and Representation. Studies in the Art and Iconography of Ancient Palestine: Collected Articles*. Tel Aviv.
- 2002b A Human Figurine with Tambourine, 437–446, in: NA'AMAN, N., ZEVULUN, U. and ZIFFER, I. (eds.), *Imagery and Representation. Studies in the Art and Iconography of Ancient Palestine: Collected Articles*. Tel Aviv.
- BEN-AMI, D.
- 2012 Chapter 3: The Pottery in Strata VIII–VII, 154–285, in: BEN-TOR, A., BEN-AMI, D. and SANDHAUS, D., 2012.
- BEN-AMI, D. and BEN-TOR, A.
- 2012 Chapter 5: The Pottery in Strata X–IX, 411–435, in: BEN-TOR, A., BEN-AMI, D. and SANDHAUS, D., 2012.
- BEN-AMI, D., SANDHAUS, D. and BEN-TOR, A.
- 2012 Chapter 6: The Pottery in Strata VIII–IV, 436–476, in: BEN-TOR, A., BEN-AMI, D. and SANDHAUS, D., 2012.
- BEN-ARIEH, S.
- 2004 *Bronze and Iron Age Tombs at Tell Beit Mirsim*. IAA Reports, No. 23. Jerusalem.
- BENNET, C.M. and BIENKOWSKI, P.
- 1995 *Excavations at Tawilan in Southern Jordan*. Oxford.
- BEN-SHLOMO, D.
- 2005 Chapter 3: Material Culture, 63–246, in: DOTHAN, M. and BEN-SHLOMO, D., *Ashdod VI. The Excavations of Areas H and K (1968–1969)*. IAA Reports, No. 24. Jerusalem.
- 2008 Zoomorphic Vessels from Tel Miqne-Ekron and the Different Styles of Philistine Pottery. *Israel Exploration Journal* 58: 24–47.
- 2010 *Philistine Iconography. A Wealth of Style and Symbolism*. Orbis Biblicus et Orientalis 241. Fribourg and Göttingen.
- BEN-SHLOMO, D. and PRESS, M.D.
- 2009 A Reexamination of Aegean-Style Figurines in Light of New Evidence from Ashdod, Ashkelon, and Ekron. *Bulletin of the American Schools of Oriental Research* 353: 39–74.
- BEN-SHLOMO, D., SHAI, I., ZUKERMAN, A. and MAEIR, A.M.
- 2008 Cooking Identities: Aegean-Style Cooking Jugs and Cultural Interaction in Iron Age Philistia and Neighboring Regions. *American Journal of Archaeology* 112: 225–246.
- BEN-TOR, A.
- 2012 Chapter 15: Varia, 578–585, in: BEN-TOR, A., BEN-AMI, D. and SANDHAUS, D., 2012.
- BEN-TOR, A., BEN-AMI, D. and SANDHAUS, D.
- 2012 *Hazor VI: The 1990–2009 Excavations. The Iron Age*. Jerusalem.
- BEN-TOR, A., ZARZECKI-PELEG, A. and COHEN-ANIDJAR, SH.
- 2005 *Yoqne'am II. The Iron Age and the Persian Period. Final Report on the Archaeological Excavations (1977–1988)*. Qedem Reports 6. Jerusalem.
- BIENKOWSKI, P.
- 1995 Chapter 9. The Small Finds, 79–92, in: BENNET, C.M. and BIENKOWSKI, P., 1995.
- BIETAK, M.
- 1993 The Sea Peoples and the End of the Egyptian Administration in Canaan, 292–306, in: BIRAN, A. and AVIRAM, J. (eds.), *Biblical Archaeology Today, 1990: Proceedings of the Second International Congress on Biblical Archaeology. Jerusalem, June – July 1990*. Jerusalem.
- BIKAI, P.M.
- 1978 *The Pottery of Tyre*. Warminster.
- 1987 *The Phoenician Pottery of Cyprus*. Nicosia.
- BIRAN, A.
- 1994 *Biblical Dan*. Jerusalem.
- BOARDMAN, J.
- 1978 *Greek Sculpture: The Archaic Period. A Handbook*. London.
- BOURKE, S., SPARKS, R. and SCHRODER, M.
- 2006 Pella in the Middle Bronze Age, 9–58, in: FISCHER, P.M. (ed.), 2006b.
- BRAUN, J.
- 1999 *Die Musikkultur Altisraels/Palästinas. Studien zu archäologischen, schriftlichen und vergleichenden Quellen*. Orbis Biblicus et Orientalis 164. Fribourg and Göttingen.
- BRENTJES, B.
- 1983 *Alte Siegelkunst des Vorderen Orients*. Leipzig.
- BRIEND, J. and HUMBERT, J.-B.
- 1980 *Tell Keisan (1971–1976), une cité phénicienne en Galilée*. Orbis Biblicus et Orientalis, Series Archaeologica 1. Fribourg, Göttingen and Paris.

- BRONK RAMSEY, C.
- 1995 Radiocarbon calibration and analysis of stratigraphy: The OxCal program. *Radiocarbon* 37(2): 425–430.
- 2001 Development of the radiocarbon calibration program OxCal. *Radiocarbon* 43(2A): 355–363.
- 2009 Bayesian analysis of radiocarbon dates. *Radiocarbon* 51(1): 337–360.
- BROWN, S.
- 1992 Perspectives on Phoenician Art. *The Biblical Archaeologist* 55: 6–24.
- BRUUN-LUNDGREN, M.
- 2011 Industrial Activities, Personal Adornments and Belongings, 381–393, in: HALLAGER, E. and HALLAGER B.P. (eds.), *The Greek-Swedish Excavations at the Agia Aikaterini Square Kastelli, Khania, 1970–1987 and 2001, Vol. IV: I The Late Minoan IIIB:1 and IIIA:2 Settlements*. Stockholm.
- BRUUN-LUNDGREN, M. and WIMAN, I.
- 2000 Industrial Activities and Personal Adornments, 175–182, in: HALLAGER, E. and HALLAGER B.P. (eds.), *The Greek-Swedish Excavations at the Agia Aikaterini Square Kastelli, Khania, 1970–1987, Vol. II. The Late Minoan IIIC Settlement*. Stockholm.
- BUCHHOLZ, H.-G. and KARAGEORGHIS, V.
- 1971 *Altägäis und Altkypros*. Tübingen.
- BÜRGE, T.
- in press Appendix 1: Pottery from a Late Bronze Age Insula in Area 9, in: FISCHER, P.M. and BÜRGE, T., in press e.
- in preparation *An Early Iron Age Compound at Tell Abu al-Kharaz*. PhD thesis.
- BURGH, T.W.
- 2004 “Who’s the Man?” Sex and Gender in Iron Age Musical Performance. *Near Eastern Archaeology* 67: 128–136.
- CASSUTO, D.
- 2012 Chapter 19 – Weaving Implements, 467–484, in: MAEIR, A. (ed.), *Tell es-Safi/Gath I: The 1996–2005 Seasons*. Ägypten und Altes Testament 69. Wiesbaden.
- CATLING, H.W.
- 1964 *Cypriot Bronzework in the Mycenaean World*. Oxford.
- 1984 Workshop and Heirloom. Prehistoric Bronze Stands in the East Mediterranean. *Report of the Department of Antiquities Cyprus* 1984: 69–91, pls. VII–XVII.
- CAUBET, A. and COURTOIS, J.-C.
- 1975 Masques chypriotes en terre cuite du XIIe S. av. J. C. *Report of the Department of Antiquities Cyprus*, 1975: 43–49.
- CHAMBON, A.
- 1984 *Tall el-Far‘ah I: L’Age du Fer*. Paris.
- CIFOLA, B.
- 1994 The Role of the Sea Peoples at the End of the Late Bronze Age: A Reassessment of Textual and Archaeological Evidence. *Oriens Antiqui Miscellanea* 1: 1–57.
- CINTAS, P.
- 1946 *Amulettes Puniques*. Publications de l’Institut des Hautes Etudes de Tunis, Tome I. Tunis.
- CLAMER, C.
- 2007 Chapter 10: The Stone Vessels, 626–638, in: MAZAR, A. and MULLINS, R. (eds.), *Excavations at Tel Beth-Shean 1989–1996, Volume II: The Middle and Late Bronze Age Strata in Area R*. Jerusalem.
- CLINE, E.H. and O’CONNOR, D.
- 2003 The Mystery of the “Sea Peoples”, 107–138, in: O’CONNOR, D. and QUIRKE, S. (eds.), *Mysterious Lands*. London.
- CONTENSON, H. DE
- 1960 Three Soundings in the Jordan Valley. *Annual of the Department of Antiquities of Jordan* 4–5: 12–98.
- 1964 The 1953 Survey of the Yarmouk and Jordan Valleys. *Annual of the Department of Antiquities of Jordan* 8–9: 30–46.
- COLLON, D.
- 1987 *First Impressions. Cylinder Seals in the Ancient Near East*. London.
- 2001 *Catalogue of Western Asiatic Seals in the British Museum. Cylinder Seals V. Neo-Assyrian and Neo-Babylonian Periods*. London.
- CORNELIUS, I.
- 2007 A Terracotta Horse in Stellenbosch and the Iconography and Function of Palestinian Horse Figurines. *Zeitschrift des Deutschen Palästina-Vereins* 123: 28–36.
- COURTOIS, J.-C.
- 1982 Un masque humain en terre cuite d’Enkomi. *Report of the Department of Antiquities Cyprus*, 1982: 69–71.
- COURTOIS, J.-C., LAGARCE, J. and LAGARCE E.
- 1986 *Enkomi et le Bronze Récent à Chypre*. Nicosia.
- CULICAN, W.
- 1975 Some Phoenician Masks and Other Terracottas. *Berytus* 24: 47–87.
- DAVIAU, P.M.M
- 2001a Family Religion: Archaeological Evidence for the Paraphernalia of the Domestic Cult, 199–229 in: DAVIAU, P.M.M., WEVERWS, J.W. and WEIGL, M. (eds.), *The World of the Aramaeans, Volume II: Studies in History and Archaeology in Honour of Paul-Eugène Dion*. JSOT Supplement Series, 325. Sheffield.
- 2001b New Light on Iron Age Religious Iconography: The Evidence from Moab, 317–326, in: BISHEH, G. (ed.), *Studies in the History and Archaeology of Jordan*, VII. Amman.
- 2006 Hirbet el-Mudéyine in its Landscape. Iron Age Towns, Forts, and Shrines. *Zeitschrift des Deutschen Palästina-Vereins* 122: 14–30.
- DAYAGI-MENDELS, M.
- 2002 *The Akhziv Cemeteries. The Ben-Dor Excavations, 1941–1944*. IAA Reports, No. 15. Jerusalem.

- DEVER, W.G.
- 2005 *Did God Have a Wife? Archaeology and Folk Religion in Ancient Israel*. Grand Rapids/Michigan and Cambridge.
- DOOTHAN, M.
- 1970 The Musicians of Ashdod. *Archaeology* 23: 310–311.
- DOOTHAN, T.
- 1982 *The Philistines and Their Material Culture*. Jerusalem.
- 1998 The Pottery, 20–49, in: BIERLING, N., *Tel Mique-Ekron: Report on the 1995–1996 Excavations in Field XNW: Areas 77, 87, 79, 89, 90, 101, 102 – Iron Age I*. Jerusalem.
- 2002 Bronze and Iron Objects with Cultic Connotations from Philistine Temple Building 350 at Ekron. *Israel Exploration Journal* 52/1: 1–27.
- DOOTHAN, M. and PORATH, Y.
- 1982 *Ashdod IV. Excavation of Area M. The Fortifications of the Lower City*. Atiqot 15. Jerusalem.
- 1993 *Ashdod V – Excavation of Area G*. Atiqot 23. Jerusalem.
- DOUBLEDAY, V.
- 1999 The Frame Drum in the Middle East: Women, Musical Instruments and Power. *Ethnomusicology* 43: 101–134.
- DOUMET, C.
- 1992 *Seaux et cylindres orientaux: la collection Chiha*. Orbis Biblicus et Orientalis 9, Series Archaeologica. Fribourg and Göttingen.
- DREWS, R.
- 2004 *Early Riders. The beginnings of mounted warfare in Asia and Europe*. New York and London.
- EGGLER, J. and KEEL, O.
- 2006 *Corpus der Siegelamulette aus Jordanien. Vom Neolithikum bis zur Perserzeit*. Orbis Biblicus et Orientalis 25, Series Archaeologica. Fribourg and Göttingen.
- ELGAVISH, J.
- 1993 Shiqmona, 1373–1378, in: STERN, E. (ed.), *The New Encyclopedia of Archaeological Excavations in the Holy Land 4, Petra – Ziqim*. Jerusalem.
- EPSTEIN, C.
- 1985 Laden Animal Figurines from the Chalcolithic Period in Palestine. *Bulletin of the American Schools of Oriental Research* 258: 53–62.
- FELDBACHER, R. and FISCHER, P.M.
- 2008 Appendix 2: Potmarks on Ceramic Containers from Early Bronze Age Tell Abu al-Kharaz, Jordan Valley, 391–398, in: FISCHER, P.M., 2008a.
- FINKELSTEIN, I.
- 2006 Chapter 15: The Iron Age Pottery: Levels L-5, L-3, H-5 and H-4, 303–314, in: FINKELSTEIN, I., USSHISKIN, D. and HALPERN, B., 2006.
- FINKELSTEIN, I., USSHISKIN, D. and HALPERN, B.
- 2000 *Megiddo III. The 1992–1996 Seasons*. Monograph Series of the Institute of Archaeology of Tel Aviv University 18. Tel Aviv.
- FINKELSTEIN, I., USSHISKIN, D. and HALPERN, B.
- 2006 *Megiddo IV: The 1998–2002 Seasons*. Monograph Series of the Institute of Archaeology of Tel Aviv University 24. Tel Aviv.
- FINNÉ M., HOLMGREN, K., SUNDQVIST, H.S., WEIBERG, E. and LINDBLOM, M.
- 2011 Climate in the Eastern Mediterranean, and Adjacent Regions, During the Past 6000 Years – A Review. *Journal of Archaeological Science* 38: 3153–3173.
- FISCHER, P.M.
- 1980a Geophysical Prospecting at Hala Sultan Tekke, Cyprus. *Journal of Field Archaeology* 7, 4: 479–484.
- 1980b *Application of Technical Devices in Archaeology*. Diss. Gothenburg University. Studies in Mediterranean Archaeology 63. Gothenburg.
- 1986a The Cyclopean-built Wall of the Mycenaean Citadel of Midea: A Survey Using Electronic Distance Measuring Equipment. *Journal of Field Archaeology* 13, 4: 499–503.
- 1986b *Prehistoric Cypriot Skulls*. Studies in Mediterranean Archaeology 75. Gothenburg.
- 1988 Classification of Pottery by Micro Color Analysis: A Pilot Study. *Hydra* 5: 36–41.
- 1991 Tell Abu al-Kharaz. The Swedish Jordan Expedition 1989. First Season Preliminary Report from Trial Soundings. *Annual of the Department of Antiquities of Jordan* 35: 67–104.
- 1992 Absolute Dating by SIMS – The Present State of Research, 53–56, in: BIETAK, M. (ed.), Acts of the Second International Colloquium on Absolute Chronology (The Bronze Age in the Mediterranean). *Egypt and the Levant* 3.
- 1993a Tell Abu al-Kharaz. The Swedish Jordan Expedition 1991. Second Season Preliminary Excavation Report. *Annual of the Department of Antiquities of Jordan* 37: 279–305.
- 1993b Tell Abu al-Kharaz, Jordan Valley, in: Archaeology of Jordan. *American Journal of Archaeology* 97, 3: 477–478.
- 1994a Tell Abu al-Kharaz. The Swedish Jordan Expedition 1992. Third Season Preliminary Excavation Report. *Annual of the Department of Antiquities of Jordan* 38: 127–145.
- 1994b Tell Abu al-Kharaz, Jordan Valley, in: Archaeology of Jordan. *American Journal of Archaeology* 98, 3: 536–537.
- 1994c Review of Maisels, C.K. (1990): The Emergence of Civilization. *American Journal of Archaeology* 98: 776–777.
- 1995a Tell Abu al-Kharaz. The Swedish Jordan Expedition 1993. Fourth Season Preliminary Excavation Report.

- 1995b *Annual of the Department of Antiquities of Jordan* 39: 93–119.
- 1995b Tell Abu al-Kharaz, Jordan Valley, in: Archaeology of Jordan. *American Journal of Archaeology* 99, 3: 514–515.
- 1996a Tell Abu al-Kharaz. The Swedish Jordan Expedition 1994. Fifth Season Preliminary Excavation Report. *Annual of the Department of Antiquities of Jordan* 40: 101–110.
- 1996b Tell Abu al-Kharaz, Jordan Valley, in: Archaeology of Jordan. *American Journal of Archaeology* 100, 3: 520–521.
- 1996c The Mound of the Father of the Beads: Excavating in the Jordan Valley. *Minerva* 7:5: 30–33.
- 1996d Svenska Jordanienexpeditionen 1989–1996. Tell Abu al-Kharaz i det Bibliska Landskapet Gilead. *Medusa* 17, 3: 27–34.
- 1997a Tell Abu al-Kharaz. The Swedish Jordan Expedition 1995 and 1996. Sixth and Seventh Season Preliminary Excavation Report. *Annual of the Department of Antiquities of Jordan* 41: 129–144.
- 1997b Tell Abu al-Kharaz, Jordan Valley, in: Archaeology of Jordan. *American Journal of Archaeology* 101, 3: 508.
- 1997c Tell Abou al-Kharaz, la Yabesh biblique? *le Monde de la Bible* 104: 25–26.
- 1997d Arkeologisk Expedition i Jordanien. *Populär Arkeologi* 15, 1: 35–38.
- 1997e Tell Abu al-Kharaz: Occupation Throughout the Ages. The Faunal and Botanical Evidence. *Studies in the History and Archaeology of Jordan* 6: 159–165. Amman.
- 1997f *A Late Bronze to Early Iron Age Tomb at Sahem, Jordan*. Abhandlungen des Deutschen Palästina-Vereins 21. Wiesbaden.
- 1998a Tell Abu al-Kharaz. The Swedish Jordan Expedition 1997. Eight Season Preliminary Excavation Report. *Annual of the Department of Antiquities of Jordan* 42: 213–223.
- 1998b Tell Abu al-Kharaz, Jordan Valley, in: Archaeology of Jordan. *American Journal of Archaeology* 102, 3: 586–587.
- 1999a Tell Abu al-Kharaz: in Archaeology in Jordan. *American Journal of Archaeology* 103: 498.
- 1999b Chocolate-on-White Ware: Typology, Chronology and Provenance. The Evidence from Tell Abu al-Kharaz, Jordan Valley. *Bulletin of the American Schools of Oriental Research* 313: 1–29.
- 2000a The Early Bronze Age at Tell Abu al-Kharaz, Jordan Valley: A Study of Pottery Typology and Provenance, Radiocarbon Dates, and Synchronism of Palestine and Egypt During Dynasty 0–2, 201–232, in: PHILIP, G. and BAIRD, D. (eds.), *Ceramic and Change in the Early Bronze Age of the Southern Levant*. Sheffield.
- 2000b A Synthesis of Ten Campaigns at Tell Abu al-Kharaz, Jordan Valley: The Early, Middle, Late Bronze and Iron Ages, 447–470, in: MATTHIAE, P., ENEA, A., PEYROU, NEL, L. and PINNOCK, E. (eds.), *Proceedings of the First International Congress on the Archaeology of the Ancient Near East, Rome, May 18th – 23rd 1998*. Rome.
- 2001 The Iron Age at Tall Abū al-Kharaz, Jordan Valley: The Third Major Period of Occupation. A Preliminary Synthesis, 305–316, in: BISHEH, G. (ed.), *Studies in the History and Archaeology of Jordan*, VII. Amman.
- 2002 Egyptian-Transjordanian Interaction During Predynastic and Protodynastic Times: The Evidence from Tell Abu al-Kharaz, Jordan Valley, 323–333, in: BRINK, E.C.M. VAN DEN and LEVY, T.E. (eds.), *Egypt and the Levant. Interrelations from the 4th through the Early 3rd Millennium B.C.E.* London and New York.
- 2005 The Euro-Mediterranean Archaeology Camp Project at Tell Abu al-Kharaz, Jordan (Results from the Excavations in 2001). *Museum for Mediterranean and Near Eastern Antiquities (Stockholm). Focus on the Mediterranean*: 117–132.
- 2006a *Tell Abu al-Kharaz in the Jordan Valley, Volume II: The Middle and Late Bronze Ages*. Contributions to the Chronology of the Eastern Mediterranean 11. Vienna.
- 2006b *The Chronology of the Jordan Valley during the Middle and Late Bronze Ages: Pella, Tell Abu al-Kharaz and Tell Deir 'Alla*. Contributions to the Chronology of the Eastern Mediterranean 12. Vienna.
- 2006c Copper and Bronze Objects from Tell Abu al-Kharaz and Sahem, Jordan. Some Reflections on the Results of Atomic-Absorption Spectrometry, 25–32, in: MAEIR A.M. and MIROSCHEDJI, P. DE (eds.), *I Will Speak the Riddles of Ancient Times. Archaeological and Historical Studies in Honor of Amihai Mazar on the Occasion of His Sixtieth Birthday*. Winona Lake.
- 2008a *Tell Abu al-Kharaz in the Jordan Valley, Volume I: The Early Bronze Age*. Contributions to the Chronology of the Eastern Mediterranean 16. Vienna.
- 2008b Tell Abu al-Kharaz. A Bead in the Jordan Valley. *Near Eastern Archaeology* 71: 196–213.
- 2009a Textile Production at Tall Abu al-Kharaz, Jordan Valley, 109–117, in: KAPTIJN, E. and PETIT, L.P. (eds.), *A Timeless Vale. Festschrift in Honour of Gerrit van der Kooij*. Leiden.
- 2009b The Sphinx Handle from Tall Abu al-Kharaz: Further Evidence, 215–226, in: BIENKOWSKI, P. (ed.), *Studies on Iron Age Moab and Neighbouring Areas in Honour of Michele Daviau*. Ancient Near Eastern Studies Supplement Series 29. Leuven.
- 2010 Tell Abu al-Kharaz, in Archaeology of Jordan, 2008 and 2009 Seasons. *American Journal of Archaeology* 114, 3: 512–514.
- 2011a The Early Bronze Age Societies of Tell Abu al-Kharaz, Central Jordan Valley, 23–40, in: CHESSON, M.S. (ed.), *Daily Life, Materiality and Complexity in Early Urban Communities of the Southern Levant. Papers in Honor of Walter E. Rast and R. Thomas Schaub*. Winona Lake.
- 2011b The New Swedish Cyprus Expedition 2010: Excavations at Dromolaxia Vizatzia/Hala Sultan Tekke. Pre-

- liminary Results. *Opuscula. Annual of the Swedish Institutes at Athens and Rome* 4: 69–98.
- 2012a The Swedish Jordan Expedition 2009 and 2010 at Tall Abu al-Kharaz. Preliminary Results from the Early Iron Age Occupation in Area 9. With appendices by T. Bürgel, and A. Gustafsson & J. Azzopardi. *Opuscula. Annual of the Swedish Institutes in Athens and Rome* 5: 165–185.
- 2012b The New Swedish Cyprus Expedition 2011. Excavations at Hala Sultan Tekke. Preliminary results. With Appendices by T. Bürgel, L. Franz and R. Feldbacher. *Opuscula. Annual of the Swedish Institutes in Athens and Rome* 5: 89–112.
- FISCHER, P.M. and BÜRGEL, T.
- 2012 Tell Abu al-Kharaz, in Archaeology of Jordan, 2010 and 2011 Seasons. *American Journal of Archaeology* 116, 4: 699–701.
- in press a Tall Abu al-Kharaz. The Swedish Jordan Expedition 2011. Fourteenth Season Preliminary Excavation Report. *Annual of the Department of Antiquities of Jordan* 56 (2012).
- in press b Tall Abu al-Kharaz. The Swedish Jordan Expedition 2012. Fifteenth Season Preliminary Excavation Report. *Annual of the Department of Antiquities of Jordan* 57 (2013).
- in press c The Swedish Jordan Expedition 2011 and 2012 at Tall Abu al-Kharaz: Preliminary Results from the Early Iron Age Occupation in Area 9. *Opuscula. Annual of the Swedish Institutes in Athens and Rome* 6 (2013).
- in press d Cultural Influences of the Sea Peoples in Transjordan: The Early Iron Age at Tell Abu al-Kharaz. *Zeitschrift des Deutschen Palästina Vereins* 129/2 (2013).
- in press e The Swedish Jordan Expedition 2013 at Tall Abu al-Kharaz, Preliminary Results from Areas 9, 10 and 11. *Opuscula. Annual of the Swedish Institutes in Athens and Rome* 7 (2014).
- FISCHER, P.M. and FELDBACHER, R.
- 2009 Tall Abu al-Kharaz: Swedish Jordan Expedition: Preliminary Report on the Eleventh Season of Excavation at Tall Abū al-Kharaz, 2008. *Annual of the Department of Antiquities of Jordan* 53: 139–151.
- 2010 Tall Abu al-Kharaz. The Swedish Jordan Expedition 2009. Twelfth Season Preliminary Excavation Report. *Annual of the Department of Antiquities of Jordan* 54: 447–460.
- 2011 Tall Abū al-Kharaz. The Swedish Jordan Expedition 2010. Thirteenth Season Preliminary Excavation Report. *Annual of the Department of Antiquities of Jordan* 55: 377–390.
- FISCHER, P.M. and HERRMANN, G.
- 1995 A Carved Bone Object from Tell Abu al-Kharaz in Jordan: A Palestinian Workshop for Bone and Ivory? *Levant* 27: 145–164.
- FISCHER, P.M. and SADEQ, M.
- 2000 Tell el-‘Ajjul 1999. A Joint Palestinian-Swedish Field project: First Season Preliminary Report. *Egypt and the Levant* 10: 211–226.
- 2002 Tell el-‘Ajjul 2000. Second Season Preliminary Report. *Egypt and the Levant* 12: 109–153.
- FISCHER, P.M. and TOIVONEN-SKAGE, E.
- 1995 Metallic Burnished Early Bronze Age Ware from Tell Abu al-Kharaz. *Studies in the History and Archaeology of Jordan* 5: 587–596.
- FLEMING, D.E.
- 1999 If El is a Bull, Who is a Calf? *Eretz Israel* 26: *23–*27.
- FOWLER, M.D.
- 1985 Excavated Figurines: A Case for Identifying a Site as Sacred?. *Zeitschrift für Alttestamentliche Wissenschaft* 97: 333–344.
- FRANKEN, H.J.
- 1969 *Excavations at Tell Deir ‘Allā, I. A Stratigraphical and Analytical Study of the Early Iron Age Pottery*. Leiden.
- 1992 *Excavations at Tell Deir ‘Allā. The Late Bronze Age Sanctuary*. Leuven.
- FRANZ, L.
- 2012 Appendix 2: The Cylinder Seal, 107–109, in: FISCHER, P.M., 2012b.
- FRENCH, E.B.
- 1998 The Ups and Downs of Mycenae: 1250–1150 BCE, 2–5, in: GITIN, S., MAZAR, A. and STERN, E. (eds.), *Mediterranean Peoples in Transition*. Jerusalem.
- FRUMKIN, A., MAGARITZ, M., CARMI, I. and ZAK, I.
- 1991 The Holocene climatic record of the salt caves of Mount Sodom, Israel. *The Holocene* 1: 191–200.
- GERA, A.
- 2007 Chapter 13: The Small Finds, 211–235, in: COHEN, R. and BERNICK-GREENBERG, H., *Excavations at Kadesh Barnea (Tell el-Qudeirat) 1976–1982. Part 1: Text*. IAA Reports, No. 34/1. Jerusalem.
- GILBERT-PERETZ, D.
- 1996 Chapter Two: Ceramic Figurines, 29–134, in: ARIEL, D.T. (ed.), *Excavations at the City of David 1978–1985 Vol. IV: Various Reports*. Qedem 35. Jerusalem.
- GILBOA, A.
- 1999 The Dynamics of Phoenician Bichrome Pottery: A View from Tel Dor. *Bulletin of the American Schools of Oriental Research* 316: 1–22.
- GILBOA, A. and SHARON, I.
- 2003 An Archaeological Contribution to the Early Iron Age Chronological Debate: Alternative Chronologies for Phoenicia and their Effects on the Levant, Cyprus and Greece. *Bulletin of the American Schools of Oriental Research* 332: 7–80.

- GILBOA, A., SHARON, I. and BOARETTO, E.
- 2008 Tel Dor and the Chronology of Phoenician Pre-Colonisation Stages, 113–204, in: SAGONA, C. (ed.), *Beyond the Homeland: Markers in Phoenician Chronology*. Leuven.
- GJERSTAD
- 1948 *The Swedish Cyprus Expedition, IV/2. The Cypro-Geometric, Cypro-Archaic and Cypro-Classical Periods*. Stockholm.
- GLUECK, N.
- 1934 Explorations in Near Eastern Palestine, I. *The Annual of the American Schools of Oriental Research* 14: 1–113.
- 1951 Explorations in Eastern Palestine IV. *Annual of the American Schools of Oriental Research* 25–28: 261–275; 476, 477.
- GORTON, A. F.
- 1996 *Egyptian and Egyptianizing Scarabs: A Typology of Steatite, Faience, and Paste Scarabs from Punic and Other Mediterranean Sites*. Oxford.
- GRANT, E.
- 1929 *Beth Shemesh (Palestine). Progress of The Haverford Archaeological Expedition*. Haverford.
- 1931 *Ain Shems Excavations (Palestine). 1928–1929–1930–1931. Part I*. Haverford.
- GREEN, J.D.M.
- 2006 *Ritual and Social Structure in the Late Bronze and Early Iron Age Southern Levant: The Cemetery at Tell es-Sa'idiyah, Jordan*. PhD thesis. London.
- 2009 Forces of Transformation in Death: The Cemetery at Tell es-Sa'idiyah, Jordan, 80–91, in: BACHHUBER, C. and ROBERTS, R.G. (eds.), *Forces of Transformation. The End of the Bronze Age in the Mediterranean*. BANEA, Vol. 1. Oxford.
- GRIGSON, C.
- 1995 Plough and Pasture in the Early Economy of the Southern Levant, 245–268, in: LEVY, T.E. (ed.), *The Archaeology of Society in the Holy Land*. London.
- 2012 Camels, Copper and Donkeys in the Early Iron Age of the Southern Levant: Timna Revisited. *Levant* 44/1: 82–100.
- GROOT, N.C.F.
- 2011 *All the Work of Artisans. Reconstructing Society at Tell Deir 'Allā through the Study of Ceramic Traditions: Studies of Late Bronze Age Faience Vessels and Iron IIc–III Ceramics from Tell Deir 'Allā, Jordan*. PhD thesis. Leiden.
- GUGGISBERG, M.A.
- 1996 *Frühgriechische Tierkeramik. Zur Entwicklung und Bedeutung der Tiergefässe und der hohlen Tierfiguren in der späten Bronze- und frühen Eisenzeit (ca. 1600–700 v. Chr.)*. Mainz.
- HÄGG, R.
- 1990 The Role of Libations in Mycenaean Ceremony and Cult, 177–184, in: HÄGG, R. and NORDQUIST, G.C. (eds.), *Celebrations of Death and Divinity in the Bronze Age Argolid. Proceedings of the Sixth International Symposium at the Swedish Institute at Athens, 11–13 June, 1988*. Skrifter Utgivna av Svenska Institutet i Athen, 4°, XL. Stockholm.
- HARRISON, T.M.
- 2004 *Megiddo 3. Final Report on the Stratum VI Excavations*. The University of Chicago Oriental Institute Publications Volume 127. Chicago.
- HARUSH, O.
- 2012 Chapter 13. Decorated Bone, Ivory, Shell and Stone Objects, 564–567, in: BEN-TOR, A., BEN-AMI, D. and SANDHAUS, D., 2012.
- HERBORDT, S.
- 1992 *Neuassyrische Glyptik des 8.–7. Jh. v. Chr. unter besonderer Berücksichtigung der Siegelungen auf Tafeln und Tonverschlüssen*. State Archives of Assyria Studies Vol. 1. Helsinki.
- HERR, L.G
- 1978 *The Scripts of Ancient Northwest Semitic Seals*. Harvard Semitic Monographs, 18. Missoula.
- HERR, L.G., CLARK, D.R., GERATY, L.T., YOUNKER, R.W. and LABIANCA, O.S.
- 2002 *Madaba Plains Project: The 1994 Season at Tall al-'Umayri and Subsequent Studies* 5. Berrien Springs, MI.
- HERRMANN, G.
- 1986 *Ivories from Nimrud, 4: Ivories from Room SW 37 Fort Shalmaneser*. London.
- HERZOG, Z.
- 1984 *Beer-Sheba II. The Early Iron Age Settlements*. Tel Aviv.
- HILLERS, D.R.
- 1970 The Goddess with the Tambourine. Reflections on an Object from Taanach. *Concordia Theological Monthly* 41: 606–619.
- HOLLAND, T.A.
- 1975 *A Typological and Archaeological Study of Human and Animal Representations in the Plastic Art of Palestine during the Iron Age*. Unpublished PhD dissertation, University of Oxford, Magdalen Colledge.
- 1977 A Study of Palestinian Iron Age Baked Clay Figurines, with Special Reference to Jerusalem: Cave 1. *Levant* 9: 121–155.
- 1982 Appendix C: Figurines and Miscellaneous Objects, 551–563, in: KENYON, K.M. and HOLLAND, T.A., *Excavations at Jericho Volume Four. The Pottery Type Series and Other Finds*. London.
- 1995 A Study of Palestinian Iron Age Baked Clay Figurines, with Special Reference to Jerusalem: Cave I, 159–189, in: ESHEL, I. and PRAG, K. (eds.), *Excavations by K.M. Kenyon in Jerusalem 1961–1967, Volume IV. The Iron Age Cave Deposits on the South-east Hill and Isolated Burials and Cemeteries Elsewhere*. British Academy Monographs in Archaeology, 6. Oxford.

- HOMÈS-FREDERICQ, D. and HENNESSY, J.B. (eds.)
- 1986 *Archaeology of Jordan, Vol. 1: Bibliography*. Akkadica Supplementum 3. Leuven.
- 1989 *Archaeology of Jordan, Vol. 2: Surveys and Sites*. Akkadica Supplementum 7–8. Leuven.
- HOMÈS-FREDERICQ, D., HENNESSY, J.B. and SABA, C.
- 2010 *Archaeology of Jordan, I. Bibliography. Vol. 2: 1980–2005*. Akkadica Supplementum 11. Wetteren.
- HOROWITZ, T.
- 2001 A Tambourine-Holding Figurine from Tell Jatt. *Atiqot* 42: 1*–2* (Hebrew); 319 (English summary).
- HULT, G.
- 1983 *Bronze Age Ashlar Masonry in the Eastern Mediterranean. Cyprus, Ugarit, and Neighbouring Regions*. Studies in Mediterranean Archaeology 66. Gothenburg.
- HUMBERT, J.-B.
- 1989 Samra, 554–557, in: Homès-FREDERICQ, D. and HENNESSY, J.B. (eds.), 1989.
- HYLAND, A.
- 2003 *The Horse in the Ancient World*. Stroud.
- IBRAHIM, M.M. and KOOIJ, G. VAN DER
- 1983 Excavations at Tell Deir 'Alla, Season 1982. *Annual of the Department of Antiquities of Jordan* 27: 577–585.
- INGEMARSDOTTER, H.
- 1997 The White Building of Tall Abu al-Kharaz, 137–142, in: FISCHER, P.M. 1997a.
- ISSAR, A.S.
- 2003 *Climate Changes during the Holocene and their Impact on Hydrological Systems*. Cambridge.
- ISSAR, A.S. and ZOHAR, M.
- 2007 *Climate Change: Environment and Civilization in the Middle East*. Berlin.
- JAMES, F.W. and McGOVERN, P.E.
- 1966 *The Iron Age at Beth Shan. A Study of Levels VI – IV*. Philadelphia.
- 1993 *The Late Bronze Egyptian Garrison at Beth Shan. A Study of Levels VII and VIII*. University Museum Monograph 85. Philadelphia.
- KANIEWSKI, D., VAN CAMPO, E., VAN LERBERGHE, K., BOIY, T., VANSTEENHUYSE, K., JANS, G., NYS, K., WEISS, H., MORHANGE, C., OTTO, T. and BRETSCHNEIDER, J.
- 2011 The Sea Peoples, from Cuneiform Tablets to Carbon Dating. *PLoS ONE* 6/6: 1–7.
- KARAGEORGHIS, V.
- 1976 *Kition – auf Zypern, die älteste Kolonie der Phöniker*. Bergisch Gladbach.
- 1983 *Paleopaphos-Skales. An Iron Age Cemetery in Cyprus. Ausgrabungen in Alt-Paphos auf Zypern* 3. Konstanz.
- 1993 *The Coroplast Art of Ancient Cyprus, III. The Cypro-Archaic Period. Large and Medium Size Sculpture*. Nicosia.
- 1996 *The Coroplast Art of Ancient Cyprus, VI. The Cypro-Archaic Period. Monsters, Animals and Miscellanea*. Nicosia.
- 1999 Terrakotten aus Zypern. Cypriote Terracotta, 120–164, in: BERNHARD-WALCHER, A., DEMBSKI, G., GSCHWANTLER, K. and KARAGEORGHIS, V., *Die Sammlung zyprischer Antiken im Kunsthistorischen Museum*. Sammlungskataloge des Kunsthistorischen Museums Band 2. Vienna.
- KARAGEORGHIS, V. (ed.)
- 1987 *La nécropole d'Amathonte 3, Tombes 113–367. Études chypriotes* 9. Nicosia.
- KARAGEORGHIS, V. and DEMAS, M.
- 1985 *Excavations at Kition V: The Pre-Phoenician Levels, Areas I and II*. Nicosia.
- 1988 *Excavations at Maa-Paleokastro*. Nicosia.
- KEEL, O.
- 2010a *Corpus der Stempelsiegel-Amulette aus Palästina/Israel von den Anfängen bis zur Perserzeit, Katalog Band 2: Von Bahan bis Tel Eton*. Orbis Biblicus et Orientalis, Series Archaeologica 29. Fribourg and Göttingen.
- 2010b *Corpus der Stempelsiegel-Amulette aus Palästina/Israel von den Anfängen bis zur Perserzeit, Katalog Band 3: Von Tell el-Far'a Nord bis Tell el-Fir*. Orbis Biblicus et Orientalis, Series Archaeologica 31. Fribourg and Göttingen.
- KEEL, O. and STAUBLI, TH.
- 2001 "Im Schatten Deiner Flügel". *Tiere in der Bibel und im Alten Orient*. Fribourg.
- KEEL, O. and UEHLINGER, CH.
- 2010 *Göttinnen, Götter und Gottessymbole. Neue Erkenntnisse zur Religionsgeschichte Kanaans und Israels aufgrund bislang unerschlossener ikonographischer Quellen*. Sixth Edition. Fribourg.
- KEEL-LEU, H. and TEISSIER, B.
- 2004 *Die vorderasiatischen Rollsiegel der Sammlungen "Bibel+Orient" der Universität Freiburg Schweiz*. Orbis Biblicus et Orientalis 200. Fribourg and Göttingen.
- KENNEDY, D.L.
- 1982 *Archaeological Explorations on the Roman Frontier in North-East Jordan*. BAR Int. Ser. 134. Oxford.
- KENYON, K.M.
- 1956 Jericho and its Setting in Near Eastern History. *Antiquity* 30, No. 119: 184–197.
- KHOURY, R.G.
- 1988 *The Antiquities of the Jordan Rift Valley*. Amman.
- KILLEBREW, A.E.
- 1998 Ceramic Typology and Technology of the Late Bronze II and Iron I Assemblages from Tel Mique-Ekron: The Transition from Canaanite to Early Philistine Culture, 379–405, in: GITIN, S., MAZAR, A. and STERN, E. (eds.), *Mediterranean Peoples in Transition: Thirteenth to*

- Early Tenth Centuries B.C.E. Proceedings of an International Symposium at the Hebrew University Jerusalem in Honor of Professor Trude Dothan.* Jerusalem.
- KIST, J.
- 2003 *Ancient Near Eastern Seals from the Kist Collection. Three Millennia of Miniature Reliefs.* Leiden and Boston.
- KLETTER, R.
- 1996 *The Judean Pillar-Figurines and the Archaeology of Asherah.* BAR International Series, 636. Oxford.
- KLETTER, R. and SAARELAINEN, K.
- 2011 Judean Drummers. *Zeitschrift des Deutschen Palästina-Vereins* 127: 11–28.
- KLETTER, R., ZIFFER, I. and ZWICKEL, W.
- 2010 *Yavneh I. The Excavation of the 'Temple Hill' Repository Pit and the Cult Stands.* Orbis Biblicus et Orientalis, Series Archaeologica 30. Fribourg and Göttingen.
- KNAUF, E.A.
- 1987a A Late Bronze Age Camel Caravan at Tell Deir Alla. *Newsletter of the Institute of Archaeology and Anthropology, Yarmouk University* 4: 7.
- 1987b Camels in Late Bronze and Iron Age Jordan: The Archaeological Evidence. *Biblische Notizen* 40: 20–23.
- KOOIJ, G. VAN DER
- 2006 Tell Deir 'Alla: The Middle and Late Bronze Age Chronology, 199–226, in: FISCHER, P.M. (ed.), 2006b.
- KOOIJ, G. VAN DER and IBRAHIM, M. (eds.)
- 1989 *Picking up the Threads... A Continuing Review of Excavations at Deir Alla, Jordan.* Leiden.
- KOUCKY, F.L.
- 1987a The Regional Environment, 11–40, in: PARKER, S.T. (ed.), *The Roman Frontier in Central Jordan.* BAR Int. Ser. 340.
- 1987b Survey of the Limes Zone, 41–106, in: PARKER, S.T. (ed.), *The Roman Frontier in Central Jordan.* BAR Int. Ser. 340.
- LAGARCE, E. and LAGARCE, J.
- 1973 A propos du masque A.71.1 d'Enkomi. *Syria* 50: 349–354.
- LAGARCE, J. and LAGARCE, E.
- 1988 The Intrusion of the Sea Peoples and Their Acculturation: A Parallel between Palestinian and Ras Ibn Hani Data, 137–169, in: SOATH, S. (ed.), *Studies of the History and Archaeology of Palestine III: Proceedings of the First Symposium on Palestine Antiquities.* Aleppo.
- LAMPRICHHS, R.
- 2007 *Tell Johfiyeh. Ein archäologischer Fundplatz und seine Umgebung in Nordjordanien. Materialien zu einer Regionalstudie.* Alter Orient und Altes Testament 344. Münster.
- LAPP, P.W.
- 1964 The 1963 Excavation at Ta'anek. *Bulletin of the American Schools of Oriental Research* 173: 4–44.
- 1967 The 1966 Excavations at Tell Ta'anek. *Bulletin of the American Schools of Oriental Research* 185: 2–39.
- LEHMANN, G.
- 2011 Cooking Pots and Loomweights in a 'Philistine' Village: Preliminary Report on the Excavations at Qubur el-Walaydah, Israel, 287–314, in: KARAGEORGHIS, V. and KOUKA, O. (eds.), *On Cooking Pots, Drinking Cups, Loomweights and Ethnicity in Bronze Age Cyprus and Neighbouring Regions. An International Archaeological Symposium held in Nicosia, November 6th – 7th 2010.* Nicosia.
- LEHMANN, G., ROSEN, S.A., BERLEJUNG, A. and NIEMANN, H.M.
- 2009 Ausgrabungen in 'Qubur el-Waleyide', Israel, 2007–2008. Vorbericht. *Zeitschrift des Deutschen Palästinavereins* 125: 1–32.
- LEMCKE, G. and STURM, M.
- 1997 $d^{18}\text{O}$ and trace element as proxy for the reconstruction of climate changes at Lake Van (Turkey): preliminary results, 654–678, in: DALFES, N., KUKLA, G. and WEISS, H. (eds.), *Third Millennium BC Climate Change and Old World Collapse.* NATO ASI Series, vol. 149. Berlin.
- LINDNER, M.
- 1989 Sade, 505–511, in: HOMÈS-FREDERICQ, D. and HENNESSY, J.B. (eds.), 1989.
- LOUD, G.
- 1948 *Megiddo II: Seasons of 1935–39. Plates.* The University of Chicago Oriental Institute Publications Volume LXII. Chicago.
- MABRY, J.
- 1989 Investigations at Tell Handaqq, Jordan (1987–88). *Annual of the Department of Antiquities of Jordan* 3: 59–95.
- 1996 Early Town Development and Water Management in the Jordan Valley: Investigations at Tell el-Handaqq North. *Annual of the American Schools of Oriental Research* 53: 115–154.
- MABRY, J. and PALUMBO, G.
- 1989 Wadi Yabis Survey 1987, 91–97, in: HOMÈS-FREDERICQ, D. and HENNESSY, J.B. (eds.), 1989.
- MABRY, J., PALUMBO, G. and KUIJT, I.
- 1988 The 1987 Wadi el-Yabis Survey. *Annual of the Department of Antiquities of Jordan* 32: 275–305.
- MACALISTER, R.A.S.
- 1912 *The Excavation of Gezer, 1902–1905 and 1907–1909, Vol II.* London.
- MAEIR, A.M.
- 1997 *The Material Culture of the Central Jordan Valley during the Middle Bronze II Period: Pottery and Settlement Pattern.* Diss. Hebrew University. Jerusalem.

- 2006 A Philistine "Head Cup" (Rhyton) from Tell es-Sâfi/Gath, 335–345, in: MAEIR, A.M. and MIROSCHEDJI, P. DE (eds.), *"I Will Speak the Riddle of Ancient Times". Archaeological and Historical Studies in Honor of Amihai Mazar on the Occasion of His Sixtieth Birthday*. Winona Lake/Indiana.
- MARINATOS, N.
- 1986 *Minoan Sacrificial Ritual. Cult Practice and Symbolism*. Skrifter utgivna av Svenska Institutet i Athen, 8°, IX. Gothenburg.
- MARKOE, G.E.
- 1990 The Emergence of Phoenician Art. *Bulletin of the American Schools of Oriental Research* 279: 13–26.
- MARTIN, L.
- 1988 Appendix D: The Faunal Remains from Tell es-Sa'idiyah, 83–84, in: TUBB, J.N., Tell es-Sa'idiyah: Preliminary Report on the First Three Seasons of Renewed Excavations. *Levant* 20: 23–88.
- MARTIN, M.A.S.
- 2009 Chapter 6. The Egyptian Assemblage, 434–477, in: PANITZ-COHEN, N. and MAZAR, A. (eds.), 2009.
- MAZAR, A.
- 1980 *Excavations at Tell Qasile 1. The Philistine Sanctuary: Architecture and Cult Objects*. Qedem 12. Jerusalem.
- 1985 *Excavations at Tell Qasile 2. Various Finds, the Pottery, Conclusions, Appendices*. Qedem 20. Jerusalem.
- 1986 Excavations at Tell Qasile, 1982–1984: Preliminary Report. *Israel Exploration Journal* 36: 1–15.
- 2005 Ladder of Time at Tel Rehov, 195–255, in: LEVY, T.E. and HIGHAM, T. (eds.), *The Bible and Radiocarbon Dating*. Oakville.
- 2006 *Excavations at Tel Beth-Shean 1989–1996, Volume I. From the Late Bronze Age IIIB to the Medieval Period*. Jerusalem.
- 2009a Chapter 1. Introduction and Overview, 1–32, in: PANITZ-COHEN, N. and MAZAR, A. (eds.), 2009.
- 2009b Chapter 9A: Clay Figurines and Cult Vessels Beth Shean III, 530–555, in: PANITZ-COHEN, N. and MAZAR, A. (eds.), 2009.
- 2012 Was King Saul Impaled on the Wall of Beth Shean? *Biblical Archaeological Review* 38.2: 34–41.
- MAZAR, A. and BEN-SHLOMO, D.
- 2005 Chapter 2: Stratigraphy and Building Remains, 11–61, in: DOTHAN, M. and BEN-SHLOMO, D., *Ashdod VI. The Excavations of Areas H and K (1968–1969)*. IAA Reports, No. 24. Jerusalem.
- MAZAR, A. and PANITZ-COHEN, N.
- 2001 *Timnah (Tel Batash) II. The Finds from the First Millennium BCE*. Qedem 42. Jerusalem.
- MCADAM, E.
- 1997 The Figurines from the 1982–5 Seasons of Excavations at Ain Ghazal. *Levant* XXIX: 115–145.
- McCOWN, C.C.
- 1930 Spring Field Trip, 1930. *Bulletin of the American Schools of Oriental Research* 39: 10–27.
- 1947 *Tell En-Nasbeh. Archaeological and Historical Results*. Berkeley.
- McGOVERN, P.E.
- 1986 *The Late Bronze and Early Iron Ages of Central Transjordan: The Baqah Valley Project, 1977–1981*. University Museum Monograph, 65. Philadelphia.
- MELLAART, J.
- 1962 Preliminary Report of the Archaeological Survey of the Yarmouk and Jordan Valleys for the Point Four Irrigation Scheme. *Annual of the Department of Antiquities of Jordan* 6–7: 126–153.
- MERRILL, S.
- 1881 *East of the Jordan: A Record of Travel and Observation in the Countries of Moab, Gilead and Bashan During the Years 1875–1877*. London and New York.
- MEYERS, C.L.
- 1987 A Terracotta at the Harvard Semitic Museum and Disc-holding Female Figures Reconsidered. *Israel Exploration Journal* 37: 116–122.
- 1991 Of Drums and Damsels. Women's Performance in Ancient Israel. *The Biblical Archaeologist* 54: 16–27.
- 1993 The Drum-Dance-Song Ensemble: Women's Performance in Biblical Israel, 49–67, in: MARSHALL, K. (ed.), *Rediscovering the Muses. Women's Musical Traditions*. Boston.
- MIGOWSKI, C., STEIN, M., PRASAD, S., NEGENDANK, J.F.W. and AGNON, A.
- 2006 Holocene Climate Variability and Cultural Evolution in the Near East from the Dead Sea Sedimentary Record. *Quaternary Research* 66: 421–431.
- MITTMANN, S.
- 1970 *Beiträge zur Siedlungs- und Territorialgeschichte des Nördlichen Ostjordanlandes*. Wiesbaden.
- MONTLIVALT-VILLENEUVE, E. DE
- 1989 Rumeil, 491–494, in: HOMÈS-FREDERICQ, D. and HENNESSY, J.B. (eds.), 1989.
- MOUNTJOY, P.A.
- 1986 *Mycenaean Decorated Pottery: A Guide to Identification*. Studies in Mediterranean Archaeology 73. Gothenburg.
- MÜLLER-KARPE, M.
- 2009 The Rise and Fall of the Hittite Empire in the Light of Dendroarchaeological Research, 253–262, in: MANNING, S.W. and BRUCE, M.J. (eds.), *Tree-rings, Kings, and Old World Archaeology and Environment: Papers Presented in Honor of Peter Ian Kuniholm*. Oxford.
- MÜNGER, S.
- 2005 Stamp-Seal Amulets and Early Iron Age Chronology An update, 381–404, in: LEVY, T.E. and HIGHAM, T. (eds.), *The Bible and Radiocarbon Dating*. Oakville.

- MÜNGER, S., ZANGENBERG, J. and PAKKALA, J.
- 2011 Kinneret-An urban center at the crossroads: Excavations on Iron Age IB Tel Kinrot at the lake of Galilee. *Near Eastern Archaeology* 74: 68–90.
- NA'AMAN, N.
- 2012 Ḥirbet ed-Dawwāra – a Philistine Stronghold on the Benjamin Desert Fringe. *Zeitschrift des Deutschen Palästina-Vereins* 128/1: 1–9.
- NOVACEK, G.V.
- 2011 *Ancient Israel. Highlights from the Collections of the Oriental Institute University of Chicago*. Oriental Institute Museum Publications no. 31. Chicago.
- NÚÑEZ CALVO, F.J.
- 2008 Phoenicia, 19–95, in: SAGONA, C. (ed.), *Beyond the Homeland: Markers in Phoenician Chronology*. Ancient Near Eastern Studies Supplement Series, 28. Leuven.
- OATES, J.
- 2003 Chapter 9: A Note on the Early Evidence for Horse and the Riding of Equids in Western Asia, 115–125, in: LEVINE, M., RENFREW, C. and BOYLE, K. (eds.), *Prehistoric Steppe Adaptation and the Horse*. Cambridge.
- OPIFICIUS, R.
- 1961 *Das Altbabylonische Terrakottarelief*. Untersuchungen zur Assyriologie und vorderasiatischen Archäologie (Ergänzungsbände zur Zeitschrift für Assyriologie und vorderasiatische Archäologie neue Folge) Band 2. Berlin.
- OTTOSSON, M.
- 1969 *Gilead. Tradition and History*. Coniectanea Biblica. Old Testament Series 3. Lund.
- OWEN, D.
- 1991 The First Equestrian: An Ur III Glyptic Scene. *Acta Sumerologica* 13: 259–273.
- PALUMBO, G., MABRY, J. and KULJT, I.
- 1990 The 1989 Wadi el-Yabis Survey. Report on the 1989 Field Season. *Annual of the Department of Antiquities of Jordan* 34: 95–118.
- PALUMBO, G., MABRY, J., MOHAMMED, A.A., AVELLINO, E., BIEWERS, M., CONATI, C., KANA'AN, R. and MAMMINI, S.
- 1993 The Wadi el-Yabis Survey and Excavations Projects: Report on the 1992 Season. *Annual of the Department of Antiquities of Jordan* 37: 307–319.
- PANITZ-COHEN, N.
- 2009 Chapter 5. The Local Canaanite Pottery, 195–433, in: PANITZ-COHEN, N. and MAZAR, A. (eds.) 2009.
- PANITZ-COHEN, N. and MAZAR, A. (eds.)
- 2009 *Excavations at Tel Beth-Shean 1989–1996, Volume III: The 13th–11th Century BCE Strata in Areas N and S*. Jerusalem.
- PARKER, B.
- 1955 Excavations at Nimrud, 1949–1953. Seals and Impressions. *Iraq* 17: 93–125.
- 1962 Seals and Seal Impressions from the Nimrud Excavations, 1955–58. *Iraq* 24: 26–40.
- PARKER, S.T.
- 1984 Exploring the Roman Frontier in Jordan. *Archaeology* 5: 33–39.
- 1989 Lejjun, 359–367, in: HOMÈS-FREDERICQ, D. and HENNESSY, J.B. (eds.), 1989.
- PAZ, S.
- 2007 *Drums, Women and Goddesses. Drumming and Gender in Iron Age II Israel*. Orbis Biblicus et Orientalis 232. Fribourg and Göttingen.
- PEDEN, A.J.
- 1994 *Egyptian Historical Inscriptions of the Twentieth Dynasty*. Documenta Mundi Aegyptiacae 3. Jonsered.
- PETRIE, W.M.F.
- 1928 *Gerar*. London.
- PICARD, C.G.
- 1967 *Sacra Punica. Étude sur les masques et rasoirs de Carthage*. Karthago. Revue d'archéologie africaine XIII. Paris.
- PILZ, E.
- 1924 Die weiblichen Gottheiten Kanaans. Eine archäologische Studie. *Zeitschrift des Deutschen Palästina-Vereins* 47: 129–168, 260.
- PORADA, E.
- 1948 *Corpus of Ancient Near Eastern Seals in American Collections*. The Bollingen Series 14 (2 vols.). Washington D.C.
- PORTUGALI, Y.
- 1982 A Field Method for Regional Archaeology (The Jezreel Valley Survey 1981). *Tel Aviv* 9: 170–188.
- PRAG, K. and BARNES, H.
- 1996 Three fortresses on the Wadi Kafraim. *Levant* 28: 41–61.
- PRITCHARD, J.B.
- 1943 *Palestinian Figurines in Relation to Certain Goddesses Known through Literature*. American Oriental Series, Volume 24. New Haven.
- 1980 *The Cemetery at Tell es-Sa'idiyeh, Jordan*. University Museum Monograph 41. Philadelphia.
- 1985 *Tell es-Sa'idiyeh. Excavations on the Tell, 1964–1966*. University Museum Monograph 60. Philadelphia.
- 1988 *Sarepta IV. The Objects from Area II, X. The University Museum of the University of Pennsylvania Excavations at Sarafand, Lebanon*. Publications de l'Université Libanaise. Beyrouth.
- RABAN, A. and GALILI, E.
- 1985 Recent maritime archaeological research in Israel: a preliminary report. *International Journal of Nautical Archaeology and Underwater Exploration* 14: 321–356.

RAHMSTORF, L.

- 2003 Clay Spools from Tiryns and Other Contemporary Sites, 397–415, in: An Indication of Foreign Influence in LH IIIC?, in: KYPARISSI-APOSTOLIKO, N. and PAPAKONSTANTINOU, M. (eds.), *The 2nd International Interdisciplinary Colloquium: The Periphery of the Mycenaean World, 26–30 September, Lamia 1999*. Athens.
- 2005 Ethnicity and Changes in Weaving Technology in Cyprus and the Eastern Mediterranean in the 12th Century BC., 143–169, in: KARAGEORGHIS, V., MATTHÄUS, H. and ROGGE, S. (eds.), *Cyprus. Religion and Society: From the Late Bronze Age to the End of the Archaic Period: Proceedings of an International Symposium on Cypriote Archaeology*, Erlangen 23–24 July 2004, Münster.

RASHID, S.A.

- 1984 *Mesopotamien. Musikgeschichte in Bildern Band II*, 2. Leipzig.

RAST, W.E.

- 1978 *Taanach I: Studies in the Iron Age Pottery*. Cambridge, MA.

REIMER, P. J., BAILLIE, M. G. L., BARD, E., BAYLISS, A., BECK, J. W., BLACKWELL, P. G., BRONK RAMSEY, C., BUCK, C. E., BURR, G. S., EDWARDS, R. L., FRIEDRICH, M., GROOTES, P. M., GUILDERSON, T. P., HAJDAS, I., HEATON, T. J., HOGG, A. G., HUGHEN, K. A., KAISER, K. F., KROMER, B., McCORMAC, F. G., MANNING, S. W., REIMER, R. W., RICHARDS, D. A., SOUTHON, J. R., TALAMO, S., TURNER, C. S. M., VAN DER PLICHT, J., and WEYHENMEYER, C. E.

- 2009 IntCal09 and Marine09 radiocarbon age calibration curves, 0–50,000 years cal BP. *Radiocarbon* 51(4): 1111–1150.

REDFORD, D.B.

- 2000 Egypt and Western Asia in the Late New Kingdom: An Overview, 1–20, in OREN, E.D.(ed), *The Sea Peoples and Their World: A Reassessment*. University Museum Monograph 108. Philadelphia.

RENFREW, C.

- 1985 *The Archaeology of Cult. The Sanctuary at Phylakopi*. The Annual of the British School at Athens: Supplementary Volume 18. London.

RICE, M.

- 1998 *The Power of the Bull*. London.

RICE, P.

- 1987 *Pottery Analysis. A Sourcebook*. Chicago and London.

RICHELLE, M.

- 2010 *Le royaume d'Israel dans la première moitié du VIII^e siècle avant notre ère*. PhD thesis. Paris.

RINNER, M.

- 2009 Appendix 2: The Loom Weights from the 2008 Season at Tall Abū al-Kharaz, 147–149, in: FISCHER, P.M. and FELDBACHER, R., 2009.

ROBINSON, E.

- 1889 *Survey of Eastern Palestine*. London.

ROWE, A.

- 1940 *The Four Canaanite Temples of Beth-Shan, Part I. The Temples and Cult Objects*. Philadelphia.

SANDARS, N.K.

- 1978 *The Sea Peoples*. London

SAUER, J.

- 1986 Transjordan in the Bronze and Iron Ages: A Critique of Glueck's Synthesis. *Bulletin of the American Schools of Oriental Research* 263: 1–26.

SCHILK, S.

- 2010 Appendix 2: An Isolated MB/LB Context from 2009, 457–459, in: FISCHER, P.M. and FELDBACHER, R., 2010.

SCHMIDL, M.

- 2009 Appendix 1: A Neo-Assyrian Cylinder Seal from Tall Abū al-Kharaz, 145–147, in: FISCHER, P.M. and FELDBACHER, R., 2009.

SCHREIBER, N.

- 2003 *The Cypro-Phoenician Pottery of the Iron Age*. Leiden.

SEDMAN, L.

- 2002 Small Finds, 353–428, in: BIENKOWSKI, P. (ed.), *Busayra Excavations by Crystal-M Bennett 1971–1980*. Oxford.

SENDREY, A.

- 1969 *Music in Ancient Israel*. London.

SHAMIR, O.

- 2007 Loomweights and Textile Production at Tel Miqne-Ekron: A Preliminary Report, 43–49, in: WHITE CRAWFORD, S., BEN-TOR, A., DESSEL, J.P., DEVER, W.G., MAZAR, A. and AVIRAM, J. (eds.), "Up to the Gates of Ekron". *Essays on the Archaeology and History of the Eastern Mediterranean in Honor of Seymour Gitin*. Jerusalem.

SMITH, J.S.

- 2009 *Art and Society in Cyprus from the Bronze Age into the Iron Age*. Cambridge.

SMITH, R.H. and POTTS, T.

- 1992 Chapter 5. The Iron Age, 83–101, in: McNICOLL, A.W., EDWARDS, P.C., HANBURY-TENISON, J., HENNESSY, J.B., POTTS, T.F., SMITH, R.H., WALMSLEY, A. and WATSON, P., *Pella in Jordan 2. Mediterranean Archaeology Supplement 2*. Sydney.

SPARKS, R.T.

- 2007 *Stone Vessels in the Levant*. Leeds.

STAGER, L.

- 1991 When Canaanites and Philistines Ruled Ashkelon. *Biblical Archaeology Review* 17/2: 24–43.

STAUBLI, TH.

- 2001 Stabile Politik – florierende Wirtschaft und umgekehrt: Eine rechteckige, beidseitig gravierte Platte aus der Hyksoszeit. *Zeitschrift des Deutschen Palästina-Vereins* 117: 97–115.

- STEIER, P., DELLINGER, F., KUTSCHERA, W., PRILLER, A., ROM, W. and WILD, E.M.
- 2004 Pushing the precision limit of ^{14}C AMS. *Radiocarbon* 46, 1: 5–16.
- STERN, E.
- 1976 Phoenician Masks and Pendants. *Palestine Exploration Quarterly* 108: 109–118.
- 2011 Phoenician Clay Masks from Tel Dor, 317–330, in: FINKELSTEIN, I. and NA'AMAN, N. (eds.), *The Fire Signals of Lachish. Studies in the Archaeology and History of Israel in the Late Bronze Age, Iron Age, and Persian Period in Honor of David Ussishkin*. Winona Lake.
- STEUERNAGEL, D.C.
- 1925 Der Adschlun. *Zeitschrift des Deutschen Palästina-Vereins* 48: 1–144, 201–392.
- 1926 Der Adschlun. *Zeitschrift des Deutschen Palästina-Vereins* 49: 1–167.
- STRAWN, B.A.
- 2005 *What is Stronger than a Lion? Leonine Image and Metaphor in the Hebrew Bible and the Ancient Near East*. Orbis Biblicus et Orientalis 212. Fribourg and Göttingen.
- SUGIMOTO, D.T.
- 2008 *Female Figurines with a Disk from the Southern Levant and the Formation of Monotheism*. Tokyo.
- TADMOR, M.
- 1982 Female Cult Figurines in Late Canaan and Early Israel: Archaeological Evidence, 139–173, in: ISHIDA, T. (ed.), *Studies in the Period of David and Solomon and Other Essays*. Tokyo.
- 2005 Anthropomorphic and Zoomorphic Figurines and Vessels, 354–366, in: BEN-TOR, A., ZARZECKI-PELEG, A. and COHEN-ANIDJAR, SH., 2005.
- 2006 Realism and Convention in the Depiction of Ancient Drummers, 321–338, in: AMIT, Y., BEN ZVI, E., FINKELSTEIN, I. and LIPSCHITS, O. (eds.), *Essays on Ancient Israel in Its Near Eastern Context. A Tribute to Nadav Na'amani*. Winona Lake.
- 2012 Clay Figurines, 477–495, in: BEN-TOR, A., BEN-AMI, D. and SANDHAUS, D., 2012.
- TEETER, E.
- 1993 Female Musicians in Pharaonic Egypt, 68–91, in: MARSHALL, K. (ed.), *Rediscovering the Muses. Women's Musical Traditions*. Boston.
- 2010 *Baked Clay Figurines and Votive Beds from Medinet Habu. Based on the Fieldnotes of Uvo Hölscher and Rudolf Anthes*. The University of Chicago Oriental Institute Publications Volume 133. Chicago.
- TEISSIER, B.
- 1984 *Ancient Near Eastern Cylinder Seals from the Marco-poli Collection*. Berkeley, Los Angeles and London.
- THOMPSON, H.O.
- 1971 Iron Age Cosmetic Palettes. *Annual of the Department of Antiquities of Jordan* 16: 61–70.
- 1972 II. Cosmetic Palettes. *Levant* 4: 148–150, pl. XVI. A–B.
- TUBB, J.
- 1989 Sa'idiyeh (Tall es-), 521–542, in: HOMÈS-FREDERICQ, D. and HENNESSY, J.B. (eds.), 1989.
- 2000 Sea Peoples in the Jordan Valley, 181–196, in: OREN, E.D. (ed.), 2000, *The Sea Peoples and Their World: A Reassessment*. University Museum Monograph, 108. Pennsylvania.
- TUFNELL, O.
- 1953 *Lachish III. The Iron Age*. The Wellcome-Marston Archaeological Research Expedition to the Near East Publications 3. London.
- VANDENABEELE, F.
- 1986 Phoenician Influence on the Cypro-Archaic Terracotta Production and Cypriot Influence Abroad, 351–360, in: KARAGEORGHIS, V. (ed.), *Acts of the International Archaeological Symposium "Cyprus between the Orient and the Occident" Nicosia, 8–14 September 1985*. Nicosia.
- VAUX, R. DE
- 1951 La troisième campagne de fouilles à Tell el-Far'ah près Naplouse. *Revue Biblique* 58: 391–430.
- 1952 La quatrième campagne de fouilles à Tell el-Far'ah, près Naplouse. *Revue Biblique* 59: 551–583.
- VIEWEGER, D. and HÄSER, J.
- 2005 Der Tell Zerā'a im Wādī el-‘Arab. Das Gadara Region Project in den Jahren 2001 bis 2004. *Zeitschrift des Deutschen Palästina-Vereins* 121: 1–30.
- 2007 Tall Zirā'a. Five Thousand Years of Palestinian History on a Single-Settlement Mound. *Near Eastern Archaeology* 70: 147–167.
- VOGEL, J.S., SOUTHON, J.R., NELSON, D.E. and BROWN, T.A.
- 1984 Performance of catalytically condensed carbon for use in accelerator mass spectrometry. *Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms* 5, 2: 289–293.
- VOIGT, M.M.
- 2000 Çatal Höyük in Context. Ritual at Early Neolithic Sites at Central and Eastern Turkey, 253–293, in: KULJT, I. (ed.), *Life in Neolithic Farming Communities. Social Organization, Identity and Differentiation*. New York.
- WALMSLEY, A.G.
- 1995 Islamic Pottery from Tall Abu al-Kharaz, 107, in: FISCHER, P.M. 1995a.
- WARD, G.K. and WILSON, S.R.
- 1978 Procedures for comparing and combining radiocarbon age determinations: A critique. *Archaeometry* 20(1): 19–31.
- WATSON, P.J.
- 1979 *Archaeological Ethnography in Western Iran*. Viking Fund Publications in Anthropology 57. University of Arizona. Tucson.

- WHITING, C.M., ALDERSON, S., FRASER, J.A., MAKINSON, M., MCRAE, I.K., MILLER, H., REES, G. and VIVONA, J.
- 2008 The First Preliminary Report of the South Jordan Iron Age II Survey and Excavation Project (SJIAP): The 2004, 2005 and 2006 Seasons of Excavation at Khirbat ad-Dabba. *Annual of the Department of Antiquities of Jordan* 52: 255–278.
- WILD, E.M., NEUGEBAUER-MARESCH, C., EINWÖGERER, T., STADLER, P., STEIER, P. and BROCK, F.
- 2008 ¹⁴C dating of the Upper Paleolithic site at Krems-Hundssteig in Lower Austria. *Radiocarbon* 50, 1: 1–10.
- WILD, E.M., STEIER, P., FISCHER, P. and HÖFLMAYER, F.
- 2013 ¹⁴C dating of humic acids from Bronze and Iron Age plant remains from the Eastern Mediterranean. *Radiocarbon* 55, 2–3: 599–607.
- WINTER, I.J.
- 1981 Is there a South Syrian style of Ivory carving in the Early First Millennium B.C.? *Iraq* 43: 101–130.
- WINTER, U.
- 1983 *Frau und Göttin. Exegetische und ikonographische Studien zum weiblichen Gottesbild im alten Israel und in dessen Umwelt*. PhD dissertation, Université de Fribourg.
- WISEMAN, D.J.
- 1959 *Götter und Menschen im Rollsiegel Westasiens*. Prague.
- YADIN, Y.
- 1958 *Hazor I. An Account of the First Season of Excavations, 1955*. Jerusalem.
- 1970 Symbols of Deities at Zinjirli, Carthage and Hazor, 199–231, in: SANDERS, J.A. (ed.), *Near Eastern Archaeology in the Twentieth Century. Essays in Honor of Nelson Glueck*. Garden City, N.Y.
- YADIN, Y., AHARONI, Y., AMIRAN, R., DO THAN, T., DUNAYEVSKY, I., PERROT, J. and ANGRESS, S.
- 1960 *Hazor II. An Account of the Second Season of Excavations, 1956*. Jerusalem.
- YADIN, Y., AHARONI, Y., AMIRAN, R. and DO THAN, T.
- 1961 *Hazor III–IV. An Account of the Third and Fourth Seasons of Excavations, 1957–1958: Plates*. Jerusalem.
- YAHALOM-MACK, N. and MAZAR, A.
- 2006 Chapter 13. Various Finds from the Iron Age II Strata in Areas P and S, 468–504, in: MAZAR, A., 2006.
- YASSINE, K., IBRAHIM, M. and SAUER, J.
- 1988 *The East Jordan Valley Survey, 1975*, Part 1: 159–187; Part 2: 189–207, in: *Archaeology of Jordan: Essays and Reports*. Department of Archaeology and University of Jordan. Amman.
- YASUR-LANDAU, A.
- 2010 *The Philistines and Aegean Migration at the End of the Late Bronze Age*. New York.
- ZAHLHAAS, G.
- 1996 *Aus Noahs Arche. Tierbilder aus der Sammlung Mildenberg aus fünf Jahrtausenden*. Ausstellungskataloge der Prähistorischen Staatssammlung München Band 29. Mainz.
- ZARZECKI-PELEG, A.
- 2005 Part I: Stratigraphy and Architecture, 5–232, in: BEN-TOR, A., ZARZECKI-PELEG, A. and COHEN-ANIDJAR, SH., 2005.
- ZEIST, W. VAN, BARUCH, U. and BOTTEMA, S.
- 2009 Holocene Paleoecology of the Hula Area, Northeastern Israel, 29–64, in: KAPTIJN, E. and PETIT, L.P. (eds.), *A Timeless Vale. Archaeological Studies Leiden University* 19. Leiden.
- ZIFFER, I.
- 2010 Chapter 5: The Iconography of the Cult Stands, 61–104, in: KLETTER, R., ZIFFER, I. and ZWICKEL, W., *Yavneh I. The Excavation of the 'Temple Hill' Repository Pit and the Cult Stands*. Orbis Biblicus et Orientalis, Series Archaeologica 30. Fribourg and Göttingen.
- ZORN, J.R.
- 1994 Estimating the Population Size of Ancient Settlements: Methods, Problems, Solutions and a Case Study. *Bulletin of the American Schools of Oriental Research* 295: 31–48.
- ZWICKEL, W.
- 1990 *Räucherkult und Räuchergeräte. Exegetische und archäologische Studien zum Räucheropfer im Alten Testament*. Orbis Biblicus et Orientalis 97. Fribourg and Göttingen.

UNTERSUCHUNGEN DER ZWEIGSTELLE KAIRO DES ÖSTERREICHISCHEN ARCHÄOLOGISCHEN INSTITUTS

Herausgegeben in Verbindung mit der Kommission für Ägypten und Levante der Österreichischen Akademie der Wissenschaften von MANFRED BIETAK

- Band I MANFRED BIETAK, *Tell el-Dab'a II. Der Fundort im Rahmen einer archäologisch-geographischen Untersuchung über das ägyptische Ostdelta*. Wien 1975.
- Band II LABIB HABACHI, *Tell el-Dab'a and Qantir I. The Site and its Connection with Avaris and Piramesse*. Aus dem Nachlaß herausgegeben von EVA MARIA ENGEL. Unter Mitarbeit von PETER JÁNOSI und CHRISTA MLINAR. Wien 2001.
- Band III JOACHIM BOESSNECK, *Tell el-Dab'a III. Die Tierknochenfunde 1966–1969*. Wien 1976.
- Band IV MANFRED BIETAK und ELFRIEDE REISER-HASLAUER, *Das Grab des Anch-Hor, Obersthofmeister der Gottesgemahlin Nitokris* (mit einem Beitrag von ERHART GRAEFE). Wien 1978.
- Band V MANFRED BIETAK und ELFRIEDE REISER-HASLAUER, *Das Grab des Anch-Hor, Obersthofmeister der Gottesgemahlin Nitokris. Teil II* (mit Beiträgen von JOACHIM BOESSNECK, ANGELA VON DEN DRIESCH, JAN QAEGBEUR, HELGA LIESE-KLEIBER und HELMUT SCHLICHTHERLE). Wien 1982.
- Band VI DIETHELM EIGNER, *Die monumentalen Grabbauten der Spätzeit in der Thebanischen Nekropole* (mit einem Beitrag von JOSEF DORNER). Wien 1984.
- Band VII MANFRED BIETAK, *Tell el-Dab'a IV. Stratigraphie und Chronologie* (in Vorbereitung).
- Band VIII MANFRED BIETAK, unter Mitarbeit von CHRISTA MLINAR und ANGELA SCHWAB, *Tell el-Dab'a V. Ein Friedhofsbezirk der Mittleren Bronzezeit mit Totentempel und Siedlungsschichten*. Wien 1991.
- Band IX EIKE M. WINKLER und HARALD WILFLING, *Tell el-Dab'a VI. Anthropologische Untersuchungen an den Skelettresten der Kampagnen 1966–69, 1975–80, 1985*. Wien 1991.
- Band X JOACHIM BOESSNECK und ANGELA VON DEN DRIESCH, *Tell el-Dab'a VII. Tiere und historische Umwelt im Nordost-Delta im 2. Jahrtausend anhand der Knochenfunde der Ausgrabungen 1975–1986*. Wien 1992.
- Band XI KARL KROMER, NEZLET BATRAN. *Eine Mastaba aus dem Alten Reich bei Giseh (Ägypten)*. Österreichische Ausgrabungen 1981–1983. Wien 1991.
- Band XII DAVID A. ASTON, MANFRED BIETAK, *Tell el-Dab'a VIII. The Classification and Chronology of Tell el-Yahudiya Ware*, with contributions by AREN MAEIR, ROBERT MULLINS, LAWRENCE E. STAGER, ROSS VOSS, HANAN CHARAF and MARY OWNBY. Ausgrabungen in Tell el-Dab'a, Manfred Bietak (Hrsg.).
- Band XIII PETER JÁNOSI, *Die Pyramidenanlagen der Königinnen. Untersuchungen zu einem Grabtyp des Alten und Mittleren Reiches*. Wien 1996.
- Band XIV MANFRED BIETAK (Hrg.), *Haus und Palast im Alten Ägypten. Internationales Symposium 8. bis 11. April 1992 in Kairo*. Wien 1996.
- Band XV ERNST CZERNY, *Tell el-Dab'a IX. Eine Plansiedlung des frühen Mittleren Reiches*. Wien 1999.
- Band XVI PERLA FUSCALDO, *Tell el-Dab'a X. The Palace District of Avaris, The Pottery of the Hyksos Period and the New Kingdom (Areas H/III and H/VI), Part I. Locus 66*. Wien 2000.
- Band XVII SUSANNA CONSTANZE HEINZ, *Die Feldzugsdarstellungen des Neuen Reiches – Eine Bildanalyse*. Wien 2001.
- Band XVIII MANFRED BIETAK (Ed.), *Archaische Griechische Tempel und Altägypten, Internationales Kolloquium am 28. November 1997 im Institut für Ägyptologie der Universität Wien*. Mit Beiträgen von DIETER ARNOLD, ANTON BAMMER, ELISABETH GEBHARD, GERHARD HAENY, HERMANN KIENAST, NANNO MARINATOS, ERIK ÖSTBY und ULRICH SINN, Wien 2001.
- Band XIX BETTINA BADER, *Tell el-Dab'a XIII. Typologie und Chronologie der Mergel C-Ton Keramik. Materialien zum Binnenhandel des Mittleren Reiches und der zweiten Zwischenzeit*. Wien 2001.
- Band XX MANFRED BIETAK und MARIO SCHWARZ (Eds.), *Krieg und Sieg. Narrative Wanddarstellungen von Altägypten bis ins Mittelalter, Interdisziplinäres Kolloquium, 29.–30. Juli 1997 im Schloß Haindorf, Langenlois*. Wien 2002.
- Band XXI IRMGARD HEIN und PETER JÁNOSI, *Tell el-Dab'a XI, Areal A/V. Siedlungsrelikte der späten Hyksoszeit*. Mit Beiträgen von K. KOPETZKY, L.C. MAGUIRE, C. MLINAR, G. PHILIP, A. TILLMANN, U. THANHEISER, K. GROSSCHMIDT. Wien 2004.
- Band XXII NADIA EL-SHOHOMI, *Der Tod im Leben. Eine vergleichende Analyse altägyptischer und rezenter ägyptischer Totenbräuche. Eine phänomenologische Studie*. Wien 2004.
- Band XXIII DAVID ASTON in collaboration with MANFRED BIETAK, and with the assistance of BETTINA BADER, IRENE FORSTNER-MÜLLER and ROBERT SCHIESTL, *Tell el-Dab'a XII. A Corpus of Late Middle Kingdom and Second Intermediate Period Pottery. Volume I: Text; Volume II: Plates*. Wien 2004.
- Band XXIV PETER JÁNOSI, *Giza in der 4. Dynastie. Die Baugeschichte und Belegung einer Nekropole des Alten Reiches, Band I, Die Mastabas der Kernfriedhöfe und die Felsgräber*. Wien 2005.

- Band XXV PETER JÁNOSI (Ed.), *Structure and Significance. Thoughts on Ancient Egyptian Architecture*. Wien 2005.
- Band XXVI GRAHAM PHILIP, *Tell el-Dab'a XV. Metalwork and Metalworking Evidence of the Late Middle Kingdom and the Second Intermediate Period*. Wien 2006.
- Band XXVII MANFRED BIETAK, NANNÓ MARINATOS and CLAIRY PALIVOU, *Taureador Scenes in Tell el Dab'a (Avaris) and Knossos* (with a contribution by ANN BRYSBART). Wien 2007.
- Band XXVIII IRENE FORSTNER-MÜLLER, *Tell el-Dab'a XVI. Die Gräber des Areals A/II von Tell el-Dab'a*. Ausgrabungen in Tell el-Dab'a, Manfred Bietak (Hrsg.). Wien 2008.
- Band XXIX VERA MÜLLER, *Tell el-Dab'a XVII. Opferdeponierungen in der Hyksoshauptstadt Auaris (Tell el-Dab'a) vom späten Mittleren Reich bis zum frühen Neuen Reich. Teil I: Katalog der Befunde und Funde; Teil II: Auswertung und Deutung der Befunde und Funde*. Ausgrabungen in Tell el-Dab'a, Manfred Bietak (Hrsg.). Wien 2008.
- Band XXX ROBERT SCHIESTL, *Tell el-Dab'a XVIII. Die Palastnekropole von Tell el-Dab'a. Die Gräber des Areals F/I der Straten d/2 und d/1*. Ausgrabungen in Tell el-Dab'a 3, Manfred Bietak (Hrsg.). Wien 2008.
- Band XXXI BETTINA BADER, *Tell el-Dab'a XIX. Auaris und Memphis im Mittleren Reich und in der Hyksoszeit. Vergleichsanalyse der materiellen Kultur*. Ausgrabungen in Tell el-Dab'a, Manfred Bietak (Hrsg.). Wien 2009.
- Band XXXII KARIN KOPETZKY, *Tell el-Dab'a XX. Die Chronologie der Siedlungsgeramik der Zweiten Zwischenzeit aus Tell el-Dab'a. Teil I: Auswertung und Datierung; Teil II: Abbildungen und Tabellen*. Ausgrabungen in Tell el-Dab'a, Manfred Bietak (Hrsg.). Wien 2010.
- Band XXXIII LOUISE C. MAGUIRE, *Tell el-Dab'a XXI. The Cypriot Pottery and its Circulation in the Levant*. Ausgrabungen in Tell el-Dab'a, Manfred Bietak (Hrsg.). Wien 2009.
- Band XXXIV JULIA BUDKA, *Bestattungsbrauchtum und Friedhofsstruktur im Asasif. Eine Untersuchung der spätzeitlichen Befunde anhand der Ergebnisse der österreichischen Ausgrabungen in den Jahren 1969–1977, Band I: Topographie, Architektur und Funde*. Wien 2010.
- Band XXXV M. BIETAK, E. CZERNY, I. FORSTNER-MÜLLER (Eds.), *Cities and Urbanism in Ancient Egypt. Papers from a Workshop in November 2006 at the Austrian Academy of Sciences*. Wien 2010.
- Band XXXVI PERLA FUSCALDO, *Tell el-Dab'a X/2. The Palace District of Avaris, The Pottery of the Hyksos Period and the New Kingdom (Areas H/III and H/VI), Part II. Two execration pits and a foundation deposit*. Wien 2010.
- Band XXXVII TINE BAGH, *Tell el-Dab'a XXII. Levantine Painted Ware from Egypt and the Levant*. Ausgrabungen in Tell el-Dab'a, Manfred Bietak (Hrsg.). Wien 2013.

CONTRIBUTIONS TO THE CHRONOLOGY OF THE EASTERN MEDITERRANEAN

Edited by MANFRED BIETAK and HERMANN HUNGER

- Volume I MANFRED BIETAK (Ed.), *The Synchronisation of Civilisations in the Eastern Mediterranean in the Second Millennium BC. Proceedings of an International Symposium at Schloß Haindorf, 15th–17th of November 1996 and at the Austrian Academy, Vienna, 11th–12th of May 1998*. Wien 2000.
- Volume II VASSOS KARAGEORGHIS (Ed.), *The White Slip Ware of Late Bronze Age Cyprus. Proceedings of an International Conference organized by the Anastasios G. Leventis Foundation, Nicosia, in Honour of Malcolm Wiener. Nicosia 29th–30th October 1998*, Wien 2001.
- Volume III MANFRED BIETAK (Ed.), *The Middle Bronze Age in the Levant. Proceedings of an International Conference on MB II A Ceramic Material*. Vienna, 24th–26th of January 2001. Wien 2002.
- Volume IV MANFRED BIETAK (Ed.), *The Synchronisation of Civilisations in the Eastern Mediterranean in the Second Millennium BC. II. Proceedings of the SCIEM 2000 – EuroConference, Haindorf, 2nd of May–7th of May 2001*. Wien 2003.
- Volume V CELIA BERGOFFEN, *The Cypriot Bronze Age pottery from Sir Leonard Woolley's Excavations at Alalakh (Tell Atchana)*. Wien 2005.
- Volume VI HERMANN HUNGER and REGINE PRUZSINSZKY (Eds.), *Mesopotamian Dark Age Revisited. Proceedings of an International Conference of SCIEM 2000, Vienna 8th–9th of November 2002*. Wien 2004.
- Volume VII ULRICH LUFT, *Urkunden zur Chronologie der späten 12. Dynastie: Briefe aus Illahun*. Vienna 2006.
- Volume VIII MANFRED BIETAK and ERNST CZERNY (Eds.), *Scarabs of the Second Millennium BC from Egypt, Nubia, Crete, and the Levant. Chronological and Historical Implications*. Wien 2004.

- Volume IX MANFRED BIETAK and ERNST CZERNY (Eds.), *The Synchronisation of Civilisations in the Eastern Mediterranean in the Second Millennium BC. III. Proceedings of the SCIEM 2000 – 2nd EuroConference*, Vienna, 28th of May–1st of June 2003. Vienna 2007.
- Volume X KATHRYN O. ERIKSSON, *The Creative Independence of Late Bronze Age Cyprus. An Account of the Archaeological Importance of White Slip Ware in assessing the relative chronology of Late Bronze Age Cyprus and the island's historical links with the societies of the Eastern Mediterranean during this period*. Vienna 2007.
- Volume XI PETER FISCHER, *Tell Abu al-Kharaz in the Jordan Valley. Volume II: The Middle and Late Bronze Ages*. Vienna 2006.
- Volume XII PETER FISCHER (Ed.), *The Chronology of the Jordan Valley during the Middle and Late Bronze Ages: Pella, Tell Abu al-Kharaz and Tell Deir 'Alla*. Vienna 2006.
- Volume XIII IRMGARD HEIN (Ed.), *The Lustrous Wares of Late Bronze Age Cyprus and the Eastern Mediterranean, Conference held at the Austrian Academy of Sciences, Vienna, 5th–6th November 2004*. Vienna 2007.
- Volume XIV FLORENS FELTEN, WALTER GAUSS and RUDOLFINE SMETANA (Eds.), *Middle Helladic Pottery and Synchronisms. Proceedings of the International Workshop held at Salzburg, 31st of October–2nd November 2004*. Ägina Kolonna, Forschungen und Ergebnisse 1, Vienna 2007.
- Volume XV CLAUS REINHOLDT, *Der frühbronzezeitliche Schmuckhortfund von Kap Kolonna. Ägina und die Ägäis im Goldzeitalter des 3. Jahrtausends v. Chr.* Mit einem Beitrag von A.G. KARYDAS und CH. ZARKADAS. Ägina Kolonna, Forschungen und Ergebnisse 2. Vienna 2008.
- Volume XVI PETER FISCHER, *Tell Abu al-Kharaz in the Jordan Valley. Volume I: The Early Bronze Age*. Vienna 2008.
- Volume XVII MANFRED BIETAK and ERNST CZERNY (Eds.), *The Bronze Age in the Lebanon. Studies on the Archaeology and Chronology of Lebanon, Syria and Egypt*. Vienna 2008.
- Volume XVIII JACQUELINE PHILLIPS, *Aegyptiaca on the Island of Crete in their Chronological Context: A Critical Review*. Vienna 2008.
- Volume XIX TOBIAS MÜHLENBRUCH, *Die Synchronisierung der nördlichen Levante und Kilikiens mit der Ägäischen Spätbronzezeit*. Vienna 2009.
- Volume XX IRMGARD HEIN (Ed.), *The Formation of Cyprus in the 2nd Millennium B.C. Studies on Regionalism in the Middle and Late Bronze Age. Proceedings of a Workshop, held at the 4th Cyprological Congress, May 2nd 2008. Nicosia, Cyprus*. Vienna 2009.
- Volume XXI DAVID A. ASTON, *Burial Assemblages of Dynasty 21–25. Chronology – Typology – Developments*. Vienna 2009.
- Volume XXII REGINE PRUZSINSZKY, *Mesopotamian Chronology of the 2nd Millennium BC. An Introduction to the Textual Evidence and Related Chronological Issues*. Vienna 2009.
- Volume XXIII JÖRG WEILHARTNER, *Testimonia. Die literarischen Zeugnisse über das antike Aigina von Homer bis in byzantinische Zeit*. Ägina Kolonna, Forschungen und Ergebnisse 3. Vienna 2010.
- Volume XXIV VERONIKA JAROSCH-REINHOLDT, *Die geometrische Keramik von Kap Kolonna*. Ägina Kolonna, Forschungen und Ergebnisse 4. Vienna 2009.
- Volume XXV FRANCIS BREYER, *Ägypten und Anatolien. Politische, kulturelle und sprachliche Kontakte zwischen dem Niltal und Kleinasiens im 2. Jahrtausend v. Chr.* Vienna 2010.
- Volume XXVI AREN MAEIR, *In the Midst of the Jordan (Jos 4:10): The Jordan Valley During the Middle Bronze Age (circa 2000–1500 BCE) – Archaeological and Historical Correlates*. Vienna 2010.
- Volume XXVII WALTER GAUSS, EVANGELIA KIRIATZI, *Pottery Production and Supply at Bronze Age Kolonna, Aegina: An Integrated Archaeological and Scientific Study of a Ceramic Landscape*. With contributions by MYRTO GEORGAKOPOULOU, ARETI PENTEDEKA, BARTLOMIEJ LIS, IAN K. WHITBREAD, YIANNIS ILIOPOULOS. Ägina Kolonna, Forschungen und Ergebnisse 5. Vienna 2011.
- Volume XXVIII FRIEDERIKE BUBENHEIMER-ERHART, *Das Isisgrab von Vulci. Eine Fundgruppe der Orientalisierenden Periode Etruriens*. Wien 2012.
- Volume XXIX MARIO A.S. MARTIN, *Egyptian-Type Pottery in the Late Bronze Age Southern Levant*. Vienna 2011.
- Volume XXX GUDRUN KLEBINDER-GAUSS, *Keramik aus klassischen Kontexten im Apollon-Heiligtum von Ägina-Kolonna. Lokale Produktion und Importe*. Ägina Kolonna, Forschungen und Ergebnisse 6. Wien 2012.
- Volume XXXI ROBERT SCHIESTL, ANNE SEILER (Eds.), *Handbook of the Pottery of the Egyptian Middle Kingdom Volume I: The Corpus Volume, Volume II: The Regional Volume*. Wien 2012.
- Volume XXXII FELIX HÖFLMAYER, *Die Synchronisierung der minoischen Alt- und Neupalastzeit mit der ägyptischen Chronologie*. Wien 2012.
- Volume XXXIII LOUISE C. MAGUIRE, *Painting Practices in White Painted and White Slip Wares*. Wien 2012.
- forthcoming CELIA BERGOFFEN, *Late Cypriot Pottery in Southern Canaan*.
- forthcoming KATHRYN O. ERIKSSON, *Cypriot Bronze Age White Painted V and VI Wares. Problems of Chronology and First Appearances*.
- forthcoming IRMGARD HEIN, *Craftsmanship in Red and Black: The Manual of Cypriot Bichrome Wheelmade Ware*.
- forthcoming KATHARINA PRUCKNER, *Äginetische Keramik der Schachtgräberzeit. Bichrom und vollständig bemalte Keramik aus dem Brunnen SH B1/06 in Ägina Kolonna*. Ägina Kolonna, Forschungen und Ergebnisse 7.

BERICHTE DES ÖSTERREICHISCHEN NATIONALKOMITEES DER UNESCO-AKTION FÜR DIE RETTUNG DER NUBISCHEN ALTERTÜMER

Herausgegeben von der Kommission für Ägypten und Levante der Österreichischen Akademie der Wissenschaften
durch MANFRED BIETAK

- Band I MANFRED BIETAK und REINHOLD ENGELMAYER, *Eine frühdynastische Abri-Siedlung mit Felsbildern aus Sayala – Nubien*. Wien 1963. Österreichische Akademie der Wissenschaften, Phil.-hist. Klasse, Denkschriften, Bd. 82.
- Band II REINHOLD ENGELMAYER, *Die Felsgravierungen im Distrikt Sayala – Nubien. Teil I: Die Schiffsdarstellungen*. Wien 1965. Denkschriften, Bd. 90.
- Band III MANFRED BIETAK, *Ausgrabungen in Sayala – Nubien 1961–1965. Denkmäler der C-Gruppe und der Pan-Gräber-Kultur* (mit Beiträgen von KURT BAUER, KARL W. BUTZER, WILHELM EHGXARTNER und JOHANN JUNGWIRTH). Wien 1966. Denkschriften, Bd. 92.
- Band IV KARL KROMER, *Römische Weinstuben in Sayala (Unternubien)*. Wien 1967. Denkschriften, Bd. 95.
- Band V MANFRED BIETAK, *Studien zur Chronologie der nubischen C-Gruppe. Ein Beitrag zur Frühgeschichte Unternubiens zwischen 2200 und 1550 v. Chr.* Wien 1968. Denkschriften, Bd. 97.
- Band VI FATHI AFIFI BEDAWI, *Die römischen Gräberfelder von Sayala Nubien*. Wien 1976. Denkschriften, Bd. 126.
- Band VII EUGEN STROUHAL und JOHANN JUNGWIRTH, *Die anthropologische Untersuchung der C-Gruppen- und Pan-Gräber-Skelette aus Sayala, Ägyptisch-Nubien*. Wien 1984. Denkschriften, Bd. 176.
- Band VIII MANFRED BIETAK und MARIO SCHWARZ, *Nagf el-Scheima, eine befestigte christliche Siedlung, und andere christliche Denkmäler in Sayala – Nubien*. Wien 1987. Denkschriften, Bd. 191.
- Band IX MANFRED BIETAK und MARIO SCHWARZ, *Nagf el-Scheima. Teil II. Die Grabungsergebnisse aus der Sicht neuerer Forschungen*. Wien 1998. Denkschriften, Bd. 255.

In Vorbereitung:

- EUGEN STROUHAL und ERICH NEUWIRTH, *Die anthropologische Untersuchung der spätromischen-frühbyzantinischen Skelette aus Sayala, Ägyptisch-Nubien*.
- EUGEN STROUHAL und ERICH NEUWIRTH, *Die anthropologische Untersuchung der christlichen Skelette aus Sayala, Ägyptisch-Nubien*.

CONTRIBUTIONS TO THE ARCHAEOLOGY OF EGYPT NUBIA AND THE LEVANT

Herausgegeben von MANFRED BIETAK

- Band I ANGELIKA LOHWASSER, *Aspekte der napatanischen Gesellschaft. Archäologisches Inventar und funeräre Praxis im Friedhof von Sanam – Perspektiven einer kulturhistorischen Interpretation*. Wien 2012.
- Band II INGRID GAMER-WALLERT, *Die Wandreliefs des Zweiten Lichthofes im Grab des Monthemhat (TT 34). Versuch einer zeichnerischen Rekonstruktion*. Mit Beiträgen von ELEONORE SCHINDLER VON WALLENSTERN und SABINE HERRMANN. Wien 2013.

