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EARLY BRONZE IV SETTLEMENT PATTERNS AND MATERIAL CULTURE IN SOUTH MESOPOTAMIA ON THE BASIS OF EXCAVATIONS AND SURVEYS.

An Archaeo-historical Characterization of the Period between Early Bronze III (Early Dynastic III) and Middle Bronze I (Ur III).

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ABSTRACT

The aim of this research is to define the Early Bronze IV settlement patterns and material culture in Southern Mesopotamia through the study and analysis of the most important excavated sequences of the region, the material culture recovered both from the contexts excavated during the last century and the recent surveys carried out in the region, such as the QADIS Survey Project, and the data from the most important surface surveys carried out in the Mesopotamian alluvium (Land behind Baghdad survey, Akkad Survey, Kish Survey, Uruk Countryside Survey, Heartland of Cities Survey, Eridu Survey and the QADIS survey project).

The excavations carried out in Southern Mesopotamia and in the Diyala basin allowed us to identify, through the comparisons of excavated sequences and material culture, the cultural markers specific to the EB IV period, thus identifying a clear pottery horizon for the period. However, due to the continuity of material culture with the previous period, it was really harsh to identify specific markers of the period. However, in order to fully understand and interpret the territorial organization during the EB IV period in Southern Mesopotamia, the data from the excavated sites taken into account as case studies had to be integrated with those coming from the surface surveys carried out in the Mesopotamian alluvium during the 1950s-1980s and in recent years. All of these data have been compiled into a public webGIS, Floodplains – powered by the University of Bologna and soon available online – in order to create a tool simple and immediate to use for everyone. Thanks to this work it was possible to have a clear overview and understanding of the settlement patterns during the EB IV period in the study region.

Thus, the thesis was organized as follows: after having shortly introduced the trajectories of the present PhD research and the actual state of the art (§1), a detailed

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explanation of the research aims and methods has been provided (\S 2). Many issues have been tackled, such as the historical sources, the relative chronologies, and the digitization process. The data have been collected and managed through differentiated Excel® spreadsheets. Topographic maps and plans have been done in CAD and GIS environments, while the figures were made with Adobe Illustrator® and Adobe Indesign ®. In §3 I dealt with the issues connected to the use of a historical terminology, such as "Akkadian" and "Post-Akkadian", to define the relative chronology and the material culture, thus I decided to use the "Early Bronze IV" terminology (in accordance with most terminologies of the Levant), as, in my opinion, a historical terminology cannot be superimposed on material culture, as it might be limiting and misleading due to the differential rates of change. Then a section of the text was dedicated to the reconstruction of the stratigraphy, architecture and material culture assemblages coming from 5 sites chosen as relevant case studies ($\S4-8$). In $\S4$ the data concerning the archaeological contexts and the material available from the city of Lagash are presented. In the following chapter (§5) the architectural features and materials from two areas excavated at Nippur have been presented: the North Temple, brought to light in 1953 by the Oriental Institute of Chicago during the 3rd excavation campaign, and the WF sounding, a stratigraphic pit dug on the West Mound of Nippur during the 18th and 19th excavations campaign of the University of Chicago. In §6 an overview of the excavated areas (B and D) and recovered materials from the site of Umm el-Jir had been proposed, while in §7 and §8 the excavated sequences and materials from two sites of the Diyala basin, which are respectively Tell Asmar and Tell Yelkhi, have been taken into consideration.

In §9 the EB IV data of the QADIS Survey Project, conducted jointly by the University of Bologna and the State Board of Antiquities and Heritage have been presented, with an overview on the surveyed sites and collected materials. Furthermore, an interpretation of the settlement patterns between the Early and the Middle Bronze age in the QADIS survey area had been proposed. In §10 an overview of the surveys carried out by Robert McC. Adams between the 1950s and the 1980s (Land Behind Baghdad, Akkad Survey, Heartland of Cities and Uruk Countryside together with Nissen), McGuire Gibson in the 1960s (Kish Survey) and Wright (Eridu Survey) had been proposed, together with an analysis of the problems of the EB IV chronological indicators and of the previous paradigm of the "Akkadian" settlement patterns.In §11, the ceramic materials coming both from excavated sequences and from the QADIS

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survey have been studied and analyzed, with the aim of defining an EB IV pottery assemblage in Southern Mesopotamia. Thus, the final part of the chapter had been dedicated to outlining an EB IV pottery typology. The purpose of the final chapter (§12) is to reconstruct, through the data compiled in the webGIS Floodplains, the EB IV settlement patterns and material culture in Southern Mesopotamia. Furthermore, an attempt to outline the administrative and economic development of the region during the EB IV period had been made through the analysis of the epigraphic evidence. The resulting picture is that of an harsh decrease of settlements during the EB IV period in Southern Mesopotamia, which not only finds reflection in the changes connected to the 4.2 KA BP event, a major climatic shift towards drier conditions that reduced water availability in the Mesopotamian floodplains from 2250 BCE, but also suggests a contraction of the central state during the Ur III period.

Chapter 1 INTRODUCTION

The main goal of this research is to identify and characterize, on the basis of excavations and surveys carried out in Southern Mesopotamia, the Early Bronze IV material culture and settlement patterns in the region. The periodization of the historical phases in central-southern Mesopotamia is strictly correlated, in the scientific literature, with the art-historical data, such as the glyptic and the statuary¹, and political events in the region, known through the epigraphic documentation. However, a periodization based on historical terminology cannot be superimposed on the material culture, due to the highly differential rates of change. Faced with this problem, I decided to use the definition of Early Bronze IV (hereafter, EB IV, following most terminologies of the Levant) to identify the material culture of the phase traditionally called Akkadian. The excavations in Southern Mesopotamia and in the Diyala basin allowed us to identify the cultural markers specific to the EB IV through the comparisons of excavated sequences and material culture, the cultural markers specific to the EB IV, thus identifying a clear pottery horizon for the period. However, due to the continuity of material culture with the previous period, it was harsh to identify precise hallmarks of the EB IV.

In order to fully understand and interpret the territorial organization during the EB IV period in Southern Mesopotamia, the data from the excavated sites selected as case studies had to be integrated with those coming from the surface surveys carried out in the Mesopotamian alluvium during the 1950s–1980s and in recent years.

The idea of analyzing the excavated sequence of Southern Mesopotamia and the Diyala and Hamrin regions was undertaken in 2016 during the course of Archaeology of the Ancient Near East taken by Nicolò Marchetti at the Department of History

¹ Marchetti 2005.

and Cultures of the Alma Mater Studiorum – University of Bologna. The potential of this research was explored considering the pottery materials from 8 sites (Nippur, Tell al-Wilaya, Kish, Umm el-Jir, Tell Yelkhi, Tell Sabra, Eshnunna, and Khafajah) that were chosen as case studies in my MA dissertation (2017). The goal was to identify a ceramic horizon that could be defined as EB IV. This field has been little explored by archaeologists, especially in central Mesopotamia and the Diyala River basin. The most up-to-date works that can be considered starting points are Gibson 1982 and McMahon 2006.

Therefore, the use of data coming both from excavations and surveys has allowed me to provide an approach that goes from a macro-perspective, i.e., the settlement patterns and archaeological landscape of the Mesopotamian floodplain during the EB IV period, to a micro-perspective, i.e., the analysis of the stratigraphic evidence, contexts and urban development, together with studies on material culture both from excavated contexts and surveys.

Thus, the thesis was organized as follows: in §2, I will illustrate the aims and methods applied in this research. Many issues have been tackled, such as historical sources, relative chronologies, and digitization. The data have been collected and managed through differentiated Excel® spreadsheets. Topographic maps and plans have been done in CAD and GIS environments, while the figures were made with Adobe Illustrator® and Adobe Indesign® and, when necessary, post-processed with Adobe Photoshop®.

In §3, I dealt with the issues connected to the use of historical terminologies, such as "Akkadian" and "Post-Akkadian", to define the relative chronology and the material culture. Thus, I decided to use the "Early Bronze IV" terminology (following most terminologies of the Levant), as, in my opinion, a historical terminology cannot be superimposed on material culture, as it might be limiting and misleading due to the differential rates of change. Then a section of the text was dedicated to reconstructing the stratigraphy, architecture, and material culture assemblages from 5 sites taken into account as case studies (§4–8). Specifically, in §4, the data from archaeological contexts and the material from Lagash, particularly from area B, are presented.

In the following chapter (§5), the architectural feature and materials from two areas excavated at Nippur have been presented: the North Temple, brought to light in 1953 by the Oriental Institute of Chicago during the third excavation campaign, and the WF sounding, a stratigraphic pit dug on the West Mound of Nippur during the 18th and 19th excavations campaign of the University of Chicago.

In §6, an overview of the excavated areas (B and D) and recovered materials from the site of Umm el-Jir had been proposed, while in §7 and §8 the excavated sequences and materials from two sites of the Diyala basin, which are respectively Eshnunna and Tell Yelkhi, have been taken into consideration.

In §9 the EB IV data of the QADIS Survey Project, conducted jointly by the University of Bologna and the State Board of Antiquities and Heritage, have been presented, with an overview of the surveyed sites and collected materials. Furthermore, an interpretation of the settlement patterns between the Early and the Middle Bronze age in the QADIS survey area has been proposed.

In §10, an overview of the surveys carried out by Robert McC. Adams between the 1950s and the 1980s (Land Behind Baghdad, Akkad Survey, Heartland of Cities and Uruk Countryside together with Nissen), McGuire Gibson in the 1960s (Kish Survey), and Wright (Eridu Survey) had been proposed, together with an analysis of the problems of the EB IV chronological indicators and the previous paradigm of the "Akkadian" settlement patterns.

In §11, the ceramic material from excavated sequences and the QADIS survey has been studied and analyzed to define an EB IV pottery assemblage in Southern Mesopotamia. Thus, the final part of the chapter is dedicated to outlining an EB IV pottery typology.

The final chapter (§12) aims to reconstruct, through the data compiled in the webGIS Floodplains, the EB IV settlement patterns and material culture in Southern Mesopotamia. Furthermore, an attempt to outline the administrative and economic development of the region during the EB IV period was made through the analysis of the epigraphic evidence. The resulting picture is a sharp decrease in settlements during the EB IV period in Southern Mesopotamia. This new framework may be connected to the changes that have taken place during the 4.2 KA BP event, a major climatic shift toward drier conditions that reduced water availability in the Mesopotamian floodplains from 2250 BCE. The general overview also suggests a contraction of the central state during the study period, followed by a substantial reorganization of the state apparatus during the Ur III period.

Chapter 2 RESEARCH AIMS AND METHODS

2.1 AIMS OF THE RESEARCH

This research aims to shed light, employing an integrated study strategy, on the archaeological landscape, settlement patterns, and cultural sequence of the Early Bronze IV period (the so-called "Akkadian" and "Post-Akkadian" periods) in Southern Mesopotamia. In order to achieve these goals, it was necessary to study and analyze the contexts and the stratified materials from published excavations in the region, together with the data provided by the surveys carried out in the Mesopotamian floodplain during the second half of the 20th century and in recent times.

The sites and surveys discussed in this dissertation have been chosen for several reasons:

1. The sites selected as relevant case studies are characterized by continuous and reliable stratigraphic and architectural sequences between the Early Bronze III (the so-called Early Dynastic III period, 2600-2350 BCE) and the Middle Bronze I (the so-called Ur III period, 2112-2004 BCE), meticulously documented and published by the excavators.

2. The large-scale surveys undertaken between the 1950s and the 1980s by the University of Chicago covered approximately one-third of the Mesopotamian alluvium², granting an overall view of the region's settlement patterns and irrigation systems.

3. The research carried out by the QADIS survey project between 2016 and 2018 provided several unpublished materials from surface collections, thus allowing a crisscrossing of data with the published stratified material culture from the selected sites.

2 Hritz, Pournelle and Smith 2012: 38.

4. In general, the use of data coming both from excavations and surveys allowed to provide an approach that goes from a macro-perspective, i.e., the settlement patterns and archaeological landscape of the Mesopotamian floodplain during the EB IV period, to a micro-perspective, i.e., the analysis of the stratigraphic evidence, contexts and urban development from the selected sites, integrated with the studies of stratified material culture, thus resulting in a chrono-typological study of the EB IV pottery.

Five sites located in Southern Mesopotamia and the Diyala region have been selected as relevant case studies: Lagash, Nippur, Umm el-Jir, Eshnunna and Tell Yelkhi (Map 2.1). However, different sites of interest have not been taken into account in this research due to diverse reasons: in some cases, the poor state of documentation and publication has made impossible the analysis of the contexts and stratified material culture(as for Tell al-Wilaya³), while other sites, such as Tell Sabra⁴ and Khafajah⁵, do not present traces of occupation during the Middle Bronze Age, thus resulting in a discontinuous stratigraphic and architectural sequence.

Site	Area/s	Type of context/s		
Lagash	Area B	Religious		
	Sounding WF	Domestic; Funerary		
Nippur	Northern Temple	Religious		
Umm el-Jir	Area B	Domestic		
	Area D	Palatial; Funerary		
Tell Asmar	Houses	Domestic; Funerary		
	Northern Palace	Palatial		
Tell Yelkhi	Area B	Domestic		

Table 2.1 List of the sites, selected areas, and types of contexts.

Apart from the QADIS survey project, five other survey projects have been consi-

³ Hussein *et al.* 2009.

⁴ Tunca 1987.

⁵ Delougaz 1940.

dered in this research: the Akkad survey, the Land behind Baghdad survey, the Eridu and Ur survey, the Kish survey, and the Heartland of Cities and Uruk Countryside surveys. These projects were conducted in the alluvium in the second half of the 20th century by the University of Chicago. In particular, the pioneering research carried out by R. McC. Adams has paved the way for recent studies on Mesopotamian urbanism and new research projects in the region. The data collected by Adams were then integrated with agricultural, historical, and economic data, thus providing a comprehensive analysis of settlement patterns and hydraulic landscape. Furthermore, the surveys carried out in recent years have seen an advancement in reconnaissance methodologies, mainly due to the increased availability of public satellite imagery. Thus, it was allowed to obtain more precise data in identifying archaeological anomalies and refine the results obtained by Adams. Starting from the groundbreaking work of Adams' Heartland of Cities, integrated with new-developed methodologies and approaches, the QADIS survey project has provided further information about the archaeological landscape and urbanism in Southern Mesopotamia and partially updated the data collected by Adams.

Years	Project name	Institution	References		
1956-1957	Akkad survey	University of Chicago	Adams 1972		
1957-1958	Land Behind Baghdad survey	University of Chicago	Adams 1965		
1966	Eridu and Ur survey	University of Chicago	Wright 1981		
1966-1967	Kish survey	University of Chicago	Gibson 1972a		
1968-1975	Heartland of Cities and Uruk Countryside	University of Chicago	Adams and Nissen 1972; Adams 1981		
2016-2018	QADIS survey project	University of Bologna – SBAH	Marchetti <i>et al.</i> 2017; 2019; 2021		

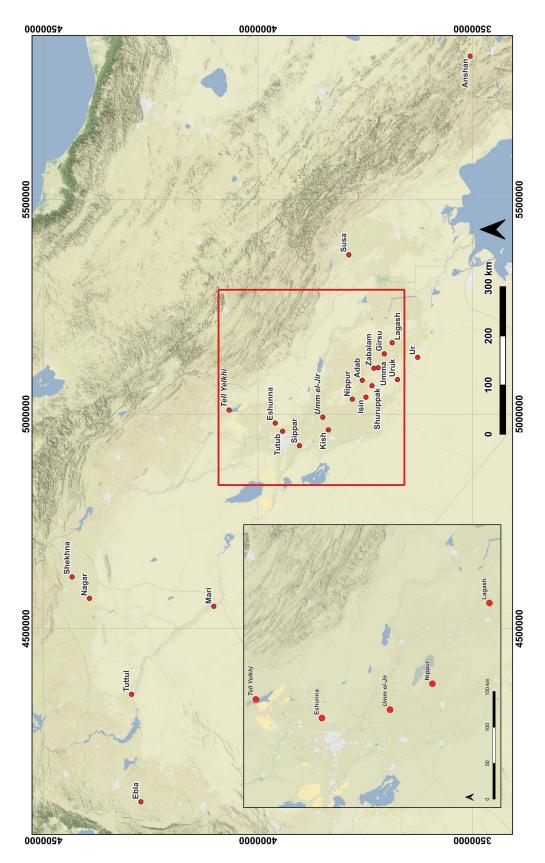
Table 2.2 List of survey projects in the southern Mesopotamian alluvium considered in this dissertation.

The use of this integrated research approach has allowed me to reach different purposes, in particular:

a. Understanding the ancient archaeological landscape and the development of settlement patterns and hydraulic systems in Southern Mesopotamia during the EB IV through multidisciplinary and integrated approaches.

b. Providing an overview of the urban layout of Mesopotamian cities during the EB IV through the study of published stratigraphic and architectural contexts.

c. Determining a detailed chronological framework by analyzing typologically the material culture (mainly the ceramic repertoires) coming from excavations and surveys, leading to the identification of a well-defined EB IV pottery horizon.





2.2 METHODS OF THE RESEARCH

2.2.1 The historical sources: "Akkad the first World Empire"

The middle of the 24th century BCE, toward the end of the so-called Early Dynastic period, saw the rise of a *homo novus*, Sargon of Akkad, who, with his strong personality, revolutionized the political scenario of the Mesopotamian alluvium. Both the name he used, Sarru(m)-ken (from which our "Sargon"), meaning "the king is true/legitimate" (probably a throne name),⁶ and later traditions about him⁷ suggest that Sargon was probably a usurper. Nevertheless, despite his obscure origins, Sargon became the most powerful ruler of all Babylonia, unifying the land of Sumer and Akkad in a single territorial space for the first time.

His rise to power culminated with an expedition in the south, as far as the Gulf coast, and the resulting defeat of Lugalzagesi, king of Uruk and "king of the land" (lugal kalam-ma)⁸, and the fifty city-rulers who followed him. The walls and fortifications of Uruk were dismantled, and Lugalzagesi was conducted as a captive to the temple of Enlil in Nippur, thus showing publicly that Sargon had been chosen by the gods and by Enlil himself to be the new lugal kalam-ma. Sargon also conquered the cities of Ur, Eninmar, Lagash, and Umma, and razed their walls and fortifications.⁹ After his victories, Sargon expressed his hegemonic claim to power over the unified Babylonia by taking new titles; in fact, he referred to himself as lugal kalam-ma, "king of the land"¹⁰, a title that previously pertained to the defeated Lugalzagesi of Uruk; ensi₂ -gal ^den-lil₂, "great steward of Enlil"¹¹, thus indicating that he was chosen by Enlil himself to be king; and lugal kiš, "king of Kish"¹², that is, the place where, according to the Sumerian King List, "after the flood had swept thereover, when the kingship was lowered from heaven, the kingship was"¹³.

The power of Sargon of Akkad was consistently based on the army, as highlighted by his inscriptions, where he states to have defeated Lugalzagesi and the fifty

10 Frayne 1993: 12, lines 91–92, 95–96.

⁶ Pace Westenholz 1999: 34; Schrakamp 2016: 1; and 2020: 612.

⁷ Cooper and Heimpel 1983 (cf. ETCSL 2.1.4); Goodnick Westenholz 1997: 38-41.

⁸ Westenholz 1987/90.

⁹ Westenholz 1987/90: 157; Frayne 1993: 9–22; Foster 2016: 321-322.

¹¹ Frayne 1993: 10, lines 10–11; 13, lines 10–11; 19: lines 8–9.

¹² Frayne 1993: 7; 10, line 6; 13, line 6; 16, lines 4–5; 31, line 23'.

¹³ Jacobsen 1939: 77; cf. ETCSL 2.1.1

city-rulers of Sumer "with nine regiments of Akkad" (*in* 9 $[ki-zi-re_2]^{T}$ $A-ka_3-de_3^{ki}$)¹⁴. At the sime time, the mention of feeding 5400 men at his royal table may suggest the existence of a standing, permanent and professional army, loyal to the king and the household of Akkad.¹⁵

After the conquest of the Sumerian south, Sargon undertook several expeditions, and one of his inscriptions reports that "Sargon, the king, bowed down to the god Dagan in Tuttul. He (Dagan) gave to him the Upper Land: Mari, Iarmuti, and Ebla as far as the Cedar Forest and the Silver Mountains."¹⁶ He also campaigned against Elam, who "stand before him (in obedience)."¹⁷

It should be remembered that Sargon also implemented the maritime trade of goods from Tilmun (i.e., modern Bahrain and eastern Arabia), Makkan (United Arab Emirates and Oman), and Meluhha (the so-called Indus Civilization).¹⁸

Shortly after his ascent to the throne, Sargon's son and successor, Rimush had to face the revolt of six southern Sumerian cities. This uprising was led by Kaku, the self-proclaimed king of Ur, under whose guide the cities of Ur, Lagash, Adab, Zabalam, Umma, and KI.AN rebelled against the Akkadian domain; however, this coalition was defeated.¹⁹ Shortly afterward, the northern city of Kazallu joined the revolt, but it was also defeated when Rimush returned to the north.²⁰ Undoubtedly, the land of Sumer greatly resented the Akkadian rule, and the members of the local élites rebelled against the installation of members of the royal court and Akkadian governors in major administrative positions. However, it was sure that some Sumerians accepted the Akkadian rule, as highlighted by a dedication to Rimush by the governor of Shuruppak²¹, while the rebellion of the northern city of Kazallu indicates that the revolt had no ethnical or regional connotations.

Once tamed the southern uprising, all the lands belonging to the rebels were expropriated and confiscated (for at least 1339 sq km, as shown by a fragmentary lime-

¹⁴ Frayne 1993: 16, lines 6–8; Schrakamp 2020: 621.

¹⁵ Westenholz 1999: 36 n. 99; Sommerfeld 2008: 233–235; 2011: 47; Schrakamp 2020: 621.

¹⁶ Frayne 1993: 28-29, lines 14-28.

¹⁷ Frayne 1993: 12, lines 86–90.

¹⁸ Frayne 1993: 28, lines 9–13.

¹⁹ Gelb and Kienast 1990: 200–201; Frayne 1993: 41–46.

²⁰ Buccellati 1993; Frayne 1993: 46–51; Westenholz 1999: 41–42; Sommerfeld 2008/06: 372–373; Pomponio 2012: 106–107; Schrakamp 2017: 93–94.

²¹ Gelb and Kienast 1990: 74; Frayne 1993: 72–73; Frahm and Payne 2003/2004.

stone from Girsu, now at the Louvre, and a stele fragment kept in the Yale Babylonian Collection²²) and probably redistributed amongst the loyal supporters of the Akkadian crown. After the victories in Sumer, Rimush campaigned against Elam and Parahshum (Western Iran), winning a battle between Susa and Awan, thus consolidating the borders and stability of the Akkadian empire, just as his father before him.²³

The eldest son of Sargon, Manishtusu, continued the military campaigns begun by his brother, conquering Anshan (Fars) and Sherihum, going far beyond the Susiana and the Iranian plateau²⁴. He also led a military expedition overseas, conquering and plundering thirty-two cities along the Gulf coast, bringing back to the Akkadian heartland captives, precious metals, and quarried black stone for his royal statues²⁵. However, the reign of Manishtusu was mainly a period of peace and consolidation of the monarchy.

Manishtusu was succeeded by his son Naram-Sin, a man, just as Sargon, characterized by a very strong ambition. During his reign, the empire reached its peak of power and territorial expansion. Undoubtedly, the most dramatic event of the reign of Naram-Sin was the so-called Great Rebellion. Two coalitions confronted the Akkadian king: the northern one was led by Iphur-Kish of Kish and included the cities of Kish, Sippar, Kazallu, Giritab, Apiak, and Eresh, while the southern one, assembled by Amargirid of Uruk, comprised the cities of Uruk, Ur, Lagash, Umma, Adab, Shurruppak, and Isin. As commemorated in the longest Akkadian royal inscription, known from later and fragmentary copies,²⁶ and on a copper statue from Bassetki²⁷, Naram-Sin, with the blessing of the goddess of war, Ishtar, defeated the rebels within one year, in a series of nine battles, captured as captives the leaders of the two coalitions and punished the city of Kish, diverting the Euphrates from (or into) the city and razing its fortification walls. After the victory, he assumed the title of "king of the four corners (of the world)" (*šar kibrātim arba'im*), thus claiming his supremacy over the whole world and elevating himself to a divine status. Naram-Sin also campaigned

²² Schrakamp 2020: 628; Nigro 2001 – 2003; Thomas 2015: 87.

²³ Gelb and Kienast 1990: 205–211; Frayne 1993: 51–57.

²⁴ Gelb and Kienast 1990: 5–78; Frayne 1993: 74–77.

²⁵ Gelb and Kienast 1990: 5–78; Frayne 1993: 74–77.

²⁶ Gelb and Kienast 1990: 226–48; Frayne 1993: 90–99, 103–8; Westenholz 1999: 51-54; Sommerfeld 2000; Foster 2016: 326, Appendix Ib 28.

²⁷ Gelb and Kienast 1990: 81–3; Frayne 1993: 113–14; Foster 2016: 318–319; Appendix Ia 18.

against Subartu, Talmush, and Maridaban, and conquered Ebla and Armanum²⁸, thus gaining control over the Amanus and the Cedar Forest and enlarging the borders of the empire to north and northwest, realizing the coveted domain from the Lower Sea (i.e., the Gulf) to the Upper Sea (i.e., the Mediterranean)²⁹. To the east, he consolidated his power on the lands conquered by his predecessors, maintaining the Akkadian rule on Elam³⁰. Lastly, he led a maritime expedition against Makkan (Oman), from which he brought back glory, spoils of war, and valuable diorite stone, which was employed to fashion statues to be dedicated to the gods.³¹

Sharkalisharri, most likely the eldest son of Naram-Sin, inherited the throne and the empire from his father. It appears that the early reign of Sharkalisharri was a period of peace, stability, and prosperity, with the king purchasing arable and productive land for his loyal supporters. However, this situation suddenly changed when enemies began to attack the empire on every front: Sharkalisharri had to face the Amorites at Jebel Bishri, the first intrusions into the empire territory of the Guteans, coming from the central Zagros area, and an Elamite attack in Babylonia.³²

He also campaigned northward up to reach the springs of the Tigris,³³ and brought back cedar wood from the Amanus mountain, indispensable for the restoration work of the Ekur temple of Enlil in Nippur.³⁴ But, unfortunately, since the celebratory inscriptions of Sharkalisharri are very few and and the later historical tradition does not commemorate his figure, little we know about the end of his reign: was he able to keep the empire together, safe and protected, until his death? Or did his reign abruptly end in catastrophe? What is certain is that his reign was followed by a period of confusion and anarchy, and, as highlighted by the Sumerian King List³⁵, it was impossible to discern who was king and who was not king.

The reasons for the collapse of the Akkadian empire are difficult to identify. Still, without any doubt they can be considered a sum of problematics related both to the inner structure of the empire and to outer factors. As a matter of fact, the conquered

30 Gelb and Kienast 1990: 249–251; Frayne 1993: 130–131.

²⁸ Alkhafaji and Marchesi 2020.

²⁹ Gelb and Kienast 1990: 253–64; Frayne 1993: 132–5; Foster 2016: 325–326, Appendix Ib 26.

³¹ Gelb and Kienast 1990: 234–238, 242–243; Frayne 1993: 95–100.

³² Foster 2016: 23.

³³ Frayne 1993: 191–2; Foster 2016: 329; Appendix Ib 33.

³⁴ Gelb and Kienast 1990: 113–15; Frayne 1993: 186–9; Foster 2016: 320, Appendix Ia 28 and 29.

³⁵ Jacobsen 1939: 113.

CHAPTER 2

periphery, which should have stood in obedience, was not fully integrated from the political and economic point of view, and, when external factors threatened the core of Akkad's rule, it was impossible to maintain its control. Amongst these factors, the most significant was certainly the intrusions, in the heart of the land of Sumer and Akkad, of the Guteans, who had their homeland in the Zagros and began their incursions in Babylonia during the reign of Sharkalisharri. For a short time, this nomadic group was predominant in Central Mesopotamia; thus, the period between the collapse of the Akkadian empire and the rise to power of the dynasty of Ur is often called the "Gutean period". Moreover, together with the Guteans, another ethnic group of people intruded into Northern Mesopotamia, thus destabilizing the structure of the empire: the Amorites, against which Sharkalisharri had already fought at Jebel Bishri.³⁶ Finally, others have suggested that a rapid climatic change, to be found in a severe and abrupt drought – the 4.2 ka BP event – caused a contraction in water availability in northern Mesopotamia and contributed to the demise and collapse of the empire.³⁷ However, while supported by data and analyses, this hypothesis has not found general acceptance among scholars, and several objections have been raised.³⁸

2.2.2 Relative chronologies: analyzing the excavated sequences

For the identification and comprehension of the EB IV period, the comparison of the excavated stratigraphic sequences and associated material culture was essential. Stratigraphy is crucial in understanding the development of urban layouts and stratified material through time. Thus, analyzing the sequence of archaeological layers is possible to determine the relative chronology of a site. The correct interpretation of stratigraphic sequences and chronological relationships between archaeological phases of a site allows precise reconstruction of the historical and archaeological contexts of the site itself. Moreover, the comparison of excavated sequences of sites in the same geographical area not only underlines the variations of the materials in different contexts (domestic, funerary, public, etc...), but also consents to have a broad overview of the pottery horizons.

For this purpose, only sites with solid stratigraphic sequences have been analyzed and compared in this research, with particular attention to the study of ceramic

Cooper 1993: 12; Wilcke 1993: 33-5; Westenholz 1999: 55-9; Pomponio 2011; Steinkeller 2021: 36 51-2.

³⁷

Weiss and Courty 1993; Weiss 2017.

Schwartz 2007; Wilkinson et al. 2007; Roberts et al. 2011; Butzer 2012; Ur 2015. 38

production. Indeed, analyzing stratified pottery assemblages and identifying standard technological, morphological, and dimensional features, considered indicators of contemporaneity, has led to constructing a relative ceramic typology. In addition, the analysis of pottery assemblages contributes to elaborating reliable relative chronologies, identifying patterns in different sites in the same geographical area, and recognizing areas affected by the same cultural phenomena. Therefore, the five sites chosen as case studies are characterized by an uninterrupted chronological sequence from the EB III to the MB I period. This feature allowed me to analyze the ceramic sequences in their entirety, underlining – through a precise analysis of the morphological and technological characteristics of the finds – both the permanence of certain types and the appearance, development, and subsequent diffusion of different ceramic shapes.

2.2.3 Absolute chronologies: 14C determinations

For the use of radiocarbon determinations in arguments of historical nature, it is necessary to have a good series of historically dated contexts. As for the EB IV period in southern Mesopotamia, the data are not exhaustive: radiocarbon dates from the southern alluvium mainly cover the period between the Late Chalcolithic and the Early Bronze III and originate from the sites of Abu Salabikh³⁹, Uruk⁴⁰, Ur⁴¹, and Nippur⁴². However, a recent radiocarbon date from Phase 2 of the YWN sounding of Kish⁴³ provided a data range, 2471–2299 BCE, which can be useful in the absolute dating of the EB III-EB IV transition. Also, a sample from Area A, phase II at Abu Salabikh⁴⁴, had a date range, 2478–2196 BCE, similar to the one of the YWN sounding at Kish. The scarcity of data regarding Southern Mesopotamia must be attributed to the fact that most of the sites in the region were excavated before radiocarbon dating was habitually employed, and just a few analyses were carried out at a later time.

The majority of radiocarbon dates for the EB IV period come from northern Mesopotamia, the Khabur Valley in particular, and mainly originate from the sites of Tell

³⁹ Fishman et al. 1977; Postgate 1977; Bowman et al. 1990; Wright and Rupley 2001.

⁴⁰ Boehmer 1991; Van Ess 2015.

⁴¹ Barker and Mackey 1961.

⁴² Stuckenrath 1963; Stuckenrath and Ralph 1965.

⁴³ Zaina 2015a.

⁴⁴ Burleigh and Matthews 1982: 164; Postgate 1977: 275, n.2.

Brak, Tell Leilan, and Tell Beydar. The radiocarbon data from Tell Brak⁴⁵ suggest that the layer of ashes covering the monumental buildings in level 5 must be dated approximately to 2350 BCE. The radiocarbon dates from Stratum 3b at Tell Beydar⁴⁶ have provided a chronological range between 2420 and 2270 ± 10 BCE, corresponding to the EJZ3b period⁴⁷, which can be paralleled with period L at Tell Brak⁴⁸.

2.2.4 The digitization process: databases, maps, and finds

Database management system

The data have been compiled and organized in two differentiated Microsoft Excel® spreadsheets, one for the pottery and another for the small finds.

The Pottery Recording Spreadsheet (Table 2.3) consists of 27 fields and was compiled for each ceramic fragment studied during the QADIS Survey Project. The total of diagnostic pottery sherds collected during the QADIS survey project was 8244, among which 840 have been chronologically attributed to the EB IV period. These selected sherds (rims or bases and handles) or complete shapes, sufficiently preserved to be drawn and chronologically diagnostic, were drawn, photographed (together), recorded (by filling in a pottery sheet), and stored. An inventory code was given to each selected sherd using the following abbreviations: survey code (QD in case of a small site, AD for Adab, JD for Tell Jidr, etc.), year (e.g., 17 for 2017), pottery find/ bucket (P), bucket number (394), sequential number of the sherd within the selection from that bucket (no. 2 in the following example): e.g., AD.17.P.394/2. The unselected undiagnostic sherds were only described, counted, and then discarded. The pottery spreadsheet compiled on the field was then integrated with the published stratified pottery sherds, and complete shapes were analyzed from the five sites chosen as relevant case studies. Since the accuracy and documentation methodology level is different from site to site, compiling all the information listed in the pottery spreadsheet was impossible. For example, Delougaz, in his seminal work on pottery from the Diyala region⁴⁹, produced a typological analysis of the ceramic vessels, thus pro-

⁴⁵ Ambers 2001: 375; Courty 2001.

⁴⁶ Ristvet 2011: 304-305; Lebeau 2012: 306, 310

⁴⁷ Ristvet 2011: 322.

⁴⁸ Matthews 2003 (ed.); Ristvet 2011: 302-303.

⁴⁹ Delougaz 1952.

viding an explanatory drawing exclusively for each type and not drawing the sherds individually.

As a result, this integrated Pottery Recording Spreadsheet contains 1941 vessels, among sherds and complete shapes, which have been discussed in Chapter 11.

The Small Finds Recording Spreadsheet (Table 2.4) consists of 19 fields designed to organize and describe each object from the survey and the published excavated sequences. A total of 540 small finds from the QADIS survey project have been recorded, among which 30 can be dated to the EB IV period. These data have been combined with the published stratified materials from the five sites chosen as case studies, thus resulting in a total of 788 small finds.

Type of information	Field	Description		
	Identification number	Number given on field		
Identification	Plate	Reference in the publications		
	Site	"Lagash" "Nippur" "Umm el- Jir" "Eshnunna" etc.		
Identification Context Morphological features Production technique Surface treatments and decorations Dimensions	Area	The excavation area		
	Phase	The archeological phase in whi- ch the sherd was retrieved		
	Class	The functional class of the vessel (Simple Ware, Cooking Ware, Storage Ware)		
Morphological features	Shape	The shape of the vessel		
	Preservation	The conservation of the vessel (complete, rim, bottom, etc.)		
	Technique	Wheel-coiling, hand-wheel, hand		
	Inclusions type	Mineral, Vegetal or Mineral and Vegetal		
Production technique	Inclusions size and frequency	Inclusions size and frequency according to a specific chart (where applicable, cf. 11)		
	Firing	High, medium, low		
	Fabric color/s (3 columns)	Inner/Outer/Core fabric color; colors determined, for the QA- DIS survey materials, using the Munsell Colour Soil Chart TM		
Surface treatments and decora-	Surface treatment (2 columns)	Inner/Outer; burnish, slip, etc., and associated color		
tions	Decorations (2 columns)	Inner/Outer; incision, impres- sion, grooves, etc.		
	Rim diameter	Expressed in centimeters		
	Rim width	Expressed in centimeters		
Dimensions	Wall width	Expressed in centimeters		
	Bottom height	Expressed in centimeters		
	Bottom diameter	Expressed in centimeters		
	General height	Expressed in centimeters		
Others	Remarks	Relevant remarks on the vessel		

Table 2.3 Pottery Recording Sheet

Type of information	Field	Description
x1 ·C ·	Identification number	Number given on field
Identification	Plate	Reference in the publications
	Site	"Lagash" "Nippur" "Umm el- Jir" "Eshnunna" "Tell Yelkhi" etc.
Type of information Identification Context Morphological features Production technique Dimensions Others	Area	The excavation area
	Phase	The archeological phase in which the object was retrieved
	Context	Domestic, funerary, palatial, re- ligious
Morphological features	Class	The functional group of the object (tool, figurine, glyptic, etc.)
	Туре	The type of object (pin, zoo- morphic, seal, etc.)
	Preservation	The conservation of the object (complete, fragmentary, etc.)
	Material	The material of the object (me- tal, clay, stone, etc.)
Production technique	Technique	Hand, mold, etc.
	Height	Expressed in centimeters
Identification Context Morphological features Production technique Dimensions	Length	Expressed in centimeters
	Width	Expressed in centimeters
	Thickness	Expressed in centimeters
	Diameter	Expressed in centimeters
	Weight	Expressed in grams
Others	Description	Analytical description of the object
	Remarks	Relevant remarks on the object

Table 2.4 Small Finds Recording Sheet

DIGITIZATION: MAPS AND finds

In the sites considered case studies, the topographic work was generally done and published by scholars with precision. So, in most cases, good-quality plans and

sections have been produced by scholars. As for the surveys and the settlement patterns, the maps have been made in collaboration with Marco Valeri from the University of Bologna, the topographer of the QADIS survey project, using the open-source platform QGIS and then post-produced using Adobe Photoshop®.

Both the published drawings from the excavations and the newly drawn vessels from the QADIS survey project have been used regarding the pottery materials. Specifically, the pottery drawings made in the field have been scanned and then inked using Adobe Illustrator®, thus producing standardized graphic documentation. As for the small finds from excavations and surveys, both post-processed images and published drawings have been used.

2.2.5 Inputting the surveys data into the public webGIS "Floodplains"

All the available archeological datasets regarding the Mesopotamian alluvium have been compiled in an online platform named Floodplains, a webGIS application developed between 2018 and 2021 by the University of Bologna. This project was born from the collaboration of different research groups, namely the University of Bologna, the State Board of Antiquities and Heritage (SBAH) of Iraq, the Centro Ricerche Archeologiche e Scavi di Torino (CRAST), and the Centre for Ancient Middle Eastern Landscapes (CAMEL) of the University of Chicago.

This webGIS is based on an open-source library and is an HTTP client-server system with a complex and multi-tier architecture:

1. A PostgreSQL database (version 10) is used for storing and managing the survey and remote sensing data, while a related PostGIS is used for managing spatial data.

2. The Geoserver (version 2.15) instance managed both vector and raster spatial data. The data are provided using the standard protocol Open Geospatial Consortium (OGC), in particular, WMTS (Web Map Tile Service) for the raster (i.e., CORONA and survey maps) and WFS (Web Feature Service) for the vector (i.e., the polygonal shapefile for sites or the surveys areas).

3. As for the server side, the web application has been realized in PHP using the Symfony framework, while on the client side, it has been made in Javascript using the Vue.js framework.

As concerns the Floodplains WebGIS development methodology, three main steps have been identified:

1. Data collection: data have been collected from 16 archaeological surveys carried

out between the 1950s and 2020. Then, all the available satellite imagery (i.e., Bing Maps, ESRI, CORONA) and topographic maps (Open Street Maps, US Army, and the Atlas of archaeological sites of Iraq) of the Southern Mesopotamian floodplains were collected. Thus, solid geographical datasets were produced, through which the archeological data from surveys were georeferenced, thanks to well-identified geographical reference points (such as modern canals and roads). The data from the surveys, which have been carried out in different geographical areas, with different methodologies at different times, have been standardized to create a single automatic importation procedure. For each survey area, a shapefile was created. Subsequently, 4941 archaeological sites have been meticulously positioned and digitized. In addition, shapefiles and attribute tables were produced for each site.

2. Data evaluation: the data evaluation consisted mainly of two points, namely the remote feedback process, undertaken by external experts in remote sensing and aimed at controlling the precision of shapefiles and attribute tables, and the ground-truthing. As regards the last one, through archaeological surveys carried out in different parts of the floodplains between 2016 and 2020 (Tulul al-Baqarat survey⁵⁰, QADIS survey⁵¹, FARSUP survey⁵², Land of Kufa survey⁵³), it was possible to apply a strategy of re-survey of sites previously documented, intending to validate on the ground the former identification, updating, when necessary, the information collected in the past.

3. WebGIS development: the visualization layout of the Floodplains webGIS consists mainly of a map with geographical and spatial information, integrated with a sidebar menu where all the different sets of layers and information can be queried, controlled, and aggregated. The spatial data are managed through the Geoserver web interface and tools.

53 Maner, Al-Lami and Zaina 2020.

⁵⁰ Lippolis 2016, 2020.

⁵¹ Marchetti *et al.* 2017; 2019; 2020.

⁵² Otto *et al.* 2018.

DEFINING THE PERIOD BETWEEN EARLY DYNASTIC III (EARLY BRONZE III) AND UR III (MIDDLE BRONZE I) IN SOUTHERN MESOPOTAMIA: FROM THE AKKADIAN AND POST-AKKADIAN DISCOURSE TO THE EARLY BRONZE IV TERMINOLOGY

In this chapter, I will not deal with a mere question of terminology but the archaeo-chronological system between the history of politics and technology. *De facto*, defining a comparative chronological timeline regarding ancient Near Eastern studies presents several problems, mostly related to using various and different forms of periodization throughout the long history of Near Eastern excavations.

This uneven and fragmentary situation regarding the periodization has its root in the history of Mesopotamian archaeology, which became an independent historical science relatively late, around the first half of the 20th century, with the excavations carried out at Ur by C. L. Woolley and in the Diyala basin by the Oriental Institute of Chicago. Furthermore, the modern political and geographical divisions have strongly influenced the study of the Mesopotamian alluvium, creating regional subdivisions that do not always find a comparison with those of ancient times. Due to these issues, various regional archaeological periodizations were created, thus resulting in various difficulties in comparing cultural phases of different but neighboring regions.

In the last years, the ARCANE project (Associated Regional Chronologies for the Ancient Near East)⁵⁴ has cooperated to synchronize regional chronologies for the III millennium BCE. The project aimed to create a trustworthy relative and absolute chronology covering the entire Eastern Mediterranean and Near Eastern region, from Egypt to Iran, Cyprus, and Anatolia to the Arab-Persian Gulf (Table 3.1). However, within this vast area, the project's primary aim is to establish regional archaeological sequences, which be ultimately synchronized.

Region Cal. BC	CY	WA	CA	SL	Coastline / S. Syria	Inland / N. Syria	ME	UE	JZ	TG	SM/CM	WI	Region Cal. BC
3100 -				a	Π.	LC 5	LC 5	LC 5	LC 5	LC 5	L. Uruk	EWI 0	3100
3000 -	Ť	Ť	+	ESL 3™	(ECL 1)		EME 1		EJZØ	ETG 1	ESM 1	а	- 3000
2900 -	ECY 1	EWA	ECA 1	ESL4	ECL 2	(ENL 1)	a	(EUE 0)		ETG 2 ^a	ECM 1	EWI 1	- 2900
2900							EME 2	EUE 1	EJZ 1	ETG 3	ESM 2 ECM 2	c	- 2800
2700 -				a	ECL 3	(ENL 2)			EMI]			- 2700
	ECY 2	EWA2		ESL=5				EUE 2	EJZ 2	ETG 4 ^a	ESM 3 ECM 3	EWI 2	
2600 -	ECT 2		<u> </u>	ь	ECL 4	ENL 3	EME 3	EUE 2	Final	ь ?	а		- 2600
2500 -			-					EUE 3	[] [[ETG 5	ESM 4 ECM 4	EWI 3	- 2500
2400 -	ECY 3	a a	а	-	ECL 5	ENL 4	EME 4		b	ETG 6	ESM 5		- 2400
2300 -		EWA 3	ECA 3 b	ES L- 6	-[]-\\-//	ENL 5		EUE 4		ETG 7	ECM 5		2300
2200 -	ECY 4	b	 c		ECL 6		EME 5			ETG 8	ESM 6 ECM 6	EWI 4	2200
2100 -	ECY 5		ECA/4	_	_	(ENL 6)	EME 6	EUE 5		ETG 9	ESM 7 ECM 7	EWI 5	- 2100
2000 -	÷	₽ ₽	, u A	+			t			•		÷	2000

Table 3.1 Archaeological periodization of the III millennium BCE, ARCANE Project.

Since the mid-1930s, a periodization based on historical terminology has been employed for Mesopotamia's early periods; it was H. Frankfort, based on his groundbreaking excavations in the Diyala region, who developed and proposed the first systematic chronology of the period between the Proto-Historic and the Akkadian period⁵⁵. This periodization of Mesopotamia's early history mostly originates from historical observations and an art-historical dataset, using the Sumerian King List as a starting point. Nevertheless, the present lack of new and well-stratified sequences and significant assemblages of material culture has prevented the development of a new periodization, constraining us to an art-historical periodization a century ago (Table 3.2). As underlined by recent efforts to reevaluate the chronology and periodization of early Mesopotamia⁵⁶, the most efficient and correct solution will be to develop distinct chronological sequences for the material culture (pottery, glyptic, sculpture, various objects, and architecture) and the historical framework, e.g., as formulated by P. Matthiae for the Syrian area⁵⁷.

⁵⁵ Frankfort 1938.

⁵⁶ Van Ess 2007; 2009; Reichel 2007; 2009; Marchesi and Marchetti 2011.

⁵⁷ Marchetti 2005: 44

Approximate Dates BCE (Middle Chronology)	Southern Mesopotamia	Palestine	Syria	Turkey	South-western Iran
3000-2900	Jemdet Nasr			EB I	
2900-2700	ED I	EB II	EB I EB II EB III		Proto-Elamite
2700-2600	ED II		LDIII	EB II	
2600-2500	ED IIIa	EB III			Old Elamite
2500-2350	ED IIIb		EB IVA	EB IIIA	
2350-2105	Akkadian Post-Akkadian	EB IV/ MB IA	EB IVB	EB IIIB	Awan Old-Elamite
2105-2000	Ur III		EB-MB	EB IIIC	Simashki Old-Elamite

Table 3.2 Comparative chronology of the Near East during the III millennium BCE (after Marchetti 2005; and Lebeau 2011: 12, Table 1).

To underline the substantial cultural unity of the ancient Near East, the use of an archaeological periodization based on technological aspects (Chalcolithic, Bronze, Iron), as theorized by the Danish Ch. J. Thomsen, in 1836, was considered appropriate and necessary in this research. This type of periodization is prevalent in European studies and archeology, while, on the other hand, it has been applied very few times in Near Eastern studies. Thus, following most terminologies of the Levantine area, I will refer in this work to the following periods:

Early Bronze III (EB III) instead of Early Dynastic IIIa-b (ca. 2600–2350 BCE);

Early Bronze IV (EB IV) instead of Akkadian/Post-Akkadian (ca. 2350-2105 BCE); Middle Bronze I (MB I) instead of Ur III (ca. 2105–2000 BCE)⁵⁸.

In this study, the implicit principle and starting point of all forms of periodization is the stratigraphic criteria since "stratification itself is a mechanical chronological criterion."⁵⁹ As underlined in § 2.2.2, the study and comparison of stratified sequen-

59 Marchesi and Marchetti 2011: 2.

⁵⁸ The date ranges given here follow the Middle Chronology; neverthless a heated debate regarding the absolute dates of these periods is still on going, see Cole 2014; Sallaberger and Schrakamp 2015.

ces from different sites and associated material culture, especially ceramics, is crucial for establishing relative chronologies. However, the study of the stratified material culture allows for identifying changes, such as defining phase or sub-phase in the sequence. Consequently, although in the generally accepted synchronization of the Syrian, Mesopotamian, and Levantine chronologies, the Ur III period corresponds to the final phase of the EB IV and the beginning of the Amorites kingdoms to the MB I, the changes recorded in the material culture return a piece of utterly different evidence.

The last phase of the Early Dynastic, i.e., the ED IIIb (ca. 2500–2350 BCE), is marked by substantial continuity with the previous periods (ED II and ED IIIa). As for the religious architecture, most temple complexes hosted a bent-axis cella, consisting of a rectangular room with access on one of the long sides opposite the short wall against which the platform/altar stood⁶⁰. As for ceramic production, continuity can be seen both in the repertoire and manufacturing techniques. In fact, in Southern Mesopotamia, during the last phases of the Early Dynastic, the production of painted wares disappeared in favor of incised or excised decorations⁶¹. The pottery assemblages from the ED IIIb are characterized in particular by two peculiar shapes: the jars with upright handle, which was often decorated with incised geometric decoration or applied anthropomorphic decoration, and the stemmed dishes, shallow bowls with a vertical concave stem that joins the shallow conical base. These types are attested at several sites, such as Kish⁶², Abu Salabikh⁶³, Nippur⁶⁴ and the Diyala region⁶⁵.

As regards the Akkadian period (2350–2150 BCE), some continuative elements with the previous phase have been denoted: *de facto*, in temple complexes, the bent-a-xis cella remained the primary form, and the ED IIIb and Akkadian ceramics traditions are characterized by a general continuity in shapes and techniques. Quoting

⁶⁰ Delougaz and Lloyd 1942: 299–312; Tunça 1984; Zettler 1992: 32, fig. 7; Ashby 2017: 8–9.

⁶¹ Invernizzi 1992: 314–315.

Jars with upright handle with geometric decoration: Zaina 2020: 215, type 53; jars with upright handle with anthropomorphic decoration: Zaina 2020: 215, type 54; simple stemmed dishes: Zaina 2020: 201, type 26; decorated stemmed dishes: Zaina 2020: 202, types 27 and 28.

Jars with upright handle with geometric decoration: Moon 1987: 153-155, figs. 719-728; jars with upright handle with anthropomorphic decoration: Moon 1987: 157-161, figs. 732-751; simple stemmed dishes: Moon 1987: 46-47, figs. 213-229; decorated stemmed dishes: Moon 1987: 8-53, figs. 234-255.

Jars with upright handle with anthropomorphic decoration: McMahon 2006: pls. 143–144; decorated stemmed dish: McCown, Haines, and Biggs 1978: pl. 48:6; McMahon 2006: pl. 77; pl. 79; pl. 83.

⁶⁵ Simple stemmed dishes: Delougaz 1952: pl. 174, C.363.810a-b, C.364.810a-b; decorated stemmed dishes: Delougaz 1952: pl. 174, C.365.810c-d.

A. McMahon, «since the Early Dynastic and Akkadian periods are marked by quite distinct political structures, there has perhaps been a general assumption that there should be equally distinct differences between the archaeological records of each period. "Late Early Dynastic" and "Akkadian" are used to describe styles of artworks and material culture as well as history and politics. But while stylistic change may be relatively rapid in some media (e.g., cylinder seals, public art), injection or development of a new style in these media does not necessarily drive out a previous style completely. Change is potentially far slower in other forms of cultural expression (pottery, architecture), with previous types and traditions frequently extending well across historical boundaries»⁶⁶. The end of the ED is defined more politically by Sargon and his successors' conquests rather than archaeologically by the material culture. Scholars have raised many issues about the identification within the archaeological contexts of a transition between the ED IIIb and the Akkadian periods⁶⁷.

The subsequent Ur III period (ca. 2105–2000 BCE) is hallmarked by cultural expressions sharply diverging from the previous periods. Concerning the ceramics production, as underlined by Armstrong and Gasche in their groundbreaking work on the II millennium BCE Mesopotamian pottery tradition⁶⁸, the Ur III ceramic evidence presents a morphological and technological standardization and the development of new types more related to the subsequent Isin-Larsa tradition than to the Akkadian and ED periods.

As for the religious architecture, the temple complexes are now characterized by a straight-axis cella, which consisted of a rectangular room whose access was in the middle of one of the long sides, and the platform/altar stood against the other long wall directly opposite to the doorway⁶⁹.

Furthermore, according to the analyses carried out by Pruss⁷⁰, the widespread phenomenon of comb-incised pottery in Syria, Anatolia, Upper Mesopotamia, Lower Mesopotamia, and Palestine is particularly relevant for chronological purposes. The discrepancy between the developments of this specific pottery type in Syria (where comb-incision appears for the first time in MB I contexts) and in Mesopotamia

- 68 Armstrong and Gasche 2014.
- 69 Frankfort, Lloyd, and Jacobsen 1940; Heinrich 1982: 150; Reichel 2001; Ashby 2017: 9
- 70 Pruss 2007.

⁶⁶ McMahon 2006: 1.

⁶⁷ Nissen 1993; Gibson and McMahon 1995; 1997; Matthews 1997.

(where this combed complex motif is recorded on pottery from the Ur III period, significantly earlier than in the Syrian area) has led the author to the proposal of a shifted synchronization of Syrian and Mesopotamian chronologies. In fact, following the commonly accepted synchronization of Mesopotamian and Syrian chronologies (Table 3.2), which compares the Akkadian and Ur III periods with the EB IV, this characteristic comb-incised decoration would have appeared more than a century earlier in Mesopotamia than in Syria.

After a personal analysis of material culture, publications, and pottery materials from the excavated sequences in Southern Mesopotamia (cf. § 11) with a consistent and rigorous method, it seemed to me that the discrepancies in material culture might justify the transition to a new chronological phase, thus leading to a new terminology (Table 3.3).

Approximate Dates BCE (Middle Chronology)	Syria	Southern Mesopotamia traditional periodization	Southern Mesopotamia proposed periodization
2600-2500		ED IIIa	EB IIIa
2500-2350	EB IVA	ED IIIb	EB IIIb
2350-2105	EB IVB	Akkadian Post-Akkadian	EB IV
2105-2000	MB IA	Ur III	MB I

Table 3.3 Comparison between the Syrian chronology, the traditional periodization of Southern Mesopotamia, and the one proposed by the author.

Chapter 4 LAGASH

4.1 LOCATION AND HISTORY OF EXCAVATIONS

The city of Lagash, modern al-Hiba, is about 24 km east of the town of Shatra in Dhi Qar; the city is located east of the Tigris river, at the head of the Persian Gulf, in the extreme south of the Mesopotamian alluvium. As underlined by the material culture, Lagash was occupied from the Ubaid period (5000 BCE) until half of the second millennium BCE (Old Babylonian period). The central mound consists of more than 600 ha, making it one of the largest sites in Southern Mesopotamia.

In 1887, during a six weeks season, the site was first excavated by a German expedition led by Robert Koldewey: three areas were investigated, all located on the highest part of the mound. During these excavations, some public structures and a portion of a residential complex were brought to light⁷¹. However, the German expedition did not identify the *tell* as the ancient city of Lagash.

It was only during the second half of the 20th century that investigations resumed at Al-Hiba; in 1953, during a survey of the area, Thorkild Jacobsen and Fuad Safar inspected the site and found an inscription on the top of the tell that led to the identification of Al-Hiba as the ancient city of Lagash⁷².

The first systematic and scientific excavations at Lagash began in 1968, as a joint project of the Metropolitan Museum of Art and the Institute of Fine Arts at New York University, under the direction of Vaughn E. Crawford and with Donald P. Hansen as Field Director. Five excavations seasons were carried out from 1968 until 1978, when war broke out between Iran and Iraq. During these five seasons, excavations focused on area A, the Early Dynastic *Ibgal* temple complex, area B, the *Bagara*

⁷¹ Koldewey 1887.

⁷² Jacobsen 1958: 127–128; Crawford 1974: 3.

temple complex, in use from ED III until the Isin Larsa period, area C, an ED IIIb administrative complex, and area G, an ED I administrative quarter⁷³.

Subsequently, in 1984, Elizabeth Carter carried out a surface survey of Lagash to record the diachronic occupation throughout the entire site, mapping and locating craft production areas⁷⁴.

Donald Hansen and Holly Pittman visited the site once more in 1990, intending to launch a new season of excavations. However, that idea was abandoned due to the outbreak of the First Gulf War. Therefore, during this single season, the excavations focused on area G⁷⁵.

In 2019, under the leadership of Holly Pittman, the Lagash Archaeological Project resumed fieldwork at Lagash with the joint effort of the Penn Museum, the University of Cambridge, and the University of Pisa⁷⁶.

4.2 STRATIGRAPHY AND ARCHITECTURE

Area B

The works in area B were carried out during four seasons, namely 1H (1968-69), 2H (1972-1973), 3H (1975-1976), and 4H (1977-78), and exposed part of a temple complex known as the *Bagara* of Ningirsu. As a result, two structures with multiple levels were brought to light, a so-called "temple kitchen" (3HB) and a "brewery" (4HB)⁷⁷. During the 3H and 4H excavation campaigns, the excavators focused on the western part of area B, where a II millennium BCE baked-brick platform was exposed, which cut down deeply into earlier occupation levels.

Removing the platform revealed two adjacent buildings, separated by a 1 m wide alleyway.

All three levels of the western building (3HB) consisted of a central niched-and-buttressed structure surrounded by a low enclosure wall; the walls of 3HB were made of plano-convex bricks covered in mud plaster.

In the earliest phase of the building, 3HB III, the northern enclosure wall had two

⁷³ Hansen 1970; 1973; 1978; 1983; Ashby 2017; Pittman and Ashby *in press*.

⁷⁴ Carter 1990; Goodman, Renette & Carter *in press*.

⁷⁵ Hansen 1990; 1992.

⁷⁶ https://web.sas.upenn.edu/lagash/

⁷⁷ Hansen 1978: 82-83.

doorways in its center that led to an open area facing the niched-and-buttressed building. The northern façade of the building consisted of five buttresses; the two doors in the northern façade were located directly opposite the two doorways in the northern enclosure wall. The western doorway provided access to an isolated room with a platform. The southern façade of the building, which is only partially preserved, had a single shallow central buttress.

Despite the disturbances, the excavated remains indicate that the different building levels maintained the same layout and character.

Many rooms were exposed; we remembered 3HB III 5/6/15, where a bench lay against the western wall and consisted of five courses of bricks laid flat. A platform was adjacent to the center of the southern wall. Then a rectangular courtyard, 3HB III 7/23, was brought to light.

3HB II was only partially-preserved. The construction of the second-millennium platform removed the northwest and northeast corners of the building and part of the southwest corner. The southern half of room 3HB II 3 contained a large oven. As preserved, the oven consisted of two courses of headers on edge capped by a course of flat stretchers. The base of the oven was paved with flat bricks, and a single course of 4 flat bricks just outside the mouth of the oven served as a sill.

3HB I was primarily cut away by the second-millennium construction. Only the central and southeastern portions of the building escaped significant disruption. Despite the damage, the remaining parts suggest that 3HB I largely maintained the layout of the previous two iterations of the building. Room 3HB I 3 contained three distinct features: a door socket, a bitumen-lined basin that was sunk into the ground, and a trough oven, located along the eastern wall of the room and directly opposite the doorway.

Levels of Building 3HB	Levels of Building 4HB	Chronology (after Ashby 2017; Renette 2021)	Phasing (after Renette 2021)
3HB I	4HB II	Late and Post Akkadian	Phase D
3HB II	4HB III	Early Akkadian	Phase E
3HB III	4HB IVb	ED IIIb to Early Akkadian	Phase F

Table 4.1 Stratigraphic sequence of area B.

4.3 POTTERY ASSEMBLAGE

Area B

The EB IV pottery assemblage taken into account for Area B at Lagash consist of 119 pottery vessels present in the plates of the publication on Al-Hiba by Renette in 2021. They belong to three phases of occupation at Lagash: phase F, phase E, and phase D.

Phase F

The pottery assemblage taken into account from area B, phase F at Lagash consists of four vessels, all fragmentary. Among fabric colors, light reddish brown and reddish yellow are the most attested. The assemblage comprises three open shapes, namely three bowls with grooved rims, and one closed shape, a jar with a triangular rim.

Phase E

The pottery repertoire coming from phase F of area B dates to the first phase of the EB IV period and encompasses 59 vessels, among complete shapes and sherds. The most frequently attested fabric colors are light reddish brown, reddish-yellow, pale brown, and pinkish. The assemblage comprises a wide range of open and closed shapes, with a prevalence of the former. Among open shapes, plain conical bowls, plain beakers, large bowls with triangular rims, and bowls with grooved sides are attested. Closed shapes include jars with plain rims, jars with oval or rounded rims, jars with ridged shoulders, spouted jars, and small jars with plain rims.

Phase D

The pottery repertoire coming from phase D of area B dates to the latest phase of the EB IV period and encompasses 56 vessels, among complete shapes and sherds. The most frequently attested fabric colors are light reddish-brown, reddish-yellow, yellowish, and light grayish. The assemblage comprises a wide range of open and closed shapes, with a prevalence of the former. Among open shapes, plain conical bowls, plain beakers, large bowls with triangular rims, bowls with carinated sides, and bowls with grooved sides are attested. Closed shapes include jars with plain rims, jars with a plain rim on a short neck, jars with oval or rounded rims, jars with a triangular rim, jars with ridged shoulders, small jars with plain rims, stands, and pithoi with a grooved rim.

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.1.1	3HP347	В	F	Bowl	
4.1.2	4HP180	В	F	Bowl	Light reddish brown
4.1.3	3HP342	В	F	Jar	
4.1.4	4HP37	В	F	Bowl	Reddish yellow

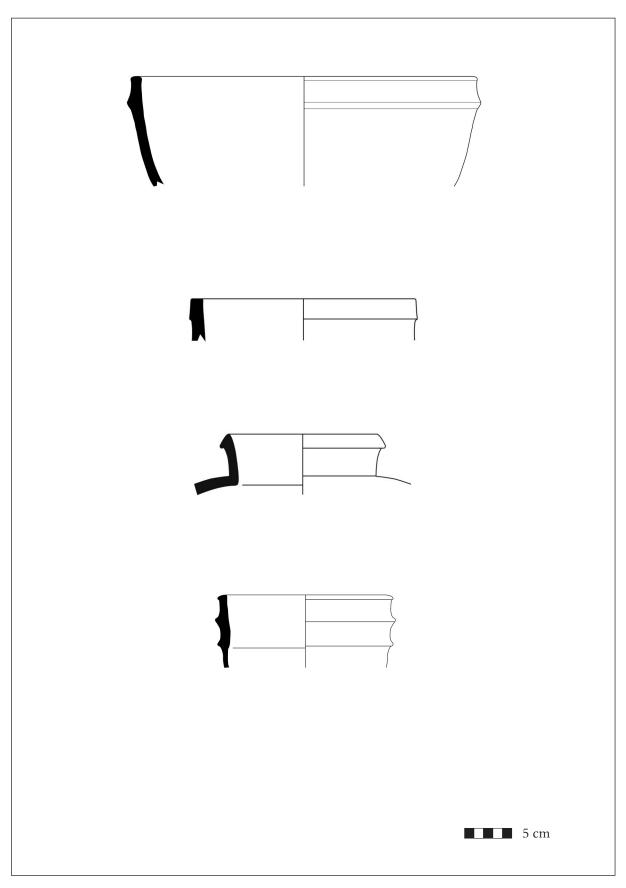


Fig. 4.1 Pottery assemblage from Area B, phase F (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.2.1	3HP312	В	Е	Beaker	Reddish yellow
4.2.2	4HP52 (= 4H63)	В	Е	Beaker	
4.2.3	4HP214	В	Е	Beaker	Reddish yellow
4.2.4	3HP336	В	Е	Bowl	
4.2.5	3HP339	В	Е	Bowl	

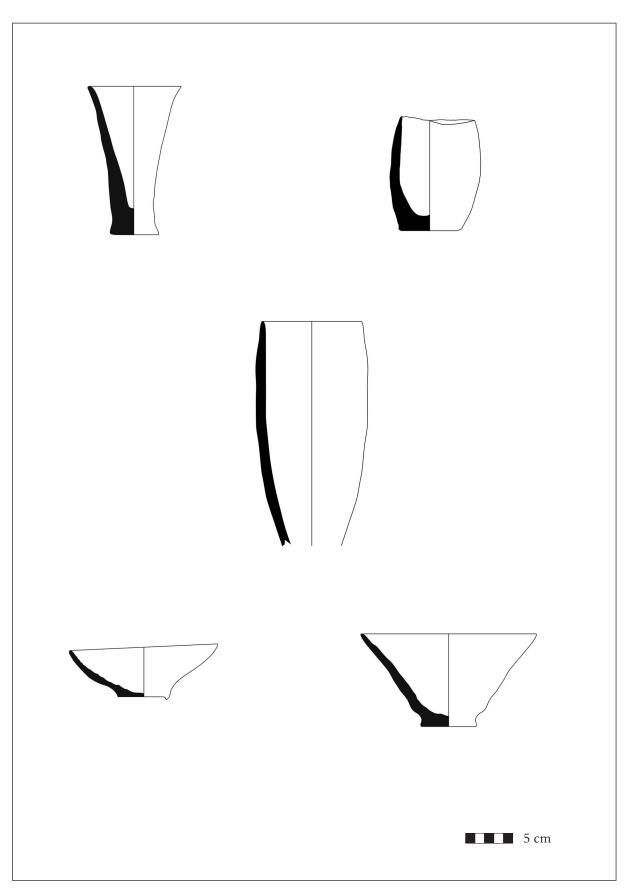


Fig. 4.2 Pottery assemblage from Area B, phase E (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.3.1	3HP313 (= 3H77)	В	Е	Bowl	Light red
4.3.2	3HP323 (= 3H76)	В	Е	Bowl	Pink
4.3.3	4HP198	В	Е	Bowl	Light reddish brown
4.3.4	3HP276	В	Е	Bowl	Brownish yellow
4.3.5	4HP179	В	Е	Bowl	Light reddis brown

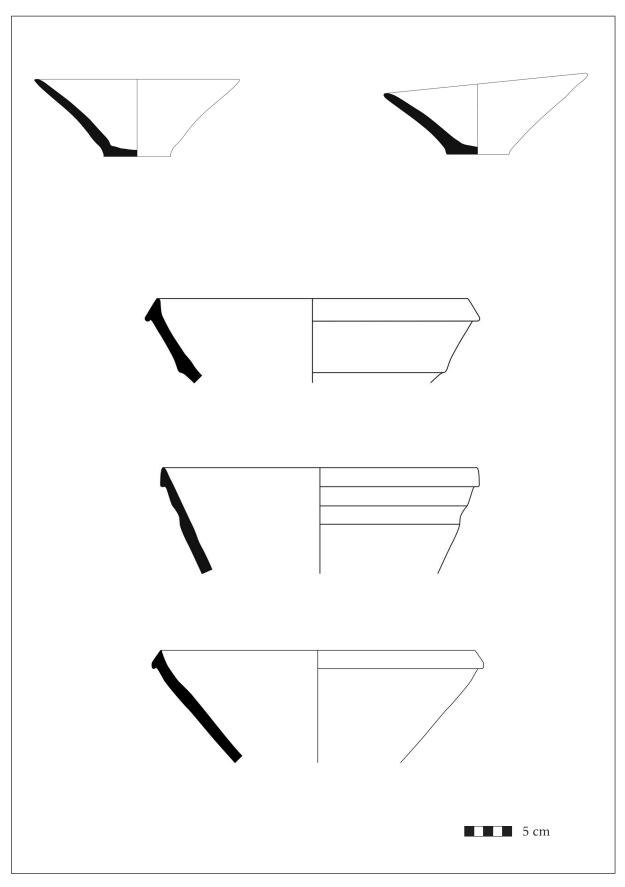


Fig. 4.3 Pottery assemblage from Area B, phase E (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.4.1	3HP289	В	Е	Bowl	Light red
4.4.2	3HP275	В	Е	Bowl	Strong brown
4.4.3	4HP211	В	Е	Bowl	Light reddis brown
4.4.4	3HP307	В	Е	Bowl	Very pale brown
4.4.5	3HP321	В	E	Bowl	Very pale brown

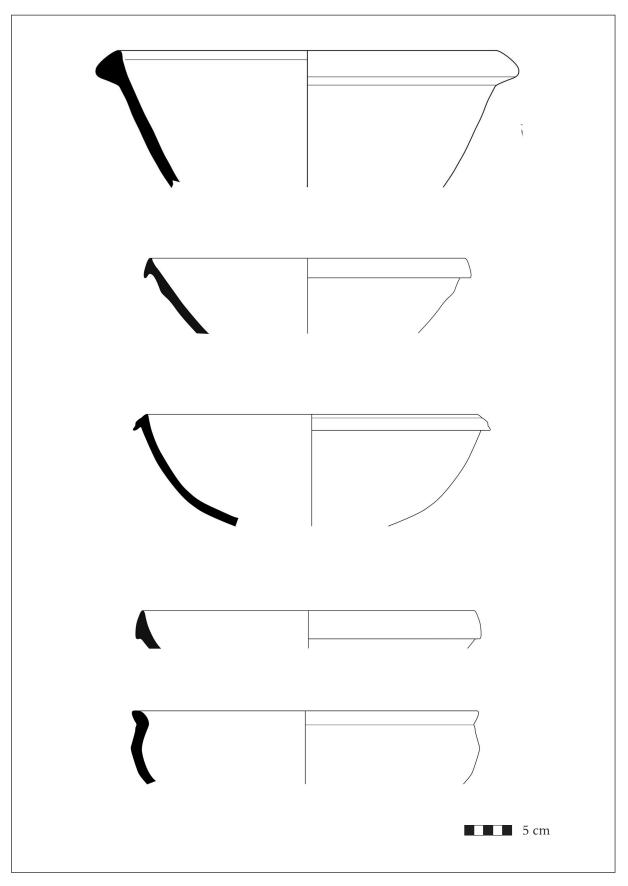


Fig. 4.4 Pottery assemblage from Area B, phase E (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.5.1	4HP206	В	Е	Bowl	Light reddish brown
4.5.2	3HP291	В	Е	Fruit stand	Reddish yellow
4.5.3	3HP302	В	Е	Fruit stand	Reddish yellow
4.5.4	4HP9	В	Е	Stand	Light reddish brown

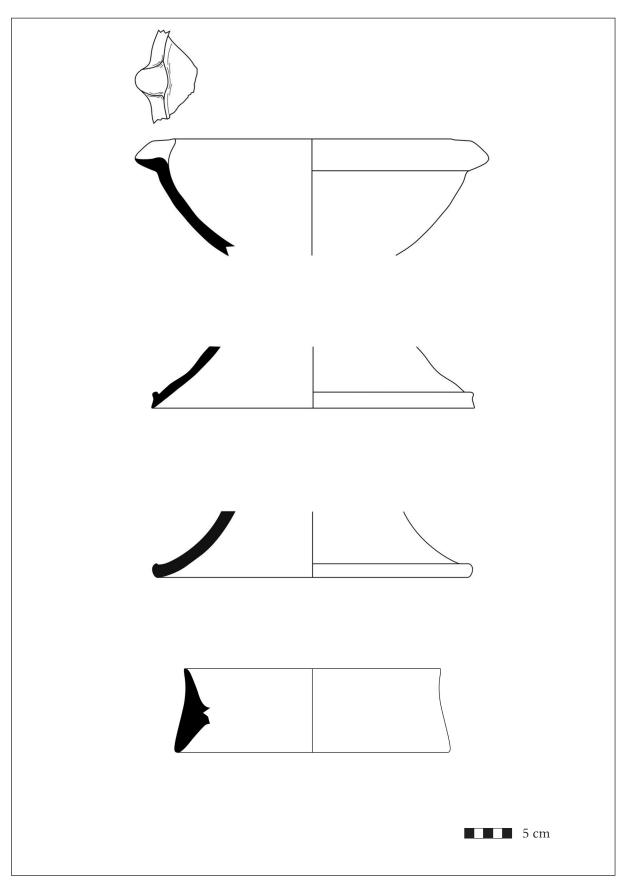


Fig. 4.5 Pottery assemblage from Area B, phase E (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.6.1	3HP298	В	Е	Bowl	Light grey
4.6.2	3HP292	В	Е	Bowl	Reddish yellow
4.6.3	4HP182	В	Е	Bowl	Very pale brown
4.6.4	3HP306	В	Е	Vat	Very pale brown
4.6.5	3HP305	В	Е	Vat	Reddish yellow
4.6.6	3HP271	В	Е	Vat	Light reddish brown

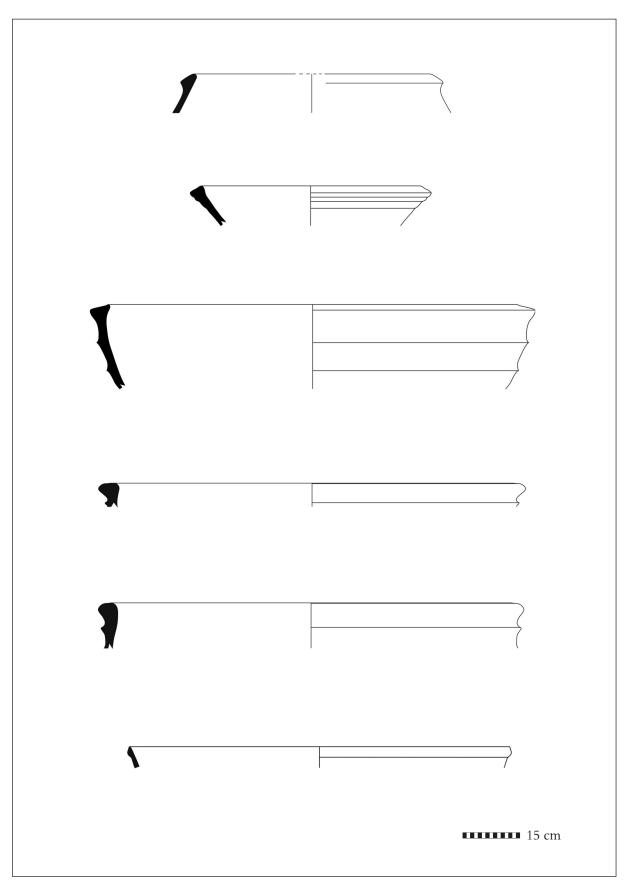


Fig. 4.6 Pottery assemblage from Area B, phase E (scale 1:10)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.7.1	4HP162	В	Е	Vat	Pale yellow
4.7.2	3HP346	В	Е	Jar	
4.7.3	3HP303	В	E	Jar	Reddish yellow
4.7.4	4HP145	В	Е	Small jar	Reddish yellow
4.7.5	4HP91	В	Е	Small jar	Light reddish brown

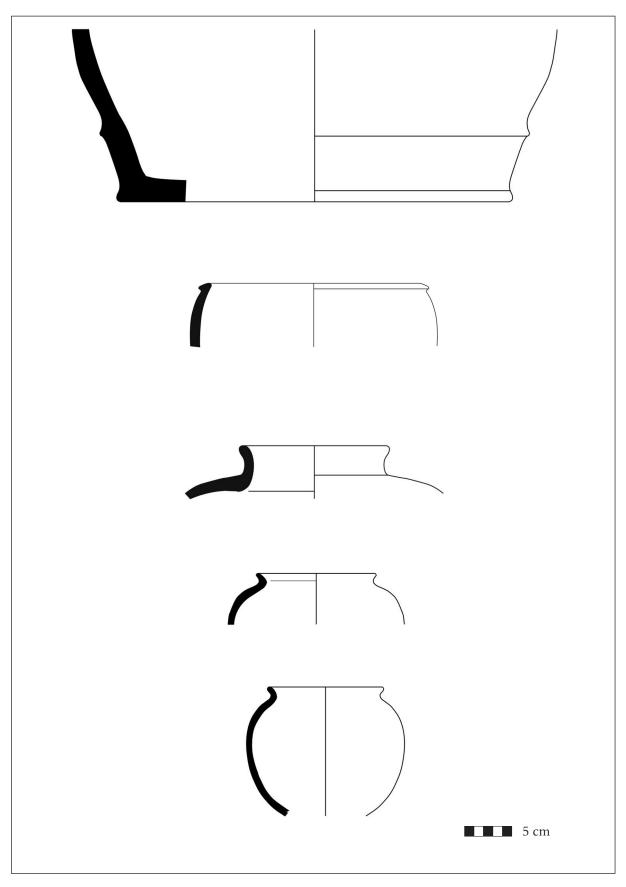


Fig. 4.7 Pottery assemblage from Area B, phase E (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.8.1	3HP322 (= 3H74)	В	Е	Jar	Reddish yellow
4.8.2	3HP325	В	Е	Jar	
4.8.3	3HP324	В	Е	Jar	
4.8.4	3HP326A	В	Е	Jar	
4.8.5	3HP337	В	Е	Jar	

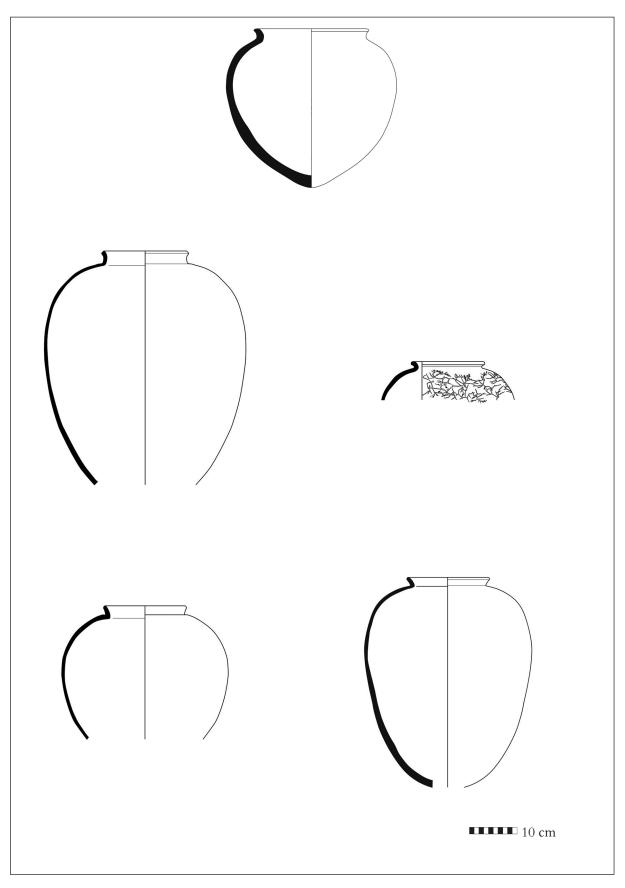


Fig. 4.8 Pottery assemblage from Area B, phase E (scale 1:8)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.9.1	4HP199	В	Е	Jar	Light reddish brown
4.9.2	3HP308	В	Е	Jar	Pink
4.9.3	3HP355	В	Е	Jar	
4.9.4	3HP332 (= 3H75)	В	Е	Jar	Light reddish brown
4.9.5	3HP327 (= 3H72)	В	Е	Jar	Pink

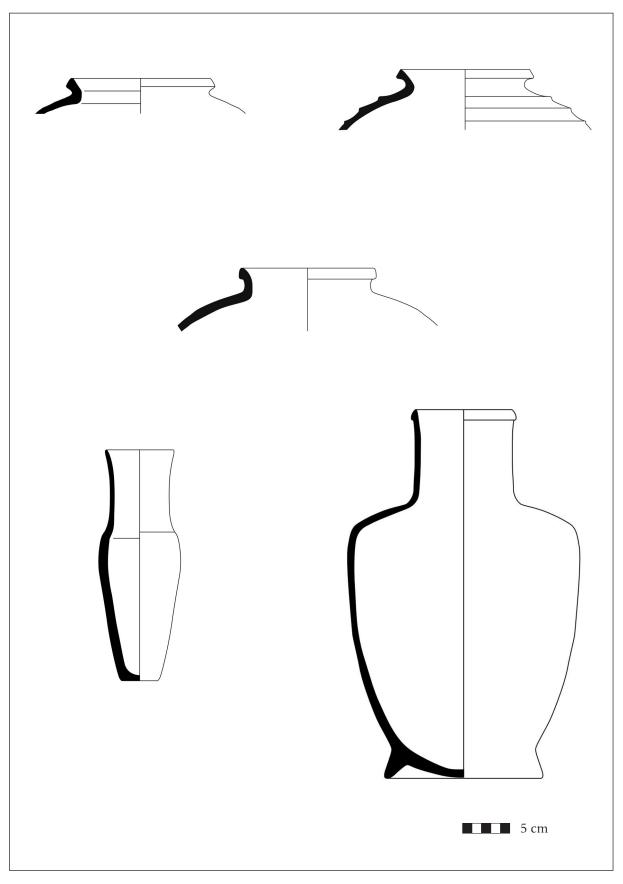


Fig. 4.9 Pottery assemblage from Area B, phase E (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.10.1	3HP329 (= 3H73)	В	E	Jar	Reddish yellow
4.10.2	4HP107	В	Е	Jar	Light grey
4.10.3	3HP328 (= 3H71)	В	Е	Jar	Pink
4.10.4	4HP26	В	Е	Spout	Light reddish brown
4.10.5	4HP51	В	Е	Spout	Light reddish brown

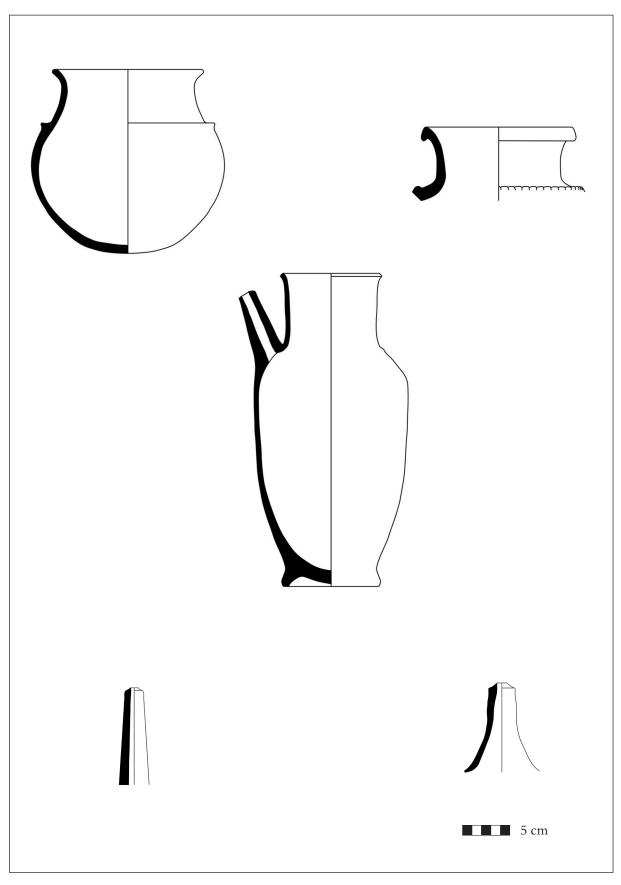


Fig. 4.10 Pottery assemblage from Area B, phase E (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.11.1	4HP199	В	Е	Small jar	Light reddish brown
4.11.2	3HP308	В	Е	N/A	Light reddish brown
4.11.3	3HP355	В	Е	N/A	Reddish yellow

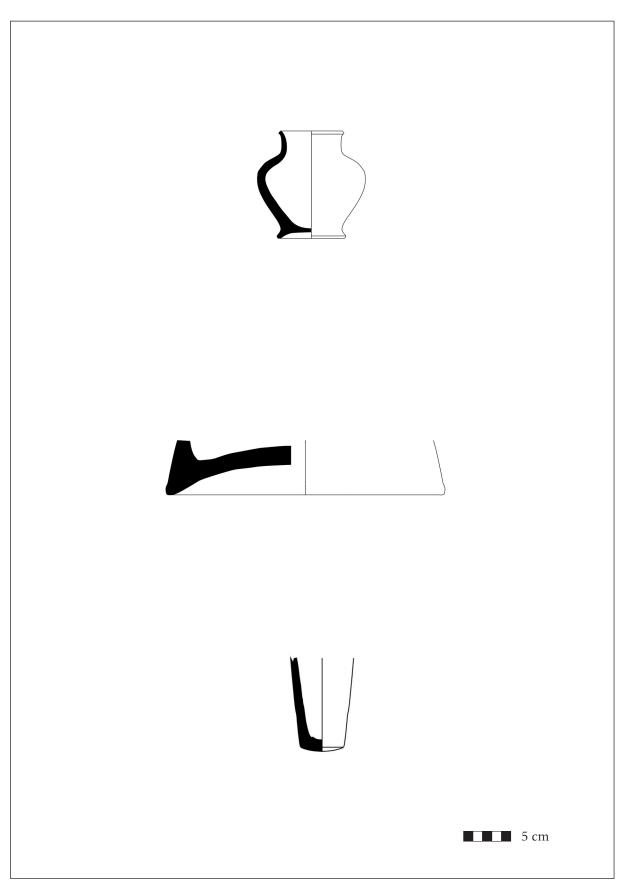


Fig. 4.11 Pottery assemblage from Area B, phase E (scale 1:4)

Chapter 4

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.12.1	4HP177	В	D	Beaker	Light reddish brown
4.12.2	4HP7	В	D	Tray	Light reddish brown
4.12.3	4HP5	В	D	Tray	Light reddish brown
4.12.4	4HP25	В	D	Tray	Light reddish brown

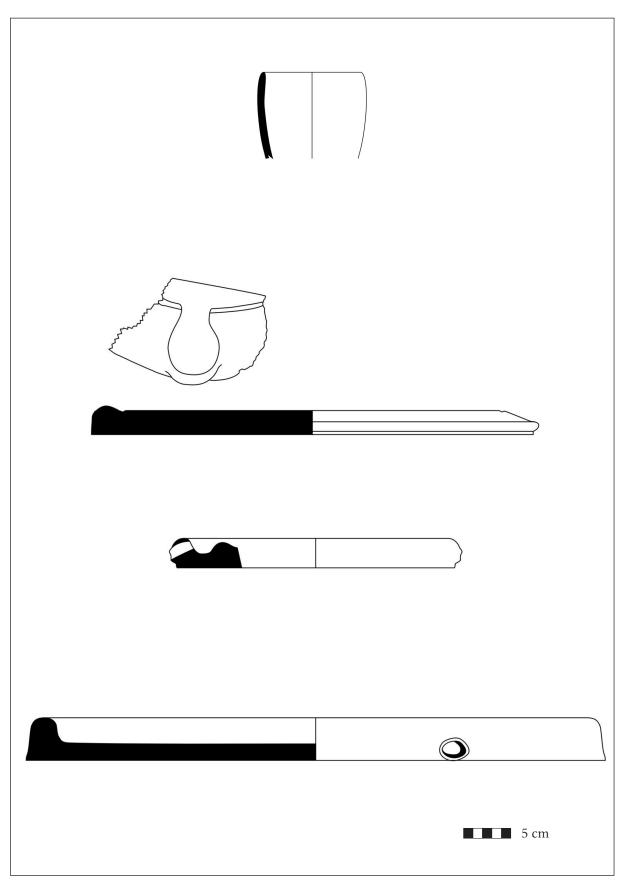


Fig. 4.12 Pottery assemblage from Area B, phase D (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.13.1	4HP90	В	D	Bowl	Reddish yellow
4.13.2	4HP142	В	D	Bowl	Light reddish brown
4.13.3	4HP158	В	D	Bowl	Very pale brown

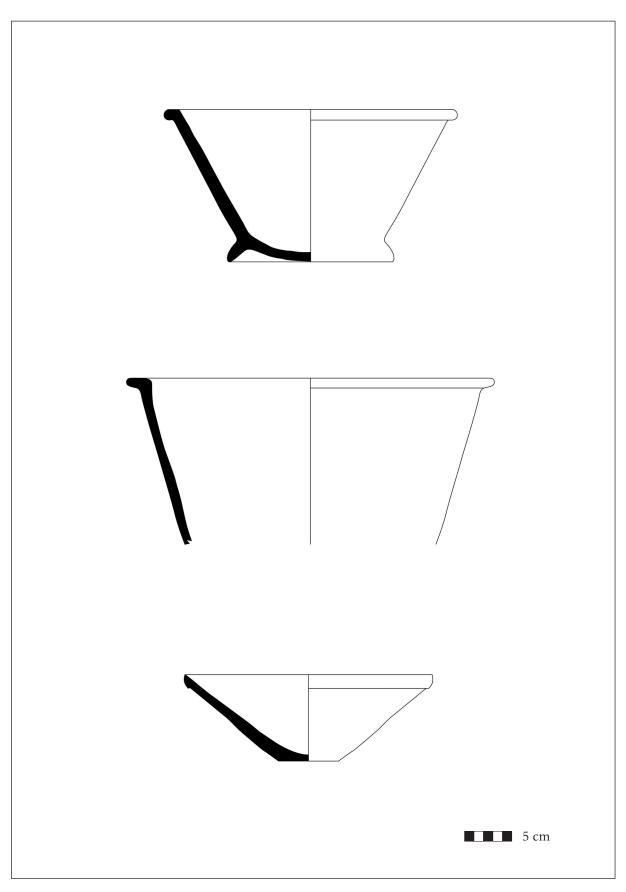


Fig. 4.13 Pottery assemblage from Area B, phase D (scale 1:4)

Chapter 4

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.14.1	4HP74	В	D	Bowl	Light reddish brown
4.14.2	4HP154	В	D	Bowl	Light brown
4.14.3	4HP23	В	D	N/A	Reddish yellow

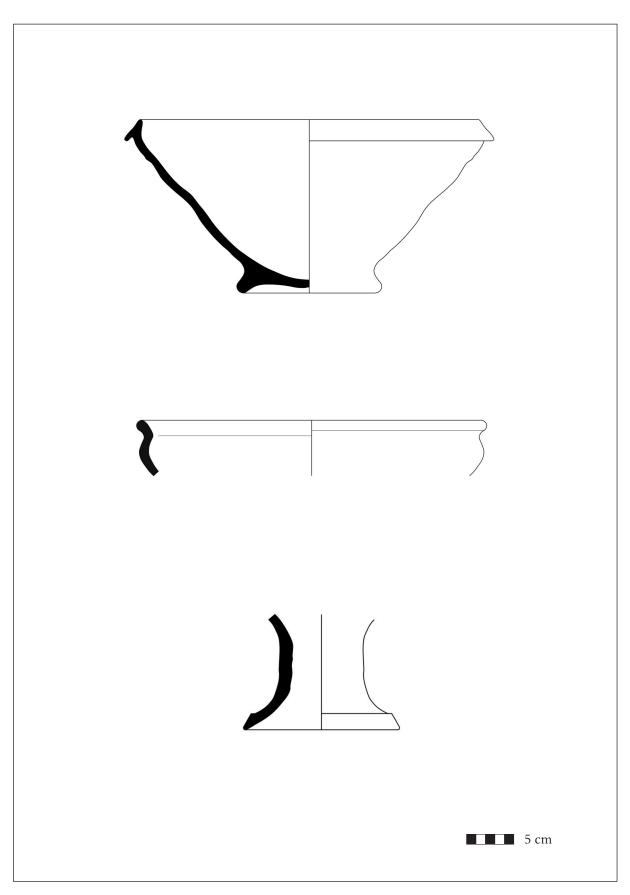


Fig. 4.14 Pottery assemblage from Area B, phase D (scale 1:4)

Chapter 4

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.15.1	4HP203	В	D	Bowl	Light reddish brown
4.15.2	4HP204	В	D	Bowl	Light reddish brown
4.15.3	4HP205	В	D	N/A	Light reddish brown

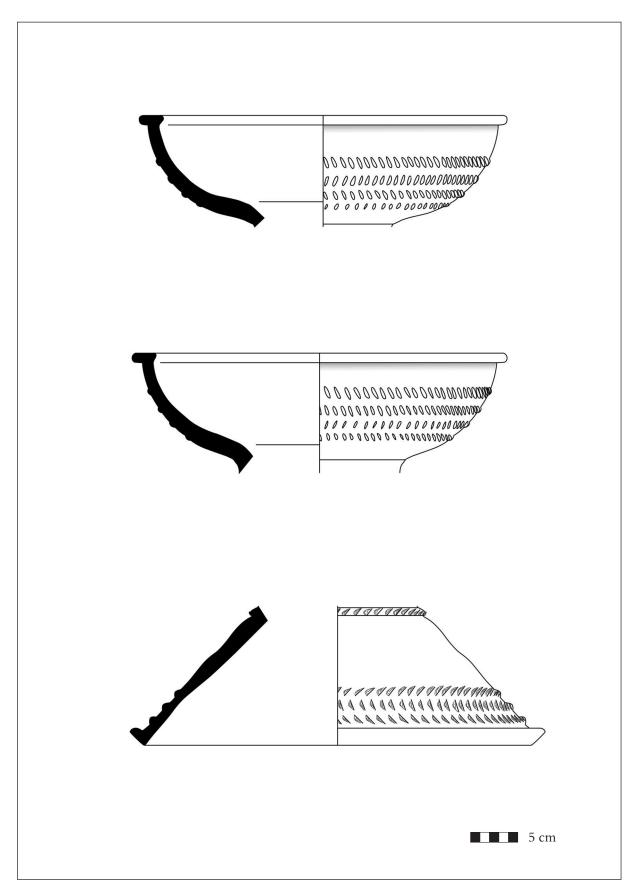


Fig. 4.15 Pottery assemblage from Area B, phase D (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.16.1	4HP33	В	D	Stand	Very pale brown
4.16.2	4HP17	В	D	Stand	Reddish yellow
4.16.3	4HP15	В	D	Stand	Reddish yellow
4.16.4	4HP163	В	D	Bowl	Pale yellow
4.16.5	4HP19	В	D	Bowl	Light grey

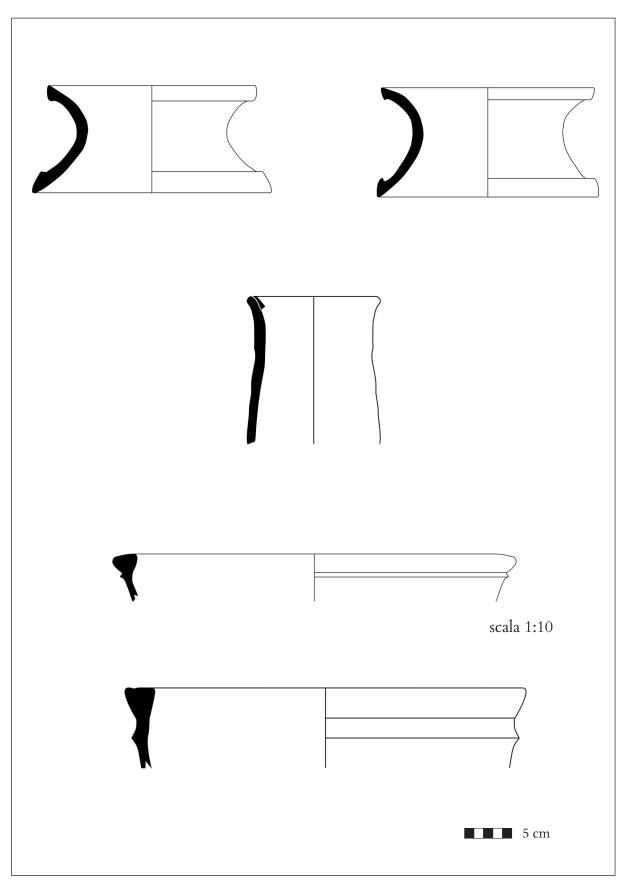


Fig. 4.16 Pottery assemblage from Area B, phase D (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.17.1	3HP212	В	D	Bowl	Light olive grey
4.17.2	4HP59	В	D	Bowl	Light grey
4.17.3	3HP272	В	D	Bowl	Pale yellow
4.17.4	3HP296	В	D	Jar	Reddish yellow
4.17.5	4HP67	В	D	Jar	Light reddish brown

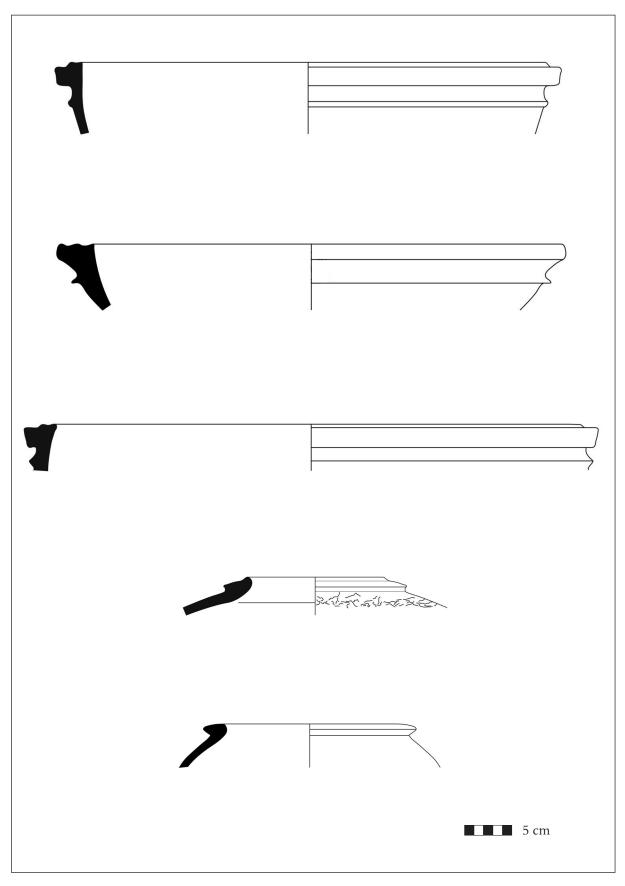


Fig. 4.17 Pottery assemblage from Area B, phase D (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.18.1	4HP13	В	D	Jar	Light red
4.18.2	4HP143	В	D	Jar	Light grey
4.18.3	4HP65	В	D	Jar	Light reddish brown
4.18.4	4HP141	В	D	Jar	Light reddish brown
4.18.5	4HP63	В	D	Jar	Light reddish brown

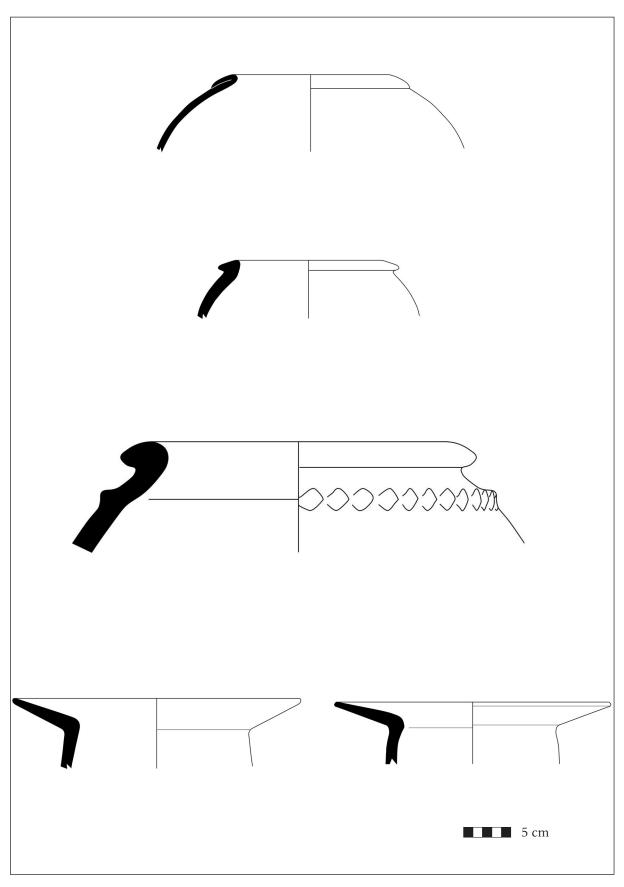


Fig. 4.18 Pottery assemblage from Area B, phase D (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.19.1	4HP201	В	D	Jar	Light reddish brown
4.19.2	3HP269	В	D	Jar	Yellowish red
4.19.3	4HP147	В	D	Jar	Light brownish grey
4.19.4	3HP167B	В	D	Jar	Reddish yellow
4.19.5	4HP109	В	D	Jar	Pink
4.19.6	4HP175	В	D	Jar	Light grey

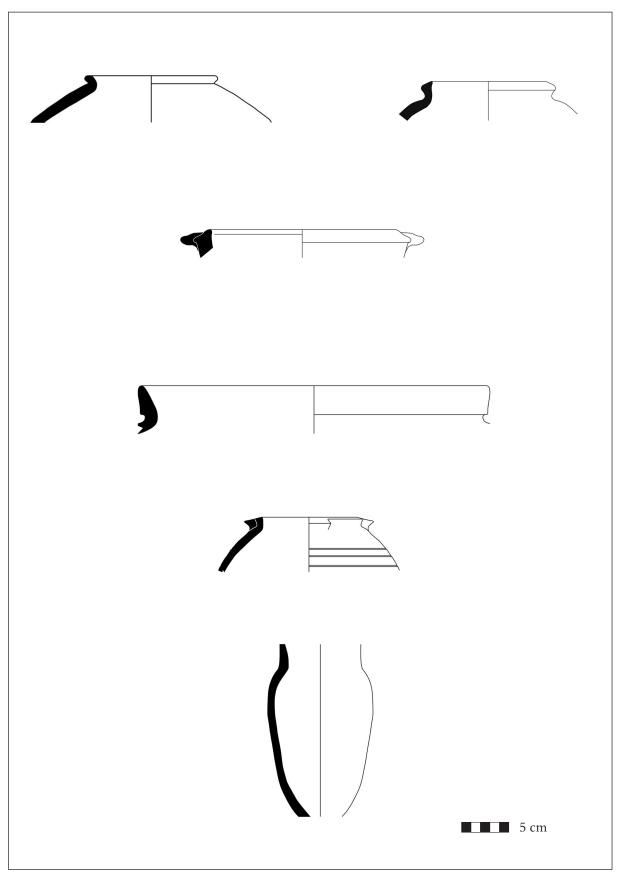


Fig. 4.19 Pottery assemblage from Area B, phase D (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
4.20.1	3HP213	В	D	Jar	Light grey
4.20.2	4HP12	В	D	Jar	Reddish yellow
4.20.3	4HP178	В	D	Jar	Light yellowish brown
4.20.4	4HP24	В	D	Jar	Reddish yellow
4.20.5	4HP200	В	D	Jar	Light reddish brown
4.20.6	4HP171	В	D	Jar	Very pale brown

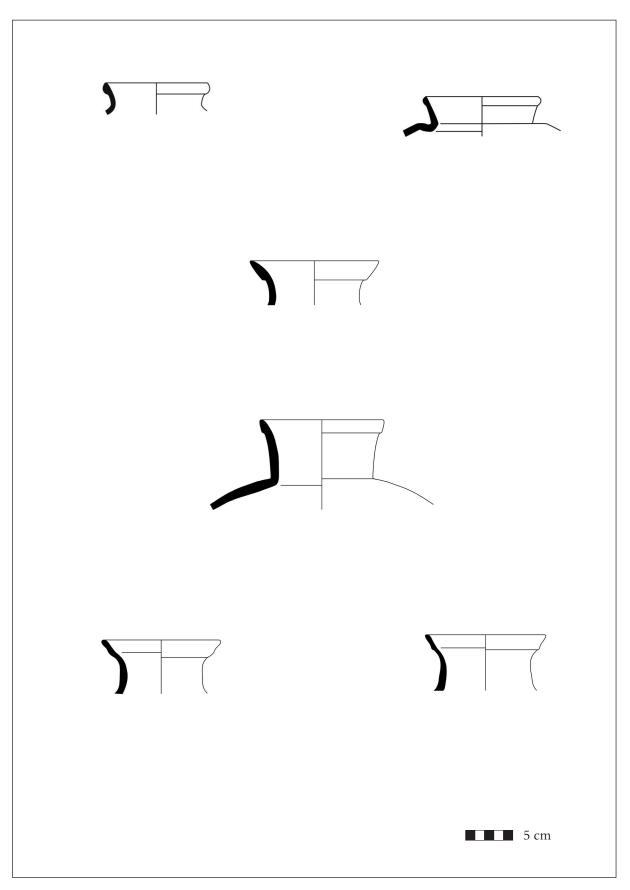


Fig. 4.20 Pottery assemblage from Area B, phase D (scale 1:4)

Chapter 5 NIPPUR

5.1 LOCATION AND HISTORY OF EXCAVATIONS

The city of Nippur - located in ancient times on the banks of the Shatt-en-Nil canal - is about 160 kilometers to the southeast of present-day Baghdad. Ideal watershed between Sumer and Akkad, Nippur was the most important religious center of Mesopotamia, being the seat of the main sanctuary of the god Enlil, the supreme deity of the Sumerian pantheon. Moreover, its role as a holy city gave it great relevance from a political point of view, as the control of the city guaranteed the reign-ing dynasty the legitimacy to exercise its power over the land of Sumer and Akkad.

The city of Nippur experienced an exceptional continuity of occupation: starting from the first forms of settlement dating back to the Ubaid period (5000 BCE), Nippur was continuously occupied until the Islamic era, when it was abandoned approximately towards 800 AD⁷⁸.

This succession of historical periods and populations has allowed the formation of an unparalleled archaeological record in the history of Mesopotamia. Already known to Austen Henry Layard in 1851⁷⁹, the full-scale excavation of the site began in 1889 under the direction of Robert F. Harper of the University of Pennsylvania. Between 1889 and 1900, the Pennsylvania expedition worked at Nippur, retrieving more than 30000 cuneiform tablets and many other small finds⁸⁰.

In 1948 the Oriental Institute of Chicago inaugurated a new season of excavations at Nippur under the direction of Richard C. Haines⁸¹; the efforts of these early cam-

⁷⁸ Gibson 1993.

⁷⁹ Layard 1871.

⁸⁰ Peeters 1897; Hilprecht 1903.

⁸¹ McCown and Haines 1967; McCown *et al.* 1978.

paigns focused on the sacred area of the city, with its neighborhoods and temples.

In 1972 McGuire Gibson became field director of excavations⁸², thus using a new approach and extending the archaeological investigations to the entire city to better understand the domestic and administrative contexts and have a more balanced view of the urban complex.

Nine seasons were carried out between 1972 and 1990, when the Gulf War and the subsequent events made it impossible to carry out excavations campaigns in Iraq.

After almost thirty years of hiatus, the Oriental Institute of Chicago resumed archeological research at Nippur in 2019 under the direction of Abbas Alizadeh⁸³.

In 1972/1973, during the 11th season, the University of Chicago decided to excavate the West Mound of Nippur, which had not been touched since the 1890s. Thus, to investigate the Akkadian and Kassite occupation, the archaeologists decided to open a stratigraphic pit of 5x5 m, area WA 50c, inside area WA, previously investigated by the University of Pennsylvania; unfortunately, due to the sand dunes, after only three years they were forced to leave the operation.

In 1988/1989-1990, during the 18th and 19th seasons, after the dunes migrated off the mound, the archaeologists were finally able to start over operations on the West Mound and decided to open a stratigraphic pit (10x10 m, then reduced, for safety reason, to 8x8 m) just North of area WA 50c. This sounding, named area WF, reached a depth of 12 meters, exposing an unbroken sequence of domestic occupation levels from ED IIIa to the Parthian periods.

5.2 STRATIGRAPHY AND ARCHITECTURE

North Temple

In 1953, during the third excavation campaign led by the Oriental Institute under the direction of Donald E. McCown, the so-called North Temple was discovered in the northwestern part of the Religious Quarter⁸⁴. This structure, whose titular deity is unknown, became the main objective of the fourth excavation campaign and was thoroughly investigated between November 1953 and March 1954.

The structural remains present in the area allow us to ascertain that the tem-

⁸² Gibson 1973.

⁸³ https://voices.uchicago.edu/ochre/project/nippur/

⁸⁴ McCown *et al.* 1978.

Nippur

ple was rebuilt several times during a chronological period ranging from the ED – during which, in all likelihood, it was founded – to the Akkadian period.

Levels II and I were dated by the Chicago archaeologists – based on the epigraphic and glyptic material found in the reference layers – to the Akkadian period. However, in the light of the revision of the Diyala sequence⁸⁵ and of the evidence from the WF survey in Nippur⁸⁶, level III – dated by archaeologists at the end of ED III (ED IIIb) – can be placed chronologically in the "transition" phase between ED III and the beginning of the Akkadian period⁸⁷.

In this phase (III), the plan of the temple remains substantially the same as that of level IV – typical of Early Dynastic Mesopotamian temples – with a tripartite structure, elongated cell with access located on the long side at the corner opposite the short side against which the altar stands. The entrance and the altar are not aligned, and to go towards the altar it was necessary to turn 90°. The structures adjacent to the temple, probably residential units, were also brought to light on this level.

Regarding level II, the temple's walls are rather fragmentary. However, the few preserved structural elements (a corner of the kitchen with two ovens remains built on top of the other and part of the *antecella*) seem to indicate a continuity of the plan. Instead, in the area adjacent to the temple, the presence of buildings with a central plan characterized by a significant presence of *tannur* and hearths confirms the domestic-residential character of the area.

The high fragmentation of the wall structures in level I did not allow us to understand and define the architectural nature of the area; archaeologists have theorized, based on the different heights of the walls, three phases of construction, probably of a temple of which no trace remains. However, the domestic function of the adjacent area remains, confirmed by the few walls found.

Area WF

During the 18th (1989) and 19th (1990) excavation campaigns of the University of Chicago, a stratigraphic sounding was opened on the West Mound of Nippur, the WF area⁸⁸. During the two campaigns, this area reached a depth of 12 m, with

⁸⁵ Gibson 1982.

⁸⁶ McMahon 2006; infra §2.1.2.

⁸⁷ McMahon 2006: 66.

⁸⁸ McMahon 2006.

nineteen identifiable levels whose chronology goes from the ED IIIa to the Parthian period⁸⁹.

The WF sounding was initially a 10 x 10 m square; however, during the excavations, it was necessary to reduce the area for safety reasons, reaching, at the lowest level identified – the XIX – an extension of only 5 x 4.5 m⁹⁰.

The area investigated by the WF sounding is characterized by a domestic function for almost the entire sequence of occupation. This activity is underlined by the type of structures excavated and the burials below them. Also, the ceramic repertoire confirms the domestic function of the buildings⁹¹.

Level XVII, which archaeologists defined – based on the material found – as the "transition" between the ED IIIb period and the beginning of the Akkadian period, is divided into three phases⁹²; for this period, it is impossible to reconstruct an overall plan, as the various walls present in this level are considerably disturbed by subsequent cuts and activities; however, the presence of a cylindrical oven for baking bread (tannur) suggests that in this area there was probably an open space, as this installation – both in ancient times and still today – is always placed outside the house.

In level XVI, the area is again characterized by an open space. In fact, near the remains of a wall, two hearths, a tannur, and various burials were found. These elements led to the hypothesis that the courtyard was located outside a private house. Furthermore, the hearths and burials suggest that it was a place used by a single family and not for public use⁹³.

Level XV, divided into two phases, is characterized by an open space divided into two parts by a wall flanked, on both sides, by two tannur. The southern and the northern open spaces (probably both courtyards) remain open even in the second phase and do not present any cover⁹⁴.

It is starting from level XIV, with its two sub-phases, that we witness a radical change, with the concomitant presence of open and closed spaces: in continuity with level XV, we find, in the northern part, a courtyard, which is put in communication – through a door – with a room to the southeast, prob-

- 92 McMahon 2006: 14.
- 93 McMahon 2006: 15.
- 94 McMahon 2006: 15.

⁸⁹ McMahon 2006: 5.

⁹⁰ McMahon 2006: 5.

⁹¹ McMahon 2006: 7.

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ably a warehouse. To the southwest, another room has been identified.

A mudbrick structure characterizes the second phase – built along the western wall of the room to the southeast – near which a basin partially buried in the floor was found. The function of this installation is unclear. However, its position above burial 15 suggests a connection with the ritual of funerary offerings.

It is also essential the discovery, in the center of the room, of a cylindrical shell seal, whose style is similar to that defined by Boehmer "Akkadisch I b / c"⁹⁵, which would imply a dating of the same to the reign of Rimush (ca. 2279-2270 BCE) or Manishtushu (ca. 2270-2255 BCE), allowing to attribute with certainty, according to the archaeologists, the occupation of this level to the Akkadian period⁹⁶.

As regards level XIII (three phases), the plan of the building is different from the previous one: despite the reuse of some walls of level XIV, the room to the southeast no longer exists, and whose space is used for the enlargement of the courtyard⁹⁷. In the northern part of the courtyard, in the second phase, an unbaked seal is found whose style can be traced back to Boehmer's "Akkadisch III"⁹⁸, thus belonging to the reign of Naram-Sin (ca 2254–2218 BCE) or later. As for the chronology of the level, the second phase from burial 14 also comes to our aid, as the objects and pottery inside it confirm – as suggested by the seal mentioned above – a late Akkadian dating.

In level XII (2 phases), not only does the general plan of the building resume that of level XIV (with the rebuilding of the room to the southeast connected to the courtyard), but even the walls are rebuilt, maintaining the same position they had in level XIV, despite the 50 centimeters of rubble separating the two levels⁹⁹. Level XI (two phases) continues the plan of level XII, but with some structural and functional changes: a tangible example is a construction of a bathroom in the southeastern room, which had always been used for storage. In the second phase, this room extended towards the southeast, thanks to the removal of a wall¹⁰⁰.

- 99 McMahon 2006: 19.
- 100 McMahon 2006: 21-23.

⁹⁵ Boehmer 1965.

⁹⁶ McMahon 2006: 16-17.

⁹⁷ McMahon 2006: 17–19.

⁹⁸ Boehmer 1965.

5.3 POTTERY ASSEMBLAGES

Area WF

Level XV

The pottery repertoire coming from level XV of the WF sounding dates to the first phase of the EB IV period. 74% of vessels come from a domestic context, while the remaining 26% are recorded in a burial. About 83% of pottery from level XV has a fine fabric with sand temper, while small organic inclusions are registered only in 4 vessels. Among fabric colors, the most attested are buff, pinkish, and light reddish. The repertoire includes a wide range of closed shapes, while only a type of open shapes is recorded. The last one is represented by conical bowls with string-cut bases, a type widespread in Mesopotamian from the EB III to the later periods. Closed shapes include jars with band-rim and flat base, jars with a plain rim on a short or regular neck, jars with a double-ridged rim, and jars with a triangular rim.

Level XIV

The pottery assemblage coming from the two phases of level XIV dates to the EB IV period. About 39% of the repertoire come from two different burial (13 and 14), while the remaining is attested from a domestic context. The majority of wares have a fine fabric with sand temper, although also organic inclusions are attested. Among fabric colors, buff, pinkish and reddish are the most frequently attested. The assemblage comprises a wide range of open and closed shapes, with a prevalence of the former. Open shapes encompass conical plates, conical bowls with string-cut bases, conical bowls with thickened rims, conical bowls with triangular everted rims, and large bowls with a triangular rim. Closed shapes include jars with a plain rim, jars with band-rim and flat base, jars with oval or rounded rims, jars with a triangular rim.

Level XIII

About 32% of the pottery repertoire from level XIII comes from one burial, while the remaining 68% is recorded from a domestic context. The majority of the collected sherds from this level have a fine fabric with sand temper (55% of the sherds), while the presence of organic inclusions is also recorded (45%). Among fabric colors, the most frequently attested are buff, pinkish, light reddish, and greenish. The pot-

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tery from this level encompasses a broad repertoire of open and closed shapes, with a prevalence of the latter. Among open shapes, conical plates, conical bowls with a string-cut base, conical bowls with a thickened rim, conical bowls with a triangular everted rim, large bowls with a triangular rim, and beveled rim cups are attested. Closed shapes encompass carinated bottles, jars with band-rim, jars with triangular or oval rim, jars with triangular rim and ridged shoulder, jars with a double ridged rim, small jars with plain rim, and large storage jars with oval or band rim.

Level XII

The ceramic repertoire from level XII is mainly recorded from a domestic context, while only about 24% of the vessels are attested from a burial. Most wares have a fine fabric with a sand temper, while small organic inclusions are recorded only in a few sherds. Among fabric colors, the most frequently attested are buff, pinkish, light reddish, and greenish. Decorations (incision and impression) occur on a few sherds (2.5%), as well as surface treatments (burnish, 2.5%). The assemblage comprises a wide morphological range of open and closed shapes, with a prevalence of the latter. Open shapes encompass conical plates, conical bowls with string-cut bases, conical bowls with thickened rims, conical bowls with upright thickened rims, conical bowls with triangular everted rims, and large bowls with a triangular rim. Closed shapes comprise jars with band-rim, jars with a triangular rim, jars with oval rims, jars with a double-ridged rim, small jars with plain rims, and large storage jars with oval or band rims.

Level XI

The pottery assemblage from Level XI comes almost exclusively from a domestic context, with only two vessels recorded from a burial. About 58% of wares have a fabric characterized by sand temper and few organic inclusions, while the remaining have a fine fabric with sand temper. Among fabric colors, the most frequently attested are buff, pinkish, light reddish, and greenish. Decorations are present on 11% of the sherd recovered and are mostly grooved, with the limited occurrence of incisions (only one vessel). The assemblage comprises a wide range of open and closed shapes, with a prevalence of the latter. Open shapes comprise conical plates, conical bowls with string-cut base, conical bowls with thickened rim, conical bowls with upright thickened rim, conical bowls with triangular everted rim, strainers, large bowls with

triangular rim, and bowls with carinated sides. Among closed shapes, jars with a plain rim, jars with band-rim, jars with an oval rim, jars with a triangular rim, jars with a triangular rim and ridged shoulder, small jars with a plain rim, small jars with a band rim, and large storage jars with oval or band rims are attested.

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.1.1	I361:3	Sounding WF	XVB	Jar	Pale red (cre- am surface)
5.1.2	I380:2	Sounding WF	XVB	Jar	Pale red (pink surface)
5.1.3	I380:4	Sounding WF	XVB	Jar	Buff
5.1.4	I361:2	Sounding WF	XVB	Jar	Buff
5.1.5	I384	Sounding WF	XVB	Jar	Buff
5.1.6	1380:3	Sounding WF	XVB	Jar	Buff
5.1.7	I361:1	Sounding WF	XVB	Jar	Buff
5.1.8	I380:1	Sounding WF	XVB	Jar	Buff green

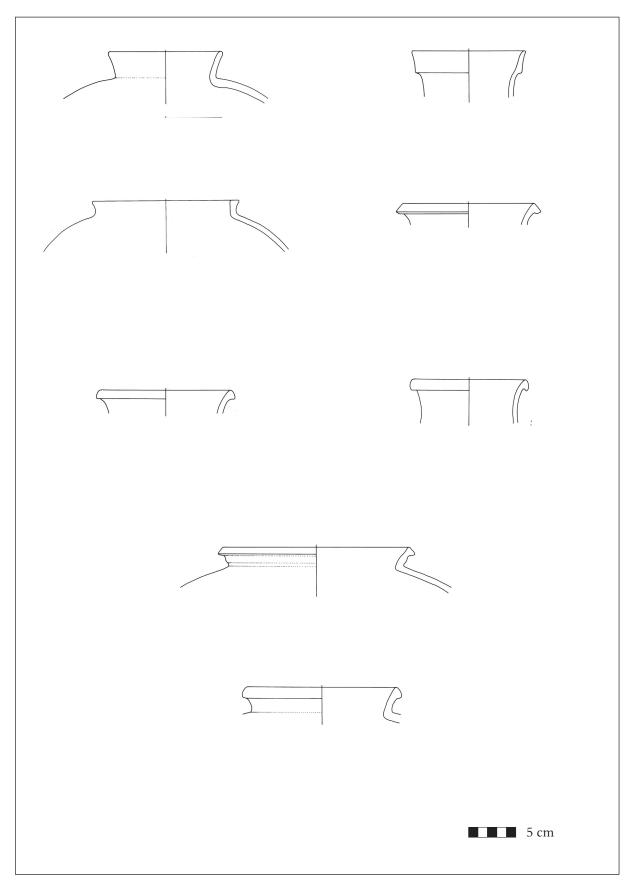


Fig. 5.1 Pottery assemblage from Sounding WF, level XVB (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.2.1	I329:1	Sounding WF	XVA	Bowl	Pale red
5.2.2	I378:2	Sounding WF	XVA	Bowl	Dark buff (cream sur- face)
5.2.3	I341:1	Sounding WF	XVA	Jar	Pale red (buff surface)
5.2.4	I110	Sounding WF	XVA	Jar	Buff yellow
5.2.5	I373:1	Sounding WF	XVA	Jar	Overfired green
5.2.6	1329:2	Sounding WF	XVA	Jar	Buff (cream surface)
5.2.7	I373:2	Sounding WF	XVA	Jar	Buff green
5.2.8	I341:3	Sounding WF	XVA	Jar	Pale red (buff surface)

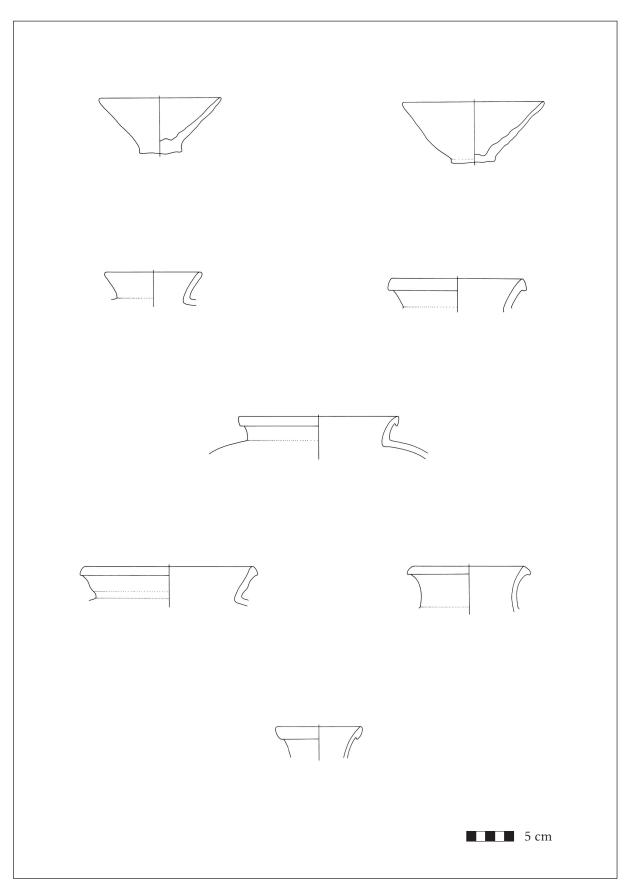


Fig. 5.2 Pottery assemblage from Sounding WF, level XVA (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.3.1	1326:3	Sounding WF	XIVB	Bowl	Buff (cream surface)
5.3.2	I326:1	Sounding WF	XIVB	Bowl	Pale red (buff surface)
5.3.3	I322:1	Sounding WF	XIVB	Fruit stand	Buff greenish
5.3.4	H1082:4	Sounding WF	XIVB	Bowl	Pale red (buff surface)
5.3.5	H1082:6	Sounding WF	XIVB	Jar	Red
5.3.6	I158:1	Sounding WF	XIVB	Jar	Buff (cream surface)
5.3.7	H1082:9	Sounding WF	XIVB	Jug	Dark red
5.3.8	H1052:4	Sounding WF	XIVB	Small jar	Buff
5.3.9	H1067:3	Sounding WF	XIVB	Jar	Red
5.3.10	H1082:7	Sounding WF	XIVB	Jar	Pink

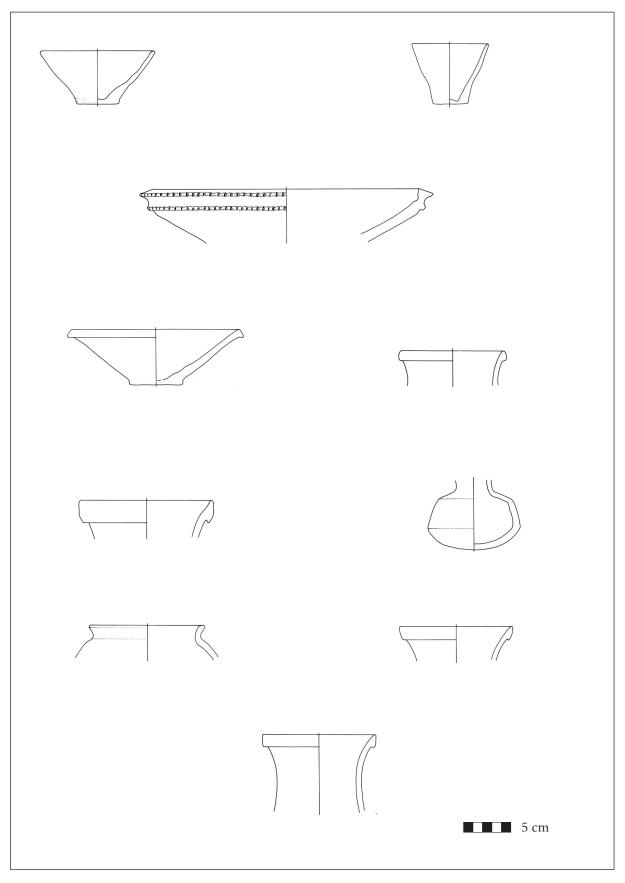


Fig. 5.3 Pottery assemblage from Sounding WF, level XIVB (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.4.1	H1052:5	Sounding WF	XIVB	Jar	Buff
5.4.2	H1101:1	Sounding WF	XIVB	Bowl	Red (light buff surface)
5.4.3	H1101:2	Sounding WF	XIVB	Bowl	Pale red (cre- am surface)
5.4.4	19 N 55	Sounding WF	XIVB	Bowl	Pale pink
5.4.5	1327	Sounding WF	XIVB	Jar	Pale red (pink surface)
5.4.6	I325	Sounding WF	XIVB	Jar	Pale red (pink surface)
5.4.7	I113	Sounding WF	XIVB	Jar	Red (pink cream sur- face)
5.4.8	I115	Sounding WF	XIVB	Bowl	Pink

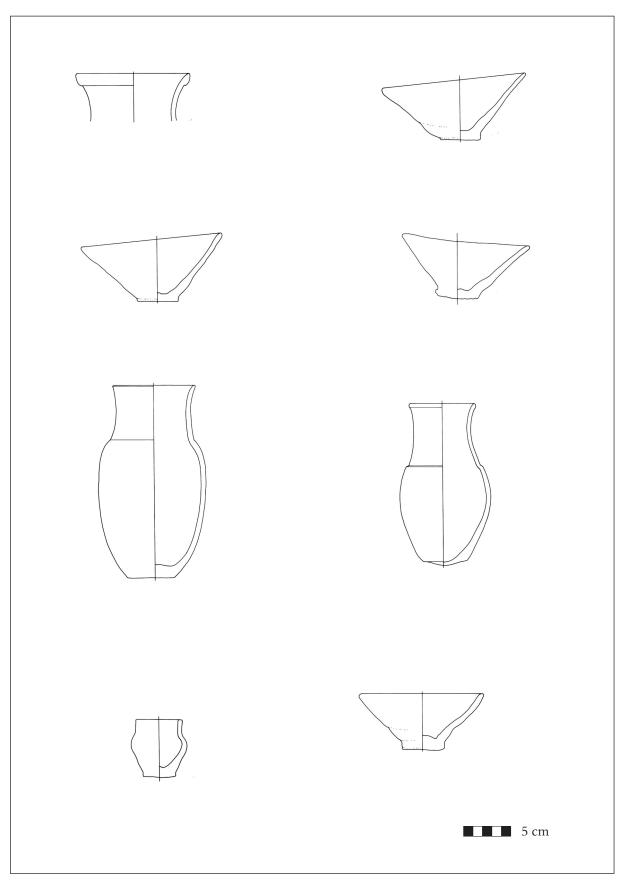


Fig. 5.4 Pottery assemblage from Sounding WF, level XIVB (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.5.1	H1028:1	Sounding WF	XIVA	Platter	Buff
5.5.2	H1012:5	Sounding WF	XIVA	Bowl	Pale red (pink surface)
5.5.3	H540:4	Sounding WF	XIVA	Bowl	Buff
5.5.4	I119:1	Sounding WF	XIVA	Bowl	Pink
5.5.5	H1028:2	Sounding WF	XIVA	Bowl	Dark red
5.5.6	H1012:2	Sounding WF	XIVA	Bowl	Pink
5.5.7	H1098:2	Sounding WF	XIVA	Jar	Pink (cream surface)
5.5.8	H540:9	Sounding WF	XIVA	Jar	Cream
5.5.9	I138:1	Sounding WF	XIVA	Jar	Red (pink surface)
5.5.10	H1028:5	Sounding WF	XIVA	Jar	Yellow buff

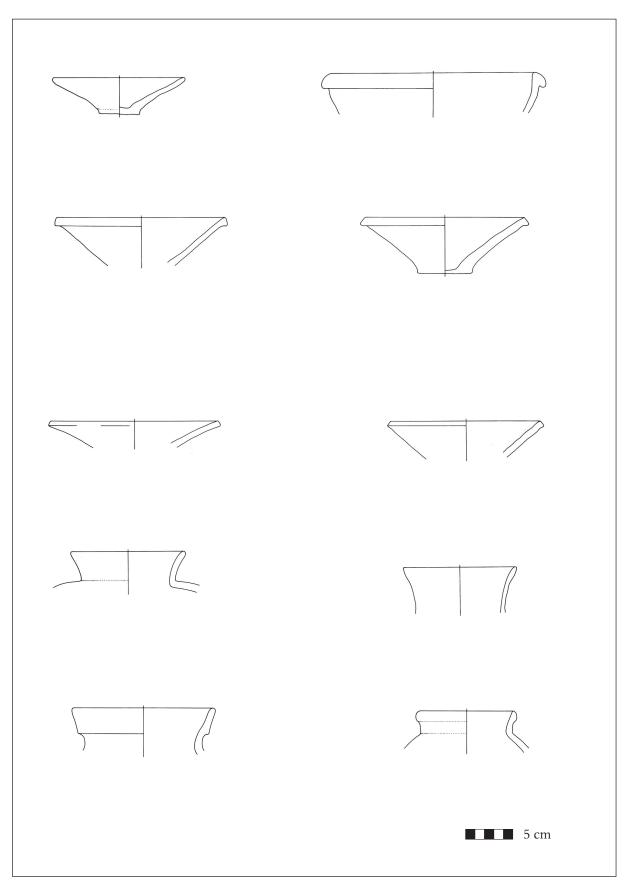


Fig. 5.5 Pottery assemblage from Sounding WF, level XIVA (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.6.1	I138:2	Sounding WF	XIVA	Jar	Red (pink surface)
5.6.2	H1090:3	Sounding WF	XIVA	Jar	Yellow buff
5.6.3	H1082:8	Sounding WF	XIVA	Jar	Buff
5.6.4	H540:8	Sounding WF	XIVA	Jar	Buff green
5.6.5	I37:4	Sounding WF	XIVA	Jar	Buff (cream surface)
5.6.6	I119:2	Sounding WF	XIVA	Jar	Buff (greeni- sh surface)
5.6.7	I1:5	Sounding WF	XIVA	Spouted Jar	Red (buff surface)
5.6.8	H1012:4	Sounding WF	XIVA	Small Jar	Pale buff
5.6.9	H540:11	Sounding WF	XIVA	Small Jar	Pale red

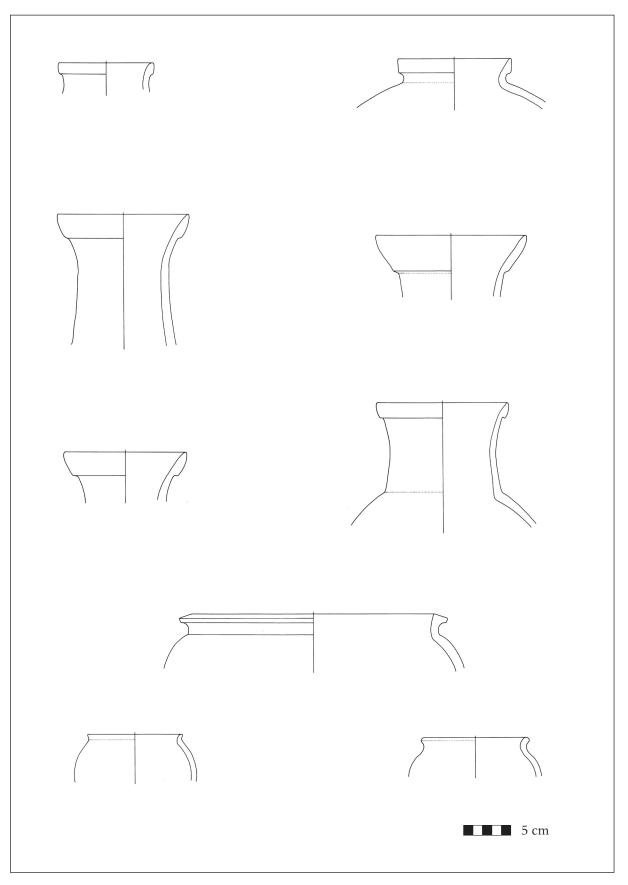


Fig. 5.6 Pottery assemblage from Sounding WF, level XIVA (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.7.1	137:7	Sounding WF	XIVA	Storage Jar	Red (pink surface)
5.7.2	H540:10	Sounding WF	XIVA	Jar	Buff
5.7.3	H536	Sounding WF	XIVA	Bowl	Buff (cream surface)
5.7.4	I1:1	Sounding WF	XIVA	Bowl	Red
5.7.5	I1:2	Sounding WF	XIVA	Platter	Pink (cream surface)
5.7.6	I1:3	Sounding WF	XIVA	Bowl	Pink
5.7.7	I1:4	Sounding WF	XIVA	Bowl	Pink
5.7.8	18 N 123	Sounding WF	XIVA	Bowl	Pink
5.7.9	18 N 124	Sounding WF	XIVA	Bowl	Pink
5.7.10	18 N 190	Sounding WF	XIVA	Bowl	Buff
5.7.11	18 N 189	Sounding WF	XIVA	Bowl	Buff

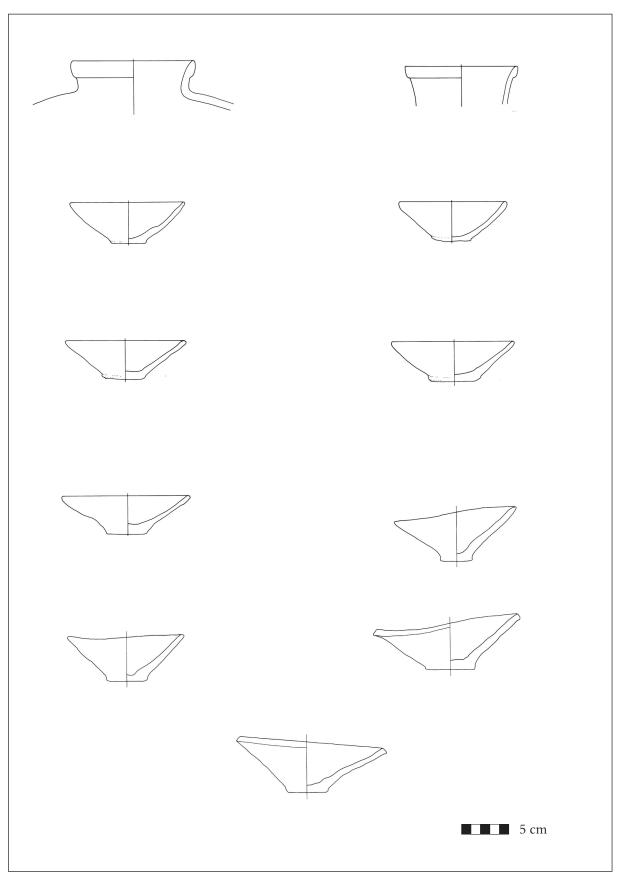


Fig. 5.7 Pottery assemblage from Sounding WF, level XIVA (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.8.1	18 N 138	Sounding WF	XIVA	Bowl	Pink buff
5.8.2	H1009:1	Sounding WF	XIVA	Bowl	Pink
5.8.3	18 N 134	Sounding WF	XIVA	Jar	Greenish
5.8.4	H537	Sounding WF	XIVA	Jar	Greenish buff
5.8.5	18 N 137	Sounding WF	XIVA	Bowl	Pink
5.8.6	18 N 136	Sounding WF	XIVA	Bowl	Red
5.8.7	H540:3	Sounding WF	XIVA	Bowl?	Dark buff
5.8.8	I319:3	Sounding WF	XIVA	Jar	Buff (cream surface)

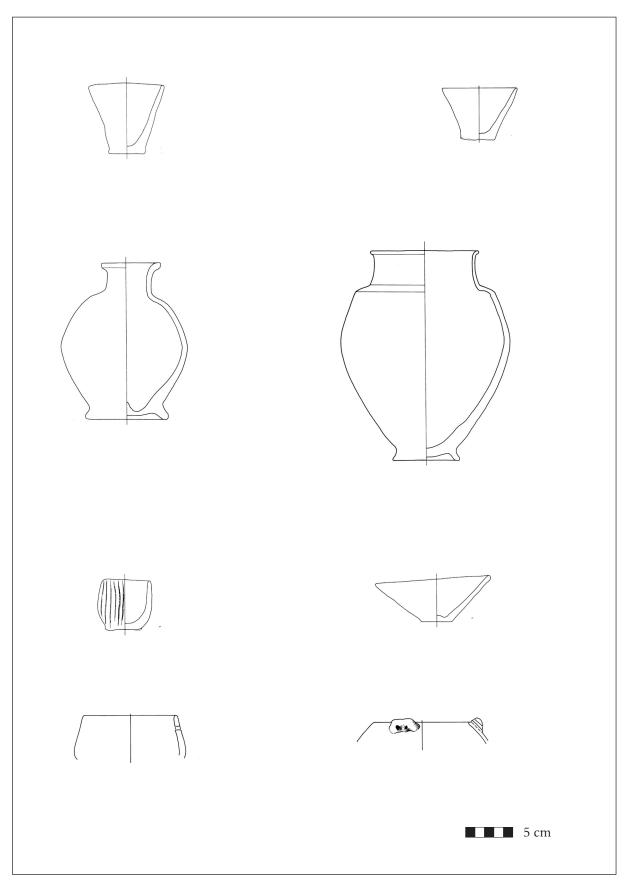


Fig. 5.8 Pottery assemblage from Sounding WF, level XIVA (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.9.1	I34:1	XIIIC	Domestic	Bowl	Red (pink surface)
5.9.2	I34:3	XIIIC	Domestic	Bowl	Dark red (pink to cre- am surface)
5.9.3	H526:3	XIIIC	Domestic	Bowl	Cream buff
5.9.4	H1084:1	XIIIC	Domestic	Fruit stand	Pink (cream surface)
5.9.5	H514:1	XIIIC	Domestic	Tray	Green buff
5.9.6	I21:1	XIIIC	Domestic	Stand	Pale red (pink surface)

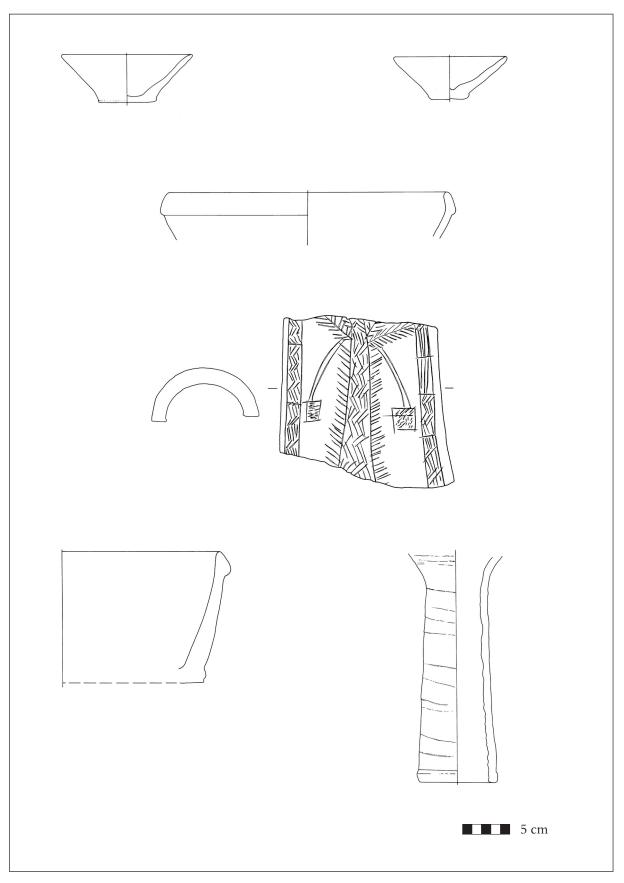


Fig. 5.9 Pottery assemblage from Sounding WF, level XVB (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.10.1	I17:1	Sounding WF	XIIIC	Bowl	Red (cream surface)
5.10.2	H516:8	Sounding WF	XIIIC	Jar	Buff
5.10.3	H514:2	Sounding WF	XIIIC	Jar	Buff
5.10.4	H516:4	Sounding WF	XIIIC	Jar	Red (pink surface)
5.10.5	H526:11	Sounding WF	XIIIC	Jar	Buff
5.10.6	H1092:7	Sounding WF	XIIIC	Jar	Gray green
5.10.7	H514:4	Sounding WF	XIIIC	Storage Jar	Pink (cream surface)
5.10.8	H526:13	Sounding WF	XIIIC	Storage Jar	Buff
5.10.9	H526:14	Sounding WF	XIIIC	Jar	Cream
5.10.10	H1084:3	Sounding WF	XIIIC	Jar	Buff

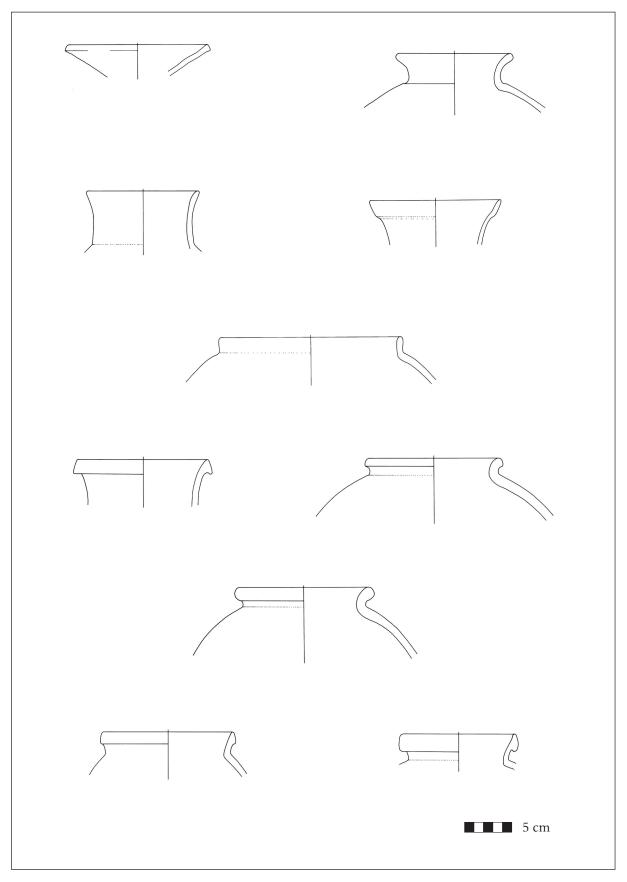


Fig. 5.10 Pottery assemblage from Sounding WF, level XIIIC (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.11.1	H516:10	Sounding WF	XIIIC	Jar	Pink (buff surface)
5.11.2	H1092:2	Sounding WF	XIIIC	Jar	Overfired green
5.11.3	H526:5	Sounding WF	XIIIC	Jar	Greenish
5.11.4	129	Sounding WF	XIIIC	Jug	Pale red
5.11.5	I17:2	Sounding WF	XIIIC	Jug	Buff (cream surface)
5.11.6	H516:9	Sounding WF	XIIIC	Small jar	Buff
5.11.7	H526:12	Sounding WF	XIIIC	Small jar	Buff
5.11.8	H516:5	Sounding WF	XIIIC	Storage jar	Buff (cream surface)
5.11.9	I14:2	Sounding WF	XIIIC	Storage jar	Cream
5.11.10	H515:1	Sounding WF	XIIIC	Jar	Buff green

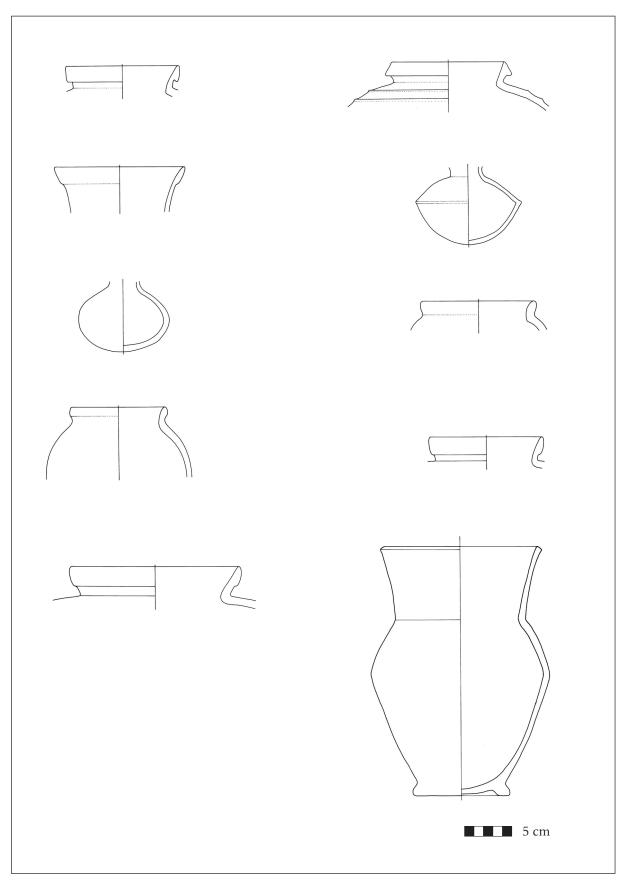


Fig. 5.11 Pottery assemblage from Sounding WF, level XIIIC (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.12.1	H1057:2	Sounding WF	XIIIB	Platter	Buff
5.12.2	H156:2	Sounding WF	XIIIB	Bowl	Pink (pink to buff surface)
5.12.3	H1038:2	Sounding WF	XIIIB	Fruit stand	Pink
5.12.4	H1038:5	Sounding WF	XIIIB	Bowl	Red (cream surface)
5.12.5	H1098:4	Sounding WF	XIIIB	Fruit stand	Pale red (pink surface)
5.12.6	H1057:5	Sounding WF	XIIIB	Fruit stand	Pink (buff surface)
5.12.7	H1078	Sounding WF	XIIIB	Bowl	Buff (cream surface)
5.12.8	H1077	Sounding WF	XIIIB	Bowl	Buff pale red
5.12.9	I162:2	Sounding WF	XIIIB	Bowl	Buff
5.12.10	I13:1	Sounding WF	XIIIB	Bowl	Buff

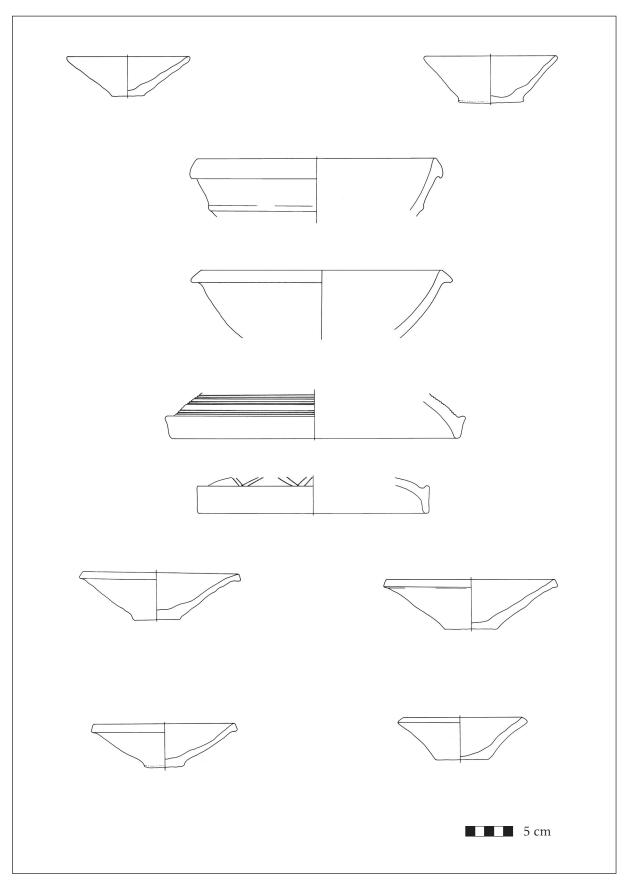


Fig. 5.12 Pottery assemblage from Sounding WF, level XIIIB (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.13.1	H1057:6	Sounding WF	XIIIB	Bowl	Red (buff surface)
5.13.2	H1079:3	Sounding WF	XIIIB	Bowl	Red (cream surface)
5.13.3	H1057:7	Sounding WF	XIIIB	Jar	Overfired green buff
5.13.4	H1079:9	Sounding WF	XIIIB	Jar	Buff
5.13.5	I122:3	Sounding WF	XIIIB	Jar	Buff
5.13.6	H1126:3	Sounding WF	XIIIB	Jar	Greenish buff
5.13.7	I162 : 3	Sounding WF	XIIIB	Jar	Pink (cream surface)
5.13.8	H1079:11	Sounding WF	XIIIB	Jar	Pale red (buff surface)
5.13.9	H1057:13	Sounding WF	XIIIB	Jar	Buff red

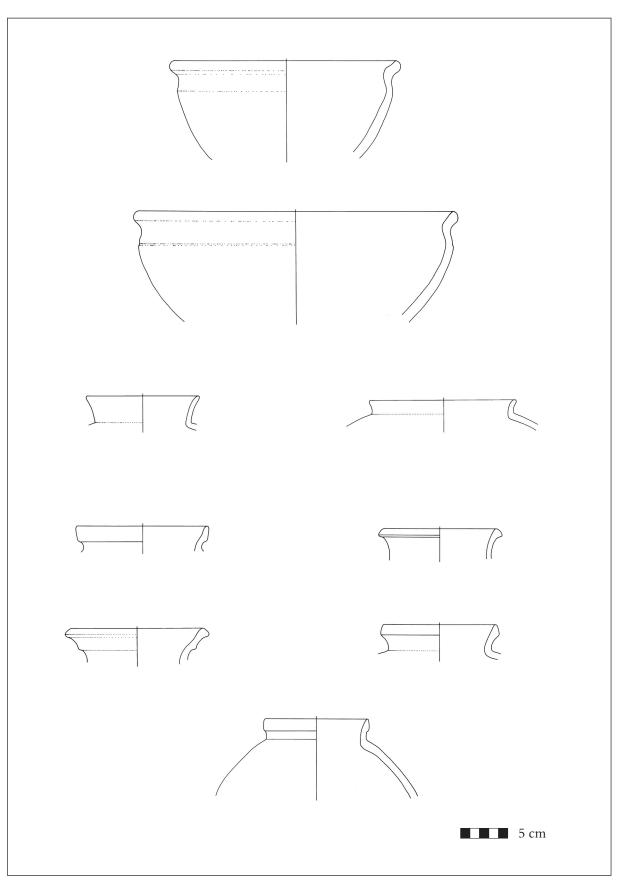


Fig. 5.13 Pottery assemblage from Sounding WF, level XIIIB (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.14.1	H1079:12	Sounding WF	XIIIB	Jar	Red (pink surface)
5.14.2	H1038:7	Sounding WF	XIIIB	Jar	Pink
5.14.3	H1057:8	Sounding WF	XIIIB	Jar	Buff
5.14.4	H1079:8	Sounding WF	XIIIB	Jar	Buff
5.14.5	H1038:10	Sounding WF	XIIIB	Jar	Red
5.14.6	H1038:8	Sounding WF	XIIIB	Small jar	Red (pink surface)
5.14.7	I101:11	Sounding WF	XIIIB	Storage jar	Buff (cream surface)
5.14.8	I136:1	Sounding WF	XIIIB	Storage jar	Greenish buff
5.14.9	I139:1	Sounding WF	XIIIB	Jar	Overfired green
5.14.10	H1057:10	Sounding WF	XIIIB	Jar	Buff

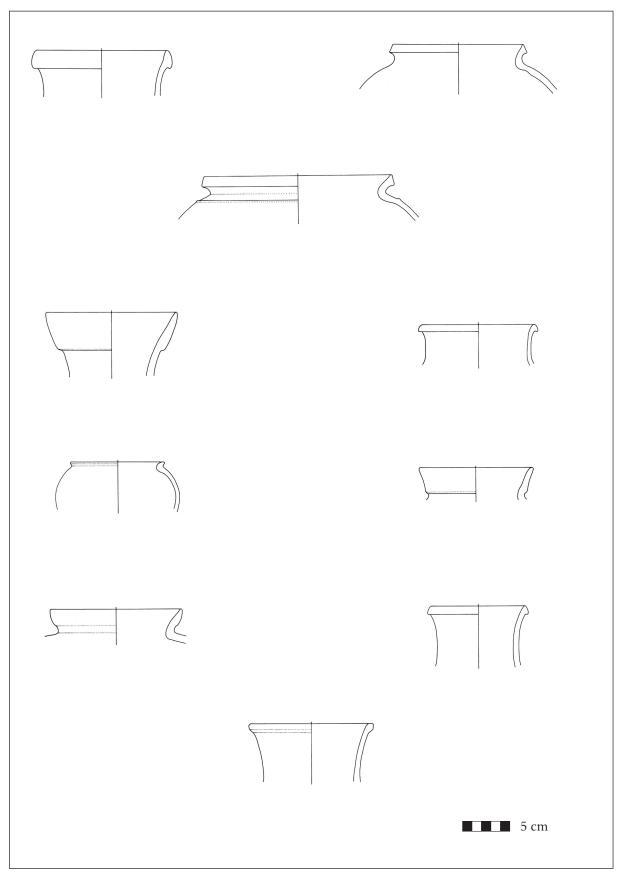


Fig. 5.14 Pottery assemblage from Sounding WF, level XIIIB (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.15.1	H1038:9	Sounding WF	XIIIB	Jar	Yellow buff
5.15.2	H10 79: 6	Sounding WF	XIIIB	Bowl	Red
5.15.3	I122:5	Sounding WF	XIIIB	Jar	Dark buff
5.15.4	H1057:4	Sounding WF	XIIIB	Bowl	Gray

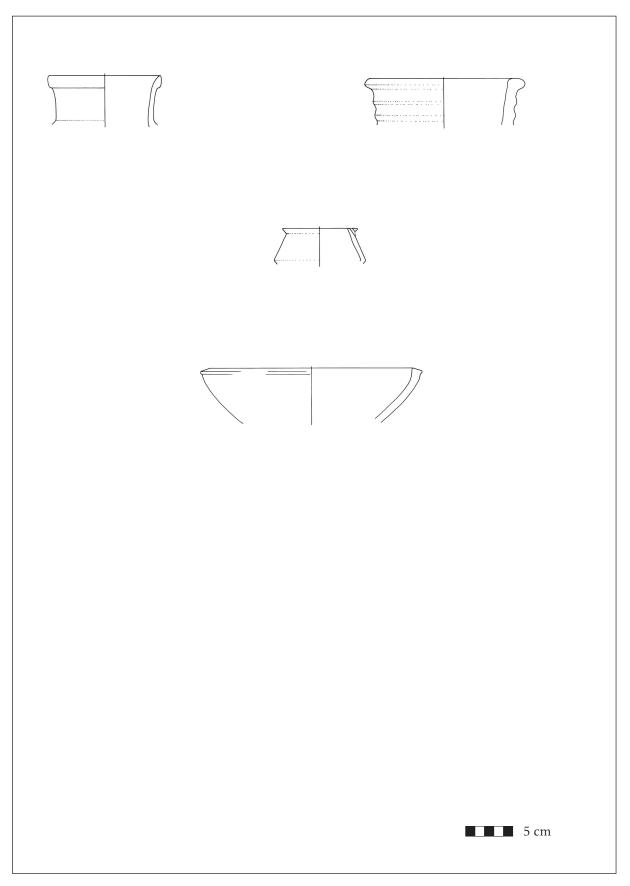


Fig. 5.15 Pottery assemblage from Sounding WF, level XIIIB (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.16.1	H1021:4	Sounding WF	XIIB	Bowl	Red (buff surface)
5.16.2	I9:1	Sounding WF	XIIB	Bowl	Pink
5.16.3	15:3	Sounding WF	XIIB	Fruit stand	Red (cream surface)
5.16.4	H1010:6	Sounding WF	XIIB	Fruit stand	Buff
5.16.5	H1017:1	Sounding WF	XIIB	Bowl	Pale red
5.16.6	H1010:5	Sounding WF	XIIB	Bowl	Red
5.16.7	H1021:8	Sounding WF	XIIB	Bowl	Greenish

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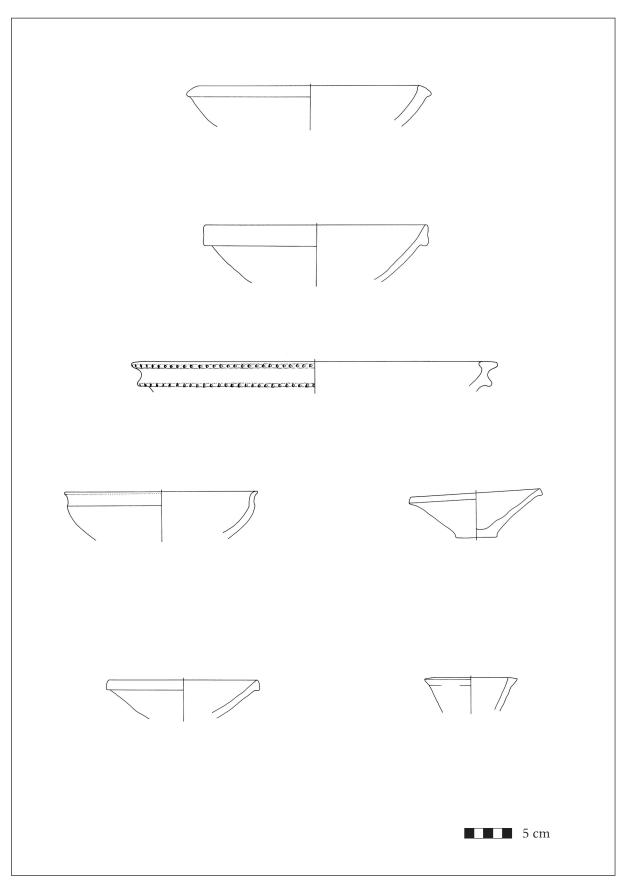


Fig. 5.16 Pottery assemblage from Sounding WF, level XIIB (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.17.1	H119:5	Sounding WF	XIIB	Bowl	Pink
5.17.2	H1021:9	Sounding WF	XIIB	Bowl	Red (buff surface)
5.17.3	H1021:15	Sounding WF	XIIB	Lid	Buff
5.17.4	H1021:7	Sounding WF	XIIB	Jar	Buff
5.17.5	19:2	Sounding WF	XIIB	Jar	Red (cream surface)
5.17.6	H1017:4	Sounding WF	XIIB	Jar	Buff
5.17.7	H1010:10	Sounding WF	XIIB	Jar	Overfired green
5.17.8	H1021:18	Sounding WF	XIIB	Storage jar	Buff
5.17.9	I43	Sounding WF	XIIB	Jar	Buff

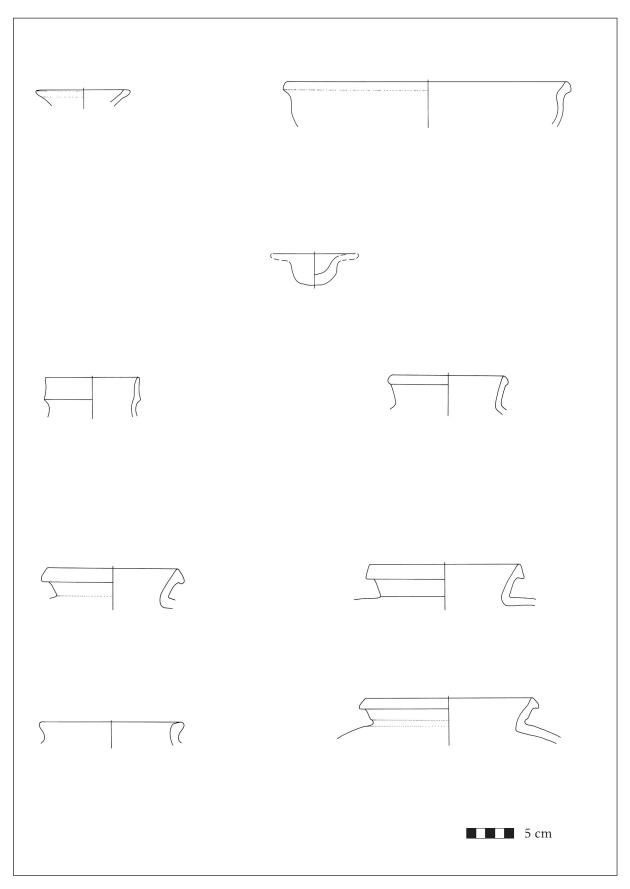


Fig. 5.17 Pottery assemblage from Sounding WF, level XIIB (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.18.1	H119:6	Sounding WF	XIIB	Jar	Red (gre- enish buff surface)
5.18.2	H1021:11	Sounding WF	XIIB	Jar	Buff
5.18.3	H1071:2	Sounding WF	XIIB	Jar	Pale buff
5.18.4	H1021:14	Sounding WF	XIIB	Jug (bot- tle)	Buff
5.18.5	H1010:11	Sounding WF	XIIB	Small jar	Buff
5.18.6	15:2	Sounding WF	XIIB	Storage jar	Red (gre- enish buff surface)
5.18.7	H1010:12	Sounding WF	XIIB	Storage jar	Buff (cream surface)
5.18.8	H1021:12	Sounding WF	XIIB	Jar	Buff
5.18.9	H119:4	Sounding WF	XIIB	Platter	Gray

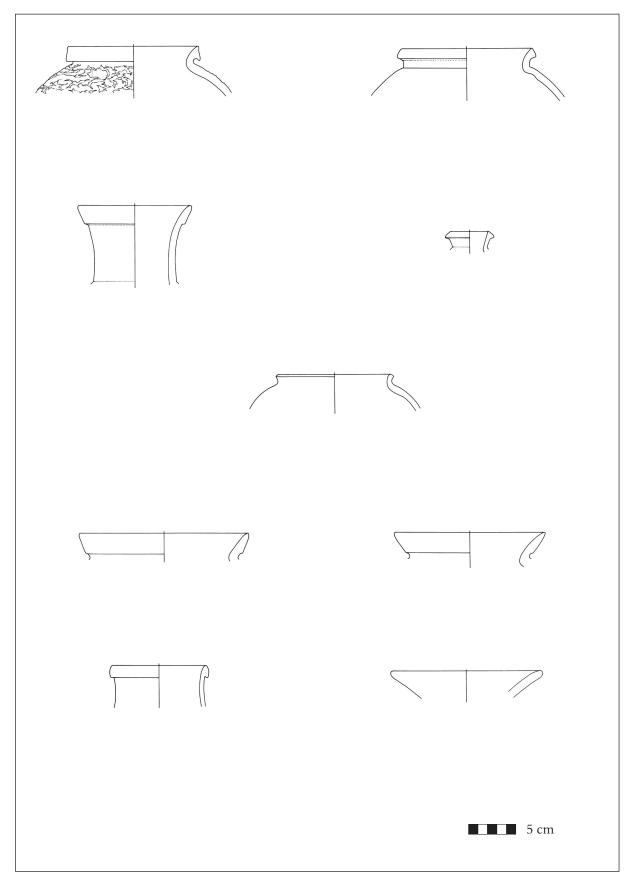


Fig. 5.18 Pottery assemblage from Sounding WF, level XIIB (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.19.1	H539:2	Sounding WF	XIIA	Platter	Red
5.19.2	H539:1	Sounding WF	XIIA	Platter	Red brown
5.19.3	H110:6	Sounding WF	XIIA	Fruit stand	Pink
5.19.4	H529:2	Sounding WF	XIIA	Bowl	Red
5.19.5	H110:4	Sounding WF	XIIA	Bowl	Pink (cre- am surface)
5.19.6	I20:5	Sounding WF	XIIA	Bowl	Buff
5.19.7	H525:3	Sounding WF	XIIA	Bowl	Buff
5.19.8	H539:3	Sounding WF	XIIA	Bowl	Red
5.19.9	H539:4	Sounding WF	XIIA	Bowl	Red

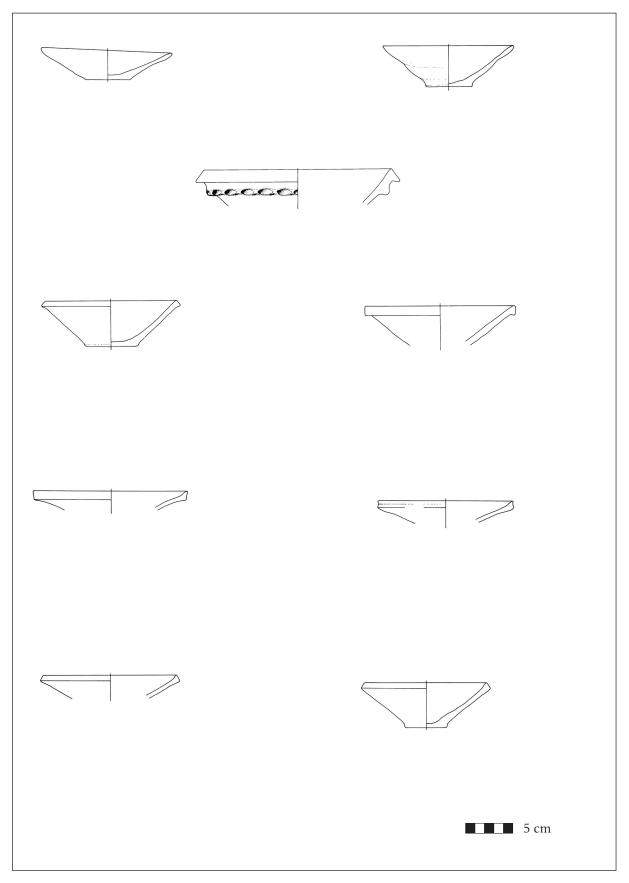


Fig. 5.19 Pottery assemblage from Sounding WF, level XIIA (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.20.1	H511:2	Sounding WF	XIIA	Bowl	Pink
5.20.2	H110:2	Sounding WF	XIIA	Bowl	Cream pink
5.20.3	H112:5	Sounding WF	XIIA	Bowl	Red
5.20.4	H126:1	Sounding WF	XIIA	Jar	Buff
5.20.5	H112:9	Sounding WF	XIIA	Small jar	Cream
5.20.6	I22:7	Sounding WF	XIIA	Jar	Reddish buff (buff surface)
5.20.7	H112:8	Sounding WF	XIIA	Jar	Overfired green
5.20.8	H539:9	Sounding WF	XIIA	Jar	Buff
5.20.9	H525:8	Sounding WF	XIIA	Jar	Pale buff
5.20.10	H511:7	Sounding WF	XIIA	Storage jar	Red orange

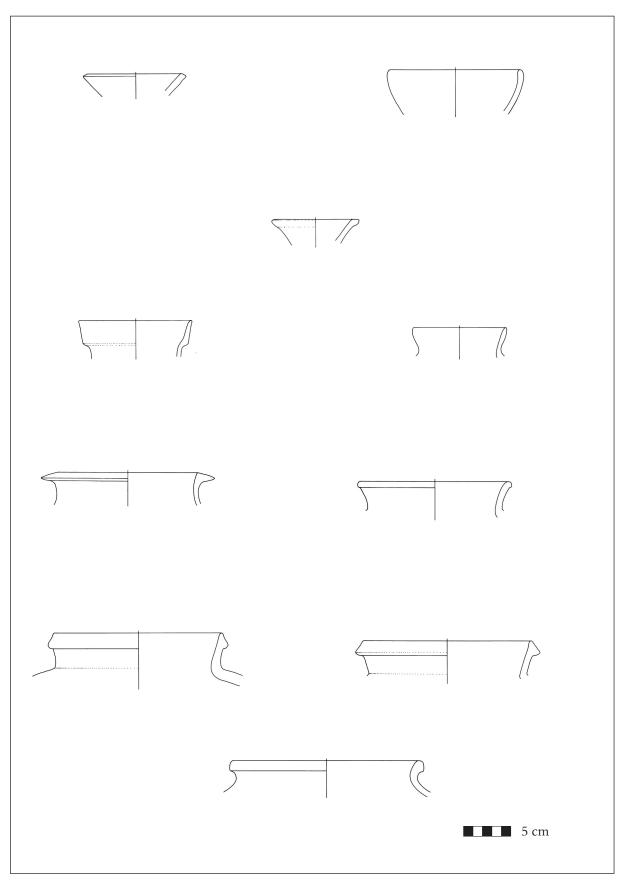


Fig. 5.20 Pottery assemblage from Sounding WF, level XIIA (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.21.1	H529:4	Sounding WF	XIIA	Jar	Overfired green
5.21.2	H539:6	Sounding WF	XIIA	Jar	Buff red (cream surface)
5.21.3	H110 :9	Sounding WF	XIIA	Jar	Overfired green
5.21.4	I16:2	Sounding WF	XIIA	Jar	Buff
5.21.5	H511:5	Sounding WF	XIIA	Jar	Overfired green
5.21.6	H511:8	Sounding WF	XIIA	Jar	Overfired green
5.21.7	H525:9	Sounding WF	XIIA	Small jar	Buff
5.21.8	I20:3	Sounding WF	XIIA	Small jar	Pink (cre- am surface)
5.21.9	I16:5	Sounding WF	XIIA	Storage jar	Pink (cre- am surface)
5.21.10	H511:3	Sounding WF	XIIA	Storage jar	Red (pink surface)

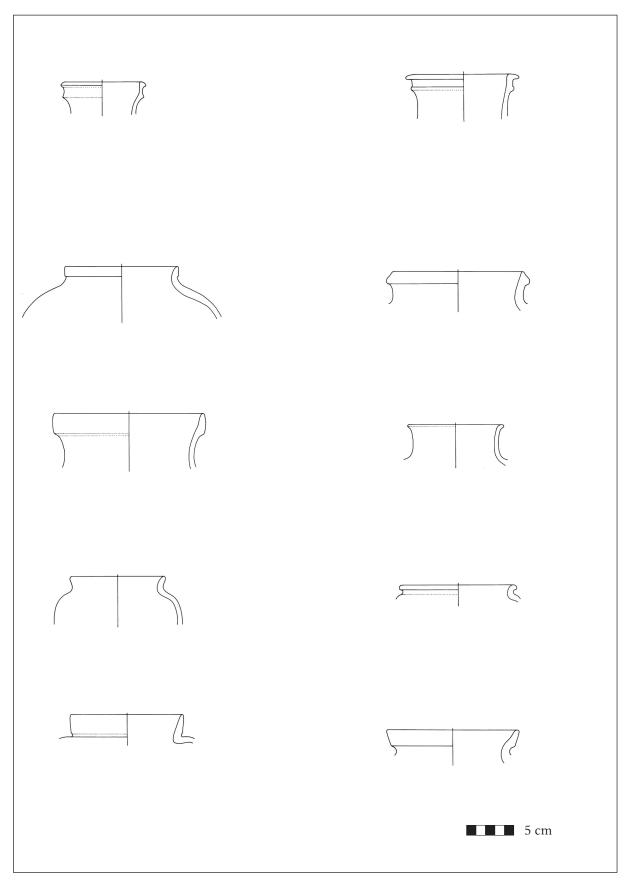


Fig. 5.21 Pottery assemblage from Sounding WF, level XIIA (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.22.1	H529:5	Sounding WF	XIIA	Jar	Buff (cream surface)
5.22.2	H110:5	Sounding WF	XIIA	Jar	Buff green
5.22.3	I3:1	Sounding WF	XIIA	Bowl	Pink
5.22.4	I3:2	Sounding WF	XIIA	Platter	Red (buff surface)
5.22.5	H121:3	Sounding WF	XIIA	N/A	Buff

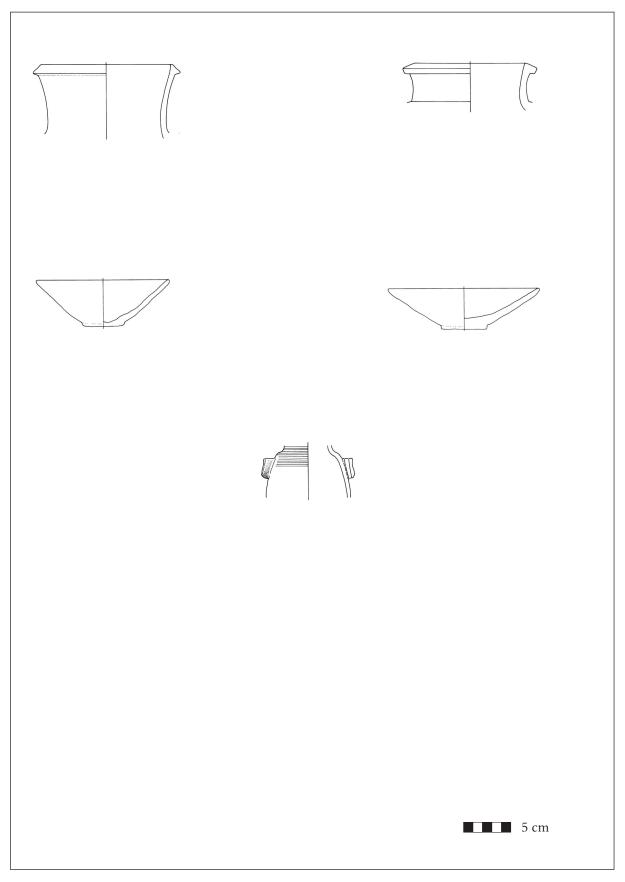


Fig. 5.22 Pottery assemblage from Sounding WF, level XIIA (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.23.1	H509:1	Sounding WF	XIB	Bowl	Buff
5.23.2	H887:2	Sounding WF	XIB	Platter	Red
5.23.3	H145:2	Sounding WF	XIB	Fruit stand	Red (pink surface)
5.23.4	H523:3	Sounding WF	XIB	Fruit stand	Buff (pink surface)
5.23.5	H502:5	Sounding WF	XIB	Bowl	Pink
5.23.6	I6:3	Sounding WF	XIB	Bowl	Red
5.23.7	H523:1	Sounding WF	XIB	Bowl	Red
5.23.8	H887:3	Sounding WF	XIB	Bowl	Pink
5.23.9	H502:3	Sounding WF	XIB	Bowl	Pink
5.23.10	H887:4	Sounding WF	XIB	Bowl	Red

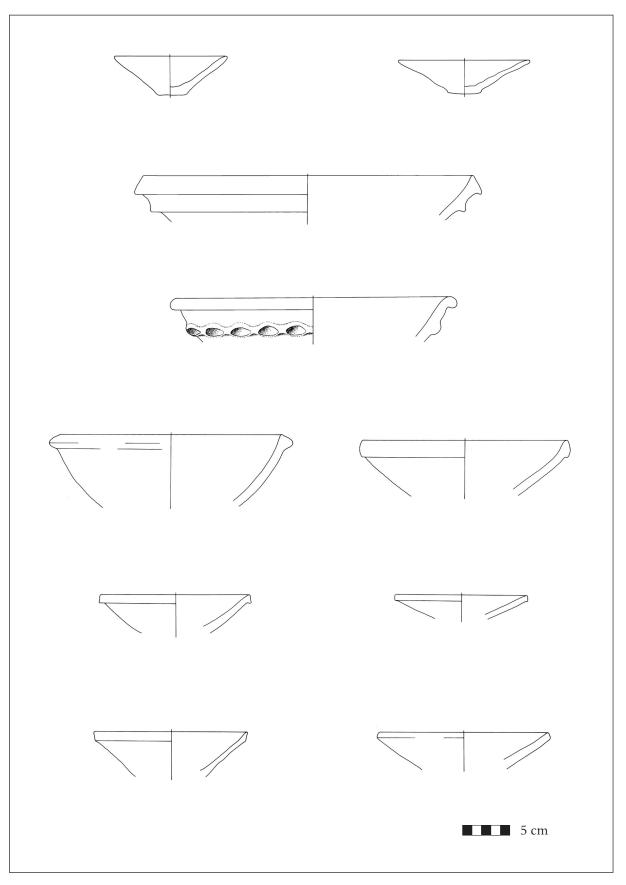


Fig. 5.23 Pottery assemblage from Sounding WF, level XIB (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.24.1	H881:3	Sounding WF	XIB	Bowl	Buff
5.24.2	H881:2	Sounding WF	XIB	Bowl	Cream buff
5.24.3	I6:2	Sounding WF	XIB	Bowl	Buff (cream surface)
5.24.4	H883:2	Sounding WF	XIB	Lid	Red
5.24.5	H887:6	Sounding WF	XIB	Bowl	Red (cream surface)
5.24.6	H887:9	Sounding WF	XIB	Bowl	Red (cream surface)
5.24.7	H877:3	Sounding WF	XIB	Bowl	Red
5.24.8	H509:3	Sounding WF	XIB	Bowl	Red

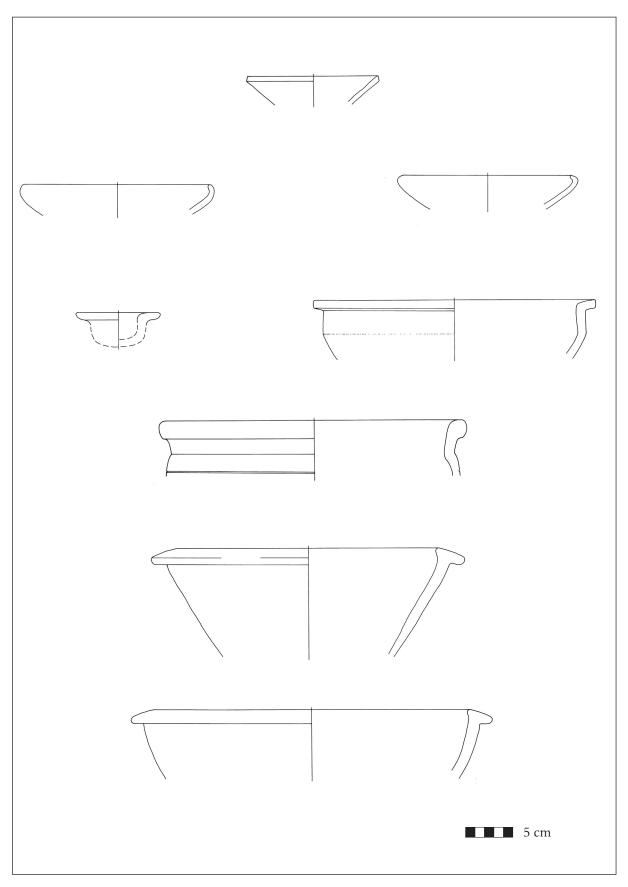


Fig. 5.24 Pottery assemblage from Sounding WF, level XIB (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.25.1	H835:1	Sounding WF	XIB	Bowl	Cream
5.25.2	H502:7	Sounding WF	XIB	Jar	Buff
5.25.3	H877:5	Sounding WF	XIB	Small jar	Buff
5.25.4	H1034:5	Sounding WF	XIB	Jar	Pink
5.25.5	H139:2	Sounding WF	XIB	Jar	Buff green
5.25.6	H523:4	Sounding WF	XIB	Jar	Pink (buff surface)
5.25.7	H868:5	Sounding WF	XIB	Jar	Overfired gray green
5.25.8	I12:1	Sounding WF	XIB	Jar	Buff
5.25.9	H847:5	Sounding WF	XIB	Storage jar	Red (black core)
5.25.10	H509:7	Sounding WF	XIB	Storage jar	Buff
5.25.11	H873:1	Sounding WF	XIB	Storage jar	Red (cream surface)

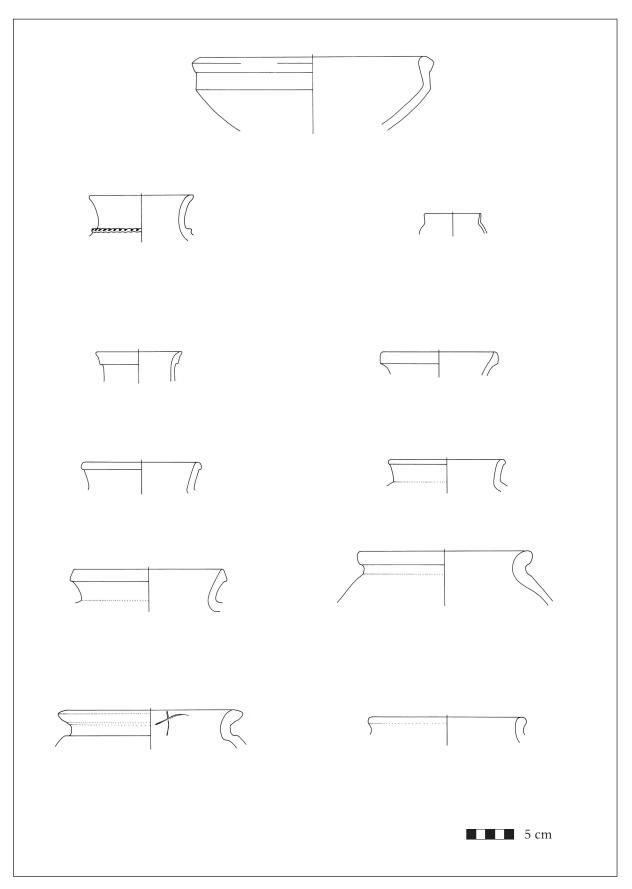


Fig. 5.25 Pottery assemblage from Sounding WF, level XIB (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.26.1	H847:4	Sounding WF	XIB	Jar	Red (buff surface)
5.26.2	I12:5	Sounding WF	XIB	Jar	Green
5.26.3	H881:7	Sounding WF	XIB	Jar	Buff (cream surface)
5.26.4	H523:2	Sounding WF	XIB	Jar	Pink (buff surface)
5.26.5	H868:3	Sounding WF	XIB	Jar	Buff pink
5.26.6	I6:5	Sounding WF	XIB	Jar	Buff yellow
5.26.7	H884:9	Sounding WF	XIB	Spouted jar	Pale red (pink sur- face)
5.26.8	H1034:1	Sounding WF	XIB	Spouted jar	Pink (buff surface)

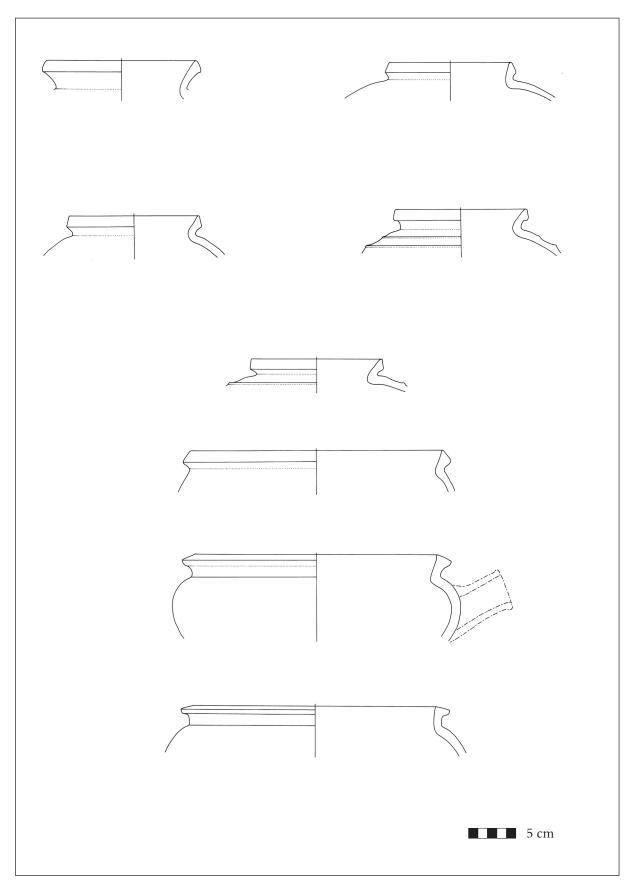


Fig. 5.26 Pottery assemblage from Sounding WF, level XIB (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.27.1	H1034:2	Sounding WF	XIB	Jar	Overfired green
5.27.2	I12:2	Sounding WF	XIB	Small jar	Green
5.27.3	H877:4	Sounding WF	XIB	Small jar	Buff
5.27.4	I11	Sounding WF	XIB	Storage jar	Buff
5.27.5	H884:7	Sounding WF	XIB	Storage jar	Pale buff
5.27.6	H509:6	Sounding WF	XIB	Storage jar	Yellow buff (gre- enish buff surface)
5.27.7	H887:10	Sounding WF	XIB	Jar	Pale buff
5.27.8	H139:3	Sounding WF	XIB	Jar	Cream buff
5.27.9	H877:7	Sounding WF	XIB	Jar	Buff green
5.27.10	H868:4	Sounding WF	XIB	Jar	Greenish gray
5.27.11	H884:3	Sounding WF	XIB	Jar	Buff

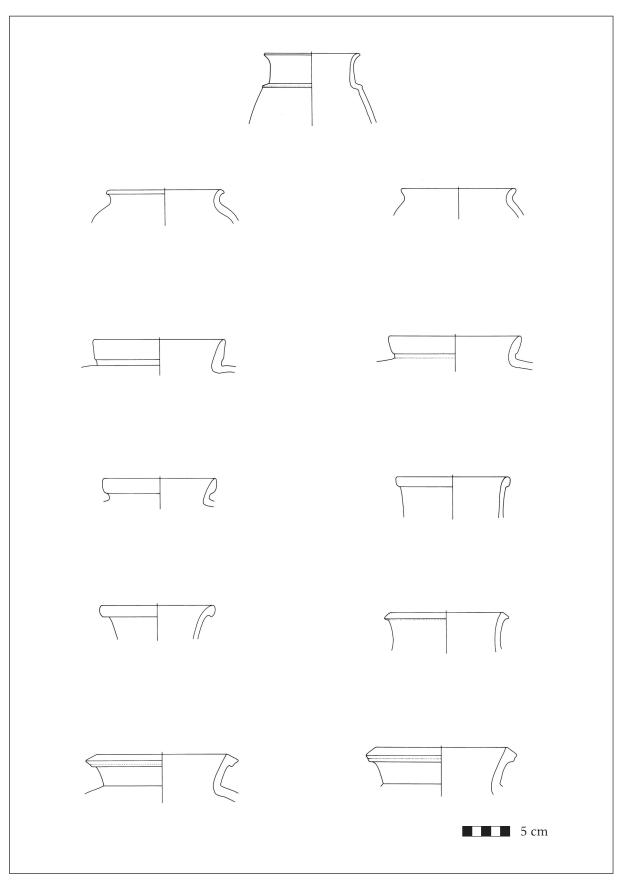


Fig. 5.27 Pottery assemblage from Sounding WF, level XIB (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.28.1	18 N 131	Sounding WF	XIB	Jar	Pale red
5.28.2	H139:6	Sounding WF	XIB	Jar	Cream green
5.28.3	H868:6	Sounding WF	XIB	Jar	Yellow buff
5.28.4	H138:1	Sounding WF	XIB	Platter	Pink

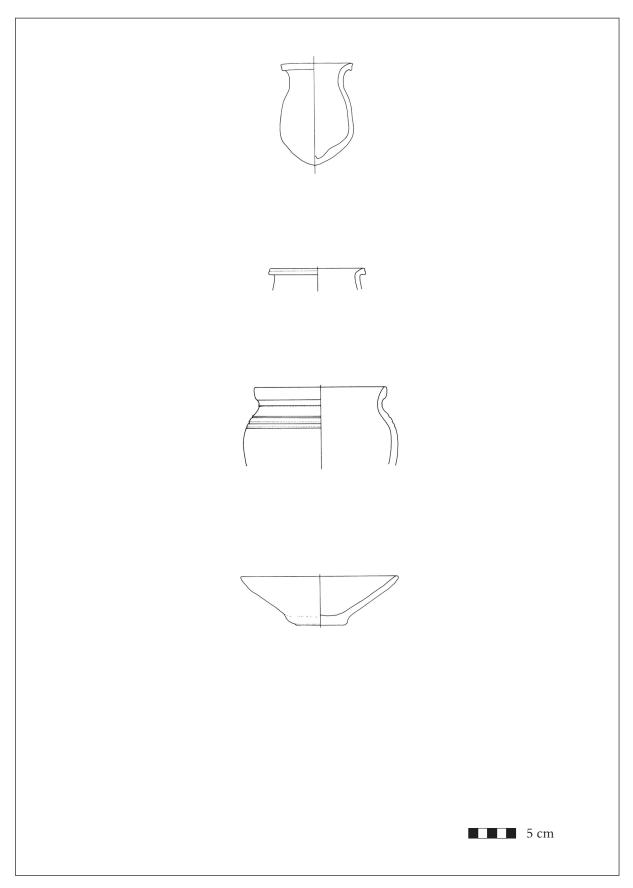


Fig. 5.28 Pottery assemblage from Sounding WF, level XIB (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.29.1	H857:1	Sounding WF	XIA	Platter	Pink
5.29.2	H857:3	Sounding WF	XIA	Strainer	Greenish
5.29.3	H862:6	Sounding WF	XIA	Fruit stand	Buff (cream surface)
5.29.4	H898:1	Sounding WF	XIA	Bowl	Pink (buff surface)
5.29.5	H137:5	Sounding WF	XIA	Bowl	Buff
5.29.6	H879:4	Sounding WF	XIA	Bowl	Buff (cream surface)
5.29.7	H862:4	Sounding WF	XIA	Bowl	Red (buff surface)
5.29.8	H857:4	Sounding WF	XIA	Bowl	Greenish buff
5.29.9	H862:3	Sounding WF	XIA	Bowl	Buff greenish

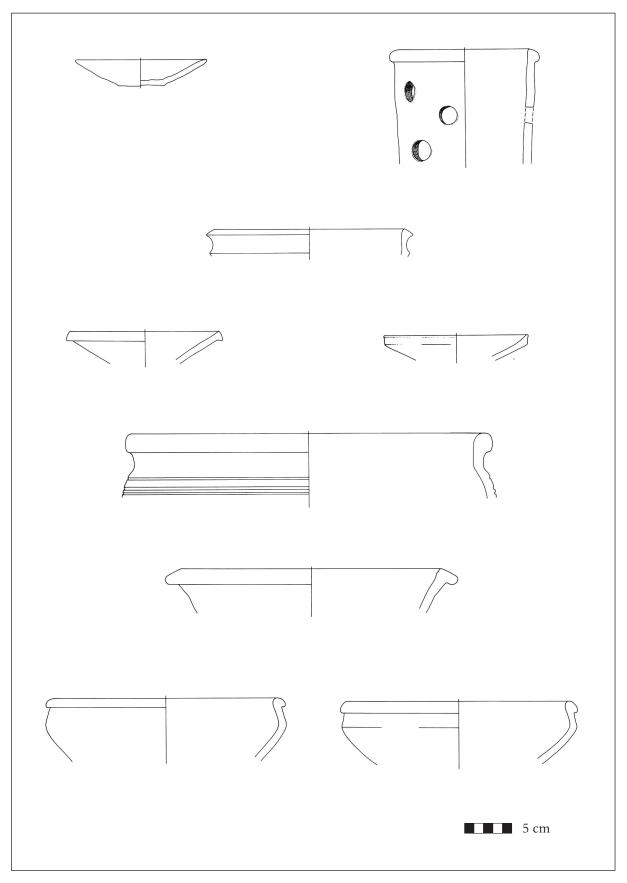


Fig. 5.29 Pottery assemblage from Sounding WF, level XIA (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.30.1	I4:2	Sounding WF	XIA	Jar	Pink (buff surface)
5.30.2	H137:1	Sounding WF	XIA	Small jar	Buff
5.30.3	H841:4	Sounding WF	XIA	Jar	Pale pink
5.30.4	H862:8	Sounding WF	XIA	Jar	Pink buff
5.30.5	H841:3	Sounding WF	XIA	Jar	Pale buff
5.30.6	H857:9	Sounding WF	XIA	Jar	Pink (pale buff surface)
5.30.7	H826:2	Sounding WF	XIA	Jar	Overfired green
5.30.8	H857:5	Sounding WF	XIA	Jar	Buff
5.30.9	H862:5	Sounding WF	XIA	Jar	Green gray
5.30.10	H898:4	Sounding WF	XIA	Jar	Buff

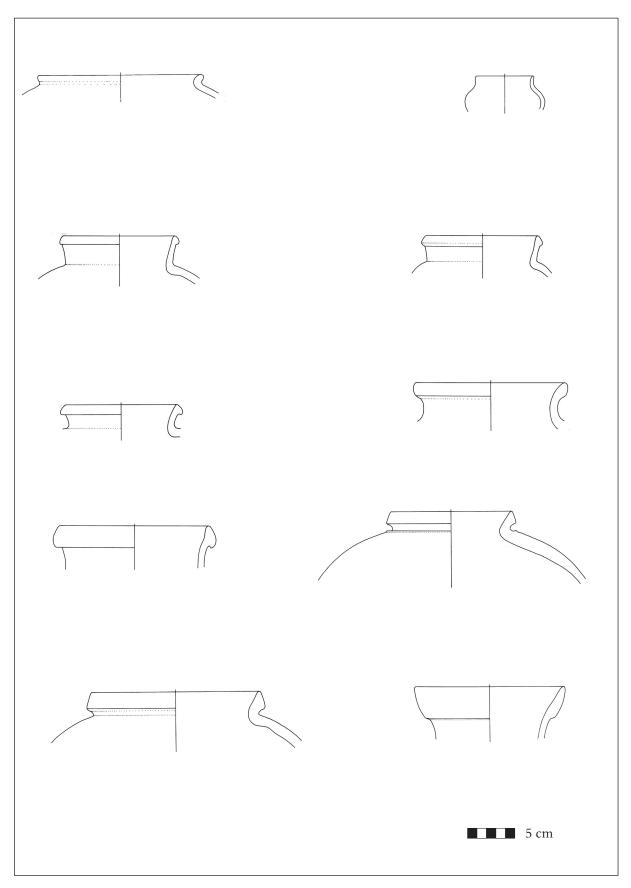


Fig. 5.30 Pottery assemblage from Sounding WF, level XIA (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.31.1	H857:12	Sounding WF	XIA	Spouted jar	Pink (pale buff surface)
5.31.2	H862:7	Sounding WF	XIA	Spouted jar	Pink (cream surface)
5.31.3	H857:6	Sounding WF	XIA	Jar	Pink (pale buff surface)
5.31.4	H144:2	Sounding WF	XIA	Small jar	Buff
5.31.5	H144:4	Sounding WF	XIA	Small jar	Buff (cream surface)
5.31.6	H898:2	Sounding WF	XIA	Jar	Red
5.31.7	H879:2	Sounding WF	XIA	Jar	Buff
5.31.8	H857:13	Sounding WF	XIA	Jar	Yellow buff
5.31.9	H841:5	Sounding WF	XIA	Jar	Gray

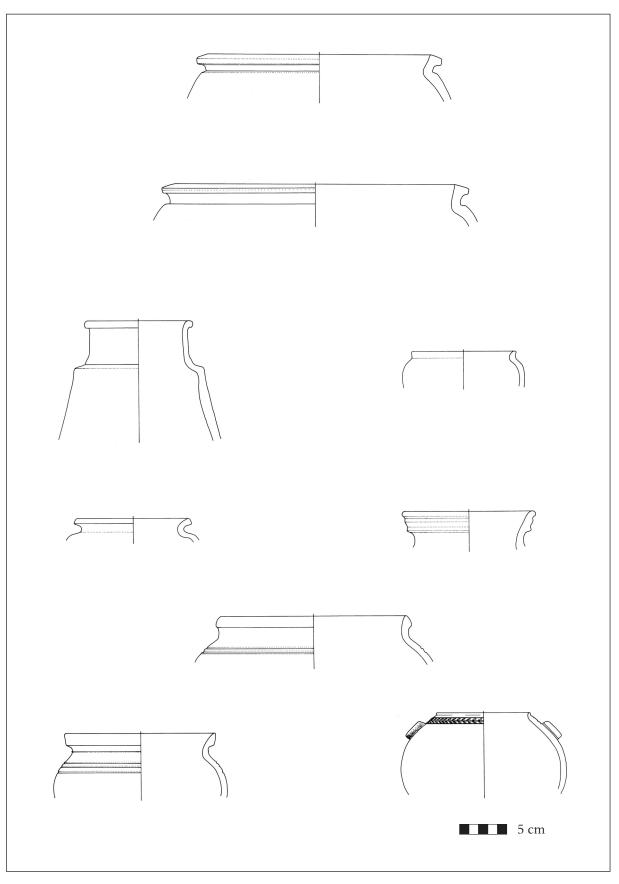


Fig. 5.31 Pottery assemblage from Sounding WF, level XIA (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.32.1	4P 286	North Temple	II	Jar	Tan ware
5.32.2	4P 290	North Temple	II	Jar	Greenish

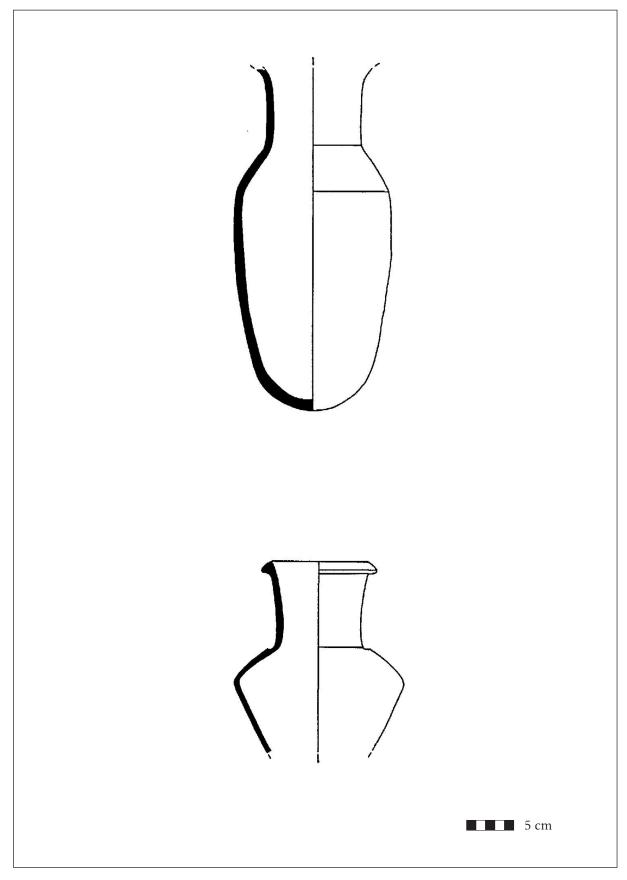


Fig. 5.32 Pottery assemblage from North Temple, level II (scale 1:4)

Fig.	Excavation No.	Provenance	Phase	Shape	Fabric
5.33.1	4P 221	North Temple	Ι	Bowl	Steel gray ware
5.33.2	4P 275	North Temple	Ι	Bowl	Tan ware
5.33.3	4P 219	North Temple	Ι	Spouted jar	Tan ware

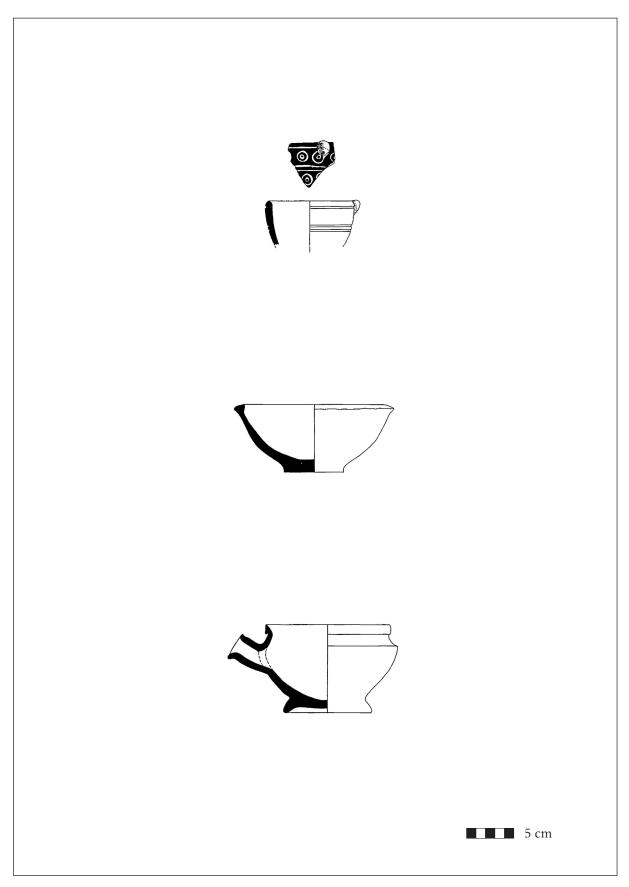


Fig. 5.33 Pottery assemblage from North Temple, level I (scale 1:4)

5.4 SMALL FINDS

Area WF

The excavations of the EB IV phases in the WF sounding yielded 133 finds: 5 from level XV, 32 from level XIV, 77 from level XIII, 11 from level XII and 8 from level XI.

Level XV

Five objects were found in Level XV: three flint tools, including a scraper and two blades, a stamp seal, and a bead made of bone.

Level XIV

Thirty-two objects were recovered from level XIV: thirteen copper/bronze tools, consisting of one dagger, one chisel, one spearhead, and ten pins, four flint tools, namely three blades and one scraper, five figurines (among which three model chariot), a stone axehead, a copper/bronze vessel, a stone vessel, and six ornaments (three bronze bracelets and three beads, one made of shell and the others of stone).

Level XIII

Seventy-seven objects were found in level XIII: twelve copper/bronze tools, consisting of three axeheads, two spearheads, one sieve, and seven pins, two gold fillets, nine copper/bronze vessels, a stone vessel, three cylinder seals, one clay tablet, one clay sealing, two shells, four figurines (among which a model boat and chair), and nine ornaments (two necklace, two gold earrings, two silver bracelets, and four beads, three made of stone and one of bronze). Furthermore, a foundation deposit composed of thirty-three stone weights and beads has been uncovered in this level.

Level XII

Eleven objects were recovered from level XII: a copper/bronze pin, a stone weight, a stone disk, a model wheel, a game piece made of baked clay, one bead made of glass, a cylinder seal, and four clay tablets.

Level XI

Eight objects were found in level XI: a flint blade, two copper/bronze pins, a clay figurine, a rattle made of clay, an inscribed sherd, and two beads, one of glass and the other of stone.

Chapter 6 UMM EL-JIR

6.1 LOCATION AND HISTORY OF EXCAVATIONS

In 1966-1967, a joint expedition of the Oriental Institute of Chicago and the Iraqi Directorate General of Antiquities began excavations at Umm el-Jir, a tell which lies 27 kilometers northeast of Tell Uhaimir and 8.5 kilometers southeast of Barghutiat. The archaeological excavations have been led by Prof. McGuire Gibson (Oriental Institute of Chicago) after previous surveys and investigations carried out in the surroundings. Already in 1932, Charles Watelin, field director of the joint excavations at Kish by the Oxford University and the Field Museum of Chicago, conducted some excavations at the site of Umm al-Jerab, 27 kilometers from Kish, after the discovery and purchase, on the illicit market, of some Old Akkadian clay tablets coming from this site. Although the report is still unpublished – due to the scattered nature of the records and the death of Watelin just a few years after the excavations in 1934 – McG. Gibson¹⁰¹ has provided a general overview of the operations undertaken at the *tell* in 1932. Watelin cut some trenches at different points of the mound: on the eastern end, some mudbrick walls had been found, but they were very much eroded due to the high presence of salt in the soil; instead, on the western end, some evidence of Neo-Babylonian and Islamic occupation were uncovered. The most relevant operation had been carried out on the southern slope of the mound. There a building had been discovered, characterized by a layer of destruction. This building has been dated based on the materials found inside its debris (i.e., fragments of clay tablets) and the grave goods from the burials cutting it from the Early Dynastic III to the Akkadian period¹⁰². Unfortunately, as underlined by Gibson in his paper, apart from Watelin's

¹⁰¹ Gibson 1972b: 237-238.

¹⁰² Gibson 1972b: 238.

Chapter 6

unpublished report, we have very few records of Umm el-Jerab¹⁰³.

This region was further investigated in 1955 when the Iraqi Directorate General of Antiquities conducted a surface survey in sight of the beginning of the Greater Musaiyab Irrigation Project in the Babil Governorate. During these operations, a trench 5 m long had been cut on the top of Umm el-Jir tell, which had provided evidence of occupation spanning from the ED III to the Old Babylonian period¹⁰⁴.

In 1956–57 Robert McC. Adams, together with Vaughn E. Crawford, carried out – on behalf of the Oriental Institute and of the Baghdad School of American Schools of Oriental Research – a survey in the region of ancient Akkad, of which Umm el-Jir was a part¹⁰⁵. During this expedition, surface materials were collected from Umm el-Jir¹⁰⁶, ranging from the Ubaid to the Achaemenid period and even to the Islamic time. The results were published in a 1972 contribution on the Akkad survey. In this work, Umm el-Jir was identified with formerly Umm al-Jerab, «on the basis of Langdon's statement», as underlined by Gibson, and one of the focuses of the 1966–67 excavation was to confirm this hypothesis.

In 1966-67, just before the excavations at Umm el-Jir, a small-scale surface survey was conducted by Gibson – with the cooperation of the Iraqi Directorate General of Antiquities – in the environs of Kish¹⁰⁷. Materials were collected from more than 135 sites, among which Umm el-Jir. The pottery sherds from the site confirmed the situation and the dating range highlighted previously in Adams' work.

In 1966–67, the Iraqi-American expedition briefly¹⁰⁸ excavated 6 areas at Umm el-Jir: area A, intended to be a stratigraphic pit on the top of the tell, which was soon abandoned due to a mudbrick structure extending more than 30 centimeters deep; area B, initially a test sounding and then, after the abandonment of area A, the new stratigraphic pit; area C and F, rooms on the western end of the mound previously and partly excavated by illicit diggers; area D, an extensive excavation area aiming at exposing the Akkadian occupation of the tell; area E, a small pit on the eastern mound of Umm el-Jir, in order to determine the chronological and stratigraphical sequence

- 106 Site no. 213 in Adams 1972.
- 107 Gibson 1972a.

108 As explained by Gibson (1972b: 242) many working days where lost, due both to the bad weather and to an Iraqi major holiday; in fact, the Iraqi-American team was able to work on the site only fourteen days.

¹⁰³ Gibson 1972b: 238, footnote 14.

¹⁰⁴ Gibson 1972b: 238.

¹⁰⁵ Adams 1972.

in this part of the site.

In order to achieve the purposes of this research, it is fundamental to analyze and discuss, in particular, the sequences and materials of areas B and D, providing an overview of the stratigraphical evidence, architecture, and material culture (pottery and small finds).

Phase	Type of context
3-1	Domestic building
5-4	Domestic building
16-6	Domestic building
30-17	Domestic building

Phase	Type of context
VI	Scattered surface evidence
V	Public building
IV	Public building
III	Public building
II	Public building
Ι	Public building

Table 6.1 Stratigraphic sequence of area B (on the left) and area D (on the right).

6.2 STRATIGRAPHY AND ARCHITECTURE

Area B

The lowest archaeological phase, Level 30, excavated in area B, was reached at 4 m, 2.10 m below plain level. According to Gibson¹⁰⁹, at this elevation, they found water, and they could not continue the excavations. Levels 30 and 29 were characterized by evidence of occupation and a layer of ashes covered by reddish debris. Very few sherds were found in these levels, most of them of the Early Dynastic period (most likely of ED I).

Above Level 29, in Levels 28–26, the archeologists recovered "the stump of a wall of plano-convex mudbricks in the northeast corner"¹¹⁰ and a rectangular hearth in Level 28. The artifacts collected from these phases consisted mainly of a mixture of Early Dynastic sherds.

Above Level 26, a series of ashy floors were excavated, with few traces of yellow debris. In particular, Level 21 had a very gray and ashy floor, above which a

¹⁰⁹ Gibson 1972b: 245.

¹¹⁰ Gibson 1972b: 245.

thin working surface connected to the construction of a plano-convex mudbrick was found; the pottery sherds collected are of Early Dynastic III.

The presence of hearths remains characterizes the levels between 20 and 15, together with a concentration of ashes and many pottery sherds. Indeed, Floor 18 was made of potsherds; on this level were traces of broken mudbricks, underlining that the plano-convex mudbrick wall was probably destroyed and no longer in use. In levels 16 and 15, the pottery sherds recovered were identified by Gibson as Akkadian¹¹¹.

Levels 14-13 consisted of a uniform sandy layer, probably a wind-laid deposit, with no evidence of occupation; the potsherds found in these levels were mixed, but nothing was later than Akkadian.

At Level 12, the excavators found a thick layer of ashes and a hearth in the southern part of the sounding. In levels 11–10, in the exact location where the hearth has been excavated, a tannur has been recovered. From Levels 9 to 5, in the same place, a similar installation has been excavated in each level.

From Level 5, all the layers have been disturbed by illicit digging activities that have badly damaged the archaeological records of the upper levels. For example, in Level 4, three burnished jars have been found on the floor, while a grave (Burial 3) cut in the soil from Level 3 has been excavated in Level 5. In addition, the upper levels (3–1) yielded evidence of pottery sherds dated to the Isin-Larsa and Old Babylonian periods.

The excavation of the stratigraphic sounding has revealed a continuous occupation of the area through time, starting from the Early Dynastic III. However, some earlier material was laid probably under the water level. According to Gibson (1972b: 246), four phases have been identified: the early phases, Levels 30 through 17, yielded evidence of Early Dynastic (III) materials; in Levels 16 through 6, artifacts of Akkadian date have been brought to light; Levels 5-4 seem to mark the transition from the Akkadian to the Ur III period; the upper levels (3-1), although greatly disturbed by looting, show evidence from Isin-Larsa and Old Babylonian times.

Through all the recognized phases, the area was characterized by some scattered evidence of buildings, probably of domestic use, and open areas associated with hearths and, later, tannurs. Here many activities – probably connected with food processing and production – were carried out. However, since the presence and the

¹¹¹ Gibson 1972b: 245.

quantity of zooarchaeological and bioarchaeological samples are not reported in Gibson's 1972 article, it is difficult to precisely define which activities could have taken place in this context.

Area D

Area D is a 10×10 m sounding, excavated at the eastern end of the Umm el-Jir mound. This area is the most extensive operation carried out at the site to expose the Akkadian period horizontally. In order to be as accurate as possible during the excavations, the area was divided into a grid of 5 x 5 m squares, then subdivided again into 2.5 x 2.5 m squares. The archaeologists have defined six phases, dating from the Akkadian to the Old Babylonian. The excavated evidence revealed in area D part of a building, whose function, based on architectural remains, seems to be mainly public.

The lowermost phase of area D, Phase I, is located at the bottom of the sounding, and it was reached below Room 1 and in a small pit dug against the northwest wall of Room 2. The excavators found «two tamped earth occupation levels» at his level¹¹². The lower one, Floor 7, was covered with ashes of different colors (gray, white, and red), and further investigations confirmed that the floor was atop an oven that collapsed in previous times. The other one, Floor 6, holds evidence of pottery sherds, all datable to the Akkadian period. The exposure of phase I was very small, and no traces of walls or structures were recovered. Overlaying Phase I is the level where the extended wall running through the area with a northeast-southwest axis was built (Phase II). This wall is made of plano-convex mudbricks, and it is associated, in its southeastern face, with a very uneven floor (5). Several ribbed sherds have been found, dating to the Akkadian period, together with a simple oval hearth cut into the floor itself. Built against the northwest face of the plano-convex wall, a large oval oven has been recovered, although badly damaged by illicit digging. This fire installation has been built from a hard-packed clay bed and a mudbrick floor covered with mud plaster to form a sort of saucer. The walls of the oven were made of plano-convex mudbricks and curved inward. The installation was filled, on the inside, with several layers of ash. Shortly after its construction, the oven seems to have been reinforced inside with a line of plano-convex mudbricks, which lay directly on a layer of ashes. This line of repairing bricks and the installation's floor present almost no evidence of firing. On the other hand, the bricks in the southern end of the structure

112 Gibson 1972b: 246.

Chapter 6

are heavily fired, which led the excavators to suggest that «the flow of air was from a door located somewhere in the northern end»¹¹³. As the many layers of ashes pointed out, the oven was widely used until its collapse; however, its function is still unclear, despite installations of this type have been discovered at Uruk, Ur, Khafajah, and Kish¹¹⁴. Scholars have proposed several interpretations of these structures (rubbish incinerators, offering tables, and ovens for sacrifices), but none is compelling due to the lack of further evidence. In the case of the Umm el-Jir oven, only a few carbonized grains of barley were found, probably residues of what was used to light the fire. The closest example of a similar installation can be found at Kish, in area P – the so-called Plano-convex building - where, in Room 46, three large circular structures made of mudbricks were brought to light. While Moorey (1964: 88-89) suggested that these installations could be associated with the ones in Khafajah's Temple Oval, interpreted by Delougaz (1940: figs. 31-23, pl. IV) as rubbish incinerators, more recent studies pointed out that these structures could be related to beer brewing activities, which are well-known both in the archeological and epigraphical evidence of III millennium Mesopotamia¹¹⁵.

However, even if the function of the Umm el-Jir installation is still unclear, the architectural analysis and comparisons with similar structures in other Mesopotamian sites seem to suggest mainly a public function of the building, with its related productive area. In addition, this level yielded evidence of pottery sherds dating to the Akkadian period.

Phase III is marked by the construction of irregular rooms against the southeast face of the wall that divided the area with a northwest-southeast axis; in this phase, the installation of Phase II seems to be abandoned, and its room was left empty. Two levels pertained to Phase III: Floor 4, a beaten earth floor associated with flat mudbricks walls that lean against the long plano-convex mudbrick wall, and Floor 3, a later reconstruction of the walls and floor in two rooms and the construction of mudbrick pillars in another room.

¹¹³ Gibson 1972b: 252-253.

¹¹⁴ For Uruk, see Jordan 1931: 18-19 and Salonen,1964: pl. 20. For Ur, see Woolley 1939: 12 ff. For Khafajah, see Delougaz 1940: 35 ff. For Kish, see Moorey1964: 88 f. and Zaina 2015b: 189-191.

¹¹⁵ The best-known archaeological examples are related with religious context, as in the case of the Earliest Temple Oval of Khafajah (Delougaz 1940), the Ziqqurat of Ur (Barrelet 1974: 244-246; Benati 2013) and the Bagara of Ningirsu at Lagash (Hansen 1978: 79-85; Renette 2014). Brewing is attested also in the textual records: for example, in the hymn to Ninkasi (Civil 1964: 72-75; Sallaberger 2012) the process related to beer brewing is described in detail.

Umm el-Jir

In this phase, three different rooms have been brought to light: Room 1, on which several plano-convex mudbricks of the previous phase were reused for the construction of the floor; Room 2, characterized by a doorway poorly preserved in the southeast wall, a row of plano-convex mudbricks forming a bin along the northeast wall, and later on, when Floor 3 was built, a heavily fired tannur with clay walls in the west corner; Room 3, probably an open area, in which were constructed, during the level of Floor 3, three mudbricks pillars aiming at supporting the plano-convex mudbricks wall.

Above Phase III and soon after, a very regular and well-preserved building (Phase IV) was built just over the walls of Phase III. The structure's walls are made of flat rectangular mudbricks like the previous building but are laid more regularly. Room 2 is where we can better see the record and preservation of this phase: a series of tamped irregular pavements (Floor 2, 1b, 1a) has been built, each displaying patches of ashes. In the north and south corner, sunk into the ground 65-70 cm below Floor 2 but still functioning when the later floors were formed, two tannurs with clay walls have been discovered, used probably for making bread¹¹⁶. Adjacent to the tannur in the south corner, a shallow bin made of plano-convex mudbricks and covered with mud plaster has been found. Gibson suggested that this «smooth bin may have been used for forming the dough, or as a clean receptacle for prepared dough or finished bread»¹¹⁷. The bin was reconstructed together with Floor 1b but was later abandoned when Floor 1a was formed. While Room 1 shows no notable features, in Room 4, on Floor 2, a tannur was excavated against the southeast wall. However, it was later demolished on Floor 1b, when the room seemed to be intended for different functions: indeed, on Floor 1b, the doorway to the outside was blocked by a single line of mudbricks, and the room was possibly used as a storage room. During this phase, Room 3 is still an open area; here, two infant burials, cutting through Floor 1b, have been found:

Burial 1 is a simple pit grave burial, with the skeleton laid and flexed on its right side, wrapped in a mat, and the head facing northwest. Four grave goods, two cups, and two small plates were found behind the deceased's head and feet. In addition, slightly outside the cut of the pit, and two centimeters above the burial, a large jar

Similar ovens are still used today throughout the Middle East to cook flatbread by sticking the dough on the inner clay walls of the tannur, directly over the flames or coals.

¹¹⁷ Gibson 1972b: 256.

was found. As Gibson (1972b: 257-258) suggested, this jar was a secondary offering placed there soon after the child's death.

Burial 2 is a simple pit burial but was disturbed by later activities. The skeleton is flexed on its left side, with the head facing north. Three cups and a small plate were found behind the deceased as grave goods.

The pottery shapes from the burials are well-known during the Akkadian period but last also into the Ur III period; this fact, together with the cutting of the grave pit from Floor 1b, seems to suggest a Late Akkadian dating. Furthermore, these two burials were placed directly outside the two doorways of Room 2 and Room 4, so it is possible to assume that they were dug here soon after the abandonment of the building brought to light in Phase IV.

During Phase V, a new building was built northwest of the long plano-convex mudbricks wall. This phase is very much disturbed by later activities, such as a large storage jar sunk into Room 5, a pottery drain laid in Room 6, and illicit digging. The best record of this phase came from Room 7: here, the archaeologists found an oval hearth excavated in the ground against the southwest wall and a clay tannur on the opposite wall. Alongside the hearth, a tall vase of Ur III date has been found.

The upper phase (VI) is badly disturbed by illicit activities. Its dating could be determined only through surface sherds, the pottery drain that partially destroyed Room 6, and the undecorated storage jar of Isin Larsa date that had damaged the walls of Phase V.

The excavation of Area D has shown a continuous occupation of the area through time, from the Akkadian through the Isin Larsa and Old Babylonian periods. The most notable feature of this area, through all the recognized phases, is the long-lasting use of the plano-convex mudbricks wall running through the area from northeast to southwest, accompanied by attempts at repairing it when it was collapsing.

6.3 POTTERY ASSEMBLAGES

Area B

Level 18

The pottery repertoire from level 18 of area B comes from a domestic context. The majority of sherds collected have a grainy fabric, while small organic inclusions

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(straw) are registered only in 2 vessels. Among fabric colors, buff and light reddish are the most attested. The repertoire includes a wide range of closed shapes, while only two types of open shapes are recorded (Fig.). Conical bowls with string-cut bases and beakers with hammer rims are attested among open shapes. Closed shapes include jars with band-rim and flat base, jars with a triangular rim, jars with an oval ring, and pithoi with a plain rim.

Level 17

The pottery assemblage from level 17 comprises a few sherds (4) and is characterized by a grainy fabric. Among fabric colors, only reddish is attested. The assemblage comprises exclusively closed shapes and consists of jars with a plain rim, jars with band-rim and flat base, and jars with a rectangular rim.

Level 16

From level 16, very few sherds have been recovered (3). The collected sherds from this level have a grainy fabric, and the fabric colors range from buff to greenish. The pottery from this level encompasses both open and closed shapes. Conical bowls with a string-cut base and bowls with everted hammer rims are attested among open shapes. Only a fragment of *pythos* with a plain rim has been recovered among closed shapes.

Level 15

The collected sherds from level 15 have grainy fabric, and their fabric colors are mostly reddish (only one overfired sherd has greenish fabric). This assemblage is composed only of closed shapes, encompassing jars with plain rims, jars with band rims, jars with oval rims, and jars with a triangular rim.

Level 14

Very few sherds have been collected from level 14 (3). The recorded sherds have a grainy fabric ranging between buff and reddish. One sherd presents traces of black paint on the inner surface. This repertoire comprises exclusively open shapes, among which conical bowls with a string-cut base and bowls with an everted hammer rim are attested.

Level 13

The pottery repertoire from level 13 is composed of ten sherds. The fabric is grainy, although some organic inclusions are present (straw). Among the fabric colors, buff and reddish are the most attested. Open and closed shapes are both represented in the assemblage. Open shapes include conical bowls with a string-cut base, conical bowls with everted triangular rim, owls with everted hammer rim, and trays. Close shapes encompass jars with everted triangular rims, jars with band-rim, and jars with a ridged rim.

Level 12

Only four sherds, namely a conical bowl with a string-cut base, a band-rim jar, and two bases, have been collected from level 12. All of them are characterized by a grainy fabric of pinkish/reddish color.

Level 10

Nine sherds of open shapes represent the pottery assemblage from level 10. The fabric is primarily grainy, with colors ranging from brownish to yellowish. One sherd is decorated with incised wavy lines. The shapes attested are conical bowls with a string-cut base, conical bowls with everted triangular rim, bowls with everted hammer rim, and trays.

Level 9

Only three sherds have been recorded from level 10. The fabric is grainy, with colors ranging from reddish to brownish. The open shapes are represented in this repertoire by a single sherd of a tray, while among the closed shapes, a band-rim jar and a jar with a triangular rim are present.

Level 8

Most sherds composing the ceramic repertoire of level 8 have grainy fabric. Among fabric colors, reddish and brownish are the most frequently attested. The assemblage comprises a range of open and closed shapes, with a prevalence of the former. Open shapes include conical bowls with a string-cut base, bowls with everted hammer rims, and trays. Closed shapes comprise jars with band-rim and small jars with plain rims.

Level 7

A grainy fabric characterizes the pottery assemblage from level 8; also, in some sherds, organic inclusions are present (straw). Among fabric colors, buff, reddish and greenish are the most frequently attested. This ceramic repertoire comprises a wide morphological range of open and closed shapes. Among open shapes, conical bowls with a string-cut base, conical bowls with everted triangular rims, and beakers with hammer rims are attested. Closed shapes encompass jars with plain rims, jars with an everted triangular rim, and jars with an oval rim.

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
6.1.1	Fig. 45:B-18:1	Area B	18	Bowl	Buff
6.1.2	Fig. 45:B-18:2	Area B	18	Jar	Buff ware
6.1.3	Fig. 45:B-18:3	Area B	18	Jar	Reddish-buff
6.1.4	Fig. 45:B-18:4	Area B	18	Jar	Red
6.1.5	Fig. 45:B-18:5	Area B	18	Jar	
6.1.6	Fig. 45:B-18:6	Area B	18	Jar	Red
6.1.7	Fig. 45:B-18:7	Area B	18	Jar	Red
6.1.8	Fig. 45:B-18:8	Area B	18	Jar	Buff
6.1.9	Fig. 45:B-18:9	Area B	18	Jar	Red
6.1.10	Fig. 45:B-18:10	Area B	18	Fruit stand	Red
6.1.11	Fig. 45:B-18:11	Area B	18	Fruit stand	Red

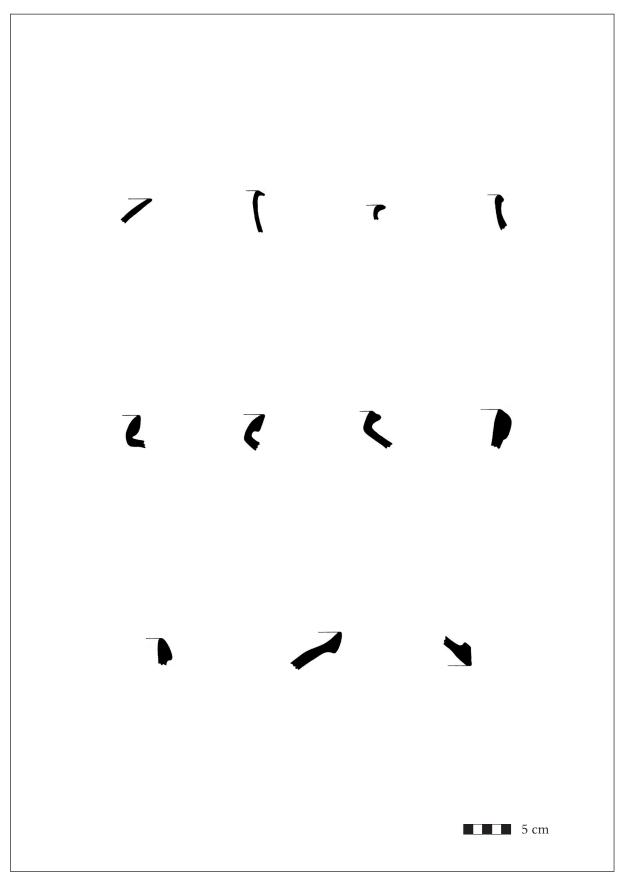


Fig. 6.1 Pottery assemblage from Area B, level 18 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
6.2.1	Fig. 45:B-17:1	Area B	17	Jar	Red
6.2.2	Fig. 45:B-17:2	Area B	17	Jar	Red
6.2.3	Fig. 45:B-17:3	Area B	17	Jar	Red
6.2.4	Fig. 45:B-17:4	Area B	17	Jar	Red
6.2.5	Fig. 44:B-16:1	Area B	16	Bowl	Reddish-buff
6.2.6	Fig. 44:B-16:2	Area B	16	Bowl	Greenish gray
6.2.7	Fig. 44:B-16:3	Area B	16	Pythos	Buff
6.2.8	Fig. 44:B-16:4	Area B	16	N/A	Buff

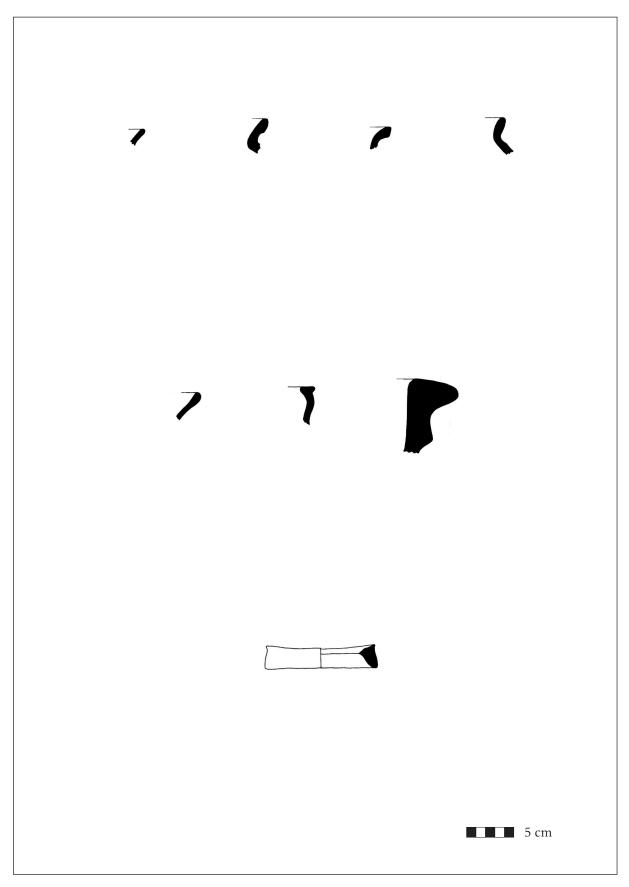


Fig. 6.2 Pottery assemblage from Area B, levels 17 and 16 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
6.3.1	Fig. 44:B-15:1	Area B	15	N/A	Greenish
6.3.2	Fig. 44:B-15:2	Area B	15	Jar	Red
6.3.3	Fig. 44:B-15:3	Area B	15	Jar	Red
6.3.4	Fig. 44:B-15:4	Area B	15	Jar	Red
6.3.5	Fig. 44:B-15:5	Area B	15	Jar	Greenish
6.3.6	Fig. 44:B-15:6	Area B	15	Jar	Red
6.3.7	Fig. 44:B-15:7	Area B	15	Jar	Red
6.3.8	Fig. 44:B-15:8	Area B	15	Jug	Red
6.3.9	Fig. 44:B-14:1	Area B	14	Bowl	Red
6.3.10	Fig. 44:B-14:2	Area B	14	N/A	Buff
6.3.11	Fig. 44:B-14:3	Area B	14	Bowl	Buff
6.3.12	Fig. 44:B-14:4	Area B	14	Bowl	Red

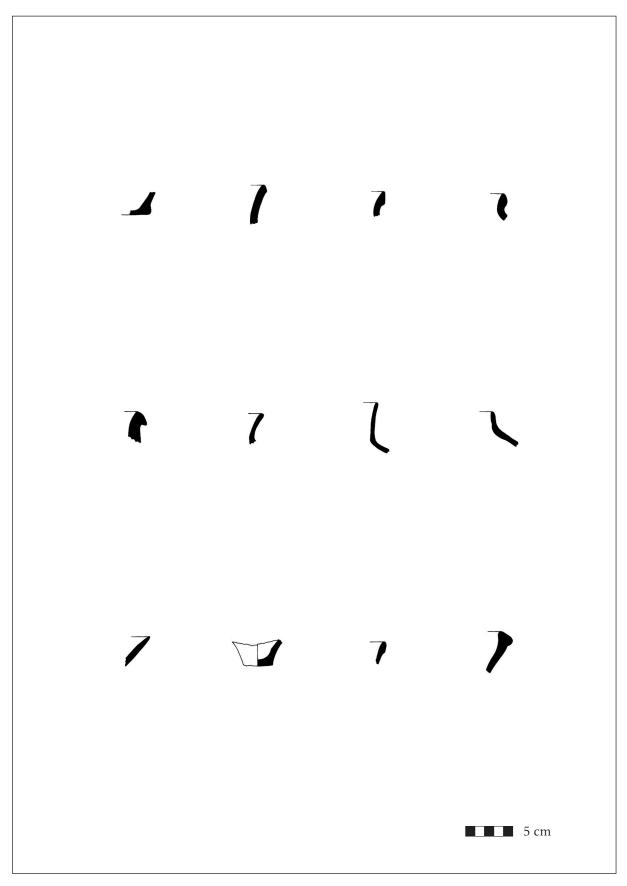


Fig. 6.3 Pottery assemblage from Area B, levels 15 and 14 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
6.4.1	Fig. 44:B-13:1	Area B	13	Bowl	Buff
6.4.2	Fig. 44:B-13:2	Area B	13	N/A	Red
6.4.3	Fig. 44:B-13:3	Area B	13	Jar	Buff
6.4.4	Fig. 44:B-13:4	Area B	13	Jar	Red
6.4.5	Fig. 44:B-13:5	Area B	13	Bowl	Red
6.4.6	Fig. 44:B-13:6	Area B	13	Jar	Red
6.4.7	Fig. 44:B-13:7	Area B	13	Bowl	Red
6.4.8	Fig. 44:B-13:8	Area B	13	Jar	Red
6.4.9	Fig. 44:B-13:9	Area B	13	Bowl	Gray
6.4.10	Fig. 44:B-13:10	Area B	13	N/A	Buff

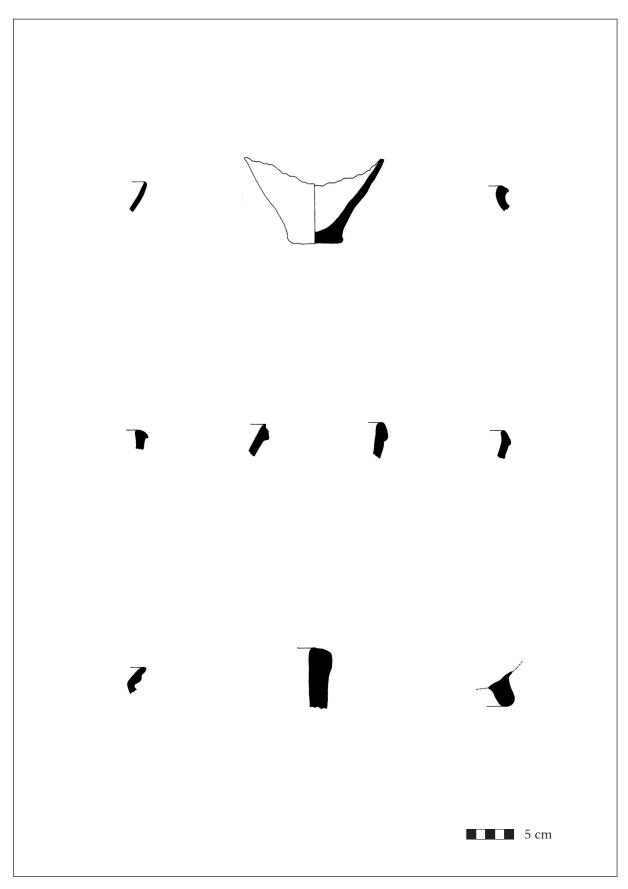


Fig. 6.4 Pottery assemblage from Area B, level 13 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
6.5.1	Fig. 44:B-12:1	Area B	12	Bowl	Red
6.5.2	Fig. 44:B-12:2	Area B	12	N/A	Red
6.5.3	Fig. 44:B-12:3	Area B	12	Jar	Pinkish-red
6.5.4	Fig. 44:B-12:5	Area B	12	N/A	Green-gray
6.5.5	Fig. 44:B-10:1	Area B	10	Bowl	Brown
6.5.6	Fig. 44:B-10:2	Area B	10	Bowl	Grayish-yel- low
6.5.7	Fig. 44:B-10:3	Area B	10	Bowl	Red
6.5.8	Fig. 44:B-10:4	Area B	10	Bowl	Red
6.5.9	Fig. 44:B-10:5	Area B	10	Bowl	Grayish yellow
6.5.10	Fig. 44:B-10:6	Area B	10	Bowl	Grayish yellow
6.5.11	Fig. 44:B-10:7	Area B	10	Bowl	Brown
6.5.12	Fig. 44:B-10:8	Area B	10	Bowl	Red
6.5.13	Fig. 44:B-10:9	Area B	10	N/A	Red

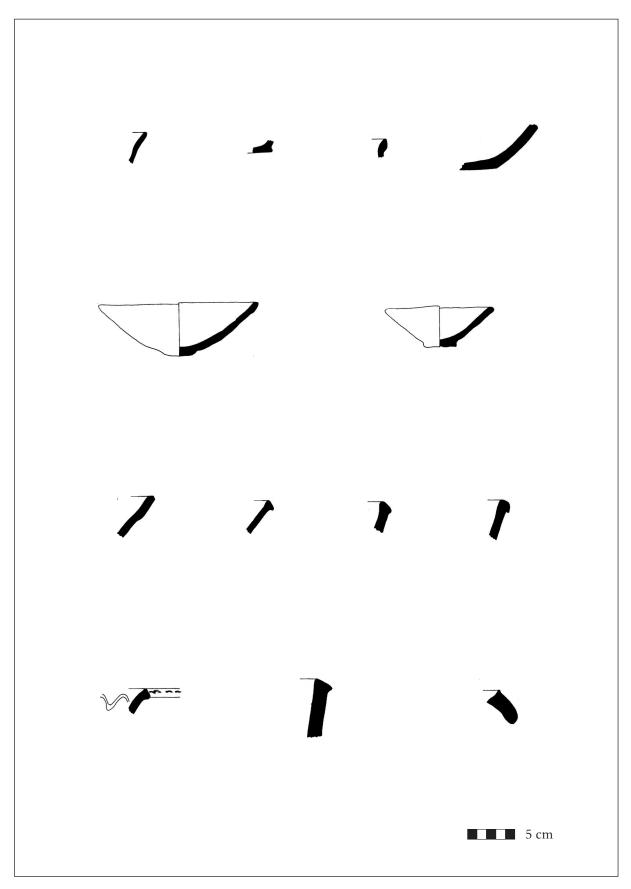


Fig. 6.5 Pottery assemblage from Area B, levels 12 and 10 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
6.6.1	Fig. 44:B-9:1	Area B	9	Bowl	Red
6.6.2	Fig. 44:B-9:2	Area B	9	Jar	Brown
6.6.3	Fig. 44:B-9:3	Area B	9	Jar	Red
6.6.4	Fig. 44:B-9:4	Area B	9	N/A	Red
6.6.5	Fig. 44:B-9:5	Area B	9	N/A	Red
6.6.6	Fig. 44:B-8:1	Area B	8	Bowl	Red
6.6.7	Fig. 44:B-8:2	Area B	8	N/A	Red
6.6.8	Fig. 44:B-8:3	Area B	8	Bowl	Buff
6.6.9	Fig. 44:B-8:4	Area B	8	Bowl	Reddi- sh-brown
6.6.10	Fig. 44:B-8:5	Area B	8	Bowl	Brown
6.6.11	Fig. 44:B-8:6	Area B	8	Bowl	Red
6.6.12	Fig. 44:B-8:7	Area B	8	Bowl	Red
6.6.13	Fig. 44:B-8:8	Area B	8	Jar	Reddish-buff

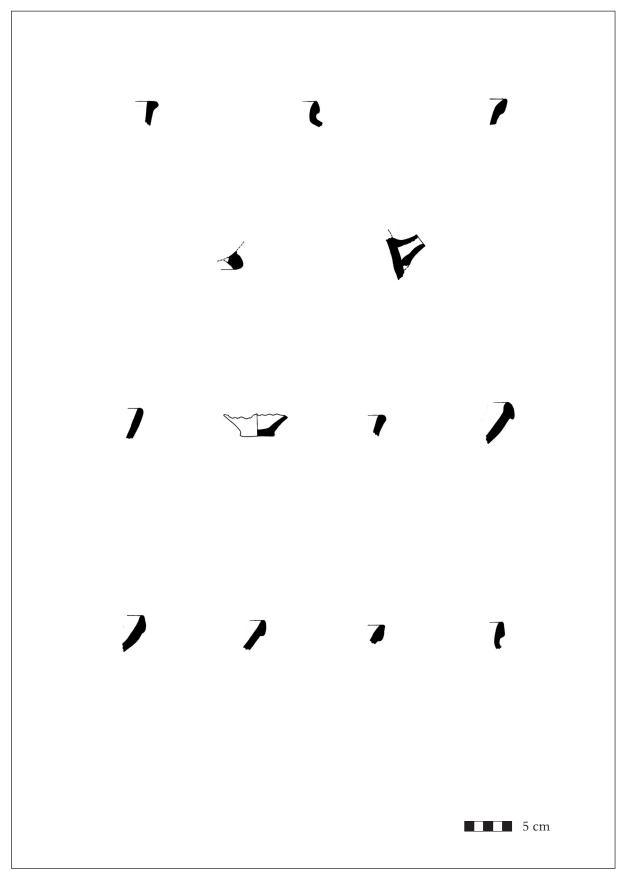


Fig. 6.6 Pottery assemblage from Area B, levels 9 and 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
6.7.1	Fig. 44:B-8:9	Area B	8	Bowl	Red
6.7.2	Fig. 44:B-8:10	Area B	8	Jar	Red
6.7.3	Fig. 44:B-8:11	Area B	8	Jar	Red
6.7.4	Fig. 44:B-8:12	Area B	8	N/A	Reddish brown
6.7.5	Fig. 44:B-8:13	Area B	8	N/A	Red
6.7.6	Fig. 44:B-7:1	Area B	7	Bowl	Buff
6.7.7	Fig. 44:B-7:2	Area B	7	N/A	Red
6.7.8	Fig. 44:B-7:3	Area B	7	N/A	Red
6.7.9	Fig. 44:B-7:4	Area B	7	Bowl	Bright red
6.7.10	Fig. 44:B-7:5	Area B	7	Bowl	Gray brown
6.7.11	Fig. 44:B-7:6	Area B	7	Bowl	Reddish brown
6.7.12	Fig. 44:B-7:7	Area B	7	Bowl	Gray green
6.7.13	Fig. 44:B-7:8	Area B	7	N/A	Yellow

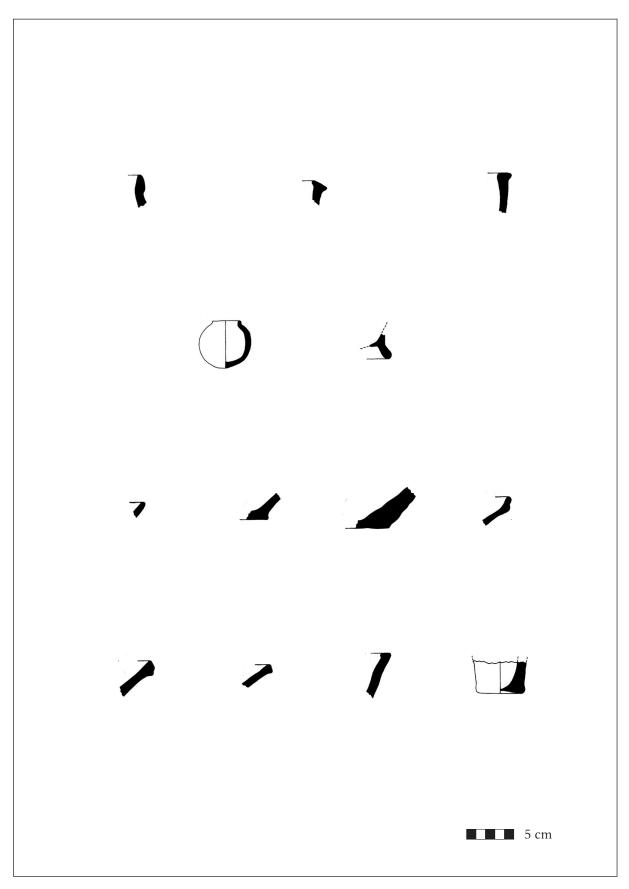


Fig. 6.7 Pottery assemblage from Area B, levels 8 and 7 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
6.8.1	Fig. 44:B-7:9	Area B	7	Small jar	Reddish brown
6.8.2	Fig. 44:B-7:10	Area B	7	N/A	Reddish brown
6.8.3	Fig. 44:B-7:11	Area B	7	Jar	Red
6.8.4	Fig. 44:B-7:12	Area B	7	Jar	Red
6.8.5	Fig. 44:B-7:13	Area B	7	Jar	Red
6.8.6	Fig. 44:B-7:14	Area B	7	Jar	Cream
6.8.7	Fig. 44:B-7:15	Area B	7	Jar	Buff-yellow
6.8.8	Fig. 44:B-7:16	Area B	7	Jar	Buff

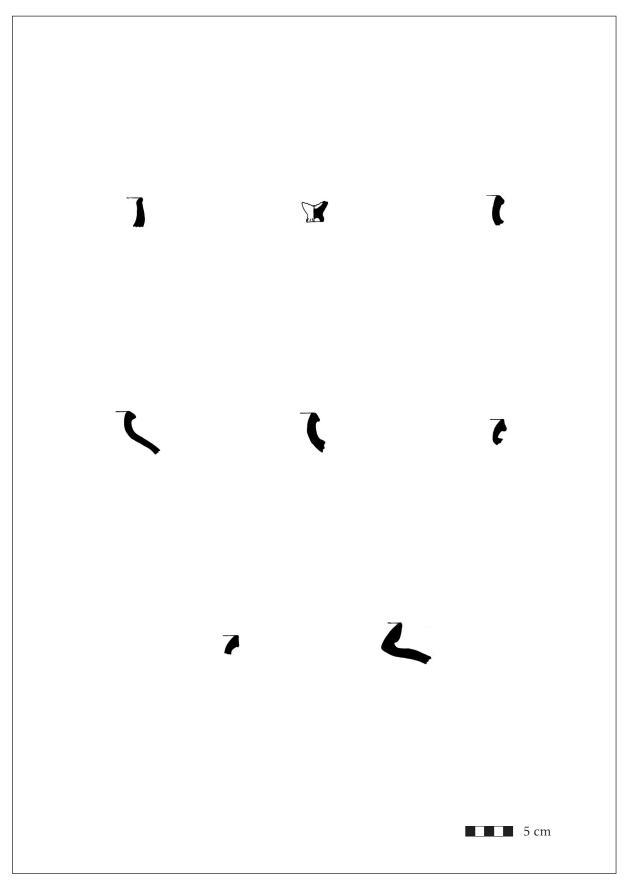


Fig. 6.8 Pottery assemblage from Area B, level 7 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
6.9.1	Fig. 44:B-7:17	Area B	7	Jar	Greenish brown
6.9.2	Fig. 44:B-7:18	Area B	7	Jar	Greenish brown
6.9.3	Fig. 44:B-7:19	Area B	7	Jar	Red
6.9.4	Fig. 44:B-7:20	Area B	7	Jar	Red
6.9.5	Fig. 44:B-7:21	Area B	7	Jar	Buff-yellow
6.9.6	Fig. 44:B-7:22	Area B	7	Jar	Pinkish orange
6.9.7	Fig. 44:B-7:23	Area B	7	Jar	Gray
6.9.8	Fig. 44:B-7:25	Area B	7	N/A	Red

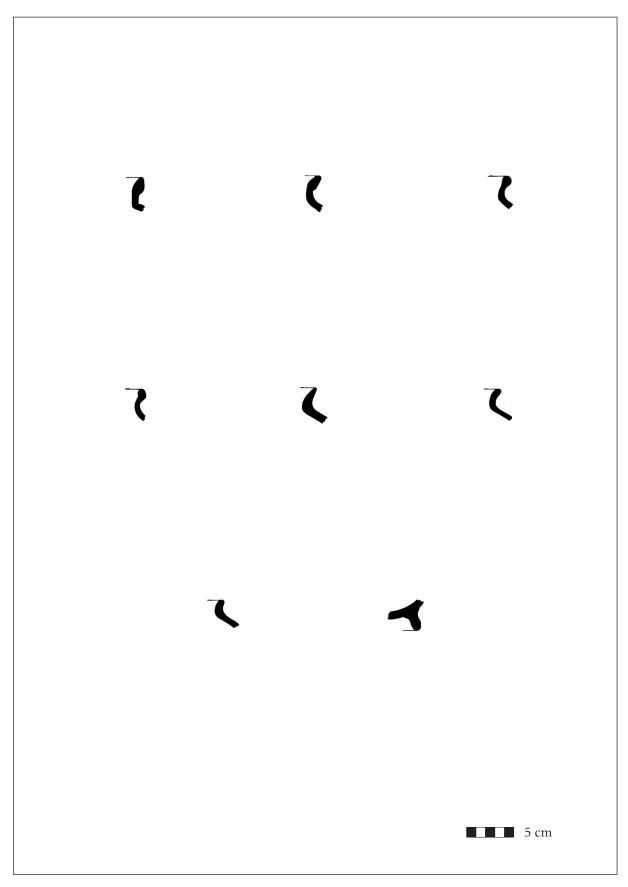


Fig. 6.9 Pottery assemblage from Area B, level 7 (scale 1:4)

Area D

Phase I

The ceramic repertoire from Phase I of area D is composed of sherds with a reddish grainy or sandy fabric. Both closed and open shapes are attested: bowls with triangular rims and strainers are represented among open shapes, while the closed shapes encompass jars with oval rims and jars with a ridged shoulder.

Phase II

The pottery assemblage from Phase II mainly comprises wares with a grainy fabric, whose colors range from buff to reddish. The repertoire includes open and closed shapes. Open shapes include conical bowls with a string-cut base and conical bowls with a grooved rim. Closed shapes consist of jars with band-rim, jars with plain rims, and jars with plain rims without necks.

Phase III

The pottery from Phase III represents 1/3 of the total EB IV assemblage from area D. The collected sherds are characterized by grainy/sandy fabric. Among fabric colors, buff and reddish are the most frequently attested. The repertoire consists of a wide range of open and closed shapes. Open shapes include conical bowls with a string-cut base, conical bowls with an everted triangular rim, bowls with a triangular rim, and trays. Among closed shapes, jars with plain rims, jars with everted triangular rims, jars with oval rims, and jars with multiple ridged rims are attested.

Phase IV

About 28% of the recorded sherds from Phase IV come from a funerary context, while the remaining comes from a public building. Most sherds have a grainy fabric, and among fabric colors, buff and reddish are the most attested. Decorations (punctate and incisions) are present on 6% of vessels, while only 3% have traces of black paint on the outer surface. The assemblage encompasses both open and closed shapes. Open shapes consist of conical bowls with a string-cut base, conical bowls with an everted triangular rim, bowls with a triangular rim, and beakers with a hammer rim. Closed shapes comprise jars with plain rims, jars with a triangular rim, jars with oval rims, and pithoi with a grooved rim.

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
6.10.1	Fig. 46:D-I:1	Area D	Ι	N/A	Buff-red
6.10.2	Fig. 46:D-I:2	Area D	Ι	N/A	Red
6.10.3	Fig. 46:D-I:3	Area D	Ι	Bowl	Red
6.10.4	Fig. 46:D-I:5	Area D	Ι	N/A	Red
6.10.5	Fig. 46:D-I:6	Area D	Ι	N/A	Red
6.10.6	Fig. 46:D-I:8	Area D	Ι	Bowl	Buff
6.10.7	Fig. 46:D-I:9	Area D	Ι	Bowl	Red
6.10.8	Fig. 46:D-I:10	Area D	Ι	Strainer	Reddish brown

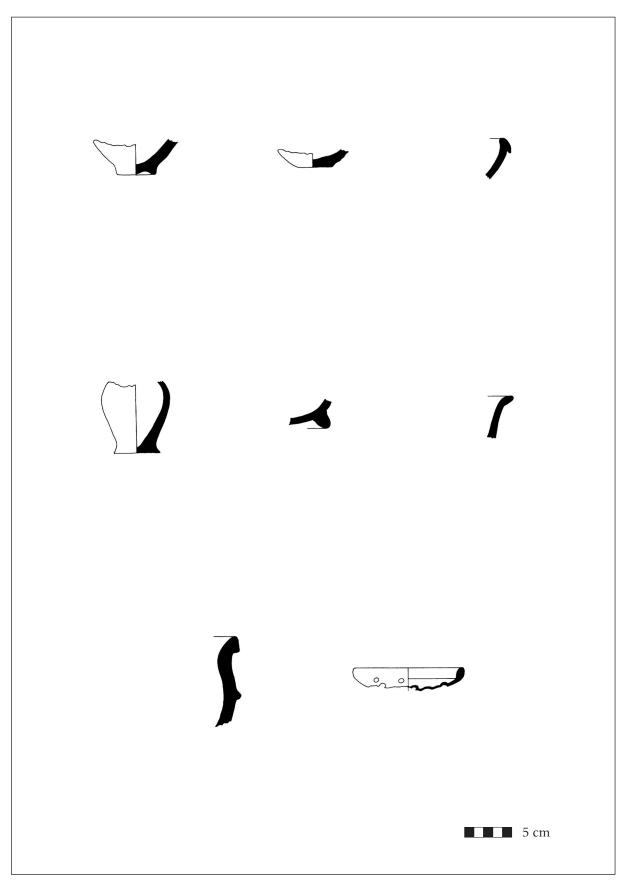


Fig. 6.10 Pottery assemblage from Area D, phase I (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
6.11.1	Fig. 46:D-II:1	Area D	II	Bowl	Buff-red
6.11.2	Fig. 46:D-II:2	Area D	II	Jar	Buff
6.11.3	Fig. 46:D-II:3	Area D	II	N/A	Buff
6.11.4	Fig. 46:D-II:4	Area D	II	Bowl	Reddish-buff
6.11.5	Fig. 46:D-II:5	Area D	II	Jar	Red
6.11.6	Fig. 46:D-II:6	Area D	II	Jar	Red
6.11.7	Fig. 46:D-II:7	Area D	II	Jar	Red
6.11.8	Fig. 46:D-II:8	Area D	II	Jar	Red
6.11.9	Fig. 46:D-II:9	Area D	II	Jar	Red
6.11.10	Fig. 46:D-II:10	Area D	II	Bowl	Yellowish green
6.11.11	Fig. 46:D-II:12	Area D	II	N/A	Red
6.11.12	Fig. 46:D-II:14	Area D	II	N/A	Buff
6.11.13	Fig. 46:D-II:15	Area D	II	N/A	Buff

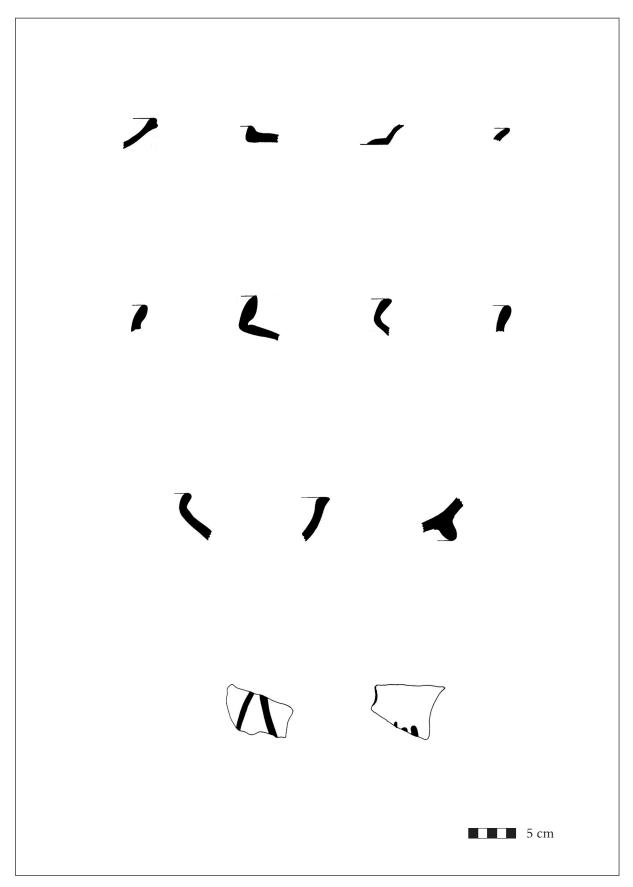


Fig. 6.11 Pottery assemblage from Area D, phase II (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
6.9.1	Fig. 46:D-III:1	Area D	III	Bowl	Reddish brown
6.9.2	Fig. 46:D-III:2	Area D	III	Bowl	Buff
6.9.3	Fig. 46:D-III:3	Area D	III	Jar	Reddish brown
6.9.4	Fig. 46:D-III:4	Area D	III	Bowl	Buff
6.9.5	Fig. 46:D-III:5	Area D	III	N/A	Reddish-buff
6.9.6	Fig. 46:D-III:6	Area D	III	N/A	Reddish brown
6.9.7	Fig. 46:D-III:7	Area D	III	Bowl	Buff
6.9.8	Fig. 46:D-III:8	Area D	III	Bowl	Red
6.9.9	Fig. 46:D-III:9	Area D	III	Bowl	Red
6.9.10	Fig. 46:D-III:10	Area D	III	Jar	Reddish
6.9.11	Fig. 46:D-III:11	Area D	III	Jar	Reddish
6.9.12	Fig. 46:D-III:12	Area D	III	Jar	Reddish-buff
6.9.13	Fig. 46:D-III:13	Area D	III	Jar	Greenish yellow

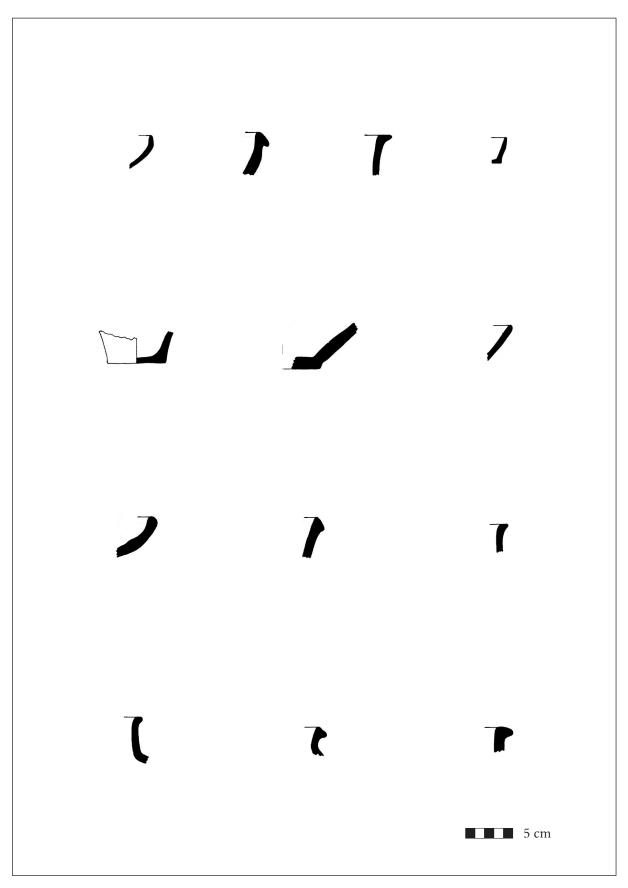


Fig. 6.9 Pottery assemblage from Area D, phase III (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
6.9.1	Fig. 46:D-III:14	Area D	III	Jar	Red
6.9.2	Fig. 46:D-III:15	Area D	III	Jar	Red
6.9.3	Fig. 46:D-III:16	Area D	III	Bowl	Reddish-buff
6.9.4	Fig. 46:D-III:17	Area D	III	Bowl	Buff
6.9.5	Fig. 46:D-III:18	Area D	III	Bowl	Red
6.9.6	Fig. 46:D-III:19	Area D	III	Jar	Red
6.9.7	Fig. 46:D-III:20	Area D	III	Jar	Red
6.9.8	Fig. 46:D-III:21	Area D	III	Jar	Red
6.9.9	Fig. 46:D-III:26	Area D	III	N/A	Buff
6.9.10	Fig. 46:D-III:27	Area D	III	Jar	Red

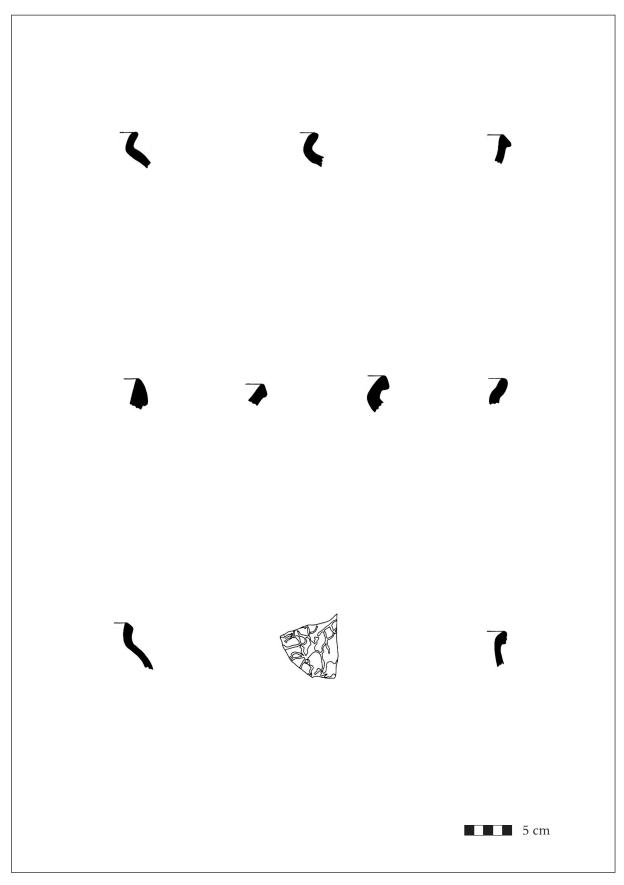


Fig. 6.9 Pottery assemblage from Area D, phase III (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
6.9.1	Fig. 46:D-IV:1	Area D	IV	Bowl	Red
6.9.2	Fig. 46:D-IV:2	Area D	IV	Bowl	Red
6.9.3	Fig. 46:D-IV:3	Area D	IV	Bowl	Red
6.9.4	Fig. 46:D-IV:4	Area D	IV	Bowl	Red
6.9.5	Fig. 46:D-IV:5	Area D	IV	Bowl	Red
6.9.6	Fig. 46:D-IV:6	Area D	IV	Bowl	Red
6.9.7	Fig. 46:D-IV:7	Area D	IV	Jar	Reddish-buff
6.9.8	Fig. 46:D-IV:8	Area D	IV	Jar	Red
6.9.9	Fig. 46:D-IV:9	Area D	IV	Jar	Red
6.9.10	Fig. 46:D-IV:10	Area D	IV	Jar	Red
6.9.11	Fig. 46:D-IV:11	Area D	IV	Jar	Reddish-buff
6.9.12	Fig. 46:D-IV:12	Area D	IV	Jar	Red
6.9.13	Fig. 46:D-IV:13	Area D	IV	Jar	Red

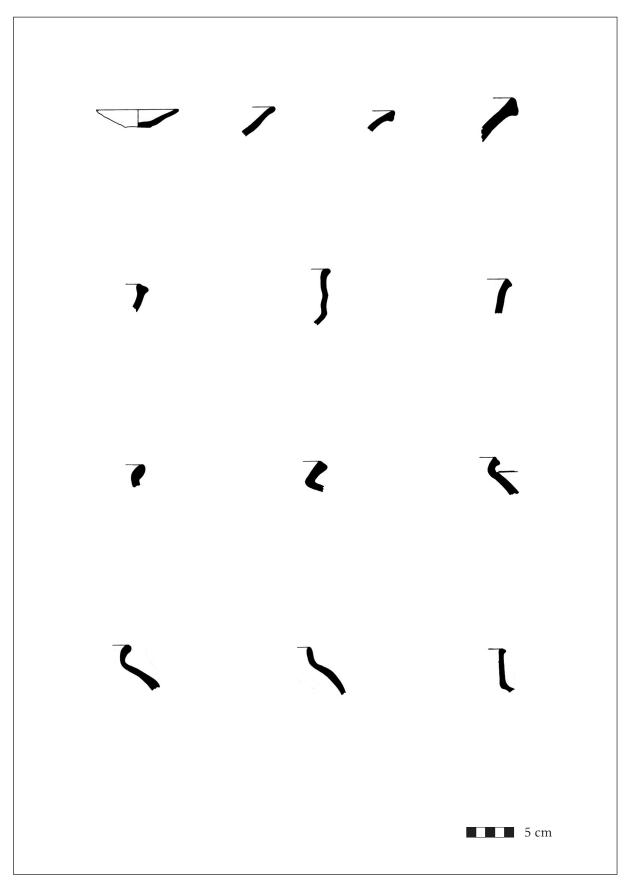


Fig. 6.9 Pottery assemblage from Area D, phase IV (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
6.9.1	Fig. 46:D-IV:14	Area D	IV	Jar	Red
6.9.2	Fig. 46:D-IV:16	Area D	IV	N/A	Gray
6.9.3	Fig. 46:D-IV:17	Area D	IV	N/A	Buff
6.9.4	Fig. 46:D-IV:18	Area D	IV	N/A	Red
6.9.5	Fig. 46:D-IV:19	Area D	IV	N/A	Buff
6.9.6	Fig. 46:D-IV:20	Area D	IV	Jug	Reddish-buff
6.9.7	Fig. 46:D-IV:24	Area D	IV	N/A	Buff
6.9.8	Fig. 46:D-IV:25	Area D	IV	Pythos	Gray
6.9.9	Fig. 46:D-IV:26	Area D	IV	Stand	Buff

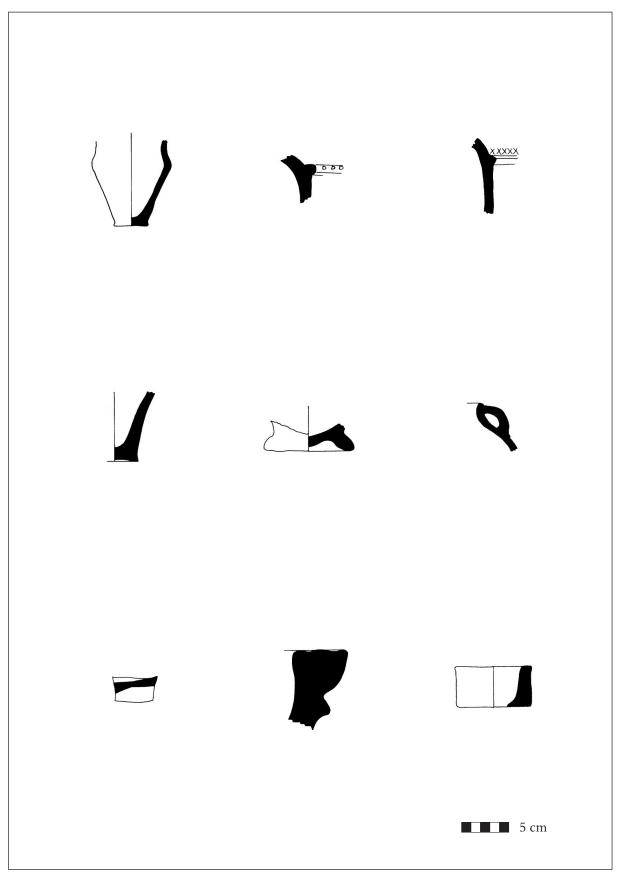


Fig. 6.9 Pottery assemblage from Area D, phase IV (scale 1:4)

6.4 SMALL FINDS

Area B

Just two small finds have been recorded from the excavation of the stratigraphic sounding: a baked clay seal impression depicting a fight between heroical figures and animals, a typical scene of the ED III repertoire, from Level 14, and a fragment of a copper fish hook, from Level 6.

Area D

Twelve objects have been recovered from area D: a nail or pin and a toy wheel, from above the oven, four figurines from Floor 5 (two zoomorphic and two models toy wheel), a toy wheel from Floor 4, two tools, namely a scraper and a point, and a toy wheel, from Floor 3, a toy wheel, from Floor 1c, a bead, near Burial 1, and a bitumen pellet in Burial 2.

Chapter 7 ESHNUNNA

7.1 LOCATION AND HISTORY OF EXCAVATIONS

The city of Eshnunna (modern Tell Asmar) is located in the Diyala river basin. The site was excavated by the Oriental Institute of Chicago's archaeological mission, which, following the Iraqi government's grant, investigated some sites located in the Diyala river region. Before the American expedition, the area was archaeologically unknown. However, some objects placed on the antiquity market by illicit diggers who operated in the area attracted the attention of the Oriental Institute —since on one of these objects, the name of Eshnunna, an ancient city at that time known only from historical texts, had been recognized. H. Frankfort directed excavations with T. Jacobsen and S. Lloyd. Throughout six excavation campaigns carried out between 1930 and 1936, the American expedition exposed part of the top of the tell identifying a large residential area and two buildings of particular importance, the North Palace and the Abu Temple.

7.2 STRATIGRAPHY AND ARCHITECTURE

The residential area

The Eshnunna residential area is located in the J-K 18-21 sectors. The excavation of this area has brought to light a large residential quarter with a building continuity that goes from the Early Dynastic to the Isin-Larsa period¹¹⁸. Therefore, Gibson 1982's proposals are now accepted, according to which the level Vc should be attributed to the ED IIIb period, the levels Vb-a to Early Akkadian, the levels IVb-IVa to Late Akkadian, and the level III to the Ur period III.

¹¹⁸ Delougaz *et al.* 1967: 143-145.

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The area comprises residential units of plano-convex bricks with an irregular layout connected by various circulation routes not always accessible from the two main roads that delimit the area.

During its long occupation, the district has not undergone notable changes since the houses tend to be arranged in substantial continuity with the previous building phases. In addition, the new buildings are often placed on top of the ancient walls, sometimes separated from those with reed mats¹¹⁹. The juxtaposition of the rooms takes place around a larger environment interpreted by American archaeologists as a covered area¹²⁰.

Level Vc represents the most ancient building phase reached: the excavation brought four domestic complexes with a central room plan (houses I-IV) to light.

The main and largest residential unit is the so-called "Arch House", which name is due to the presence of arched doors in the Vb and Va levels. The main entrance to the house is on the east, on the side adjacent to House III. From here, through a vestibule and an L-shaped compartment, it is possible to reach the kitchen (J 19:41), characterized by the presence of a tannur and the remains of a hearth. In the main room (J 19:27), the excavators identified an installation for ablutions with a channel, and a basin dug into the ground and covered in plaster. The west side of the house shows three aligned rooms whose internal circulation can not be reconstructed due to the absence of doors.

Northeast of the Arch House, there is a small house, House III, consisting of only four rooms, probably remodeled by an extension of House II. The entrance area, narrow and deep (J 19:53), connected the road to the main room, also of elongated proportions (J 19:50). From here, it was possible to access the other rooms. North of this building stands House IV which, according to the excavators, was in a state of neglect at level Vc. At level Vb, House II is partially rebuilt on the crests of the ancient walls. In this phase, the Arch House incorporates a large part of House III and shows an unusual plan with three rows of parallel rooms next to the central room. The entrance room continues to be in locus 52. The entrance vestibule has a pair of pillars of uncertain interpretation, similar to the ones in the central room¹²¹. In the main room, a mudbrick bench was found in the southwest corner, with three pas-

¹¹⁹ Delougaz *et al.* 1967: 151.

¹²⁰ Delougaz et al. 1967: 148-149.

¹²¹ Delougaz *et al.* 1967: 157.

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sages with arched tops connecting loci 64, 10, and 69. The remaining two entrances probably had a similar architecture, but they have not been preserved due to the reconstructions in the subsequent phases. As it was also theorized for the other houses of Eshnunna, in House II, the main room would have been covered with a roof resting on a central pillar, whose presence has been hypothesized by the discovery of a hole in the center of the room¹²². The group of rooms northeast of the courtyard belongs to the private quarters of the house, judging by the remote location and limited circulation. The last room, locus 13, seems to have no connections with the other rooms; probably, there was a passage in the west wall of Locus 16, which the archaeologists did not identify. In addition to House I, which does not change its layout from the previous level, Level Vb includes two houses southeast of House II (V, VI) and part of an extended building northwest of the Arch House (VII). The access to House V was directly from the main room, watching the street, which organized the circulation between the various areas of the house. Also, in House VI, the most significant room (H 20:45) served as the entrance vestibule. This room was followed by a room of similar size, where several kitchen installations were present (H 20:38). House VII in this phase was abandoned, and a double wall separated it from the Arch House. The remains suggest that House VII was a building of equal importance to House II. At level Va, House II rebuilding takes place gradually and is meant more like a gradual reparation of the building. The entrance area does not change substantially except for the disappearance of locus 68 and the presence of the three arched doors in the main room. Room 10 was abandoned; thus, access to room 64 required a new passage. The northwest wing follows the plan of level Vb, and so does the northeast wing, which maintains its strictly private connotation.

At this level, the excavation area is considerably extended, showing building solutions that the archaeologists interpret as indicators of a general decline in the residential area. The area southeast of the Main Street is characterized by numerous small domestic units with simple layout solutions. Houses X, XI, and XII were undoubtedly part of a single housing complex; House X and House XI have a longitudinal development with a central room preceded by a vestibule and have one or two smaller rooms on the opposite side. Some buildings, such as House XII (consisting of only two rooms with no roofs) and House XVII, could have been artisan workshops with no private rooms and a separate double entrance, thus not belonging to residential

122 Delougaz et al. 1967: 158.

function.

Some houses, such as House XX, XXII, and XXV, have a more regular and traditional plan, with the rooms arranged on the sides of the larger room and private rooms in a more isolated wing.

House XXV, adjacent to South Street, is one of the largest buildings in the area. One of the entrances led to a room where various containers for storing goods were found, thus identifying the building as an emporium. The owner's residence was in the rooms behind the large central room. Above level Va, a thick layer of rubble and sherds covers most of the excavated surface, except for the Arch House and Houses X-XI; this layer is thicker above House VII, apparently abandoned already at level Vb.

In level IVb, the area southeast of the Main Street is abandoned, but the walls of the previous buildings continue to be in sight as they were subsequently used for the foundations of level IVa. Little did we know of the central area (H 19), which was probably an open space. In this phase, the Arch House is rebuilt, and while the southwestern part remains substantially untouched, the northeast wing completely changes its plan. Vestibule 41 now takes square proportions and has two passages: to the northeast, a door leading to a rectangular room which gave access to an open space in the back (40), and a bathroom with a platform in baked bricks. To the northwest, the access to the central room 27 almost perfectly follows the oldest plan of the house. South of the main room, locus 10 of the previous levels is divided by the presence of a wall. In addition, in the northeast corner of 27, there is a passage connecting the eastern wing of the residence. Southeast of the Arch House, the building called House XXVIII is partially excavated. The exposed area shows a house of considerable size with thick walls. The entrance is located southeast; unlike what we have seen so far, the main room (almost certainly an open courtyard) is separated by an intermediate wing characterized by two small rooms, perhaps incorporated by an older house.

The kitchen area (locus J 18:49) has four bread ovens shielded by a curvilinear fence in raw clay. Northwest of the excavation area, House XXXI has an extension comparable to the Arch House. This building was constructed by joining two pre-existing structures: the northeastern wing – with a first entrance on the North Street (G 18: 1) – originally had to be a housing unit with a central room flanked by smaller rooms; the southwest wing, on the other hand, is much less regular in plan, but the main room (G 18: 7) may have been part of an unexcavated building to the

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southwest. Southeast of the Main Street, only House X and XI continued to be in use during this period. Many of the walls preserve the general characteristics of the previous phase.

Level IVa marks a significant expansion of the housing units in the area. The Arch House has few traces of rebuilding but with an extension of the structures, especially in the northwestern part. The wing around room 21 remains more or less unchanged; the wide threshold that connects the central room with room J 19:14 gives the latter the role of a representative room.

Overall, the excavation reveals a general expansion and development of the residential area compared to what was seen in the previous level. Therefore, those abandoned areas are reoccupied in phase IVb, and the pre-existing houses undergo a new phase of development, gradually reconstructing all the walls.

Northern Palace

The Northern Palace is located in the northernmost part of the tell. The beginning of the excavation immediately showed a high presence of pits caused by clandestine looting, the largest of which affected the main courtyard of the residence up to the floor.

Excavations on the lower part of the tell revealed the building in its eastern part; subsequently, the excavation of a trench exposed the outer face of the eastern wall. At the same time, the excavation of the tops of the mounds revealed the presence of later structures attributable to the Ur III period, the "Akkadian Houses", and the so-called "Larsa Houses" to the Isin-Larsa period.

The main phase of the palatine residence is covered by a thick gray layer from which comes an Akkadian-style seal that identifies the owner, the same name returns in a seal coming from phase IVa of the residential area, which is, therefore, contemporary to the gray layer¹²³.

The Recent Palace or "Main Northern Palace" (MNP), extended under the gray layer, is probably to be ascribed to the end of the Akkadian period, considering the glyptic repertoire here retrieved and the pottery horizon. The chronology of the Ancient Palace or "Earlier Northern Palace" (ENP) is also based on the glyptic repertoire, which places the first palace in the period of the first Akkadian dynasts¹²⁴.

¹²³ Gibson 1982: 534.

¹²⁴ Gibson 1982: 534–535.

Chapter 7

The Ancient North Palace (Earlier Northern Palace) has an "L" shape developed around three large courtyards. The main entrance was located at the northeastern corner, which, through two successive vestibules, led into the main courtyard.

In the recent phase (Main Northern Palace), the plan is characterized by a central block of rooms, a primary residential nucleus (consisting of the main room, a kitchen, an isolated room, and a room with a paved installation), a northern unit, separated by a long courtyard, to house the servants; then a southern wing interpreted by the archaeologists as the palace harem¹²⁵.

7.3 POTTERY ASSEMBLAGE

Residential area

Stratum Vb

The ceramic repertoire from stratum Vb comes exclusively from a domestic context. The assemblage comprises a wide morphological range of closed shapes, while only a conical bowl with a string-cut base is attested among the open shapes. Closed shapes comprise flasks, bottles with double carination, jars with plain rims, large jars with triangular rims, and applied ridges on the shoulder.

Stratum Va

The pottery repertoire from stratum Va comes from a domestic context. The assemblage includes a wide range of open and closed shapes, with most of the latter. Among open shapes, conical bowls with a string-cut base, conical bowls with high carination and everted rims, beakers with a flat bottom, beakers with hammer rims, and molded bowls are attested. Closed shapes include flasks, globular bottles, bottles with double carination, jars with a triangular rim, large jars with a triangular rim and applied ridges on the shoulder, and small jars with a plain rim.

Stratum IVb

The ceramic repertoire from stratum Vb comes exclusively from a domestic context. The assemblage comprises a wide morphological range of closed shapes, while

¹²⁵ Delougaz et al. 1967: 185.

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no open shapes are attested. Closed shapes comprise globular bottles, bottles with single carination, bottles with double carination, jars with a triangular rim, large jars with a triangular rim and applied ridges on the shoulder.

Northern Palace

Earlier Level

The Earlier Level of Northern Palace ceramic repertoire comes exclusively from a public context. The assemblage comprises a wide morphological range of closed shapes, while only a funnel with a hammer rim and a perforated bottom is attested among the open shapes. Closed shapes comprise flasks, bottles with double carination, jars with a triangular rims, jars with an oval rims, and large jars with a triangular rims and applied ridges on the shoulder.

Main Level

The pottery assemblage from the Main Level of the Northern Palace area comes exclusively from a public context. The assemblage comprises a wide morphological range of closed shapes, while only a funnel with a hammer rim and a perforated bottom is attested among the open shapes. Closed shapes comprise flasks, bottles with double carination, jars with triangular rims, jars with oval rims, large jars with triangular rims and applied ridges on the shoulder, and small jars with a long neck and rounded bottom.

Fig.	Identification No.	Provenance	Phase/s	Shape	Remarks
7.1.1	A.235.203	NP Area	Earlier Level	Miniaturistic pot	
7.1.2	A.303.503	NP Area	Main Level	Miniaturistic pot	
7.1.3	A.515.270	Houses	Stratum Va	Miniaturistic jar	
7.1.4	A.515.370	NP Area	Earlier Level / Main Level	Miniaturistic jar	1 specimen / 1 specimen
7.1.5	A.555.320	NP Area	Main Level	Miniaturistic jar	
7.1.6	A.565.610	Houses	Stratum Va	Miniaturistic jar	
7.1.7	A.604.560	NP Area	Main Level	Miniaturistic jar	
7.1.8	A.654.920	Houses	Stratum Va	Miniaturistic jar	
7.1.9	A.655.520a	Houses	Stratum Va	Miniaturistic jar	
7.1.10	A.756.520	Houses	Stratum Va	Miniaturistic jar	
7.1.11	A.785.520	NP Area	Main Level	Miniaturistic jar	

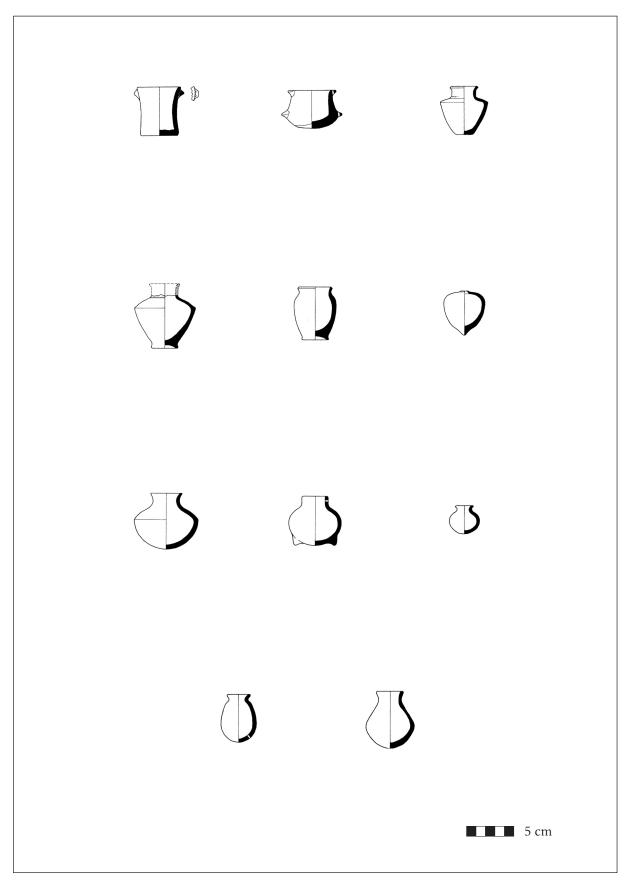


Fig. 7.1 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase/s	Shape	Remarks
7.2.1	B.001.200a	NP Area	Main Level	Bowl	
7.2.2	B.001.310	NP Area	Main Level	Bowl	
		NP Area /	Earlier Level /		5 specimen /
7.2.3	B.002.200b	Houses	Stratum Vb /	Bowl	1 specimen /
			Stratum Va		1 specimen
		NP Area /	Earlier Level /		2 specimen /
7.2.4	B.024.210		Main Level /	Cup	4 specimen /
		Houses	Stratum IVb		1 specimen
7.2.5	B.032.200b	NP Area /	Main Level /	Bowl	6 specimen /
7.2.5	D.032.2000	Houses	Stratum IVb	DOWI	2 specimen
7.2.6	B.032.500	Houses	Stratum Va	Strainer	
7.2.7	B.041.710	Houses	Stratum Va	Bowl	
7.2.8	B.043.210b	NP Area	Main Level	Bowl	

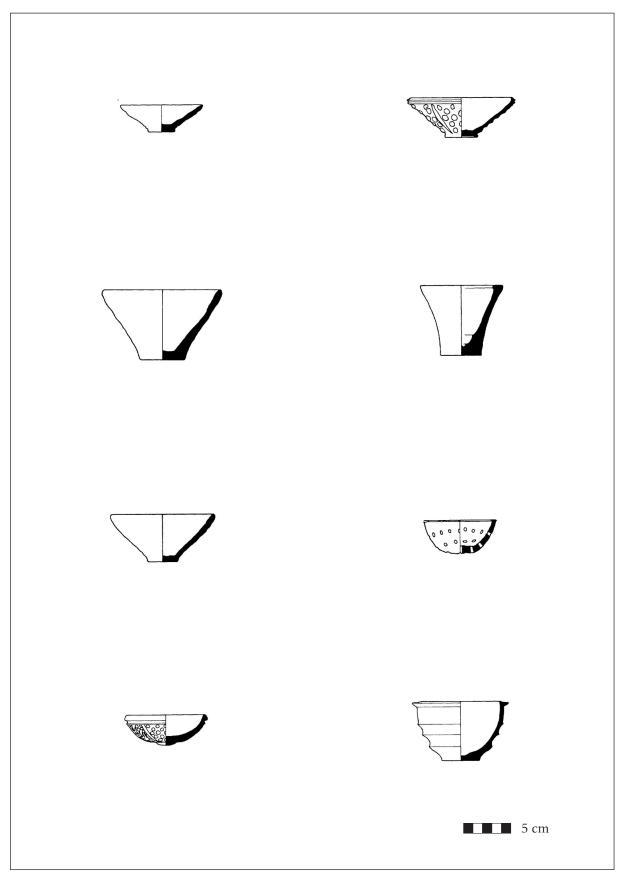


Fig. 7.2 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.3.1	B.054.700	Houses	Stratum Va	Сир	
7.3.2	B.063.200b	NP Area	Earlier Level	Bowl	
7.3.3	B.064.210	NP Area / Houses	Main Level / Stratum Va	Сир	2 specimen / 3 specimen
7.3.4	B.072.200	NP Area / Houses	Earlier Level / Stratum Va	Bowl	1 specimen / 1 specimen
7.3.5	B.072.210b	NP Area	Earlier Level / Main Level	Bowl	1 specimen / 1 specimen
7.3.6	B.084.210a	Houses	Stratum IVb	Bowl	
7.3.7	B.084.710b	NP Area / Houses	Earlier Level / Stratum Va	Bowl	1 specimen / 1 specimen
7.3.8	B.085.210	NP Area / Houses	Main Level / Stratum Va	Funnel	1 specimen / 2 specimen

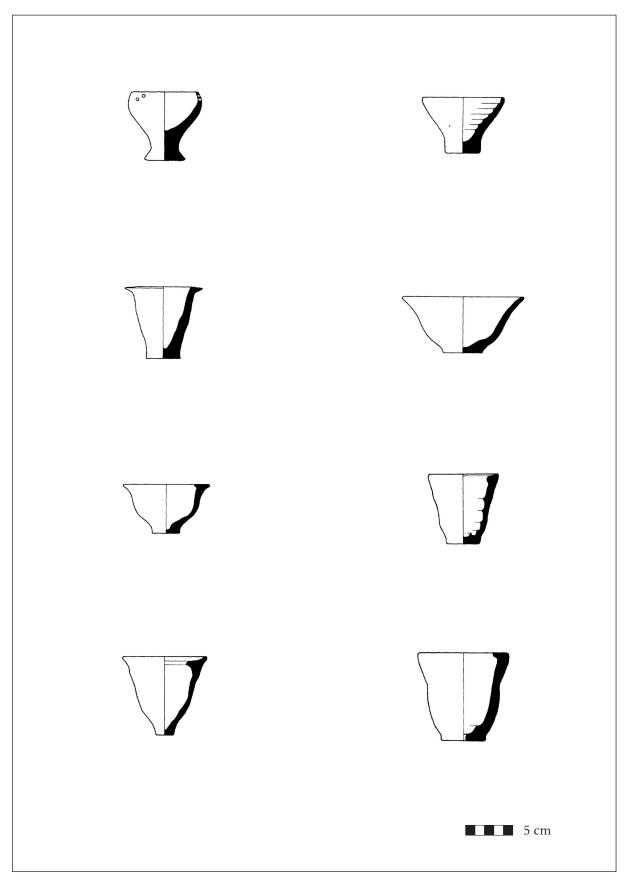


Fig. 7.3 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.4.1	B.151.210	NP Area	Main Level	Bowl	
7.4.2	B.174.210a	NP Area	Earlier Level / Main Level	Funnel	1 specimen / 1 specimen
7.4.3	B.174.210b	NP Area	Main Level	Funnel	
7.4.4	B.174.220c	Houses	Stratum Va Stratum IVb	Small jar	2 specimen / 2 specimen
7.4.5	B.175.220b	NP Area	Main Level	Small jar	
7.4.6	B.175.221	Houses	Stratum Va	Small jar	
7.4.7	B.184.220a	NP Area / Houses	Earlier Level / Stratum Va	Small jar	
7.4.8	B.185.220	Houses	Stratum Va Stratum IVb	Small jar	2 specimen / 1 specimen

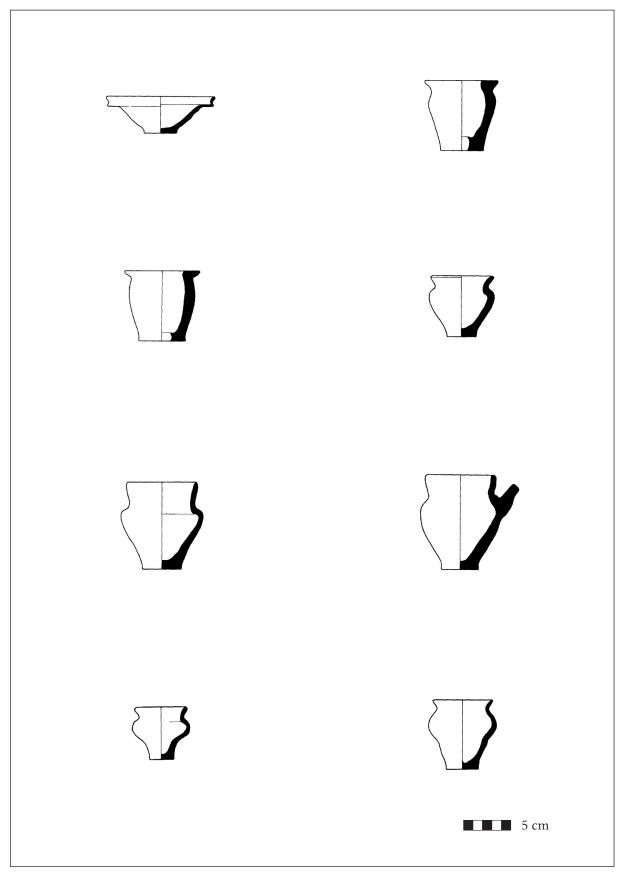


Fig. 7.4 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.5.1	B.225.540	Houses	Stratum Va	Small jar	
7.5.2	B.256.200	NP Area	Main Level	Goblet	2 specimen
7.5.4	B.466.470	Houses	Stratum Vb	Small jar	2 specimen
7.5.6	B.505.571	NP Area	Earlier Level		
7.5.7	B.515.470	NP Area	Main Level	Small jar	
7.5.8	B.516.473	NP Area	Main Level	Small jar	

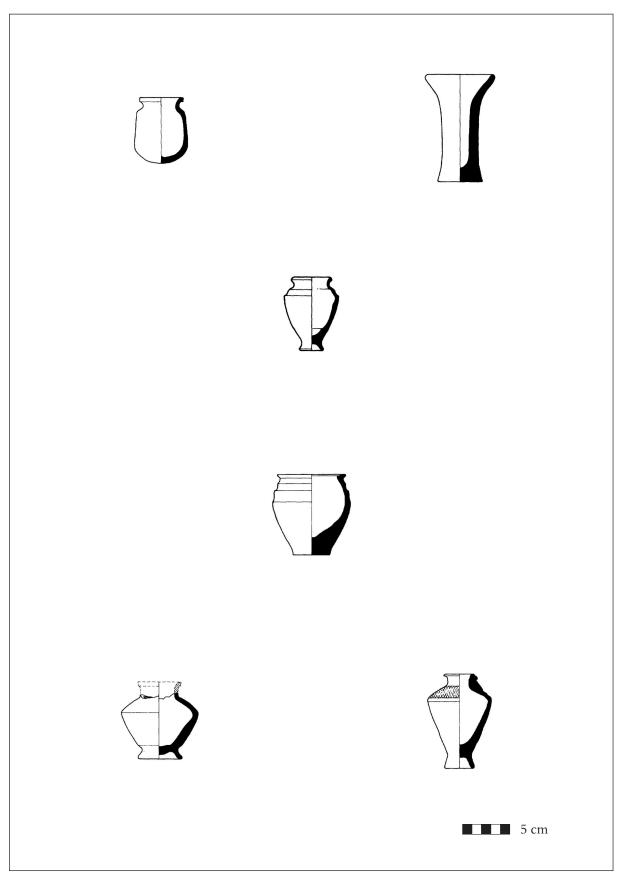


Fig. 7.5 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.6.1	B.526.471	NP Area	Main Level	Small jar	
7.6.2	B.527.340	NP Area	Main Level	Jar	
7.6.3	B.535.220	NP Area	Main Level	Small jar	
7.6.4	B.545.222a	NP Area	Earlier Level	Small jar	
7.6.5	B.546.322	NP Area	Main Level	Spouted jar	
7.6.6	B.546.640b	NP Area	Main Level	Jar	
7.6.7	B.555.224	NP Area	Main Level	Juglet	

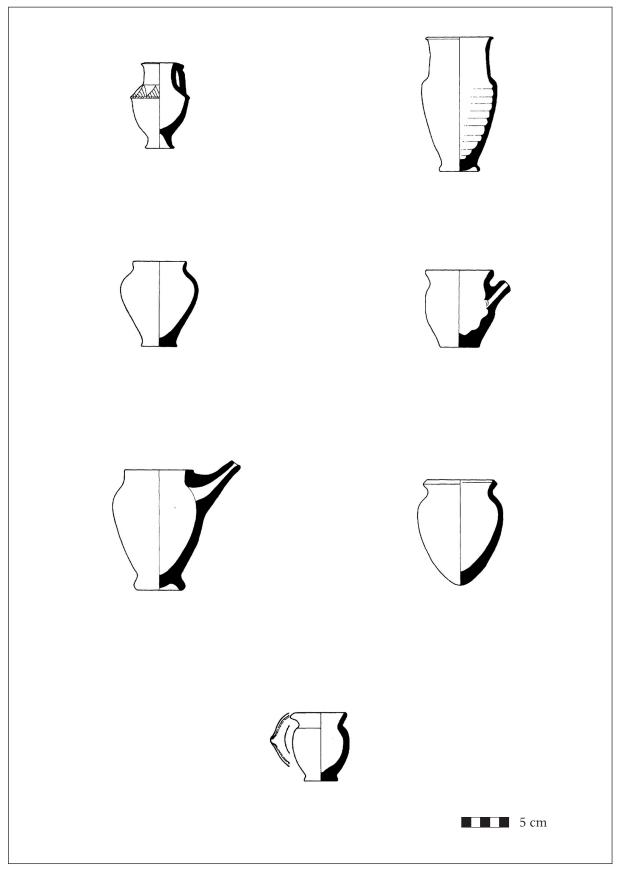


Fig. 7.6 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.7.1	B.566.670	Houses	Stratum Va	Jar	
7.7.2	B.573.240	NP Area	Main Level	Small jar	
7.7.3	B.575.224	NP Area / Houses	Earlier Level Main Level Stratum Va	Juglet	2 specimen / 3 specimen / 3 specimen
7.7.4	B.576.220	NP Area	Earlier Level	Small jar	
7.7.5	B.576.221	NP Area	Main Level	Jug	
7.7.6	B.576.224	NP Area	Main Level	Jug	
7.7.7	B.634.570a	NP Area Houses	Earlier Level Main Level Stratum Vb Stratum Va	Bottle	1 specimen / 1 specimen / 1 specimen / 1 specimen
7.7.8	B.634.570b	Houses	Stratum Vb Stratum Va Stratum IVb	Bottle	1 specimen / 3 specimen / 1 specimen

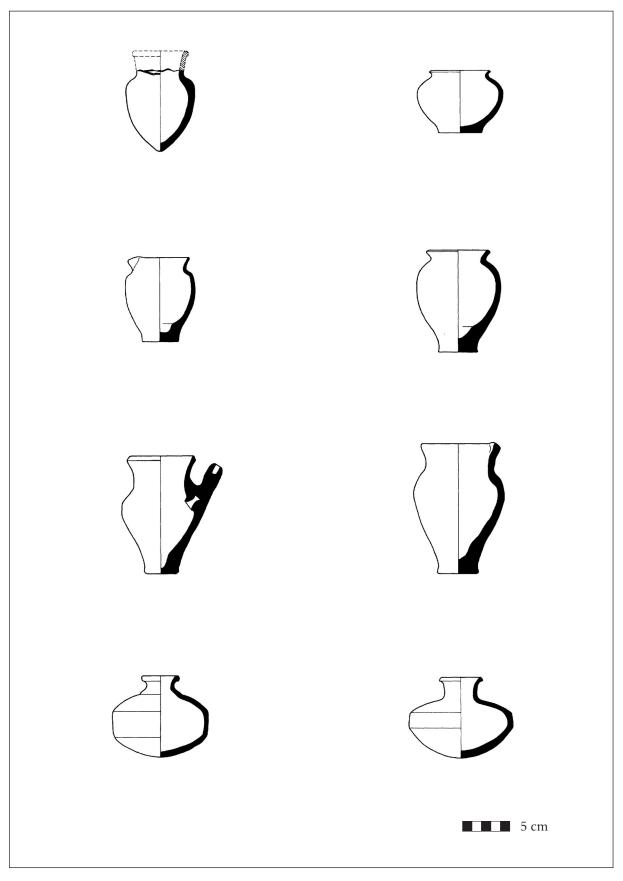


Fig. 7.7 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.8.1	B.636.570	NP Area	Main Level	Bottle	
7.8.2	B.644.220	Houses	Stratum IVb	Small jar	
7.8.3	B.644.520	Houses	Stratum IVb	Small jar	
7.8.4	B.645.220	NP Area Houses	Earlier Level Main Level Stratum Va	Small jar	1 specimen / 1 specimen / 1 specimen
7.8.6	B.655.540b	NP Area	Main Level	Small jar	
7.8.7	B.655.640	Houses	Stratum IVb	Small jar	
7.8.8	B.663.520	Houses	Stratum Va	Bottle	

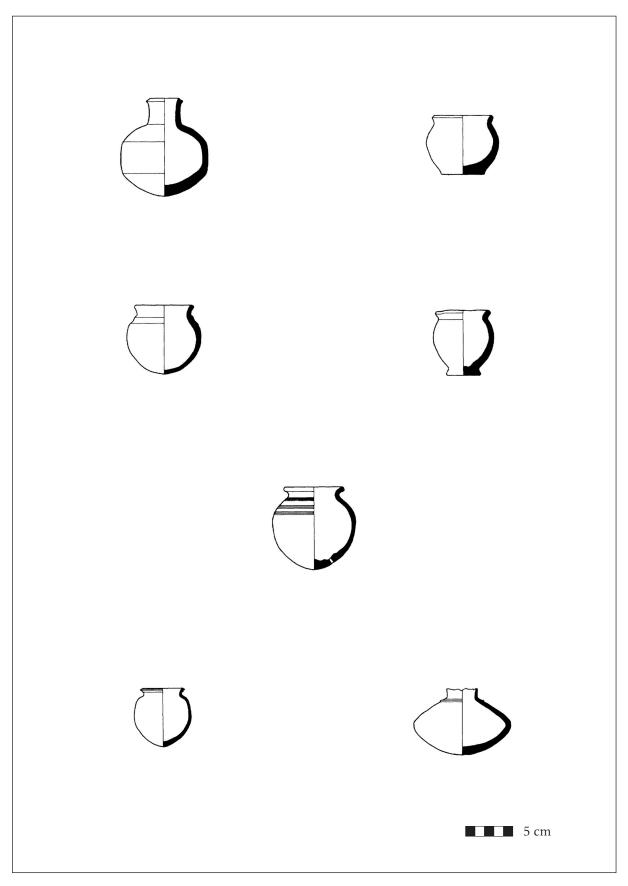


Fig. 7.8 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.9.1	B.664.540a	Houses	Stratum IVb	Bottle	
7.9.2	B.665.520	Houses	Stratum Va	Bottle	
7.9.3	B.666.540a	Houses	Stratum IVb	Bottle	
7.9.4	B.676.422	NP Area	Main Level	Juglet	
7.9.5	B.703.560	NP Area Houses	Earlier Level Stratum Va	Bottle	1 specimen / 2 specimen
7.9.6	B.704.570	NP Area Houses	Earlier Level Main Level Stratum Va	Bottle	1 specimen / 2 specimen / 2 specimen
7.9.7	B.741.300	Houses	Stratum Va	N/A	

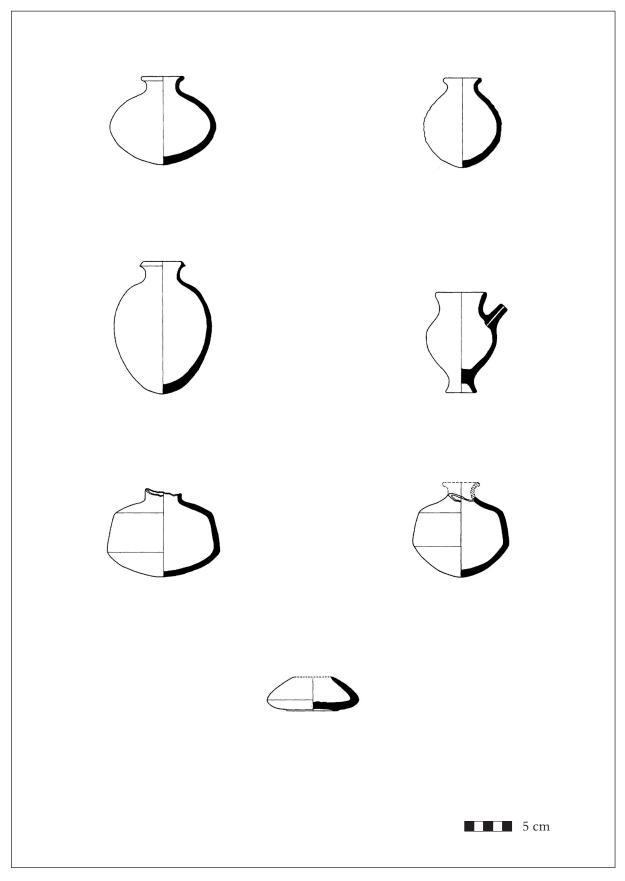


Fig. 7.9 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.10.1	B.755.540	NP Area	Main Level	Jar	
7.10.2	B.816.521a	NP Area	Main Level	Flask	
7.10.3	B.816.521b	NP Area	Main Level	Flask	
7.10.4	B.816.521c	NP Area Houses	Main Level Stratum Vb Stratum Va	Flask	1 specimen 1 specimen 2 specimen
7.10.5	C.001.200a	NP Area Houses	Main Level Stratum Va Stratum IVb	Bowl	2 specimen 2 specimen 1 specimen
7.10.6	C.001.210	Houses	Stratum IVb	Bowl	
7.10.7	C.003.203	NP Area	Main Level	Bowl	
7.10.8	C.042.200	Houses	Stratum Va	Bowl	3 specimen

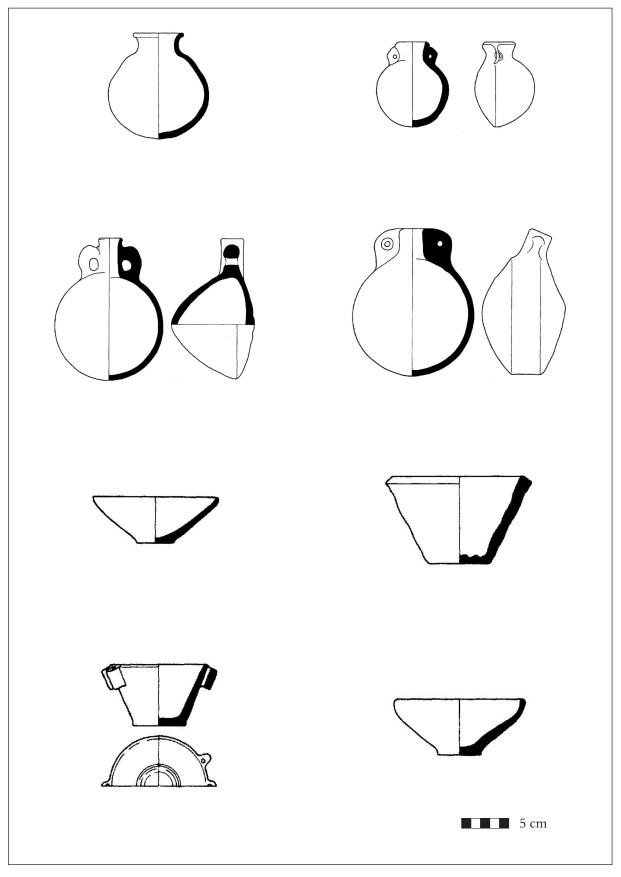


Fig. 7.10 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.11.1	C.042.203	NP Area	Main Level	Bowl	
7.11.2	C.052.202	NP Area	Earlier Level	Bowl	
7.11.3	C.053.312	Houses	Stratum Va Stratum IVb	Bowl	1 specimen / 1 specimen
7.11.4	C.072.200	Houses	Stratum Va	Bowl	
7.11.5	C.142.310	Houses	Stratum Va	Bowl	

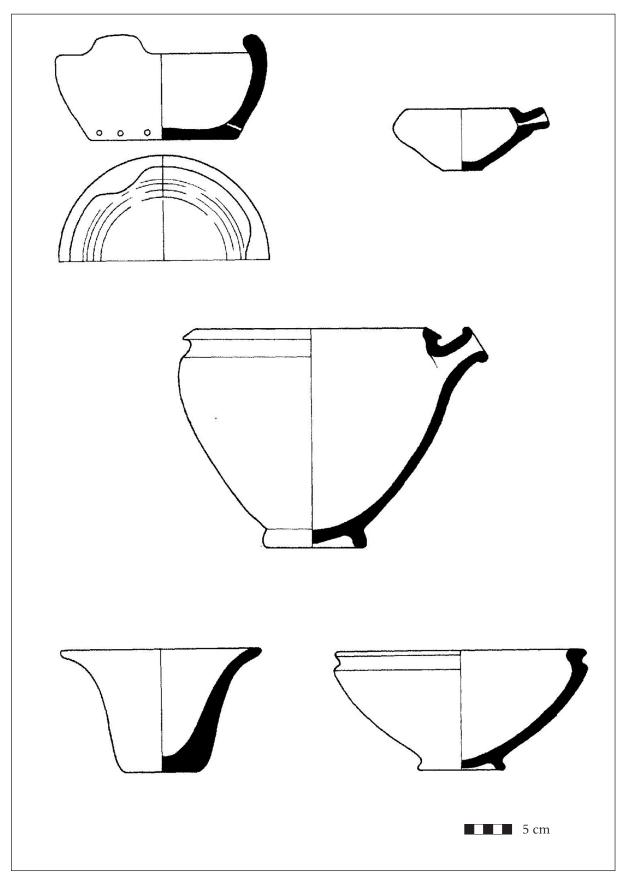


Fig. 7.11 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.12.1	C.201.203	NP Area	Earlierl Level	Brazier	1 specimen /
/.12.1	C.201.203	Houses	Stratum Va	DIaziei	1 specimen
7.12.3	C.206.410	NP Area	Main Level	Krater	
7.12.4	C.213.200	NP Area	Main Level	Pot	1 specimen /
/.12.7		Houses	Stratum Va		1 specimen

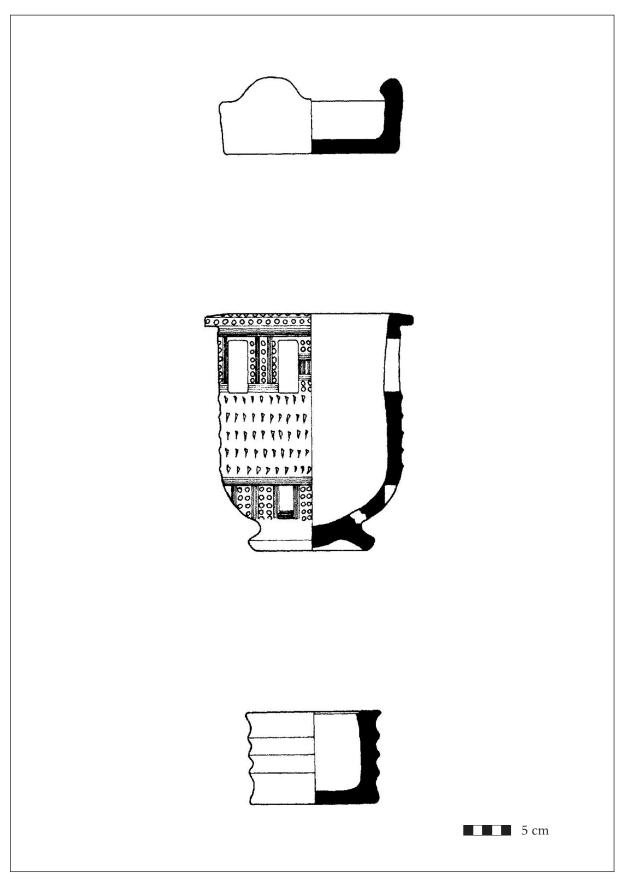


Fig. 7.12 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.13.1	C.215.210	NP Area	Main Level	Krater	
7 1 2 2	0.01/0.010	NP Area	Main Level	IZ .	6 specimen /
7.13.2	C.216.210	Houses	Stratum Va	Krater	2 specimen
7.13.3	C.233.100	Houses	Stratum Va	Vat	
7.13.4	C.245.300	Houses	Stratum IVb	N/A	
7.13.5	C.257.210	NP Area	Main Level	Сир	

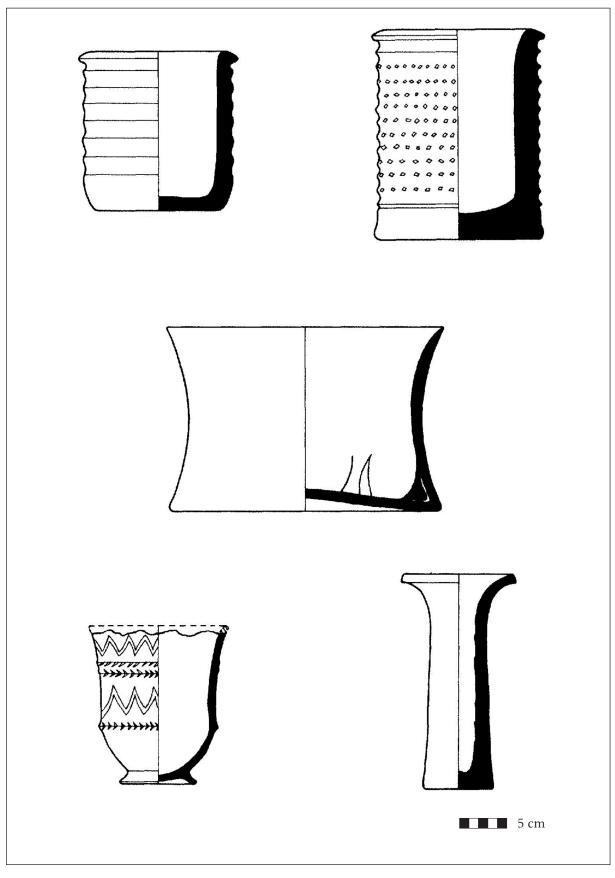


Fig. 7.13 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.14.1	C.303.200	NP Area	Main Level	Pot	
7.14.2	C.365.810d	NP Area	Earlier Level	Fruit stanf	
7.14.3	C.405.363	Houses	Stratum Vb	Jar	
7.14.4	C.466.370	NP Area Houses	Main Level Stratum Va Stratum IVb	Jar	2 specimen 1 specimen 1 specimen

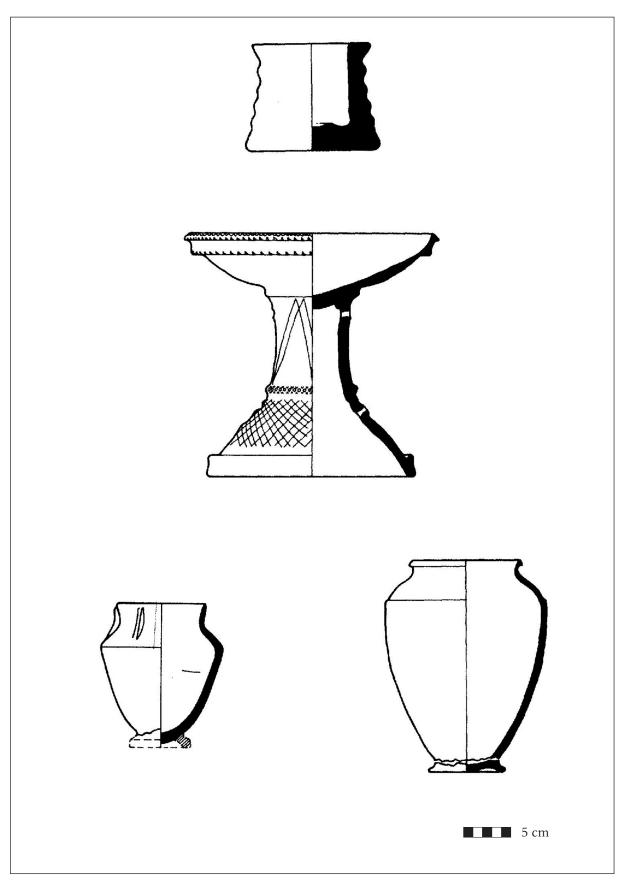


Fig. 7.14 Pottery assemblage from Eshnunna (scale 1:4)

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Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.15.1	C.466.450	NP Area Houses	Main Level Stratum IVb	Jar	1 specimen / 1 specimen
7.15.2	C.466.470	NP Area Houses	Main Level Stratum IVb	Jar	1 specimen / 3 specimen
7.15.3	C.477.270	Houses	Stratum IVb	Jar	
7.15.4	C.486.222	NP Area	Main Level	Jar	

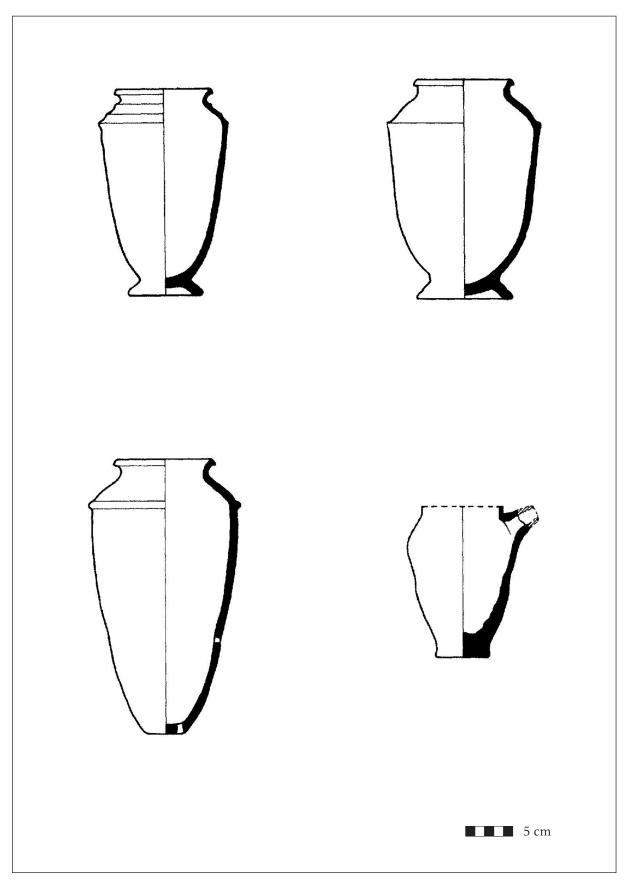


Fig. 7.15 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.16.1	C.505.470	NP Area	Earlier Level	Small jar	
7.16.2	C.516.240	Houses	Stratum Vb	Jar	
7.16.3	C.516.371a	NP Area Houses	Main Level Stratum Va	Jar	1 specimen / 3 specimen
7.16.4	C.525.550	Houses	Stratum Va	Jar	

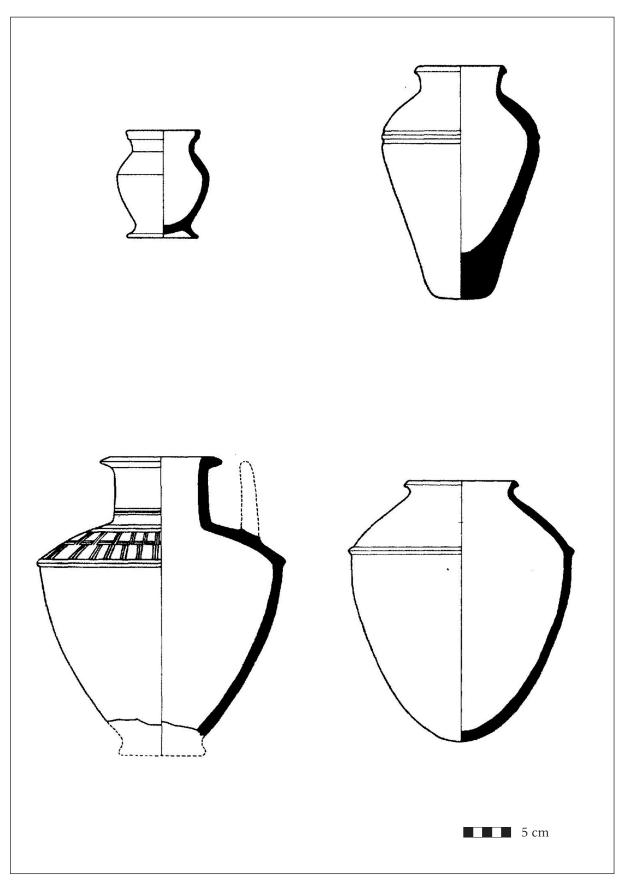


Fig. 7.16 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.17.1	C.536.520	Houses	Stratum Vb	Jar	
7.17.2	C.544.312	NP Area	Main Level	Bowl	
7.17.3	C.546.640	NP Area	Earlier Level Main Level	Jar	

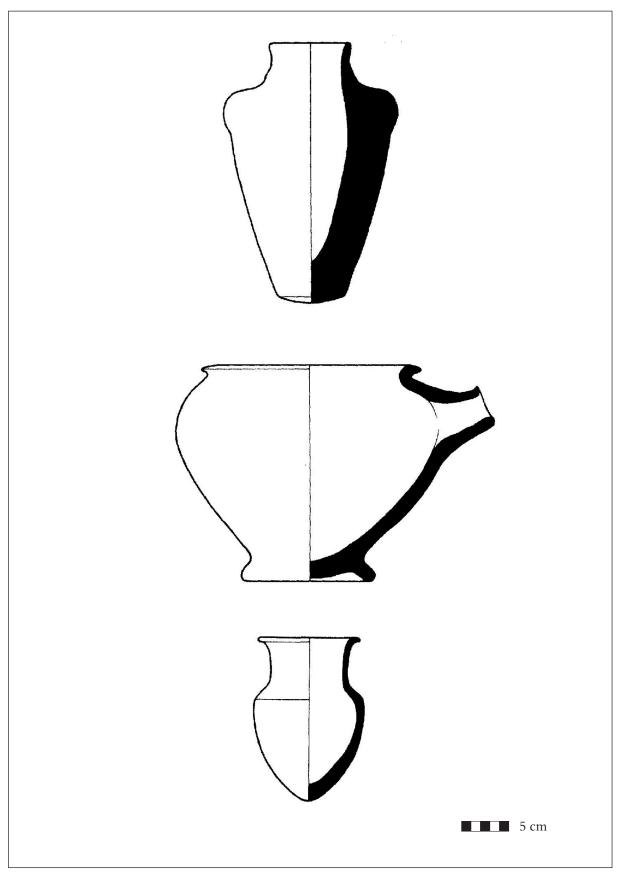


Fig. 7.17 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.18.1	C.556.322	NP Area	Main Level	Jar	2 specimen /
		Houses	Stratum IVb		1 specimen
7.18.2	C.557.372	Houses	Stratum IVb	Jug	
7.18.3	C.557.640	NP Area	Main Level	Jar	
7.18.4	C.565.540	Houses	Stratum Va	Jar	

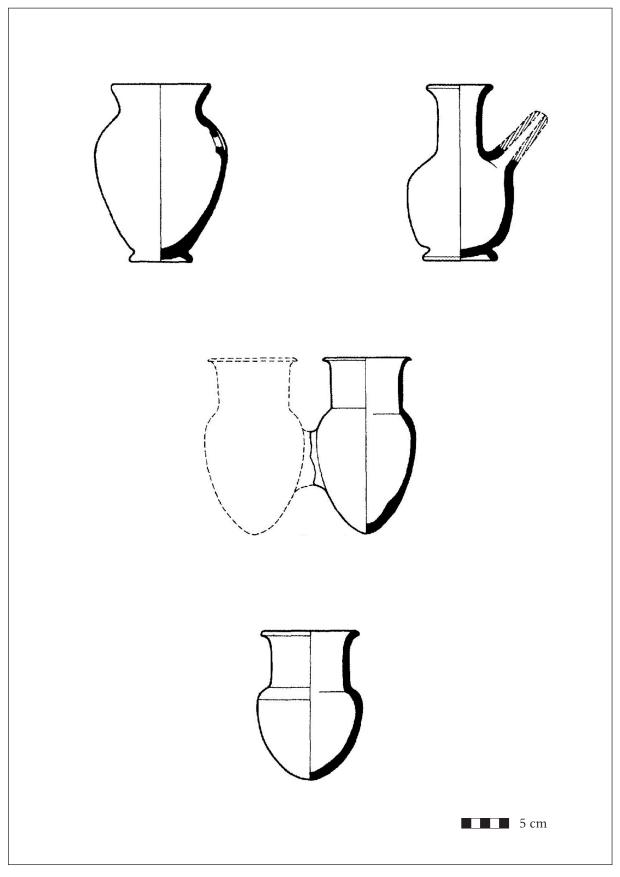


Fig. 7.18 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.19.1	C.566.350	Houses	Stratum IVb	Jar	
7.19.2	C.587.862	Houses	Stratum Va	Jug	
		NP Area	Earlier Level		2 specimen /
7.19.3	C.596.440b		Main Level	Jar	1 specimen /
		Houses	Stratum Vb		1 specimen

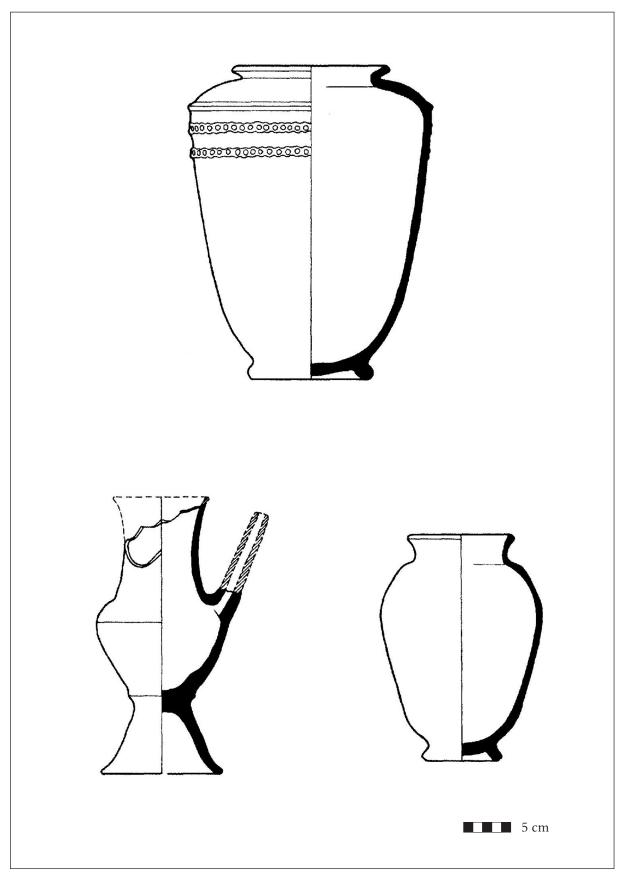


Fig. 7.19 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.20.1	C.606.620	NP Area	Earlier Level	Small jar	
7.20.2	C.646.422	Houses	Stratum Va	Small jar	
7.20.3	C.654.520	Houses	Stratum Va	Small jar	
7.20.4	C.656.540	Houses	Stratum Vb	Small jar	
7.20.5	C.665.341	Houses	Stratum Vb	Small jar	
7.20.6	C.665.541	Houses	Stratum Va	Small jar	

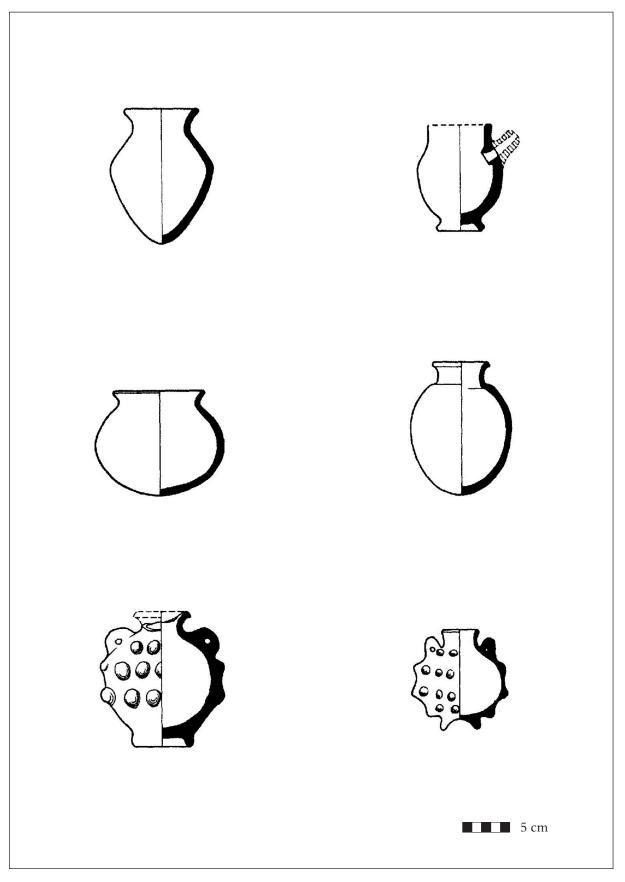


Fig. 7.20 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.21.1	C.665.543a	Houses	Stratum Vb	Small jar	
7.21.2	C.665.543b	Houses	Stratum Va	Small jar	
7.21.3	C.665.543c	Houses	Stratum Va	Small jar	
7.21.4	C.665.543d	Houses	Startum Va Stratum IVb	Small jar	2 specimen / 1 specimen
7.21.5	C.665.621	Houses	Stratum Va	Bottle	
7.21.6	C.743.570	NP Area	Earlier Level Main Level	Bottle	1 specimen / 1 specimen /
		Houses	Stratum Va		1 specimen

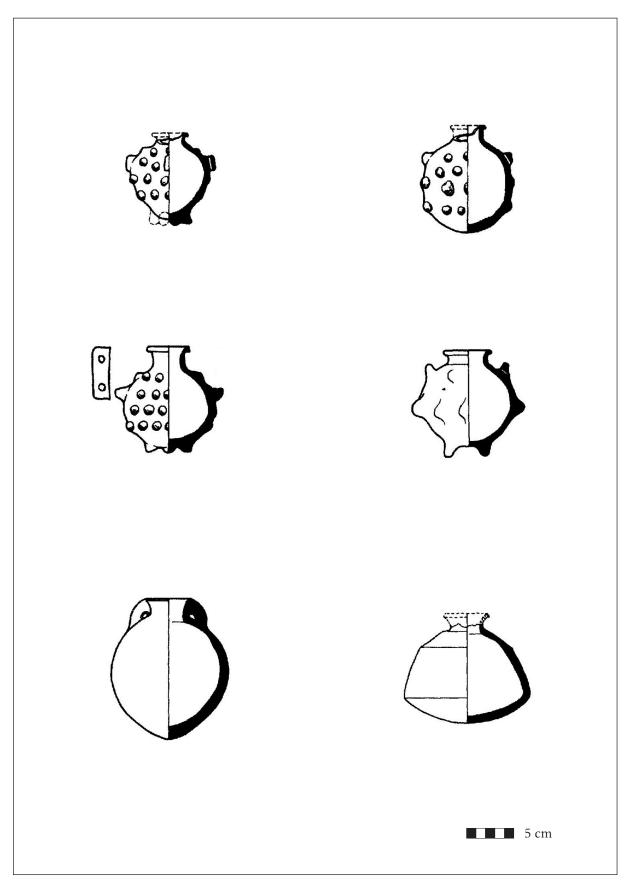


Fig. 7.21 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.22.1	C.757.540	Houses	Stratum Va	Bottle	
7.22.2	C.802.200	NP Area	Main Level	Pot	
7.22.3	C.805.210	Houses	Stratum Va	Krater	4 specimen

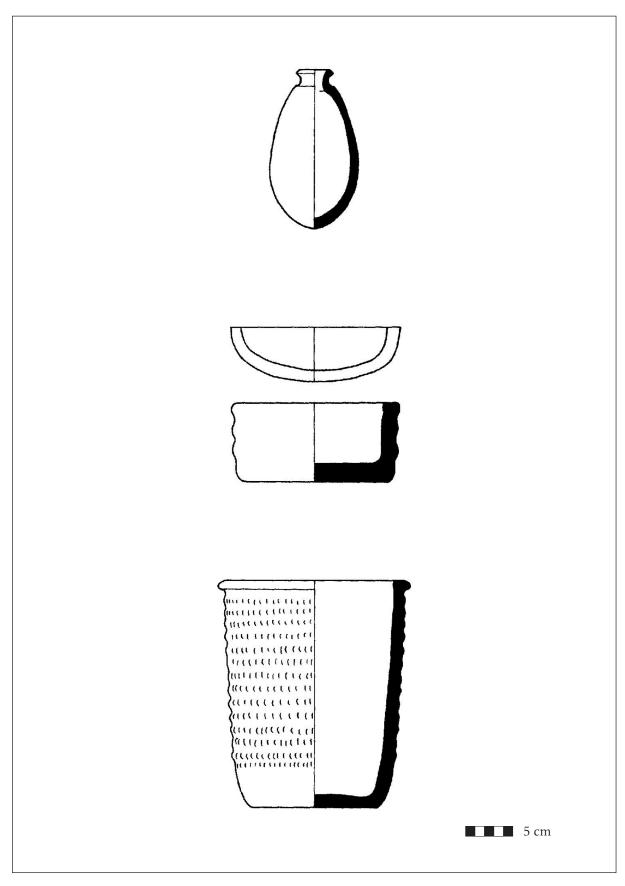


Fig. 7.22 Pottery assemblage from Eshnunna (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.23.1	D.201.201b	NP Area	Main Level	Brazier	2 specimen
7.23.2	D.333.250	NP Area	Earlier Level	Pot	

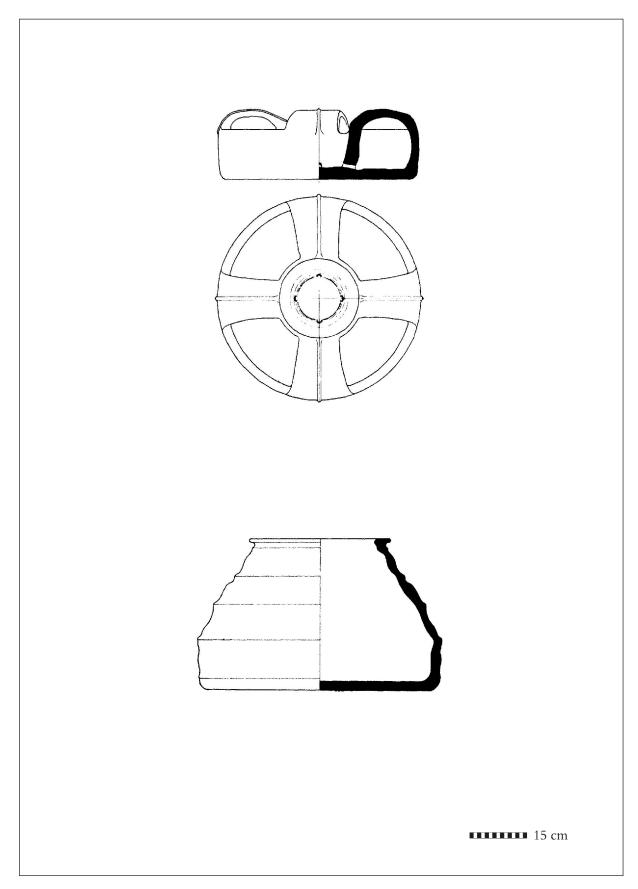


Fig. 7.23 Pottery assemblage from Eshnunna (scale 1:10)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.24.1	D.465.360	NP Area	Main Level	Ion	1 specimen
7.24.1	4.1 D.405.300	Houses	Stratum Vb	Jar	1 specimen
7.24.2	D.465.550	NP Area	Main Level	Jar	
7.24.3	D.466.360	NP Area	Main Level	Jar	1 specimen
/	D. 100.300	Houses	Stratum Va		1 specimen

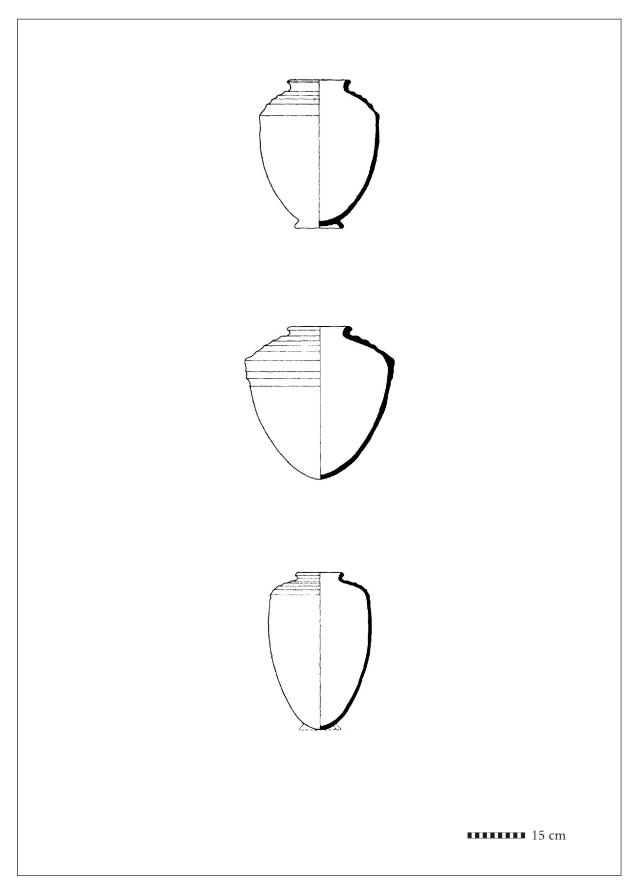


Fig. 7.24 Pottery assemblage from Eshnunna (scale 1:10)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.25.1	D.526.370a	NP Area	Earlier Level	Jar	

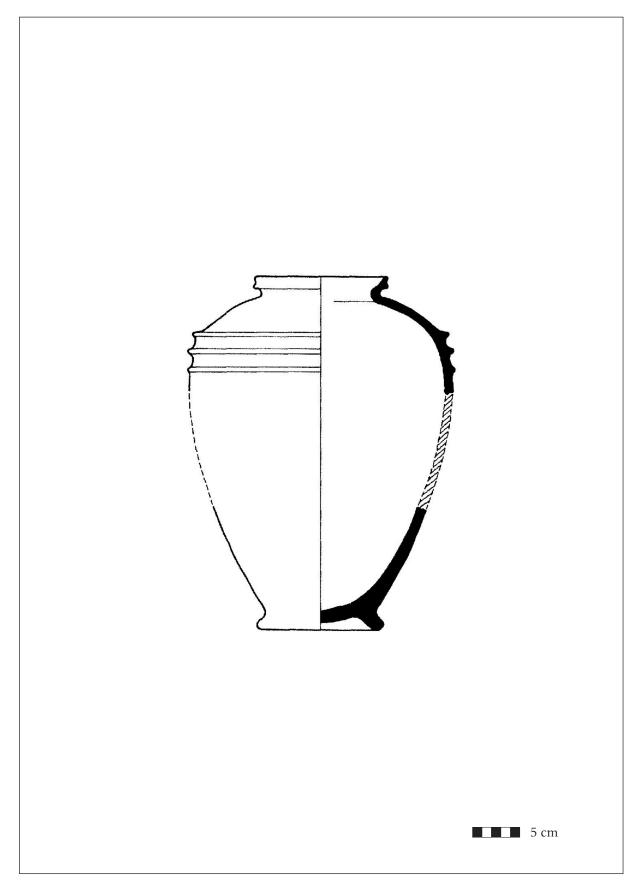


Fig. 7.25 Pottery assemblage from Eshnunna (scale 1:4)

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Fig.	Identification No.	Provenance	Phase	Shape	Remarks
		NP Area	Earlier Level		1 specimen
7.26.1	D.546.540b		Main Level	Jar	1 specimen
		Houses	Stratum IVb		1 specimen
7.26.2	D.555.340	NP Area	Earlier Level	Jar	
7.26.3	D.555.510b	NP Area	Earlier Level	Jar	2 specimen
		Houses	Stratum Va		1 specimen

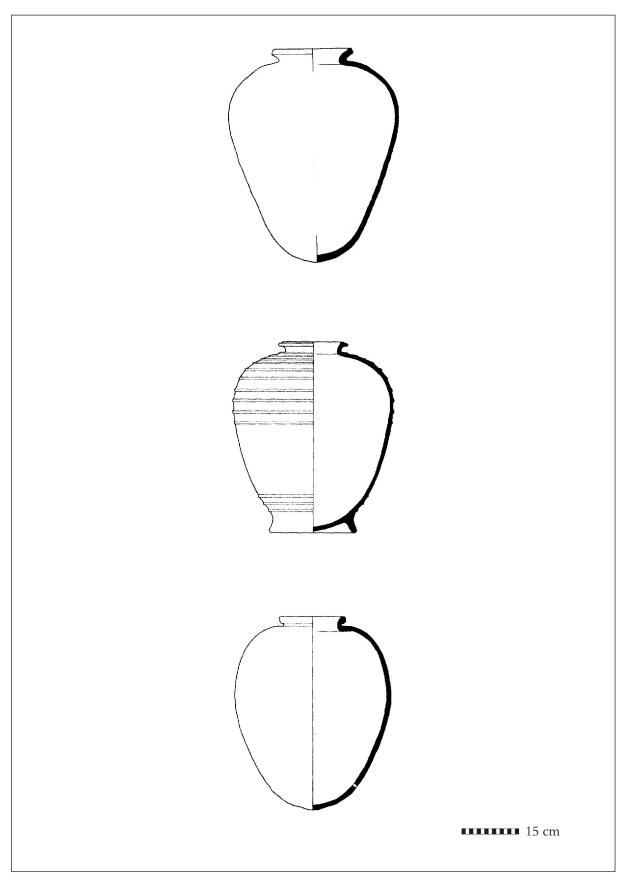


Fig. 7.26 Pottery assemblage from Eshnunna (scale 1:10)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.27.1	D.555.540	Houses	Stratum IVb	Jar	
7.27.2	D.596.540	NP Area Houses	Earlier Level Stratum IVb	Jar	
7.27.3	D.654.310	NP Area	Main Level	Jar	2 specimen

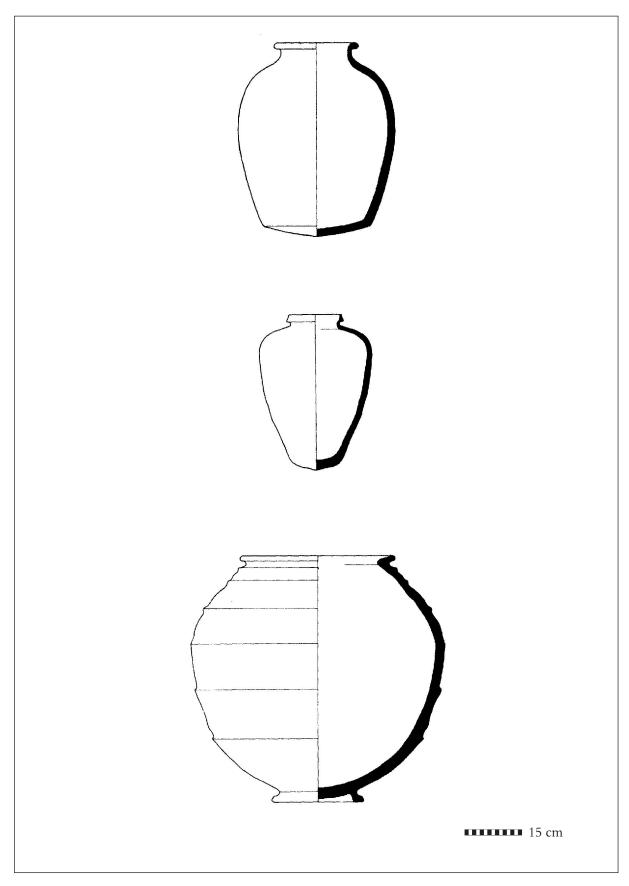


Fig. 7.27 Pottery assemblage from Eshnunna (scale 1:10)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.28.1	D 656 540	NP Area	Main Level	Ion	1 specimen
7.20.1	1 D.656.540	Houses	Stratum IVb	Jar	1 specimen
7.28.2	D.755.543	Houses	Stratum IVb	Jar	
7 28 2	7.28.3 D.801.201	NP Area	Main Level	Tray	1 specimen
7.28.3		Houses	Stratum IVb		1 specimen

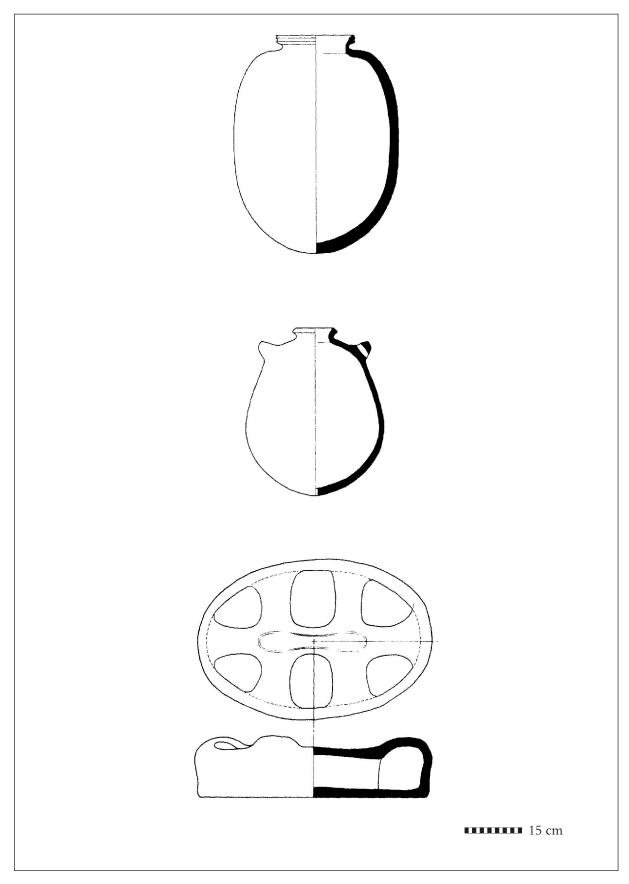


Fig. 7.28 Pottery assemblage from Eshnunna (scale 1:10)

Fig.	Identification No.	Provenance	Phase	Shape	Remarks
7.29.1	E.235.010	NP Area	Earlier Level	Drain	

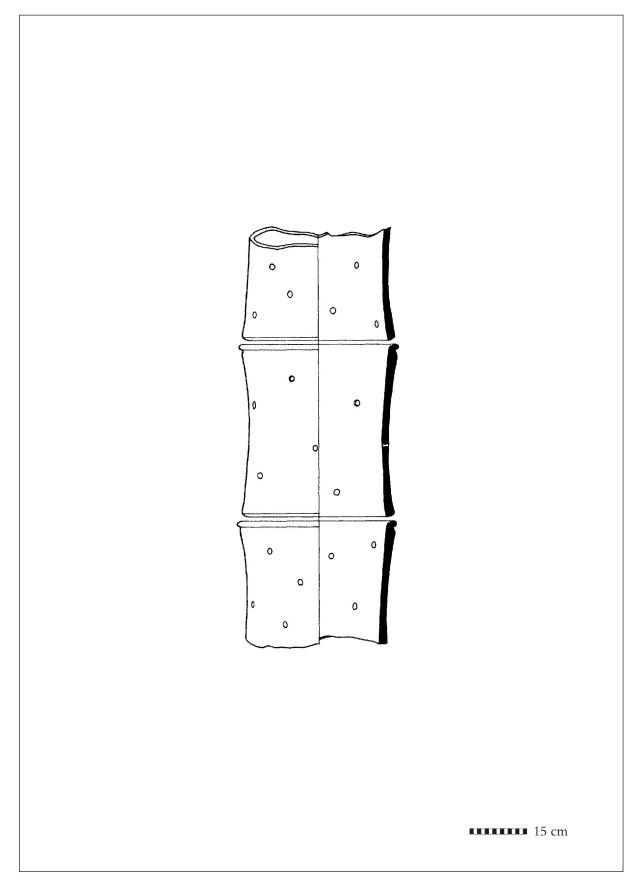


Fig. 7.29 Pottery assemblage from Eshnunna (scale 1:10)

7.4 SMALL FINDS

The excavations of the EB IV levels in the residential area yielded 366 finds: 23 from stratum Vb, 162 from stratum Va, and 181 from stratum IVb.

Stratum Vb

Twenty-three objects were recorded from stratum Vb: fragments of indistinct cylinder seal impressions, one broken cylinder seal in stone, four cylinder seals, one seal impression, one lapis lazuli beetle amulet, a stone claw amulet, a copper ring, two beads, one depicting an animal head and the other imitating the metal jewelry, one flint blade, one copper blade, one celt, one stone loom weight, one fragment of stone macehead, and one stone weight.

Stratum Va

One hundred sixty-two objects were found in stratum Va: 19 clay figurines (of which three zoomorphic, six anthropomorphic, six model horns, three model chariot, and one model chariot wheel with a rider), seventeen cylinder seals, eleven seal impressions, three amulets (one in fayence and the others in lapis lazuli), fifteen beads (among which four made of stone, two made of lapis lazuli, two of fayence, and one of copper), six pendants (among which one made of carnelian, two of lapis lazuli and one of stone), five stone vessels, sixteen stone weights, five copper pins, two copper blades, five copper pronged tool, and several shells and mother-of-pearl inlays.

Stratum Va

One hundred eighty-one objects were retrieved in stratum IVb: seventeen clay figurines (of which six zoomorphic, two anthropomorphic, four model horns, two model chariot, one model chair, one model bed, and one model boat), thirty-six cylinder seals, several fragments of seal impressions, eleven cuneiform tablets, several beads (among which fourteen made of shell and five made of stone), four pendants (among which one made of copper, three of stone), two stone vessels, eleven stone weights, five copper pins, two copper needles, three flint arrowheads, and several shells.

Chapter 8 TELL YELKHI

8.1 LOCATION AND HISTORY OF EXCAVATIONS

In June 1977, in sight of the beginning of the works of construction of a dam on the Diyala river at the high of Jebel Hamrin, the State Organization of Antiquities of Iraq, supported by UNESCO, started an international cooperation and salvage project in northeastern Iraq. The aim was to document and investigate the archaeological region of the Hamrin before the flooding and disappearance of the entire area, with the subsequent loss of the archaeological data¹²⁶. Among others, archeological excavations and surveys in the area of the basin of the Hamrin Dam were led jointly – from the Fall of 1977 to June 1980 – by the Centro Scavi di Torino per il Medio Oriente e l'Asia, whose director was Prof. Antonio Invernizzi, and the Iraqi Directorate General of Antiquities. The area entrusted to the Centro Scavi lay West of the Diyala river, between the modern villages of 'Uyun Kheshalat and Sheikh Ibrahim¹²⁷. In this area, corresponding to a slight depression between heights, delimited by hills on the eastern side and outcrops on the western side, the joint Iraqi-Italian mission has investigated nine settlements¹²⁸. The aim was to understand the area's physical environment and archeological landscape in the dam basin. However, since it was impossible – mainly for time reasons – to conduct extensive excavation at all the nine settlements identified in the area, the joint Iraqi-Italian team decided to carry out soundings proportionate to the size and relevance of each site. These investigations were preceded by a hydro-geological research campaign aimed at reconstructing – through satellite

¹²⁶ Invernizzi 1980: 19; 1981; 1984; 1985; Bergamini 1985.

¹²⁷ Invernizzi 1980:21

¹²⁸ Invernizzi 1980.

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images, surface surveys, and boreholes – the physical transformations of the area.¹²⁹ These studies underlined that, in ancient times, the main river must have flowed further northwest, through the area where the nine settlements center arose, making this area particularly fertile and flourishing for agricultural exploitation.

Among the nine sites identified by the Iraqi-Italian team, the main and most important is Tell Yelkhi, which was occupied from the Late Chalcolithic to the II millennium, when the change of the waterways and the consequent impoverishment of water resources caused temporary abandonment of the site. Based on its central role, excavations campaigns were carried out almost continuously at Tell Yelkhi from October 1977 to June 1980 to reconstruct and clarify the development and stratigraphical sequence of the site¹³⁰.

The Iraqi-Italian expedition excavated extensively on the top of the tell (area A), exposing two Kassite occupation levels (I-II). In addition, they decided to open a large stratigraphic trench (30x10 m) on the eastern slope of the mound, bringing to light six occupation levels whose chronological span goes from EB IV to Old Babylonian (III-VIII). Four deeper and smaller soundings, only 4x4 m, were opened on the bottom of the stratigraphic trench to investigate levels IX-X and reach the virgin soil¹³¹.

8.2 STRATIGRAPHY AND ARCHITECTURE

Area B

Area B is a 30x10 m trench sounding, excavated on the eastern slope of the Tell Yelkhi mound. In this area, six levels, dating from the Akkadian to the Old Babylonian, have been identified by archeologists. Furthermore, at the bottom of the stratigraphic trench, four smaller soundings were excavated at the area's west end. Other two levels (IX-X) were reached, pertaining to the Early Dynastic I-II and the Jemdet Nasr periods. Unfortunately, these levels were poorly preserved due to the rise and erosion of the aquifer.

¹²⁹ Invernizzi 1980: 28.

¹³⁰ Invernizzi 1980: 19-38.

¹³¹ Bergamini 1984; Bergamini *et al.* 2002–2003b.

Phase	Type of context
III	Domestic and religious
IV	Palatial
V	Palatial
VII	Domestic buildings and outdoor working areas
VIII	Domestic buildings and outdoor working areas
IX	Domestic?
Х	Domestic?

Table 8.1 Stratigraphic sequence of area B.

Based on the pottery horizon and the style of the glyptic finds, Level VIII was dated to the Akkadian period. This level has been divided into three phases. (a, b, c), the last of which (a) appears to have been exposed to some erosive actions following a temporary abandonment of the site¹³². The excavations carried out in the eastern part of the trench have brought to light regular and organized units, pertaining distinctively to structures of domestic type. The pottery in domestic buildings is valuable: the fabric is of good quality, and the vessels are richly decorated with incisions and applications. Among the pottery retrieved in level VIIIc, typical EB IV shapes can be identified, such as the jars with ridged shoulders and plain walls and the kraters with combed wavy lines on the walls. In the western part, large open areas were exposed, probably destined to craft activities, as suggested by the presence of kilns for pottery in continuous reconstruction during phase b – and by a silos compound for the storage of agricultural products. Furthermore, this area is characterized by the presence of outdoor hearts and kilns for heating bitumen to weld the sickle blades to the handles. Thus, the settlement during the EB IV seems to be strongly organized, with features that suggest the exploitation of agricultural resources, especially cereals, as underlined by silos for the storage of grains and the high concentration of sickle blades.

¹³² Bergamini *et al.* 2002–2003b: 7.

8.3 POTTERY ASSEMBLAGE

Area B

Level VIII

The EB IV pottery assemblage from level VII in area B at Tell Yelkhi consists of 283 vessels, among complete shapes and sherds. Most of the repertoire comes from a domestic context, while only two vessels are attested from a burial. About 49% of wares have a fine fabric with sand temper, although 43% of the vessels have mixed mineral and vegetal inclusions. Some vessels, probably belonging to the functional class of Cooking Ware, are characterized by mineral inclusions of great dimensions. The most frequently attested fabric colors are buff, reddish, and greenish. The assemblage comprises a wide range of open and closed shapes, with a prevalence of the former. Open shapes encompass conical bowls with a string-cut base, conical bowls with a triangular everted rim, large bowls with a triangular rim, bowls with an upright hammer rim, trays, kraters with a triangular or rectangular rim and comb-incised decoration, kraters with a grooved rectangular rim and comb-incised decorations, kraters with a plain rim and combed decorations, and kraters with a multiple-ridged rim and comb-incised decorations. Closed shapes include bottles with single carination, jars with a plain rim, jars with a band-rim and a flat base, jars with a multiple-ridged rim, jars with oval or rounded rims, jars with a triangular rim, small jars with a plain rim, pithoi with a plain rim, and pithoi with a grooved rim. Cooking pots are also widely attested (18 fragments).

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.1.1	Pl. 1:4	Area B	8	Bowl	Dark brownish
8.1.2	Pl. 1:5	Area B	8	Bowl	Dark brownish
8.1.3	Pl. 1:6	Area B	8	Bowl	Brownish
8.1.4	Pl. 1:7	Area B	8	Bowl	Brownish
8.1.5	Pl. 1:11	Area B	8	Bowl	Brownish
8.1.6	Pl. 1:13	Area B	8	Bowl	Brownish
8.1.7	Pl. 1:16	Area B	8	Bowl	Dark brownish
8.1.8	Pl. 1:21	Area B	8	Bowl	Dark brownish
8.1.9	Pl. 1:22	Area B	8	Bowl	Dark brownish
8.1.10	Pl. 1:25	Area B	8	Bowl	Dark brownish
8.1.11	Pl. 1:26	Area B	8	Bowl	Dark brownish
8.1.12	Pl. 1:29	Area B	8	Bowl	Yellow greenish
8.1.13	Pl. 1:30	Area B	8	Bowl	Yellow greenish

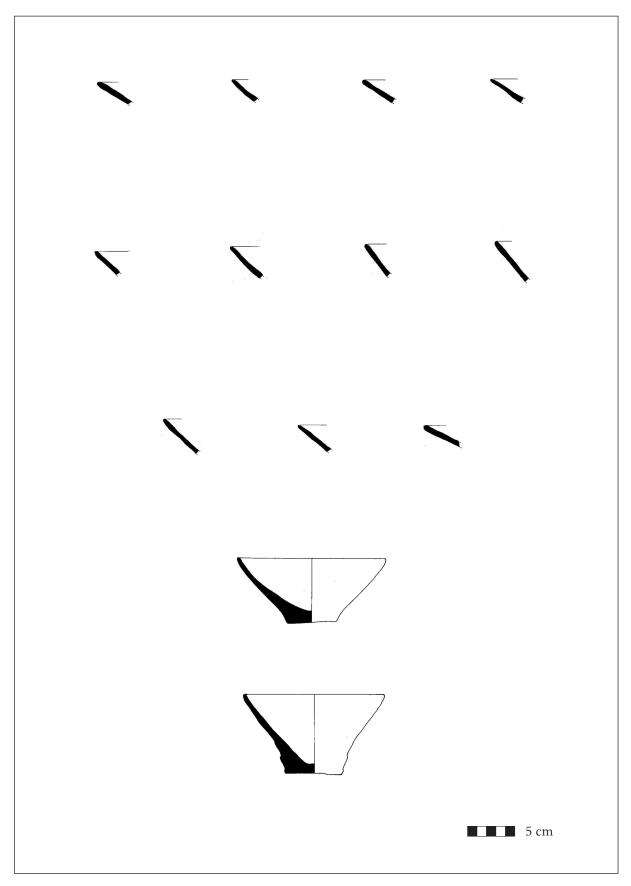


Fig. 8.1 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.2.1	Pl. 1:31	Area B	8	Bowl	Grayish
8.2.2	Pl. 1:32	Area B	8	Bowl	Brownish
8.2.3	Pl. 1:33	Area B	8	Bowl	Dark brownish
8.2.4	Pl. 1:34	Area B	8	Bowl	Brownish
8.2.5	Pl. 1:35	Area B	8	Bowl	Yellow greenish
8.2.6	Pl. 1:36	Area B	8	Bowl	Dark brownish
8.2.7	Pl. 2:1	Area B	8	Bowl	Brownish
8.2.8	Pl. 2:2	Area B	8	Bowl	Dark brownish
8.2.9	Pl. 2:3	Area B	8	Bowl	Brownish
8.2.10	Pl. 2:4	Area B	8	Bowl	Brownish
8.2.11	Pl. 2:7	Area B	8	Bowl	Brownish
8.2.12	Pl. 2:8	Area B	8	Bowl	Brownish
8.2.13	Pl. 2:9	Area B	8	Bowl	Dark brownish

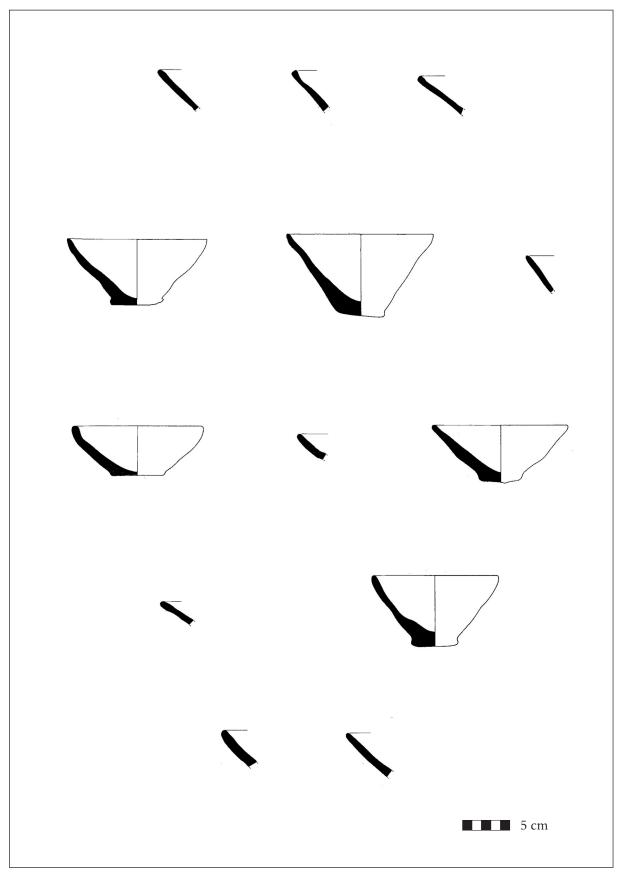


Fig. 8.2 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.2.1	Pl. 2:10	Area B	8	Bowl	Reddish
8.2.2	Pl. 2:11	Area B	8	Bowl	Dark brownish
8.2.3	Pl. 2:14	Area B	8	Bowl	Brownish
8.2.4	Pl. 2:15	Area B	8	Bowl	Brownish
8.2.5	Pl. 2:17	Area B	8	Bowl	Greenish
8.2.6	Pl. 2:19	Area B	8	Bowl	Dark brownish
8.2.7	Pl. 2:20	Area B	8	Bowl	Brownish
8.2.8	Pl. 2:22	Area B	8	Bowl	Dark brownish
8.2.9	Pl. 2:23	Area B	8	Bowl	Dark brownish
8.2.10	Pl. 2:25	Area B	8	Bowl	Yellow greenish
8.2.11	Pl. 2:26	Area B	8	Bowl	Brownish
8.2.12	Pl. 2:27	Area B	8	Bowl	Dark brownish

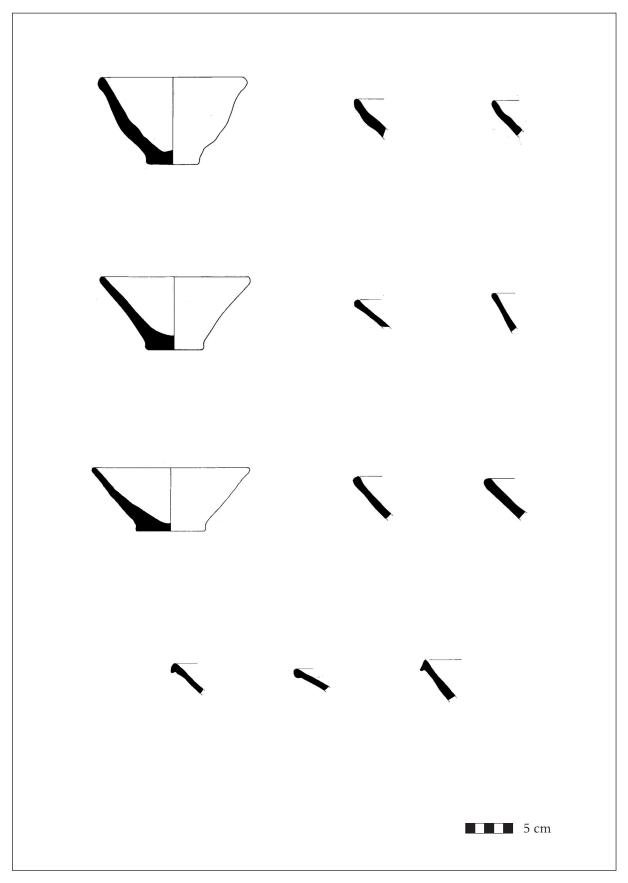


Fig. 8.3 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.4.1	Pl. 2:29	Area B	8	Bowl	Dark brownish
8.4.2	Pl. 2:30	Area B	8	Bowl	Dark brownish
8.4.3	Pl. 2:33	Area B	8	Bowl	Brownish
8.4.4	Pl. 2:34	Area B	8	Bowl	Dark brownish
8.4.5	Pl. 3:1	Area B	8	Bowl	Dark brownish
8.4.6	Pl. 3:2	Area B	8	Bowl	Brownish
8.4.7	Pl. 3:3	Area B	8	Bowl	Brownish
8.4.8	Pl. 3:4	Area B	8	Bowl	Brownish
8.4.9	Pl. 3:5	Area B	8	Bowl	Dark brownish
8.4.10	Pl. 3:6	Area B	8	Bowl	Brownish
8.4.11	Pl. 3:7	Area B	8	Bowl	Dark brownish
8.4.12	Pl. 3:9	Area B	8	Bowl	Dark brownish
8.4.13	Pl. 3:10	Area B	8	Bowl	Brownish

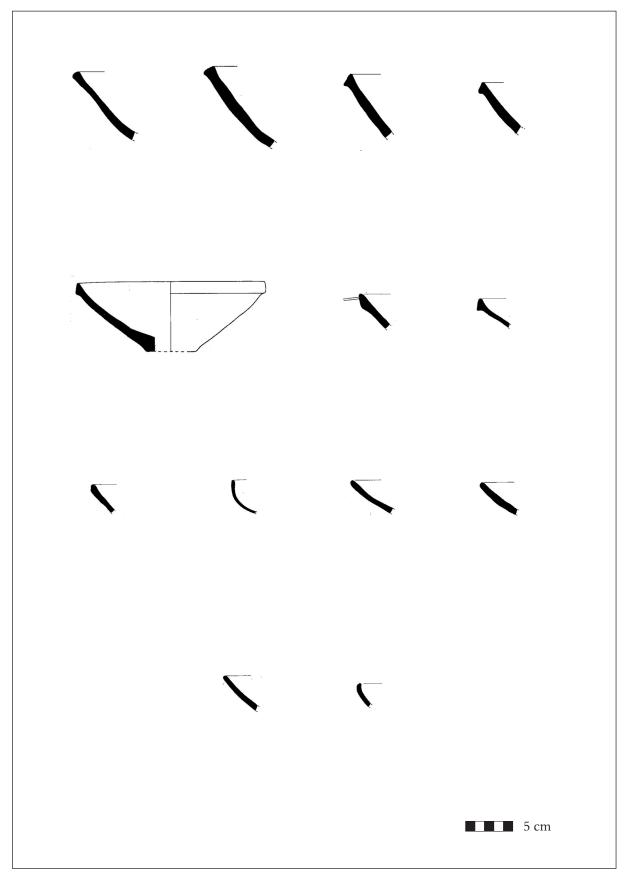


Fig. 8.4 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.5.1	Pl. 3:12	Area B	8	Bowl	Brown pinkish
8.5.2	Pl. 3:15	Area B	8	Bowl	
8.5.3	Pl. 3:18	Area B	8	Bowl	Brownish
8.5.4	Pl. 3:19	Area B	8	Bowl	Brownish
8.5.5	Pl. 3:20	Area B	8	Bowl	Dark brownish
8.5.6	Pl. 3:21	Area B	8	Bowl	Dark brownish
8.5.7	Pl. 3:22	Area B	8	Bowl	Dark brownish
8.5.8	Pl. 3:23	Area B	8	Bowl	Dark brownish
8.5.9	Pl. 3:25	Area B	8	Bowl	Dark brownish
8.5.10	Pl. 3:26	Area B	8	Bowl	Dark brownish
8.5.11	Pl. 3:27	Area B	8	Bowl	Dark brownish
8.5.12	Pl. 3:28	Area B	8	Bowl	Dark brownish
8.5.13	Pl. 3:29	Area B	8	Bowl	Brownish

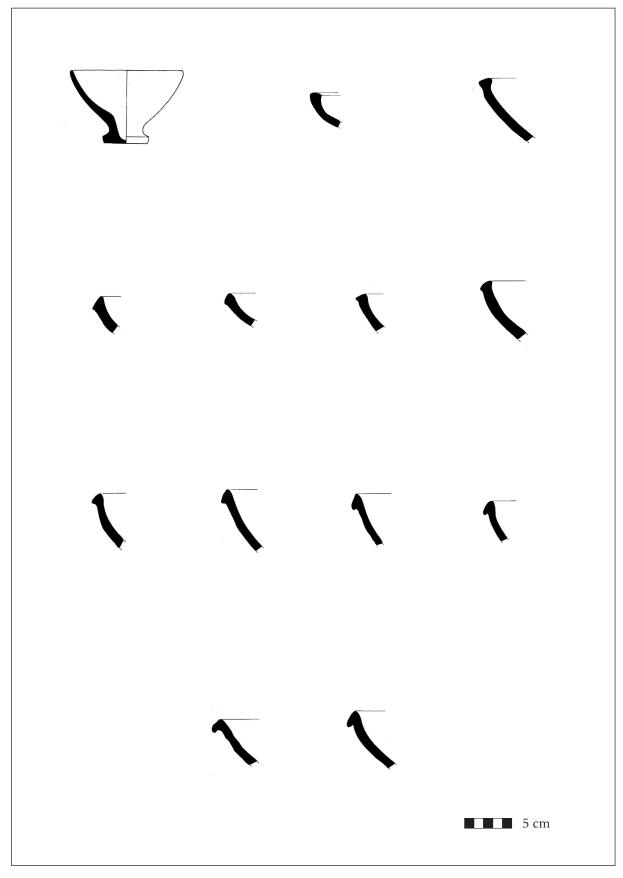


Fig. 8.5 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.6.1	Pl. 3:34	Area B	8	Bowl	Grayish
8.6.2	Pl. 3:35	Area B	8	Bowl	Brownish
8.6.3	Pl. 3:37	Area B	8	Bowl	Brownish
8.6.4	Pl. 3:41	Area B	8	Bowl	Dark brow- nish
8.6.5	Pl. 3:42	Area B	8	Bowl	Dark brow- nish
8.6.6	Pl. 4:2	Area B	8	Bowl	Brownish
8.6.7	Pl. 4:4	Area B	8	Bowl	Brownish
8.6.8	Pl. 4:6	Area B	8	Bowl	Dark brow- nish
8.6.9	Pl. 4:8	Area B	8	Bowl	Dark brow- nish
8.6.10	Pl. 4:15	Area B	8	Bowl	Dark brow- nish
8.6.11	Pl. 4:18	Area B	8	Bowl	Dark brow- nish
8.6.12	Pl. 4:24	Area B	8	Bowl	Brownish
8.6.13	Pl. 4:25	Area B	8	Bowl	Dark brow- nish
8.6.14	Pl. 4:29	Area B	8	Bowl	Brownish

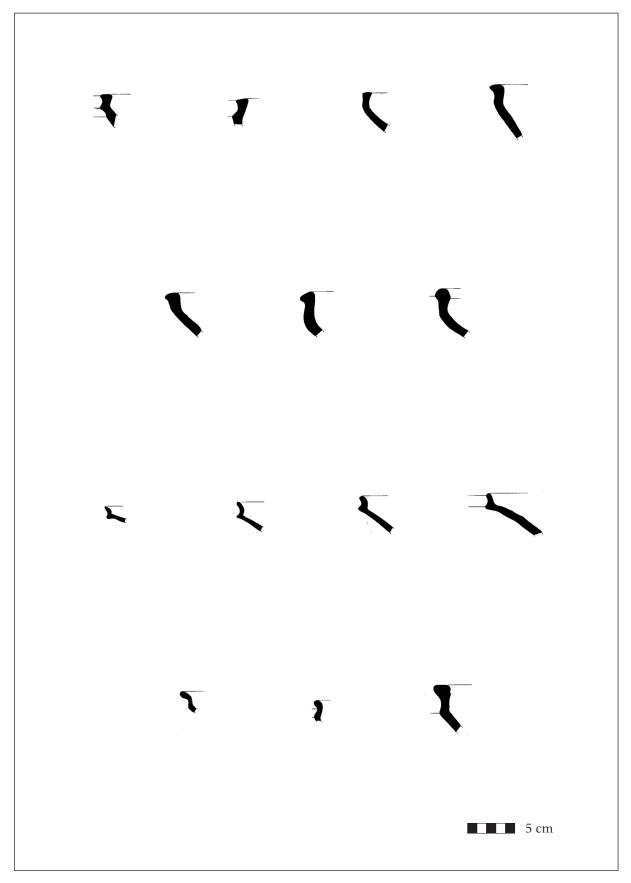


Fig. 8.6 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.7.1	Pl. 4:32	Area B	8	Bowl	Dark brownish
8.7.2	Pl. 4:33	Area B	8	Bowl	Dark brownish
8.7.3	Pl. 4:35	Area B	8	Bowl	Brownish
8.7.4	Pl. 4:36	Area B	8	Bowl	Brownish
8.7.5	Pl. 4:39	Area B	8	Bowl	Dark brownish
8.7.6	Pl. 4:44	Area B	8	Bowl	Brownish
8.7.7	Pl. 4:46	Area B	8	Bowl	Dark brownish
8.7.8	Pl. 4:49	Area B	8	Bowl	Dark brownish
8.7.9	Pl. 5:1	Area B	8	Bowl	Dark brownish
8.7.10	Pl. 5:2	Area B	8	Bowl	Brownish
8.7.11	Pl. 5:4	Area B	8	Bowl	Brownish

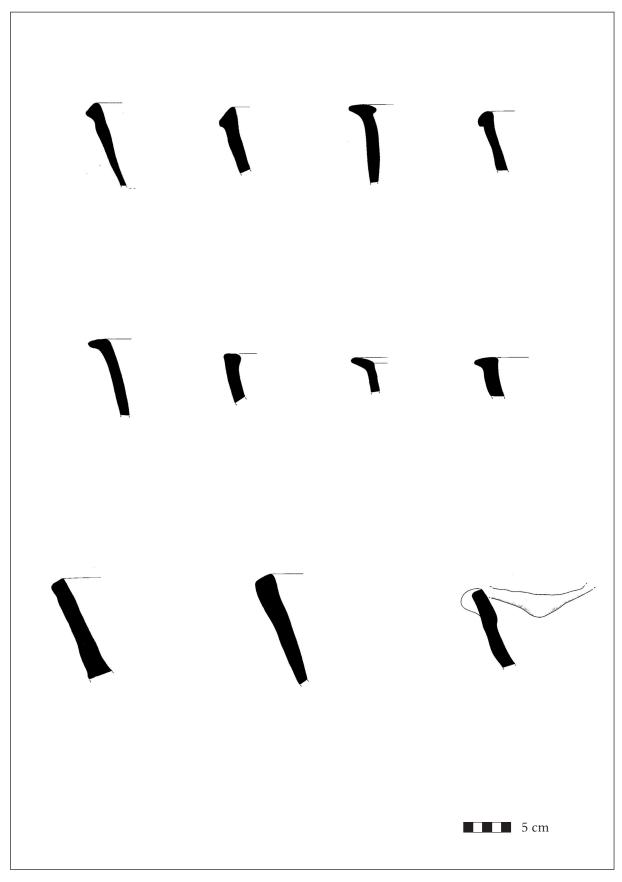


Fig. 8.7 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.8.1	Pl. 5:5	Area B	8	Bowl	Dark brownish
8.8.2	Pl. 5:7	Area B	8	Bowl	Dark brownish
8.8.3	Pl. 5:8	Area B	8	Bowl	Brownish
8.8.4	Pl. 5:9	Area B	8	Bowl	Grayish
8.8.5	Pl. 5:11	Area B	8	Bowl	Greenish
8.8.6	Pl. 5:13	Area B	8	Bowl	Dark brownish
8.8.7	Pl. 5:14	Area B	8	Bowl	Dark brownish
8.8.8	Pl. 5:16	Area B	8	Fruit stand	Dark brownish
8.8.9	Pl. 5:17	Area B	8	Fruit stand	Brownish
8.8.10	Pl. 5:20	Area B	8	Fruit stand	Brownish
8.8.11	Pl. 5:26	Area B	8	Strainer	Brownish

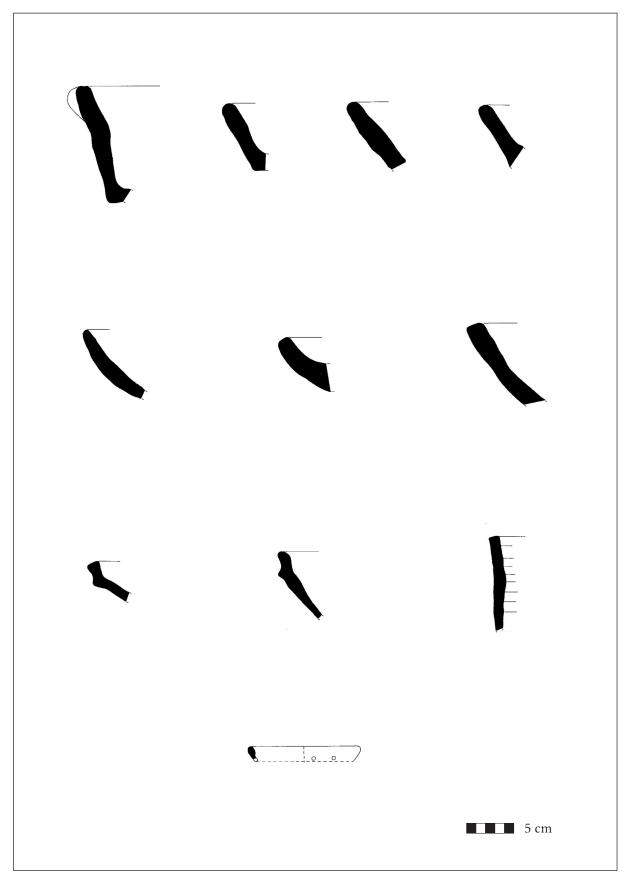


Fig. 8.8 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.9.1	Pl. 6:1	Area B	8	Krater	Yellow greenish
8.9.2	Pl. 6:2	Area B	8	Krater	Dark brownish
8.9.3	Pl. 6:3	Area B	8	Krater	Brownish
8.9.4	Pl. 6:6	Area B	8	Krater	Dark brownish
8.9.5	Pl. 6:7	Area B	8	Krater	Dark brownish
8.9.6	Pl. 6:8	Area B	8	Krater	Brownish
8.9.7	Pl. 6:9	Area B	8	Krater	Dark brownish
8.9.8	Pl. 6:10	Area B	8	Krater	Brownish
8.9.9	Pl. 6:12	Area B	8	Krater	Dark brownish
8.9.10	Pl. 6:13	Area B	8	Krater	Brownish
8.9.11	Pl. 6:17	Area B	8	Krater	Reddish

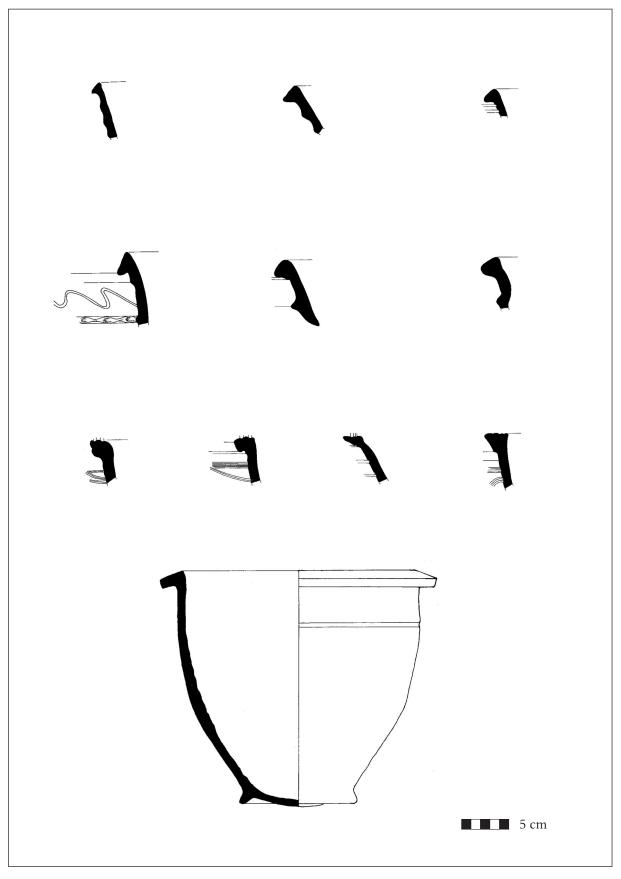


Fig. 8.9 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.10.1	Pl. 6:21	Area B	8	Krater	Brownish
8.10.2	Pl. 6:22	Area B	8	Krater	Brownish
8.10.3	Pl. 6:23	Area B	8	Krater	Dark brownish
8.10.4	Pl. 6:24	Area B	8	Krater	Brownish
8.10.5	Pl. 6:26	Area B	8	Krater	Brownish
8.10.6	Pl. 6:27	Area B	8	Krater	Brownish
8.10.7	Pl. 6:28	Area B	8	Krater	Dark brownish
8.10.8	Pl. 6:36	Area B	8	Krater	Dark brownish
8.10.9	Pl. 6:39	Area B	8	Krater	Dark brownish
8.10.10	Pl. 6:41	Area B	8	Krater	Brownish

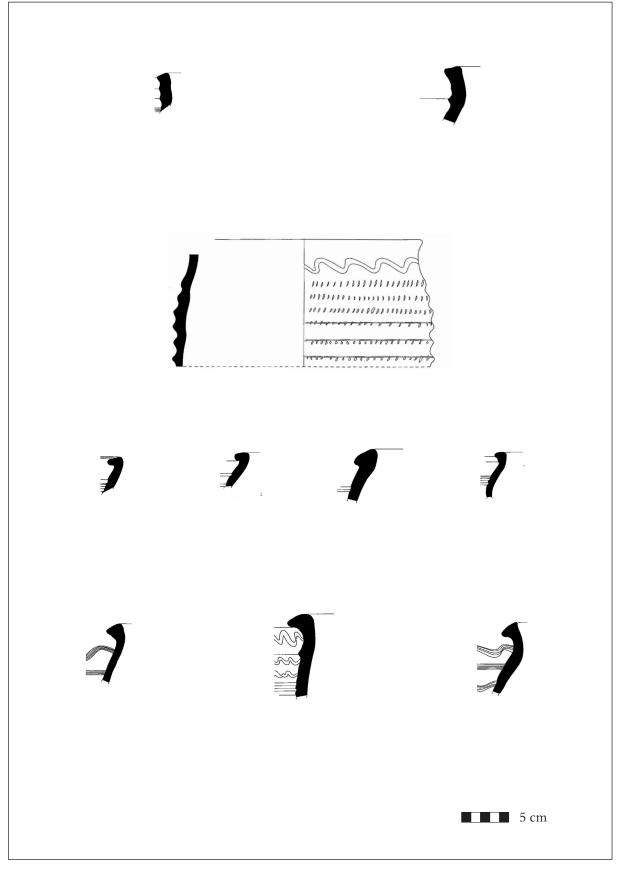


Fig. 8.10 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.11.1	Pl. 7:1	Area B	8	Krater	Brownish
8.11.2	Pl. 7:2	Area B	8	Krater	Brownish
8.11.3	Pl. 7:3	Area B	8	Krater	Brownish
8.11.4	Pl. 7:4	Area B	8	Krater	Brownish
8.11.5	Pl. 7:8	Area B	8	Krater	Brownish
8.11.6	Pl. 7:10	Area B	8	Krater	Dark brownish
8.11.7	Pl. 7:11	Area B	8	Krater	Brownish
8.11.8	Pl. 7:13	Area B	8	Krater	Dark brownish
8.11.9	Pl. 7:14	Area B	8	Krater	Brownish
8.11.10	Pl. 7:18	Area B	8	Krater	Brownish
8.11.11	Pl. 7:21	Area B	8	Krater	Brownish
8.11.12	Pl. 7:22	Area B	8	Krater	Brownish

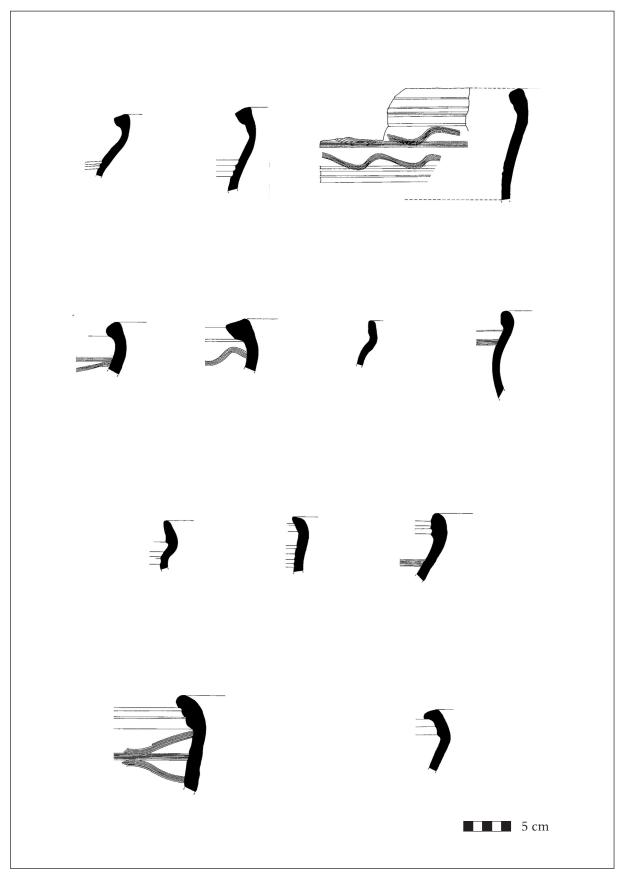


Fig. 8.11 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.12.1	Pl. 7:24	Area B	8	Krater	Brownish
8.12.2	Pl. 7:27	Area B	8	Krater	Brownish
8.12.3	Pl. 7:30	Area B	8	Krater	Brownish
8.12.4	Pl. 7:31	Area B	8	Krater	Brownish
8.12.5	Pl. 8:1	Area B	8	Pythos	Greenish
8.12.6	Pl. 8:3	Area B	8	Pythos	Brownish
8.12.7	Pl. 8:4	Area B	8	Pythos	Brownish
8.12.8	Pl. 8:5	Area B	8	Pythos	Brownish
8.12.9	Pl. 8:6	Area B	8	Pythos	Brownish

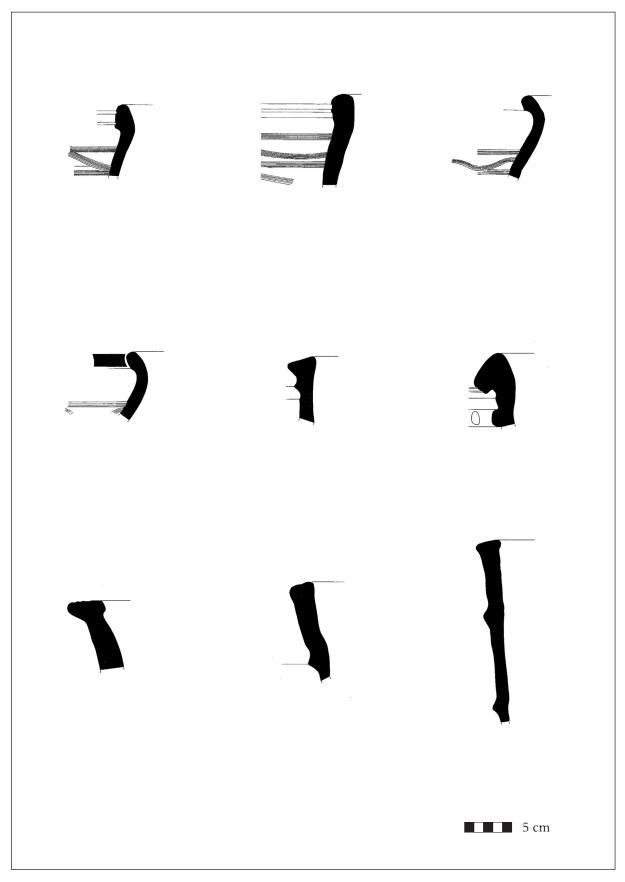


Fig. 8.12 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.13.1	Pl. 8:7	Area B	8	Pythos	Brownish
8.13.2	Pl. 8:8	Area B	8	Pythos	Brownish
8.13.3	Pl. 8:11	Area B	8	Pythos	Yellow greenish
8.13.4	Pl. 8:14	Area B	8	Pythos	Brownish
8.13.5	Pl. 8:15	Area B	8	Pythos	Brownish
8.13.6	Pl. 8:16	Area B	8	Pythos	Brownish
8.13.7	Pl. 8:17	Area B	8	Pythos	Brownish
8.13.8	Pl. 8:18	Area B	8	Pythos	Dark brownish

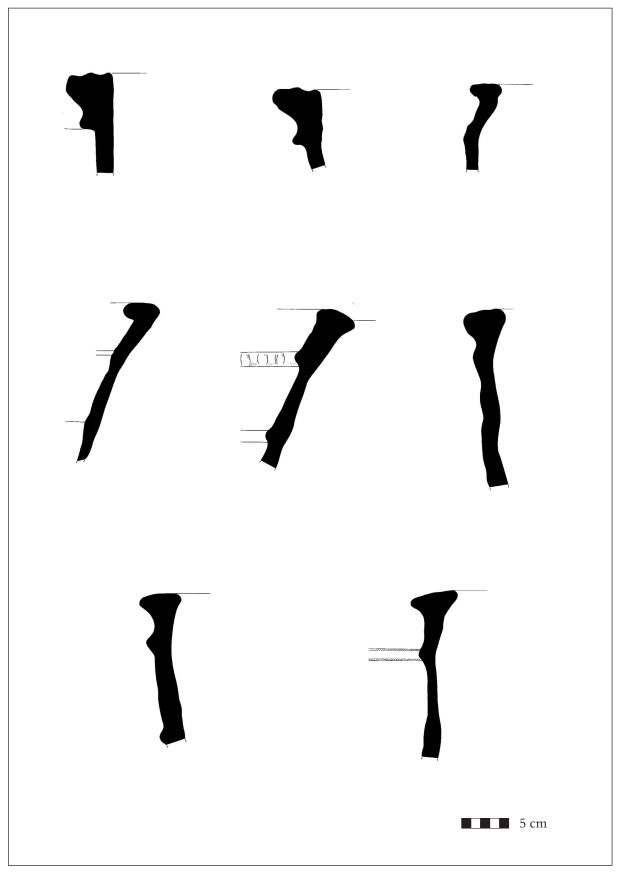


Fig. 8.13 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.14.1	Pl. 9:1	Area B	8	Beaker	Dark brownish
8.14.2	Pl. 9:2	Area B	8	Beaker	Brownish
8.14.3	Pl. 9:3	Area B	8	Beaker	Brownish
8.14.4	Pl. 9:6	Area B	8	Beaker	Brownish
8.14.5	Pl. 9:8	Area B	8	Jar	Reddish
8.14.6	Pl. 9:13	Area B	8	Bowl	Dark brownish
8.14.7	Pl. 9:16	Area B	8	Bowl	Brownish
8.14.8	Pl. 9:21	Area B	8	Jug	Yellow greenish
8.14.9	Pl. 9:22	Area B	8	Jug	Brownish
8.14.10	Pl. 9:23	Area B	8	Jug	Grayish

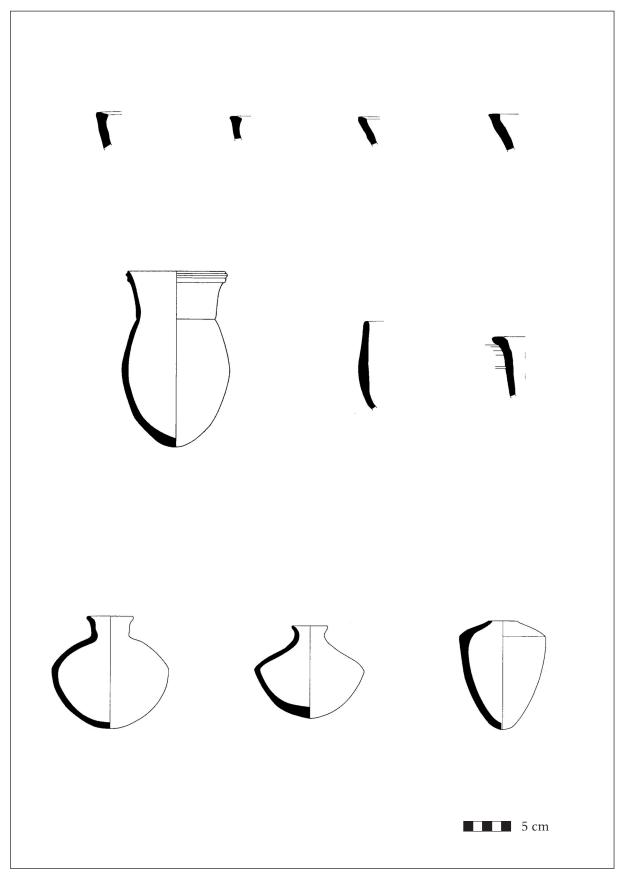


Fig. 8.14 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.15.1	Pl. 10:5	Area B	8	Small jar	Brownish
8.15.2	Pl. 10:8	Area B	8	Small jar	Yellow greenish
8.15.3	Pl. 10:12	Area B	8	Small jar	Dark brownish
8.15.4	Pl. 10:14	Area B	8	Small jar	Brownish
8.15.5	Pl. 10:15	Area B	8	Small jar	Brownish
8.15.6	Pl. 10:18	Area B	8	Small jar	Brownish
8.15.7	Pl. 10:25	Area B	8	Small jar	Brownish pinkish
8.15.8	Pl. 10:26	Area B	8	Small jar	Dark brownish
8.15.9	Pl. 10:30	Area B	8	Small jar	Brownish
8.15.10	Pl. 10:31	Area B	8	Small jar	Brownish pinkish

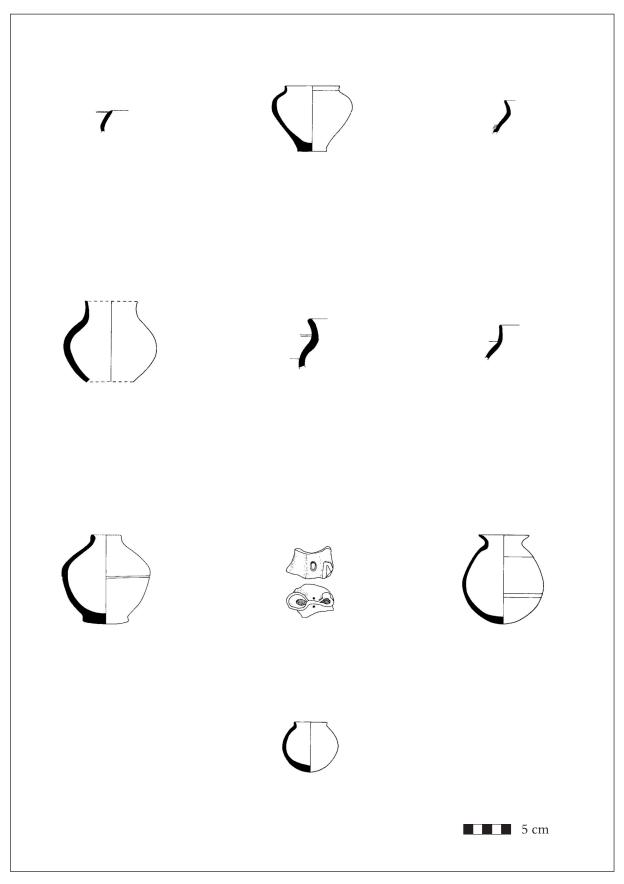


Fig. 8.15 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.16.1	Pl. 11:1	Area B	8	Jar	Brownish
8.16.2	Pl. 11:2	Area B	8	Jar	Brownish
8.16.3	Pl. 11:3	Area B	8	Jar	Brownish
8.16.4	Pl. 11:4	Area B	8	Jar	Dark brownish
8.16.5	Pl. 11:5	Area B	8	Jar	Dark brownish
8.16.6	Pl. 11:9	Area B	8	Jar	Brownish
8.16.7	Pl. 11:11	Area B	8	Jar	Brownish
8.16.8	Pl. 11:14	Area B	8	Jar	Dark brownish
8.16.9	Pl. 11:15	Area B	8	Jar	Dark brownish
8.16.10	Pl. 11:16	Area B	8	Jar	Brownish
8.16.11	Pl. 11:17	Area B	8	Jar	Brownish
8.16.12	Pl. 11:18	Area B	8	Jar	Brownish

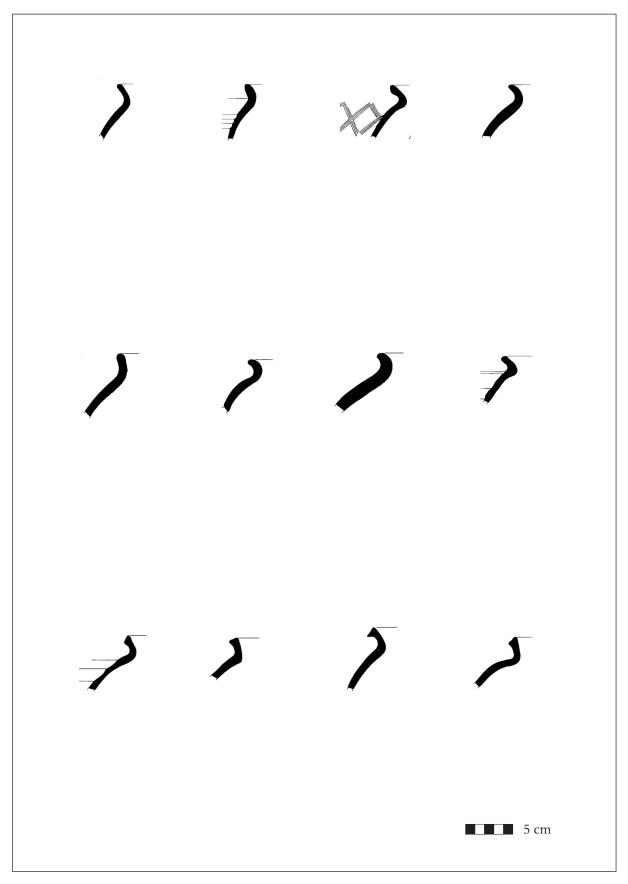


Fig. 8.16 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.17.1	Pl. 11:19	Area B	8	Jar	Brownish
8.17.2	Pl. 11:20	Area B	8	Jar	Brownish
8.17.3	Pl. 11:21	Area B	8	Jar	Brownish
8.17.4	Pl. 11:32	Area B	8	Jar	Brownish
8.17.5	Pl. 11:33	Area B	8	Jar	Brownish
8.17.6	Pl. 11:36	Area B	8	Jar	Dark brownish
8.17.7	Pl. 11:37	Area B	8	Jar	Brownish
8.17.8	Pl. 11:38	Area B	8	Jar	Dark brownish
8.17.9	Pl. 11:40	Area B	8	Jar	Brownish
8.17.10	Pl. 11:42	Area B	8	Jar	Brownish
8.17.11	Pl. 11:43	Area B	8	Jar	Brownish

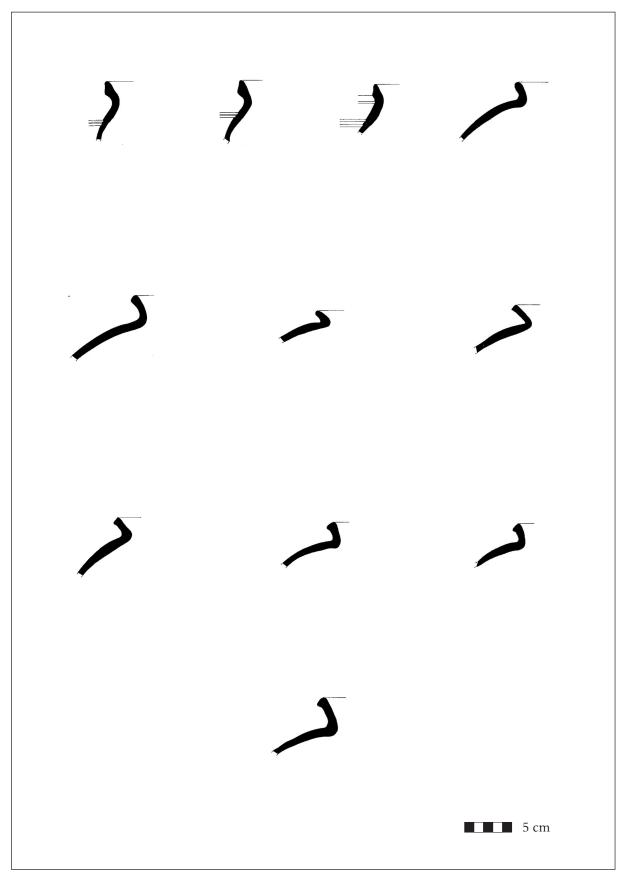


Fig. 8.17 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.18.1	Pl. 12:2	Area B	8	Jar	Dark brownish
8.18.2	Pl. 12:3	Area B	8	Jar	Dark brownish
8.18.3	Pl. 12:4	Area B	8	Jar	Dark brownish
8.18.4	Pl. 12:5	Area B	8	Jar	Brownish
8.18.5	Pl. 12:6	Area B	8	Jar	Brownish
8.18.6	Pl. 12:7	Area B	8	Jar	Brownish
8.18.7	Pl. 12:8	Area B	8	Jar	Brownish
8.18.8	Pl. 12:10	Area B	8	Jar	Brownish
8.18.9	Pl. 12:11	Area B	8	Jar	Dark brownish
8.18.10	Pl. 12:12	Area B	8	Jar	Dark brownish

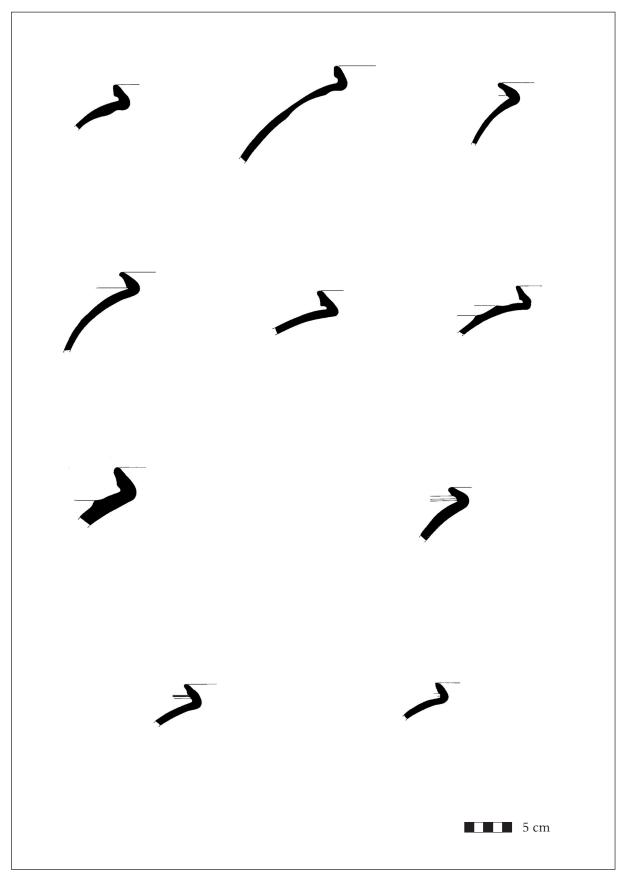


Fig. 8.18 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.19.1	Pl. 12:13	Area B	8	Jar	Dark brownish
8.19.2	Pl. 12:14	Area B	8	Jar	Dark brownish
8.19.3	Pl. 12:15	Area B	8	Jar	Dark brownish
8.19.4	Pl. 12:17	Area B	8	Jar	Brownish
8.19.5	Pl. 12:18	Area B	8	Jar	Brownish
8.19.6	Pl. 13:8	Area B	8	Jar	Dark brownish
8.19.7	Pl. 13:10	Area B	8	Jar	Dark brownish

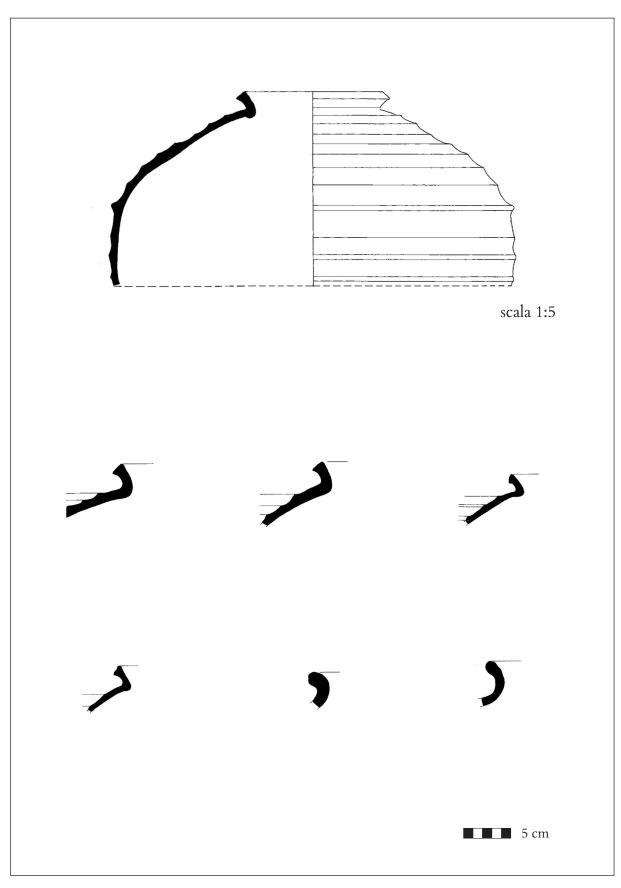


Fig. 8.19 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.20.1	Pl. 13:11	Area B	8	Jar	Brownish
8.20.2	Pl. 13:12	Area B	8	Jar	Brownish pinkish
8.20.3	Pl. 13:13	Area B	8	Jar	Brownish
8.20.4	Pl. 13:14	Area B	8	Jar	Dark brownish
8.20.5	Pl. 14:2	Area B	8	Jar	Brownish
8.20.6	Pl. 14:4	Area B	8	Jar	Brownish
8.20.7	Pl. 14:5	Area B	8	Jar	Dark brownish

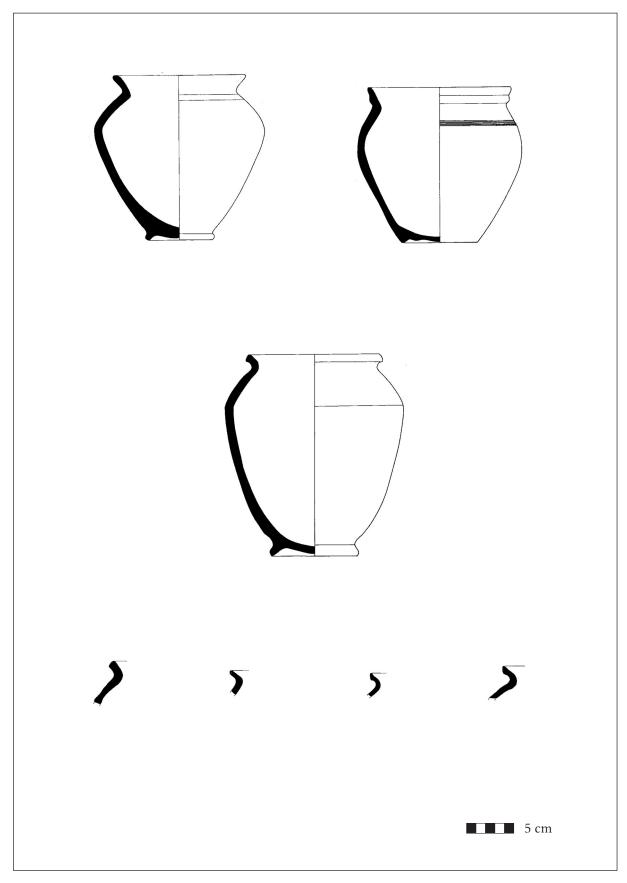


Fig. 8.20 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.21.1	Pl. 15:2	Area B	8	Jar	
8.21.2	Pl. 15:4	Area B	8	Jar	Dark brownish

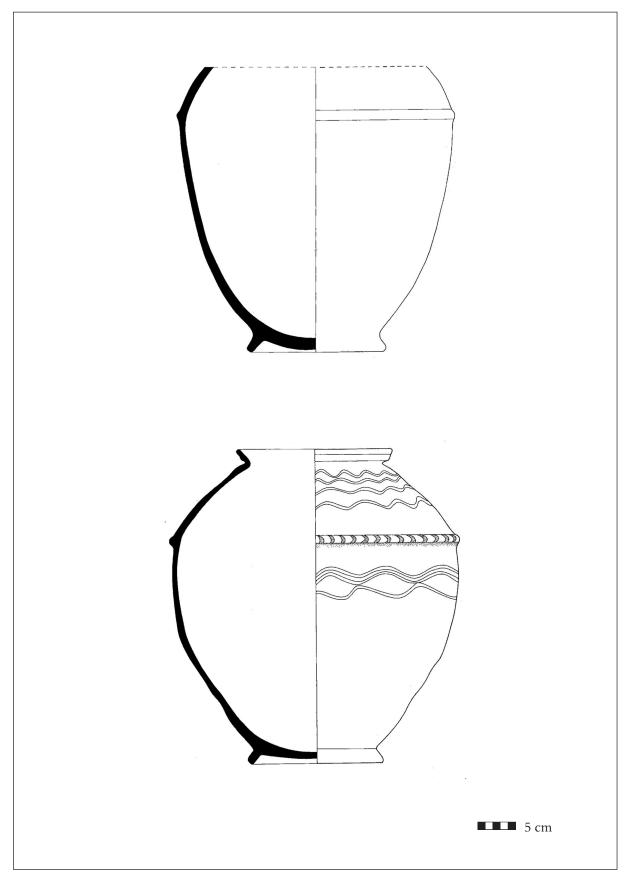


Fig. 8.21 Pottery assemblage from Area B, level 8 (scale 1:5)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.22.1	Pl. 15:5	Area B	8	Jar	Reddish
8.22.2	Pl. 15:6	Area B	8	Jar	Dark brownish
8.22.3	Pl. 15:7	Area B	8	Jar	Brownish
8.22.4	Pl. 15:8	Area B	8	Jar	Brownish
8.22.5	Pl. 15:9	Area B	8	Jar	Dark brownish
8.22.6	Pl. 15:10	Area B	8	Jar	Dark brownish
8.22.7	Pl. 15:11	Area B	8	Jar	Dark brownish
8.22.8	Pl. 15:12	Area B	8	Jar	Dark brownish
8.22.9	Pl. 15:13	Area B	8	Jar	Brownish

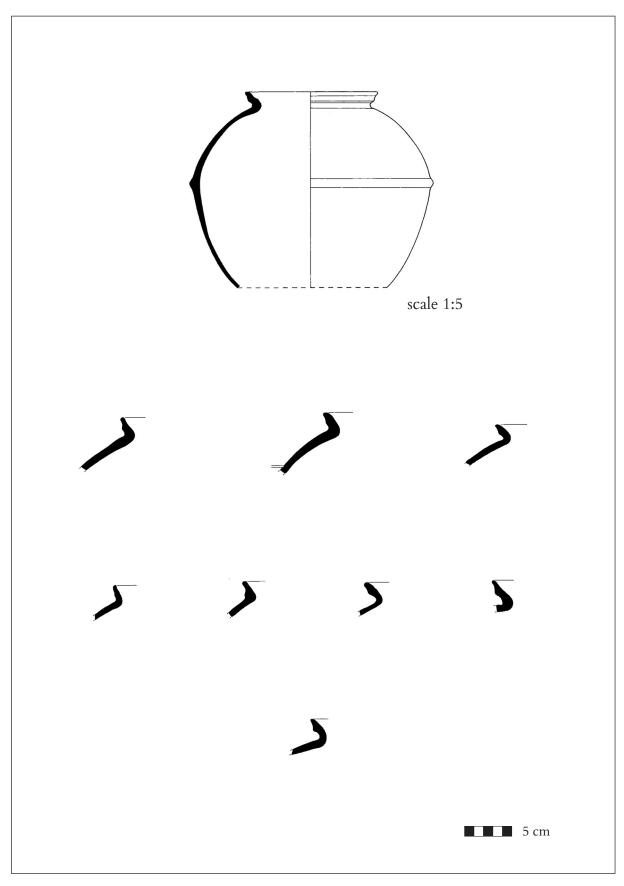


Fig. 8.22 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.23.1	Pl. 16:2	Area B	8	Jar	Brownish
8.23.2	Pl. 16:3	Area B	8	Jar	Brownish
8.23.3	Pl. 16:4	Area B	8	Jar	Dark brownish
8.23.4	Pl. 16:5	Area B	8	Jar	Brownish
8.23.5	Pl. 16:7	Area B	8	Jar	Brownish
8.23.6	Pl. 16:9	Area B	8	Jar	Dark brownish
8.23.7	Pl. 16:14	Area B	8	Jar	Brownish
8.23.8	Pl. 16:16	Area B	8	Jar	Brownish

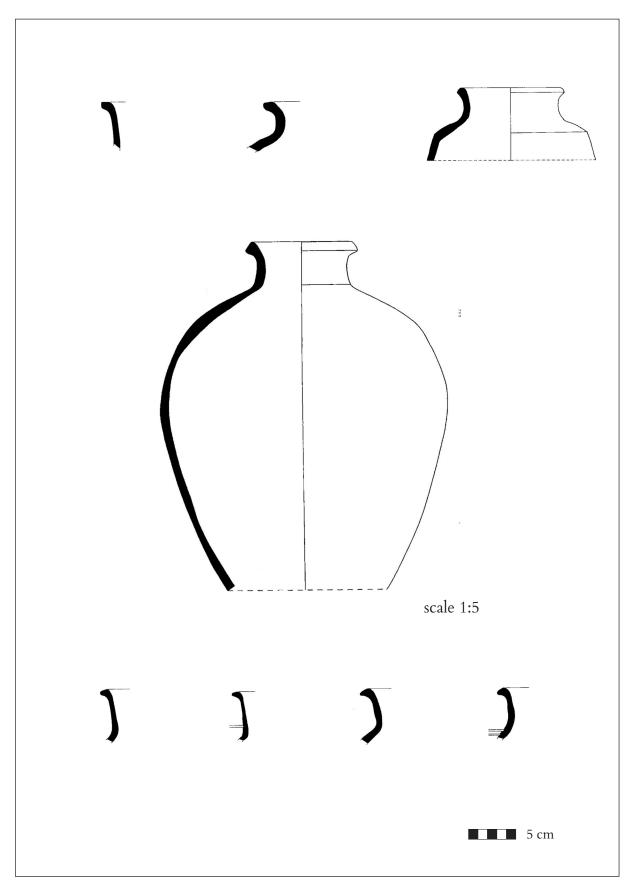


Fig. 8.23 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.24.1	Tav. 16:18	Area B	8	Jar	Brownish
8.24.2	Tav. 16:19	Area B	8	Jar	Brownish
8.24.3	Tav. 16:20	Area B	8	Jar	Brownish
8.24.4	Tav. 16:21	Area B	8	Jar	Brownish
8.24.5	Tav. 16:22	Area B	8	Jar	Brownish
8.24.6	Tav. 16:23	Area B	8	Jar	Brownish
8.24.7	Tav. 16:24	Area B	8	Jar	Dark brownish
8.24.8	Tav. 16:28	Area B	8	Jar	Brownish
8.24.9	Tav. 16:31	Area B	8	Jar	Brownish
8.24.10	Tav. 16:32	Area B	8	Jar	Dark brownish
8.24.11	Tav. 16:33	Area B	8	Jar	Brownish
8.24.12	Tav. 16:34	Area B	8	Jar	Brownish
8.24.13	Tav. 16:35	Area B	8	Jar	Dark brownish
8.24.14	Tav. 16:36	Area B	8	Jar	Brownish

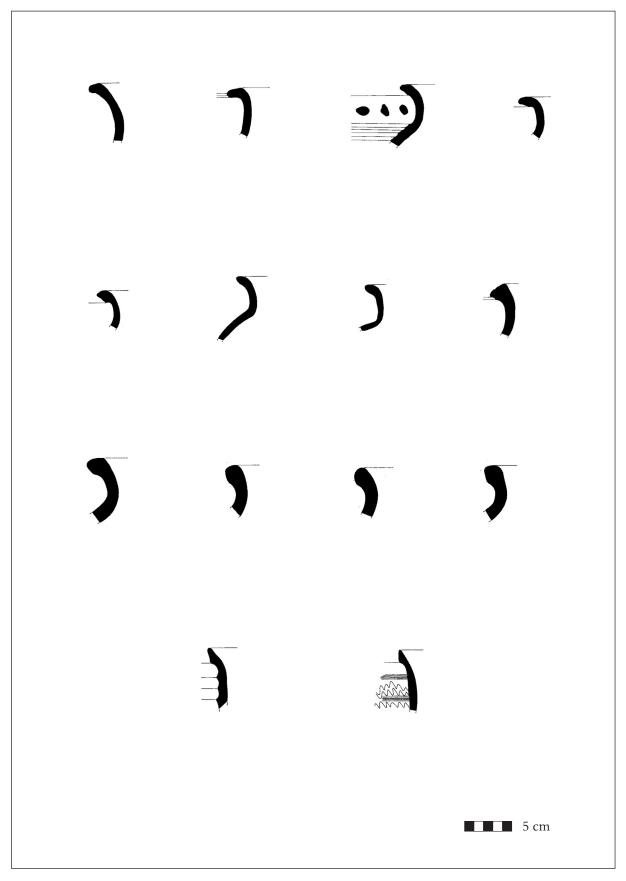


Fig. 8.24 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.25.1	Pl. 17:2	Area B	8	Jar	Brownish
8.25.2	Pl. 17:4	Area B	8	Jar	Brownish
8.25.3	Pl. 17:6	Area B	8	Jar	Brownish
8.25.4	Pl. 17:10	Area B	8	Jar	Brownish
8.25.5	Pl. 17:11	Area B	8	Jar	Brownish
8.25.6	Pl. 18:8	Area B	8	Spouted jar	Dark brownish

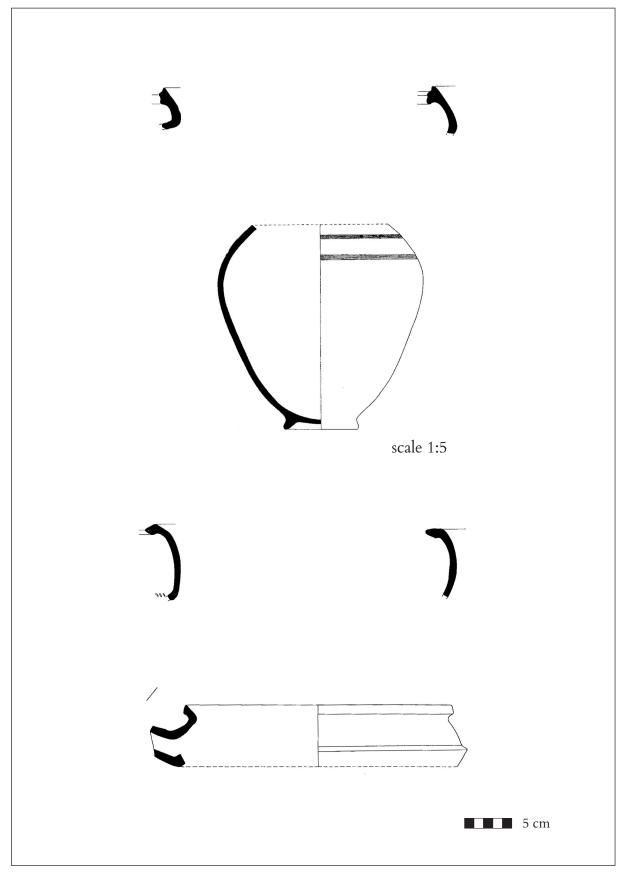


Fig. 8.25 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.26.1	Pl. 19:2	Area B	8	Storage jar	Dark brownish
8.26.2	Pl. 19:4	Area B	8	Storage jar	Brownish
8.26.3	Pl. 19:5	Area B	8	Storage jar	Dark brownish
8.26.4	Pl. 19:6	Area B	8	Storage jar	Brownish
8.26.5	Pl. 19:7	Area B	8	Storage jar	Brownish
8.26.6	Pl. 19:8	Area B	8	Storage jar	Brownish
8.26.7	Pl. 19:9	Area B	8	Storage jar	Dark brownish

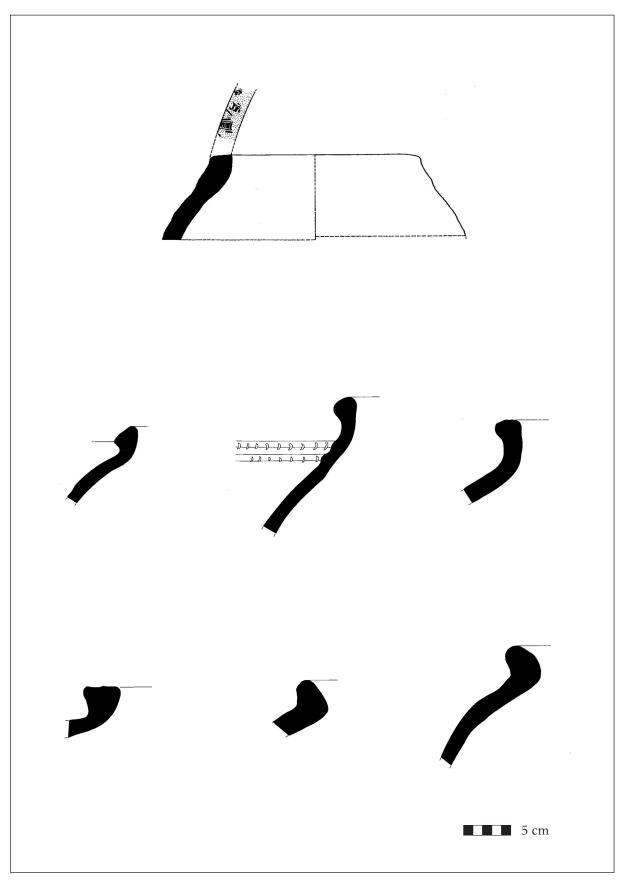


Fig. 8.26 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.27.1	Pl. 19:10	Area B	8	Basin	Brownish
8.27.2	Pl. 20:1	Area B	8	Pot	Dark brownish
8.27.3	Pl. 20:3	Area B	8	Pot	Brownish
8.27.4	Pl. 20:4	Area B	8	Pot	Brownish
8.27.5	Pl. 20:5	Area B	8	Pot	Brownish
8.27.6	Pl. 20:6	Area B	8	Pot	Dark brownish
8.27.7	Pl. 20:7	Area B	8	Pot	Brownish

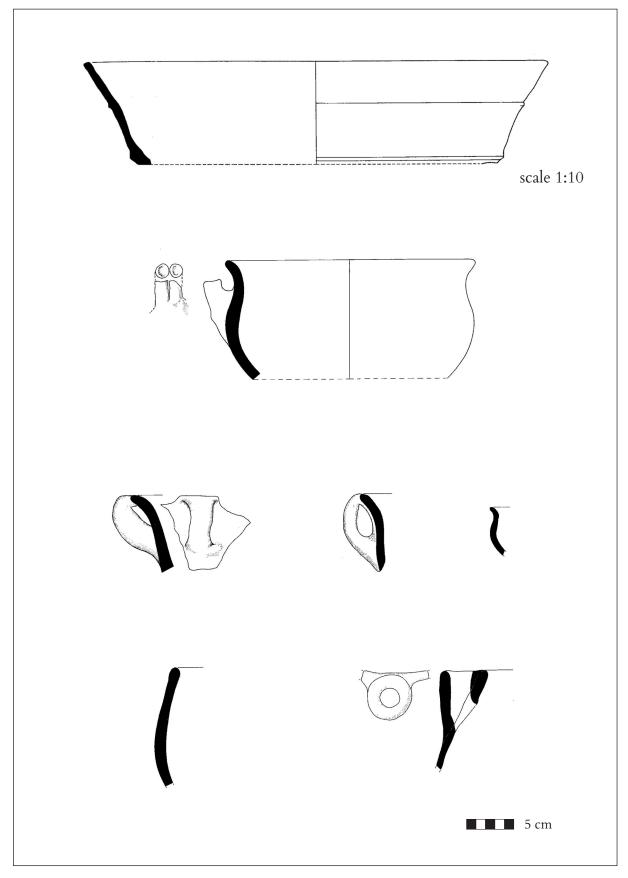


Fig. 8.27 Pottery assemblage from Area B, level 8 (scale 1:4)

Fig.	Identification No.	Provenance	Phase	Shape	Fabric
8.28.1	Pl. 20:9	Area B	8	Pot	Brownish
8.28.2	Pl. 20:11	Area B	8	Pot	Dark brownish
8.28.3	Pl. 20:13	Area B	8	Pot	Brownish
8.28.4	Pl. 20:15	Area B	8	Pot	Dark brownish
8.28.5	Pl. 20:23	Area B	8	Pot	Brownish
8.28.6	Pl. 21:1	Area B	8	Pot	Brownish
8.28.7	Pl. 21:2	Area B	8	Pot	Dark brownish
8.28.8	Pl. 21:4	Area B	8	Pot	Dark brownish
8.28.9	Pl. 21:7	Area B	8	Pot	Reddish
8.28.10	Pl. 21:8	Area B	8	Pot	Dark brownish
8.28.11	Pl. 21:9	Area B	8	Pot	Dark brownish
8.28.12	Pl. 21:12	Area B	8	Pot	Dark brownish
8.28.13	Pl. 21:13	Area B	8	Pot	Reddish

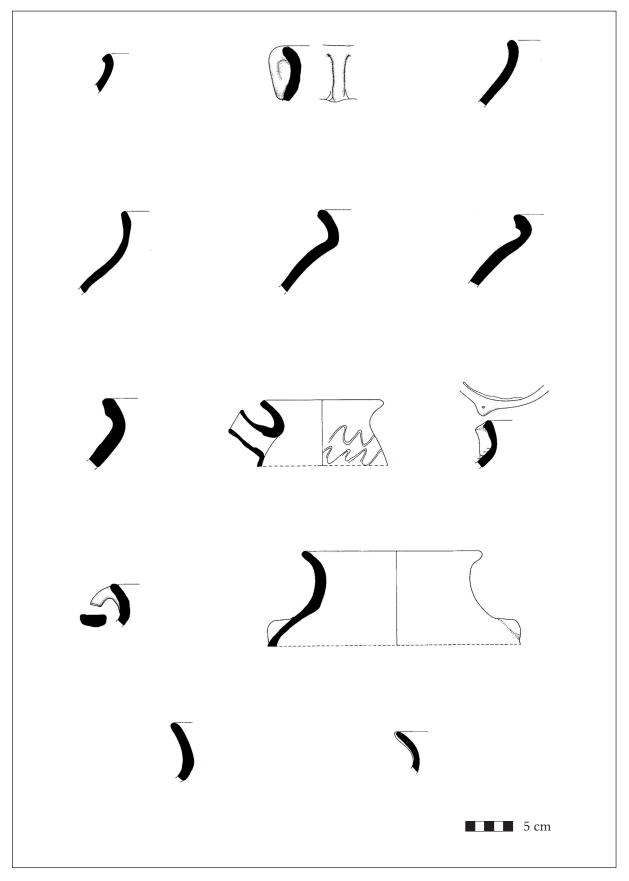


Fig. 8.28 Pottery assemblage from Area B, level 8 (scale 1:4)

Chapter 9 THE QADIS SURVEY PROJECT

9.1 LOCATION AND GENESIS OF THE SURVEY

Between 2016 and 2018, the University of Bologna, in collaboration with the Iraqi State Board of Antiquities and Heritage (SBAH), carried out an integrated survey characterized by a multidisciplinary approach. The QADIS survey project has been led since 2016 by Prof. Nicolò Marchetti (University of Bologna), and its general aim is to investigate the settlement dynamics and the evolution of cultural landscapes in southern Mesopotamia, particularly in the Qadisiyah province, along with monitoring and protecting the archaeological heritage of the region.

The QADIS survey area (Fig. 9.1) covered approximately 1829 sq. kilometers¹³³; to the south and east, it follows the administrative borders of the Qadisiyah region; to the west, it stands north of the FARSUP survey area¹³⁴, and to the north is delimited by the town of Afak.

Starting from the previous surveys¹³⁵ conducted in the area, the QADIS project first georeferenced the Adams maps in UTM 38S Zone with GIS software. During this process, in order to be as accurate as possible, both the georeferenced points on the maps and the most recognizable features of the area (e.g., river junctions) have been used – and then combined this data with different spatial datasets, such as declassified Corona, Landsat and many satellite imagery provided by the Bing Maps Tyle System, in order to obtain the most updated and precise data. After that, all the sites were posi-

¹³³ During the first three seasons the area was about 2457 sq. kilometres and included the region of Fara/ Shuruppak (cf. Marchetti *et al.* 2017); afterwards, however, the area between Fara and Išan Bahriyat (measuring about 628 sq. kilometres) became the hub of a new survey project (FARSUP) led by the University of Munich (Otto *et al.* 2018).

¹³⁴ Otto *et al.* 2018.

¹³⁵ Adams and Nissen 1972; Adams 1981; Al-Shukri 1974.

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tioned on the newly georeferenced maps by Adams, then, using photo-interpretation of satellite imagery, any shifts in site location (1 km at the maximum) were corrected. Finally, through the integration of 1:50,000 and 1:100,000 topographic maps and ESRI© satellite imagery provided by the local SBAH, a digital base map was created, essential for identifying archeological and anthropic anomalies. In fact, with the support of this tool, we identified 208 anomalies¹³⁶; an extensive and intensive surface survey followed this step to verify on the ground the data obtained by remote sensing. Combining these two methods, as underlined by Marchetti¹³⁷, 146 settled mounds corresponding to 120 single or multi-period archeological sites were identified. Also, a survey-resurvey strategy was applied at 57 sites previously documented by Adams¹³⁸.

All the sites surveyed by the QADIS project have been labeled with the prefix "QD" followed by a progressive number (001, 002, 003, etc.).

One of the project's focal points is the study of the region's material culture, mainly focusing on the pottery, which is used both as a chronological indicator and as means of detecting the limits of each site relying on its presence/absence on the surface.

Most sites were documented through a non-intensive collection of diagnostic pottery sherds (rims, bases, decorated sherds) and material; afterward, the collected materials were washed and analyzed at the expedition house. Then the materials, in particular the pottery sherds, are selected and chronologically determined (the project relied on published materials from the sites excavated around the survey area, such as Jemdet Nasr, Abu Salabikh, Tell al-Wilayah, Umm al-Jir, Nippur, Isin, Larsa, Tell ed-Der, Babylon and the Diyala region¹³⁰), in order to define the dating of each surveyed site. The following steps are the technical drawing of the pottery fragments and the morphological (shape, preservation, measurements) and technical (fabric color, inclusions, surface treatment, decoration, firing) analysis of the sherds: all these data have been compiled in a standardized database, a schematic representation of which is proposed below (Table 9.1).

139 Marchetti *et al.* 2019: 220.

¹³⁶ Marchetti *et al.* 2019: 218.

¹³⁷ Marchetti *et al.* 2019: 218.

¹³⁸ Adams 1981, Adams and Nissen 1972.

	QADIS site number
Sherd identification	Year
Sherd identification	Bucket
	Identification number
	Shape
Morphological data	Preservation
	Measurements
	Fabric color
	Inclusions
Technological data	Surface treatments
	Decorations
	Firing

Table 9.1 Schematic representation of the QADIS survey project pottery database

Although the great majority of sites were documented through a non-intensive collection of materials, we carried out an intensive surface survey at eight medium-sized and large sites, which showed extensive superficial structural evidence. In order to characterize these features, it was crucial the use of aerial documentation. Therefore, during the six campaigns of the QADIS project, a team of topographers mapped these sites with DJI Phantom 3 and 4 Pro UAVs (Unmanned Aerial Vehicles) with the aim of better understanding the layout of these sites. In particular, drone imagery at QD049 – Bismaya/Adab revealed the presence of a large building, probably a public complex, to the north and houses to the northwest. Thus, we conducted an intensive surface collection at the site, followed by some superficial test soundings. The aim of the intensive surface collection and the soundings was not just to identify the structural evidence detected through UAV imagery on the ground but to provide more accurate chronological data for them.

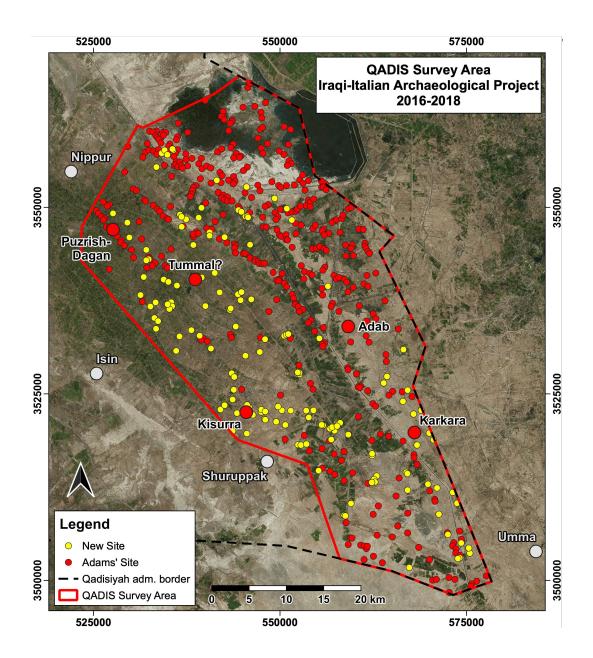


Fig. 9.1 Map of the area surveyed by the QADIS project, 2016-2018.

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9.2 POTTERY ASSEMBLAGES AND MATERIAL CULTURE FROM EB IV SITES

QD009

QD009 is a very small site (199.61x151.45 m, approximately 2.29 ha) of pseudo-circular shape and almost totally flat. Due to its proximity to the Delmej basin – an artificial water reservoire – the site is partially flooded duting the winter season; however, it has not been cut by modern water channels or disturbed by agricultural activities.

Identification code	QD009
Visit date	October 2016
District	Afak
Ancient name of the site	-
Modern name of the site	Tell Gharnug
Adams identification code	-
Coordinates (WGS84 UTM)	545515.00 m E 3552729.00 m N

Pottery

The pottery assemblage collected from QD009 is composed exclusively of Simple Ware.

Surface treatments are present on 4% of the selected sherds, and encompass exclusively White Slip. Decorations are present on 24% of the sherds recorded and are mainly applied (60%), with a limited occurrence of incised (20%) and impressed (20%) motifs.

About 71% of the pottery shapes are characterized by a fine homogenous fabric with a medium frequency (3-10%) of small (<0.5 mm) and medium (0.5-1 mm) inclusions. Fabric colors include brownish (10YR 5/4), light brown (7.5YR 6/4; 10YR 6/3-4; 2.5Y 5/3), and grayish (10YR 5/2; 5Y 5/2, 4/2).

Simple Ware encompasses a wide range of open and closed shapes, with a prevalence of the latter. The open shapes include conical plates with plain rims, conical bowls with plain rims, large-size bowls with triangular rim, and large-size bowls with applied decorations on the sides. Simple Ware closed shapes comprise mostly jar with

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a triangular rim, jars with plain rims, band-rim jars with a short neck, and small jars with a plain rim.

Small finds

Ten fragments of clay sickle were found at QD009, among which two were nearly fully preserved. Also, a baked clay axe head and a bronze ring were found at the site.

Catalogue of the small finds from QD009:

QD.16.O.156, Ring (Fig. 9.4.1) Material: Bronze Dimensions: th. 0.3 Bucket: QD.16.P.701 Preservation: fragmentary

QD.16.O.259, Sickle (Fig. 9.4.3) Material: Bronze Dimensions: l. 10.3, w. 4.6, th. 1.3 Bucket: QD.16.P.701 Preservation: fragmentary

QD.16.O.261, Sickle (Fig. 9.4.5) Material: Bronze Dimensions: l. 10.3, w. 5.1, th. 0.9 Bucket: QD.16.P.701 Preservation: fragmentary

QD.16.O.263, Sickle (Fig. 9.4.7) Material: Bronze Dimensions: l. 8.6, w. 4.1, th. 1.2 Bucket: QD.16.P.701 Preservation: fragmentary

QD.16.O.265, Sickle (Fig. 9.4.9) Material: Bronze Dimensions: l. 9.9, w. 3.9, th. 1.6 Bucket: QD.16.P.701 Preservation: fragmentary

QD.16.O.267, Sickle (Fig. 9.4.11) Material: Bronze Dimensions: l. 11.4, w. 4.1, th. 1.6 Bucket: QD.16.P.701 Preservation: fragmentary QD.16.O.175, Axe head (Fig. 9.4.2) Material: Clay Dimensions: h. 4.5, l. 12.5, w. 8.2, th. 1.7 Bucket: QD.16.P.701 Preservation: fragmentary

QD.16.O.260, Sickle (Fig. 9.4.4) Material: Clay Dimensions: l. 9.4, w. 4, th. 0.8 Bucket: QD.16.P.701 Preservation: fragmentary

QD.16.O.262, Sickle (Fig. 9.4.6) Material: Clay Dimensions: l. 13.4, w. 4.7, th. 1.5 Bucket: QD.16.P.701 Preservation: fragmentary

QD.16.O.264, Sickle (Fig. 9.4.8) Material: Clay Dimensions: l. 9.5, w. 4.8, th. 1.2 Bucket: QD.16.P.701 Preservation: fragmentary

QD.16.O.266, Sickle (Fig. 9.4.10) Material: Clay Dimensions: l. 13, w. 5.6, th.1.5 Bucket: QD.16.P.701 Preservation: fragmentary

QD.16.O.268, Sickle (Fig. 9.4.12) Material: Clay Dimensions: l. 8.1, w. 3.8, th. 1.2 Bucket: QD.16.P.701 Preservation: fragmentary

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Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.2.1	QD.16.P.701/1	Non-intensive survey	Simple Ware	Bowl	10YR 6/3
9.2.2	QD.16.P.701/2	Non-intensive survey	Simple Ware	Plate	7.5YR 6/4
9.2.3	QD.16.P.701/3	Non-intensive survey	Simple Ware	Bowl	10 Y R 6/4
9.2.4	QD.16.P.701/4	Non-intensive survey	Simple Ware	Jar	10 Y R 6/4
9.2.5	QD.16.P.701/5	Non-intensive survey	Simple Ware	Jar	2.5Y 5/3
9.2.6	QD.16.P.701/6	Non-intensive survey	Simple Ware	Jar	7.5YR 5/4
9.2.7	QD.16.P.701/7	Non-intensive survey	Simple Ware	Small Jar	5Y 4/2
9.2.8	QD.16.P.701/8	Non-intensive survey	Simple Ware	Spouted Jar	2.5Y 5/3
9.2.9	QD.16.P.701/9	Non-intensive survey	Simple Ware	Bowl	2.5Y 5/3
9.2.10	QD.16.P.701/10	Non-intensive survey	Simple Ware	Bowl	10YR 5/4

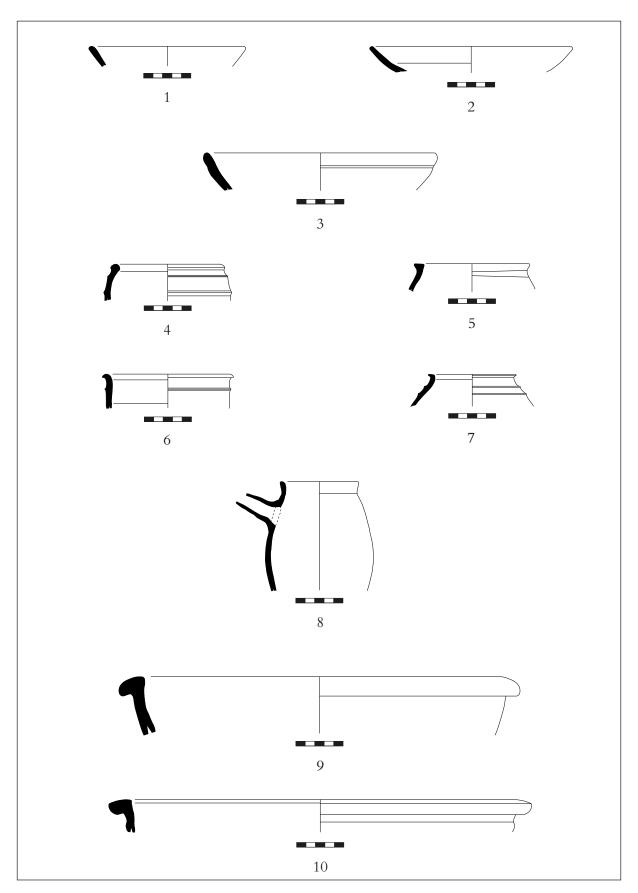


Fig. 9.2 Pottery assemblage from QD009

Fig.	Excavation No.	Provenance	Pottery Class	Shape	Fabric
9.3.1	QD.16.P.701/11	Non-intensive survey	Simple Ware	Bowl	10 Y R 6/4
9.3.2	QD.16.P.701/12	Non-intensive survey	Simple Ware	Bowl	2.5Y 5/1
9.3.4	QD.16.P.701/13	Non-intensive survey	Simple Ware	Bowl	2.5Y 5/3
9.3.5	QD.16.P.701/14	Non-intensive survey	Simple Ware	Pithos	10YR 5/2
9.3.6	QD.16.P.701/15	Non-intensive survey	Simple Ware	Small Jar	2.5Y 4/2
9.3.7	QD.16.P.701/16	Non-intensive survey	Simple Ware	Small Jar	10YR 5/2
9.3.8	QD.16.P.701/17	Non-intensive survey	Simple Ware	Small Jar	5Y 5/2
9.3.9	QD.16.P.701/18	Non-intensive survey	Simple Ware	Small Jar	2.5Y 5/3
9.3.10	QD.16.P.701/19	Non-intensive survey	Simple Ware	Jar	2.5Y 6/4
9.3.11	QD.16.P.701/20	Non-intensive survey	Simple Ware	Jar	2.5Y 5/3
9.3.12	QD.16.P.701/21	Non-intensive survey	Simple Ware	Jar	2.5Y 5/3

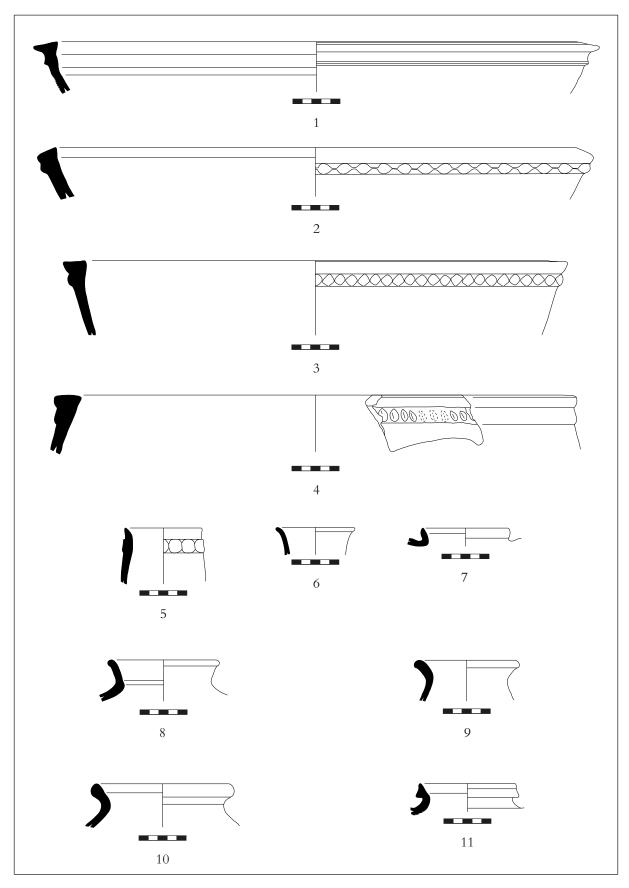


Fig. 9.3 Pottery assemblage from QD009

Fig.	Excavation No.	Provenance	Class of object	Type of object
9.4.1	QD.16.O.156	Non-intensive survey	Ornament	Ring
9.4.2	QD.16.O.175	Non-intensive survey	Tool	Axe head
9.4.3	QD.16.O.259	Non-intensive survey	Tool	Sickle
9.4.4	QD.16.O.260	Non-intensive survey	Tool	Sickle
9.4.5	QD.16.O.261	Non-intensive survey	Tool	Sickle
9.4.6	QD.16.O.262	Non-intensive survey	Tool	Sickle
9.4.7	QD.16.O.263	Non-intensive survey	Tool	Sickle
9.4.8	QD.16.O.264	Non-intensive survey	Tool	Sickle
9.4.9	QD.16.O.265	Non-intensive survey	Tool	Sickle
9.4.10	QD.16.O.266	Non-intensive survey	Tool	Sickle
9.4.11	QD.16.O.267	Non-intensive survey	Tool	Sickle
9.4.12	QD.16.O.268	Non-intensive survey	Tool	Sickle

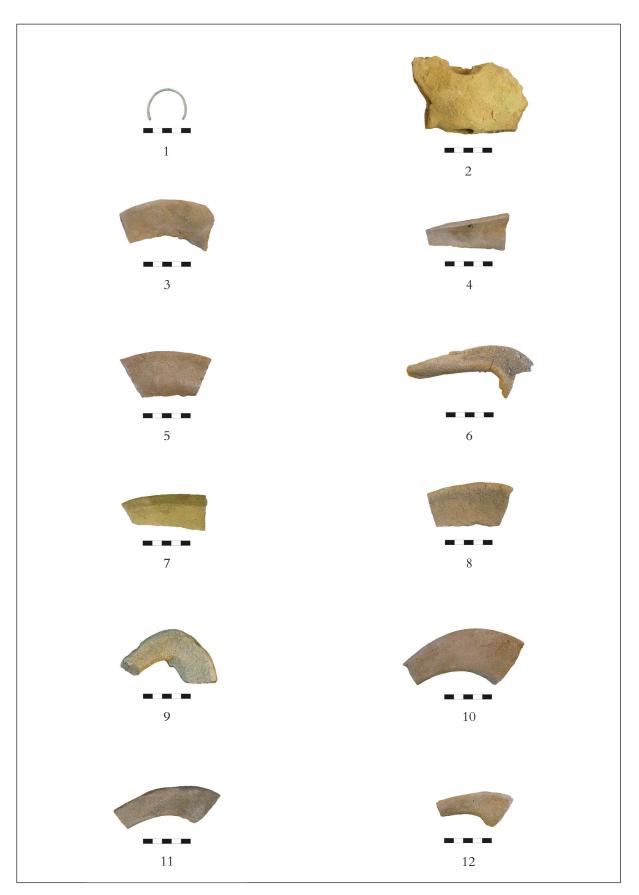


Fig. 9.4 Small finds from QD009

QD013

Site of irregular shape (almost an L upside down). The site is delimited to the north and west by modern canals and fields, and to the east by dried-up wadi and desert. A uniform layer of sand and dusty soil covered the entire surface of the site. No agricultural activities and modern buildings and streets are attested inside the site. North of the site, there is an acropolis of 100 ha. There are many looting pits, mainly in the acropolis' area. The southern and eastern areas are partially covered by sand dunes. There is also, in the extreme northwest corner of the site, a modern sanctuary built on top of a mound.

Identification code	QD013
Visit date	October 2016; January/October 2017; January 2018
District	Afak
Ancient name of the site	Karkara
Modern name of the site	Tell Jidr
Adams identification code	0004
Coordinates (WGS84 UTM)	568020.14 m E 3519815.13 m N

Pottery

The EB IV pottery assemblage from QD013 comprises two sherds of Simple Ware. No surface treatment is attested. One of the sherds presents a grooved decoration. These two pottery shapes are characterized by a fine homogenous fabric with a low frequency (<3%) of small (<0.5 mm) inclusions. The fabric color attested is pale brown (2.5Y 8/2-3). The collected shapes are a jar with a plain rim and a krater with grooved sides and rectangular rim.

Fig.	Excavation No.	Provenance	Pottery Class	Shape	Fabric
9.5.1	JD.16.P.373/2	Intensive survey	Simple Ware	Jar	2.5Y 8/3
9.5.2	JD.16.P.445/3	Intensive survey	Simple Ware	Jar	2.5Y 8/2

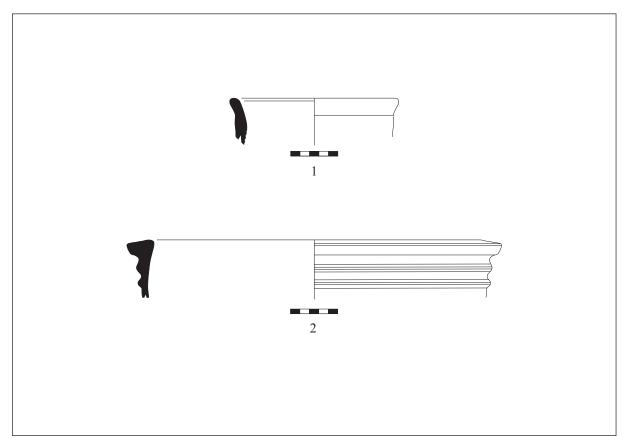


Fig. 9.5 Pottery assemblage from QD013

QD016

Site of oval shape, with one main mound (105x154 m) in the center. Few bushes and a uniform layer of clay and sand cover the site surface. No agricultural activities are attested, while probably a small part of the southeasternmost limit has been cut away by modern houses. There are no traces of looting.

Identification code	QD016
Visit date	October 2016
District	Afak
Ancient name of the site	-
Modern name of the site	-
Adams identification code	1002
Coordinates (WGS84 UTM)	527536.00 m E 3546528.00 m N

Pottery

The EB IV pottery repertoire from QD016 consisted exclusively of three fragments of Simple Ware. Two sherds are characterized by a fine homogenous fabric with a low frequency (<3%) of small (<0.5 mm) inclusions, while the third one has a high frequency (10-20%) of small (<0.5 mm) inclusions. One sherd presents a grooved decoration and comb-incised wavy lines. Fabric colors range from pale yellow (5Y 7/4) to pale olive (5Y 6/4). As for the ceramic shapes, a krater with a rectangular rim, grooved sides, and comb-incised decoration, a band-rim jar, and a jar with a grooved rim are attested.

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.6.1	QD.16.P.139/5	Non-intensive survey	Simple Ware	Jar	5Y 7/4
9.6.2	QD.16.P.139/6	Non-intensive survey	Simple Ware	Jar	5Y 6/4
9.6.3	QD.16.P.139/7	Non-intensive survey	Simple Ware	Jar	5Y 6/4

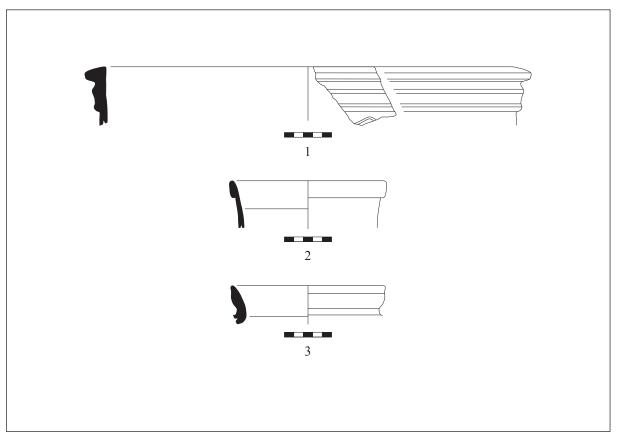


Fig. 9.6 Pottery assemblage from QD016

QD019

Site of rectangular shape, slightly hilly. A thin crust of clay characterizes the soil. Fields are located all around and have partially damaged the site. No looting pits have been observed, while a modern channel cuts the extreme end of the site to the southeast.

Identification code	QD019
Visit date	October 2016
District	Afak
Ancient name of the site	-
Modern name of the site	-
Adams identification code	1054
Coordinates (WGS84 UTM)	533733.00 m E 3557728.00 m N

Pottery

From the EB IV pottery repertoire collected at QD019, the most represented ware type is Simple Ware (92% of the total collection), followed by Storage Ware (7%) and Cooking Ware (1%).

Surface treatments are present on 8% of the sherds collected and include exclusively White Slip. Decorations are present on 32% of the sherds collected and are mostly grooved (70%), with a limited occurrence of applied (21%) and incised (7%) motifs.

About 58% of the Simple Ware has a low frequency (< 3%) of small (<0.5 mm) and medium (0.5-1 mm) inclusions, while 42% has a medium frequency (3-10%) of small (<0.5 mm) and medium (0.5-1 mm) inclusions, while Storage Ware has a coarser fabric, with a high frequency (10-20%) of medium-size (0.5-1 mm) inclusions. Cooking Ware is poorly attested, and its fabric has a high frequency (10-20%) of medium-size (0.5-1 mm) inclusions. Among fabric colors brownish (7.5YR 4/3, 5/2-4; 10YR 5/3-4), light brownish (7.5YR 6/3-4; 10YR 7/4, 6/3-4; 2.5Y 7/3-4), yellowish-brown (2.5Y 6/3), olive (5Y 6/3, 5/3), and greenish (10Y 4/2; 5GY 5/1) are the most frequently attested.

Simple Ware comprises a broad repertoire of open and closed shapes, with a prevalence of the latter.

The open shapes include carinated bowls, kraters with a plain rim and comb-incised decoration, kraters with a rectangular rim and comb-incised decoration, and kraters with a multiple-ridged rim and comb-incised decorations.

Closed shapes encompass jars with a plain rim, band-rim jars, jars with a rectangular rim, jars with a triangular rim, jars with an oval rim, jars with an everted triangular rim, and jars with a multiple-ridged rim.

Storage Ware mainly consists of closed shapes, that include pithoi with a plain rim (oval or triangular) and pithoi with a grooved rim.

Cooking Ware is poorly attested, and only a specimen of a rectangular cooking tray, with a complete profile, has been collected.

Small Finds

Three fragments of clay sickle were retrieved at QD019, of which one is nearly complete.

Catalogue of the small finds from QD019:

QD.16.O.156, Sickle (Fig. 9.4.1) Material: Clay Dimensions: l. 18, w. 4, th. 1.6 Bucket: QD.16.P.325 Preservation: nearly complete

QD.16.O.156, Sickle (Fig. 9.4.1) Material: Clay Dimensions: l. 5.7, w. 2.3, th. 1.8 Bucket: QD.16.P.331 Preservation: fragmentary QD.16.O.175, Sickle (Fig. 9.4.2) Material: Clay Dimensions: l. 7.2, w. 5.5, th. 1.4 Bucket: QD.16.P.329 Preservation: fragmentary

Fig.	Excavation No.	Provenance	Pottery Class	Shape	Fabric
9.7.1	QD.16.P.325/1	Non-intensive survey	Simple Ware	Bowl	5YR 5/4
9.7.2	QD.16.P.325/2	Non-intensive survey	Simple Ware	Bowl	5Y 4/1, I/O 5Y 6/4
9.7.3	QD.16.P.325/3	Non-intensive survey	Simple Ware	Krater	5Y 6/3
9.7.4	QD.16.P.325/4	Non-intensive survey	Simple Ware	Krater	7.5YR 5/4
9.7.5	QD.16.P.325/5	Non-intensive survey	Simple Ware	Jar	7.5YR 6/4
9.7.6	QD.16.P.325/6	Non-intensive survey	Simple Ware	Jar	5Y 5/3
9.7.7	QD.16.P.325/7	Non-intensive survey	Simple Ware	Jar	10YR 6/3
9.7.8	QD.16.P.325/8	Non-intensive survey	Simple Ware	Jar	2.5Y 6/3
9.7.9	QD.16.P.325/9	Non-intensive survey	Storage Ware	Jar	2.5Y 6/2

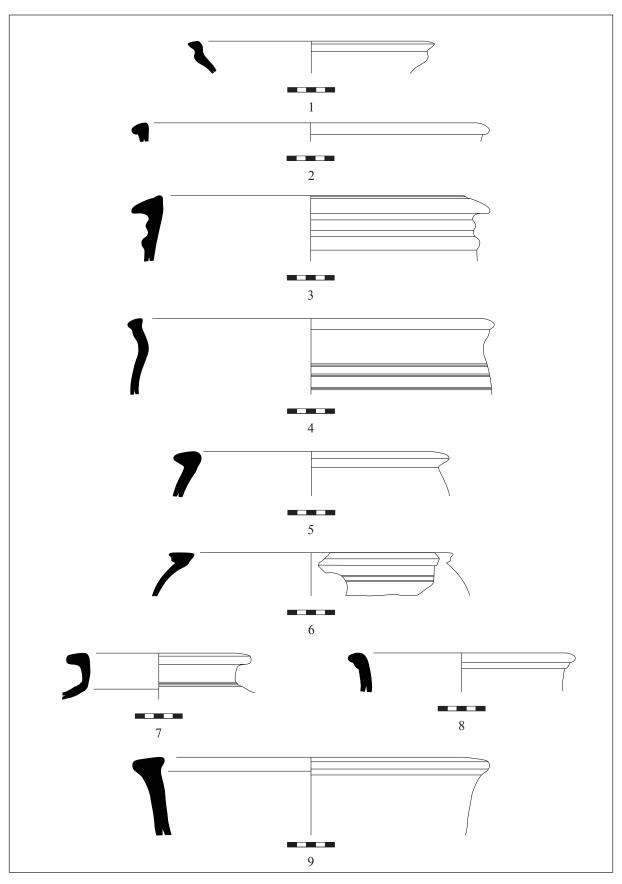


Fig. 9.7 Pottery assemblage from QD019

Fig.	Excavation No.	Provenance	Pottery Class	Shape	Fabric
9.8.1	QD.16.P.325/10	Non-intensive survey	Cooking Ware	Tray	2.5Y 6/3
9.8.2	QD.16.P.326/1	Non-intensive survey	Simple Ware	Bowl	10 Y R 5/3
9.8.3	QD.16.P.326/2	Non-intensive survey	Simple Ware	Bowl	2.5Y 6/3
9.8.4	QD.16.P.326/3	Non-intensive survey	Simple Ware	Bowl	2.5Y 6/3
9.8.5	QD.16.P.326/4	Non-intensive survey	Simple Ware	Krater	7.5YR 4/3
9.8.6	QD.16.P.326/5	Non-intensive survey	Simple Ware	Krater	10YR 4/2
9.8.7	QD.16.P.326/6	Non-intensive survey	Simple Ware	Jar	2.5Y 6/3
9.8.8	QD.16.P.326/7	Non-intensive survey	Simple Ware	Jar	7.5YR 6/4
9.8.9	QD.16.P.326/8	Non-intensive survey	Simple Ware	Jar	10YR 6/3
9.8.10	QD.16.P.326/9	Non-intensive survey	Simple Ware	Jar	2.5Y 7/3
9.8.11	QD.16.P.326/10	Non-intensive survey	Simple Ware	Jar	10YR 7/4

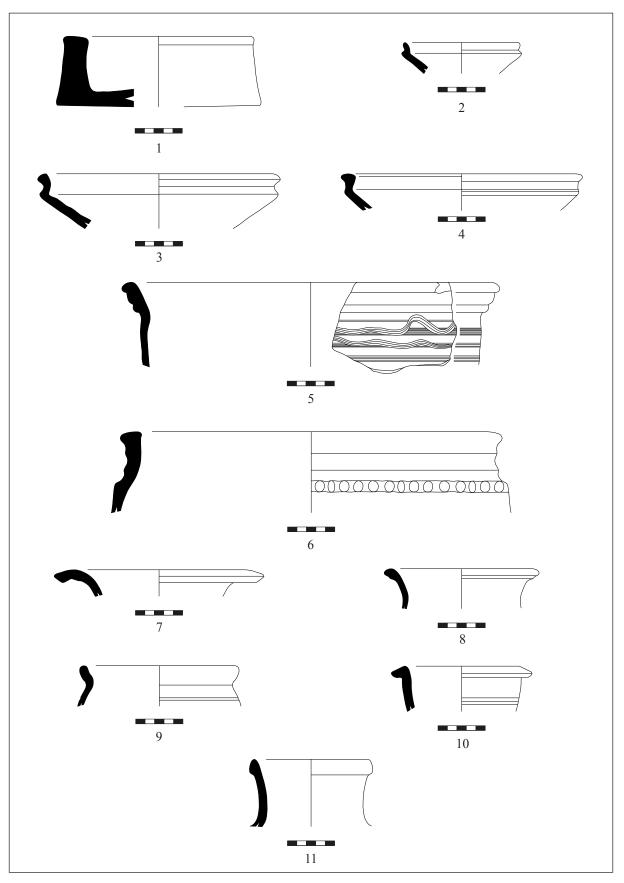


Fig. 9.8 Pottery assemblage from QD019

Fig.	Excavation No.	Provenance	Pottery Class	Shape	Fabric
9.9.1	QD.16.P.327/1	Non-intensive survey	Simple Ware	Bowl	10YR 6/3
9.9.2	QD.16.P.327/2	Non-intensive survey	Simple Ware	Bowl	7.5YR 5/4
9.9.3	QD.16.P.327/3	Non-intensive survey	Simple Ware	Jar	10YR 5/3, I/O 5YR 5/4
9.9.4	QD.16.P.327/4	Non-intensive survey	Simple Ware	Krater	10YR 6/4, I/O 2.5Y 7/3
9.9.5	QD.16.P.327/5	Non-intensive survey	Simple Ware	Jar	2.5Y 7/3
9.9.6	QD.16.P.327/6	Non-intensive survey	Simple Ware	Jar	5GY 5/1
9.9.7	QD.16.P.327/7	Non-intensive survey	Simple Ware	Jar	10YR 6/4
9.9.8	QD.16.P.327/8	Non-intensive survey	Simple Ware	Jar	2.5Y 6/3
9.9.9	QD.16.P.327/9	Non-intensive survey	Simple Ware	Jar	10 YR 6/4
9.9.10	QD.16.P.327/10	Non-intensive survey	Simple Ware	Jar	2.5Y 6/3
9.9.11	QD.16.P.327/11	Non-intensive survey	Storage Ware	Pithos	10YR 6/3

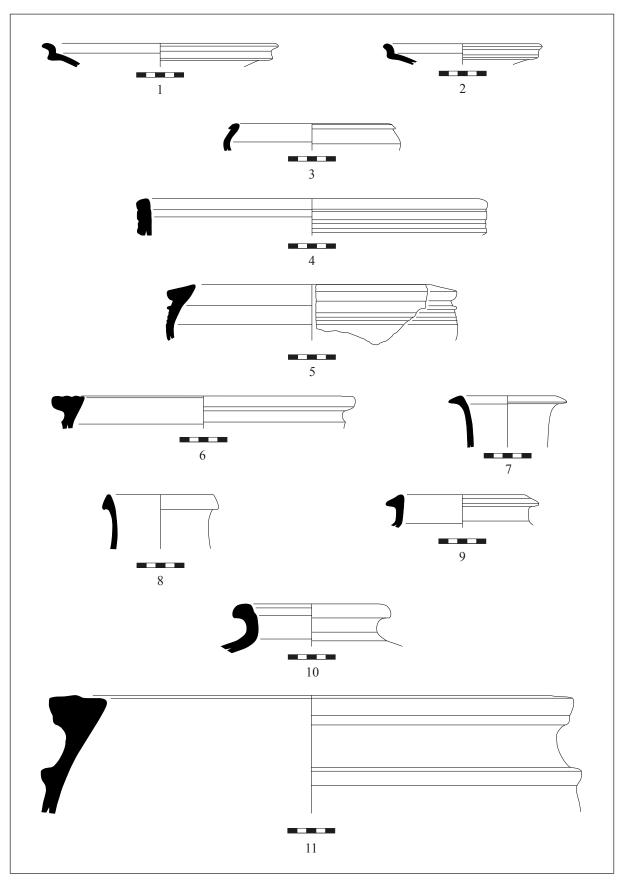


Fig. 9.9 Pottery assemblage from QD019

Fig.	Excavation No.	Provenance	Pottery Class	Shape	Fabric
9.10.1	QD.16.P.329/1	Non-intensive survey	Simple Ware	Small Jar	10 Y R 6/4
9.10.2	QD.16.P.329/2	Non-intensive survey	Simple Ware	Plate	7.5YR 5/4
9.10.3	QD.16.P.329/3	Non-intensive survey	Simple Ware	Small Jar	N 4
9.10.4	QD.16.P.329/4	Non-intensive survey	Simple Ware	Jar	10YR 6/4
9.10.5	QD.16.P.329/5	Non-intensive survey	Simple Ware	Krater	5Y 6/3
9.10.6	QD.16.P.329/6	Non-intensive survey	Simple Ware	Krater	5YR 5/4

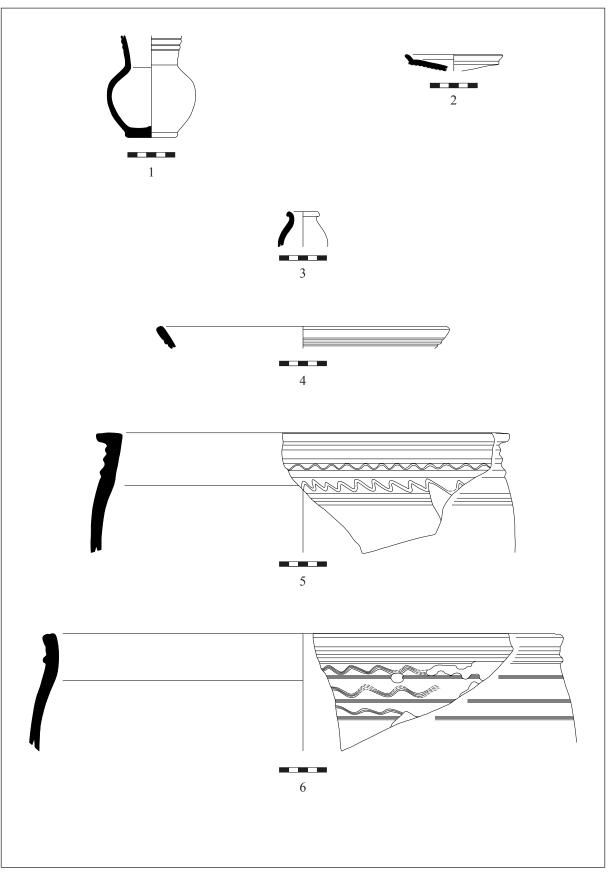


Fig. 9.10 Pottery assemblage from QD019

Fig.	Excavation No.	Provenance	Pottery Class	Shape	Fabric
9.11.1	QD.16.P.329/7	Non-intensive survey	Simple Ware	Bowl	10YR 5/4
9.11.2	QD.16.P.329/8	Non-intensive survey	Simple Ware	Krater	2.5Y 6/3
9.11.3	QD.16.P.329/9	Non-intensive survey	Simple Ware	Jar	2.5Y 6/3
9.11.4	QD.16.P.329/10	Non-intensive survey	Simple Ware	Jar	7.5YR 5/4
9.11.5	QD.16.P.329/11	Non-intensive survey	Simple Ware	Jar	10YR 5/3
9.11.6	QD.16.P.329/12	Non-intensive survey	Simple Ware	Jar	2.5Y 6/2
9.11.7	QD.16.P.329/13	Non-intensive survey	Simple Ware	Jar	2.5Y 7/3
9.11.8	QD.16.P.329/14	Non-intensive survey	Simple Ware	Jar	7.5YR 6/4

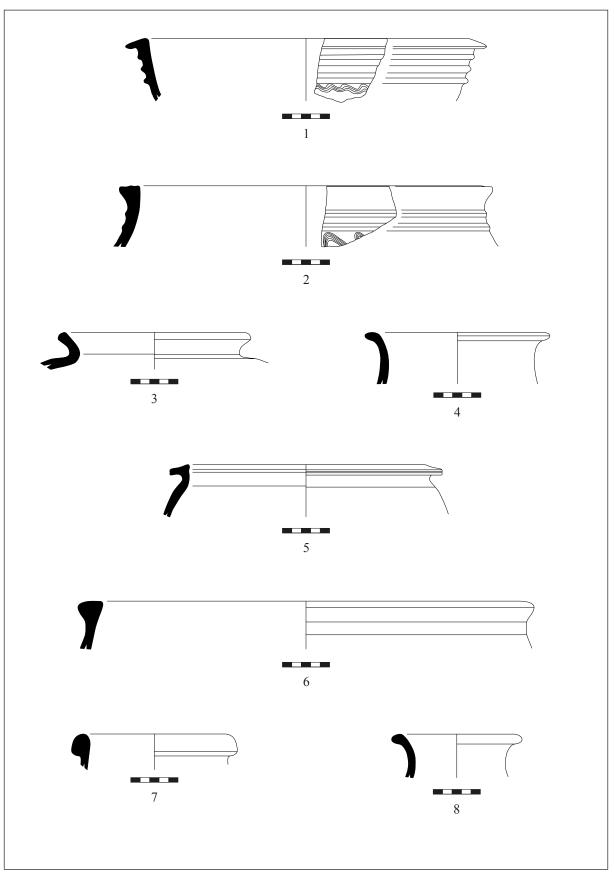


Fig. 9.11 Pottery assemblage from QD019

Fig.	Excavation No.	Provenance	Pottery Class	Shape	Fabric
9.12.1	QD.16.P.329/15	Non-intensive survey	Simple Ware	Jar	2.5Y 6/3
9.12.2	QD.16.P.329/16	Non-intensive survey	Storage Ware	Pithos	2.5Y 5/3
9.12.3	QD.16.P.329/17	Non-intensive survey	Storage Ware	Pithos	2.5Y 6/3
9.12.4	QD.16.P.330/1	Non-intensive survey	Simple Ware	Jar	5Y 4/1, I/O 10YR 6/4
9.12.5	QD.16.P.330/2	Non-intensive survey	Simple Ware	Small Jar	7.5YR 6/4
9.12.6	QD.16.P.330/3	Non-intensive survey	Simple Ware	Jar	7.5YR 5/2, I/O 10YR 5/3
9.12.7	QD.16.P.330/4	Non-intensive survey	Simple Ware	Krater	10YR 4/1
9.12.8	QD.16.P.330/5	Non-intensive survey	Simple Ware	Krater	N 3.5

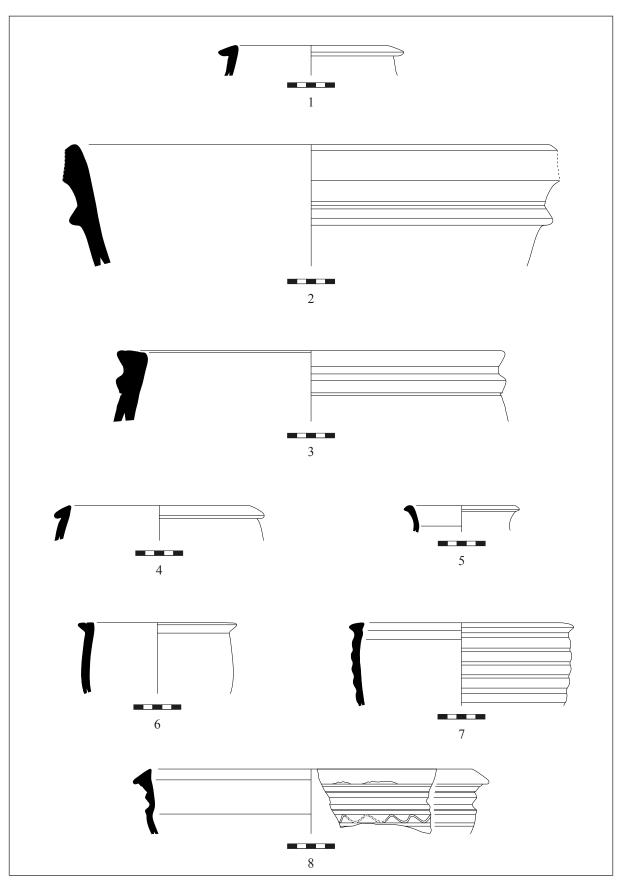


Fig. 9.12 Pottery assemblage from QD019

Fig.	Excavation No.	Provenance	Pottery Class	Shape	Fabric
9.13.1	QD.16.P.330/6	Non-intensive survey	Simple Ware	Jar	10 Y R 6/3
9.13.2	QD.16.P.330/7	Non-intensive survey	Simple Ware	Jar	5Y 5/3
9.13.3	QD.16.P.330/8	Non-intensive survey	Simple Ware	Jar	2.5Y 6/3
9.13.4	QD.16.P.330/9	Non-intensive survey	Simple Ware	Jar	7.5YR 6/3
9.13.5	QD.16.P.330/10	Non-intensive survey	Simple Ware	Jar	2.5Y 7/4
9.13.6	QD.16.P.330/11	Non-intensive survey	Storage Ware	Pithos	10YR 5/4, I/O 2.5Y 6/3
9.13.7	QD.16.P.331/1	Non-intensive survey	Simple Ware	Bowl	10 Y R 6/4
9.13.8	QD.16.P.331/2	Non-intensive survey	Simple Ware	Bowl	5Y 7/3

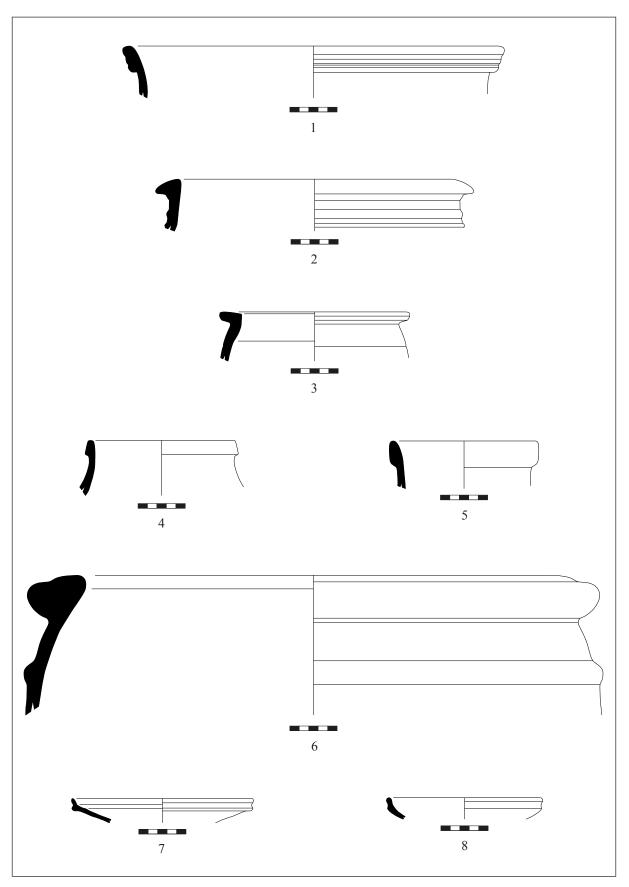


Fig. 9.13 Pottery assemblage from QD019

Fig.	Excavation No.	Provenance	Pottery Class	Shape	Fabric
9.14.1	QD.16.P.331/3	Non-intensive survey	Simple Ware	Bowl	10YR 4/1
9.14.2	QD.16.P.331/4	Non-intensive survey	Simple Ware	Jar	7.5YR 5/4
9.14.3	QD.16.P.331/5	Non-intensive survey	Simple Ware	Jar	2.5Y 5/4
9.14.4	QD.16.P.331/6	Non-intensive survey	Simple Ware	Jar	2.5Y 6/3
9.14.5	QD.16.P.331/7	Non-intensive survey	Simple Ware	Jar	7.5YR 6/4
9.14.6	QD.16.P.331/8	Non-intensive survey	Simple Ware	Small Jar	2.5Y 6/3
9.14.7	QD.16.P.331/9	Non-intensive survey	Simple Ware	Small Jar	10 Y R 7/4
9.14.8	QD.16.P.331/10	Non-intensive survey	Simple Ware	Jar	5Y 5/3
9.14.9	QD.16.P.331/11	Non-intensive survey	Simple Ware	Jar	2.5Y 7/3
9.14.10	QD.16.P.331/12	Non-intensive survey	Simple Ware	Jar	10Y 4/2, I/O 2.5Y 5/2
9.14.11	QD.16.P.331/13	Non-intensive survey	Simple Ware	Jar	10YR 6/4

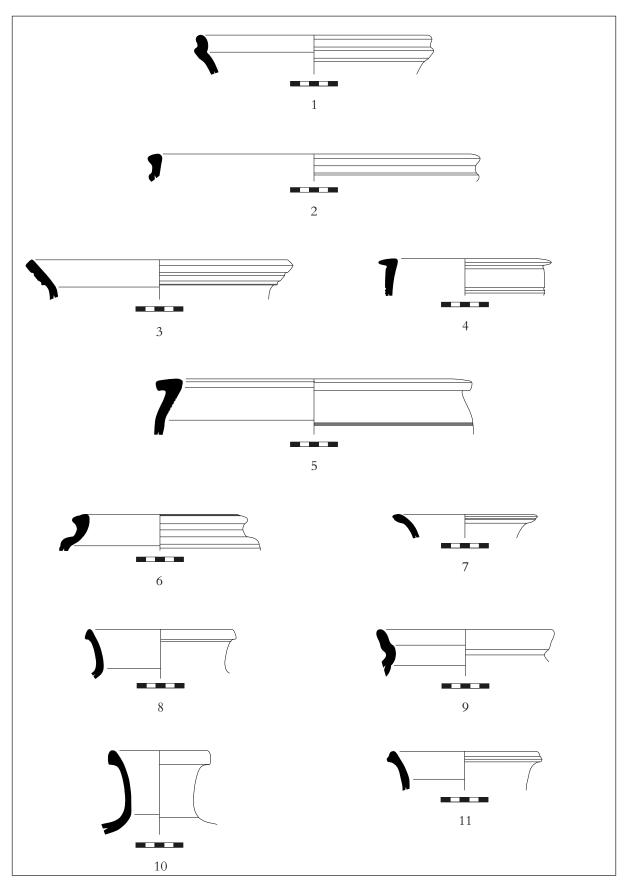


Fig. 9.14 Pottery assemblage from QD019

Fig.	Object Fig.	Provenance	Class of object	Type of object
9.15.1	QD.16.O.258	Non-intensive survey	Tool	Sickle
9.15.2	QD.16.O.271	Non-intensive survey	Tool	Sickle
9.15.3	QD.16.O.283	Non-intensive survey	Tool	Sickle

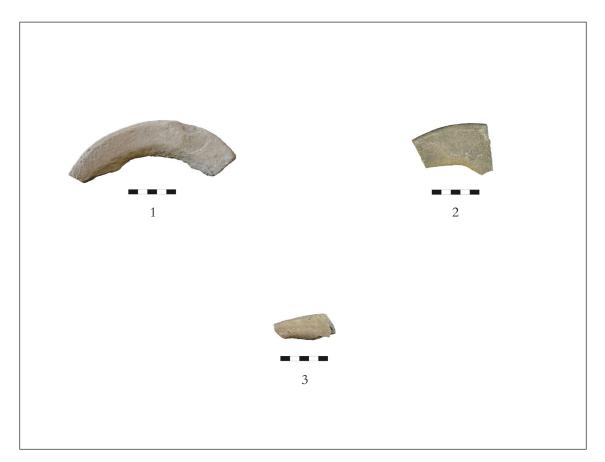


Fig. 9.15 Small finds from QD019

QD023

Site of irregular shape, with two main mounds. The site is partially covered by dunes. A uniform layer of sand and dusty soil covered the entire surface of the site.

The dating proposed by Adams is confirmed by the survey carried out. This site is probably the same settlement of QD022 (Adams identification code 1069).

Identification code	QD023
Visit date	October 2016
District	Afak
Ancient name of the site	-
Modern name of the site	Telul ed-Desim
Adams identification code	1071
Coordinates (WGS84 UTM)	536905.71 m E 3555243.40 m N

Pottery

The pottery assemblage from QD023 is composed exclusively of Simple Ware.

Surface treatments are present on 12.5% of the sherds collected, and include exclusively White Slip. Decorations are present on 25% of the collected sherds, and encompass grooved motifs.

The Simple Ware assemblage has a fine homogenous fabric, with a low frequency (< 3%) of small (<0.5 mm) or medium (0.5-1 mm) size inclusions.

Among fabric colors reddish (5YR 5/6), light brownish (7.5YR 6/4; 2.5Y 7/3-4, 6/4), pale olive (5Y 6/4), grayish (5Y 5/2, 4/1) are the most frequently attested.

Simple Ware comprises a repertoire of open and closed shapes, with a prevalence of the latter.

The open shapes include plates with a plain rim, krater with a triangular rim and comb-incised decorations, and large bowls with a triangular rim.

Simple Ware closed shapes include mostly jars with a triangular rim, jars with an everted triangular rim, band-rim jars, jars with a rectangular rim, and jars with a multiple-ridged rim.

Small Finds

A fragmentary bronze tool, two inscribed bricks, and two clay sickles were found in the surface survey at QD023. Catalogue of the small finds from QD023:

QD.16.O.214, Undetermined tool (Fig. 9.4.1) Material: Bronze Dimensions: l. 3.4, w. 1.1, th. 0.2 Bucket: QD.16.P.137b Preservation: fragmentary

QD.16.O.220, Inscribed brick (Fig. 9.4.2) Material: Clay Dimensions: l. 24.5, w. 24.7, th. 6.4 Bucket: QD.16.P.137b Preservation: fragmentary

QD.16.O.244, Sickle (Fig. 9.4.1) Material: Clay Dimensions: l. 9.5, w. 4.4, th. 1.6 Bucket: QD.16.P.324 Preservation: fragmentary QD.16.O.217, Inscribed brick (Fig. 9.4.1) Material: Clay Dimensions: l. 24, w. 13.5, th. 6.7 Bucket: QD.16.P.137b Preservation: fragmentary

QD.16.O.243, Sickle (Fig. 9.4.1) Material: Clay Dimensions: l. 10, w. 5.5, th. 1.6 Bucket: QD.16.P.324 Preservation: fragmentary

Fig.	Excavation No.	Provenance	Pottery Class	Shape	Fabric
9.16.1	QD.16.P.324/1	Non-intensive survey	Simple Ware	Krater	5Y 4/1
9.16.2	QD.16.P.324/2	Non-intensive survey	Simple Ware	Jar	5YR 5/6
9.16.3	QD.16.P.324/3	Non-intensive survey	Simple Ware	Plate	5Y 7/6
9.16.4	QD.16.P.324/4	Non-intensive survey	Simple Ware	Bowl	5Y 5/2
9.16.5	QD.16.P.324/5	Non-intensive survey	Simple Ware	Krater	2.5Y 7/4
9.16.6	QD.16.P.324/6	Non-intensive survey	Simple Ware	Jar	O 2.5Y 8/2, I 10YR 7/3
9.16.7	QD.16.P.324/7	Non-intensive survey	Simple Ware	Jar	2.5Y 7/3
9.16.8	QD.16.P.324/8	Non-intensive survey	Simple Ware	Jar	2.5Y 7/3
9.16.9	QD.16.P.324/9	Non-intensive survey	Simple Ware	Jar	2.5Y 6/4
9.16.10	QD.16.P.324/10	Non-intensive survey	Simple Ware	Jar	2.5Y 7/4

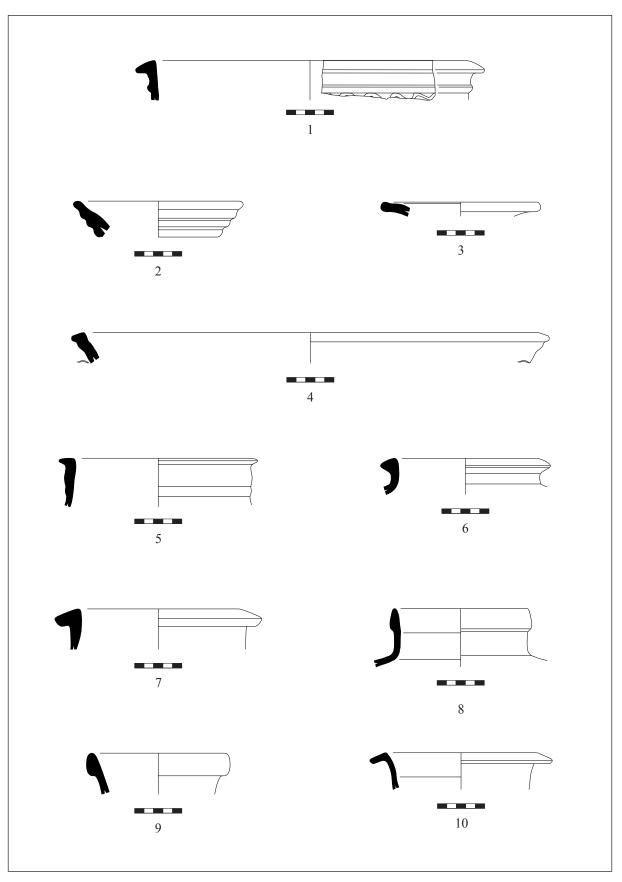


Fig. 9.16 Pottery assemblage from QD023

Fig.	Excavation No.	Provenance	Pottery Class	Shape	Fabric
9.17.1	QD.16.P.324/11	Non-intensive survey	Simple Ware	Jar	2.5Y 7/4
9.17.2	QD.16.P.324/12	Non-intensive survey	Simple Ware	Jar	5Y 6/4
9.17.3	QD.16.P.324/13	Non-intensive survey	Simple Ware	Jar	7.5YR 6/4
9.17.4	QD.16.P.324/14	Non-intensive survey	Simple Ware	Krater	5Y 6/4
9.17.5	QD.16.P.324/15	Non-intensive survey	Simple Ware	Krater	2.5Y 7/3
9.17.6	QD.16.P.324/16	Non-intensive survey	Simple Ware	Jar	7.5YR 6/4

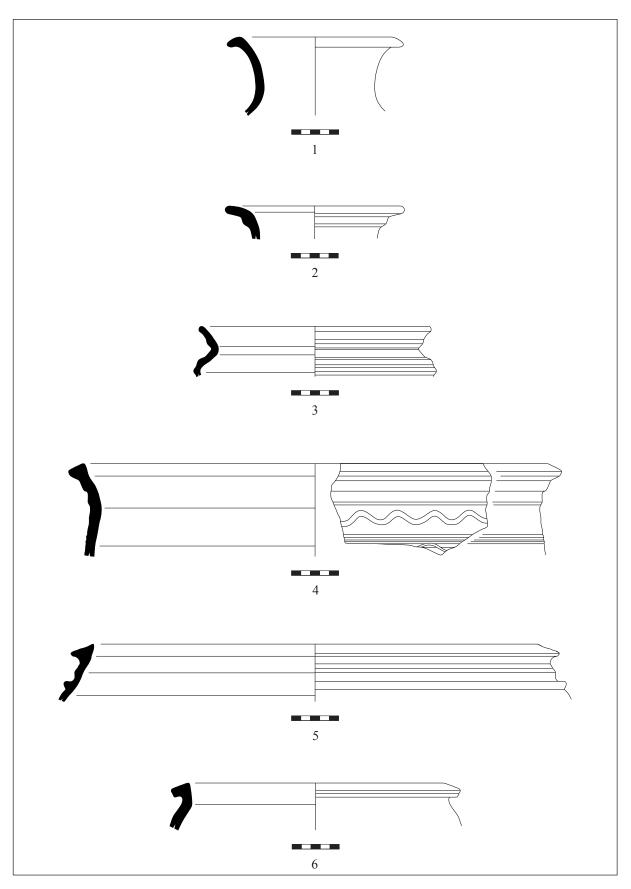


Fig. 9.17 Pottery assemblage from QD023

Fig.	Object Fig.	Provenance	Class of object	Type of object
9.18.1	QD.16.O.214	Non-intensive survey	Tool	Bronze tool
9.18.2	QD.16.O.217	Non-intensive survey	Inscription	Brick
9.18.3	QD.16.O.220	Non-intensive survey	Inscription	Brick
9.18.4	QD.16.O.243	Non-intensive survey	Tool	Sickle
9.18.5	QD.16.O.244	Non-intensive survey	Tool	Sickle



Fig. 9.18 Small finds from QD023

QD032a

Site of irregular shape, part of a group of three *telul*. Few bushes and a uniform layer of sand cover the site surface. Agricultural activities are attested all around but probably without affecting it. There is no trace of looting. The new materials collection confirms the dating provided by Adams.

Identification code	QD032a
Visit date	October 2016
District	Afak
Ancient name of the site	-
Modern name of the site	-
Adams identification code	1181
Coordinates (WGS84 UTM)	544435.77 m E 3549522.05 m N

Pottery

From the EB IV pottery repertoire collected at QD032a, the most represented ware type is Simple Ware (80% of the total collection), followed by Storage Ware (20%). No Cooking Ware is attested.

No surface treatments are present on the sherds collected during the surface survey of QD032a. Decorations are present on 50% of the sherds collected and are mostly grooved with comb-incised wavy lines (60%), with a limited occurrence of applied (40%) motifs.

The Simple Ware EB IV repertoire has a homogeneous fine fabric, with a medium frequency (3-10%) of small (<0.5 mm) or medium (0.5-1 mm) size inclusions, while Storage Ware has a coarser fabric, with a high frequency (10-20%) of medium-size (0.5-1 mm) inclusions.

Among fabric colors olive (5Y 6/3, 5/3, 4/2) and brownish (10YR 4/3) are the most frequently attested.

The Simple Ware repertoire comprises open and closed shapes, with a prevalence of the latter.

The open shapes include conical bowls with a plain rim, and kraters with a triangular rim and comb-incised decorations.

Simple Ware closed shapes comprise jars with a triangular rim, jars with an oval rim (and, in this specific case, grooved sides), and jars with a rectangular rim. Storage Ware consists exclusively of closed shapes, among which pithoi with a grooved rim and large jars with an elongated triangular rim are attested.

Fig.	Excavation No.	Provenance	Pottery Class	Shape	Fabric
9.19.1	QD.16.P.709/1	Non-intensive survey	Simple Ware	Bowl	5Y 4/2
9.19.2	QD.16.P.709/2	Non-intensive survey	Simple Ware	Small Jar	7.5YR 6/4
9.19.3	QD.16.P.709/3	Non-intensive survey	Simple Ware	Jar	2.5Y 5/4
9.19.4	QD.16.P.709/4	Non-intensive survey	Simple Ware	Jar	2.5Y 5/3
9.19.5	QD.16.P.709/5	Non-intensive survey	Simple Ware	Jar	5Y 6/3
9.19.6	QD.16.P.709/6	Non-intensive survey	Simple Ware	Jar	5Y 6/3
9.19.7	QD.16.P.709/7	Non-intensive survey	Simple Ware	Jar	2.5Y 6/3

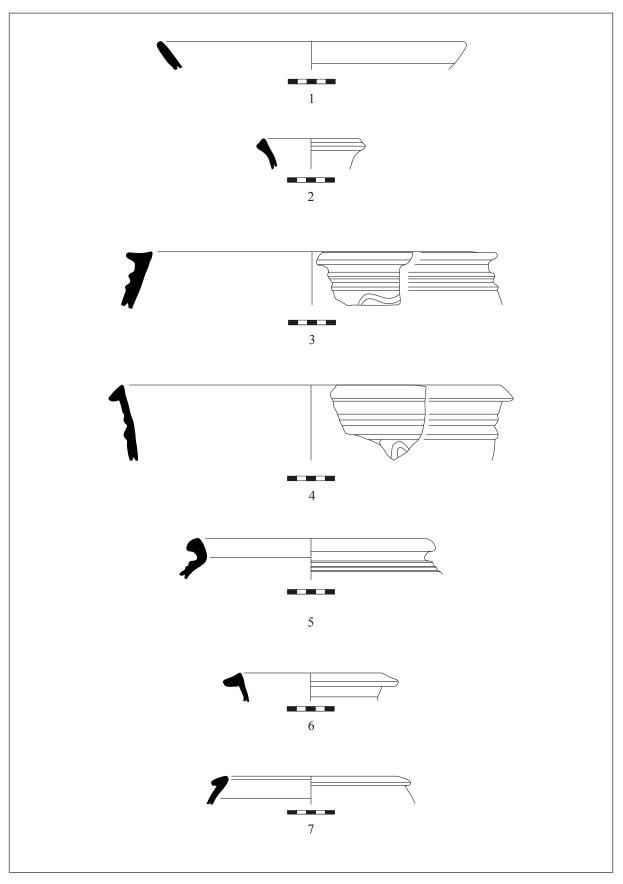


Fig. 9.19 Pottery assemblage from QD032a

Fig.	Excavation No.	Provenance	Pottery Class	Shape	Fabric
9.19.8	QD.16.P.709/8	Non-intensive survey	Simple Ware	N/A	5Y 5/3
9.19.9	QD.16.P.709/9	Non-intensive survey	Storage Ware	Jar	5Y 5/3
9.20.1	QD.16.P.709/10	Non-intensive survey	Storage Ware	Pithos	10 Y R 4/3

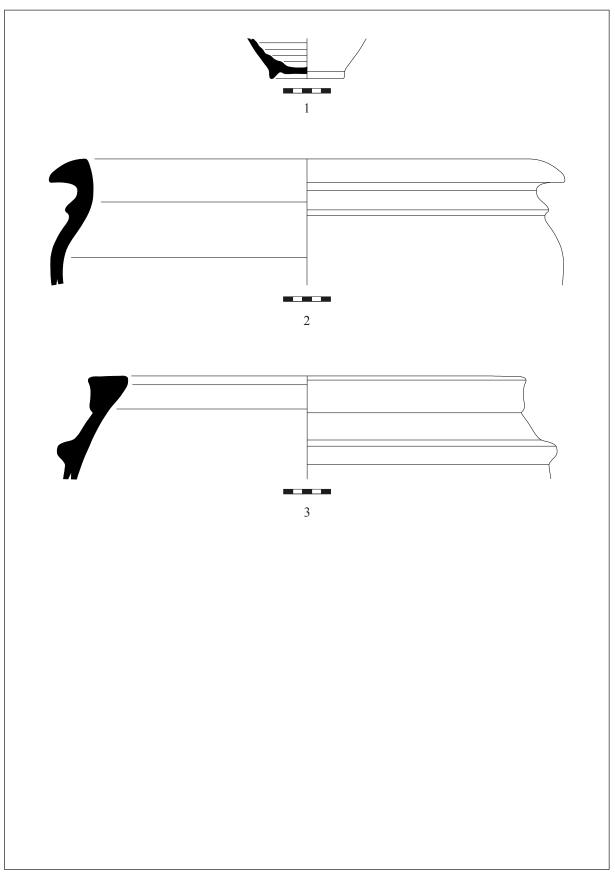


Fig. 9.20 Pottery assemblage from QD032a

QD033

QD033 is a very small site of irregular shape, consisting of a main mound to the northwest and a smaller mound to the southeast. Both salt and sand cover some parts of the site, while a few bushes and vegetation are also present. Agricultural fields and modern channels damaged different parts of the site. The site was first excavated in 1977 by the Oriental Institute of Chicago under the direction of McGuire Gibson, in connection with the excavation campaign that took place at Nippur in the same year. Unfortunately, the site has been heavily looted.

Identification code	QD033		
Visit date	October 2016		
District	Afak		
Ancient name of the site	Maskan-ili-Akkade [?]		
Modern name of the site	Umm el-Hafriyat		
Adams identification code	1181		
Coordinates (WGS84 UTM)	545937.00 m E 3549278.74 m N		

Pottery

From the EB IV pottery repertoire collected at QD033, the most represented ware type is Simple Ware (89% of the total collection), followed by Storage Ware (11%). No Cooking Ware is attested.

Surface treatments are present on 19% of the sherds collected and include exclusively White Slip. Decorations are present on 26% of the sherds collected and are mostly grooved (58%), with a limited occurrence of applied (26%) and grooved and incised (16%) motifs.

About 45% of the Simple Ware has fine homogeneous fabric, with a low frequency (< 3%) of small (<0.5 mm) and medium (0.5-1 mm) inclusions, while 55% has a medium frequency (3-10%) of small (<0.5 mm) and medium (0.5-1 mm) inclusions, while Storage Ware has a coarser fabric, with a high frequency (10-20%) of medium (0.5-1 mm) and large (1-2 mm) size inclusions. Among fabric colors pinkish (7.5YR 7/3), reddish brown (5YR 5/4), brownish (7.5YR 5/4; 10YR 3/3, 4/3, 5/3), light brownish (7.5YR 6/4; 10YR 6/3-4; 2.5Y 5/3), yellowish brown (10YR 5/4; 2.5Y 7/3-4, 6/3-4), yellowish (5Y 7/3-4), and olive (5Y 6/3-4) are the most frequently attested. Simple Ware comprises a broad repertoire of open and closed shapes, with a prevalence of the latter.

The open shapes comprise conical bowls with a thickened rim, bowls with a triangular overhanging rim, large bowls with a triangular rim (and in some cases wavy comb-incised decorations), kraters with plain rim and comb-incised decoration, kraters with rectangular rim and comb-incised decoration, and kraters with multiple-ridged rim and comb-incised decorations.

Closed shapes comprise jars with a plain rim, band-rim jars, jars with everted band rim, jars with triangular rim, jars with oval rim, jars with everted triangular rim, jars with a triangular rim and ridged shoulder, stands, and jars with multiple ridged rim.

Storage Ware mainly consists of closed shapes, that include pithoi with a plain rim (oval or triangular), and pithoi with a grooved rim.

Small Finds

Three clay models of a chariot wheel, two clay sickles, one fragment of rectangular clay plaque, and one grinding stone were collected from QD033.

Catalogue of small finds from QD033:

QD.16.O.176, Chariot wheel (Fig. 9.4.1) Material: Clay Dimensions: diam. 7.7 Bucket: QD.16.P.704 Preservation: fragmentary

QD.16.O.245, Sickle (Fig. 9.4.2) Material: Clay Dimensions: l. 5.5, w. 2.8, th. 1.4 Bucket: QD.16.P.704 Preservation: fragmentary

QD.16.O.247, Chariot Wheel (Fig. 9.4.1) Material: Clay Dimensions: l. 8.5, w. 7.4, th. 1.5 Bucket: QD.16.P.704 Preservation: nearly complete

QD.16.O.282, Sickle (Fig. 9.4.1) Material: Clay Dimensions: l. 9.5, w. 4.7, th. 1.5 Bucket: QD.16.P.707 Preservation: fragmentary QD.16.O.177, Grinding stone(Fig. 9.4.1) Material: Stone (conglomerate) Dimensions: l. 28.5, w. 12.9, th. 3.3 Bucket: QD.16.P.704 Preservation: nearly complete

QD.16.O.246, Chariot wheel(Fig. 9.4.1) Material: Clay Dimensions: diam. 7.4, th. 1.4 Bucket: QD.16.P.704 Preservation: nearly complete

QD.16.O.257, Model (Fig. 9.4.1) Material: Clay Dimensions: l. 5, w. 4.8, th. 0.9 Bucket: QD.16.P.706 Preservation: fragmentary

Fig.	Excavation No.	Provenance	Pottery Class	Shape	Fabric
9.22.1	QD.16.P.704/1	Non-intensive survey	Simple Ware	Plate	7.5YR 7/6
9.22.2	QD.16.P.704/2	Non-intensive survey	Simple Ware	Plate	2.5Y 6/4
9.22.3	QD.16.P.704/3	Non-intensive survey	Simple Ware	Jar	2.5Y 7/4
9.22.4	QD.16.P.704/4	Non-intensive survey	Simple Ware	Jar	5Y 7/4
9.22.5	QD.16.P.704/5	Non-intensive survey	Simple Ware	Jar	5Y 6/3
9.22.6	QD.16.P.704/6	Non-intensive survey	Simple Ware	Jar	5Y 7/3
9.22.7	QD.16.P.704/7	Non-intensive survey	Simple Ware	Jar	5Y 7/4
9.22.8	QD.16.P.704/8	Non-intensive survey	Simple Ware	Jar	5Y 6/3
9.22.9	QD.16.P.704/9	Non-intensive survey	Simple Ware	Jar	5Y 6/4

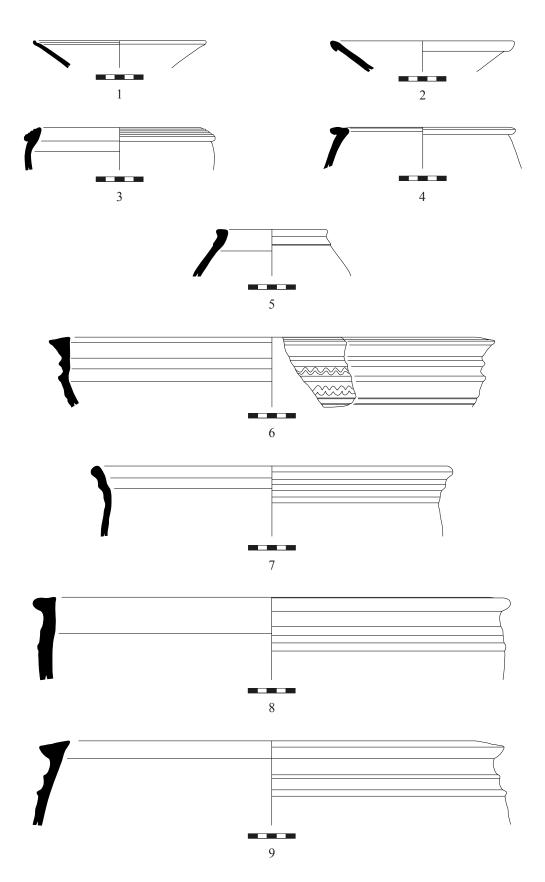


Fig. 9.22 Pottery assemblage from QD033

Fig.	Excavation No.	Provenance	Pottery Class	Shape	Fabric
9.23.1	QD.16.P.704/10	Non-intensive survey	Simple Ware	Jar	7.5YR 6/6
9.23.2	QD.16.P.704/11	Non-intensive survey	Simple Ware	Jar	2.5Y 6/4
9.23.3	QD.16.P.704/12	Non-intensive survey	Simple Ware	Jar	10YR 4/1
9.23.4	QD.16.P.704/13	Non-intensive survey	Simple Ware	Jar	5Y 7/4
9.23.5	QD.16.P.704/14	Non-intensive survey	Simple Ware	Jar	5Y 7/4
9.23.6	QD.16.P.704/15	Non-intensive survey	Simple Ware	Jar	2.5Y 7/3
9.23.7	QD.16.P.704/16	Non-intensive survey	Simple Ware	Jar	5Y 7/4
9.23.8	QD.16.P.704/17	Non-intensive survey	Simple Ware	N/A	5Y 7/4
9.23.9	QD.16.P.704/18	Non-intensive survey	Simple Ware	Stand	5YR 6/6

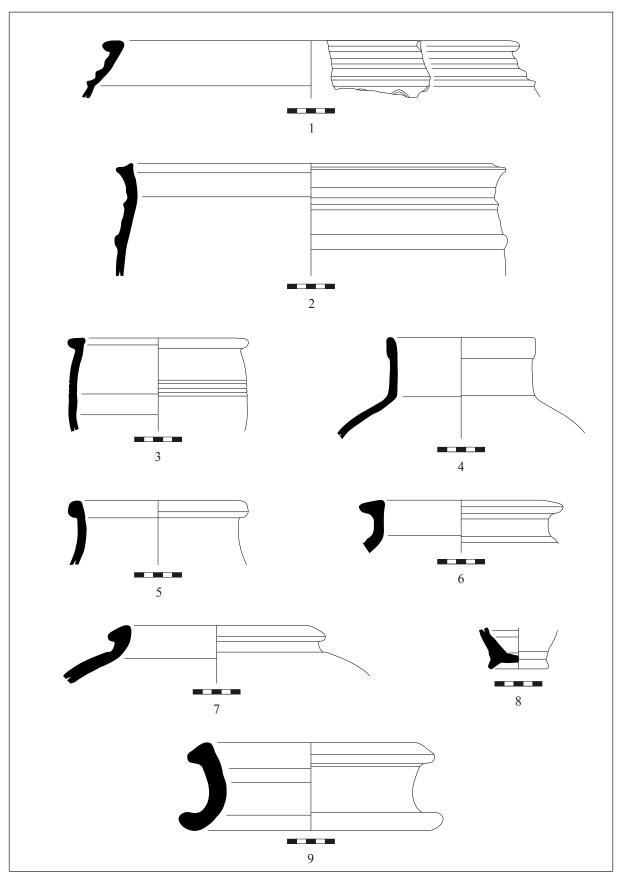


Fig. 9.23 Pottery assemblage from QD033

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.24.1	QD.16.P.704/20	Non-intensive survey	Storage Ware	Jar	10 Y R 7/4
9.24.2	QD.16.P.704/21	Non-intensive survey	Storage Ware	Jar	5Y 7/6
9.24.3	QD.16.P.704/22	Non-intensive survey	Storage Ware	Pithos	5Y 7/4
9.24.4	QD.16.P.704/34	Non-intensive survey	Storage Ware	Jar	5Y 6/4
9.24.5	QD.16.P.705/1	Non-intensive survey	Simple Ware	Small Jar	2.5Y 6/4

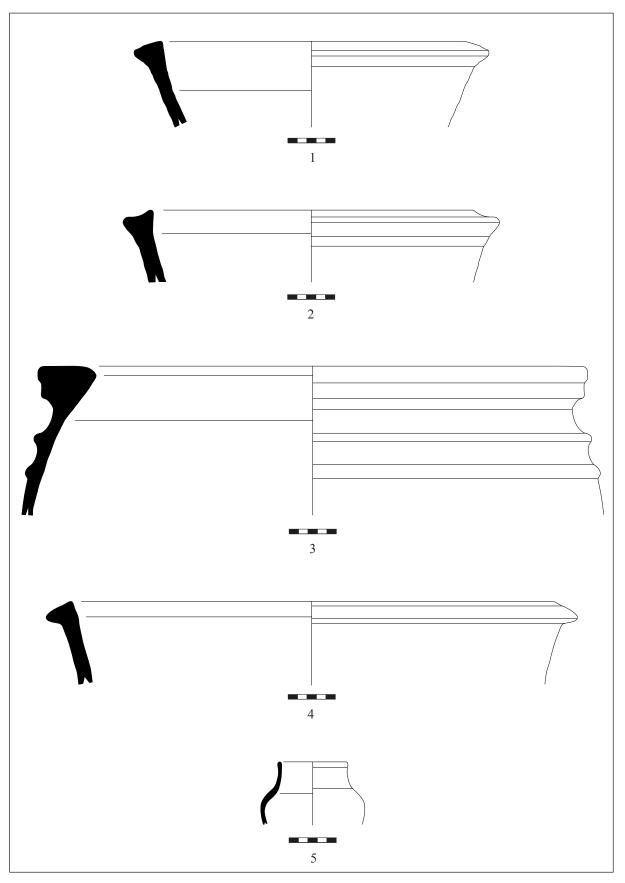


Fig. 9.24 Pottery assemblage from QD033

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Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.25.1	QD.16.P.705/2	Non-intensive survey	Simple Ware	Jar	2.5Y 6/3
9.25.2	QD.16.P.705/3	Non-intensive survey	Simple Ware	Jar	10 Y R 5/3
9.25.3	QD.16.P.705/4	Non-intensive survey	Simple Ware	Jar	10 Y R 5/3
9.25.4	QD.16.P.705/5	Non-intensive survey	Simple Ware	Jar	5Y 6/3
9.25.5	QD.16.P.705/6	Non-intensive survey	Simple Ware	Small Jar	2.5Y 6/3
9.25.6	QD.16.P.705/7	Non-intensive survey	Simple Ware	Jar	2.5Y 6/3
9.25.7	QD.16.P.705/8	Non-intensive survey	Simple Ware	Jar	2.5Y 6/3
9.25.8	QD.16.P.705/9	Non-intensive survey	Simple Ware	Jar	10YR 4/2
9.25.9	QD.16.P.705/10	Non-intensive survey	Storage Ware	Jar	7.5YR 7/3

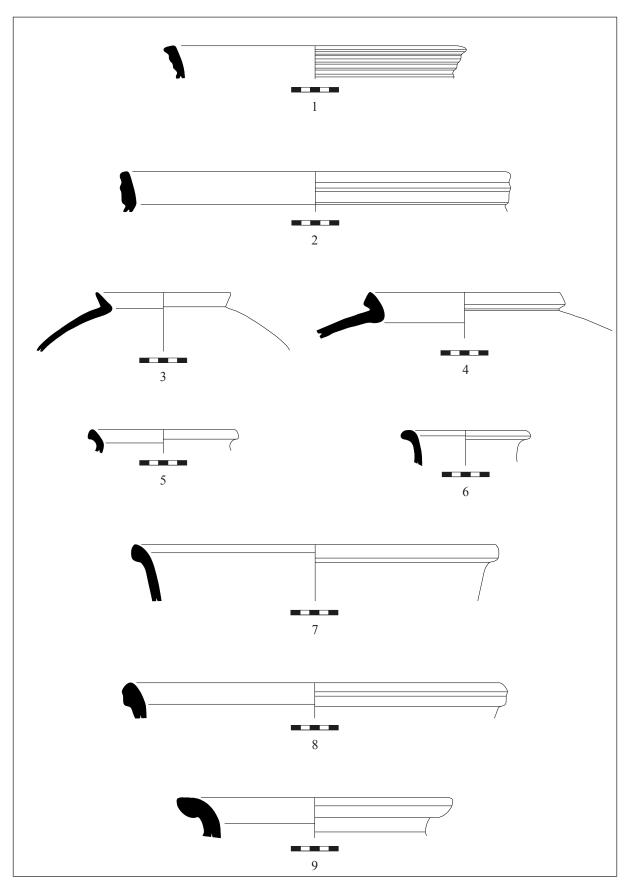


Fig. 9.25 Pottery assemblage from QD033

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.26.1	QD.16.P.706/1	Non-intensive survey	Simple Ware	Plate	10 Y R 6/4
9.26.2	QD.16.P.706/2	Non-intensive survey	Simple Ware	Bowl	2.5Y 4/2
9.26.3	QD.16.P.706/3	Non-intensive survey	Simple Ware	Jar	10YR 4/3
9.26.4	QD.16.P.706/4	Non-intensive survey	Simple Ware	Jar	2.5Y 5/3
9.26.5	QD.16.P.706/5	Non-intensive survey	Simple Ware	Bowl	2.5Y 5/3

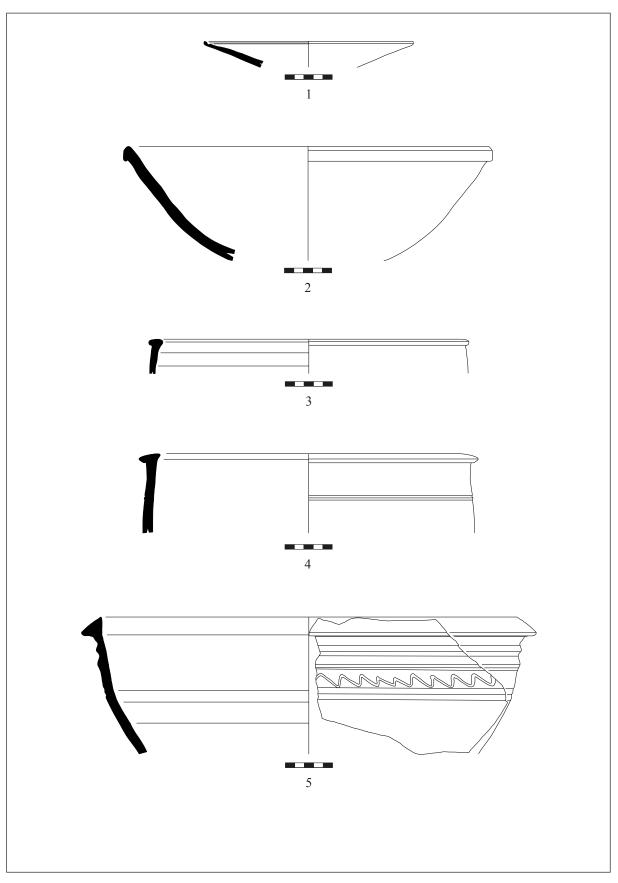


Fig. 9.26 Pottery assemblage from QD033

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.27.1	QD.16.P.706/6	Non-intensive survey	Simple Ware	Jar	10YR 5/3
9.27.2	QD.16.P.706/7	Non-intensive survey	Simple Ware	Jar	10YR 3/3
9.27.3	QD.16.P.706/8	Non-intensive survey	Simple Ware	Jar	10 Y R 5/4
9.27.4	QD.16.P.706/9	Non-intensive survey	Simple Ware	Jar	10YR 4/2
9.27.5	QD.16.P.706/10	Non-intensive survey	Simple Ware	Bowl	10YR 5/3
9.27.6	QD.16.P.706/11	Non-intensive survey	Simple Ware	Jar	10YR 5/4
9.27.7	QD.16.P.706/12	Non-intensive survey	Simple Ware	Jar	2.5Y 5/3

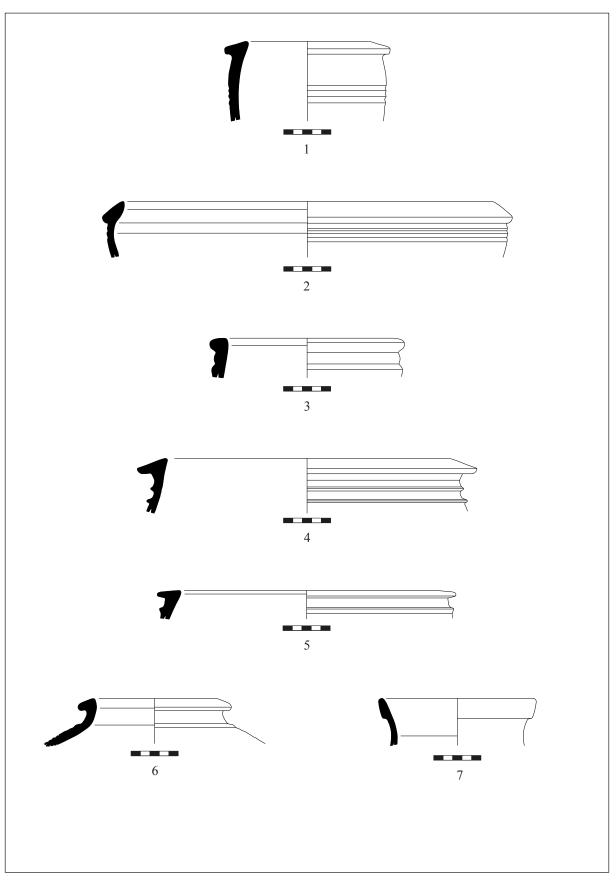


Fig. 9.27 Pottery assemblage from QD033

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.28.1	QD.16.P.706/13	Non-intensive survey	Simple Ware	Jar	10 Y R 5/4
9.28.2	QD.16.P.706/14	Non-intensive survey	Simple Ware	Jar	10YR 5/3
9.28.3	QD.16.P.706/15	Non-intensive survey	Simple Ware	Jar	10YR 5/4
9.28.4	QD.16.P.706/16	Non-intensive survey	Simple Ware	N/A	2.5Y 6/3
9.28.5	QD.16.P.706/17	Non-intensive survey	Simple Ware	Jar	10YR 5/3
9.28.6	QD.16.P.706/18	Non-intensive survey	Simple Ware	Bowl	7.5YR 4/4
9.28.7	QD.16.P.706/19	Non-intensive survey	Storage Ware	Bowl	7.5YR 5/4

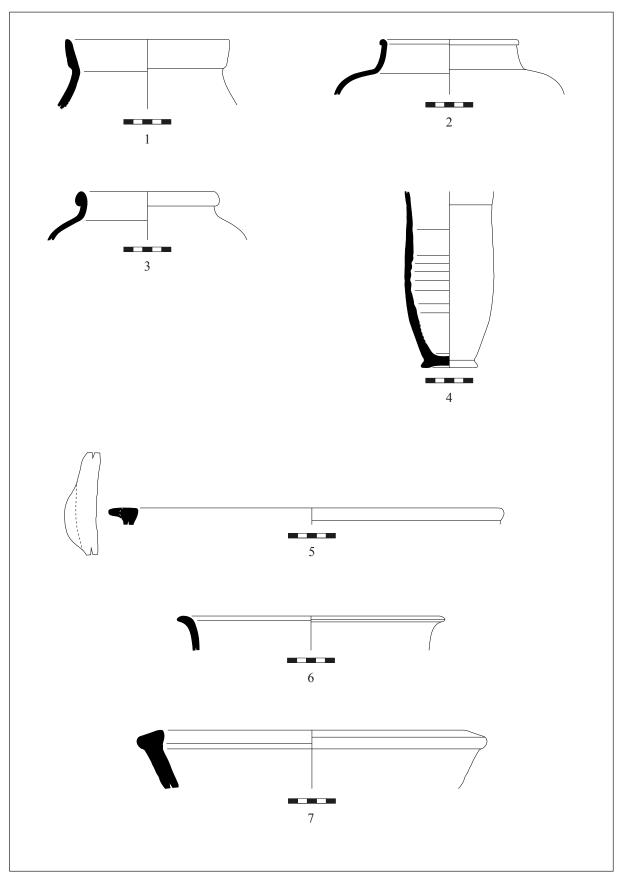


Fig. 9.28 Pottery assemblage from QD033

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.29.1	QD.16.P.706/20	Non-intensive survey	Storage Ware	Pithos	10YR 5/3
9.29.2	QD.16.P.706/21	Non-intensive survey	Storage Ware	Jar	10 Y R 5/3
9.29.3	QD.16.P.707/1	Non-intensive survey	Simple Ware	Plate	5YR 5/4
9.29.4	QD.16.P.707/2	Non-intensive survey	Simple Ware	Plate	7.5YR 5/4
9.29.5	QD.16.P.707/3	Non-intensive survey	Simple Ware	Small Jar	10 Y R 6/4
9.29.6	QD.16.P.707/4	Non-intensive survey	Simple Ware	Small Jar	10 Y R 6/4
9.29.7	QD.16.P.707/5	Non-intensive survey	Simple Ware	Jar	2.5Y 5/2
9.29.8	QD.16.P.707/6	Non-intensive survey	Simple Ware	Jar	2.5Y 5/3

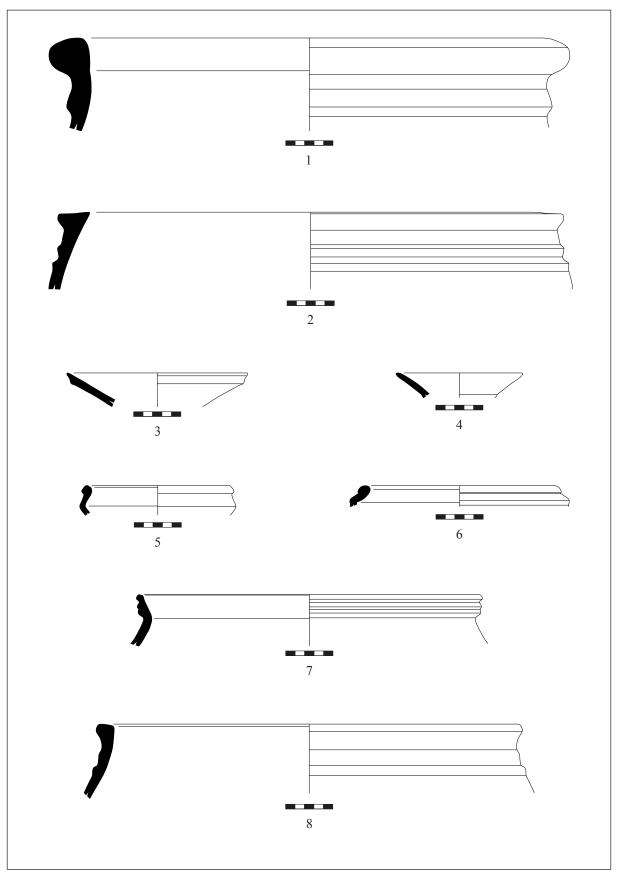


Fig. 9.29 Pottery assemblage from QD033

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.30.1	QD.16.P.707/7	Non-intensive survey	Simple Ware	Jar	7.5YR 5/4
9.30.2	QD.16.P.707/8	Non-intensive survey	Simple Ware	Jar	5YR 5/4
9.30.3	QD.16.P.707/9	Non-intensive survey	Simple Ware	Jar	2.5Y 6/3
9.30.4	QD.16.P.707/10	Non-intensive survey	Simple Ware	Jar	10YR 6/3
9.30.5	QD.16.P.707/11	Non-intensive survey	Simple Ware	Jar	10YR 5/3
9.30.6	QD.16.P.707/12	Non-intensive survey	Simple Ware	Jar	7.5YR 5/4
9.30.7	QD.16.P.707/13	Non-intensive survey	Simple Ware	Jar	10 Y R 6/4
9.30.8	QD.16.P.707/14	Non-intensive survey	Simple Ware	Jar	5YR 5/4

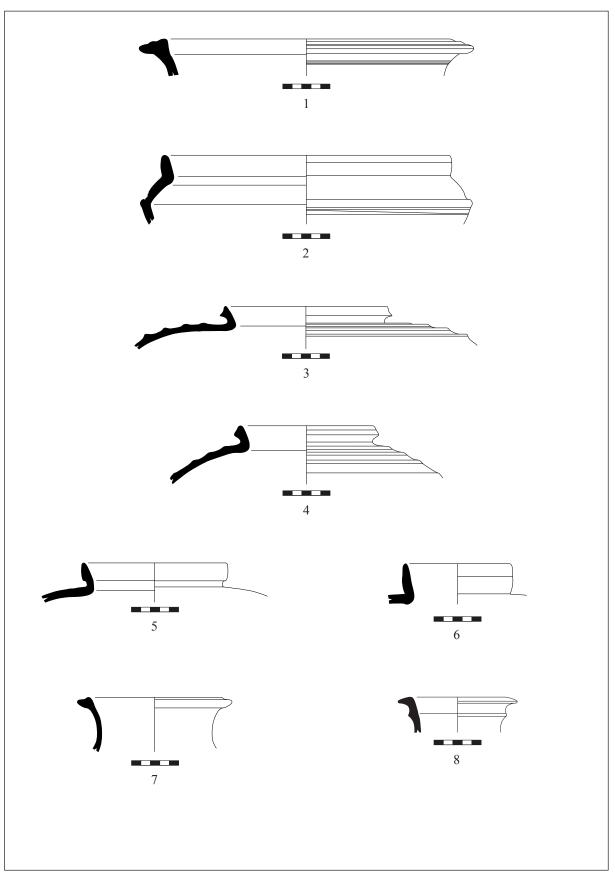


Fig. 9.30 Pottery assemblage from QD033

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.31.1	QD.16.P.707/15	Non-intensive survey	Simple Ware	Small Jar	7.5YR 6/4
9.31.2	QD.16.P.707/16	Non-intensive survey	Simple Ware	Small Jar	10 Y R 5/3
9.31.3	QD.16.P.707/17	Non-intensive survey	Simple Ware	Small Jar	7.5YR 5/4
9.31.4	QD.16.P.707/18	Non-intensive survey	Storage Ware	Jar	10 Y R 5/3

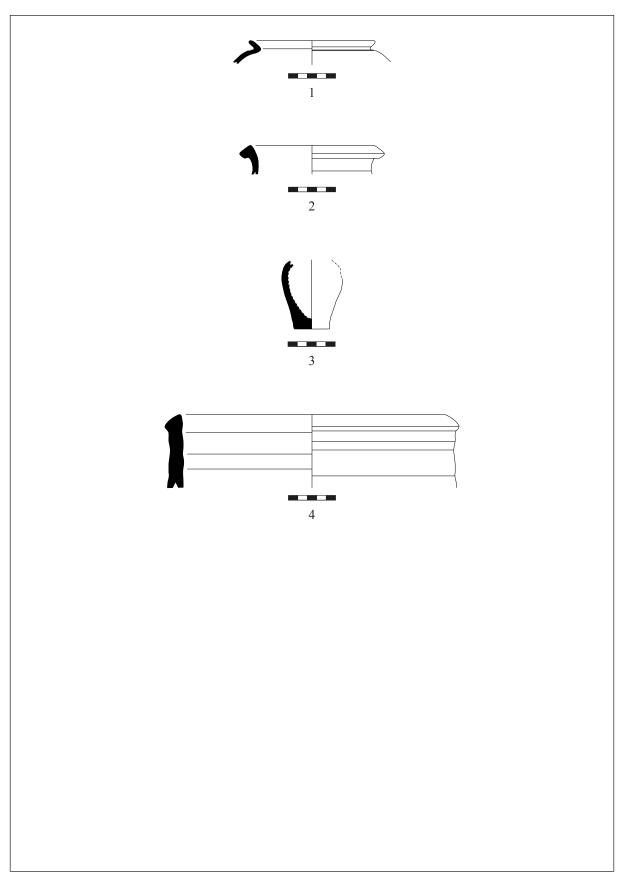


Fig. 9.31 Pottery assemblage from QD033

Fig.	Object Fig.	Provenance	Class of object	Type of object
9.32.1	QD.16.O.176	Non-intensive survey	Figurine	Chariot wheel
9.32.2	QD.16.O.177	Non-intensive survey	Tool	Grinding stone
9.32.3	QD.16.O.245	Non-intensive survey	Tool	Sickle
9.32.4	QD.16.O.246	Non-intensive survey	Tool	Chariot wheel
9.32.5	QD.16.O.247	Non-intensive survey	Tool	Chariot wheel
9.32.6	QD.16.O.257	Non-intensive survey	Figurine	Model
9.32.7	QD.16.O.282	Non-intensive survey	Tool	Sickle

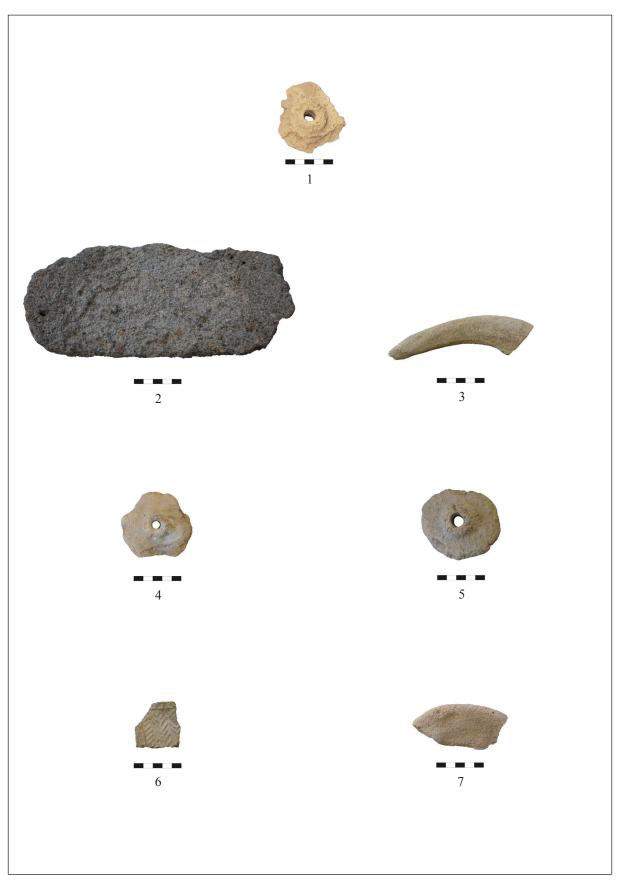


Fig. 9.32 Small finds from QD033

QD035 is a site of irregular shape, consisting of a high mound to the north. The soil is characterized by sand and clay. Fields are located to the west and south. Recent looting is attested on the main mound. Along the site's eastern side, there are three clusters of pottery slags and bricks. The paleochannel is located very close to them, running north-south.

Identification code	QD035
Visit date	October 2016; January 2017
District	Afak
Ancient name of the site	Larak [?]
Modern name of the site	Tell el-Laham
Adams identification code	1230
Coordinates (WGS84 UTM)	538353.00 m E 3546431.00 m N

Pottery

From the EB IV pottery repertoire collected at QD035, the most represented ware type is Simple Ware (80% of the total collection), followed by Storage Ware (20%). No Cooking Ware is attested.

No surface treatments are present on the sherds collected. Decorations are present on 22.5% of the sherds collected and are mostly applied (56%), with a limited occurrence of impressed (22%), incised (11%), and grooved (11%) motifs.

About 72% of the Simple Ware has fine homogeneous fabric, with a medium frequency (3-10%) of small (<0.5 mm) and medium (0.5-1 mm) inclusions, while 28% has a low frequency (<3%) of small (<0.5 mm) inclusions, while Storage Ware has a coarser fabric, with a medium frequency (3-10%) of medium (0.5-1 mm) and large (1-2 mm) size inclusions. Among fabric colors pinkish (7.5YR 7/4), brownish (7.5YR 4/2; 10YR 5/3, 4/3), light brownish (10YR 6/3, 7/4; 2.5Y 7/3-4), yellowish (2.5Y 6/3; 5Y 7/4-6), and olive (2.5Y 5/3, 6/6; 5Y 6/4, 5/3) are the most frequently attested.

Simple Ware comprises a broad repertoire of open and closed shapes, with a prevalence of the latter.

The open shapes encompass conical bowls with a plain rim, conical bowls with a thickened rim, and large bowls with a triangular rim.

Among closed shapes, jars with a plain rim, band-rim jars, jars with an everted

band rim, jars with everted triangular rim, jars with a multiple-ridged rim, and jars with an oval rim are attested.

Storage Ware mainly consists of closed shapes, that include pithoi with plain rim (oval or triangular), and pithoi with grooved rim.

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.33.1	QD.16.P.459/1	Intensive survey	Simple Ware	N/A	2.5Y 5/2
9.33.2	QD.16.P.461/5	Intensive survey	Simple Ware	Jar	5Y 5/3
9.33.3	QD.16.P.469/1	Intensive survey	Simple Ware	Bowl	2.5Y 5/1, I/O 2.5Y 6/3
9.33.4	QD.16.P.478/1	Intensive survey	Simple Ware	Jar	10 Y R 5/3
9.33.5	QD.16.P.478/2	Intensive survey	Storage Ware	Jar	7.5YR 4/2
9.33.6	QD.16.P.481/1	Intensive survey	Simple Ware	Bowl	2.5Y 5/3
9.33.7	QD.16.P.481/2	Intensive survey	Simple Ware	Beaker	2.5Y 5/2
9.33.8	QD.16.P.481/3	Intensive survey	Simple Ware	Small Jar	10YR 6/3

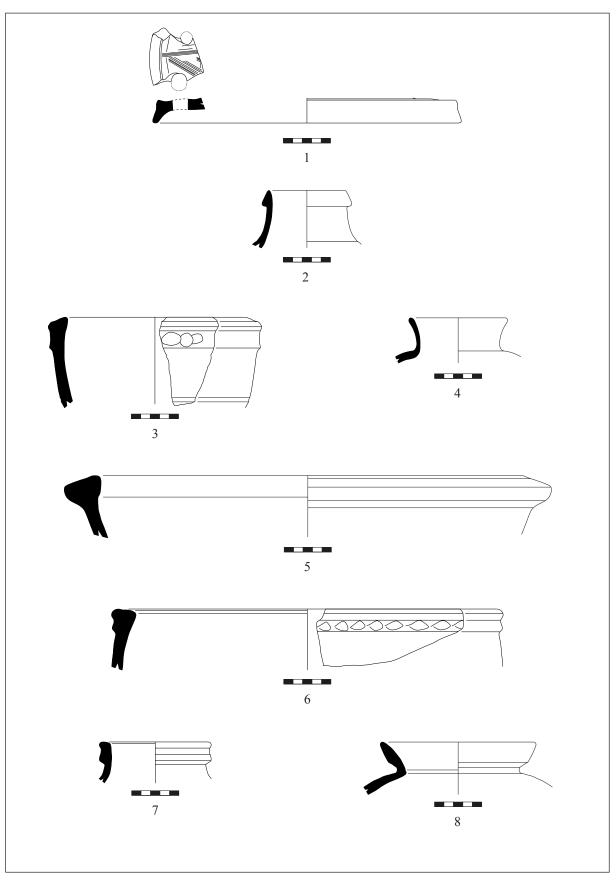


Fig. 9.33 Pottery assemblage from QD035

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.34.1	QD.16.P.481/4	Intensive survey	Simple Ware	Small Jar	2.5Y 6/3
9.34.2	QD.16.P.497/1	Intensive survey	Simple Ware	Bowl	7.5YR 7/4
9.34.3	QD.16.P.498/7	Intensive survey	Simple Ware	Bowl	5Y 7/6
9.34.4	QD.16.P.498/8	Intensive survey	Storage Ware	Jar	5Y 6/4
9.34.5	QD.16.P.750/1	Intensive survey	Simple Ware	Bowl	5Y 5/3
9.34.6	QD.16.P.750/2	Intensive survey	Simple Ware	Bowl	5Y 5/3
9.34.7	QD.16.P.750/3	Intensive survey	Simple Ware	Bowl	5Y 4/1
9.34.8	QD.16.P.750/4	Intensive survey	Simple Ware	Jar	10 Y R 5/4
9.34.9	QD.16.P.750/5	Intensive survey	Simple Ware	Jar	2.5Y 6/3
9.34.10	QD.16.P.750/6	Intensive survey	Storage Ware	Pithos	5Y 5/3

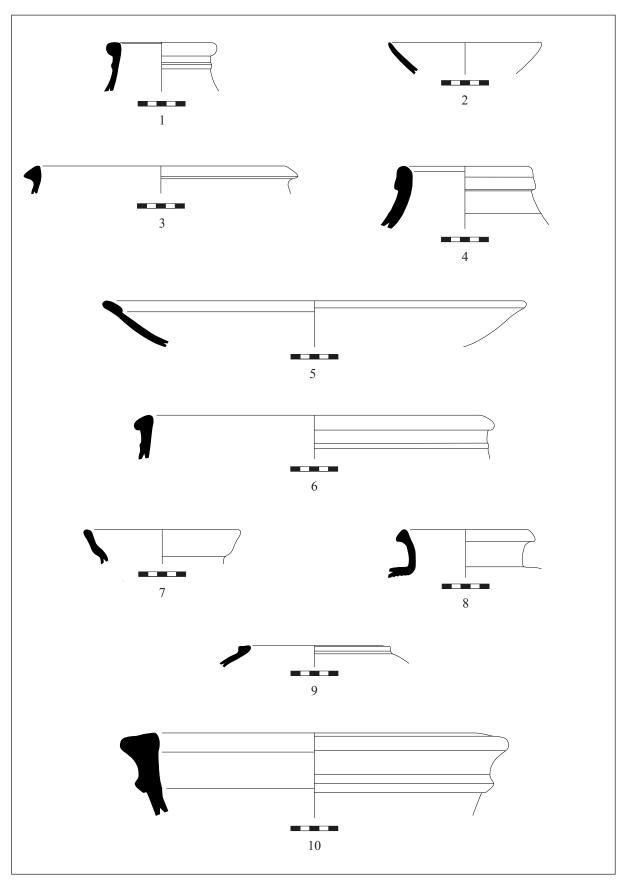


Fig. 9.34 Pottery assemblage from QD035

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.35.1	QD.16.P.750/7	Intensive survey	Storage Ware	Pithos	10YR 5/3
9.35.2	QD.16.P.751/1	Intensive survey	Simple Ware	Jar	5Y 5/3
9.35.3	QD.16.P.751/2	Intensive survey	Storage Ware	Bowl	10YR 4/3
9.35.4	QD.16.P.751/3	Intensive survey	Storage Ware	N/A	2.5Y 5/3
9.35.5	QD.16.P.752/1	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.35.6	QD.16.P.752/2	Intensive survey	Simple Ware	Bowl	5Y 6/4
9.35.7	QD.16.P.752/3	Intensive survey	Simple Ware	Bowl	2.5Y 5/3
9.35.8	QD.16.P.752/4	Intensive survey	Simple Ware	Jar	2.5Y 6/6
9.35.9	QD.16.P.752/5	Intensive survey	Simple Ware	Jar	2.5Y 7/3
9.35.10	QD.16.P.752/6	Intensive survey	Simple Ware	Jar	10 Y R 7/4
9.35.11	QD.16.P.752/7	Intensive survey	Simple Ware	Jar	2.5Y 7/4

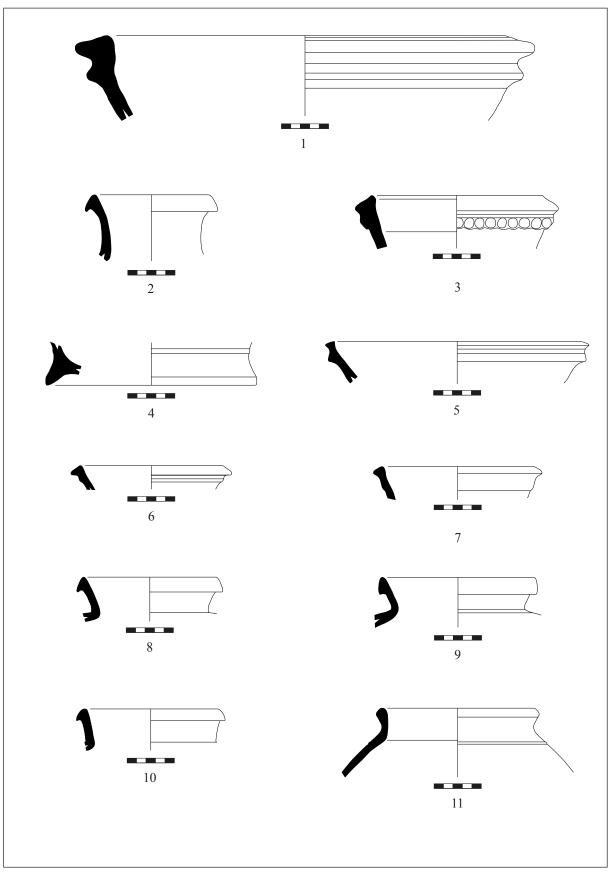


Fig. 9.35 Pottery assemblage from QD035

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.36.1	QD.16.P.752/8	Intensive survey	Storage Ware	Pithos	5Y 7/6
9.36.2	QD.16.P.753/7	Intensive survey	Simple Ware	Jar	5Y 5/3
9.36.3	QD.16.P.754/1	Intensive survey	Simple Ware	Bowl	2.5Y 3/1
9.36.4	QD.16.P.754/2	Intensive survey	Simple Ware	Bowl	5Y 5/2
9.36.5	QD.16.P.754/3	Intensive survey	Simple Ware	Jar	10YR 5/3
9.36.6	QD.16.P.754/4	Intensive survey	Simple Ware	Jar	2.5Y 7/4
9.36.7	QD.16.P.754/5	Intensive survey	Simple Ware	Jar	2.5Y 5/2
9.36.8	QD.16.P.755/1	Intensive survey	Simple Ware	Small Jar	10YR 6/3
9.36.9	QD.16.P.755/2	Intensive survey	Simple Ware	Jar	2.5Y 6/3
9.36.10	QD.16.P.755/3	Intensive survey	Simple Ware	Jar	2.5Y 6/3
9.36.11	QD.16.P.755/4	Intensive survey	Storage Ware	Pithos	2.5Y 5/2

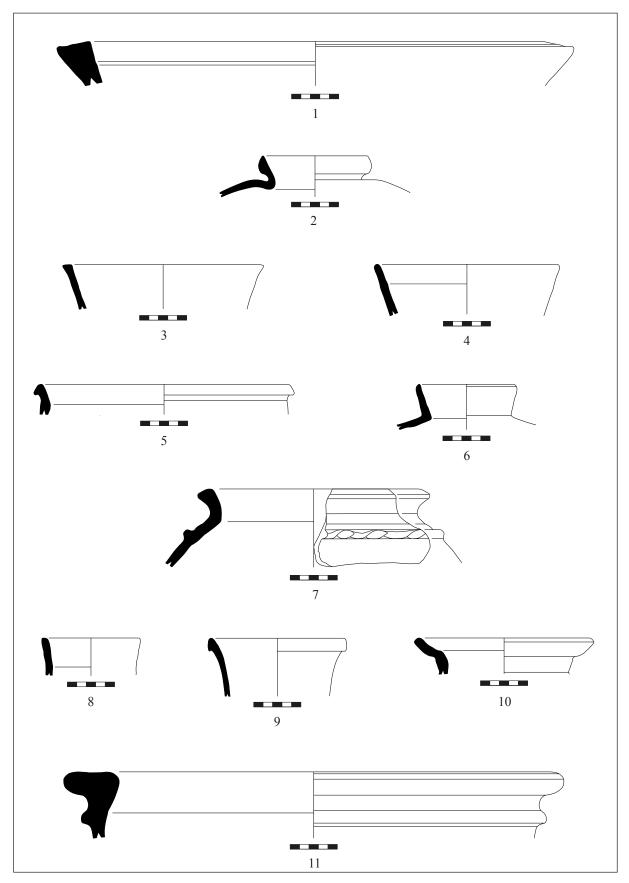


Fig. 9.36 Pottery assemblage from QD035

QD036 is a site of pseudo-rectangular shape, consisting of a high mound in the center. The soil is characterized by a thin crust of clay and silt. Fields are located all around, partially damaging the site to the north. Few sparse looting pits are located on the high mound. Along the site's eastern side, a paleochannel running north-south is still visible.

Identification code	QD036
Visit date	October 2016
District	Afak
Ancient name of the site	-
Modern name of the site	Tell Abu Qubur
Adams identification code	1235
Coordinates (WGS84 UTM)	540180.00 m E 3547209.00 m N

Pottery

From the EB IV pottery repertoire collected at QD036, the most represented ware type is Simple Ware (69% of the total collection), followed by Storage Ware (23%) and Cooking Ware (8%).

No surface treatments are present on the sherds collected. Decorations are poorly attested and encompass mostly applied and incised motifs.

The Simple Ware EB IV assemblage has a medium frequency (3-10%) of small (<0.5 mm) and medium (0.5-1 mm) inclusions, while Storage Ware has a coarser fabric, with a high frequency (10-20%) of medium-size (0.5-1 mm) inclusions. Cooking Ware has a coarse fabric, with a very high frequency (> 20%) of medium-size (0.5-1 mm) inclusions. Among fabric colors light brownish (7.5YR 6/4; 10YR 6/3-4; 2.5Y 7/3-4), yellowish (2.5Y 6/3-4), olive (2.5Y 5/3), and grayish (5Y 4/1) are the most frequently attested.

The Simple Ware repertoire comprises open and closed shapes, with a prevalence of the latter.

Among open shapes, plain beakers and jars with carinated sides are attested.

Among closed shapes, jars with an oval rim, jars with a multiple-ridged rim, and jars with triangular rim are attested.

Storage Ware mainly consists of closed shapes, that include pithoi with a plain rim

(oval or triangular), and pithoi with a grooved rim.

Only one sherd of Cooking Ware is attested, consisting of a large tray.

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Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.37.1	QD.16.P.452/1	Non-intensive survey	Simple Ware	Beaker	10 Y R 6/3
9.37.2	QD.16.P.452/2	Non-intensive survey	Simple Ware	Jar	2.5Y 5/3, I/O 2.5Y 7/4
9.37.3	QD.16.P.452/3	Non-intensive survey	Simple Ware	Bowl	10YR 6/4, I/O 2.5Y 7/4
9.37.4	QD.16.P.452/4	Non-intensive survey	Simple Ware	Bowl	2.5Y 5/3
9.37.5	QD.16.P.452/5	Non-intensive survey	Simple Ware	Jar	7.5YR 6/4, I/O 10YR 7/3
9.37.6	QD.16.P.452/6	Non-intensive survey	Simple Ware	Jar	5Y 4/1, I/O 5Y 6/3
9.37.7	QD.16.P.452/7	Non-intensive survey	Simple Ware	Jar	2.5Y 6/3
9.37.8	QD.16.P.452/8	Non-intensive survey	Simple Ware	Jar	2.5Y 6/4
9.37.9	QD.16.P.452/9	Non-intensive survey	Simple Ware	N/A	2.5Y 5/3

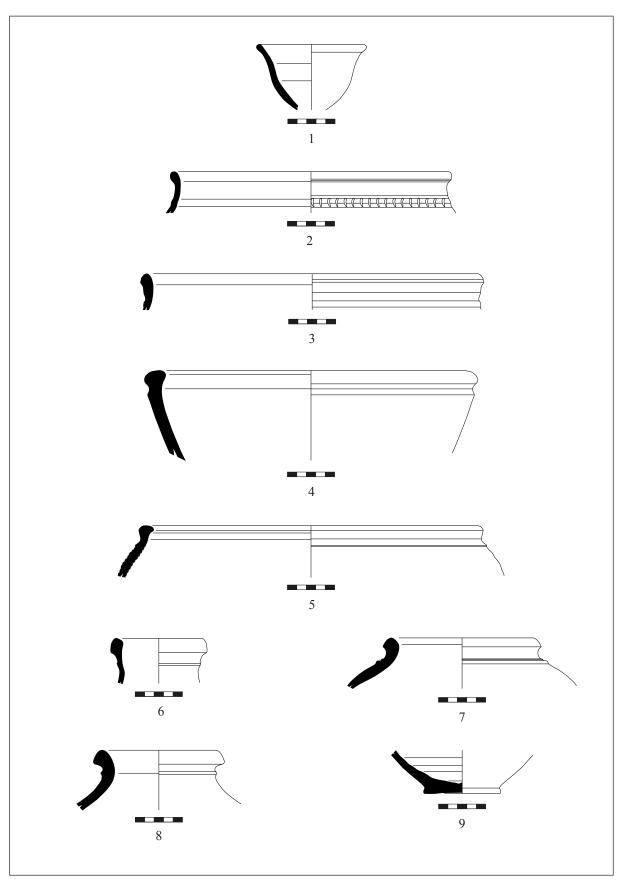


Fig. 9.37 Pottery assemblage from QD036

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.38.1	QD.16.P.452/10	Non-intensive survey	Cooking Ware	Tray	10 Y R 6/4
9.38.2	QD.16.P.452/11	Non-intensive survey	Storage Ware	Pithos	2.5Y 6/3
9.38.3	QD.16.P.452/12	Non-intensive survey	Storage Ware	Pithos	2.5Y 6/3
9.38.4	QD.16.P.452/13	Non-intensive survey	Storage Ware	Pithos	O 2.5Y 6/4 I 2.5Y 6/3

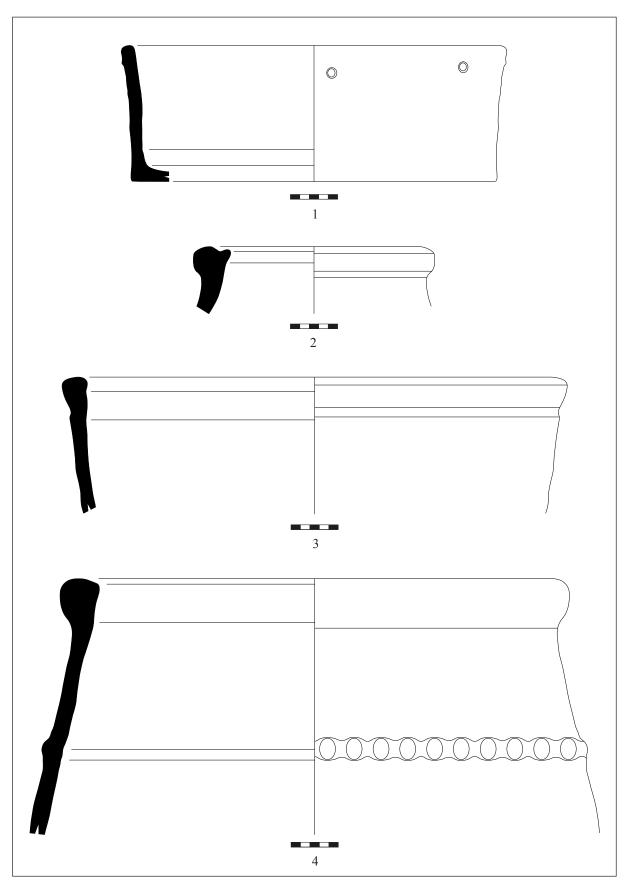


Fig. 9.38 Pottery assemblage from QD036

QD038 is a site of irregular shape, with three main mounds (in sectors A, B, and D). A uniform layer of sand and dusty soil covered the entire surface of the site. No agricultural activities and modern buildings and streets are attested. Modern canals delimited the site to the south, west, and east. Traces of ancient buildings can be recognized from satellite images in all the sectors, including part of the ziggurat precint.

Identification code	QD036
Visit date	January, October 2016; January, October 2017
District	Afak
Ancient name of the site	Tummal [?]
Modern name of the site	Tell Dlehim
Adams identification code	1237
Coordinates (WGS84 UTM)	528639.00 m E 3540323.00 m N

Pottery

The EB IV pottery assemblage from QD038 comprises two sherds of Simple Ware. No surface treatment is attested. One of the sherds presents an applied decoration. A fine homogenous fabric characterizes these two pottery shapes, with a low frequency (<3%) of small size (<0.5 mm) inclusions. The fabric color is mainly light gray (2.5Y 7/2; 5Y 7/2). The pottery shapes collected are a small jar with a triangular rim and a large bowl with a triangular rim.

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.39.1	DL.16.P.28/7	Intensive survey	Simple Ware	Small Jar	2.5Y 7/2
9.39.2	DL.16.P.28/22	Intensive survey	Simple Ware	Bowl	5Y 7/2

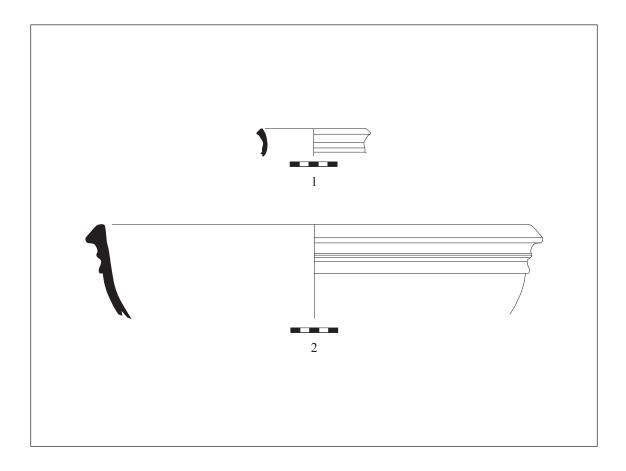
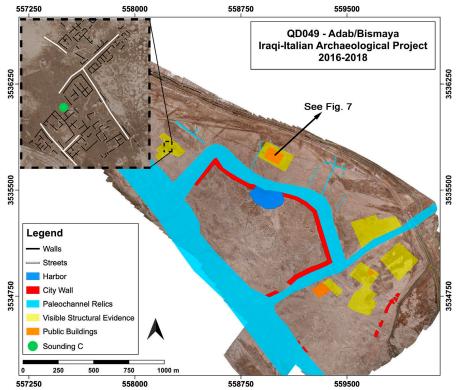


Fig. 9.39 Pottery assemblage from QD038

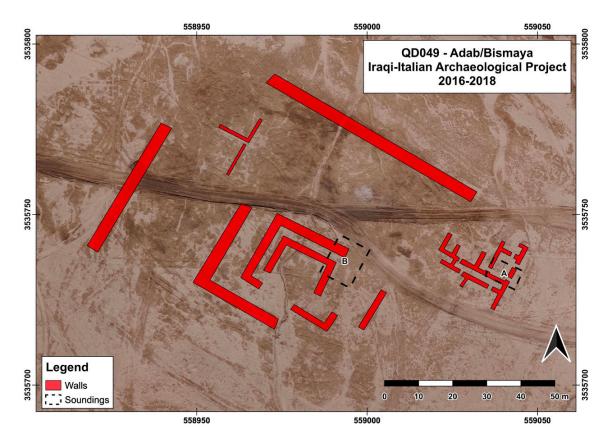
QD049 corresponds to the ancient city of Adab, modern Bismaya. This site, during the EB III and the EB IV periods, was a megacity of approximately 460 ha, with thick fortification walls and a port facility. The EB IV period is best represented by the outskirts of Adab, where a large palace and a house quarter visible in drone imagery were exposed through scraping and test soundings in 2017.

QD049 held major importance during the EB IV period. The occurrence of a large amount of EB IV pottery brought to light by illicit digging and collected during the surface survey emphasizes the EB IV occupation of the site.

Identification code	QD049
Visit date	January, October 2017; January 2018
District	Afak
Ancient name of the site	Adab
Modern name of the site	Bismaya
Adams identification code	1426
Coordinates (WGS84 UTM)	558810.00 m E 3535285.00 m N



Map 9.2.1 Topographical plan of QD049.



Map 9.2.2 Hypothetical reconstruction of the palatial complex discovered at QD049 (Soundings A and B).

Pottery

From the EB IV pottery repertoire collected at QD049, the most represented ware type is Simple Ware (91% of the total collection), followed by Storage Ware (9%). No Cooking Ware is attested.

Surface treatments are present on 9% of the sherds collected and include exclusively White Slip. Decorations are present on 6% of the sherds collected and are mostly grooved (32%), with a good occurrence of applied (22%), incised (30%), and combed (16%) motifs.

About 65% of the Simple Ware has fine homogeneous fabric, with a low frequency (< 3%) of small (<0.5 mm) and medium (0.5-1 mm) inclusions, while 35% has a medium frequency (3-10%) of small (<0.5 mm) and medium (0.5-1 mm) inclusions, while Storage Ware has a coarser fabric, with a high frequency (10-20%) of medium (0.5-1 mm) and large (1-2 mm) size inclusions. Among fabric colors pinkish (7.5YR 7/3), reddish brown (5YR 5/4), brownish (7.5YR 5/4; 10YR 3/3, 4/3, 5/3), light brownish (7.5YR 6/4; 10YR 6/3-4; 2.5Y 5/3), yellowish brown (10YR 5/4; 2.5Y 7/34, 6/3-4), yellowish (5Y 7/3-4), and olive (5Y 6/3-4) are the most frequently attested.

Simple Ware comprises a broad repertoire of open and closed shapes, with a prevalence of the latter.

The open shapes comprise conical bowls with a thickened rim, bowls with a triangular overhanging rim, large bowls with a triangular rim (and in some cases wavy comb-incised decorations), kraters with plain rim and comb-incised decoration, kraters with rectangular rim and comb-incised decoration, and kraters with multiple-ridged rim and comb-incised decorations.

Closed shapes comprise jars with a plain rim, band-rim jars, jars with everted band rim, jars with triangular rim, jars with oval rim, jars with everted triangular rim, jars with a triangular rim and ridged shoulder, stands, and jars with multiple ridged rim.

Storage Ware mainly consists of closed shapes, that include pithoi with a plain rim (oval or triangular), and pithoi with a grooved rim.

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.40.1	AD.17.P.43/3	Non-intensive survey	Simple Ware	Jar	5Y 6/4
9.40.2	AD.17.P.43/4	Non-intensive survey	Simple Ware	Jar	7.5YR 6/6
9.40.3	AD.17.P.44/1	Non-intensive survey	Simple Ware	Bowl	2.5Y 8/2
9.40.4	AD.17.P.44/2	Non-intensive survey	Simple Ware	Bowl	5Y 7/3
9.40.5	AD.17.P.44/3	Non-intensive survey	Simple Ware	Bowl	2.5Y 8/3
9.40.6	AD.17.P.44/4	Non-intensive survey	Simple Ware	Jar	2.5Y 7/2
9.40.7	AD.17.P.44/5	Non-intensive survey	Simple Ware	N/A	2.5Y 8/3
9.40.8	AD.17.P.44/6	Non-intensive survey	Storage Ware	Pithos	2.5Y 7/2

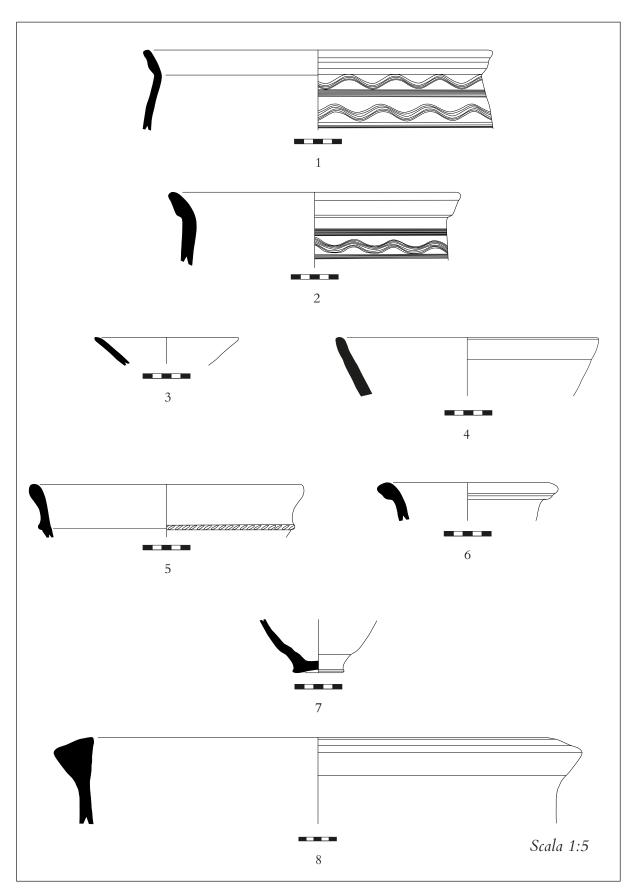


Fig. 9.40 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.41.1	AD.17.P.44/7	Non-intensive survey	Storage Ware	Pithos	5YR 7/3
9.41.2	AD.17.P.49/1	Non-intensive survey	Simple Ware	Bowl	10YR 7/2, I/O 5YR 7/4
9.41.3	AD.17.P.54a/1	Non-intensive survey	Storage Ware	Jar	2.5Y 6/3
9.41.4	AD.17.P.81/1	Sounding A	Simple Ware	Bowl	10YR 4/1, I/O 2.5Y 6/2
9.41.5	AD.17.P.81/2	Sounding A	Simple Ware	Jar	2.5Y 6/3, I/O 2.5Y 6/2
9.41.6	AD.17.P.81/3	Sounding A	Simple Ware	Jar	5Y 6/2
9.41.7	AD.17.P.81/4	Sounding A	Simple Ware	Small jar	2.5Y 6/3
9.41.8	AD.17.P.81/5	Sounding A	Simple Ware	Jar	2.5Y 6/3
9.41.9	AD.17.P.81/6	Sounding A	Simple Ware	Jar	5Y 6/3
9.41.10	AD.17.P.81/7	Sounding A	Simple Ware	N/A	2.5Y 7/3
9.41.11	AD.17.P.81/8	Sounding A	Simple Ware	N/A	2.5Y 7/2
9.41.12	AD.17.P.82/1	Sounding A	Simple Ware	Bowl	10YR 6/3
9.41.13	AD.17.P.82/2	Sounding A	Simple Ware	Bowl	10YR 6/3

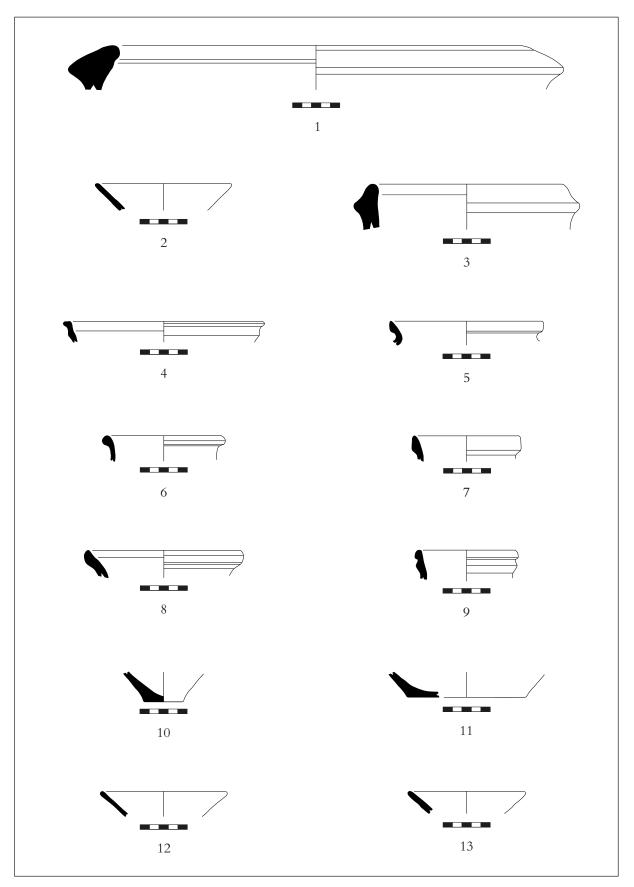


Fig. 9.41 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Pottery Class	Shape	Fabric
9.42.1	AD.17.P.82/3	Sounding A	Simple Ware	Bowl	10YR 6/3
9.42.2	AD.17.P.83/1	Sounding B	Simple Ware	Bowl	N 4/
9.42.3	AD.17.P.83/2	Sounding B	Simple Ware	Bowl	10 Y R 5/3
9.42.4	AD.17.P.83/3	Sounding B	Simple Ware	Bowl	10YR 5/2
9.42.5	AD.17.P.83/4	Sounding B	Simple Ware	Small jar	10YR 6/2
9.42.6	AD.17.P.83/5	Sounding B	Simple Ware	Bowl	10 Y 5/
9.42.7	AD.17.P.83/6	Sounding B	Simple Ware	Bowl	10 Y 5/
9.42.8	AD.17.P.83/7	Sounding B	Simple Ware	Small jar	2.5Y 6/3
9.42.9	AD.17.P.83/8	Sounding B	Simple Ware	Bowl	2.5Y 7/2
9.42.10	AD.17.P.83/9	Sounding B	Simple Ware	N/A	2.5Y 7/4
9.42.11	AD.17.P.83/10	Sounding B	Simple Ware	N/A	10 Y R 6/1

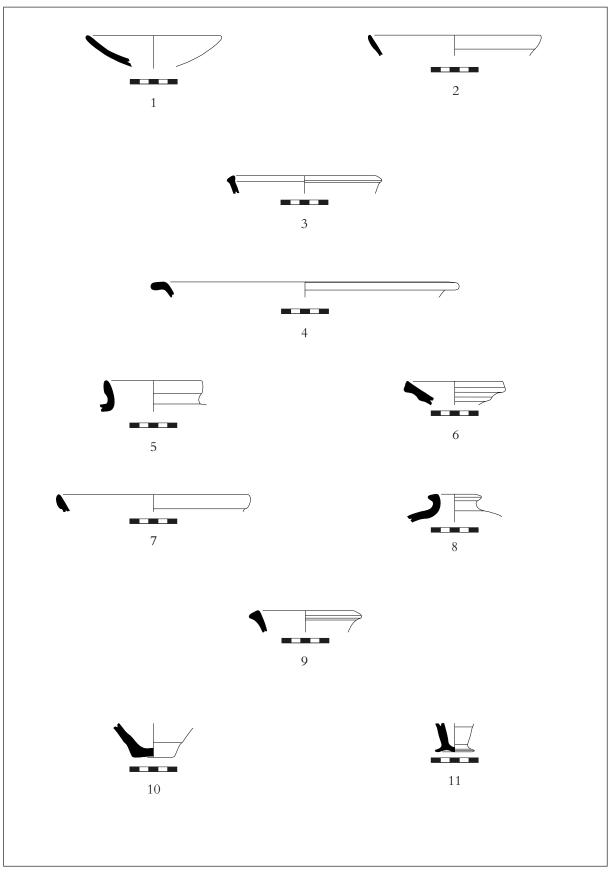


Fig. 9.42 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.43.1	AD.17.P.84/1	Sounding B	Simple Ware	Bowl	5Y 6/3
9.43.2	AD.17.P.84/2	Sounding B	Simple Ware	Bowl	2.5Y 3/1, I/O 10YR 6/2
9.43.3	AD.17.P.84/3	Sounding B	Simple Ware	Jar	2.5Y 6/2
9.43.4	AD.17.P.84/4	Sounding B	Simple Ware	Jar	10YR 3/1
9.43.5	AD.17.P.84/5	Sounding B	Simple Ware	N/A	2.5Y 6/2
9.43.6	AD.17.P.85/1	Sounding B	Simple Ware	Bowl	2.5Y 6/2
9.43.7	AD.17.P.86/1	Sounding B	Simple Ware	Bowl	7.5YR 6/4
9.43.8	AD.17.P.87/1	Sounding A	Storage Ware	Pithos	7.5YR 7/3
9.43.9	AD.17.P.88/1	Sounding B	Simple Ware	Jug	5Y 7/3
9.43.10	AD.17.P.88/2	Sounding B	Simple Ware	Small jar	5Y 7/3
9.43.11	AD.17.P.88/3	Sounding B	Simple Ware	Jar	2.5Y 7/3
9.43.12	AD.17.P.88/4	Sounding B	Simple Ware	Jar	5Y 7/4

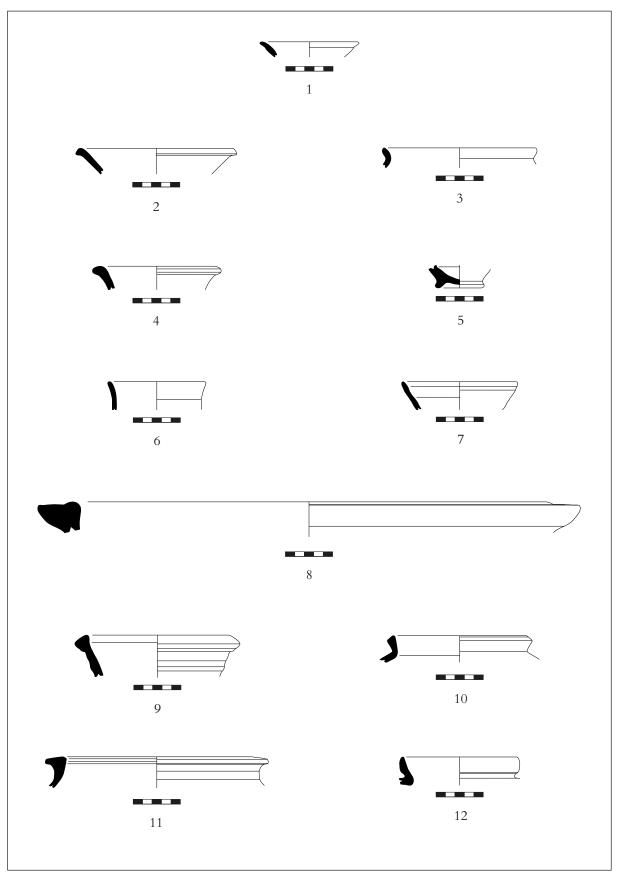


Fig. 9.43 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.44.1	AD.17.P.88/5	Sounding B	Simple Ware	Small jar	5YR 3/1
9.44.2	AD.17.P.88/6	Sounding B	Simple Ware	N/A	5YR 3/1
9.44.3	AD.17.P.88/7	Sounding B	Storage Ware	Pithos	5Y 7/3
9.44.4	AD.17.P.89/1	Sounding C2	Simple Ware	Bowl	N 4/
9.44.5	AD.17.P.89/2	Sounding C2	Simple Ware	Bowl	2.5Y 6/2
9.44.6	AD.17.P.89/3	Sounding C2	Simple Ware	Bowl	10YR 6/3
9.44.7	AD.17.P.89/4	Sounding C2	Simple Ware	Bowl	O 10YR 8/3, I 10YR 7/4
9.44.8	AD.17.P.89/5	Sounding C2	Simple Ware	Bowl	2.5Y 5/3
9.44.9	AD.17.P.89/6	Sounding C2	Simple Ware	Beaker	2.5Y 5/4
9.44.10	AD.17.P.89/7	Sounding C2	Simple Ware	Small jar	5Y 6/2
9.44.11	AD.17.P.89/8	Sounding C2	Simple Ware	Small jar	O 5Y 7/2, I 5Y 5/2

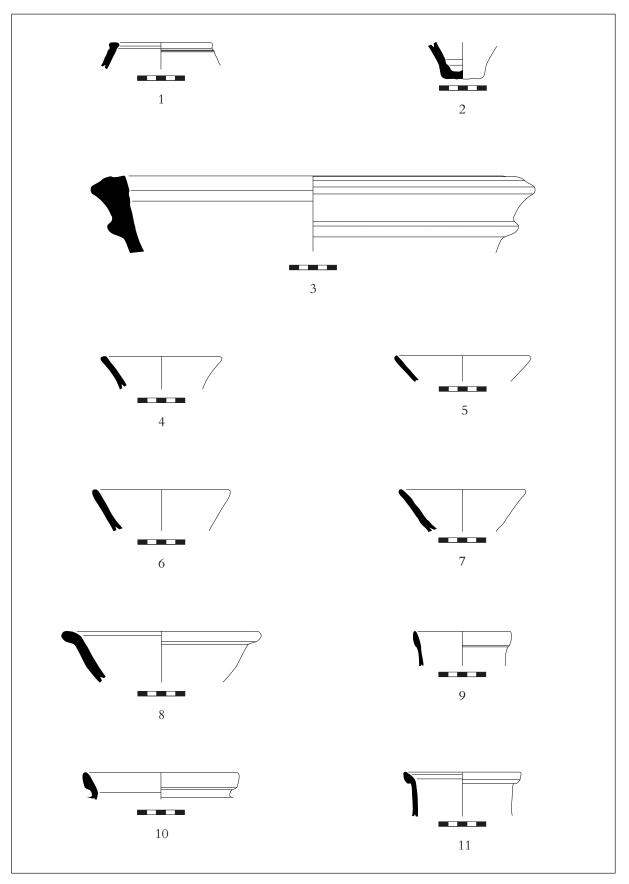


Fig. 9.44 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.45.1	AD.17.P.89/9	Sounding C2	Storage Ware	Jar	10 Y 5/2
9.45.2	AD.17.P.90/1	Sounding C2	Simple Ware	Bowl	2.5Y 7/2
9.45.3	AD.17.P.90/3	Sounding C2	Simple Ware	Jar	10 Y R 7/3
9.45.4	AD.17.P.90/4	Sounding C2	Storage Ware	Pithos	7.5YR 7/4
9.45.5	AD.17.P.106/1	Non-intensive survey	Simple Ware	Bowl	5Y 7/2
9.45.6	AD.17.P.106/2	Non-intensive survey	Simple Ware	Jar	N 5/, I/O 5Y 7/2
9.45.7	AD.17.P.106/3	Non-intensive survey	Simple Ware	Jar	5Y 7/3, I/O 5Y 6/2
9.45.8	AD.17.P.106/4	Non-intensive survey	Simple Ware	Small Jar	5Y 7/2
9.45.9	AD.17.P.106/5	Non-intensive survey	Simple Ware	Jar	5Y 7/2

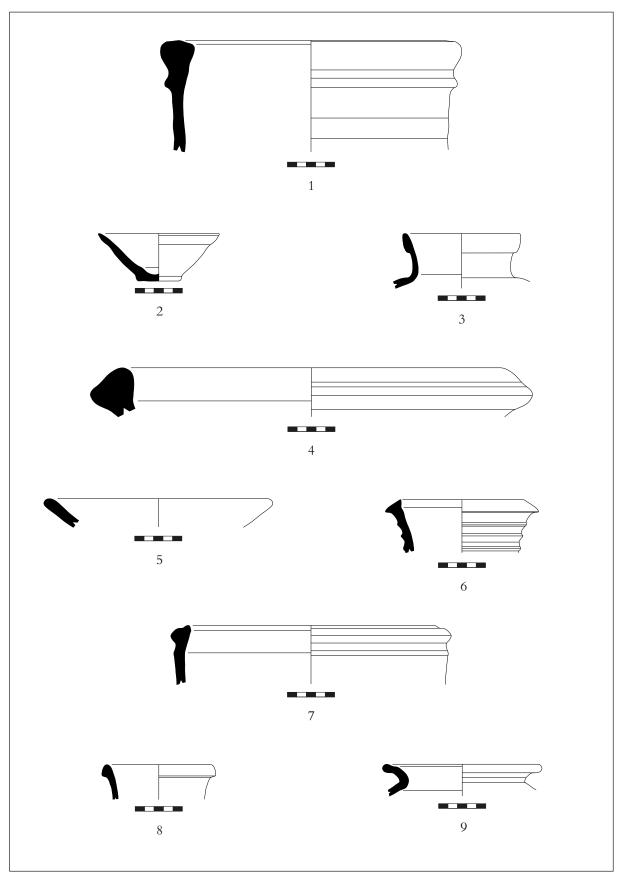


Fig. 9.45 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.46.1	AD.17.P.106/6	Non-intensive survey	Simple Ware	Jar	5Y 6/2
9.46.2	AD.17.P.106/7	Non-intensive survey	Simple Ware	Jar	5Y 5/2
9.46.3	AD.17.P.106/8	Non-intensive survey	Storage Ware	Jar	N 5/, I/O 5Y 6/2
9.46.4	AD.17.P.106/9	Non-intensive survey	Storage Ware	Jar	2.5Y 7/2
9.46.5	AD.17.P.106/11	Non-intensive survey	Simple Ware	Beaker	5Y 7/2
9.46.6	AD.17.P.108/1	Non-intensive survey	Simple Ware	Bowl	10 Y R 5/3
9.46.7	AD.17.P.108/2	Non-intensive survey	Simple Ware	Bowl	2.5Y 6/3
9.46.8	AD.17.P.108/3	Non-intensive survey	Simple Ware	Bowl	10YR 6/3
9.46.9	AD.17.P.108/4	Non-intensive survey	Simple Ware	Bowl	10 Y R 6/3
9.46.10	AD.17.P.108/5	Non-intensive survey	Simple Ware	Bowl	2.5Y 5/2

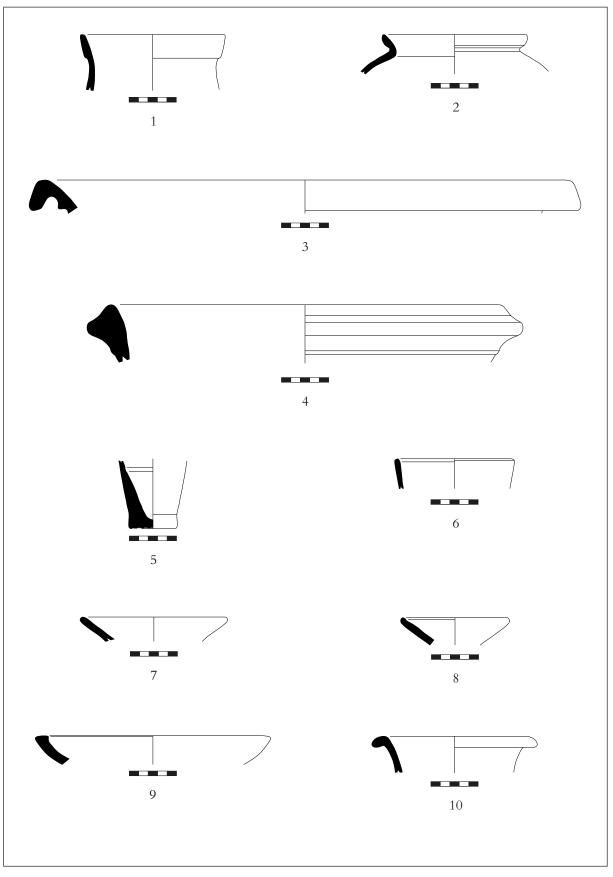


Fig. 9.46 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.47.1	AD.17.P.108/6	Non-intensive survey	Simple Ware	Bowl	2.5Y 5/2
9.47.2	AD.17.P.108/7	Non-intensive survey	Simple Ware	Small Jar	2.5Y 5/2
9.47.3	AD.17.P.108/8	Non-intensive survey	Simple Ware	Small Jar	7.5YR 5/3
9.47.4	AD.17.P.108/9	Non-intensive survey	Storage Ware	Bowl	10YR 5/3
9.47.5	AD.17.P.109/1	Non-intensive survey	Simple Ware	Bowl	2.5Y 7/2
9.47.6	AD.17.P.109/2	Non-intensive survey	Simple Ware	Krater	N 6/, I/O 5Y 7/2
9.47.7	AD.17.P.109/3	Non-intensive survey	Simple Ware	Jar	5Y 7/2
9.47.8	AD.17.P.109/4	Non-intensive survey	Simple Ware	Jar	5Y 7/2, I/O N 6/
9.47.9	AD.17.P.109/5	Non-intensive survey	Simple Ware	Jar	5Y 8/2
9.47.10	AD.17.P.109/6	Non-intensive survey	Simple Ware	Krater	2.5Y 7/2
9.47.11	AD.17.P.109/7	Non-intensive survey	Simple Ware	N/A	2.5Y 6.1, I/O 2.5Y 7/1

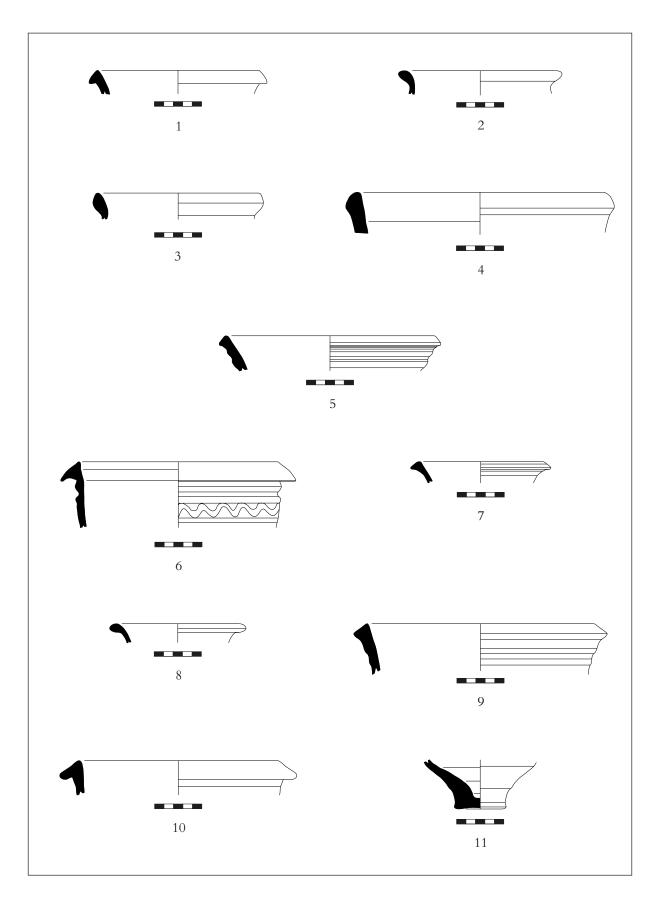


Fig. 9.47 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.48.1	AD.17.P.109/8	Non-intensive survey	Storage Ware	Jar	2.5Y 7/3
9.48.2	AD.17.P.139/2	Non-intensive survey	Simple Ware	N/A	5Y 8/4
9.48.3	AD.17.P.139/3	Non-intensive survey	Storage Ware	Jar	10 Y R 8/2
9.48.4	AD.17.P.139/4	Non-intensive survey	Storage Ware	Jar	5Y 6/4
9.48.5	AD.17.P.140/4	Non-intensive survey	Simple Ware	Jar	2.5Y 6/4

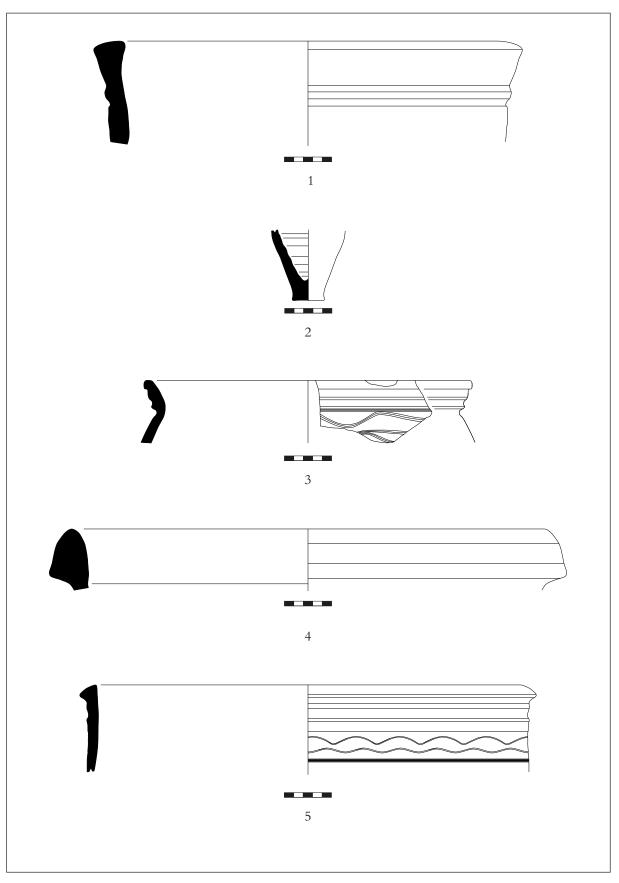


Fig. 9.48 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.49.1	AD.17.P.144/1	Non-intensive survey	Simple Ware	Bowl	5Y 7/3
9.49.2	AD.17.P.144/3	Non-intensive survey	Simple Ware	Jar	2.5Y 7/4
9.49.3	AD.17.P.144/4	Non-intensive survey	Simple Ware	Jar	2.5Y 7/4
9.49.4	AD.17.P.144/5	Non-intensive survey	Simple Ware	Jar	2.5Y 7/3
9.49.5	AD.17.P.144/6	Non-intensive survey	Simple Ware	Jar	5Y 7/6

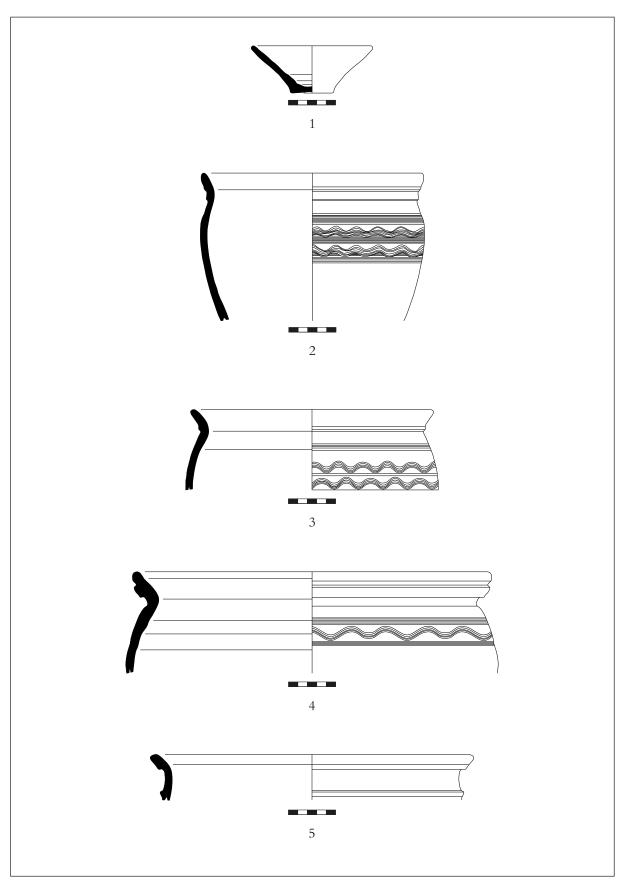


Fig. 9.49 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.50.1	AD.17.P.144/7	Non-intensive survey	Simple Ware	Jar	10YR 8/3
9.50.2	AD.17.P.144/8	Non-intensive survey	Simple Ware	Jar	5Y 7/3
9.50.3	AD.17.P.144/9	Non-intensive survey	Simple Ware	Jar	5Y 7/2, I/O 7.5YR 4/1
9.50.4	AD.17.P.145/1	Non-intensive survey	Simple Ware	Beaker	5Y 7/3
9.50.5	AD.17.P.145/2	Non-intensive survey	Simple Ware	Jar	5Y 6/4
9.50.6	AD.17.P.145/3	Non-intensive survey	Simple Ware	Jar	O 5Y 4/1, I 5Y 6/4
9.50.7	AD.17.P.145/4	Non-intensive survey	Simple Ware	Jar	5Y 6/4
9.50.8	AD.17.P.145/5	Non-intensive survey	Storage Ware	Jar	5Y 7/4
9.50.9	AD.17.P.146/1	Non-intensive survey	Simple Ware	Jar	10 Y R 7/3
9.50.10	AD.17.P.146/2	Non-intensive survey	Simple Ware	Jar	5Y 8/3

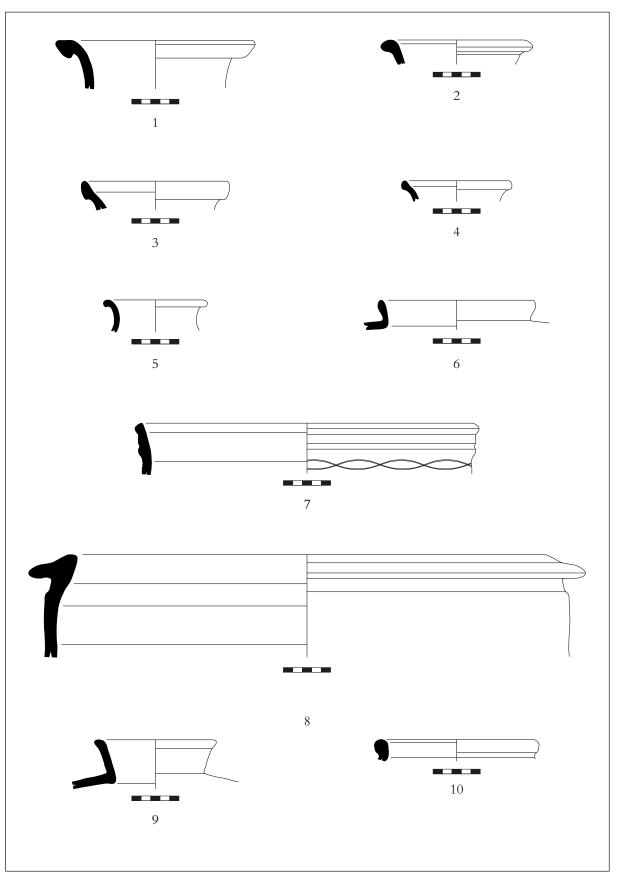


Fig. 9.50 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.51.1	AD.17.P.146/3	Non-intensive survey	Storage Ware	Pithos	5Y 7/4
9.51.2	AD.17.P.146/4	Non-intensive survey	Storage Ware	Pithos	5Y 6/3
9.51.3	AD.17.P.146/5	Non-intensive survey	Storage Ware	N/A	2.5Y 8/3
9.51.4	AD.17.P.147/1	Non-intensive survey	Simple Ware	Bowl	2.5Y 8/3
9.51.5	AD.17.P.147/2	Non-intensive survey	Simple Ware	Bowl	7.5YR 7/4
9.51.6	AD.17.P.147/3	Non-intensive survey	Simple Ware	Bowl	10 Y R 7/2
9.51.7	AD.17.P.147/5	Non-intensive survey	Simple Ware	Bowl	10 Y R 7/2
9.51.8	AD.17.P.147/6	Non-intensive survey	Simple Ware	Small jar	7.5YR 7/2

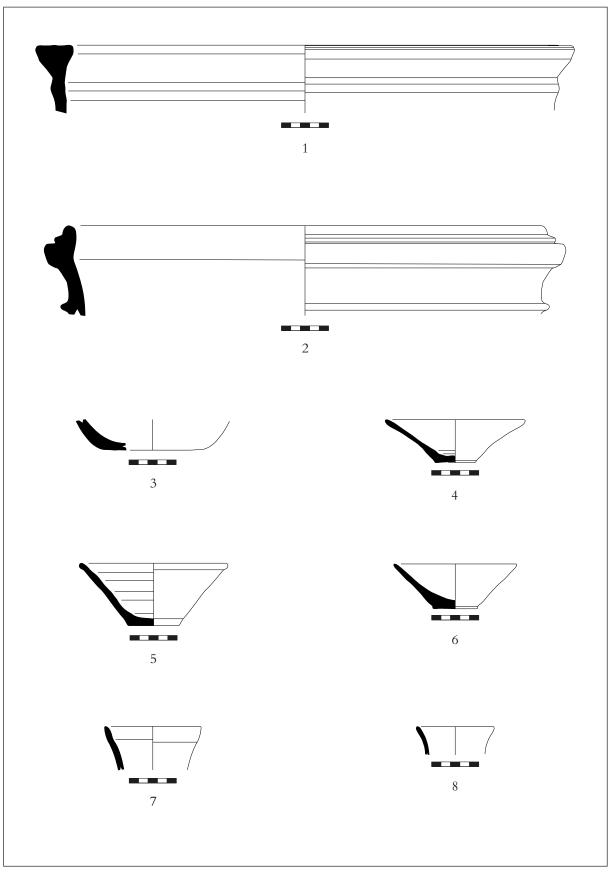


Fig. 9.51 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.52.1	AD.17.P.147/7	Non-intensive survey	Simple Ware	Bowl	7.5YR 8/2
9.52.2	AD.17.P.147/8	Non-intensive survey	Simple Ware	Bowl	10 Y R 8/3
9.52.3	AD.17.P.147/9	Non-intensive survey	Simple Ware	Jar	5YR 8/2
9.52.4	AD.17.P.147/10	Non-intensive survey	Simple Ware	Jar	7.5YR 7/2
9.52.5	AD.17.P.147/11	Non-intensive survey	Simple Ware	Small jar	5Y 5/1, I/O 5Y 5/2
9.52.6	AD.17.P.147/12	Non-intensive survey	Simple Ware	Jar	2.5Y 7/2
9.52.7	AD.17.P.147/13	Non-intensive survey	Simple Ware	Jar	7.5YR 8/2
9.52.8	AD.17.P.147/14	Non-intensive survey	Simple Ware	Jar	10YR 7/1, I/O 10YR 7/2
9.52.9	AD.17.P.147/17	Non-intensive survey	Simple Ware	Jar	10 Y R 7/3
9.52.10	AD.17.P.147/18	Non-intensive survey	Storage Ware	N/A	5Y 7/2

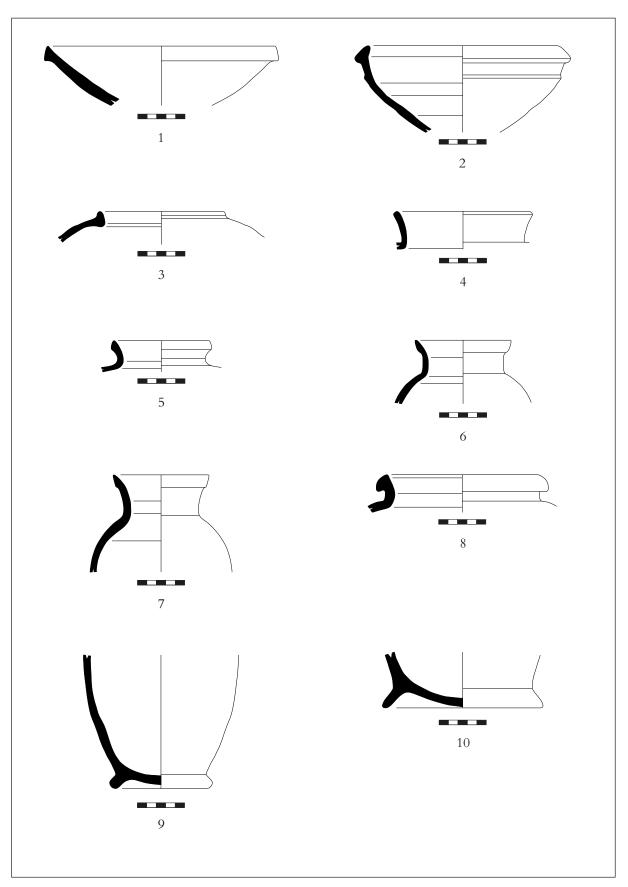


Fig. 9.52 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.53.1	AD.17.P.147/19	Non-intensive survey	Storage Ware	Jar	7.5YR 7/1
9.53.2	AD.17.P.147/20	Non-intensive survey	Storage Ware	Pithos	10 Y R 7/2
9.53.3	AD.17.P.147/21	Non-intensive survey	Storage Ware	N/A	2.5Y 7/2
9.53.4	AD.17.P.148/1	Non-intensive survey	Simple Ware	Beaker	10 Y R 7/4
9.53.5	AD.17.P.148/2	Non-intensive survey	Simple Ware	Bowl	10 Y R 7/2
9.53.6	AD.17.P.148/3	Non-intensive survey	Simple Ware	Jar	5Y 7/3
9.53.7	AD.17.P.148/4	Non-intensive survey	Simple Ware	Small Jar	2.5Y 7/3

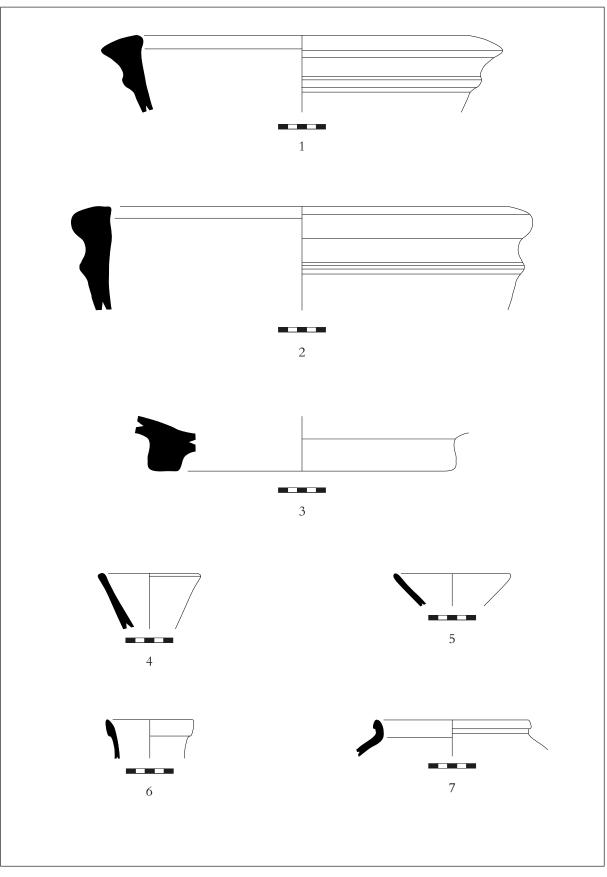


Fig. 9.53 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.54.1	AD.17.P.148/5	Non-intensive survey	Simple Ware	Small Jar	5Y 7/6
9.54.2	AD.17.P.148/6	Non-intensive survey	Simple Ware	Small Jar	10 YR 7/ 6
9.54.3	AD.17.P.148/7	Non-intensive survey	Storage Ware	Pithos	O 2.5Y 7/3, I 5Y 7/3
9.54.4	AD.17.P.148/8	Non-intensive survey	Storage Ware	Pithos	2.5Y 7/4
9.54.5	AD.17.P.157a/1	Non-intensive survey	Simple Ware	Small Jar	2.5Y 7/2
9.54.6	AD.17.P.157a/2	Non-intensive survey	Simple Ware	Jar	5Y 5/2
9.54.7	AD.17.P.157a/3	Non-intensive survey	Simple Ware	Small Jar	5Y 6/2
9.54.8	AD.17.P.157a/4	Non-intensive survey	Simple Ware	Jar	N 6/, I/O 5Y 7/2

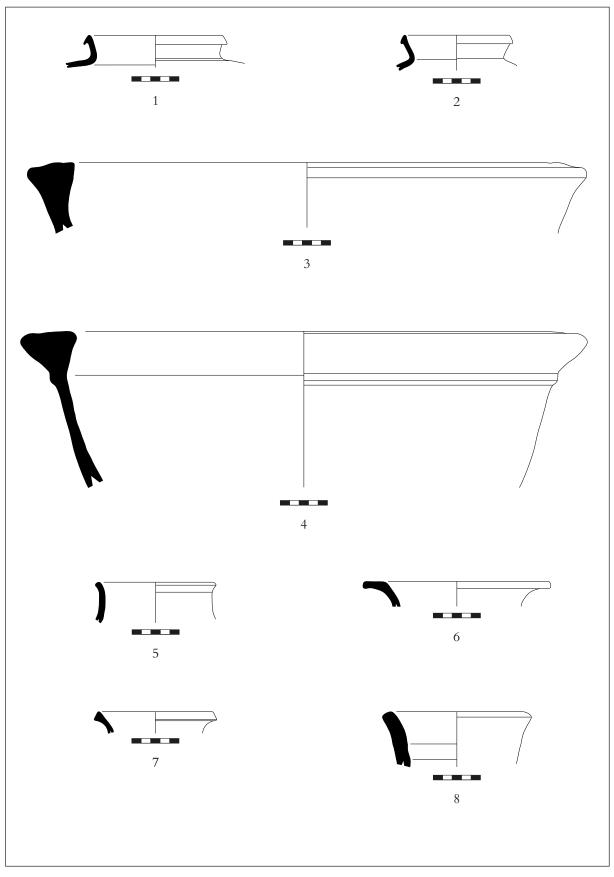


Fig. 9.54 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.55.1	AD.17.P.157a/5	Non-intensive survey	Storage Ware	Jar	N 5/, I/O 5Y 7/2
9.55.2	AD.17.P.165/1	Non-intensive survey	Simple Ware	Bowl	7.5YR 7/6
9.55.3	AD.17.P.165/2	Non-intensive survey	Simple Ware	Jar	10YR 6/2, I/O 5Y 8/3
9.55.4	AD.17.P.165/3	Non-intensive survey	Simple Ware	Jar	5Y 7/4
9.55.5	AD.17.P.165/4	Non-intensive survey	Simple Ware	Jar	5Y 7/3
9.55.6	AD.17.P.165/5	Non-intensive survey	Simple Ware	Jar	5Y 6/3
9.55.7	AD.17.P.165/6	Non-intensive survey	Simple Ware	Small jar	5Y 7/2
9.55.8	AD.17.P.165/7	Non-intensive survey	Simple Ware	Small jar	5Y 7/3
9.55.9	AD.17.P.165/8	Non-intensive survey	Simple Ware	Small jar	10YR 6/2, I/O 5Y 8/3
9.55.10	AD.17.P.165/9	Non-intensive survey	Simple Ware	Jar	O 10YR 5/1, I 5Y 6/3
9.55.11	AD.17.P.165/10	Non-intensive survey	Simple Ware	Jar	2.5Y 7/3
9.55.12	AD.17.P.165/11	Non-intensive survey	Simple Ware	Small jar	5Y 7/3

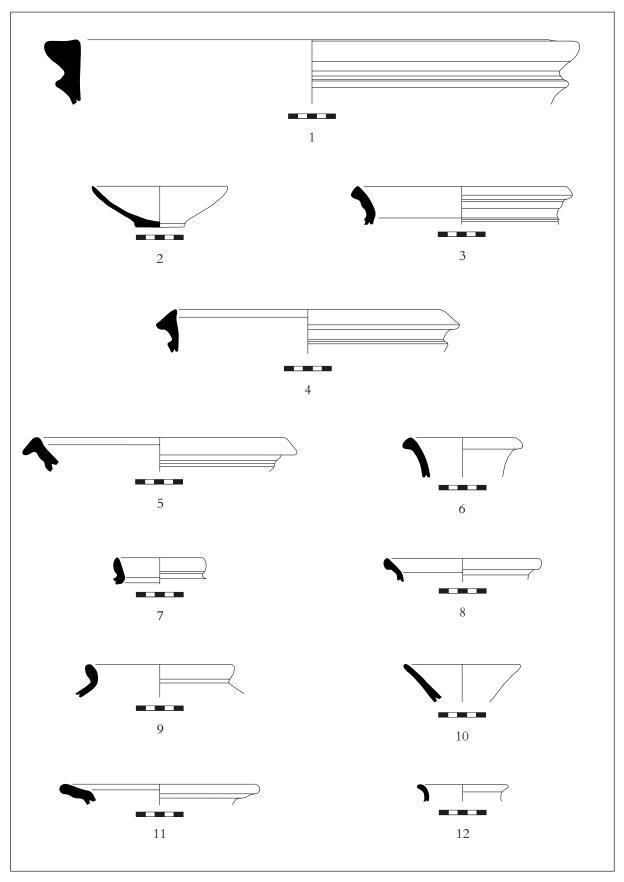


Fig. 9.55 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.56.1	AD.17.P.165/12	Non-intensive survey	Simple Ware	N/A	5Y 5/1
9.56.2	AD.17.P.165/13	Non-intensive survey	Simple Ware	Jar	5Y 7/4
9.56.3	AD.17.P.165/14	Non-intensive survey	Storage Ware	Jar	2.5Y 8/3
9.56.4	AD.17.P.165/15	Non-intensive survey	Storage Ware	Jar	O 5YR 6/6, I 5YR 5/1
9.56.5	AD.17.P.333/1	Intensive survey	Simple Ware	Bowl	10YR 3/1
9.56.6	AD.17.P.333/2	Intensive survey	Simple Ware	Bowl	7.5YR 7/4
9.56.7	AD.17.P.333/3	Intensive survey	Simple Ware	Jar	5Y 7/4
9.56.8	AD.17.P.333/4	Intensive survey	Simple Ware	Jar	5Y 7/4
9.56.9	AD.17.P.333/5	Intensive survey	Simple Ware	Jar	5Y 8/4
9.56.10	AD.17.P.334/1	Intensive survey	Simple Ware	Bowl	5Y 6/3
9.56.11	AD.17.P.334/2	Intensive survey	Simple Ware	Bowl	5Y 5/1
9.56.12	AD.17.P.334/3	Intensive survey	Simple Ware	Jar	5Y 6/3

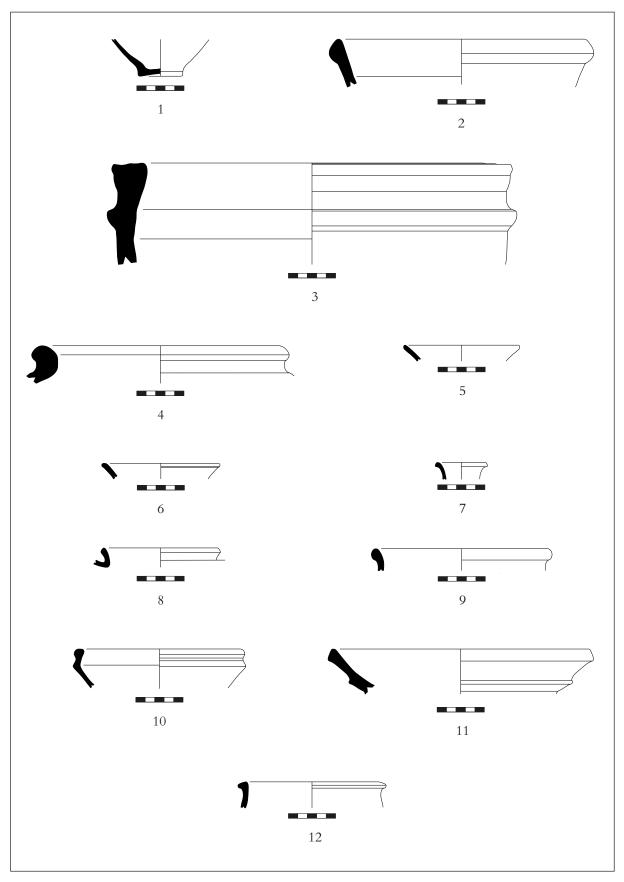


Fig. 9.56 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.57.1	AD.17.P.334/4	Intensive survey	Simple Ware	Other	5Y 5/1
9.57.2	AD.17.P.334/5	Intensive survey	Simple Ware	Bowl	5Y 5/1
9.57.3	AD.17.P.335/1	Intensive survey	Simple Ware	Bowl	5Y 6/3
9.57.4	AD.17.P.335/2	Intensive survey	Simple Ware	Juglet	5Y 6/3
9.57.5	AD.17.P.335/3	Intensive survey	Simple Ware	Jar	5Y 5/1
9.57.6	AD.17.P.335/4	Intensive survey	Simple Ware	Juglet	2.5Y 7/3
9.57.7	AD.17.P.335/5	Intensive survey	Simple Ware	Jar	2.5Y 7/2
9.57.8	AD.17.P.335/6	Intensive survey	Storage Ware	Jar	10YR 7/3
9.57.9	AD.17.P.336/1	Intensive survey	Simple Ware	Bowl	2.5YR 7/3
9.57.10	AD.17.P.336/2	Intensive survey	Simple Ware	Bowl	5Y 6/4

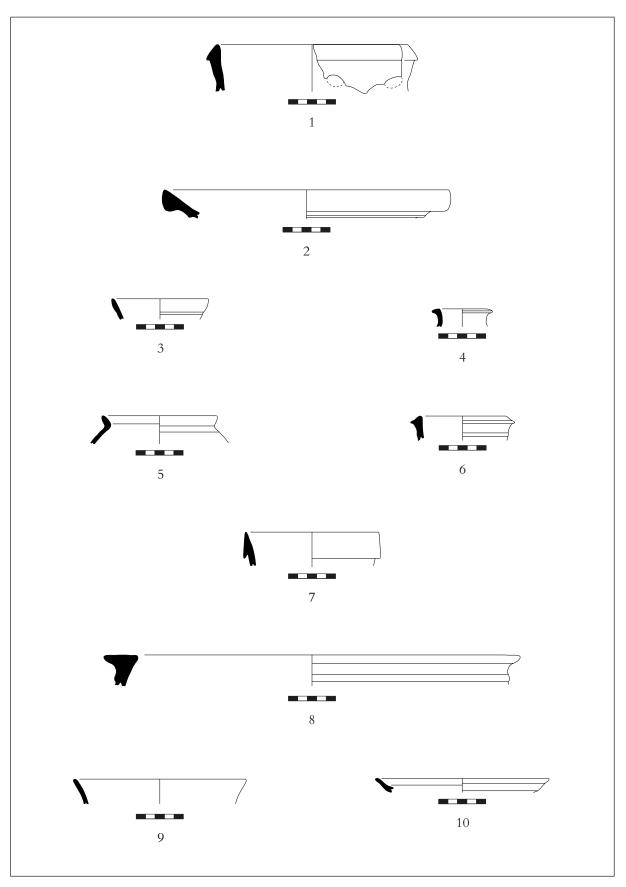


Fig. 9.57 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.58.1	AD.17.P.336/3	Intensive survey	Simple Ware	Bowl	7.5YR 6/6
9.58.2	AD.17.P.336/4	Intensive survey	Simple Ware	Jar	5Y 7/3
9.58.3	AD.17.P.336/5	Intensive survey	Simple Ware	Jar	7.5YR 6/4
9.58.4	AD.17.P.338a/1	Intensive survey	Simple Ware	Bowl	5Y 8/3
9.58.5	AD.17.P.338a/2	Intensive survey	Simple Ware	Bowl	5Y 5/2
9.58.6	AD.17.P.338a/3	Intensive survey	Simple Ware	N/A	2.5Y 7/3
9.58.7	AD.17.P.338b/1	Intensive survey	Simple Ware	Bowl	5Y 5/2
9.58.8	AD.17.P.338b/2	Intensive survey	Simple Ware	Bowl	5Y 5/3
9.58.9	AD.17.P.338b/3	Intensive survey	Simple Ware	Bowl	7.5YR 7/4
9.58.10	AD.17.P.338b/4	Intensive survey	Simple Ware	Bowl	7.5YR 6/6
9.58.11	AD.17.P.338b/5	Intensive survey	Simple Ware	Bowl	5Y 8/3
9.58.12	AD.17.P.338b/6	Intensive survey	Simple Ware	Jug	2.5Y 7/3

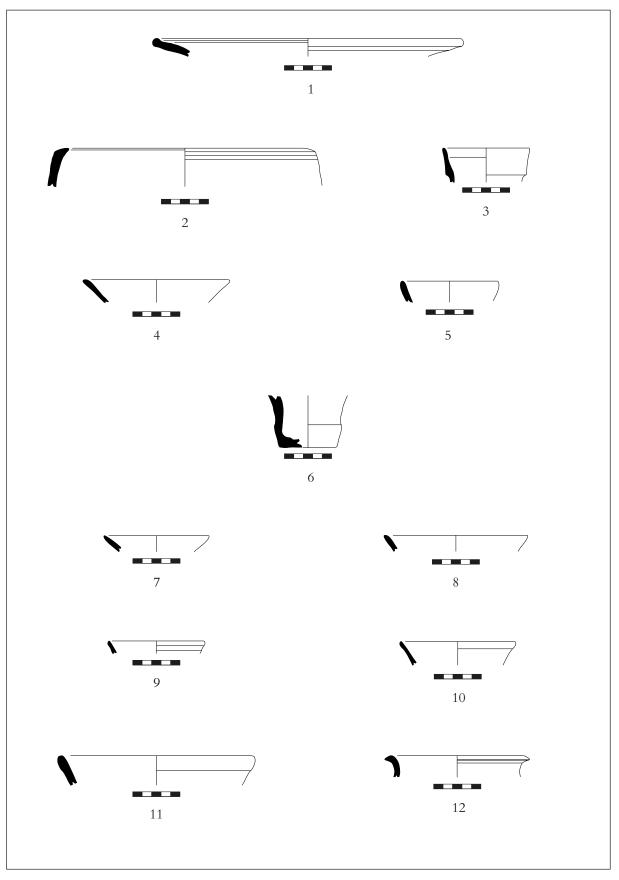


Fig. 9.58 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.59.1	AD.17.P.339/1	Intensive survey	Simple Ware	Bowl	7.5YR 7/2
9.59.2	AD.17.P.339/2	Intensive survey	Simple Ware	Bowl	2.5Y 7/2
9.59.3	AD.17.P.339/3	Intensive survey	Simple Ware	Bowl	10 Y R 7/2
9.59.4	AD.17.P.339/4	Intensive survey	Simple Ware	Small jar	2.5Y 8/2
9.59.5	AD.17.P.339/5	Intensive survey	Simple Ware	Other	2.5Y 7/3
9.59.6	AD.17.P.339/6	Intensive survey	Simple Ware	Other	10YR 7/3
9.59.7	AD.17.P.339/7	Intensive survey	Storage Ware	Jar	2.5Y 7/2
9.59.8	AD.17.P.340/1	Intensive survey	Simple Ware	Jug	2.5Y 7/3
9.59.9	AD.17.P.340/2	Intensive survey	Simple Ware	Bowl	5Y 7/2
9.59.10	AD.17.P.340/3	Intensive survey	Simple Ware	Bowl	5Y 8/3
9.59.11	AD.17.P.340/4	Intensive survey	Simple Ware	Juglet	5Y 5/1
9.59.12	AD.17.P.340/5	Intensive survey	Simple Ware	Juglet	5Y 8/3

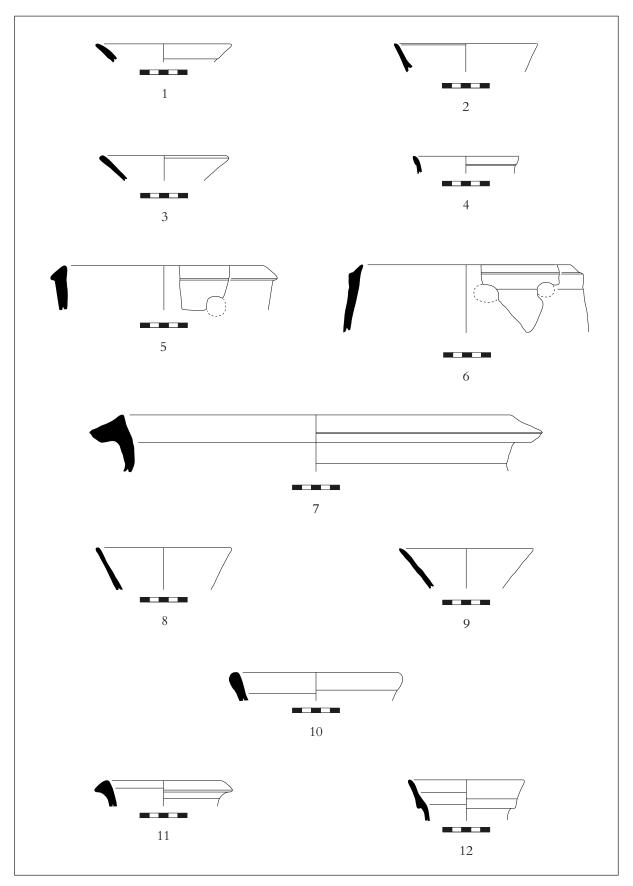


Fig. 9.59 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.60.1	AD.17.P.340/6	Intensive survey	Simple Ware	Jar	5Y 6/2
9.60.2	AD.17.P.340/7	Intensive survey	Simple Ware	Other	5Y 5/1
9.60.3	AD.17.P.341/1	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.60.4	AD.17.P.341/2	Intensive survey	Simple Ware	Bowl	5Y 4/1
9.60.5	AD.17.P.341/3	Intensive survey	Simple Ware	Jar	10 Y R 7/3
9.60.6	AD.17.P.341/4	Intensive survey	Simple Ware	Jar	10YR 3/1
9.60.7	AD.17.P.341/5	Intensive survey	Simple Ware	Jar	10YR 4/2
9.60.8	AD.17.P.341/6	Intensive survey	Storage Ware	Jar	2.5YR 6/3
9.60.9	AD.17.P.342/1	Intensive survey	Simple Ware	Plate	5Y 6/4
9.60.10	AD.17.P.342/2	Intensive survey	Simple Ware	Bowl	7.5YR 7/6
9.60.11	AD.17.P.342/3	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.60.12	AD.17.P.342/4	Intensive survey	Simple Ware	Bowl	5Y 4/1
9.60.13	AD.17.P.342/5	Intensive survey	Simple Ware	Jar	7.5YR 6/4
9.60.14	AD.17.P.342/6	Intensive survey	Simple Ware	Jar	5Y 4/3

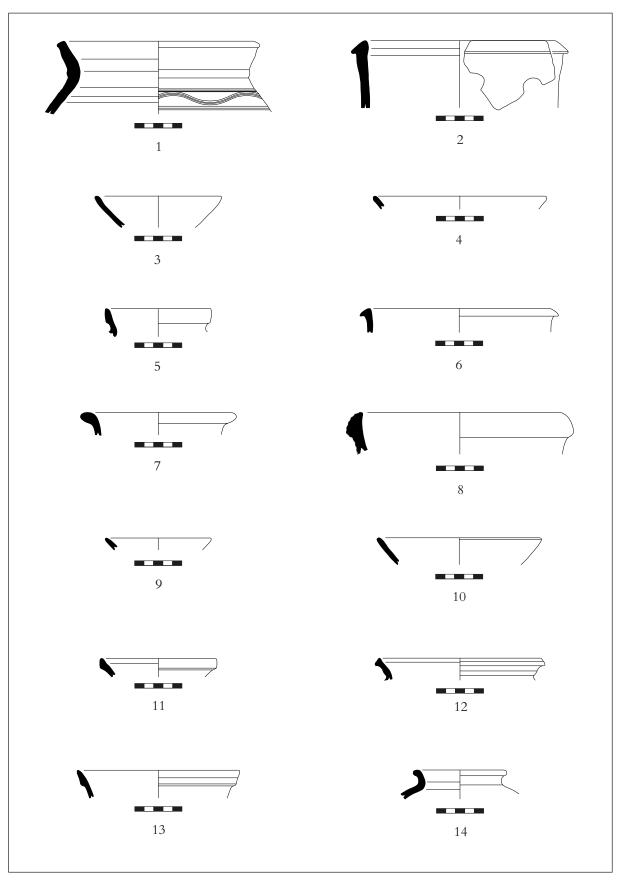


Fig. 9.60 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.61.1	AD.17.P.342/7	Intensive survey	Storage Ware	Jar	7.5YR 7/6
9.61.2	AD.17.P.343a/1	Intensive survey	Simple Ware	Bowl	10 Y R 8/4
9.61.3	AD.17.P.343a/2	Intensive survey	Simple Ware	Bowl	5Y 7/6
9.61.4	AD.17.P.343a/3	Intensive survey	Simple Ware	Bowl	5Y 8/3
9.61.5	AD.17.P.343a/4	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.61.6	AD.17.P.343a/5	Intensive survey	Simple Ware	Bowl	5Y 3/1
9.61.7	AD.17.P.343a/6	Intensive survey	Simple Ware	Jar	O 10YR 8/3, I 10YR 7/4
9.61.8	AD.17.P.343a/7	Intensive survey	Storage Ware	Pithos	5Y 5/3
9.61.9	AD.17.P.345/1	Intensive survey	Simple Ware	Bowl	5YR 7/8
9.61.10	AD.17.P.345/2	Intensive survey	Simple Ware	Bowl	7.5YR 7/8

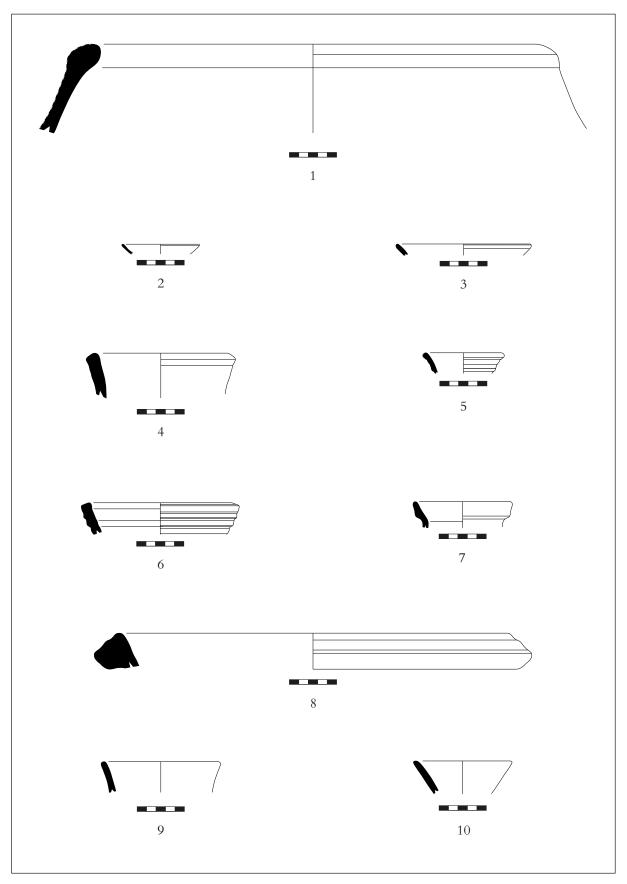


Fig. 9.61 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.62.1	AD.17.P.345/3	Intensive survey	Simple Ware	Jar	5Y 7/4
9.62.2	AD.17.P.345/4	Intensive survey	Simple Ware	Bowl	5YR 6/8
9.62.3	AD.17.P.345/5	Intensive survey	Simple Ware	Jar	5Y 7/3
9.62.4	AD.17.P.345/6	Intensive survey	Simple Ware	Bowl	5Y 5/3
9.62.5	AD.17.P.345/7	Intensive survey	Simple Ware	Bowl	7.5YR 8/3
9.62.6	AD.17.P.346/1	Intensive survey	Simple Ware	Jar	10 Y R 8/4
9.62.7	AD.17.P.346/2	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.62.8	AD.17.P.346/3	Intensive survey	Simple Ware	Bowl	5Y 8/3
9.62.9	AD.17.P.346/4	Intensive survey	Simple Ware	Bowl	5Y 4/1
9.62.10	AD.17.P.347a/1	Intensive survey	Simple Ware	Bowl	4/N
9.62.11	AD.17.P.347a/2	Intensive survey	Simple Ware	Bowl	5Y 6/1
9.62.12	AD.17.P.347a/3	Intensive survey	Simple Ware	Jug	5Y 6/4

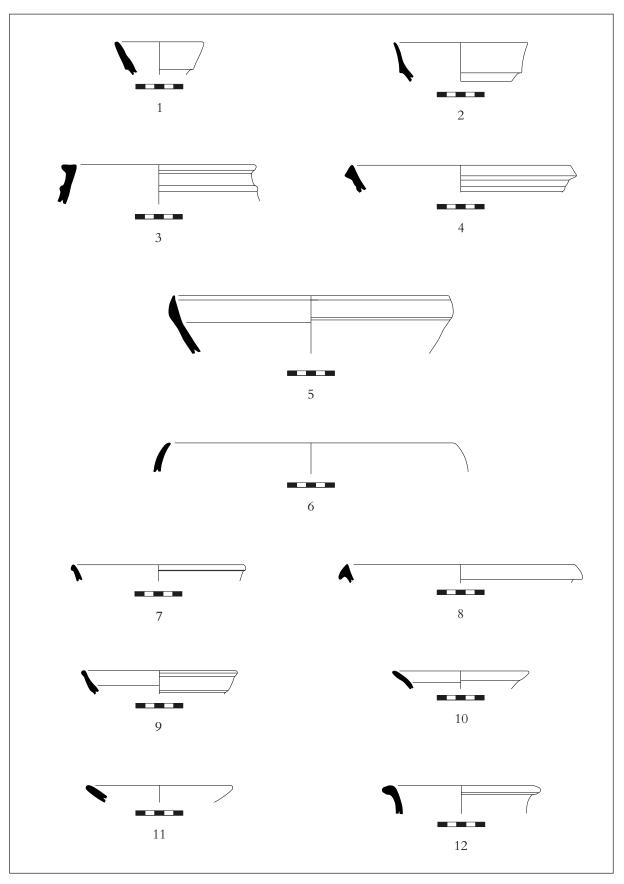


Fig. 9.62 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.63.1	AD.17.P.347a/4	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.63.2	AD.17.P.347a/5	Intensive survey	Simple Ware	N/A	5Y 4/1
9.63.3	AD.17.P.347a/6	Intensive survey	Simple Ware	N/A	5Y 5/1
9.63.4	AD.17.P.347a/7	Intensive survey	Storage Ware	Jar	5Y 5/1
9.63.5	AD.17.P.347b/1	Intensive survey	Simple Ware	Bowl	7.5YR 7/3
9.63.6	AD.17.P.347b/2	Intensive survey	Simple Ware	Bowl	7.5YR 7/2
9.63.7	AD.17.P.347b/3	Intensive survey	Simple Ware	Small jar	5Y 5/1, I/O 5Y 6/2
9.63.8	AD.17.P.347b/4	Intensive survey	Simple Ware	Small jar	2.5Y 8/1
9.63.9	AD.17.P.347b/5	Intensive survey	Simple Ware	Small jar	2.5Y 7/2
9.63.10	AD.17.P.347b/6	Intensive survey	Simple Ware	Jar	5YR 7/3
9.63.11	AD.17.P.347b/7	Intensive survey	Simple Ware	Jar	7.5YR 7/2

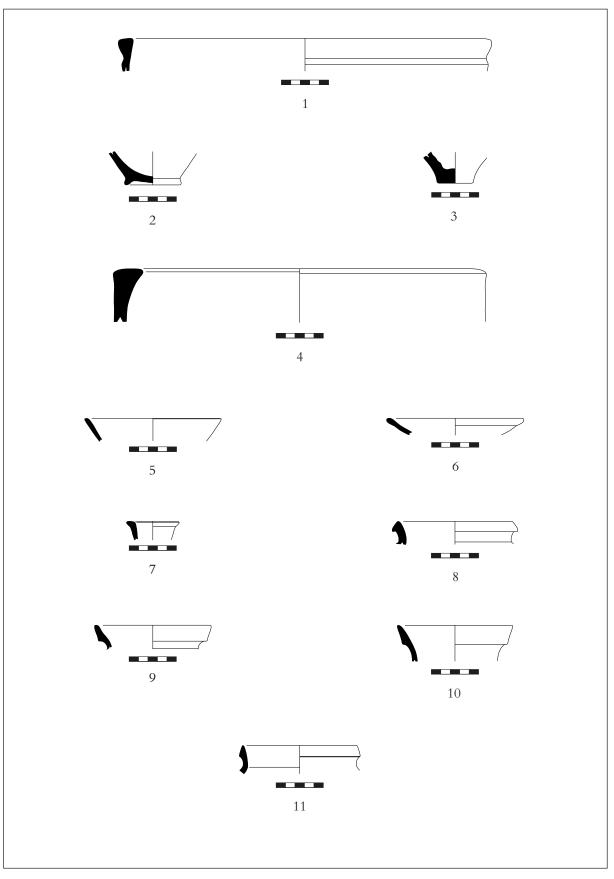


Fig. 9.63 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.64.1	AD.17.P.348a/1	Intensive survey	Simple Ware	Bowl	5YR 7/3
9.64.2	AD.17.P.348a/2	Intensive survey	Simple Ware	Bowl	7.5YR 7/3
9.64.3	AD.17.P.348a/3	Intensive survey	Simple Ware	Bowl	10YR 7/2
9.64.4	AD.17.P.348a/4	Intensive survey	Simple Ware	Small jar	10 Y R 5/1
9.64.5	AD.17.P.348a/5	Intensive survey	Simple Ware	Small jar	10YR 7/2
9.64.6	AD.17.P.348a/6	Intensive survey	Simple Ware	Jar	2.5Y 7/2
9.64.7	AD.17.P.348b/1	Intensive survey	Simple Ware	Bowl	5Y 6/3
9.64.8	AD.17.P.348b/2	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.64.9	AD.17.P.348b/3	Intensive survey	Simple Ware	Bowl	5Y 6/3
9.64.10	AD.17.P.348b/4	Intensive survey	Simple Ware	Bowl	5Y 6/3
9.64.11	AD.17.P.348b/5	Intensive survey	Simple Ware	Jar	5Y 6/1
9.64.12	AD.17.P.348b/6	Intensive survey	Simple Ware	Bowl	10G 5/1

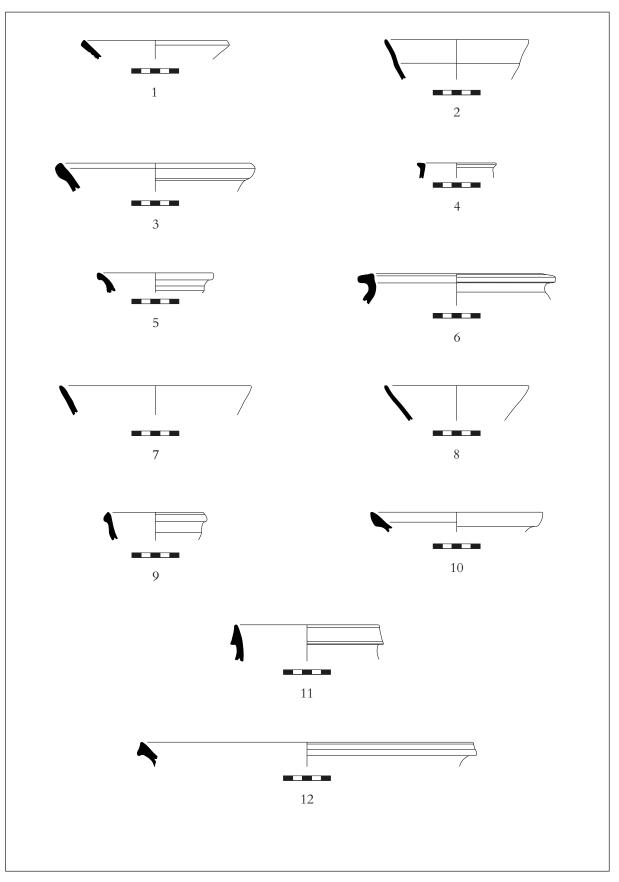


Fig. 9.64 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.65.1	AD.17.P.348b/7	Intensive survey	Simple Ware	Bowl	7.5YR 7/4
9.65.2	AD.17.P.352a/1	Intensive survey	Simple Ware	Bowl	5Y 7/6
9.65.3	AD.17.P.352a/2	Intensive survey	Simple Ware	Bowl	5Y 8/2
9.65.4	AD.17.P.352a/3	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.65.5	AD.17.P.352a/4	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.65.6	AD.17.P.352a/5	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.65.7	AD.17.P.352a/6	Intensive survey	Simple Ware	Bowl	10 Y R 7/4
9.65.8	AD.17.P.352a/7	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.65.9	AD.17.P.352b/1	Intensive survey	Simple Ware	Bowl	2.5Y 7/4
9.65.10	AD.17.P.352b/2	Intensive survey	Simple Ware	Bowl	2.5Y 6/4
9.65.11	AD.17.P.353/1	Intensive survey	Simple Ware	Bowl	5Y 5/3
9.65.12	AD.17.P.353/2	Intensive survey	Simple Ware	Bowl	O 5Y 6/2, I 5Y 4/1
9.65.13	AD.17.P.353/3	Intensive survey	Simple Ware	Jar	5Y 4/1

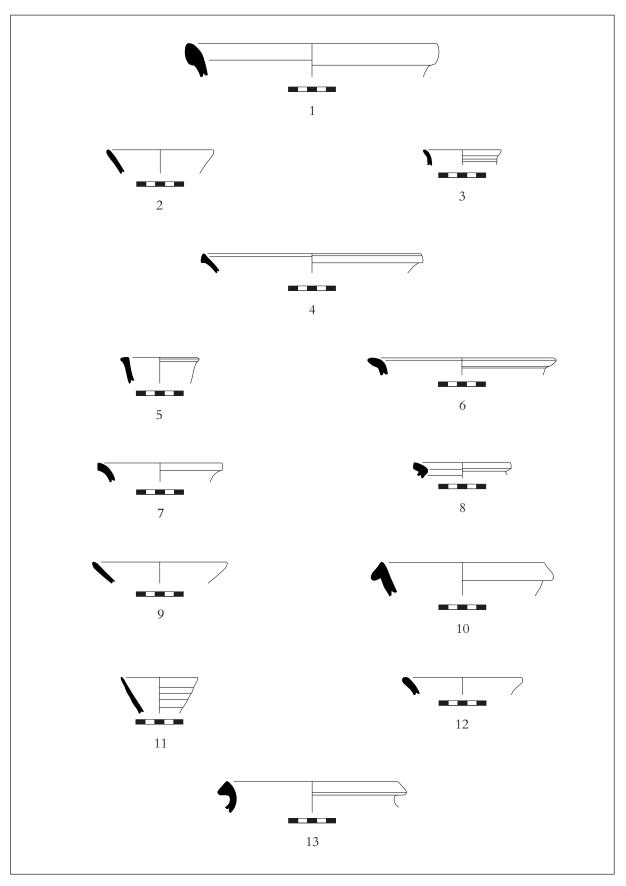


Fig. 9.65 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.66.1	AD.17.P.354/1	Intensive survey	Simple Ware	Bowl	5Y 6/3
9.66.2	AD.17.P.354/2	Intensive survey	Simple Ware	Bowl	5Y 5/2
9.66.3	AD.17.P.354/3	Intensive survey	Simple Ware	Bowl	5Y 5/3
9.66.4	AD.17.P.354/4	Intensive survey	Simple Ware	Bowl	2.5Y 7/4
9.66.5	AD.17.P.354/5	Intensive survey	Simple Ware	Bowl	5Y 7/3
9.66.6	AD.17.P.354/6	Intensive survey	Simple Ware	Jar	7.5YR 7/6
9.66.7	AD.17.P.354/7	Intensive survey	Storage Ware	Jar	7.5YR 6/4
9.66.8	AD.17.P.355/1	Intensive survey	Simple Ware	Bowl	5Y 7/3
9.66.9	AD.17.P.355/2	Intensive survey	Simple Ware	Bowl	5Y 7/3
9.66.10	AD.17.P.355/3	Intensive survey	Simple Ware	Juglet	2.5Y 7/2
9.66.11	AD.17.P.355/4	Intensive survey	Simple Ware	Juglet	2.5Y 7/3
9.66.12	AD.17.P.355/5	Intensive survey	Simple Ware	Jug	10 Y R 7/4
9.66.13	AD.17.P.355/6	Intensive survey	Simple Ware	Jar	5Y 6/4

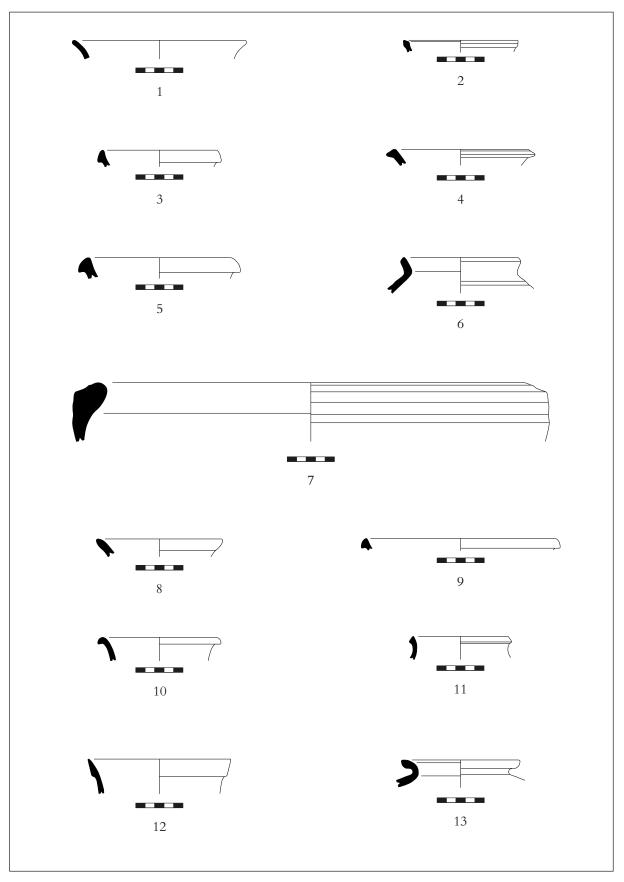


Fig. 9.66 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.67.1	AD.17.P.356/1	Intensive survey	Simple Ware	Juglet	5Y 6/3
9.67.2	AD.17.P.356/2	Intensive survey	Simple Ware	Juglet	7.5YR 7/4
9.67.3	AD.17.P.356/3	Intensive survey	Simple Ware	Juglet	5Y 6/4
9.67.4	AD.17.P.357/1	Intensive survey	Simple Ware	N/A	2.5Y 7/3, I/O 5Y 6/3
9.67.5	AD.17.P.357/2	Intensive survey	Simple Ware	Juglet	5Y 5/2
9.67.6	AD.17.P.357/3	Intensive survey	Simple Ware	Bowl	5Y 6/4
9.67.7	AD.17.P.358/1	Intensive survey	Simple Ware	Juglet	5Y 4/1
9.67.8	AD.17.P.358/2	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.67.9	AD.17.P.358/3	Intensive survey	Simple Ware	Bowl	5Y 4/1
9.67.10	AD.17.P.358/4	Intensive survey	Simple Ware	Juglet	5Y 6/4
9.67.11	AD.17.P.358/5	Intensive survey	Simple Ware	Juglet	5Y 6/3
9.67.12	AD.17.P.358/6	Intensive survey	Simple Ware	Juglet	5Y 8/4
9.67.13	AD.17.P.358/7	Intensive survey	Simple Ware	Juglet	5Y 8/3

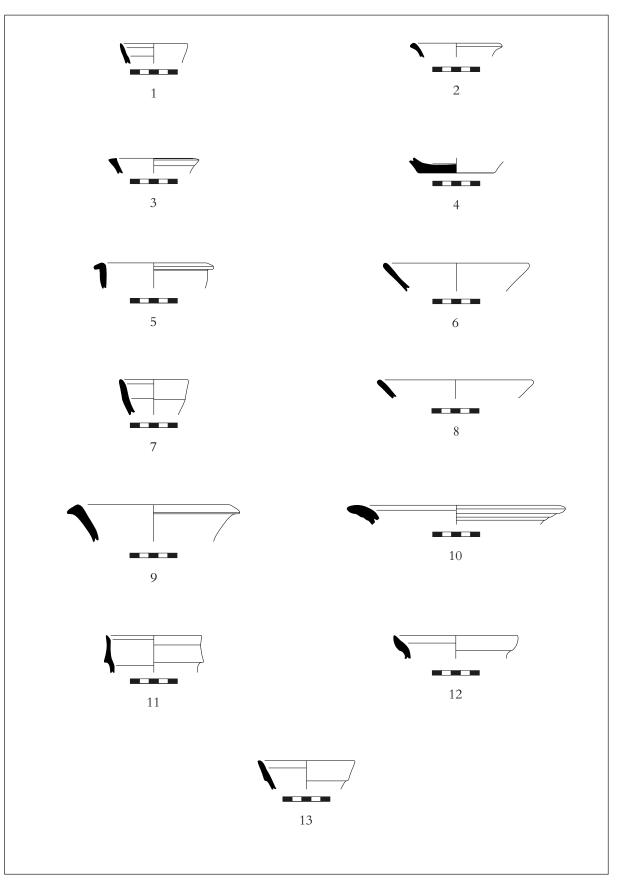


Fig. 9.67 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.68.1	AD.17.P.359/1	Intensive survey	Simple Ware	Bowl	5Y 8/4
9.68.2	AD.17.P.359/2	Intensive survey	Simple Ware	Bowl	5Y 8/4
9.68.3	AD.17.P.359/3	Intensive survey	Simple Ware	Bowl	5Y 6/4
9.68.4	AD.17.P.359/4	Intensive survey	Simple Ware	Bowl	5Y 3/1
9.68.5	AD.17.P.360/1	Intensive survey	Simple Ware	Bowl	5Y 8/4
9.68.6	AD.17.P.360/2	Intensive survey	Simple Ware	Bowl	2.5Y 4/3
9.68.7	AD.17.P.360/3	Intensive survey	Simple Ware	Plate	2.5Y 6/6
9.68.8	AD.17.P.360/4	Intensive survey	Simple Ware	Jug	5Y 5/3
9.68.9	AD.17.P.360/5	Intensive survey	Simple Ware	Jar	4/10G
9.68.10	AD.17.P.360/6	Intensive survey	Simple Ware	N/A	4/10B
9.68.11	AD.17.P.361/1	Intensive survey	Simple Ware	Bowl	5Y 7/3
9.68.12	AD.17.P.361/2	Intensive survey	Simple Ware	Bowl	5YR 6/6
9.68.13	AD.17.P.361/3	Intensive survey	Simple Ware	Bowl	10 Y R 7/3
9.68.14	AD.17.P.361/4	Intensive survey	Simple Ware	Jar	5Y 7/4

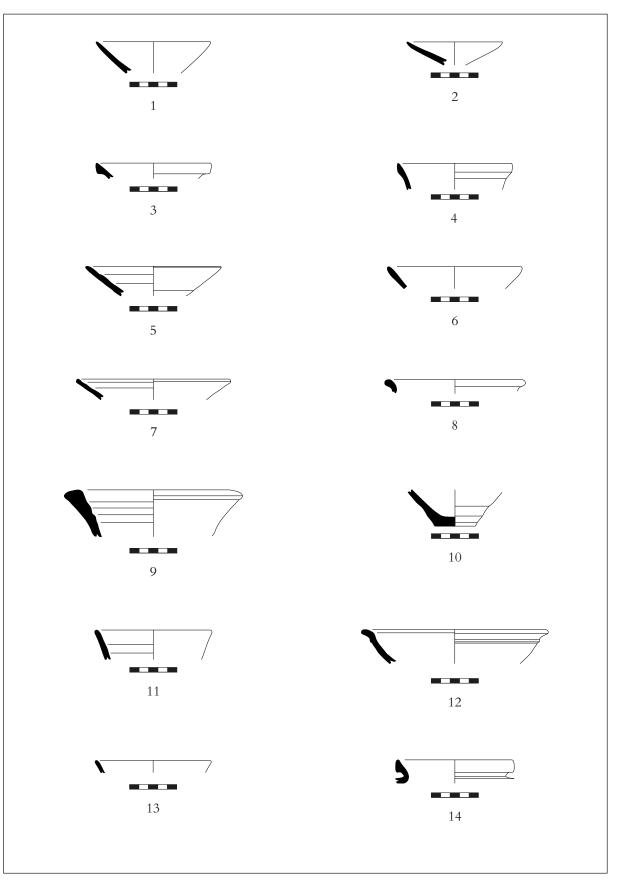


Fig. 9.68 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.69.1	AD.17.P.361/5	Intensive survey	Simple Ware	Jar	5Y 7/4
9.69.2	AD.17.P.361/6	Intensive survey	Storage Ware	Jar	5Y 7/6
9.69.3	AD.17.P.362/1	Intensive survey	Simple Ware	Jug	7.5YR 7/3
9.69.4	AD.17.P.362/2	Intensive survey	Simple Ware	Bowl	10 Y R 7/3
9.69.5	AD.17.P.362/3	Intensive survey	Simple Ware	Juglet	5Y 6/1
9.69.6	AD.17.P.362/4	Intensive survey	Simple Ware	Juglet	7.5YR 7/3
9.69.7	AD.17.P.362/5	Intensive survey	Simple Ware	Jar	5Y 6/3
9.69.8	AD.17.P.363/1	Intensive survey	Simple Ware	Plate	10 Y R 7/3
9.69.9	AD.17.P.363/2	Intensive survey	Simple Ware	Plate	7.5YR 7/6
9.69.10	AD.17.P.363/3	Intensive survey	Simple Ware	Juglet	7.5YR 6/1
9.69.11	AD.17.P.363/4	Intensive survey	Simple Ware	N/A	5Y 7/2
9.69.12	AD.17.P.363/5	Intensive survey	Simple Ware	Jar	7.5YR 7/6

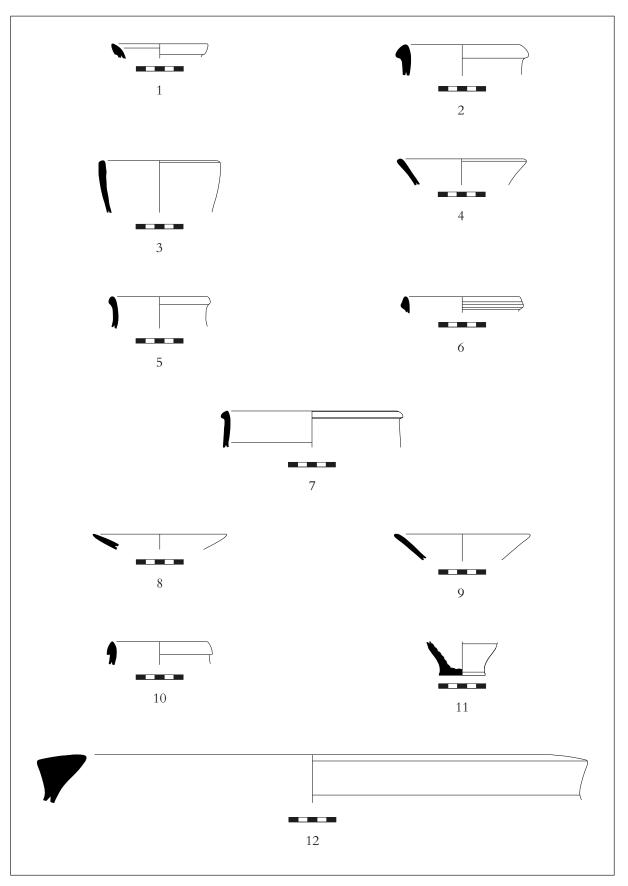


Fig. 9.69 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.70.1	AD.17.P.364/1	Intensive survey	Simple Ware	Bowl	7.5YR 7/4
9.70.2	AD.17.P.364/2	Intensive survey	Simple Ware	Bowl	5Y 6/3
9.70.3	AD.17.P.364/3	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.70.4	AD.17.P.364/4	Intensive survey	Simple Ware	N/A	2.5Y 4/1
9.70.5	AD.17.P.364/5	Intensive survey	Storage Ware	Bowl	5Y 5/3
9.70.6	AD.17.P.365/1	Intensive survey	Simple Ware	Small jar	5Y 5/1, I/O 2.5Y 6/1
9.70.7	AD.17.P.365/2	Intensive survey	Simple Ware	Small jar	5Y 5/1, I/O 2.5Y 6/1
9.70.8	AD.17.P.365/3	Intensive survey	Simple Ware	Bowl	10 Y R 7/2
9.70.9	AD.17.P.365/5	Intensive survey	Simple Ware	Small jar	5Y 5/1, I/O 5Y 6/1
9.70.10	AD.17.P.365/6	Intensive survey	Simple Ware	Bowl	2.5Y 7/2
9.70.11	AD.17.P.365/7	Intensive survey	Simple Ware	Jar	5Y 5/1, I/O 5Y 7/2

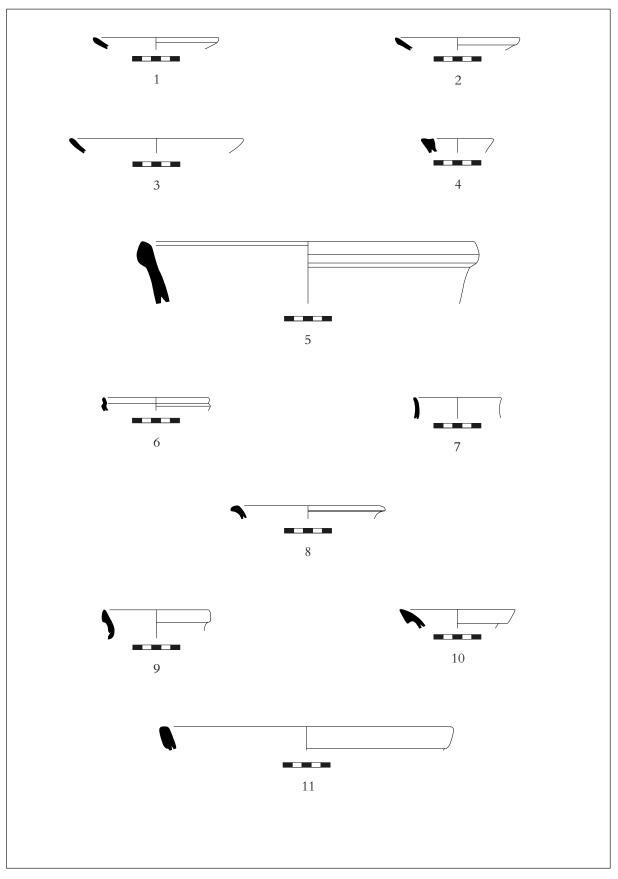


Fig. 9.70 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.71.1	AD.17.P.366/1	Intensive survey	Simple Ware	Bowl	5Y 8/3
9.71.2	AD.17.P.366/2	Intensive survey	Simple Ware	Bowl	5Y 8/3
9.71.3	AD.17.P.366/3	Intensive survey	Simple Ware	Bowl	5Y 5/1, I/O 5Y 6/4
9.71.4	AD.17.P.367/1	Intensive survey	Simple Ware	Juglet	5Y 5/1, I/O 5Y 6/4
9.71.5	AD.17.P.367/2	Intensive survey	Simple Ware	Bowl	5Y 4/1
9.71.6	AD.17.P.368/1	Intensive survey	Simple Ware	Plate	5Y 4/1
9.71.7	AD.17.P.368/2	Intensive survey	Simple Ware	Bowl	7.5YR 7/4
9.71.8	AD.17.P.368/3	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.71.9	AD.17.P.368/4	Intensive survey	Simple Ware	Bowl	5Y 6/3
9.71.10	AD.17.P.368/5	Intensive survey	Simple Ware	Juglet	5Y 6/3
9.71.11	AD.17.P.368/6	Intensive survey	Simple Ware	Juglet	5Y 5/1
9.71.12	AD.17.P.368/7	Intensive survey	Simple Ware	Bowl	2.5Y 7/3
9.71.13	AD.17.P.369/1	Intensive survey	Simple Ware	Bowl	2.5Y 7/3
9.71.14	AD.17.P.369/2	Intensive survey	Simple Ware	Bowl	7.5Y 7/2
9.71.15	AD.17.P.369/3	Intensive survey	Simple Ware	Bowl	7.5YR 7/4

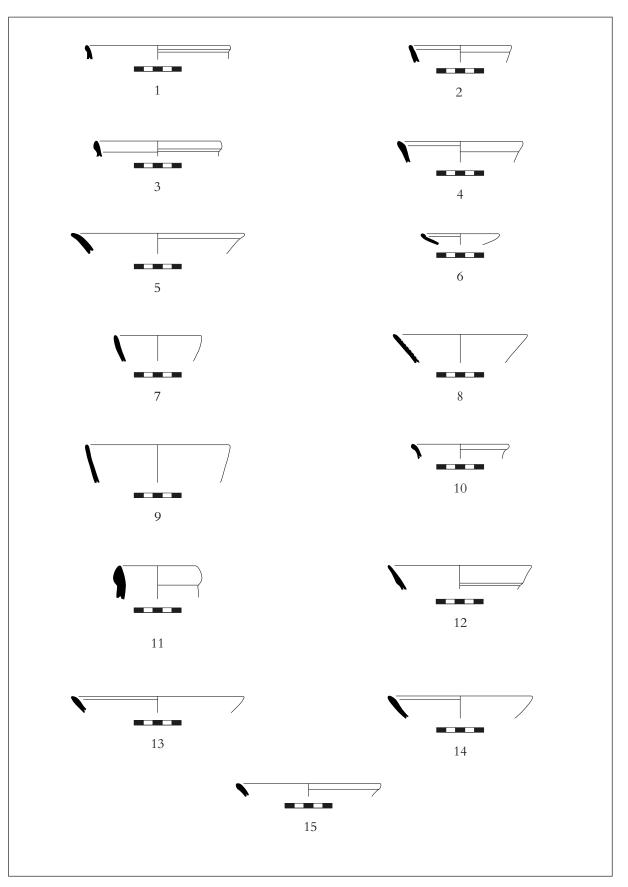


Fig. 9.71 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.72.1	AD.17.P.370/1	Intensive survey	Simple Ware	Bowl	2.5Y 7/4
9.72.2	AD.17.P.370/2	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.72.3	AD.17.P.370/3	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.72.4	AD.17.P.370/4	Intensive survey	Simple Ware	Bowl	5Y 8/3
9.72.5	AD.17.P.370/5	Intensive survey	Simple Ware	Bowl	7.5YR 6/4
9.72.6	AD.17.P.370/6	Intensive survey	Simple Ware	Jar	2.5Y 7/1
9.72.7	AD.17.P.371/1	Intensive survey	Simple Ware	Bowl	2.5Y 7/2
9.72.8	AD.17.P.371/2	Intensive survey	Simple Ware	Bowl	2.5Y 7/2
9.72.9	AD.17.P.371/3	Intensive survey	Simple Ware	Bowl	5Y 5/1, I/O 5Y 5/2
9.72.10	AD.17.P.371/4	Intensive survey	Simple Ware	Bowl	2.5Y 6/2
9.72.11	AD.17.P.371/5	Intensive survey	Simple Ware	Bowl	2.5Y 6/2
9.72.12	AD.17.P.371/6	Intensive survey	Simple Ware	Jar	5Y 6/4
9.72.13	AD.17.P.372/1	Intensive survey	Simple Ware	Juglet	5Y 6/4
9.72.14	AD.17.P.372/2	Intensive survey	Simple Ware	Jar	5Y 7/4
9.72.15	AD.17.P.372/3	Intensive survey	Simple Ware	Jug	5Y 6/1

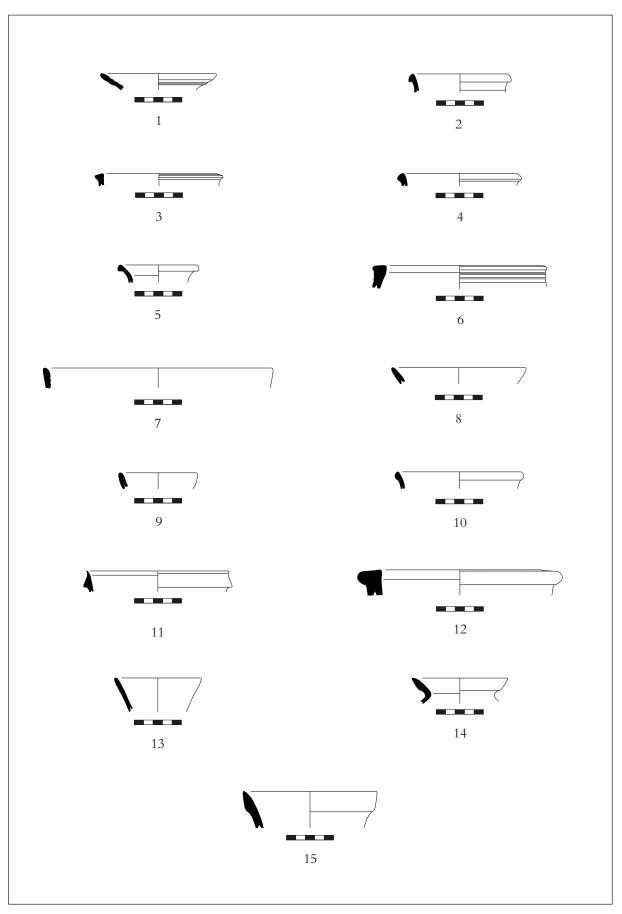


Fig. 9.72 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.73.1	AD.17.P.372/4	Intensive survey	Storage Ware	Jar	5Y 7/3
9.73.2	AD.17.P.373/1	Intensive survey	Simple Ware	Bowl	5Y 7/3
9.73.3	AD.17.P.373/2	Intensive survey	Simple Ware	Bowl	2.5Y 7/4
9.73.4	AD.17.P.373/3	Intensive survey	Simple Ware	Bowl	5Y 3/1
9.73.5	AD.17.P.373/4	Intensive survey	Simple Ware	Bowl	5Y 4/1, I/O 5Y 5/2
9.73.6	AD.17.P.374/1	Intensive survey	Simple Ware	Bowl	5Y 4/1, I/O 5Y 5/2
9.73.7	AD.17.P.374/2	Intensive survey	Simple Ware	Bowl	2.5Y 7/2
9.73.8	AD.17.P.374/3	Intensive survey	Cooking Ware	Bowl	5YR 6/6
9.73.9	AD.17.P.375/1	Intensive survey	Simple Ware	Bowl	7.5YR 7/6
9.73.10	AD.17.P.375/2	Intensive survey	Simple Ware	Bowl	7.5YR 7/4
9.73.11	AD.17.P.375/3	Intensive survey	Simple Ware	Bowl	2.5YR 6/3
9.73.12	AD.17.P.375/4	Intensive survey	Simple Ware	Bowl	5Y 8/4
9.73.13	AD.17.P.375/5	Intensive survey	Simple Ware	Bowl	5Y 6/4

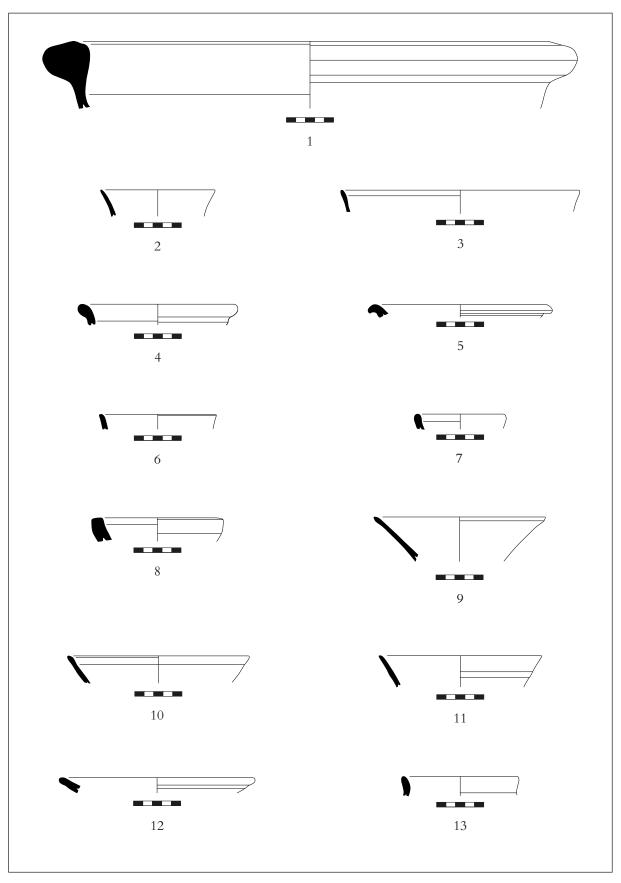


Fig. 9.73 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.74.1	AD.17.P.375/6	Intensive survey	Simple Ware	Bowl	5YR 7/6
9.74.2	AD.17.P.375/7	Intensive survey	Simple Ware	Jar	5YR 7/6
9.74.3	AD.17.P.375/8	Intensive survey	Simple Ware	Jar	7.5YR 7/4
9.74.4	AD.17.P.375/9	Intensive survey	Simple Ware	Bowl	7.5YR 7/6
9.74.5	AD.17.P.375/10	Intensive survey	Simple Ware	Jar	5Y 5/2
9.74.6	AD.17.P.375/11	Intensive survey	Simple Ware	Jar	5Y 5/1
9.74.7	AD.17.P.375/12	Intensive survey	Storage Ware	Jar	5Y 6/4

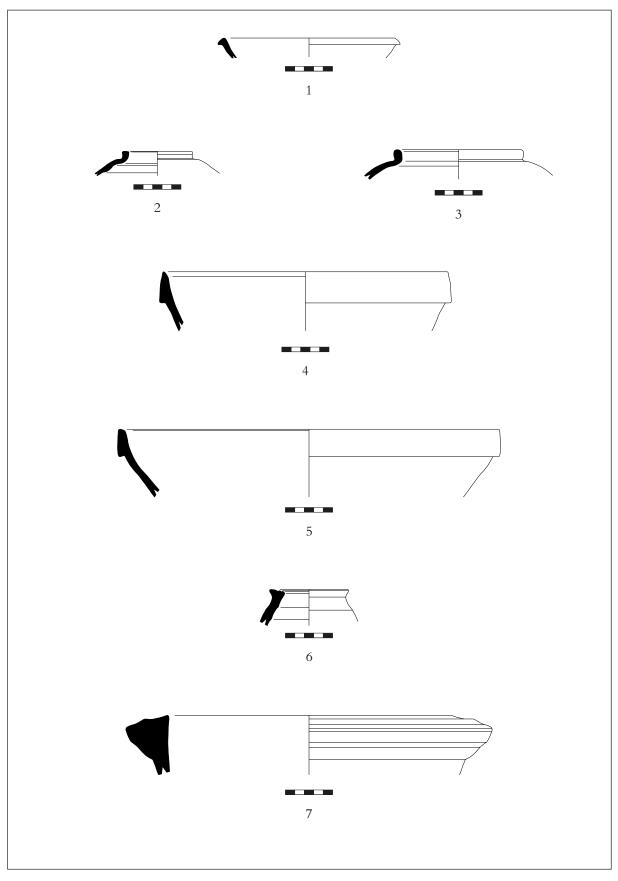


Fig. 9.74 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.75.1	AD.17.P.376/1	Intensive survey	Simple Ware	Bowl	10YR 7/4
9.75.2	AD.17.P.376/2	Intensive survey	Simple Ware	Bowl	2.5Y 6/2, I/O 2.5Y 7/2
9.75.3	AD.17.P.377/1	Intensive survey	Simple Ware	Bowl	2.5Y 7/2
9.75.4	AD.17.P.377/2	Intensive survey	Simple Ware	Bowl	2.5Y 5/1, I/O 2.5Y 7/3
9.75.5	AD.17.P.377/3	Intensive survey	Simple Ware	Small jar	2.5Y 7/2, I/O 2.5Y 4/1
9.75.6	AD.17.P.377/4	Intensive survey	Simple Ware	Small jar	2.5Y 4/1, I/O 2.5Y 5/1
9.75.7	AD.17.P.377/5	Intensive survey	Storage Ware	Tray	5Y 3/1
9.75.8	AD.17.P.378/1	Intensive survey	Simple Ware	Small Jar	2.5YR 7/4
9.75.9	AD.17.P.378/2	Intensive survey	Simple Ware	Bowl	10YR 7/4
9.75.10	AD.17.P.378/3	Intensive survey	Simple Ware	Bowl	10YR 3/1
9.75.11	AD.17.P.378/4	Intensive survey	Simple Ware	Jar	5Y 6/4
9.75.12	AD.17.P.378/5	Intensive survey	Simple Ware	Jar	5Y 7/3

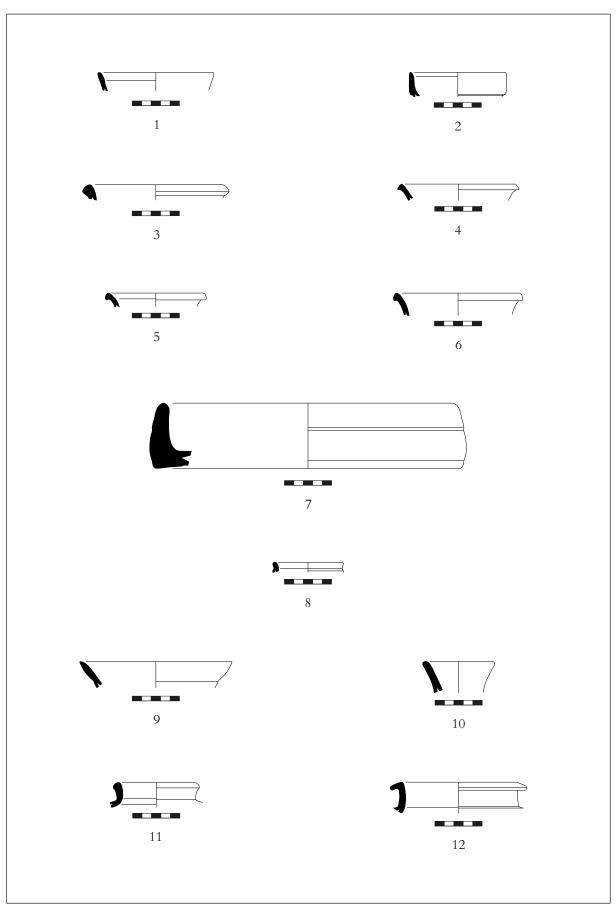


Fig. 9.75 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.76.1	AD.17.P.378/6	Intensive survey	Simple Ware	N/A	2.5Y 7/3
9.76.2	AD.17.P.378/7	Intensive survey	Simple Ware	N/A	5Y 7/3
9.76.3	AD.17.P.379/1	Intensive survey	Simple Ware	Juglet	5Y 7/3
9.76.4	AD.17.P.379/2	Intensive survey	Simple Ware	Plate	5Y 6/3
9.76.5	AD.17.P.379/3	Intensive survey	Simple Ware	Bowl	2.5Y 7/4
9.76.6	AD.17.P.379/4	Intensive survey	Simple Ware	Juglet	5Y 6/3
9.76.7	AD.17.P.379/5	Intensive survey	Simple Ware	Jar	5Y 7/3
9.76.8	AD.17.P.380/1	Intensive survey	Simple Ware	Juglet	5Y 7/6
9.76.9	AD.17.P.380/2	Intensive survey	Simple Ware	Bowl	5Y 6/4
9.76.10	AD.17.P.380/3	Intensive survey	Simple Ware	Bowl	5Y 6/4
9.76.11	AD.17.P.380/4	Intensive survey	Simple Ware	Jar	5Y 7/6
9.76.12	AD.17.P.380/5	Intensive survey	Simple Ware	Jug	5Y 7/4
9.76.13	AD.17.P.380/6	Intensive survey	Simple Ware	Jar	5Y 6/3
9.76.14	AD.17.P.380/7	Intensive survey	Storage Ware	Jar	5Y 5/1

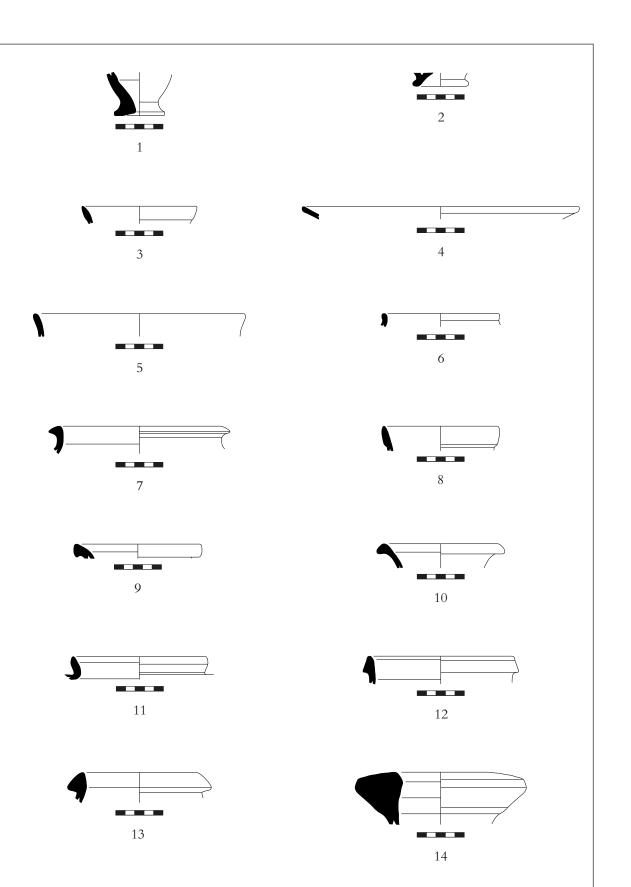


Fig. 9.76 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.77.1	AD.17.P.381/1	Intensive survey	Simple Ware	Juglet	5Y 7/3
9.77.2	AD.17.P.381/2	Intensive survey	Simple Ware	Juglet	5Y 4/1
9.77.3	AD.17.P.381/3	Intensive survey	Simple Ware	Juglet	5Y 5/2
9.77.4	AD.17.P.381/4	Intensive survey	Simple Ware	Bowl	5Y 5/1
9.77.5	AD.17.P.381/5	Intensive survey	Simple Ware	Jar	5Y 4/1
9.77.6	AD.17.P.381/6	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.77.7	AD.17.P.381/7	Intensive survey	Simple Ware	Bowl	5Y 8/4
9.77.8	AD.17.P.382/1	Intensive survey	Simple Ware	Bowl	5Y 6/4
9.77.9	AD.17.P.382/2	Intensive survey	Simple Ware	Bowl	5Y 7/3
9.77.10	AD.17.P.382/3	Intensive survey	Simple Ware	Jar	5Y 4/1
9.77.11	AD.17.P.382/4	Intensive survey	Simple Ware	Jar	5Y 5/3
9.77.12	AD.17.P.383/1	Intensive survey	Simple Ware	Bowl	5Y 6/4
9.77.13	AD.17.P.383/2	Intensive survey	Simple Ware	Bowl	5Y 8/4

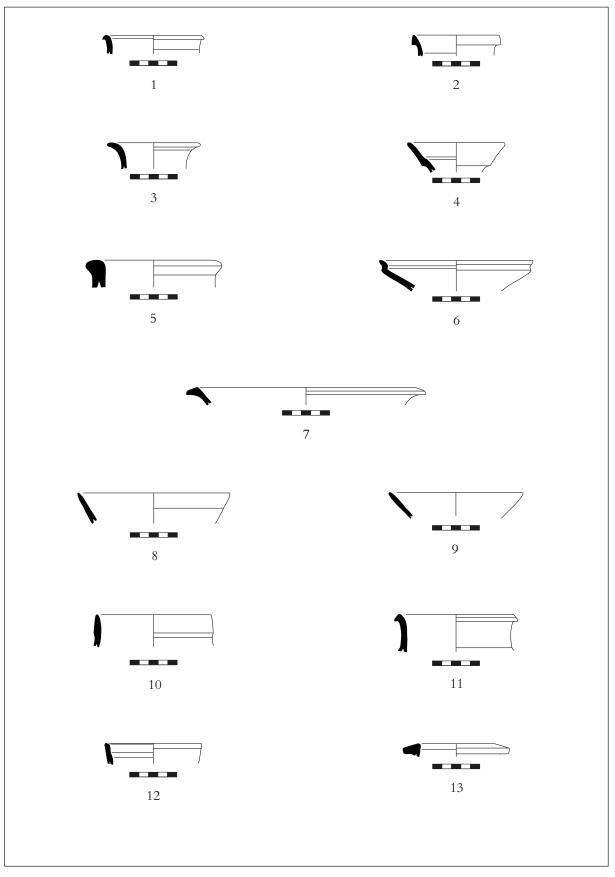


Fig. 9.77 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.78.1	AD.17.P.383/3	Intensive survey	Simple Ware	Bowl	5Y 5/3
9.78.2	AD.17.P.383/4	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.78.3	AD.17.P.383/5	Intensive survey	Simple Ware	N/A	7.5YR 5/1
9.78.4	AD.17.P.384/1	Intensive survey	Simple Ware	Bowl	5Y 6/3
9.78.5	AD.17.P.384/2	Intensive survey	Simple Ware	Bowl	5Y 7/2
9.78.6	AD.17.P.384/3	Intensive survey	Simple Ware	Jug	5Y 4/1
9.78.7	AD.17.P.384/4	Intensive survey	Simple Ware	Jug	5GY 7/3
9.78.8	AD.17.P.384/5	Intensive survey	Simple Ware	Jug	5Y 6/3
9.78.9	AD.17.P.385/1	Intensive survey	Simple Ware	Jug	5Y 6/3
9.78.10	AD.17.P.385/2	Intensive survey	Simple Ware	Jug	5Y 4/1
9.78.11	AD.17.P.385/3	Intensive survey	Simple Ware	Jar	2.5Y 7/4
9.78.12	AD.17.P.385/4	Intensive survey	Simple Ware	Jar	5Y 5/1

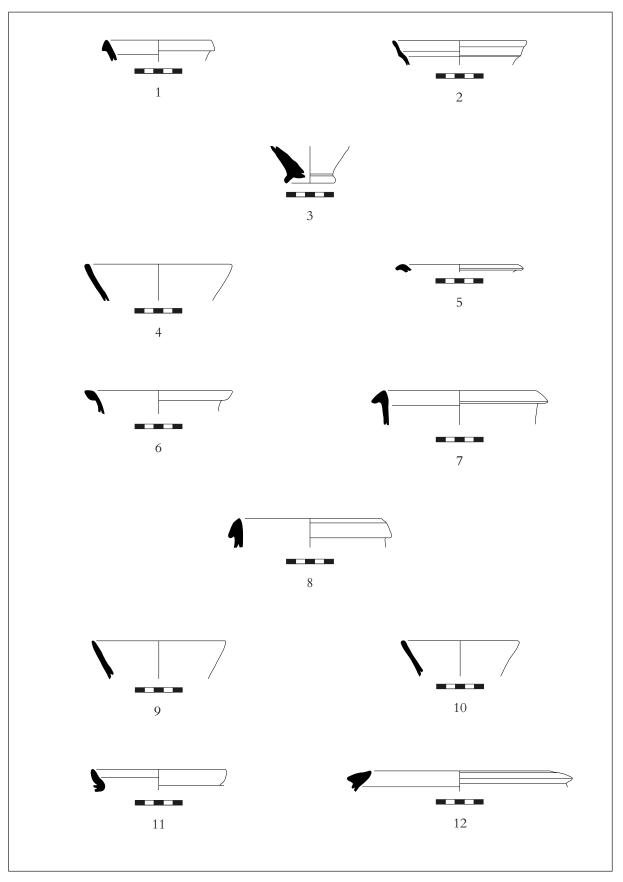


Fig. 9.78 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.79.1	AD.17.P.385/5	Intensive survey	Storage Ware	Jar	5Y 6/6
9.79.2	AD.17.P.385/6	Intensive survey	Storage Ware	Jar	2.5Y 7/3
9.79.3	AD.17.P.386/1	Intensive survey	Simple Ware	Bowl	5Y 7/3
9.79.4	AD.17.P.386/2	Intensive survey	Simple Ware	Bowl	5Y 7/3
9.79.5	AD.17.P.386/3	Intensive survey	Simple Ware	Jar	2.5Y 7/1
9.79.6	AD.17.P.388/1	Intensive survey	Simple Ware	Bowl	5Y 5/2
9.79.7	AD.17.P.388/2	Intensive survey	Simple Ware	Small jar	N 5/, I/O 5Y 6/2
9.79.8	AD.17.P.388/3	Intensive survey	Simple Ware	Small jar	2.5Y 5/1, I/O 2.5Y 7/2
9.79.9	AD.17.P.388/4	Intensive survey	Simple Ware	Jar	5Y 7/4

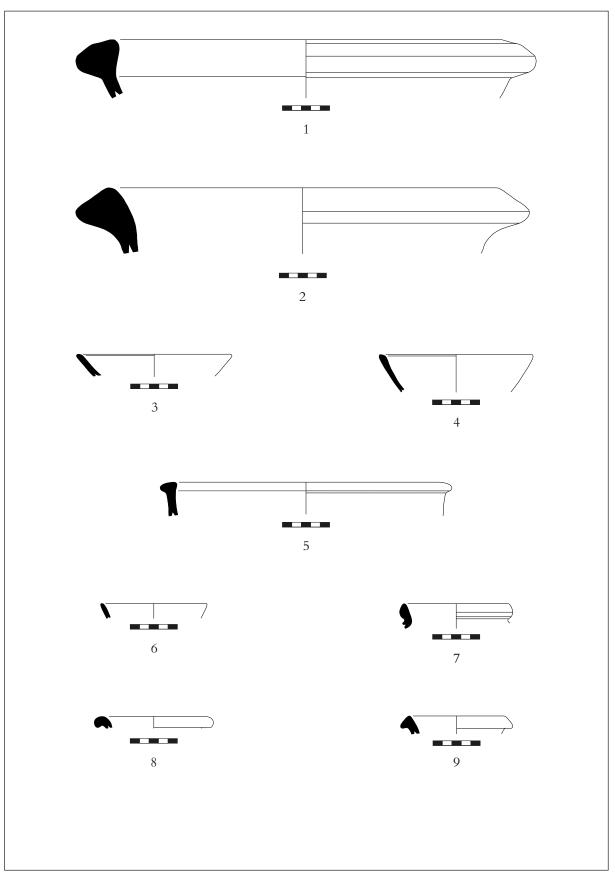


Fig. 9.79 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.80.1	AD.17.P.390/1	Intensive survey	Simple Ware	Bowl	5Y 7/6
9.80.2	AD.17.P.390/2	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.80.3	AD.17.P.390/3	Intensive survey	Simple Ware	Jar	5Y 6/4
9.80.4	AD.17.P.390/4	Intensive survey	Simple Ware	Small Jar	5Y 7/4
9.80.5	AD.17.P.390/5	Intensive survey	Simple Ware	Jar	5Y 6/4
9.80.6	AD.17.P.391/1	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.80.7	AD.17.P.391/2	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.80.8	AD.17.P.391/3	Intensive survey	Simple Ware	Bowl	5Y 5/2
9.80.9	AD.17.P.391/4	Intensive survey	Simple Ware	Jar	10 YR 7/ 4
9.80.10	AD.17.P.391/5	Intensive survey	Simple Ware	Jar	5Y 7/3
9.80.11	AD.17.P.392/1	Intensive survey	Simple Ware	Bowl	7.5YR 7/4
9.80.12	AD.17.P.392/2	Intensive survey	Simple Ware	Bowl	7.5YR 6/4

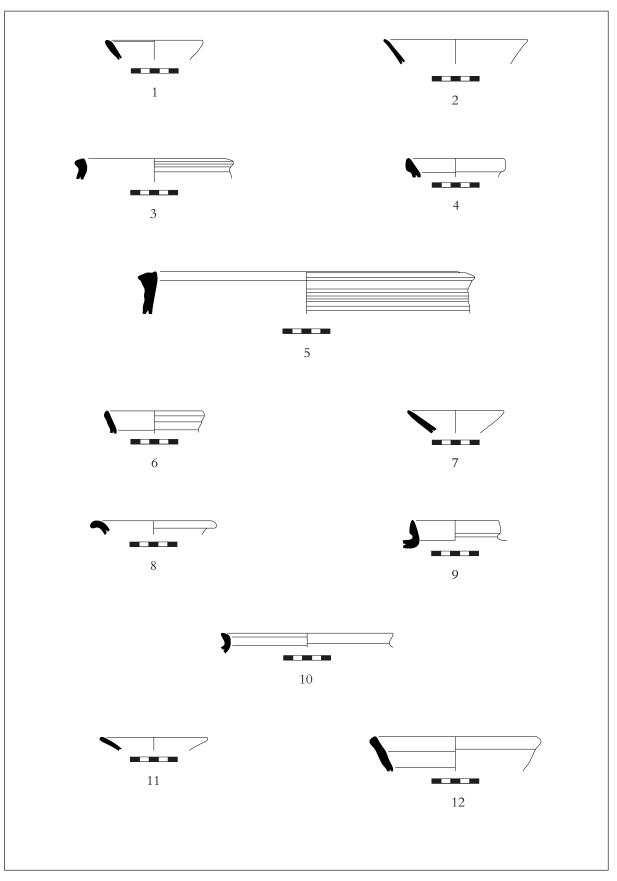


Fig. 9.80 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.62.1	AD.17.P.392/3	Intensive survey	Simple Ware	Jar	5Y 7/4
9.62.2	AD.17.P.392/4	Intensive survey	Simple Ware	Jar	5Y 7/3
9.62.3	AD.17.P.393/1	Intensive survey	Simple Ware	Bowl	5Y 7/6
9.62.4	AD.17.P.393/2	Intensive survey	Simple Ware	Bowl	5Y 3/1
9.62.5	AD.17.P.393/3	Intensive survey	Simple Ware	Bowl	5Y 7/3
9.62.6	AD.17.P.393/4	Intensive survey	Simple Ware	N/A	2.5Y 8/4
9.62.7	AD.17.P.394/1	Intensive survey	Simple Ware	Bowl	10 Y R 3/1
9.62.8	AD.17.P.394/2	Intensive survey	Simple Ware	Bowl	10 Y R 3/1
9.62.9	AD.17.P.394/3	Intensive survey	Simple Ware	Bowl	10 Y R 3/1
9.62.10	AD.17.P.394/4	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.62.11	AD.17.P.394/5	Intensive survey	Simple Ware	Bowl	5Y 6/3
9.62.12	AD.17.P.395/1	Intensive survey	Simple Ware	Jar	5Y 7/4

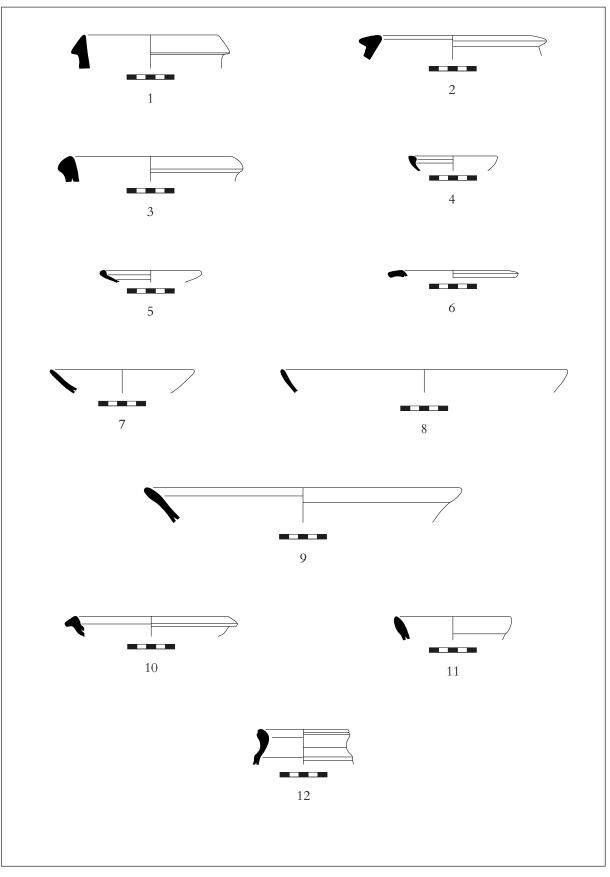


Fig. 9.81 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.62.1	AD.17.P.396/1	Intensive survey	Simple Ware	Bowl	5Y 7/4
9.62.2	AD.17.P.396/2	Intensive survey	Simple Ware	Jug	2.5Y 6/2
9.62.3	AD.17.P.397/1	Intensive survey	Simple Ware	Bowl	2.5Y 7/3
9.62.4	AD.17.P.397/2	Intensive survey	Simple Ware	Bowl	10 Y R 7/2
9.62.5	AD.17.P.397/3	Intensive survey	Simple Ware	Bowl	O 10YR 6/2, I 10YR 7/2
9.62.6	AD.17.P.397/4	Intensive survey	Simple Ware	Bowl	2.5Y 7/2
9.62.7	AD.17.P.397/5	Intensive survey	Simple Ware	Small jar	10YR 8/2, I/O 5Y 6/2
9.62.8	AD.17.P.397/6	Intensive survey	Simple Ware	Small jar	2.5Y 7/1
9.62.9	AD.17.P.397/7	Intensive survey	Simple Ware	Small jar	10 Y R 7/4
9.62.10	AD.17.P.398/1	Intensive survey	Simple Ware	Bowl	5Y 7/3
9.62.11	AD.17.P.398/2	Intensive survey	Simple Ware	Bowl	5Y 3/1
9.62.12	AD.17.P.398/3	Intensive survey	Simple Ware	Bowl	5Y 8/4

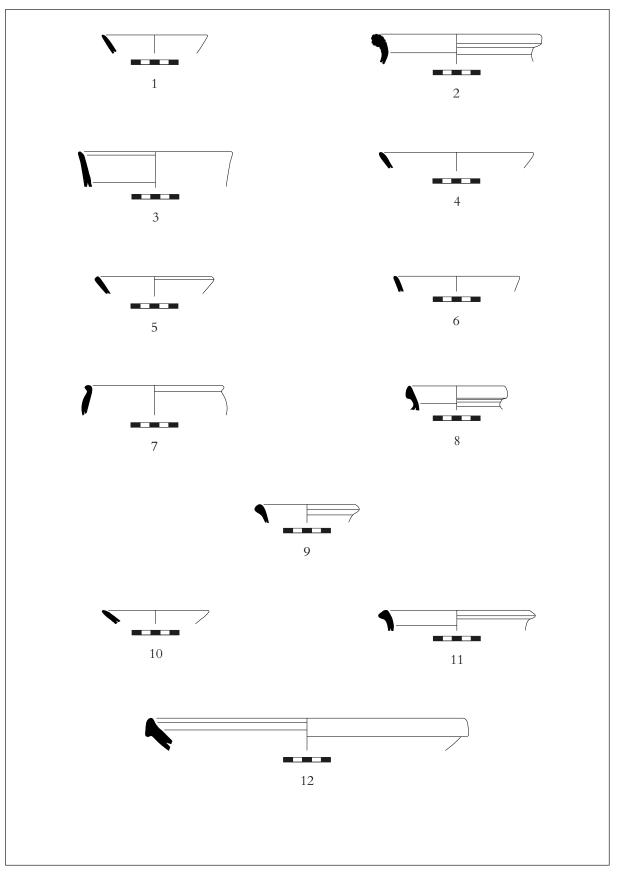


Fig. 9.82 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.62.1	AD.17.P.398/4	Intensive survey	Simple Ware	Jar	5Y 7/4
9.62.2	AD.17.P.399/1	Intensive survey	Simple Ware	Bowl	2.5Y 7/3
9.62.3	AD.17.P.399/2	Intensive survey	Simple Ware	Small jar	10YR 5/2
9.62.4	AD.17.P.399/3	Intensive survey	Simple Ware	Jar	10YR 7/2
9.62.5	AD.17.P.400/1	Intensive survey	Simple Ware	Bowl	2.5Y 6/2
9.62.6	AD.17.P.400/2	Intensive survey	Simple Ware	Bowl	2.5Y 6/2
9.62.7	AD.17.P.400/3	Intensive survey	Simple Ware	Small jar	2.5Y 5/1, I/O 2.5Y 7/1
9.62.8	AD.17.P.400/4	Intensive survey	Simple Ware	Jar	2.5Y 7/2, I/O 2.5Y 5/1
9.62.9	AD.17.P.400/5	Intensive survey	Simple Ware	Jar	2.5Y 8/1
9.62.10	AD.17.P.400/6	Intensive survey	Simple Ware	Jar	2.5Y 6/2
9.62.11	AD.17.P.400/7	Intensive survey	Storage Ware	Pithos	10YR 7/2
9.62.12	AD.17.P.400/8	Intensive survey	Storage Ware	Jar	5Y 5/2

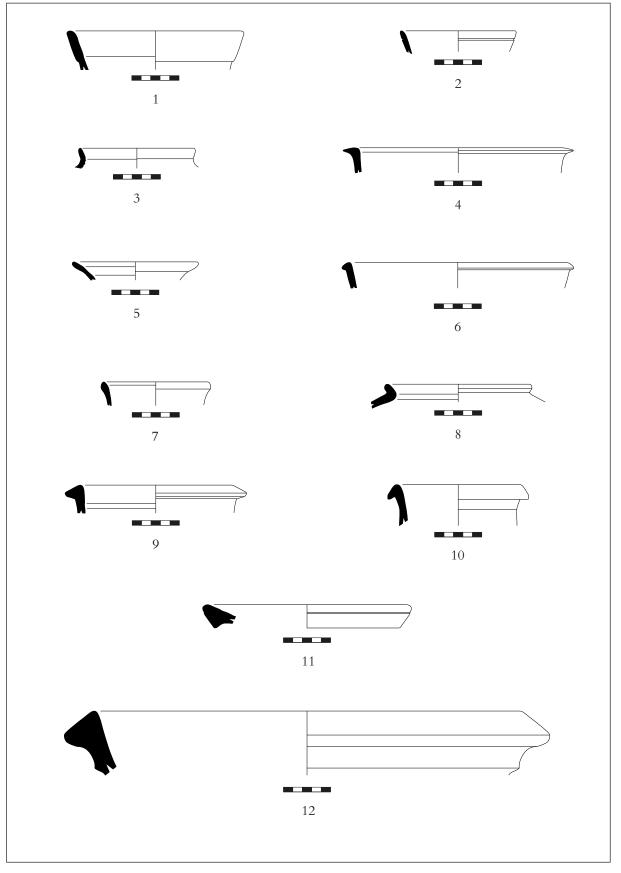


Fig. 9.83 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.62.1	AD.17.P.401/1	Intensive survey	Simple Ware	Jar	5Y 7/4
9.62.2	AD.17.P.401/2	Intensive survey	Simple Ware	Bowl	2.5Y 6/3
9.62.3	AD.17.P.401/3	Intensive survey	Simple Ware	Jar	5Y 3/1
9.62.4	AD.17.P.401/4	Intensive survey	Simple Ware	Bowl	5Y 8/4
9.62.5	AD.17.P.401/5	Intensive survey	Simple Ware	Bowl	5Y 6/4
9.62.6	AD.17.P.401/6	Intensive survey	Simple Ware	Bowl	5Y 8/4
9.62.7	AD.17.P.402/1	Intensive survey	Simple Ware	Jar	2.5Y 7/3
9.62.8	AD.17.P.869/14	Non-intensive survey	Simple Ware	Jar	10 Y R 7/4
9.62.9	AD.17.P.869/15	Non-intensive survey	Simple Ware	Jar	10 Y R 7/4
9.62.10	AD.17.P.885/1	Non-intensive survey	Simple Ware	Bowl	2.5Y 7/2

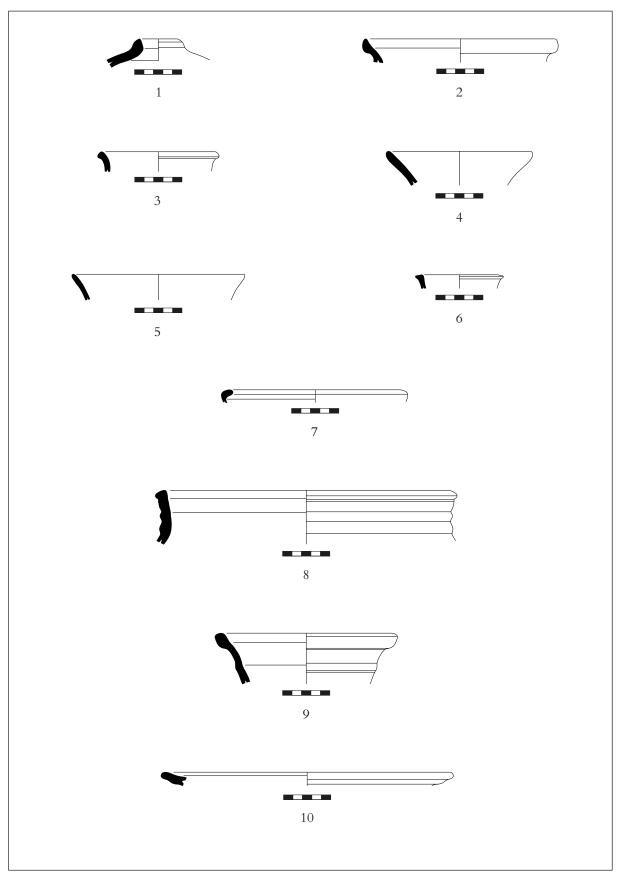


Fig. 9.84 Pottery assemblage from QD049

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.62.1	AD.17.P.885/2	Non-intensive survey	Simple Ware	Bowl	10 Y R 7/4
9.62.2	AD.17.P.885/3	Non-intensive survey	Simple Ware	Small Jar	5Y 7/3
9.62.3	AD.17.P.885/4	Non-intensive survey	Simple Ware	Small Jar	5Y 8/4
9.62.4	AD.17.P.885/5	Non-intensive survey	Simple Ware	Small Jar	5Y 8/3
9.62.5	AD.17.P.885/6	Non-intensive survey	Simple Ware	Small Jar	5Y 8/3
9.62.6	AD.17.P.885/7	Non-intensive survey	Simple Ware	Small Jar	5Y 7/4
9.62.7	AD.17.P.885/8	Non-intensive survey	Simple Ware	Jar	2.5Y 7/3

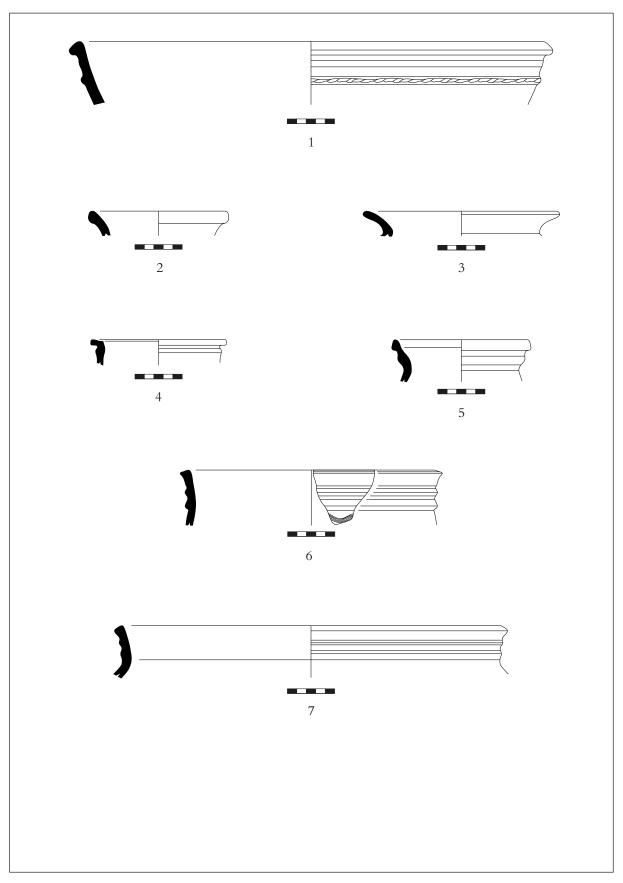


Fig. 9.85 Pottery assemblage from QD049

QD075b

QD075b is a large site of irregular shape. Ancient structures are visible in the northern part of the site, while many looting pits are present at the northern end of the site.

Identification code	QD075b
Visit date	October 2017
District	Afak
Ancient name of the site	-
Modern name of the site	-
Adams identification code	-
Coordinates (WGS84 UTM)	545844.00 m E 3523237.00 m N

Pottery

From the EB IV pottery repertoire collected at QD075b, the most represented ware type is Simple Ware (83% of the total collection), followed by Cooking Ware (14%) and Storage Ware (3%).

No surface treatments are present on the sherds collected. Decorations are present on 22% of the sherds collected and are mostly applied (62.5%), with a limited occurrence of grooved (37.%) motifs.

About 70% of the Simple Ware has fine homogeneous fabric, with a medium frequency (3-10%) of small (<0.5 mm) and medium (0.5-1 mm) inclusions, while 30% has a low frequency (<3%) of small (<0.5 mm) inclusions, while Cooking Ware has a coarser fabric, with a high frequency (10-20%, > 20%) of medium-size (0.5-1 mm) inclusions. Storage Ware has a coarse fabric, with a very high frequency (> 20%) of big size (1-2 mm) inclusions. Among fabric colors brownish (10YR 4/3; 2.5Y 4/3), light brownish (10YR 8/2, 6/3; 2.5Y 6/3-4), yellowish (10YR 5/4; 2.5Y 7/6; 5Y 7/3), olive (5Y 4/3, 6/2-3), grayish (7.5YR 3/1; GLEY 6/N, 5/N), and light grayish (2.5Y 7/2; 5Y 7/2) are the most frequently attested.

Simple Ware comprises a broad repertoire of open and closed shapes, with a prevalence of the latter.

Among open shapes, bowls with a triangular rim, and bowls with carinated sides are attested.

Among closed shapes, jars with an oval rim, jars with triangular rim, jars with plain

rim, and jars with an everted band rim are attested.

Storage Ware mainly consists of closed shapes, that include pithoi with a plain rim (oval or triangular) and pithoi with a grooved rim.

Cooking Ware is poorly attested, and consists mainly of cooking pots with a coarse fabric.

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.86.1	QD.18.P.195/1	Non-intensive survey	Simple Ware	Small Jar	2.5Y 7/2
9.86.2	QD.18.P.195/2	Non-intensive survey	Cooking Ware	Cooking Pot	2.5Y 8/3, I/O 2.5Y 7/2
9.86.3	QD.18.P.195/3	Non-intensive survey	Simple Ware	Small Jar	5Y 7/2
9.86.4	QD.18.P.195/4	Non-intensive survey	Simple Ware	Jar	10YR 6/3
9.86.5	QD.18.P.195/5	Non-intensive survey	Cooking Ware	Jar	10YR 6/4
9.86.6	QD.18.P.200/1	Non-intensive survey	Simple Ware	Small Jar	2.5Y 7/2
9.86.7	QD.18.P.200/2	Non-intensive survey	Simple Ware	Jar	2.5Y 7/2
9.86.8	QD.18.P.200/3	Non-intensive survey	Simple Ware	Jar	O 5Y 8/3, I 5Y 7/2
9.86.9	QD.18.P.200/4	Non-intensive survey	Simple Ware	Jar	2.5Y 7/2
9.86.10	QD.18.P.200/5	Non-intensive survey	Simple Ware	Small Jar	N 6/, I/O 5Y 7/1
9.86.11	QD.18.P.200/6	Non-intensive survey	Simple Ware	N/A	O 2.5Y 7/2, I 2.5Y 8/3
9.86.12	QD.18.P.200/7	Non-intensive survey	Simple Ware	Bowl	10YR 8/2
9.86.13	QD.18.P.200/8	Non-intensive survey	Simple Ware	Jar	2.5Y 7/2

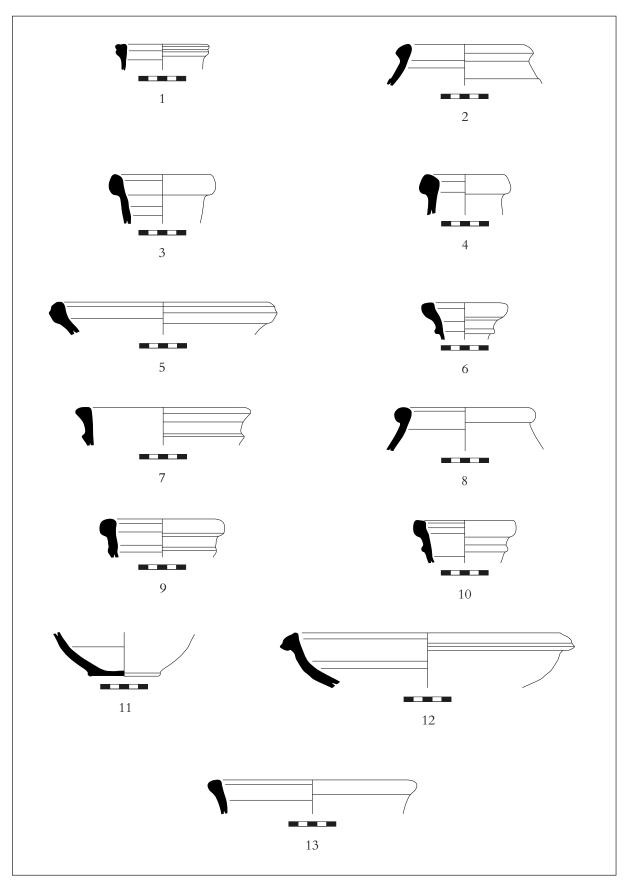


Fig. 9.86 Pottery assemblage from QD075b

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Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.87.1	QD.18.P.205/1	Non-intensive survey	Simple Ware	Jar	10YR 4/3
9.87.2	QD.18.P.205/2	Non-intensive survey	Simple Ware	Jar	7.5YR 3/1
9.87.3	QD.18.P.205/3	Non-intensive survey	Simple Ware	Beaker	7.5YR 3/1
9.87.4	QD.18.P.205/4	Non-intensive survey	Simple Ware	Jar	5Y 4/3
9.87.5	QD.18.P.205/5	Non-intensive survey	Simple Ware	Jar	10 Y R 5/4
9.87.6	QD.18.P.205/6	Non-intensive survey	Cooking Ware	Jar	10YR 4/3
9.87.7	QD.18.P.205/7	Non-intensive survey	Cooking Ware	Jar	2.5Y 4/3
9.87.8	QD.18.P.205/8	Non-intensive survey	Cooking Ware	Jar	2.5Y 4/3
9.87.9	QD.18.P.210/1	Non-intensive survey	Simple Ware	Jar	2.5Y 7/6
9.87.10	QD.18.P.210/2	Non-intensive survey	Simple Ware	Small jar	2.5Y 6/3

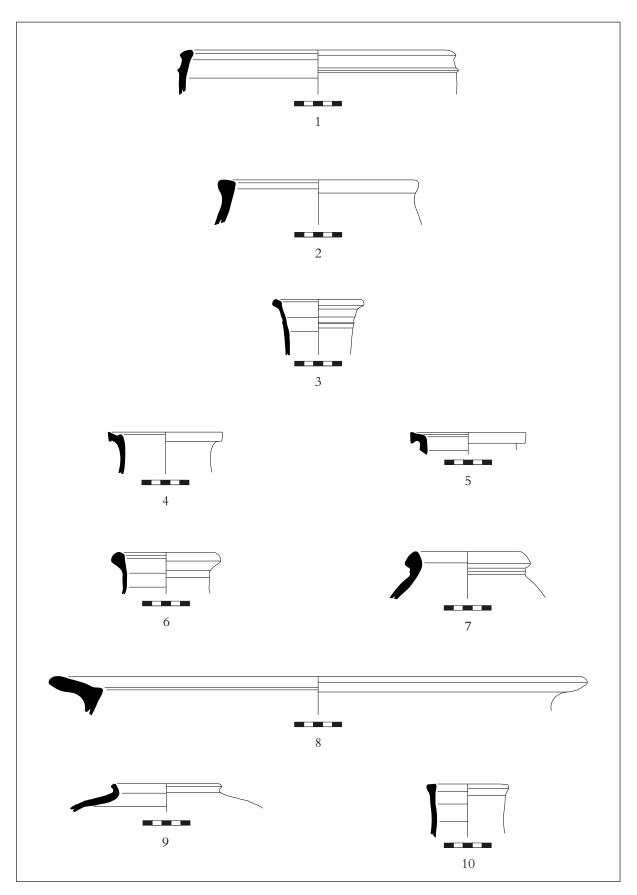


Fig. 9.87 Pottery assemblage from QD075b

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Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.88.1	QD.18.P.210/4	Non-intensive survey	Simple Ware	Jar	5Y 6/3
9.88.2	QD.18.P.210/5	Non-intensive survey	Simple Ware	Jar	N 5/, I/O 2.5Y 6/3
9.88.3	QD.18.P.210/6	Non-intensive survey	Simple Ware	Jar	2.5Y 6/4
9.88.4	QD.18.P.210/7	Non-intensive survey	Simple Ware	Small Jar	5Y 6/3
9.88.5	QD.18.P.210/8	Non-intensive survey	Simple Ware	Jar	N 5/, I/O 2.5Y 6/3
9.88.6	QD.18.P.210/9	Non-intensive survey	Simple Ware	Jar	2.5Y 6/3
9.88.7	QD.18.P.210/11	Non-intensive survey	Simple Ware	Goblet	2.5Y 6/3
9.88.8	QD.18.P.210/12	Non-intensive survey	Storage Ware	Pithos	2.5Y 6/2
9.88.9	QD.18.P.218/4	Non-intensive survey	Simple Ware	Jar	5Y 6/2

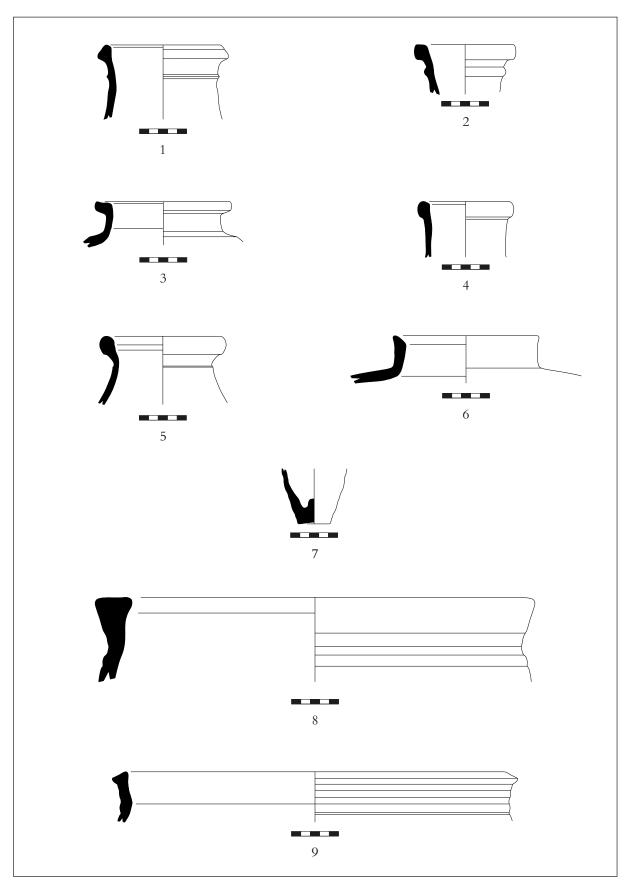


Fig. 9.88 Pottery assemblage from QD075b

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.89.1	QD.18.P.218/5	Non-intensive survey	Simple Ware	Jar	5Y 7/3, I/O 5Y 8/3
9.89.2	QD.18.P.218/6	Non-intensive survey	Simple Ware	Small Jar	5Y 6/3
9.89.3	QD.18.P.218/7	Non-intensive survey	Simple Ware	Small Jar	N 5/, I/O 5Y 7/3
9.89.4	QD.18.P.218/8	Non-intensive survey	Simple Ware	Small Jar	5Y 7/2

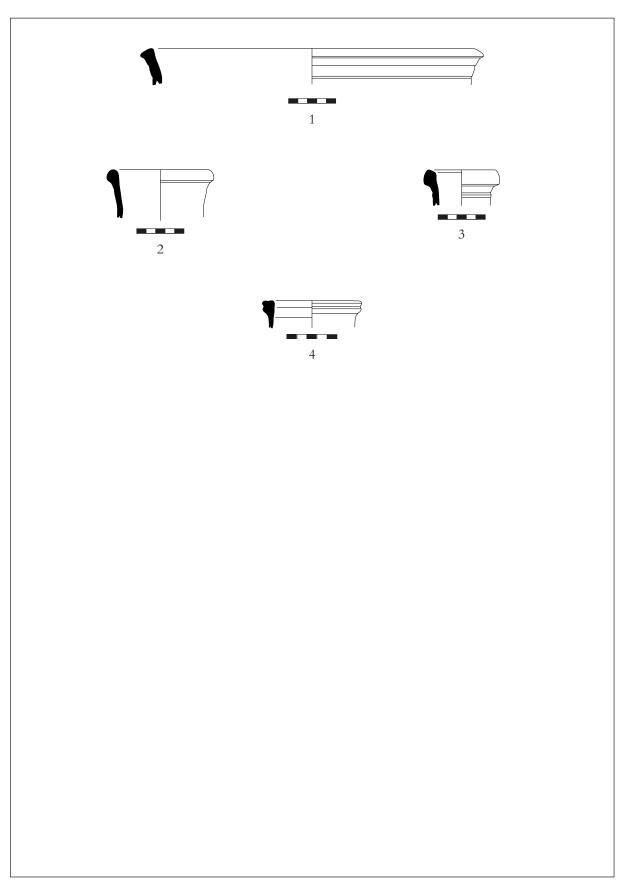


Fig. 9.89 Pottery assemblage from QD075b

QD080

QD080 is a very small and low mound of circular shape. Two modern channels cut the site to the northeast and northwest, and another runs south of the site.

Identification code	QD080	
Visit date	January 2018	
District	Afak	
Ancient name of the site	-	
Modern name of the site	al-Hamidat	
Adams identification code	-	
Coordinates (WGS84 UTM)	543524.00 m E 3527755.00 m N	

Pottery

The EB IV pottery assemblage from QD080 comprises two sherds of Simple Ware. No surface treatment is attested. One of the sherds presents a grooved decoration. A fine homogenous fabric characterizes these two pottery shapes, with a low frequency (<3%) of small size (<0.5 mm) inclusions. Fabric colors range from yellowish (5Y 7/3) to grayish (5Y 5/1). The collected shapes are a jar with a multiple-ridged rim and a jar with a rectangular rim.

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.90.1	QD.17.P.832/1	Non-intensive survey	Simple Ware	Jar	5Y 5/1
9.90.2	QD.17.P.832/2	Non-intensive survey	Simple Ware	Jar	5Y 7/3

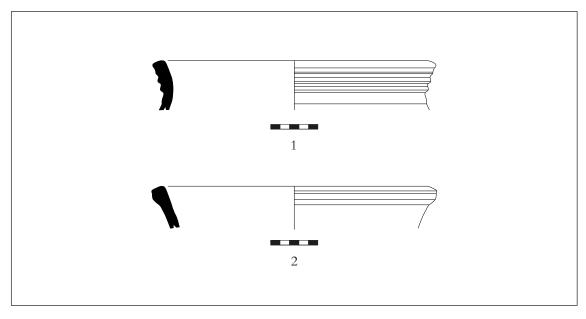


Fig. 9.90 Pottery assemblage from QD080

QD112

QD112 is a site of irregular shape, consisting of a medium height. A cluster of slags was found in the north part. Several looting pits are located all over the site.

Identification code	QD112	
Visit date	January 2018	
District	Afak	
Ancient name of the site	-	
Modern name of the site	-	
Adams identification code	-	
Coordinates (WGS84 UTM)	571301.00 m E 3508862.00 m N	

Pottery

The EB IV pottery assemblage from QD112 comprises four sherds of Simple Ware. No surface treatment is attested. One of the sherds presents a grooved decoration. The Simple Ware EB IV repertoire is characterized by a fine homogenous fabric with a medium frequency (3-10%) of small size (<0.5 mm) inclusions. Fabric colors range from yellowish (7.5YR 7/6) to olive (5Y 5/3). The pottery shapes collected are a jar with a triangular rim, a band-rim jar, a small jar with a plain rim, and an undetermined base.

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.91.1	QD.18.P.237/2	Non-intensive survey	Simple Ware	Jar	5Y 5/3
9.91.2	QD.18.P.237/3	Non-intensive survey	Simple Ware	Small jar	5Y 7/3
9.91.3	QD.18.P.237/4	Non-intensive survey	Simple Ware	Jar	5Y 7/4
9.91.4	QD.18.P.237/5	Non-intensive survey	Simple Ware	N/A	5Y 7/6

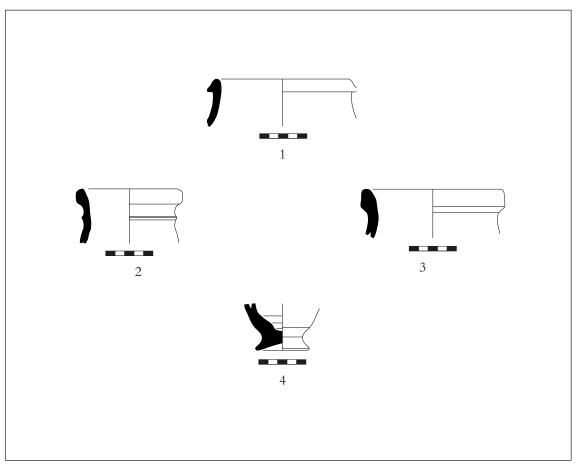


Fig. 9.91 Pottery assemblage from QD112

QD117

QD117 is a small site of irregular shape, heavily damaged by modern canalization. Two large mounds made of pottery and archaeological deposits are taken from the modern channel.

Two large modern canalizations cut the site to the north and south.

Identification code	QD117
Visit date	January 2018
District	Afak
Ancient name of the site	-
Modern name of the site	Tell Rumah
Adams identification code	-
Coordinates (WGS84 UTM)	547979.00 m E 3522757.00 m N

Pottery

The EB IV pottery assemblage from QD117 comprises two sherds of Simple Ware. No surface treatment is attested. These two pottery shapes are characterized by a fine homogenous fabric with a medium frequency (3–10%) of small size (<0.5 mm) inclusions. The fabric color attested is light yellowish (5Y 7/3-4). The pottery shapes collected are two large bowls with a triangular rim.

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.92.1	QD.18.P.78/11	Non-intensive survey	Simple Ware	Bowl	5Y 7/4
9.92.2	QD.18.P.78/12	Non-intensive survey	Simple Ware	Bowl	5Y 7/3

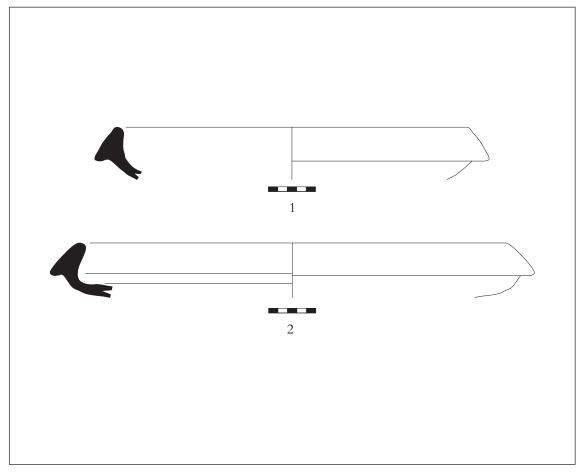


Fig. 9.92 Pottery assemblage from QD117

QD136

QD136 is a small flat site of almost circular shape. Modern cultivations surround the site, and a modern channel cuts the site from east to west.

Identification code	QD136
Visit date	January 2018
District	Afak
Ancient name of the site	-
Modern name of the site	-
Adams identification code	-
Coordinates (WGS84 UTM)	553539.00 m E 3518267.00 m N

Pottery

The pottery assemblage collected from QD136 is composed exclusively of Simple Ware.

Surface treatments are present on 18% of the sherds collected, and encompass exclusively White Slip. Decorations are present on 23% of the sherds collected and are mostly grooved and incised (50%), with a limited occurrence of incised (25%) and impressed (25%) motifs.

About 82% of the Simple Ware has a fine homogenous fabric with a low frequency (<3%) of small (<0.5 mm) and medium-size (0.5-1 mm) inclusions, while about 18% is characterized by a medium frequency (3-10%) of small size (<0.5 mm) inclusions. Among fabric colors reddish (2.5YR 7/3; 5YR 6/6; 7.5YR 6/6), brownish (7.5YR 5/4), light brownish (10YR 7/4, 6/3-4; 2.5Y 7/3-4, 6/3), and yellowish (10YR 7/6; 5Y 7/3) are the most frequently attested.

Simple Ware encompasses a wide range of open and closed shapes, with a prevalence of the latter.

Among open shapes, conical bowls with a plain rim, bowls with a triangular rim, and kraters with a triangular rim and comb-incised sides are attested.

Among closed shapes, jars with an everted triangular rim, jars with an everted band rim, jars with a triangular elongated rim, and jars with an oval rim are attested.

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Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.93.1	QD.18.P. 163a/1	Non-intensive survey	Simple Ware	Bowl	10YR 7/4
9.93.2	QD.18.P. 163a/2	Non-intensive survey	Simple Ware	Bowl	2.5Y 7/4
9.93.3	QD.18.P. 163a/3	Non-intensive survey	Simple Ware	Bowl	2.5Y 7/3
9.93.4	QD.18.P. 163a/4	Non-intensive survey	Simple Ware	Jar	2.5Y 7/2
9.93.5	QD.18.P. 163a/5	Non-intensive survey	Simple Ware	Jar	10 Y R 7/6
9.93.6	QD.18.P. 163a/6	Non-intensive survey	Simple Ware	Jar	5YR 6/6
9.93.7	QD.18.P. 163a/7	Non-intensive survey	Simple Ware	Jar	10 Y R 6/3
9.93.8	QD.18.P. 163a/8	Non-intensive survey	Simple Ware	Jar	10 Y R 6/4
9.93.9	QD.18.P. 163a/9	Non-intensive survey	Simple Ware	Jar	2.5Y 3/1

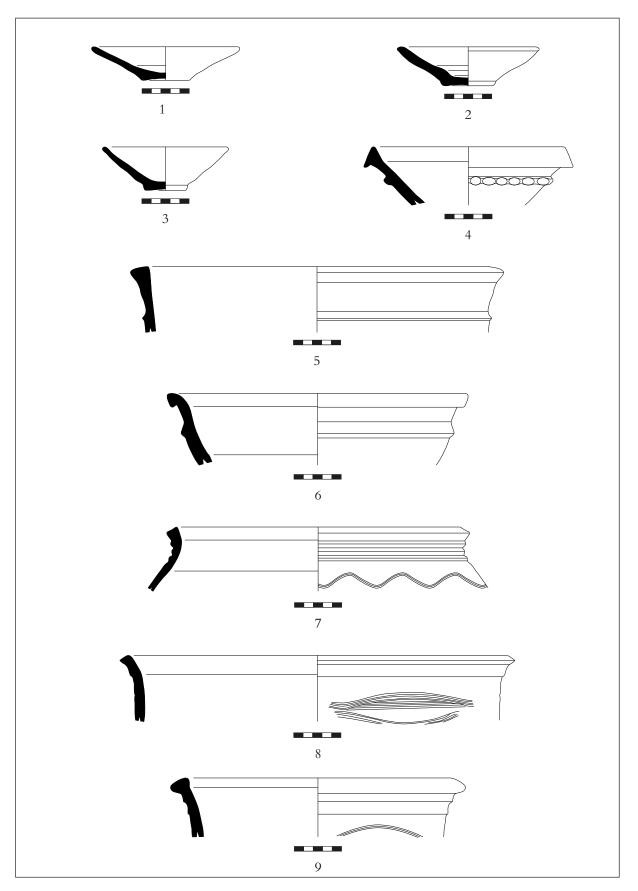


Fig. 9.93 Pottery assemblage from QD136

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Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.94.1	QD.18.P. 163a/10	Non-intensive survey	Simple Ware	Jar	2.5Y 6/3
9.94.2	QD.18.P. 163a/11	Non-intensive survey	Simple Ware	Jar	5Y 7/3
9.94.3	QD.18.P. 163a/12	Non-intensive survey	Simple Ware	Jar	O 5Y 6/4, I 5Y 4/1
9.94.4	QD.18.P. 163a/13	Non-intensive survey	Simple Ware	Jar	7.5YR 5/4
9.94.5	QD.18.P. 163a/14	Non-intensive survey	Simple Ware	Jar	7.5YR 5/4
9.94.6	QD.18.P. 163a/15	Non-intensive survey	Simple Ware	Small jar	7.5YR 6/6
9.94.7	QD.18.P. 163a/16	Non-intensive survey	Simple Ware	Small jar	2.5YR 7/3
9.94.8	QD.18.P. 163a/17	Non-intensive survey	Simple Ware	Jar	10 Y R 6/4

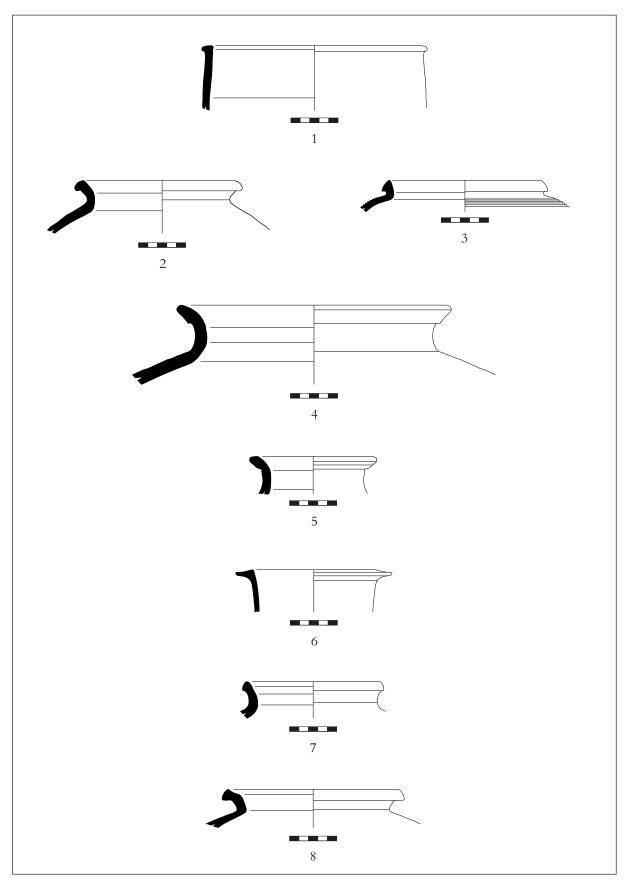


Fig. 9.94 Pottery assemblage from QD136

QD150b

QD150b consists of a medium-height mound of oval shape. A salty crust covers the site, and one modern channel runs east of the site. A few slags were found in the northern part of the site. Several traces of looting have been observed on top of the mound.

Identification code	QD150b
Visit date	January 2018
District	Afak
Ancient name of the site	-
Modern name of the site	-
Adams identification code	0025
Coordinates (WGS84 UTM)	555057.00 m E 3514808.00m N

Pottery

The EB IV pottery assemblage from QD150b comprises four sherds of Simple Ware. On one sherd, White Slip is attested as surface treatment. These four pottery shapes are characterized by a fine homogenous fabric, with a low frequency (<3%) of small size(<0.5 mm) inclusions. Fabric colors range from light brownish 10YR 7/4; 2.5Y 7/4) to yellowish (2.5Y 7/6; 2.5Y 6/3). The pottery shapes collected are jars with a triangular rim, a jar with an oval rim, and a bowl with carinated sides.

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.95.1	QD.18.P.231/1	Non-intensive survey	Simple Ware	Bowl	10YR 7/4
9.95.2	QD.18.P.231/2	Non-intensive survey	Simple Ware	Jar	2.5Y 7/4
9.95.3	QD.18.P.231/3	Non-intensive survey	Simple Ware	Jar	2.5Y 7/6
9.95.4	QD.18.P.231/4	Non-intensive survey	Simple Ware	Jar	2.5Y 6/3

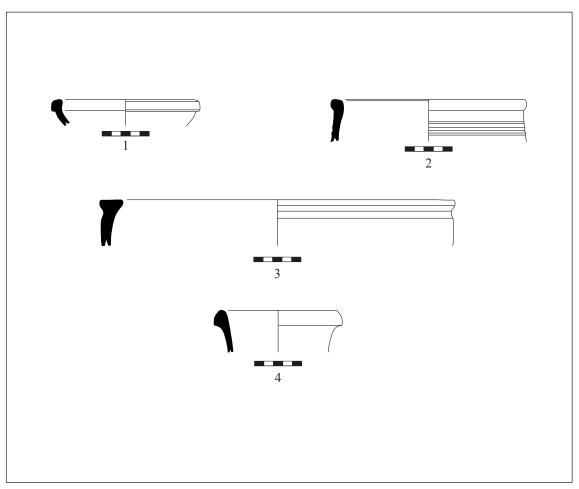


Fig. 9.95 Pottery assemblage from QD150b

QD152

QD152 is a flat site of circular shape. One modern channel cuts the site to the north. During the surface survey, several sickle blades were found in the southern part of the site.

Identification code	QD152
Visit date	January 2018
District	Afak
Ancient name of the site	-
Modern name of the site	-
Adams identification code	-
Coordinates (WGS84 UTM)	567343.00 m E 3501710.00 m N

Pottery

From the EB IV pottery repertoire collected at QD152, the most represented ware type is Simple Ware (80% of the total collection), followed by Storage Ware (20%).

Surface treatments are present on 20% of the sherds collected and consist exclusively of White Slip. Decorations are present on 13% of the sherds collected, encompassing grooved (50%) and impressed (50%) motifs.

The Simple Ware EB IV repertoire has fine homogeneous fabric, with a low frequency (<3%) of small (<0.5 mm) and medium (0.5-1 mm) inclusions, while Storage Ware has a coarser fabric, with a high frequency (10-20%, > 20%) of medium-size (0.5-1 mm) inclusions. Storage Ware has a coarse fabric, with a medium/high frequency (3-10%, 10-20%) of medium-size (0.5-1 mm) inclusions. Among fabric colors light brownish (7.5YR 6/4; 10YR 7/4, 6/3; 2.5Y 7/3), yellowish (2.5Y 6/3), and olive (5Y 6/3) are the most frequently attested.

Simple Ware comprises a broad repertoire of open and closed shapes, with a prevalence of the latter.

Among open shapes, bowls with carinated sides, bowls with a triangular rim, and bowls with a triangular everted rim are attested.

Among closed shapes, jars with an everted band rim, jars with a plain rim on a short neck, and jars with oval rim are attested.

Storage Ware mainly consists of closed shapes, although a large-size bowl with a triangular rim is present. Pithoi with a plain rim (oval or triangular) and pithoi with

a grooved rim are attested.

Small Finds One fragmentary zoomorphic figurine was collected from QD152.

Catalogue of small finds from QD152:

QD.16.O.282, Zoomorphic figurine (Fig. 9.4.1) Material: Clay Dimensions: h. 3, l. 4, w. 2.3 Bucket: QD.16.P.233 Preservation: fragmentary

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.97.1	QD.18.P.233/1	Non-intensive survey	Simple Ware	Bowl	2.5Y 6/3
9.97.2	QD.18.P.233/2	Non-intensive survey	Simple Ware	Jar	2.5Y 7/3
9.97.3	QD.18.P.233/3	Non-intensive survey	Simple Ware	Jar	7.5YR 6/4
9.97.4	QD.18.P.233/4	Non-intensive survey	Simple Ware	Bowl	7.5YR 6/4
9.97.5	QD.18.P.233/5	Non-intensive survey	Simple Ware	Bowl	10 Y R 7/4
9.97.6	QD.18.P.233/6	Non-intensive survey	Simple Ware	Jar	10 Y R 6/3
9.97.7	QD.18.P.233/7	Non-intensive survey	Simple Ware	Jar	5Y 6/3
9.97.8	QD.18.P.233/8	Non-intensive survey	Simple Ware	Jar	5Y 6/3
9.97.9	QD.18.P.233/9	Non-intensive survey	Simple Ware	Jar	2.5Y 6/3
9.97.10	QD.18.P.233/10	Non-intensive survey	Simple Ware	Jar	5Y 6/3

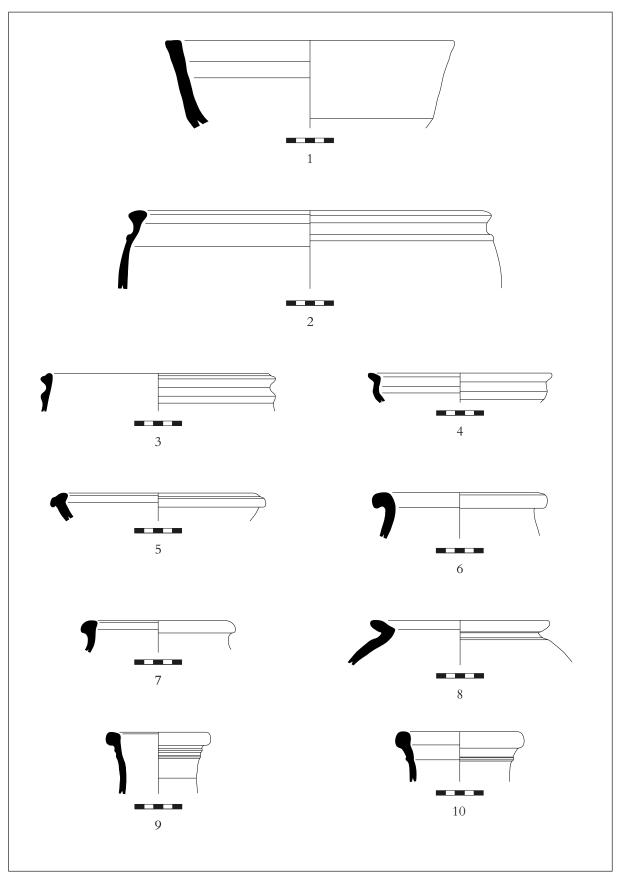


Fig. 9.97 Pottery assemblage from QD152

Fig.	Excavation No.	Provenance	Functional Class	Shape	Fabric
9.98.1	QD.18.P.233/11	Non-intensive survey	Simple Ware	Jar	5Y 6/3
9.98.2	QD.18.P.233/12	Non-intensive survey	Simple Ware	Bowl	2.5Y 7/3
9.98.3	QD.18.P.233/13	Non-intensive survey	Storage Ware	Pithos	10 Y R 6/3
9.98.4	QD.18.P.233/14	Non-intensive survey	Storage Ware	Bowl	10 Y R 4/1
9.98.5	QD.18.P.233/15	Non-intensive survey	Storage Ware	Pithos	2.5Y 6/3

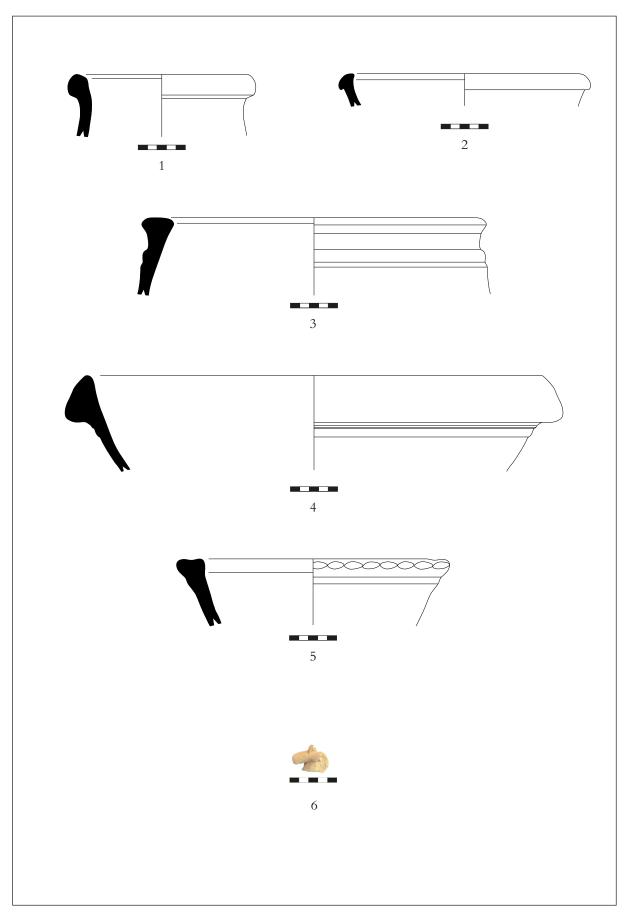


Fig. 9.98 Pottery assemblage and small finds from QD152

9.3 SETTLEMENT PATTERNS IN THE QADIS SURVEY AREA BETWEEN EARLY AND MIDDLE BRONZE AGE

The QADIS project surveyed and identified 19 settlements dating to the EB IV period (some of which had also been previously investigated by Adams). The site of Adab is, in this period, a major urban site of regional importance, together with Nippur and Umma; then we have several small to medium size settlements, such as QD013 - Tell Jidr/Karkara, QD019, QD020a, QD033 - Umm al-Hafriyat/Mash-kan-ili-Akkade². In the QADIS survey area, a very small number of settlements dated to the EB IV period bears continuity with the EB III period. In contrast, many sites settled during the EB IV period show an overall increase in the total settled area during the MB I period. Most sites in the QADIS area during the EB IV period can be classified as small rural settlements, which underlines an increase in the rural population, as compared with the previous EB III period¹⁴⁰. Furthermore, during the EB IV period, there seems to be an abandonment of the network of subsidiary channels crossing the floodplain between the Tigris and the Euphrates¹⁴¹, with settlements now clustering along the major waterways, in particular along the Tigris.

The EB IV landscape is characterized by a harsh overall decrease of settlements, when compared with the EB III period, marked by a major urban density, and with the MB I situation, when the number of settlements grows sharply (Map 9.3.1). In addition, during the EB IV period, the sites in the QADIS region are characterized by a reduction of the total settled surface. The EB IV overall decrease finds reflection in the changes connected to the 4.2 KA BP event, a major climatic shift towards drier conditions, with the consequent decrease of water availability that overtook the Mesopotamian floodplains starting from 2250 BCE¹⁴². This event had a strong impact on the communities located along the branches of the Tigris and the Euphrates, causing a reduction of settlements connected to the branch of the Euphrates flowing to the south of Nippur and a relevant clustering of sites along the southern branch of the Tigris.

It was possible to identify with far more precision than in the previous surveys the EB IV pottery assemblage, thanks not only to the study of published excavated sequences from neighboring sites, but also because of the presence of a large amount

¹⁴⁰ Marchetti *et al.* 2019, 224.

¹⁴¹ Marchetti *et al.* 2019, 224.

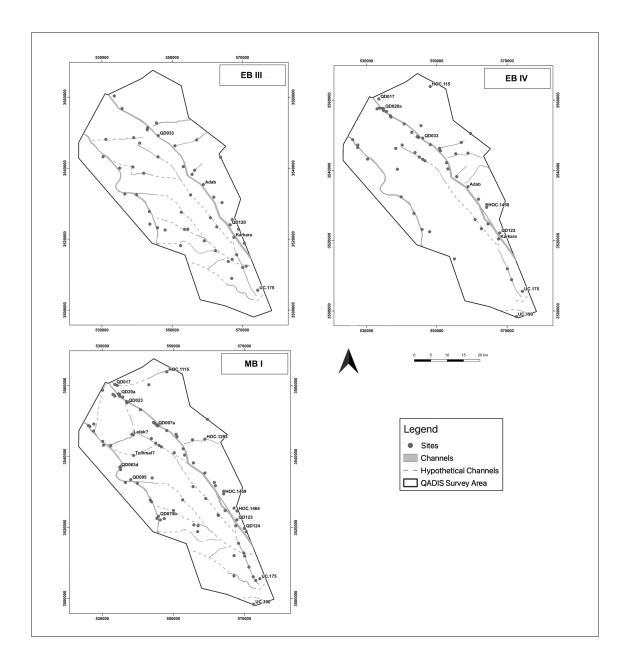
¹⁴² Cookson et al. 2019; Rost 2017, 12; Weiss 2017.

of EB IV materials on the surface, due, in most cases, to illicit digging (as for QD049 – Bismaya/Adab and QD152). Otherwise, it would have been much more difficult to recognize the EB IV horizon on the surface of multi-period archaeological sites such as QD049 – Bismaya/Adab.

Although the results of the EB IV pottery analysis in the QADIS region are still preliminary, they underline a strong unity of material culture with the excavated sites of southern Mesopotamia, such as Nippur, Umm el-Jir and Tell al-Wilaya, and durable connection with the Diyala and Hamrin regions; a further step will be to investigate and clarify the modes of connection between the two regions.

The results concerning QD049 – Bismaya/Adab show that the site held major importance during the EB IV period. Furthermore, the occurrence of a large amount of EB IV pottery brought to light by illicit digging and the presence of a large building, probably pertaining to a public palatine complex, emphasizes the site's importance during the EB IV period.

As for EB IV settlement patterns, the situation in the QADIS region underlines, on the one hand, a harsh decrease of settlements in the Mesopotamian floodplain, which seems strictly correlated with the 4.2 Ka BP event, the resulting reduction of water availability caused by a drier climatic condition and the subsequent abandonment of the subsidiary channels flowing between the Tigris and Euphrates branches during the previous EB III period. However, on the other hand, if we suppose a correlation between the network and extension of the sites and state power, the decrease of settled sites during the EB IV period may suggest a contraction of the central state power in our region, followed by a strong reorganization of the state apparatus during the MB I period.



Map 9.3.1 Reconstruction of settlement patterns in the QADIS survey area through the EB III, EB IV and the MB I periods, integrated with Adams 1981 and Adams and Nissen 1972.

Chapter 10

ROBERT ADAMS' SURVEYS AND OTHER RECONNAISSANCE PROJECTS

10.1 LOCATION AND GENESIS OF THE SURVEYS

The study of Mesopotamia early urbanism has its roots in the pioneering researches carried out in central and southern Iraq starting from the final years of the 1950s through the early 1980s. Among them, the most important are certainly the surveys carried out by Robert McC. Adams in different regions of the Mesopotamian alluvium, i.e., the Land behind Baghdad Survey¹⁴³, the Akkad Survey¹⁴⁴, the Uruk Countryside Survey¹⁴⁵ and the Heartland of Cities Survey¹⁴⁶. All these surface surveys carried out by Adams in approximately thirty years of fieldwork were characterized by a large-scale perspective, together with innovative research methodologies, such as the use of aerial photographs for mapping the sites and the ancient watercourses and the systematic surveying and recording of sites and materials, with the aim of understanding the chronology and the size of each surveyed site.

This groundbreaking approach to the study of ancient settlement patterns and landscape paved the way not only to other large-scale surface surveys carried out in the same years, i.e., the Kish Survey¹⁴⁷ and the Eridu Survey¹⁴⁸, but also, since the early 2000s, to a new season of regional research and projects in the Mesopotamian alluvium.

- 147 Gibson 1972a.
- 148 Wright 1981.

¹⁴³ Adams 1965.

¹⁴⁴ Adams 1972.

¹⁴⁵ Adams and Nissen 1972.

¹⁴⁶ Adams 1981.

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The collected data from the 1950s-1980s fieldworks, as pointed out by Hritz, Pournelle and Smith, «covers approximately one-third of the alluvium»¹⁴⁹ (Fig. 10.1).

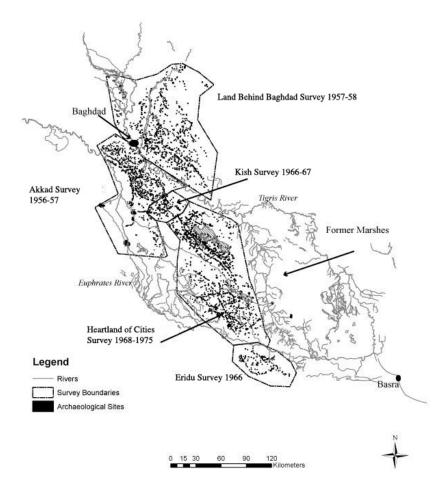


Fig. 10.1.1 Archaeological surface surveys carried out between the 1950s and the 1980s (map after Hritz, Pournelle and Smith 2012)

10.1.2 LAND BEHIND BAGHDAD

The Land Behind Baghdad Survey (hereafter, LBB) was carried out, between 1957 and 1958, during a single seven-month field season, in the Diyala Region, as part of the Diyala Basin Archaeological Project. This survey originates from the reconnaissance carried out by T. Jacobsen in the 1930s, during which 119 sites were iden-

¹⁴⁹ Hritz, Pournelle and Smith 2012: 38.

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tified; however, at the time of the LBB new data were available, such as the aerial photograph mosaic of the region and the possibility to make some soil surveys. The survey, due to the limited time span, was "intensive (but not exhaustive)" (Adams 1965: 33) and allowed the scholars to create maps recording the major changes in settlement, irrigation and urbanization patterns, thus determining, approximately, through the analysis of the surface collection, the occupational history of the region. Thus, during this survey, 867 sites have been identified and surveyed, among which 63 showed evidence, according to the scholars, of EB IV materials.

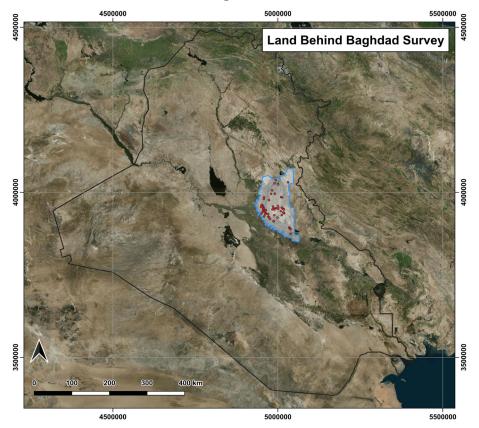


Fig. 10.2.1 The EB IV settlements in the Land Behind Baghdad Survey

LBB.009

LBB.009, modern Tell Shahab, was characterized by an oval mound 6.5 m tall. On the top of the tell several pits have been excavated by illicit diggers. According to Adams, the site was fully occupied during the ED period, with a short and limited occupation during the EB IV.

Identification code	LBB.009
District	Khalis
Ancient name of the site	-
Modern name of the site	Tell Shahab
Adams identification code	9
Coordinates	34.0567142 E 44.8558732 N

The site consisted of two mounds, each of them 9.5 m tall. The tell was mainly occupied during the ED and EB IV periods.

Identification code	LBB.014
District	Khanaqin
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	14
Coordinates	45.1929235 E 34.0128076 N

LBB.018

LBB.018 is a very small site, whose surface was covered with EB IV sherds, although some earlier and later (OB) sherds are also present, thus indicating a continuous occupation.

Identification code	LBB.018
District	Khalis
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	18
Coordinates	44.821938 E 33.9895809 N

LBB.024

LBB.024, modern name Tell Yahudi, seemed to be occupied without interruptions from the ED to the OB period. It was difficult to identify the size of the tell because

Identification code	LBB.024
District	Muqdadiya
Ancient name of the site	Unknown
Modern name of the site	Tell Yahudi
Adams identification code	24
Coordinates (WGS84 UTM)	44.9169469 E 33.9763439 N

it was cut, in its northern end, by the Khanaqin highway.

LBB.031

LBB.031, modern name Tell Ja'ara, was occupied continuously from the ED to the OB period. Analyzing satelitte imagery, it was possible to locate modern buildings close to the tell, although they have not yet affected it.

Identification code	LBB.031
District	Muqdadiya
Ancient name of the site	Tell Ja'ara
Modern name of the site	Unknown
Adams identification code	31
Coordinates (WGS84 UTM)	44.922875 E 33.9613351 N

LBB.071

Road close to mound Adams description: Tell al-Dhabab. 250 NNW-SSE X 200 X 4. Some very minor recent robber holes. Early Dynastic through Larsa. Two Neo-Babylonian-Achaemenian pots, found together just below surface level, probably inidcate a grave of that period.

Identification code	LBB.071
District	Ba'quba
Ancient name of the site	Tell al-Dhabab
Modern name of the site	Unknown
Adams identification code	71
Coordinates (WGS84 UTM)	44.7573082 E 33.8285607 N

LBB.100, modern name Tulul Abu Sekhul, according to Adams' interpretation, seemed to be occupied from the EB IV through the OB period. Much of the original mound have been consumed by an old brick kiln.

Identification code	LBB.100
District	Ba'quba
Ancient name of the site	Unknown
Modern name of the site	Tulul Abu Sekhul
Adams identification code	100
Coordinates (WGS84 UTM)	44.7320464 E 33.7503859 N

LBB.102

LBB.102 consisted of three different mounds, the main of which was occupied from the EB IV to the Cassite period. A smaller mound, located North-West, showed traces of occupation from the ED to the EB IV period.

Identification code	LBB.102
District	Ba'quba
Ancient name of the site	Unknown
Modern name of the site	Abu Hilal
Adams identification code	102
Coordinates (WGS84 UTM)	44.8361921 E 33.7555856 N

LBB.116

According to Adams description, LBB.116 "appears to have been continuously occupied from the Akkadian through the Parthian period except for a probable hiatus during Middle and Neo-Babylonian times" (Adams).

Identification code	LBB.116
District	Ba'quba
Ancient name of the site	Unknown
Modern name of the site	Tell Sa'ad

Adams identification code	116
Coordinates (W/GS84 UTM)	44.5405115 E 33.6705761 N

LBB.122

As for the present day, the mound appears to be destroyed by canals or agricultural cultivation. LBB.122 was a small site, occupied from the ED through the IL period.

Identification code	LBB.122
District	Ba'quba
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	122
Coordinates (WGS84 UTM)	44.5321199 E 33.6342177 N

LBB.158

LBB.158, modern name Tell Lamlum, is a large site characterized by a very salty surface. the site seemed to be occupied from the ED to the OB period, with a small Cassite occupation.

Identification code	LBB.158
District	Baladrooz
Ancient name of the site	Tell Lamlum
Modern name of the site	Unknown
Adams identification code	158
Coordinates (WGS84 UTM)	45.0034042 E 33.6761245 N

LBB.159

In this site the sherds have been heavily affected by the salty soil, thus rendered almost unrecognizable and not allowing a closer identification. However, LBB.159 was probably occupied between the EB IV and the Middle Babylonian periods.

Identification code	LBB.159
District	Baladrooz

Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	159
Coordinates (WGS84 UTM)	45.0357206 E 33.668285 N

As highlighted by the satellite imagery, nowadays the site has been trenched by agricultural activities. LBB.176, according to Adams description, was mainly occupied during the EED period, with a small occupation continuing into the EB IV period.

Identification code	LBB.176
District	Ba'quba
Ancient name of the site	Unknown
Modern name of the site	Tell al-Haura
Adams identification code	176
Coordinates (WGS84 UTM)	44.6743948 E 33.6097527 N

LBB.213

As underlined by the analysis of satellite imagery, the site seems to be heavily trenched for agricultural cultivation. LBB.213 was occupied from the EB IV through the Ur III/Isin Larsa period.

Identification code	LBB.213
District	Ba'quba
Ancient name of the site	Unknown
Modern name of the site	Tell Helib
Adams identification code	213
Coordinates (WGS84 UTM)	44.4796244 E 33.5029056 N

LBB.217

Through the analysis of satellite imagery, it was possible to ascertain that the site has been heavily trenched for agricultural cultivation. During the Adams' survey, traces of a large buttressed mudbrick building were clearly visible at the southern end of the

tell. LBB.217 was occupied from the EB IV through the OB period.

Identification code	LBB.217
District	Ba'quba
Ancient name of the site	Unknown
Modern name of the site	Tell Dhili'
Adams identification code	217
Coordinates (WGS84 UTM)	44.4695258 E 33.4823518 N

LBB.221

As highlighted by the remote sensing analysis, a path or a dried waterbed cuts through site. The surface collection carried out at LBB.221, modern name Tulul Khattab, is mainly attributable at the Late Chalcolithic and EB IV periods, although some scattered evidence of Ur III and IL are also present.

Identification code	LBB.221
District	Ba'quba
Ancient name of the site	Unknown
Modern name of the site	Tulul Khattab
Adams identification code	221
Coordinates (WGS84 UTM)	44.5131965 E 33.4790506 N

LBB.222

LBB.222, modern name Tulul Khattab, was occupied from the EB IV through the Neo-Babylonian period. Satelite imagery highlighted the presence of few looting pits on the *tell*.

Identification code	LBB.222
District	Ba'quba
Ancient name of the site	Unknown
Modern name of the site	Tulul Khattab
Adams identification code	222
Coordinates (WGS84 UTM)	44.5172024 E 33.4743305 N

LBB.225 was mainly occupied from the ED to the IL period. However, many sherds of Sassanian storage jars are also present, perhaps indicating the presence of a large Sassanian cemetery. Nowadays, development appears to draw near to the *tell*.

Identification code	LBB.225
District	Ba'quba
Ancient name of the site	Unknown
Modern name of the site	Tell 'Atash
Adams identification code	225
Coordinates (WGS84 UTM)	44.4602113 E 33.4538916 N

LBB.253

LBB.253 is a large site, occupied through a very large time span. While the northern end of the *tell* showed traces mainly of Ur III, IL and Cassite occupation, instead the southern end seemed to be occupied from the EB IV through the OB period, with the presence of some Cassite graves.

Nowadays, the agricultural fields encroach onto mound and some looting pits have been identified through remote sensing.

Identification code	LBB.253
District	Ba'quba
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	253
Coordinates (WGS84 UTM)	44.7834156 E 33.461098 N

LBB.259

During Adams' survey the *tell* was cut, on either end, by a new water canal. As for the present day, some pits excavated by illicit diggers have been identified through remote sensing and the agricultural cultivations overrun the mound. LBB.259 was occupied from the ED through the OB period.

Identification code	LBB.259
District	Ba'quba
Ancient name of the site	Unknown
Modern name of the site	Alawi al-Humir
Adams identification code	259
Coordinates (WGS84 UTM)	44.9162482 E 33.4812726 N

LBB.261

Adams described the mound only reporting its measurements, 100 N-S X 70 X 2. LBB.261 was occupied from the ED through the Isin-Larsa period.

Identification code	LBB.261
District	Ba'quba
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	261
Coordinates (WGS84 UTM)	44.9293002 E 33.4438573 N

LBB.297

Adams described the mound only reporting its measurements, 110 E-W X 60 X 2.5. LBB.297 was occupied from the Akkadian through the Cassite period. One sherd suggested a possible ED occupation.

Identification code	LBB.297
District	Ba'quba
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	297
Coordinates (WGS84 UTM)	44.5318016 E 33.4283800 N

LBB.298

Adams described the mound only reporting its measurements, 90 diameter X 2.

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During Adams' survey, the site was covered by an heavy saline crust. LBB.298 was occupied from the ED through the Old Babylonian period.

Identification code	LBB.298
District	Thawra1
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	298
Coordinates (WGS84 UTM)	44.5164211 E 33.4179186 N

LBB.302

Nowadays, the mound cannot be found through remote sensing, and modern buildings have possibly covered it. Adams described the mound only reporting its measurements, 100 NW-SE X 70 X 2. LBB.302 was occupied during the Akkadian, with a possible continuing occupation into the Ur III/Isin-Larsa period.

Identification code	LBB.302
District	Resafa
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	302
Coordinates (WGS84 UTM)	44.5216452 E 33.3940819 N

LBB.305

Nowadays, the mound cannot be found through remote sensing, and modern activities have possibly destroyed it. Adams described the mound only reporting its measurements, 80 X 4. LBB.305 was occupied from the Akkadian through the Cassite period.

Identification code	LBB.305
District	Resafa
Ancient name of the site	Unknown
Modern name of the site	Tell Munaisif

Adams identification code	305
Coordinates (W/GS84 L/TM)	44.5465627 E 33.379873 N

LBB.307

Adams described the mound only reporting its measurements, 100 X 3. LBB.307 was occupied from the Akkadian through the Old Babylonian period.

Identification code	LBB.307
District	Resafa
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	307
Coordinates (WGS84 UTM)	44.5224127 E 33.3657712 N

LBB.343

Together with the measurements of LBB.343, 60 diameter X 1, Adams reported that to WNW there is an area at plain level covered with pottery. These sherds could be dated to the Akkadian-Old Babylonian periods.

Identification code	LBB.343
District	Mada'in
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	343
Coordinates (WGS84 UTM)	44.8704085 E 33.4253635 N

LBB.350

Adams described the mound only reporting its measurements, 40 diameter X 2.5. LBB.350 was occupied from the ED through the Isin-Larsa period. In addition, three lower *telul* have been identified to NNW, ENE, and E, all of them of Sasanian date.

Identification code	LBB.350
District	Mada'in
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	350
Coordinates (WGS84 UTM)	44.8055913 E 33.4184556 N

LBB.354, modern name Tulul Shilbiyat, is a large site, 150 NW-SE X 80 X 1.5. The main occupation ranges from the ED through the Isin-Larsa period, with the latter especially well represented.

Identification code	LBB.354
District	Mada'in
Ancient name of the site	Unknown
Modern name of the site	Tulul Silbiyat
Adams identification code	354
Coordinates (WGS84 UTM)	44.8219288 E 33.4021708 N

LBB.355

LBB.355, modern name Tulul Shilbiyat, is a mound which measurements are 70 diameter X 3, although, as reported by Adams, the debris extended for 150 NE, 350 NW of its foot. The main occupation ranges from the ED to the Akkadian period, although continuing into the Ur III/Isin-Larsa periods.

Identification code	LBB.355
District	Mada'in
Ancient name of the site	Unknown
Modern name of the site	Tulul Silbiyat
Adams identification code	355
Coordinates (WGS84 UTM)	44.8205536 E 33.3979718 N

Nowadays, the mound cannot be found through remote sensing, and modern activities have possibly destroyed it. Adams described the mound reporting its measurements, 170 NW-SE X 40 X 1.5. The main occupation ranges from the EDthrough the Isin-Larsa period. A larger, lower mound of Sasanian debris had also been identified immediately to the West.

Identification code	LBB.357
District	Mada'in
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	357
Coordinates (WGS84 UTM)	44.7663669 E 33.3948192 N

LBB.366

LBB.366, modern name Tell Seb'e, is a crescent-shaped site, with a big bay cut into the southern side. This reduces the site area considerably. The main occupation ranges from the ED through the Isin-Larsa period.

Identification code	LBB.366
District	Mada'in
Ancient name of the site	Unknown
Modern name of the site	Tell Seb'e
Adams identification code	366
Coordinates (WGS84 UTM)	44.9261221 E 33.4047266 N

LBB.370

LBB.370 is a small, low site, with a long span of occupation. During the survey, Adams found traces of ED and Kassite materials, although the main occupation of the site ranges from the Akkadian through Old Babylonian period.

Identification code	LBB.370
District	Baladrooz

Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	370
Coordinates (WGS84 UTM)	45.020724 E 33.4379761 N

LBB.372, modern name Tell Mukherij, is composed by a group of seven little mounds, each of them with less than 100 m diameter. While the two mounds in SE were occupied during the ED and Akkadian period, the others are Early Islamic-Samarran.

Identification code	LBB.372
District	Baladrooz
Ancient name of the site	Unknown
Modern name of the site	Tell Mukherij
Adams identification code	372
Coordinates (WGS84 UTM)	45.0308499 E 33.4212227 N

LBB.381

LBB.381 is a low tell mixed with later canal bank. The main occupation ranges from the ED to the Isin-Larsa period, with possibly a limited occupation occurring into the Old Babylonian period. Nowadays, modern buildings and paths partially covered the mound.

Identification code	LBB.381
District	Baladrooz
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	381
Coordinates (WGS84 UTM)	44.9953347 E 33.3552969 N

LBB.397

LBB.397, modern name Tulul Abu Yiwalik, is, according to Adams, a large site about 350 m in diameter. During Adams' survey, a lot of mud-brick construction evidence was observed, including streets, homes, and maybe one or more temples. The main occupation ranges from the Ubaid to the Isin-Larsa period, although the extreme eastern end yielded evidence of Old Babylonian and Cassite materials.

Identification code	LBB.397
District	Baladrooz
Ancient name of the site	Unknown
Modern name of the site	Tulul Abu Yiwalik
Adams identification code	397
Coordinates (WGS84 UTM)	45.0730564 E 33.4082601 N

LBB.398

Adams described the mound only reporting its measurements, 320 N-S X 200 X 3.5. The main occupation ranges from the Akkadian throught the Isin-Larsa period. In addition, a small Sasanian tell was identified alongside.

Identification code	LBB.398
District	Baladrooz
Ancient name of the site	Unknown
Modern name of the site	Tulul Abu Yiwalik
Adams identification code	398
Coordinates (WGS84 UTM)	45.0781865 E 33.3966992 N

LBB.411

Nowadays, the mound cannot be found through remote sensing, and modern activities have possibly destroyed it. The Directorate General of Antiquities conducted three seasons of excavations, under the direction of Muhammed Ali Mustafa, in 1947, 1962, and 1965¹⁵⁰. The main occupation of the site ranges from the Akkadian through the Kassite period.

Identification code	LBB.411
District	Resafa
Ancient name of the site	Unknown
Modern name of the site	Tell al-Dhiba'i
Adams identification code	411
Coordinates (WGS84 UTM)	44.5055334 E 33.3436368 N

LBB.414, modern name Tell Mohammad, is a mound 400 X 600. Dating is highly uncertain, however, judging from higher sites along same watercourse, the main occupation ranges probably from the Akkadian through the Old Babylonian period, with a re-occupation in Cassite and later times.

Identification code	LBB.414
District	Resafa
Ancient name of the site	Unknown
Modern name of the site	Tell Mohammad
Adams identification code	414
Coordinates (WGS84 UTM)	44.4682347 E 33.3010075 N

LBB.419

Nowadays, some agricultural trenches have been identified through remote sensing on top of the mound. LBB.419, modern name Alwat Khatitah, has been described by Adams as a 350 NW-SE X 100 *tell*. The main occupation spans between the ED and the Old Babylonian period, with some sparse Kassite graves.

Identification code	LBB.419
District	Mada'in
Ancient name of the site	Unknown
Modern name of the site	Alwat Khatitah
Adams identification code	419

Coordinates (WGS84 UTM)	44.5918114 E 33.3847130 N
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LBB.421

LBB.421, modern Khafajah, ancient Tutub, was extensivily invesigated by the Oriental Institute of Chicago, under the direction of Henri Frankfort, in the 1930s.

Identification code	LBB.421
District	Mada'in
Ancient name of the site	Tutub
Modern name of the site	Khafajah
Adams identification code	421
Coordinates (WGS84 UTM)	44.5564845 E 33.3557907 N

LBB.422

Adams described the mound only reporting its measurements, 15 diameter X 0.5. The main occupation spans from the Akkadian through the Old Babylonian period. Nowadays, a path or dry river bed has been identified through remore sensing on top of the mound

Identification code	LBB.422
District	Mada'in
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	422
Coordinates (WGS84 UTM)	44.5642615 E 33.343812 N

LBB.439

Adams described the mound only reporting its measurements, 80 diameter X 2.5. The main occupation ranges from the Akkadian through the Old Babylonian period.

Identification code	LBB.439
District	Mada'in
Ancient name of the site	Unknown

Modern name of the site	Unknown
Adams identification code	439
Coordinates (WGS84 UTM)	44.5902222 E 33.3094550 N

LBB.442

LBB.422, modern Ischali, ancient Neribtum, was extensivily invesigated by the Oriental Institute of Chicago, under the direction of Henri Frankfort, in the 1930s. The surface collection made by Adams underlined that occupation may have begun in Akkadian times.

Identification code	LBB.442
District	Mada'in
Ancient name of the site	Neribtum
Modern name of the site	Ischali
Adams identification code	442
Coordinates (WGS84 UTM)	44.5831899 E 33.3028114 N

LBB.443

LBB.443, modern Tell al-Tewaim, is composed by two *telul* of similar dimension separated only by modern canal. The soil is heavil.y salt-encrusted. The main occupation ranges from the Akkadian through the Kassite period.

Identification code	LBB.443
District	Mada'in
Ancient name of the site	Unknown
Modern name of the site	Tell al-Tewaim
Adams identification code	443
Coordinates (WGS84 UTM)	44.5763518 E 33.2885964 N

LBB.455

Adams described LBB.455, modern name Tell Abu Qubur al-saghir, only reporting its measurements, 180 EW X 100 X 4.5. While one sherd suggested that occupation

may have begun in the Warka period, the site was mainly occupied from the Akkadian through the Old Babylonian period.

Identification code	LBB.455
District	Mada'in
Ancient name of the site	Unknown
Modern name of the site	Tell Abu Qubur al-saghir
Adams identification code	455
Coordinates (WGS84 UTM)	44.6530841 E 33.2869408 N

LBB.512

LBB.512, modern name Tell Mugta, is a site of irregular shape, about 110 m diameter X 1.5. The main occupation spans from the Akkadian through the Old Babylonian, although some Sasanian occupation has been identified to the NW end. As for the present day, the presence of bare earth near the modern road has made the identification of the site extent unclear.

Identification code	LBB.512
District	Mada'in
Ancient name of the site	Unknown
Modern name of the site	Tell Mugta
Adams identification code	512
Coordinates (WGS84 UTM)	44.8202185 E 33.2658416 N

LBB.530

LBB.530, modern name Abu Rasain, is a 190 m diameter X 5 mound, characterized by two closely spaced summits in the N-S line. The main occupation spans from the Ubaid through the Old Babylonian period. As for the present day, the mound is completely surrounded by agricultural development.

Identification code	LBB.530
District	Baladrooz
Ancient name of the site	Unknown
Modern name of the site	Unknown

Adams identification code	530
(0.00) ($M(-8.84)$ $M(-8.84)$	45.0649302 E 33.3273372 N

LBB.531

LBB.351 is a small site, 90 m diameter X 3, on which summit Adams collected some Ubaid and Early Dynastic pottery, while the Akkadian and Old Babylonian materials were found on the flanks. Nowadays, this small mound is surrounded by agricultural development; also a small canal is running close by.

Identification code	LBB.531
District	Baladrooz
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	531
Coordinates (WGS84 UTM)	45.0782829 E 33.3248314 N

LBB.535

Adams described LBB.535 only reporting its measurements, 80 diameter X 2. Ubaid, Akkadian, Ur III and Isin-Larsa materials were retrieved from the surface collection. As for the present day, the site is surrounded by agricultural development.

Identification code	LBB.535
District	Baladrooz
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	535
Coordinates (WGS84 UTM)	45.0876947 E 33.3095463 N

LBB.541

Adams described LBB.541, modern name Abu Rasain al-Gharbi, only reporting its measurements, 90 m diameter X 2. The main occupation ranges from the Akkadian through the Old Babylonian period. Few Kassite sherds were collected during the surface survey. As for the present day, the site is surrounded by agricultural development. Some traces of looting have been identified trhough remote sensing.

Identification code	LBB.541
District	Baladrooz
Ancient name of the site	Unknown
Modern name of the site	Abu Rasain al-Gharbi
Adams identification code	541
Coordinates (WGS84 UTM)	45.0241679 E 33.2713148 N

LBB.558

LBB.558, modern name Tell Rishad, is a large site, about 300 diam, rising near the northern end to 8 m. During the survey carried out by Adams, the soil was heavily salt-encrusted. The main occupation spans from Early Dynastic through Old Babylonian.

Identification code	LBB.558
District	Mada'in
Ancient name of the site	Unknown
Modern name of the site	Tell Rishad
Adams identification code	558
Coordinates (WGS84 UTM)	44.5440983 E 33.2373084 N

LBB.576

When Adams carried out the surface survey at LBB.576, the site was nearly completely destroyed, just a hummock above the plain was left. The main occupation eranges from the Uruk through the Akkadian period.

Identification code	LBB.576
District	Mada'in
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	576
Coordinates (WGS84 UTM)	44.6582369 E 33.2290254 N

LBB.581

Adams described LBB.581 only reporting its measurements, 60 m diameter X 1.5 m. The main occupation of the site spans from the Early Dynastic to the Isin-Larsa period.

Identification code	LBB.581
District	Mada'in
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	581
Coordinates (WGS84 UTM)	44.6779405 E 33.2193396 N

LBB.590

Adams described LBB.590, modern name Tulul Mujailic, reporting its measurements, 500 NNW-SSE X 200 X 6.5 (at N end). A long sequence of occupation is documented at LBB.590, spanning from the Early Dynastic through the Old Babylonian.

Identification code	LBB.590
District	Mada'in
Ancient name of the site	Unknown
Modern name of the site	Tulul Mujaili'
Adams identification code	590
Coordinates (WGS84 UTM)	44.6952044 E 33.1813441 N

LBB.628

LBB.628, modern name Khashin Wawi, is a large site, about 250 m diameter X 4. The occupation sequence ranges from the Akkadian to the Old Babylonian period. A few Seleucid/Parthian graves are also attested.

Identification code	LBB.628
District	Baladrooz
Ancient name of the site	Unknown
Modern name of the site	Khashin Wawi

Adams identification code	628
Coordinates (WGS84 UTM)	44.9100242 E 33.2132033 N

LBB.687

LBB.687, modern name Tulul Abu Jawan, is composed by three *telul* of different dimension. On SSE tell, Akkadian and Old Babylonian materials are attested. As for the present day, the site is encroached by agricultural fields.

Identification code	LBB.687
District	Suwaira
Ancient name of the site	Unknown
Modern name of the site	Tulu Abu Jawan
Adams identification code	687
Coordinates (WGS84 UTM)	44.799312 E 33.1291287 N

LBB.821

LBB.821 is composed by three telul of different dimensions, of which the central one yielded evidence of Akkadian through Isin-Larsa occupation. Nowadays, the top of the mound is criss-crossed by roads.

Identification code	LBB.821
District	Suwaira
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	821
Coordinates (WGS84 UTM)	45.2280241 E 32.9819653 N

LBB.824

L.824 is a site characterized by a Seleucid/Parthian occupation, although the SE end has evidence of Akkadian materials, with a diffuse scatter of debris of this period extends for 500 m farther south. As for the present day, the site has been cut by canals, and it is possibly reduced in size by modern activity.

Identification code	LBB.824
District	Suwaira
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	824
Coordinates (WGS84 UTM)	45.2458103 E 32.9631498 N

LBB.825

Adams described LBB.825 as medium-size mound, about 150 m diameter X 1.5, occupied from the Akkadian through the Old Babylonian period. Nowadays, the site is mostly damaged by agricultural fields.

Identification code	LBB.825
District	Suwaira
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	825
Coordinates (WGS84 UTM)	45.2495907 E 32.9558039 N

LBB.835

LBB.835 is described by Adams as a small site, about 40 m diameter X 1. The main occupation sequence spans from the Early Dynastic through the Old Babylonian. Nowadays, the site cannot be identified through remote sensing.

Identification code	LBB.835
District	Suwaira
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	835
Coordinates (WGS84 UTM)	45.2658017 E 32.9450639 N

LBB.846

LBB.846 is described by Adams as a small site, about 50 m diameter X 2. The main occupation sequence spans from the Akkadian through the Kassite period. Nowadays, the site cannot be identified through remote sensing

Identification code	LBB.846
District	Suwaira
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	846
Coordinates (WGS84 UTM)	45.2634095 E 32.8415888 N

LBB.860

LBB.860, modern name Tell Nazfiz, is a small site, about 60 m diameter X 3. The surface pottery collected suggests a date in the Akkadian-Isin-Larsa range.

Nowadays, although no specific damage is visible at this location, extensive bulldozing and construction have been made to the north and east.

Identification code	LBB.860
District	Samarra
Ancient name of the site	Unknown
Modern name of the site	Tell Nazuz
Adams identification code	860
Coordinates (WGS84 UTM)	43.8743257 E 34.1583956 N

10.1.3 AKKAD SURVEY

The Akkad Survey (hereafter, AKK) was carried out in 1956–1957 – on behalf both of the Oriental Institute and of the Baghdad School of American Schools of Oriental Research – by Robert McC. Adams and Vaughn E. Crawford, in the region of ancient Akkad, north and northwest of the ancient city of Nippur.

At the conclusion of the fieldwork of the archaeological project of the Diyala basin in May 1958 (see *supra*), Adams decided to extend the coverage of the LBB Survey to the area north of the Oriental Institute operation at Nippur, with the help of maps, aerial photographs and means of transport made available by Directorate General of Antiquities of Iraq. During this rather short survey, such as the previous one, only 291 sites were surveyed and among them only 25 had surface materials which can be associate to the Early Bronze VI period.

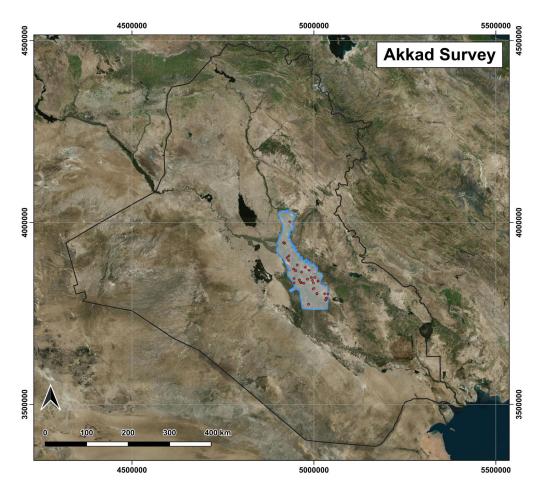


Fig. 10.1.3 The EB IV settlements in the Akkad Survey.

AKK.0010

AKK.0010, modern name Tell Sinker, is a large mound that measures 250 x 100 x 10 and rises to this height immediately east of an ancient paleochannel.

Smaller, more closely spaced tops surround it on the N, E, and S, indicating that the site has a large occupied area.

Most of the materials collected during the surface survey appear to be Early Dynastic, extending into the Akkadian period on a smaller scale.

Identification code	AKK.0010
District	Fares
Ancient name of the site	Unknown
Modern name of the site	Tell Sinker
Adams identification code	16
Coordinates (WGS84 UTM)	44.3239343 E 33.7969675 N

AKK.0028

Early settlement in the area of AKK.0028, ancient Aqarquf, covered a much larger area than is commonly assumed. Surface collections also indicate that it began much earlier than the Kassite period, though the latter was undoubtedly the period of greatest occupation. Large spouted bowl and carinated bowl sherds suggest that settlement began in the Akkadian or Ur III period.

Identification code	AKK.0028
District	Abu Ghraib
Ancient name of the site	Dur Kurigalzu
Modern name of the site	Aqarquf
Adams identification code	47
Coordinates (WGS84 UTM)	44.1681839 E 33.3732991 N

AKK.0039

The surface survey carried out at AKK.0039, modern Tell al-Dayr, ancient Sippar, indicated that occupation of this significant site began at least in Akkadian period and continued through Kassite times and possibly later.

Identification code	AKK.0039
District	Mahmoudiya
Ancient name of the site	Sippar
Modern name of the site	Tell al-Dayr
Adams identification code	57
Coordinates (WGS84 UTM)	44.2993313 E 33.0992098 N

AKK.040

The surface survey carried out at AKK.0040, modern Tell Abu Habba, ancient Sippar, indicated that occupation of this site began at least in Uruk period and continued through Neo-Babyloninan times .

Identification code	AKK.0040
District	Mahmoudiya
Ancient name of the site	Sippar
Modern name of the site	Tell Abu Habba
Adams identification code	58
Coordinates (WGS84 UTM)	44.254524 E 33.059344 N

AKK.0124

Traces of ancient architecture can be seen near the summit of the mound, which measures $175 \ge 100 \ge 5.5$. The main occupation ranges from the Uruk through the Akkadian, with possibly only Parthian-Sasanian graves remaining from a later occupation.

Identification code	AKK.0124
District	Mahawil
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	76
Coordinates (WGS84 UTM)	44.4152507 E 32.8281024 N

AKK.0130-0131

AKK.0130, modern Tell Nimrud, is a low mound which measures approximatively 200 m diameter x 5. The main occupation spans from the Akkadian through the Old Babylonian, although a limited Late Abbasid – Ilkhanid occupation is also attested.

Identification code	AKK.0130
District	Mahawil
Ancient name of the site	Unknown
Modern name of the site	Tell Nimrud
Adams identification code	78
Coordinates (WGS84 UTM)	44.4657432 E 32.7937372 N

AKK.0143

AKK.0143 is a small site, about 60 m diameter x 2. Some Uruk, Early Dynastic, Akkadian, and Isin-Larsa materials are attested.

Identification code	AKK.0143
District	Mahmoudiya
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	92
Coordinates (WGS84 UTM)	44.5043779 E 32.9105852 N

AKK.0214

During the survey carried out Adams and Crawford, the limits of site were obscured by drifting sand. Numerous Uruk clay sickle fragments were retrieve during the surface survey. The main occupation spans from the Akkadian through the Isin-Larsa period, although some limited Old Babylonian materials are also attested.

Identification code	AKK.0214
District	Suwaira
Ancient name of the site	Unknown
Modern name of the site	Ishan Hamid

Adams identification code	166
Coordinates (WGS84 UTM)	44.7943192 E 32.8034896 N

AKK.0310-0314

AKK.0310-0314, modern Tell Khfay, is a large site, about 250 m diameter x 4. The site was mainly occupied from the Uruk through the Akkadian period. Finally, a few sherds suggest a small, later re-occupation.

Identification code	AKK.0310
District	Mahawil
Ancient name of the site	Unknown
Modern name of the site	Tell Khfay
Adams identification code	220
Coordinates (WGS84 UTM)	44.9079749 E 32.5346644 N

AKK.0315-0316

AKK.0315 is a kidney-shaped mound measuring approximately 250 NW x 100 x 4. The Mussayib Project's deep main drainage canal has been cut through the east end of the site, exposing a section of Akkadian-era occupational debris at a depth of 5-6 meters below plain level. This mound appears to be Uruk, Akkadian - Larsa, and Par-thian - Sassanian in origin.

Identification code	AKK.0315
District	Suwaira
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	221
Coordinates (WGS84 UTM)	45.0159234 E 32.5724013 N

AKK.0351

AKK.0351, modern Tell Abu 'Awad, is a large mound, about 300 N x 200 x 6. The occupation sequence spans from the Uruk through the Sasanian period.

Identification code	AKK.0351
District	Hashimiyah
Ancient name of the site	Unknown
Modern name of the site	Tell Abu Awad
Adams identification code	255
Coordinates (WGS84 UTM)	44.916099 E 32.4240848 N

AKK.0352

AKK.0352 is a large-size mound, about 250 diam. x 5.5, whose mainly occupation was Uruk through Early Dynastic. Akkadian and Old Babylonian materials are less well represented.

Identification code	AKK.0352
District	Hashimiyah
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	256
Coordinates (WGS84 UTM)	44.896161 E 32.4103463 N

AKK.0354-0355

The main mound of AKK.0354 was settled from Uruk through Neo-Babylonian times, probably reaching its peak of settlement in Old Babylonian or Kassite period. A few Akkadian and Isin-Larsa sherds have been collected near the main mound.

Identification code	AKK.0354
District	Hashimiyah
Ancient name of the site	Unknown
Modern name of the site	Ishan Abu Jasib
Adams identification code	258
Coordinates (WGS84 UTM)	44.9929979 E 32.3089061 N

AKK.0565

AKK.0565 is Tell Sadum, ancient Marad. A railroad cut through eastern end of the mound. The occupation sequence spans from the Ubaid through the Parthian period.

Identification code	AKK.0565
District	Diwaniyah
Ancient name of the site	Marad
Modern name of the site	Tell es-Sadum
Adams identification code	282
Coordinates (WGS84 UTM)	44.7848488 E 32.0915257 N

AKK.1198-1199

AKK.1198-1199 is a large site, about 200 m diameter x 1, mostly occupied during the Uruk period and from the Akkadian through the Isin-Larsa period. A little Islamic pottery also was observed on mound.

Identification code	AKK.1198
District	Mahawil
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	215
Coordinates (WGS84 UTM)	44.9271527 E 32.6496285 N

AKK.1256

AKK.1256, modern Tabor Arasi, is a large site, about $500 \text{ N} \ge 400 \ge 2$, with several scattered summits rising to 5m. The main occupation spans from the Akkadian through the Old Babylonian period.

Identification code	AKK.1256
District	Suwaira
Ancient name of the site	Unknown
Modern name of the site	Tabor Arasi
Adams identification code	126

Coordinates (WGS84 UTM)	44.7067855 E 32.8613546 N
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AKK.1501

AKK.1501 is a large site, roughly measuring 200 m diameter x 2.5. One clay sickle and one spouted bowl sherd hint at occupations in the Uruk and Akkadian periods respectively.

Identification code	AKK.1501
District	Mahmoudiya
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	64
Coordinates (WGS84 UTM)	44.290349 E 33.0021718 N

AKK.1518

AKK.1518, modern Ishan Mizyad, is a site composed by several mounds; the main tell is 1 km. N x 600. Here, materials ranging from the Akkadian through the Kassite period have been collected.

Identification code	AKK.1518
District	Mahawil
Ancient name of the site	Unknown
Modern name of the site	Ishan Mizyad
Adams identification code	195
Coordinates (WGS84 UTM)	44.5570001 E 32.60042 N

10.1.4 KISH SURVEY

Between 1966 and 1967, thanks to a grant from the Oriental Institute of the University of Chicago, McGuire Gibson was able to carry out a surface reconnaissance in the region of Kish¹⁵¹, located in the core of the Akkad survey directed by Adams ten years before¹⁵². The aim of this survey was to understand the pattern of land use, irrigation and settlement connected with the city of Kish. The surface survey was conducted in collaboration with the Iraqi Directorate of Antiquities and the method applied mostly relied on the innovative approaches proposed by Adams in the Land Behind Baghdad and Akkad surveys¹⁵³: the first step was to examine the aerial photographs of the area, in order to identify anomalies in the modern landscape (such as traces of ancient watercourses and mounds); the data obtained through this analysis were then compared with the available Iraqi maps (1: 50,000) and afterwards the anomalies of interest were verified on the field. During this short fieldwork, 175 sites were surveyed and among them only 11 had surface materials which can be associate to the EB VI (pottery sherds, as affirmed by Gibson himself¹⁵⁴, were selected through sets of well-known ceramic types, indicators of specific periods, not by random collection).

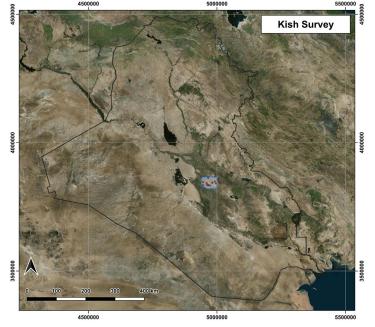


Fig. 10.1.4 The EB IV settlements in the Kish Survey

- 153 Adams 1965; 1972.
- 154 Gibson 1972a: xi-xii.

¹⁵¹ Gibson 1972a; 1972b.

¹⁵² Adams 1972.

KIS.001-010

Identification code	KIS.001-010
District	Mahawil
Ancient name of the site	Kish
Modern name of the site	Ingharra
Gibson identification code	1-10
Coordinates (WGS84 UTM)	44.6062968 E 32.5406286 N

KIS.013

Tell Antika ("Antiquities Mound"). The local name is obviously new, having been applied following excavations there. The larger portion of the mound measures $550 \times 300 \times 5$. Northwest subsidiary knolls are $250 \times 250 \times 4$. The eastern section is mostly Old Babylonian and earlier.

Identification code	KIS.013
District	Mahawil
Ancient name of the site	Unknown
Modern name of the site	Tell Antika
Gibson identification code	13
Coordinates (WGS84 UTM)	44.5974763 E 32.5419033 N

KIS.018-024

Identification code	KIS.018-024
District	Mahawil
Ancient name of the site	Kish
Modern name of the site	Tell Uhaimir
Gibson identification code	18-24
Coordinates (WGS84 UTM)	44.5810409 E 32.5526991 N

KIS.037 see *supra* AKK.1518.

KIS.048

KIS.048 was a site within the Mussayib Project, to the north of the main diagonal canal and primary road. The main tell is about 2 kilometer. A high mound, $500 \times 500 \times 9$, stands on the south side of that ancient canal bed. This area is densely packed with Islamic burials. A small rise, $100 \times 150 \times 2$, lies west of the main mound, with a rectangular building visible on the surface.

Identification code	KIS.048
District	Mahawil
Ancient name of the site	Kutha
Modern name of the site	Tell Imam Ibrahim
Gibson identification code	48
Coordinates (WGS84 UTM)	44.6114504 E 32.7605648 N

KIS.060

KIS.060 is composed by eight large, high mounds visible at the juncture of a major canal and the bed of the Kutha Canal. The central mound was 400 x 250 x 5. During the surface survey there wasn't enough time to collect each mound individually. A bulldozer has scraped the top of one of the mounds for no apparent reason.

Identification code	KIS.060
District	Mahawil
Ancient name of the site	Unknown
Modern name of the site	Unknown
Gibson identification code	60
Coordinates (WGS84 UTM)	44.7559145 E 32.6150574 N

KIS.097 see *supra* §6

Identification code	KIS.097
District	Mahawil
Ancient name of the site	Unknown
Modern name of the site	Umm al-Jir
Gibson identification code	97
Coordinates (WGS84 UTM)	44.851739 E 32.6485451 N

KIS.120

KIS.120 is a large and high mound, about 200 x 100 x 5-6, lying east of the Baghdad-Hilla road. The mound has been almost completely denuded of identifiable sherds.

Identification code	KIS.120
District	Mahawil
Ancient name of the site	Unknown
Modern name of the site	Abu Hejjil
Gibson identification code	120
Coordinates (WGS84 UTM)	44.4273664 E 32.6296152 N

KIS.128

KIS.128, ancient Babylon, was not surveyed systematically. The dating of the site spans from the ED III to Late Abbasid.

Identification code	KIS.128
District	Mahawil
Ancient name of the site	Babylon
Modern name of the site	Babylon
Gibson identification code	128
Coordinates (WGS84 UTM)	44.4266575 E 32.5348031 N

KIS.148

KIS.148 is a large mound, about 400 x 150 x 5. Some remains of a mosque with open court are visible on the western end.

Identification code	KIS.148
District	Mahawil
Ancient name of the site	Unknown
Modern name of the site	Umm el Awlad
Gibson identification code	148
Coordinates (WGS84 UTM)	44.6704339 E 32.5307857 N

KIS.173

KIS.173 is a small mound southeast of Khait Zbar. It measures $100 \ge 100 \ge 3$.

Identification code	KIS.173
District	Mahawil
Ancient name of the site	Unknown
Modern name of the site	Shcutha
Gibson identification code	173
Coordinates (WGS84 UTM)	44.882558 E 32.5876048 N

10.1.4 Eridu and Ur Survey

In 1966, Henry T. Wright conducted a short surface reconnaissance in the Eridu and Ur region, which undoubtely can be placed along the long-range of surveys projects conceived by Adams' from the mid 1950s¹⁵⁵. It was the first time that an archaeological survey was conducted in the extreme south of the Mesopotamian floodplain, aiming mainly at investigate and understand the settlement patterns and land use systems of the Ubaid period (6500 – 3700 BCE). However, the geological changes occurred over this large range of time had drastically modified the landscape, and the data obtained from this survey mainly concern later periods. Furthermore, many difficulties arose during the survey, first of all the lack, in the beginning of the reconnaissance, of aerial photographs and accurate maps and the subsequent need to create a base map through the triangolation of reference points on the Baghdad-Basra railway. Fortunately, once that the survey was completed, the examination of aerial photographs compared with the base map gave a good result. During this archaeological reconaissance 190 sites have been identified, among which only 8 held traces of material culture belonging to the EB IV period.

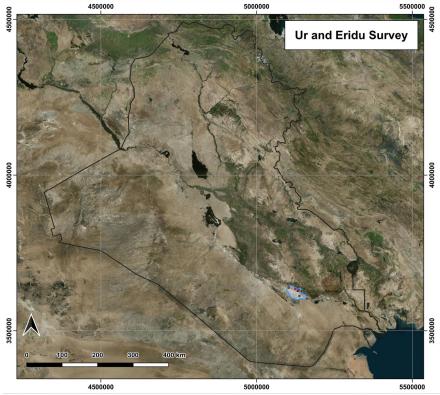


Fig. 10.1.5 The EB IV settlements in the Eridu and Ur survey.

155 Adams 1965; Adams 1972; Adams and Nissen 1972; Adams 1981.

UR.010

UR.010, ancient Ur, was inhabited,during the Akkadian period, reaching approximatively 50 ha.

Identification code	UR.010
District	Nasiriyah
Ancient name of the site	Ur
Modern name of the site	Tell al-Muqayir
Wright identification code	10
Coordinates (WGS84 UTM)	46.105761 E 30.9608623 N

UR.011-012

UR.011 is a large site, about 305 NE X 230 X 4. The collected surface materials are mostly Akkadian and Ur III.

Identification code	UR.011
District	Nasiriyah
Ancient name of the site	Unknown
Modern name of the site	Diqdiqah
Wright identification code	11
Coordinates (WGS84 UTM)	46.1118165 E 30.9714397 N

UR.017

UR.017, modern Tell Sughariyya, is a small-size site, about 110 NW X 80 X 3. The main occupation was probably Akkadian.

Identification code	UR.017
District	Nasiriyah
Ancient name of the site	Unknown
Modern name of the site	Tell Sughariyya
Wright identification code	17
Coordinates (WGS84 UTM)	46.149401 E 30.9774952 N

588

UR.030

During the Akkadian period, Tell al-Sakheri, upstream from Ur, apparently shrank into a village-sized settlement of only 2.0 hectares.

Identification code	UR.030
District	Nasiriyah
Ancient name of the site	Unknown
Modern name of the site	Tell al-Sakheri
Wright identification code	30
Coordinates (WGS84 UTM)	46.0379426 E 31.0095742 N

UR.134

UR.134 is a very small site, about 110 E X 65 X 0.5. The occupation sequence ranges from the Late Ubaid to the Early Isin-Larsa period.

Identification code	UR.134
District	Nasiriyah
Ancient name of the site	Unknown
Modern name of the site	Unknown
Wright identification code	134
Coordinates (WGS84 UTM)	46.1516243 E 30.8380709 N

UR.172

UR.172, modern Tell al-Lahm, was perhaps occupied during the Early Dynastic period, and certainly it extensively occupied by the Early Larsa period. UR.172 is a large site, about 390 X 310 X 13. The main occupation ranges from the Early Dynastic through the Kassite period.

Identification code	UR.172
District	Suq Al-Shoyokh
Ancient name of the site	Unknown
Modern name of the site	Tell al-Lahm
Wright identification code	172

Coordinates (WGS84 UTM)	46.3655805 E 30.7740253 N
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UR.287

UR.287 is the only other certain Akkadian foundation retrieved in the Ur survey; the site lies 26 kilometers northeast of Ur, apparently on the outer sweep of a large meander in the Euphrates channel. Ur.287 is a small-size site, about 135 NW X 100 X 1.5. The main occupation span from the Akkadian through the Kassite period.

Identification code	UR.287
District	Nasiriyah
Ancient name of the site	Unknown
Modern name of the site	Unknown
Wright identification code	122 east
Coordinates (WGS84 UTM)	45.8445092 E 31.0431622 N

10.1.5 Heartland of Cities and Uruk Countryside Surveys

Both Uruk Countryside and Heartland of Cities surveys are part of the archeological reconnaissance carried out by Adams in Southern Iraq between 1967 and 1965¹⁵⁶. The innovative approaches and methodologies used by Adams in his previous surveys¹⁵⁷ were adopted and further elaborated, in order to provide a complex and detailed overview of the alluvial plain in a time span of 6000 years. While the investigations for Uruk Countryside focused on the region of ancient Uruk, the three campaigns of Heartland of Cities (1968, 1972 and 1975) had their focus on the cradle of civilization, the central Mesopotamian floodplains. The aim of Adams was to understand the infrastructure of Mesopotamian civilization, dealing with land use, systems of irrigation and settlement patterns in different periods of time. Since there were no reliable maps of the area, Adams had the difficult task to create them himself. Through the use of his maps and aerial photographs, Adams was able to create a base map, on which the anomalies were identified and then verified through ground-truthing, with the subsequent collection of surface materials. The data obtained from the surveys were then integrated with the ones from archaeological excavtions in the region and evidence from the epigraphic documentation, thus allowing a comprehensive interpretation of human patterns through time.

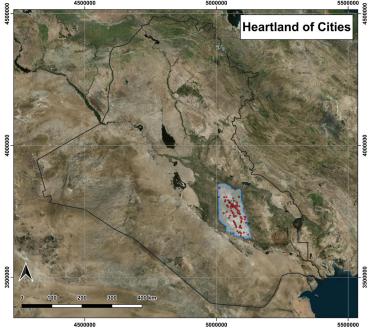


Fig. 10.1.6 The EB IV settlements in the Heartland of Cities and Uruk Countryside surveys

Adams 1965; Adams 1972; Adams and Nissen 1972; Adams 1981.

¹⁵⁷ Adams 1965; Adams 1972.

As for the present day, HOC.627 shows signs of looting. The site was recorded by Adams as Akkadian-Ur III, although this dating should be treated with great reserve.

Identification code	HOC.627
District	Na'maniya
Ancient name of the site	Unknown
Modern name of the site	Tell 'Amra
Adams identification code	627
Coordinates (WGS84 UTM)	45.5629491 E 32.5266333 N

HOC.746

HOc.746 is a large site, about 280 NE X 50 X 0.2. The main occupation spans from the Akkadian through the Isin-Larsa period.

Identification code	HOC.746
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	746
Coordinates (WGS84 UTM)	45.1801288 E 32.3099127 N

HOC.781

As fro the present day, the site cannot be identified through remote sensing.HOC.781 is a very large site, about 700 WNW X 180 X 0.2, partly covered, during Adams survey, by dunes. The collected materials are Early/Middle Uruk, Jemdet Nasr, possibly Early Dynastic I, with only a limited occurrence of Akkadian. The site was mainly occupied during the Isin-Larsa/Old Babylonian periods.

Identification code	HOC.781
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown

Adams identification code	781
Coordinates (WGS84 UTM)	45.2575884 E 32.3071461 N

HOC.871

Nowadays, some traces of looting are visible on the summit. HOC.871 is a large site, about 250 diam. X 5.5. Among surface materials, Akkadian, Isin-Larsa, Achaemenian, Parthian, and some sparse Sasanian are attested.

Identification code	HOC.871
District	Na'maniya
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	871
Coordinates (WGS84 UTM)	45.4877723 E 32.2764223 N

HOC.898

Nowadays, some traces of looting are visible on the mound. HOC.898 was recorded by Adams as Akkadian-Ur III, Parthian, although this dating should be treated with great reserve.

Identification code	HOC.898
District	Na'maniya
Ancient name of the site	Unknown
Modern name of the site	Tell al-Ikhaywan
Adams identification code	898
Coordinates (WGS84 UTM)	45.6945519 E 32.3132852 N

HOC.933

Nowadays, HOC.933 presents some traces of bad looting on the north and south parts, while dunes cover the site to the SE. HOC.933 consist of two mounds, very different in dimensions. Some traces of Uruk and Akkadian materials have been identified on the smaller mound. Both are mainly Larsa-Old Babylonian.

Identification code	HOC.933
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	933
Coordinates (WGS84 UTM)	45.2270428 E 32.222352 N

HOC.944 is a large site, about 250 diameter, plain level. Immediately NNE is a second large, low area of same date. More scattered outcrops of debris occur also to the south. Among surface materials, Uruk. Akkadian, and Isin-Larsa are attested.

Identification code	HOC.944
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	944
Coordinates (WGS84 UTM)	45.2226422 E 32.2047159 N

HOC.951

HOC.951 is characterized by scattered hummocks within perhaps 100 diam. Possibly it was a small early settlement, of Uruk or Jemdet Nasr date, although trace of Ak-kadian, Ur III, and Isin-Larsa are present. As for the present day, the site cannot be identified through remote sensing.

Identification code	HOC.951
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	951
Coordinates (WGS84 UTM)	45.2077213 E 32.1797999 N

HOC.996 is a small/medium site, about 170 NW X 140 X 2.5, possibly of Akkadian date.As for the present day, modern canals or field boundaries cut through site area.

Identification code	HOC.996
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	996
Coordinates (WGS84 UTM)	45.2765361 E 32.0747058 N

HOC.1008

HOC.1008 is a small site of mainly Akkadian and Isin-Larsa periods.

Identification code	HOC.1008
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1008
Coordinates (WGS84 UTM)	45.3139084 E 32.2192405 N

HOC.1009

HOC.1009 is a small site, about 100 ENE X 40 X 0.4. Among surface materials, Akkadian, Ur III, and Isin-Larsa are attested. As for the present day, the site cannot be identified through remote sensing.

Identification code	HOC.1009
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1009
Coordinates (WGS84 UTM)	45.3169668 E 32.2212849 N

HOC.1049 is composed by two adjacent sites separated by a wide later canal. Possibly they were originally joined, with the canal having been cut through to divide them. The main occupation ranges from the Akkadian through the Isin-Larsa period. As for the present day, the site cannot be identified through remote sensing.

Identification code	HOC.1049
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1049
Coordinates (WGS84 UTM)	45.3502935 E 32.1538657 N

HOC.1115

Main mound (or perhaps a series of three adjoining mounds) 450 ENE X 210 X 3. SE, detached, is another, 170 diam. X 2.5. Possible Uruk site. Mainly Akkadian-Larsa. . Nowadays, a small number of looting pits have been identified on the summit.

Identification code	HOC.1115
District	Na'maniya
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1115
Coordinates (WGS84 UTM)	45.5110012 E 32.2106793 N

HOC.1143

HOC.1143 occurs in the middle of a belt of very heavy dune deposits that overlie, and probably are derived from, the levee of a major ancient watercourse. Akkadian-Larsa. As for the present day, the site cannot be identified through remote sensing, likely covered by dunes.

Identification code	HOC.1143
District	Afak

Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1143
Coordinates (WGS84 UTM)	45.4319154 E 32.1147443 N

HOC.1166

HOC.1166 is a large mound, about 380 NW X 280 X 2. The occupation sequence ranges from the Early Dynastic to the Kassite period. As for the present day, the site is located under water.

Identification code	HOC.1166
District	Na'maniya
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1166
Coordinates (WGS84 UTM)	45.6181584 E 32.1496863 N

HOC.1178

HOC.1178 is a medium site, about 190 N X 110 X 0.8. AMong surface materials, Uruk, Early Dynastic I/II/III, and Akkadian are attested. As for the present day, traces of looting have been identified on the summit.

Identification code	HOC.1178
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1178
Coordinates (WGS84 UTM)	45.4546921 E 32.0930841 N

HOC.1217

Adams reported that HOC.1217 was at least 300 diam. X 10-13, but the real size was obscured by dunes. Among surface materials, Uruk, Early Dynastic II/III through

Isin-Larsa are attested. As for the present day, traces of looting have been identified on the summit.

Identification code	HOC.1217
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Tell Dowayhis
Adams identification code	1217
Coordinates (WGS84 UTM)	45.5102924 E 32.0614138 N

HOC.1240

Signs of traffic; no clear damage. Adams description: 230 NNE X 160 X 2. Limited Akkadian-Larsa. Mainly Old Babylonian-Cassite.

Identification code	HOC.1240
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1240
Coordinates (WGS84 UTM)	45.4642786 E 32.0411152 N

HOC.1244

Looting on the site; another area of looting to the east. Adams description: Tell al-Hraymsat. 240 NNE X 180 X 4.5. Profuse surface pottery. Akkadian-Larsa.

Identification code	HOC.1244
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Tell al-Hraymsat
Adams identification code	1244
Coordinates (WGS84 UTM)	45.477205 E 32.0294035 N

Faint traces of looting. Adams description: 220 NW X 120 X 0.2. Possible Uruk and Early Dynastic II/III. Very limited Akkadian-Larsa. Jemdet Nasr. Limited Early Dynastic I. Mainly Early Dynastic II/III. Very limited Akkadian-Larsa.

Identification code	HOC.1247
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1247
Coordinates (WGS84 UTM)	45.486872 E 32.0238392 N

HOC.1249

Looting at point, but additional clusters of looting to the east and west. Adams description: 240 NW X 160 X 3.5. Akkadian-Larsa, Cassite-Achaemenian. Possible Seleucid-Parthian.

Identification code	HOC.1249
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1249
Coordinates (WGS84 UTM)	45.4940255 E 32.0199213 N

HOC.1257

Looting pits on the summit. Adams description: 300 diam. X 6. At the N foot of the mound is an apparent cemetery area covering more than 1 ha. It has been very recently and extensively pitted. The cemetery is apparently Early Dynastic II/III-Ak-kadian, the mound Akkadian-Larsa.

Identification code	HOC.1257
District	Afak
Ancient name of the site	Unknown

Modern name of the site	Unknown
Adams identification code	1257
Coordinates (WGS84 UTM)	45.5381268 E 32.0517305 N

Adams description: 250 NNW X 140 X 1.2. Akkadian-Ur III-Larsa-Old Babylonian-Cassite. There is also a little Sasanian-Early Islamic, but not enough to assure a primary settlement here. As for the present day, the site cannot be identified through remote sensing.

Identification code	HOC.1259
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1259
Coordinates (WGS84 UTM)	45.5405792 E 32.0454647 N

HOC.1271

Some looting; faintly visible architecture. Adams description: Perhaps 130 diam. X 3, although drifted sand around base of mound may conceal low extensions. Early/ Middle Uruk, Early Dynastic II/III-very limited Akkadian.

Identification code	HOC.1271
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1271
Coordinates (WGS84 UTM)	45.6037488 E 32.0665503 N

HOC.1278

No visible damage; some architecture faintly visible on the surface. Adams description: 300 WNW X 220 X 3.4. Very limited Uruk, Early Dynastic I. Primarily Akka-

dian-Cassite. Sasanian storage jar sherds may reflect the use of the mound at that time only as a cemetery.

Identification code	HOC.1278
District	Hai
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1278
Coordinates (WGS84 UTM)	45.6316436 E 32.0895469 N

HOC.1290

Two clusters of intense looting; many tracks across the site. Adams description: 740 E X 160 (W end)-240 (E end) X 3.5. Akkadian-Larsa.

Identification code	HOC.1290
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1290
Coordinates (WGS84 UTM)	45.5867489 E 32.0375665 N

HOC.1293

Two areas of significant looting and remanant of a canal or track across the site.

Adams description: Tell Abu Dhaba'. 550 E X 280 X 4.2, but both ground observation and air photographs suggest a pair of adjoining tells on an E-W line rather than a single elongated settlement. The site is approached from the W by a straight, clearly defined bed that continues E beyond it. Several probably lateral offtakes from this canal now take the form of curious low ridges capped with pottery. Probably this implies considerable wind deflation of the land surface in this vicinity, to the point where sherds in abandoned canal branches provided a protective cap over underlying sediments and ultimately left raised ribbons of debris instead of incised channels. Sherds indicating a possible Middle/Late Uruk occupation are concentrated, although not completely localized, in the wide, low saddle between the two adjoining mounds. The remainder of the site was more or less continuously occupied from Akkadian

through Parthian times, with Larsa, Cassite, and Parthian the dominant surface components. Possibly, however, the E mound was in use primarily as a cemetery in the Neo-Babylonian, Achaemenian, and Parthian periods.

Identification code	HOC.1293
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Tell Abu Dhaba'
Adams identification code	1293
Coordinates (WGS84 UTM)	45.6237052 E 32.0389972 N

HOC.1304

Extesive looting across the site. Adams description: Also known as Tell al-Hayyad. 240 diam. X 2.6. Probably a small, underlying Uruk site. Akkadian-Larsa.

Identification code	HOC.1304
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1304
Coordinates (WGS84 UTM)	45.7010583 E 32.046983 N

HOC.1309

Some looting pits; modern pastoralist camp structures; signs of past animal pens/corrals. Adams description: 260 NW X 180 X 2.2. 500 m NW is an evident bifurcation in the ancient riverbed, one sinuous channel passing E of this site (and perhaps of Early Dynastic I date), the other W. Akkadian-Larsa.

Identification code	HOC.1309
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1309

Coordinates (WGS84 UTM)	45.5591849 E 32.0147809 N
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HOC.1337

No visible damage except for some erosion on the mound's slopes. Adams description: Tell Khathale. A prominent qal'a is centered on this mound, the former an irregular quadrilateral 55-70 m on a side that rises to a maximum ht. of 6.5 m at its NE corner. The underlying mound is 240 diam. A small Early Uruk settlement. Primarily Early Dynastic II/III-Akkadian, limited Ur III-Larsa-Old Babylonian. A substantial Recent occupation.

Identification code	HOC.1337
District	Hamza
Ancient name of the site	Unknown
Modern name of the site	Tell Khathale
Adams identification code	1337
Coordinates (WGS84 UTM)	45.1648733 E 31.8435596 N

HOC.1386

Adams description: 180 diam. X 1. Perhaps a small Early/Middle Uruk settlement. Jedmet Nasr, possible Early Dynastic I/II/III-Akkadian-Ur III-Larsa. Some Sasanian, As for the present day, the site cannot be identified through remote sensing.

Identification code	HOC.1386
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Abu Howasiduh
Adams identification code	1386
Coordinates (WGS84 UTM)	45.3810955 E 31.7749479 N

HOC.1420

Modern Canal near site. Adams description: 300 NW X 150 X 2. Recently and extensively, if shallowly, pitted. Early Dynastic II/III-Akkadian, limited Ur III-Larsa.

Identification code	HOC.1420
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1420
Coordinates (WGS84 UTM)	45.5630064 E 31.9987736 N

HOC.1423

Dirt roads near site. Adams description: 300 NW X 250, one small mound rising to 1.5 m but mostly debris at plain level. Early Dynastic II/III-Akkadian-Ur III-Larsa.

Identification code	HOC.1423
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1423
Coordinates (WGS84 UTM)	45.5893721 E 31.9788024 N

HOC.1450

Possible evidence of looting on mound. Adams description: Perhaps 250 NE X 200 X 2.8, but surrounded and partly covered by dunes. Probable Jemdet Nasr. Early Dynastic I/II/III-Akkadian-Ur III-Larsa-Old Babylonian-Cassite.

Identification code	HOC.1450
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1450
Coordinates (WGS84 UTM)	45.6544125 E 31.9205839 N

HOC.1454

Adams description: 160 E X 100 X 1, with an old watercourse from the NW immediately adjacent E and then a second mound, 160 NNW X 40 X 0.2. The first mound may be the remains of a single building or building complex, for the pottery is found only in ridges suggestive of its inclusion in mud-brick walls, while the relatively more sterile courtyards and rooms have recently been wind-deflated. In addition, baked planoconvex brick walls (or wall footings) may outline a courtyard 45 X 24 m, oriented at 055°. The low E mound again con- sists of hummocks protected by a surface cap of sherds while the more sterile areas apparently have been wind-deflated, and at its NNW end there is much ancient pottery kiln debris. Probable Jemdet Nasr. Early Dynastic I. Considerably less late Early Dynastic-Akkadian. There is also much Recent pottery on the W mound; perhaps the ob- served indications of architecture are only of that date.

Identification code	HOC.1454
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1454
Coordinates (WGS84 UTM)	45.6438774 E 31.8681751 N

HOC.1458

Site appears to be underneath modern agricultural fields. Adams description: Perhaps 220 diam. X 1-1.5, but size obscured by enveloping dunes. Early Dynastic II/III-Ak-kadian. Primarily Ur III-Larsa. Limited Old Babylonian.

Identification code	HOC.1458
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1458
Coordinates (WGS84 UTM)	45.679077 E 31.9066345 N

HOC.1459

Dunes moving across site. Adams description: This site is probably the one identified on the British ¼" map as Marauwah, but several local informants agreed that that name applied only to site 1452. No name could be elicited for this one, but Andrae calls it Dibbin. Size is very difficult to estimate, since the mound is completely beset by large dunes. An estimate of 350–400 m diam. is supported by surface evidence and by the area of slight discoloration on air photographs. Probably at least 6–8 m in ht., but there was no adjacent "plain level" from which to measure. Probable Jemdet Nasr. Early Dynastic I. Later Early Dynastic not identified. Surface debris primarily Akkadian-Ur III-Larsa. One edge-stamped brick bore a standard inscription of Amarsuena of the type widely encountered in the Warka survey.

Identification code	HOC.1459
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Marauwah [?]
Adams identification code	1459
Coordinates (WGS84 UTM)	45.6787536 E 31.8995269 N

HOC.1462

Evidence of looting on mound. Adams description: 180 diam. X 2.2. Akkadian-Ur III-Larsa.

Identification code	HOC.1462
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams identification code	1462
Coordinates (WGS84 UTM)	45.682907 E 31.8570066 N

HOC.1501

Site cut by a modern canal to the East, a number of dirt roads cross site. Adams description: Tell Hnayta. 220 diam. X 2.5. Very extensively, almost continuously covered with shallow pits apparently directed at shallow graves. Mainly Early Dynastic

II/III, continuing on a smaller scale into Akkadian-Larsa times. The graves that seem 1519 to have been the focus of the looters' attention are 1520 Sasanian.

Identification code	HOC.1501
District	Rumaitha
Ancient name of the site	Unknown
Modern name of the site	Tell Hnayta
Adams identification code	1501
Coordinates (WGS84 UTM)	45.3473179 E 31.7142334 N

UC.002

Looting pits across surface of the mound; two large modern canals to the north and south of the site; evidence of spoil heaps northwest and south of the mound.

Adams description: 300 NW x 260 x 4. Immediately southeast is a mound at least 400 diam. x 2.4; limits of latter obscured by dunes. High mound is Early Dynastic II/ III-Old Babylonian, with dominant component of surface debris suggesting Ur III as period of maximum occupation. Lower mound Achaemenian-Early Islamic, mainly Sassanian-Early Islamic.

Identification code	UC.002
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams and Nissen identification code	2
Coordinates (WGS84 UTM)	45.662807 E 31.8448201 N

UC.020

Some looting on top of mound and encroaching of canals on edges.

Adams description: Abu Boga'. Early Uruk probable. Late Uruk-Old Babylonian. Rare Parthian sherds may reflect only graves. Dominant surface materials are late Early Dynastic.

Identification code	UC.020
District	Afak

Ancient name of the site	Unknown
Modern name of the site	Abu Boga
Adams and Nissen identification code	20
Coordinates (WGS84 UTM)	45.5165533 E 31.7607986 N

Adams description: 250 N X 120 X 2. Wind erosion has traced parallel north-south furrows immediately west of site that suggest stratified alluvial deposits reflecting presence of an old, major watercourse. Early Dynastic possible but unconfirmed. Akkadian-Larsa. Old Babylonian, Parthian very limit As for the present day, the site cannot be identified through remote sensing.

Identification code	UC.041
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams and Nissen identification code	41
Coordinates (WGS84 UTM)	45.5320723 E 31.7401535 N

UC.049

Adams description: 280 (3400) X 200 X 4.2. Plano-convex bricks. Late Early Dynastic-Cassite, Parthian. Parthian debris also continues south-southeast along old canal bed for almost 1 km.

Identification code	UC.049
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams and Nissen identification code	49
Coordinates (WGS84 UTM)	45.7401233 E 31.7413203 N

Adams description: Part of Tildil al-Hummar. 400 diam. X 3.4. Three stamped Amarsuena bricks. Late Early Dynastic possible, Akkadian probable, mainly Ur III-Old Babylonian; Parthian graves. As for the present day, the site cannot be identified through remote sensing; the point is in rather barren location with canals bisecting nearby.

Identification code	UC.097
District	Rumaitha
Ancient name of the site	Unknown
Modern name of the site	Tulul al-Hummar
Adams and Nissen identification code	97
Coordinates (WGS84 UTM)	45.5069234 E 31.6146175 N

UC.100

Adams description: Part of Banaat al-Hassan. 550 NW X 300 X 2. Akkadian-Larsa, rare Old Babylonian. As for the present day, the site cannot be identified through remote sensing; there are few old canals lines and soil disturbance near point.

Identification code	UC.100
District	Rumaitha
Ancient name of the site	Unknown
Modern name of the site	Banaat al-Hassan
Adams and Nissen identification code	100
Coordinates (WGS84 UTM)	45.5210348 E 31.5787161 N

UC.130

Adams description: Part of Banaat al-Hassan. 2.1 m ht.; badly looted, leading to a wide array of surface materials. Jemdet Nasr through Akkadian well represented. Ur III and Larsa present but less plentiful; may derive primarily from graves during floruit of nearby site 131. As for the present day, the site cannot be identified through remote sensing. There are possible signs of looting near the point.

Identification code	UC.130
District	Rumaitha
Ancient name of the site	Unknown
Modern name of the site	Banaat al-Hassan
Adams and Nissen identification code	130
Coordinates (WGS84 UTM)	45.5418975 E 31.5604039 N

Adams description: Part of Banaat al-Hassan. 4.2 m ht. Jemdet Nasr possible but uncertain. Early Dynastic I-Old Babylonian, but primarily Ur III-Larsa. Numerous baked bricks with Amarsuena stamps. Widespread Parthian graves, scattered Sassanian sherds (particularly on east slope). Small mound extending north from north end Sassanian-Early Islamic, with the remains of building with pillars or curving walls constructed of baked brick ($27 \times 27 \times 6$) and mortar.

As for the present day, the site cannot be identified through remote sensing.

Identification code	UC.131
District	Rumaitha
Ancient name of the site	Unknown
Modern name of the site	Banaat al-Hassan
Adams and Nissen identification code	131
Coordinates (WGS84 UTM)	45.5413559 E 31.5562158 N

UC.139

Adams description: 180 (3400) X 150 X 1. Late Uruk-Jemdet Nasr probable. Akkadian-Larsa. Old Babylonian very limited.

As for the present day, the site cannot be identified through remote sensing.

Identification code	UC.139
District	Rumaitha
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams and Nissen identification code	139

Coordinates (WGS84 UTM)	45.5580091 E 31.5209157 N
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UC.169

Extensive looting throughout; signs of vehicular traffic, especially between the two mounds. Adams description: Ibzaykh (Zabalam). 1,100 (1100) X 520 x 6. Northwest end of mound is only 5 m ht., and it is lower still in middle. Rare clay sickles suggest a beginning of occupation in Uruk or Jemdet Nasr times. A late Early Dynastic occupation indicated by widespread (although not numerous) plano-convex bricks and other diagnostic types. Surface material preponderantly Akkadian-Old Babylonian. See chapter 8 for stamped brick inscription of latter period identifying site as Zabalam.

Identification code	UC.169
District	Rifa'i
Ancient name of the site	Zabalam
Modern name of the site	Ibzaykh
Adams and Nissen identification code	169
Coordinates (WGS84 UTM)	45.8754568 E 31.7439224 N

UC.172

Surface of the mound is looted. Adams description: 180 diam. X 3. Akkadian-Ur III.

Identification code	UC.172
District	Rifa'i
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams and Nissen identification code	172
Coordinates (WGS84 UTM)	45.9127283 E 31.7308557 N

UC.175

Adams description: Northeast mound very slightly elevated. Very limited Early Dynastic I, mainly late Early Dynastic-Akkadian, continuing into Larsa period only at south end. Main mound primarily Ur III-Larsa, but with some late Early Dynastic-Akkadian wares, thin Neo-Babylonian-Parthian debris, and much late kiln slag. Surface debris is also found in intervening area between the two mounds, suggesting that they form parts of what was originally a single large settlement. As for the present day, the site cannot be identified through remote sensing, due to agricultural development.

Identification code	UC.175
District	Afak
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams and Nissen identification code	175
Coordinates (WGS84 UTM)	45.7846987 E 31.6832908 N

UC.190

Modern road delimiting the site on the north. Adams description: Part of Abu Bott. 500 (0200) X 300 X 6.2. Late Uruk, possible Jemdet Nasr, probable Early Dynastic. Akkadian-Larsa, reduced Old Babylonian occupation.

Identification code	UC.190
District	Khidhir
Ancient name of the site	Unknown
Modern name of the site	Abu Both
Adams and Nissen identification code	190
Coordinates (WGS84 UTM)	45.7658126 E 31.6183439 N

UC.197

Sand dunes and looting pits obscure much of the large site. Extent not entierly clear. Adams description: Jokha (Umma). Site not surveyed in detail. Andrae ("Umgebung," pp. 20-21, fig. 3) describes it as a main west-southwest-east-northeast ridge 15 m high and 1,000 m long, with lower extensions to the northeast and southeast. Topography is obscured by many dunes, as it was also in Andrae's day, but our impression is that this description includes only the more elevated proportions of the site and does not give the outer limits. On the basis of limited surface

reconnaissance and plotting of discoloration in aerial photographs, it is tentatively suggested instead that the site covers an area about 1,500 m in diameter. Late Early Dynastic and Old Babylonian are dominant in surface collections, but intervening Akkadian, Ur III, and Larsa periods also are well represented. Uruk, Jemdet Nasr, and Early Dynastic I possible but unconfirmed.

Identification code	UC.197
District	Rifa'i
Ancient name of the site	Umma
Modern name of the site	Jokha
Adams and Nissen identification code	197
Coordinates (WGS84 UTM)	45.8912994 E 31.6676623 N

UC.204

Adams description: Part of Abu Bott. 490 NE x 290 x 4.8. Most of tell's surface is obscured by drifting sand, with recent robbers' pits in exposed areas. Late Early Dynastic-Larsa. As for the present day, the site cannot be identified through remote sensing.

Identification code	UC.204
District	Khidhir
Ancient name of the site	Unknown
Modern name of the site	Abu Both
Adams and Nissen identification code	204
Coordinates (WGS84 UTM)	45.7616106 E 31.5790246 N

UC.213

Adams description: Tell Zichariya. 900 N X 500 X 4.5, attaining this height only near north end. Late Early Dynastic, probably also Akkadian. Main occupation Ur III Larsa, with a thick overlying layer of Parthian-Sassanian debris only on north part of site. As for the present day, the site cannot be identified through remote sensing.

Identification code	UC.213
District	Rifa'i

Ancient name of the site	Unknown
Modern name of the site	Tell Zichariya
Adams and Nissen identification code	213
Coordinates (WGS84 UTM)	45.9269817 E 31.5720906 N

Adams description: Part of Suheri. Probably this important site has escaped earlier notice because it is very low, exceeding 1-1.5 m only in rare hummocks of late debris. Moreover, high dunes cover part of the site and obscure its true size. Late Uruk, and possibly Jemdet Nasr-Early Dynastic I, well represented particularly in northeast quadrant. Conical cups of Jemdet Nasr or Early Dynastic date occur in profusion in the same area but also are common to the south, suggesting that these levels are widespread. Late Early Dynastic debris also common, but the dominant surface components are Akkadian-Larsa. Old Babylonian pottery confined to a very small area at extreme south end of mound. One baked brick noted with a stamped inscription of Amarsuena. Numerous Parthian graves, particularly on west half of site, but nothing to suggest an actual settlement at that period.

As for the present day, the site cannot be identified through remote sensing, due to sand dunes.

Identification code	UC.242
District	Rumaitha
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams and Nissen identification code	242
Coordinates (WGS84 UTM)	45.5861308 E 31.4736015 N

UC.463

Possible looting at nearby (but offsite area). Adams description: Tell Libbe. 190 diam. x 0.8. Saline, dark-colored, poor collecting conditions. Probable dating late Early Dynastic-Larsa.

Identification code UC.463

District	Nasiriyah
Ancient name of the site	Unknown
Modern name of the site	Tell Libbe
Adams and Nissen identification code	463
Coordinates (WGS84 UTM)	45.7304914 E 31.4858269 N

UC.259

Adams description: Main mound 2.8 m ht., east mound 1.7 m, south mound 1.4 m. Nature of the four mounds shown suggests that they form parts of a single settlement whose lower-lying areas have been submerged by alluviation. An apparent old canal course cuts through site from the northwest, with absence of contour breaks in mounds suggesting it is contemporary with or older than main occupation. This course is marked by an intact plano-convex brick wall north of main mound, continuing across plain southeast of mound as a clear band of discoloration.

Detailed plan of part of large building on east mound drawn from clean mud brick walls, 0.5 m thick and very straight, visible on surface. Numerous baked plano-convex bricks are strewn on the eroded lower land surface to the southwest of the surviving portion of this building. Surface collection is predominantly late Early Dynastic, and this may be the only period of significant occupation. There are also rare Akkadian sherds, and perhaps some Ur III-Larsa sherds as well. As for the present day, the site cannot be identified through remote sensing, likely submerged by alluviation.

Identification code	UC.259
District	Khidhir
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams and Nissen identification code	259
Coordinates (WGS84 UTM)	45.722697 E 31.4667733 N

UC.261

Adams description: Abu Khawa. 320 N x 240 X 2.4, with an old canal apparently cut subsequently into west edge of site. 30 m east-across another old canal bed?-is a contemporary mound 160 diam. x 4. Possible Jemdet Nasr. Early Dynastic I-Akka-

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dian, mainly late Early Dynastic. As for the present day, the site cannot be identified through remote sensing.

Identification code	UC.261
District	Khidhir
Ancient name of the site	Unknown
Modern name of the site	Abu Khawa
Adams and Nissen identification code	261
Coordinates (WGS84 UTM)	45.7202455 E 31.4528767 N

UC.263

Adams description: Irregular mounds and hummocks within an area perhaps 250 m in diameter. Highest mound 2 m; another, lower one is a late kiln site. Akkadian-Ur III. A few sherds of "pseudoprehistoric" ware probably date a Recent canal junction whose spoil banks occur in middle of occupied area. As for the present day, the site cannot be identified through remote sensing, due to sand dunes.

Identification code	UC.263
District	Khidhir
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams and Nissen identification code	263
Coordinates (WGS84 UTM)	45.5938469 E 31.4343149 N

UC.267

Site extent obscured by canal leevee deposits. Adams description: The sizes and relationships of this group of sites are obscured by later canal levee deposits. Most pronounced mound 120 diam. X 2, Parthian. 120 m south of this is a lower mound, 120 diam. X 0.7, Akkadian-Larsa, Parthian. Spoil banks along old Shatt al-Nil 200 m east of latter are littered with Ubaid I-II and Late Uruk-Jemdet Nasr pottery. This may form an early settlement 160 N X 20 width on either side of later bed. However, these sherds are more likely to have been thrown up during canal clearance.

Identification code	UC.267
District	Rumaitha
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams and Nissen identification code	267
Coordinates (WGS84 UTM)	45.7068193 E 31.4359542 N

UC.294

Probable site location, SE extent possibly cut by canal. Adams description: Center mound 3 m, southwest mound 1.1 m, other 0.5-1 m ht. Northeast mounds Late Early Dynastic, limited Old Babylonian. Central mound, and plain surface adjoining to the NE, Larsa-Old Babylonian. Southwest mound Late Early Dynastic-Ur III.

Identification code	UC.294
District	Khidhir
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams and Nissen identification code	294
Coordinates (WGS84 UTM)	45.6767907 E 31.2761978 N

UC.352

Adams description: 50 diam. x 1.3. Mainly Ur III-Larsa, probably also Akkadian.

Identification code	UC.352
District	Khidhir
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams and Nissen identification code	352
Coordinates (WGS84 UTM)	45.7184023 E 31.2971516 N

Adams description: Abu Dhib. Highest part of site is its northeast extension, which seems to consist of a single baked plano-convex brick building. Similar bricks are found all over site in smaller numbers. Dominant ceramic component is late Early Dynastic, with a few possible Akkadian or Ur III sherds also noted. In the area of mound shown in hachure soil discolorations suggest a large building which may be of Neo-Babylonian date, since pottery of this period also is widespread on site. Probably of this date also is the small mound to the southwest, which again may be a single baked brick building. As for the present day, the site cannot be identified through remote sensing, due to sand dunes.

Identification code	UC.360
District	Khidhir
Ancient name of the site	Unknown
Modern name of the site	Abu Dhib
Adams and Nissen identification code	360
Coordinates (WGS84 UTM)	45.7673053 E 31.4202222 N

UC.385

No visible damage. Adams description: 160 E X 125 X 2.5. Perhaps one-third of larger dimension is without elevation or debris but contained within a ridge of sherds that may be the remains of an eroded mud-brick wall. The elevated area, 125 m diam., is sharply contoured at edges, perhaps also suggesting an enclosing wall. Late Early Dynastic-Larsa.

Identification code	UC.385
District	Khidhir
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams and Nissen identification code	385
Coordinates (WGS84 UTM)	45.7613246 E 31.2618354 N

Adams description: Umm al-Wawiya. 270 diam. x 2. Many brick fragments with stamped inscriptions of Amarsuena and Gungunum (see chapter 8), also baked plano-convex bricks. Late Early Dynastic-Larsa. As for the present day, the site cannot be identified through remote sensing, due to sand dunes.

Identification code	UC.439
District	Khidhir
Ancient name of the site	Unknown
Modern name of the site	Umm al-Wawiya
Adams and Nissen identification code	439
Coordinates (WGS84 UTM)	45.7455215 E 31.201464 N

UC.455

Some looting and roads across the site area. Adams description: 160 E x 130 x 4. Very saline, sherds extremely sparse. Probably late Early Dynastic. Mainly Akkadian-Larsa.

Identification code	UC.455
District	Khidhir
Ancient name of the site	Unknown
Modern name of the site	Unknown
Adams and Nissen identification code	455
Coordinates (WGS84 UTM)	45.997604 E 31.2257488 N

10.2 THE PROBLEM OF EB IV CHRONOLOGICAL INDICATORS

The major problem of the sites surveyed between the 1950s and the 1980s is that they were characterized by multiple occupations or reoccupations, thus making estimates of settlement size for periods particularly difficult. Furthermore, the archaeologists made no attempt to record systematically the pottery sherds and other dating indicators observed on sites that were occupied; indeed for the analysis of complex and multiperiod materials, extremely long periods of study must have been devoted to each of the sites considered. Only the presence, during the surface surveys, of well-defined dating indicators (hallmarks) was noted.

During these surveys, scholars kept the Akkadian and the Ur III periods separate, although their proposed differentiation between the two periods must be regarded with a large degree of provisionality. The types that were used to identificate on the surveys field the Akkadian period included the following: horizontal ribs, usually forming a concentric series, applied on the shoulders of large storage jars; deep bowls of big dimensions with a prominent, large-diameter spout; ovoid jars with point-ed bottoms, slightly constricted necks, and sharply profiled rims; and incised-comb wavy lines between horizontal bands, typically on shoulders of large jars. However, the majority of the types considered between 1950s and 1980s hallmarks of the Akka-dian period surely continued for some time during the following Ur III period.

10.3 THE PREVIOUS PARADIGMA FOR "AKKADIAN" SETTLEMENTS IN SOUTHERN MESOPOTAMIA

During the Akkadian period, in southern Mesopotamia, the settlements shifted away from the Shuruppak-Uruk channel. Occupation at both of those ancient cities was severely limited, if indeed they were not largely (if only temporarily) abandoned. Similarly, the reoccupation of many sites southeast of Nippur hints at the possibility that water in the Nippur channel was now being diverted toward Adab. The Adab region thus became particularly densely occupied. During the Ur III period, largescale canal systems quickly reached a peak of development.

The Akkadian period for the most part saw a continuation of patterns already well established in Early Dynastic times. Some reduction or displacement of population is indicated by the abandonment of several of the large Early Dynastic towns and numerous smaller towns and villages.

The only significant extension of settlement probably involved stream changes or

ROBERT ADAMS' SURVEYS AND OTHER RECONNAISSANCE PROJECTS621

new canal construction, but only in one small area and on a modest scale that might have been carried on by co-operating local villagers without outside resources. Also in the Diyala basin the patterns of settlement occurring during the Akkadian period mostly continue the one of the Early Dynastic period. Although less well-known than the Early Dynastic period, Akkadian levels in the lower Diyala basin have been sampled fairly extensively stratigraphically. The largest exposures are at Tell Asmar, where successive levels containing both monumental architecture and private dwelling units have been exposed. There are hints that the Diyala plains played an important strategic role during the Akkadian dynasty, perhaps being more closely integrated with the heartland of the alluvium than it had been previously or would be again until long afterward. However, since the bulk of Akkadian pottery was for the archaeologists engaged in the sruvey of the Diyala plains less distinctive than Early Dynastic types and since Akkadian levels generally were covered by thick debris, it is difficult to estimate the extent of the underlying Akkadian settlements from the collected surface data. The only zone of settlement in Akkadian times which apparently saw a change in the basic pattern of watercourses occurs in the environs of modern Baghdad. Four sites investigated by Adams formed a line suggesting a new Diyala outlet to the Tigris, farther to the northwest than any previous junction.

Chapter 11

THE DEFINITION OF AN EARLY BRONZE IV POTTERY ASSEMBLAGE IN SOUTHERN MESOPOTAMIA

11.1 ANALYSIS OF THE DATA

Among the material culture, the pottery assemblage is crucial in order to define and establish a reliable relative chronology within the sites analyzed. Therefore, comparing the ceramic assemblages from the five sites chosen as case studies and from the survey, an attempt to reconstruct the EB IV pottery horizon in Southern Mesopotamia has been carried out.

The pottery assemblage selected comes from 8 areas excavated at Lagash, Nippur, Umm el-Jir, Eshnunna, and Tell Yelkhi and from 19 sites surveyed by the QADIS survey Project. 43 % of the pottery sample comes from the sites investigated by the QADIS survey project.

Within these areas, vessels (complete, complete profiles or fragments) from a known findspot and with a drawing (or the possibility to draw them) have been selected. The final sample consists of 1965 entries.

As for the survey project, in order to describe each pottery shape, a new standardized form was created and compiled.

The form was designed in order to obtain information concerning:

- Identification and Context: 1. Site; 2. Area; 3. Level; 4. Identification number.

- Morphology of sherds: 1. Functional Class; 2. Shape; 3. Preservation.

- Technology of sherds: 1. Production technique; 2. Types of inclusion; 3. Inclusion size; 4. Inclusion frequency; 5. Firing; 6. Inner and outer fabric color;7. Core fabric color.

- Sherd decoration: 1. Type of surface treatment; 2. Type of decoration.

– Sherd dimensions: 1. Rim diameter; 2. Rim width; 3. Height; 4. Wall diameter; 5. Wall

width; 6. Bottom diameter; 7. Bottom height.

– The shape of the vessels has been defined by selecting among the most updated literature related to the 3rd millennium BCE Mesopotamia, while the definition of functional classes follows the standard work by Rice¹⁵⁸.

Among the technological data, some clarifications are necessary:

– To define dimensions and frequency, a chart (Fig. 11.1) was created, based on a framework proposed by Levi¹⁵⁹ and the Munsell Soil Color ChartTM (2009 version). The chart is designed to produce an accurate and quick autoptic analysis of inclusions. Frequency is calculated as a percentage of the whole assemblage and sorted into four different ranges (<3%, 3-10%, 10-20%, >20%, designated by codes from 1 to 4), while dimensions are in millimeters and divided into three different groups (>0.5 mm, 0.5-1 mm, 1- 2 mm, designated by codes from a to c).

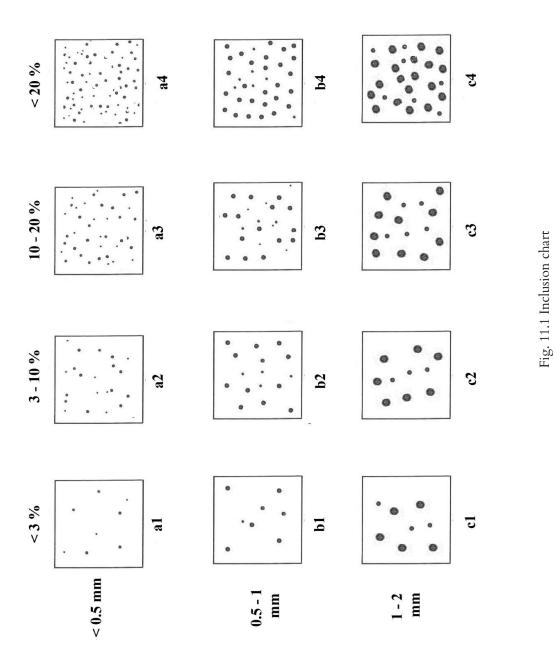
– Fabric colors have been identified using the Munsell Color Soil Chart[™]. The fabric has been divided into inner, outer, and core.

- Surface treatments identified are slip, burnished, and a combination of the first two named slip-burnished.

Decorations: A wide range of decorations has been detected. Vessels can be combed, grooved, incised, excised, painted, pierced, or having a variety of applied decorations.
Firing: Three degrees of firing are distinguished: high (H), medium (M) and low (L). In general, although there is much variability, high firings have a single color and are usually observed on fine wares. Medium firings may have two different colors, one for the inner, the other for the outer surface, or one for the inner and outer surfaces and another for the core. A homogeneous dark colour generally characterizes low-fired fabrics due to over-firing or continuous heating (cooking pots).

¹⁵⁸ Rice 1987: 2008-9, table 7.2.

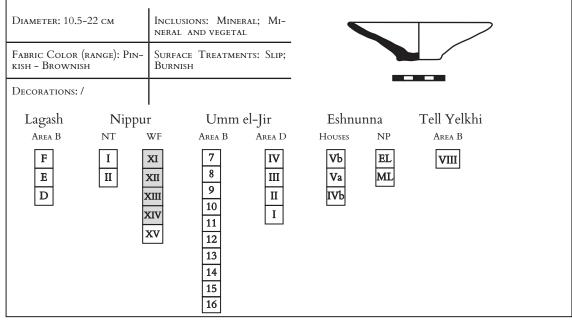
¹⁵⁹ Levi 2010.



11.2 WARES AND TYPOLOGY

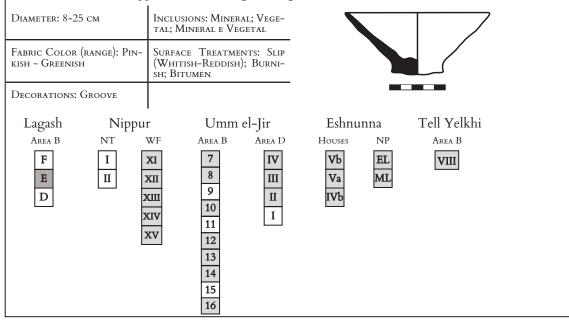
O1 - Plain Conical Plate

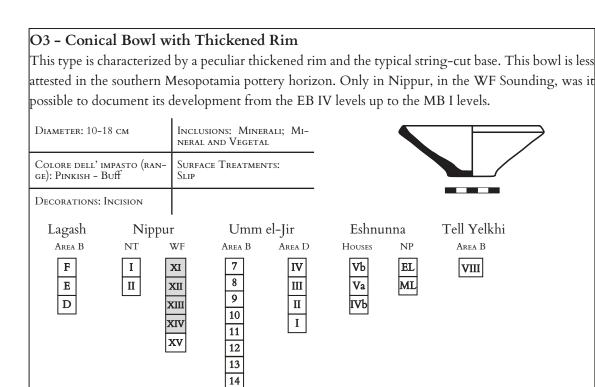
Type O1 is defined by a range of diameter/height ratio 1:4. These vessels are not particularly widespread in Southern Mesopotamia during the EB IV period. They have a string-cut base and sometimes are tapped, resulting in a slight foot.



O2 - Plain Conical Bowl with String-Cut Base

Type O2 is very common in Southern Mesopotamia during the EB III and EB IV period.These vessels belong to mass-produced shapes with string-cut base and are characterized by a plain. As for type O1, the base sometimes is tapped, thus resulting in a slight foot.

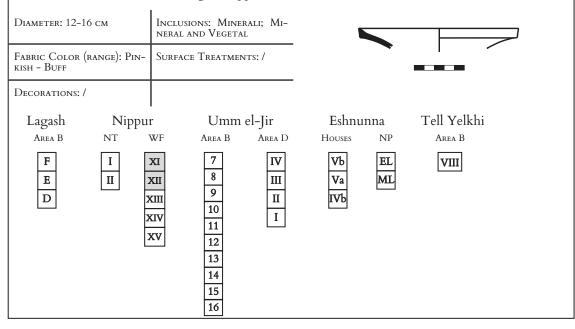




O4 - Conical Bowl with Upright Thickened Rim

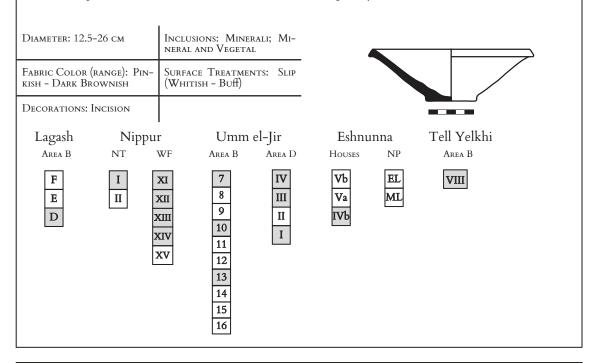
15 16

This type has a smaller diameter than other conical bowls and it is characterized by a thickened upright rim. Poorly documented throughout the horizon of southern Mesopotamia, only a few specimens are attested from the WF sounding at Nippur.



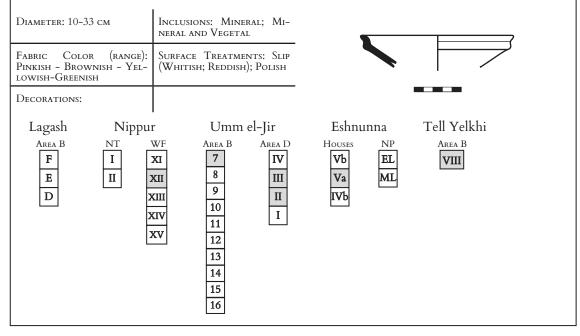
O5 - Conical Bowl with Triangular Everted Rim

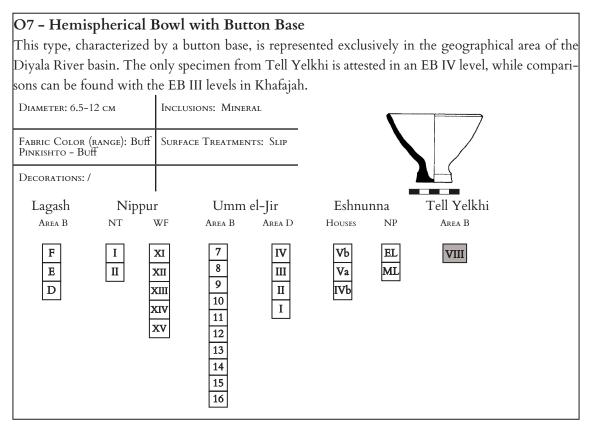
This type with slightly everted triangular rim is attested both in the EB IV levvels and in those dated to the MB I period, where, however, a decrease in its frequency is recorded.



O6 - Conical Bowl with High Carination and Everted Rim

This bowl has, just below the rim, a carination that can be more or less marked. The type seems to be widely represented in Southern Mesopotamia and in the Diyala basin during the MB I period (although sporadic specimens from EB IV levels are attested), with a peak in attendance at Tell Yelkhi.

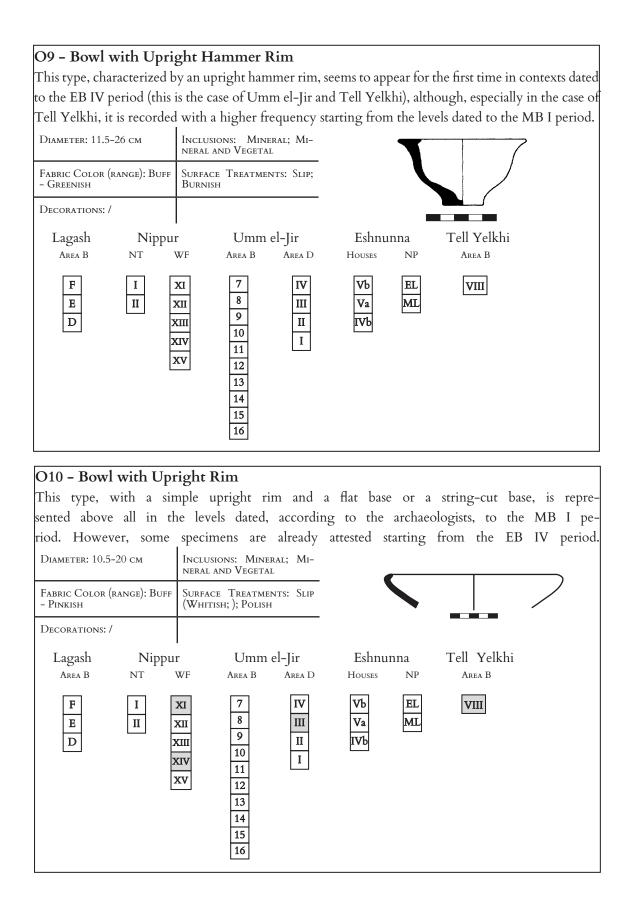




O8 - Molded Bowl

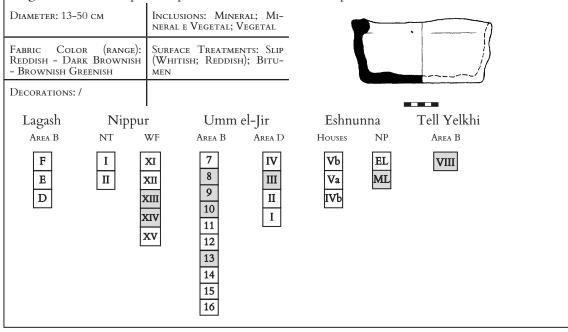
This molded bowl is characterized by an external decoration with applied geometric motifs. The type does not seem particularly widespread in southern Mesopotamia, in fact there are few specimens only from Tell Asmar. The dating of the specimens covers a period ranging from EB III to the EB IV.

Diameter: 7.5-8.5 см		Inclusions: Miner	RAL			
Fabric Color (range): Pin- kish - Yellowish -Reddish		Surface Treatments: Slip (Whitish)				
DECORATIONS: APPLICATION; INCISION						
Lagash	Nippu	r Umm	el-Jir	Eshnu	nna	Tell Yelkhi
Area B		WF Area B	Area D	Houses	NP	Area B
F E D	II	XI 7 XII 8 9 10 XIV 11 XV 12 13 14 15 16	IV III I I	Vb Va IVb	EL ML	VIII



O11 - Tray

This tray, characterized by a more or less large diameter, is found both in the southern alluvium and in the Diyala river basin. The type had been attested starting from levels that had been dated by archaeologists to the EB III period up to levels dated to the MB I period.



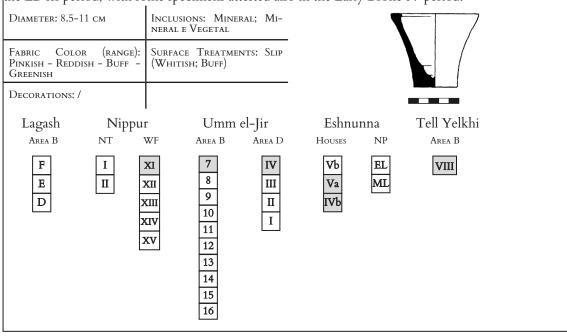
O12 - Bowl of Big Dimension with Thickened Walls and Rounded Base

This thick-walled, rounded base bowl is attested exclusively in the site of Tell Yelkhi. Attested in the archaeological record starting from contexts dated to EB III, the type saw its maximum frequency during the EB IV period. Few specimens are also attested during the MB I period.

Diameter: 27-50 cm		Inclusions: M neral and Veg					
Fabric Color -Reddish - Buff							
Decorations: /							
Lagash	Nippu	r Un	ım el-Jir	Eshnu	nna	Tell Yelkhi	
Area B	NT	WF Area I	B Area D	Houses	NP	Area B	
F E D	Π	XI 7 XII 8 9 10 XIV 10 XV 12 13 14 15 16	IV III I I	Vb Va IVb	EL ML	VIII	

O13 - Beaker with Upright Hammer Rim and Flat Base

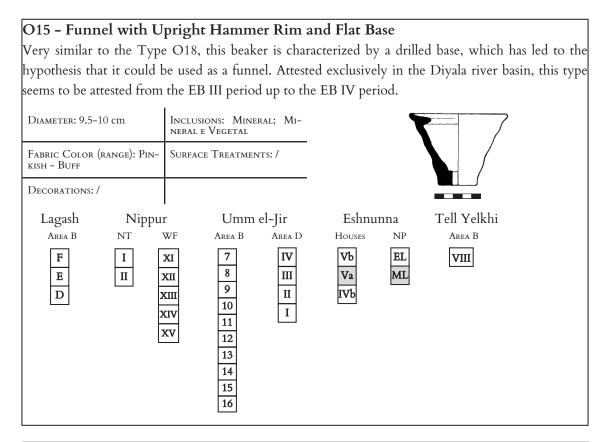
This type of beaker with an upright hammer rim and flat base is attested both in the southern alluvium and in the Diyala river basin, where, above all in Tell Asmar, where it reaches its highest frequency in the EB III period, with some specimens attested also in the Early Brone IV period.



O14 - Beaker with rounded base

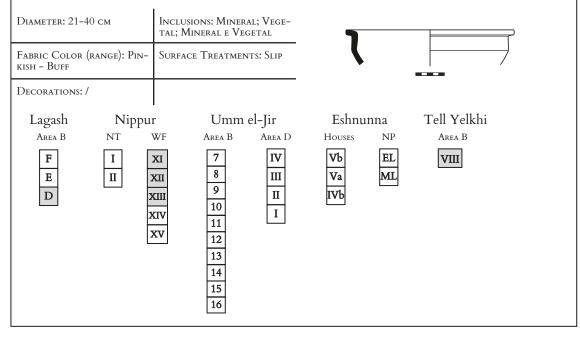
This beaker, characterized by a rounded base, is attested both in the southern alluvium and in the Diyala river basin (Nippur and Tell Yelkhi). The type is documented from the end of the period dated by archaeologists to the EB III up to the beginning of the MB I period.

Diameter: 3.3-16.5 cm		Inclusions: Mineral; Mi- neral e Vegetal		L; MI-		ſ	
Fabric Color (range): Buff - Buff Pinkish - Yellowi- sh-Reddish		Surface Treatments: Slip (Whitish)		s: Slip			
Decorations: /							
Lagash	0 11		÷		Eshnunna		Tell Yelkhi
AREA B F E D		WF A	Area B 7 8 9 10 11 12 13 14 15 16	AREA D IV III I I	Vb Va IVb	NP EL ML	Area B



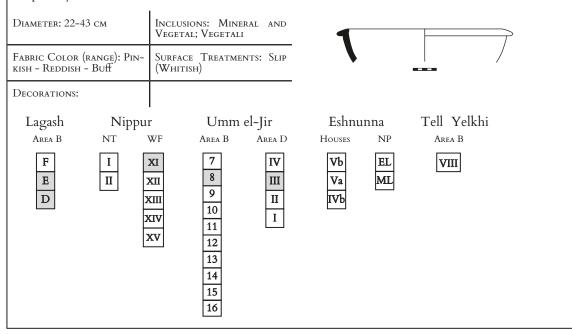
O16 - Bowl with Elongated Rim

This large bowl is characterized by a faired wall and a square or rounded elongated rim. This specimen does not appear to have been widespread either in southern Mesopotamia or in the Diyala region. The Type is scarcely attested from EB III up to the MB I period.



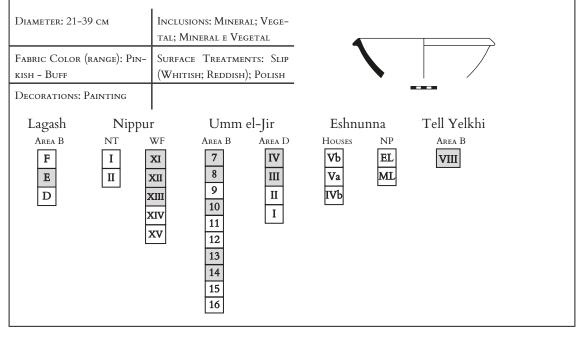
O17 - Bowl with Elongated Everted Triangular Rim

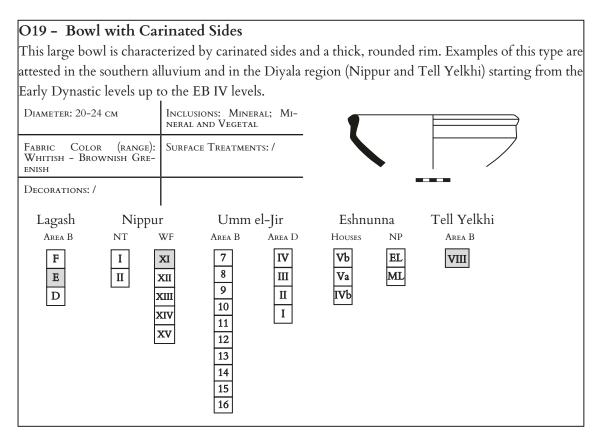
This large bowl with elongated everted triangular rim seems to be morphologically connected to the Type O12, of which it could perhaps represents a less widespread variant in the Southern Mesopotamia pottery horizon.



O18 - Bowl with Everted Triangular Rim

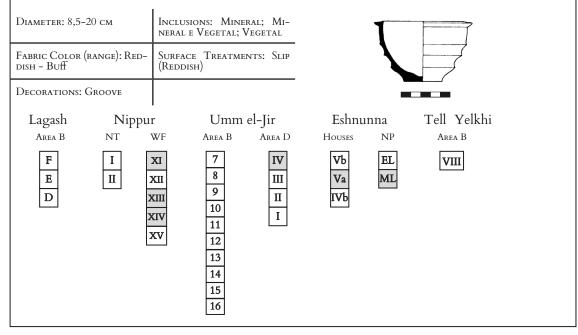
This bowl, characterized by an everted triangular rim, can have straight or slightly curved sides. The type seems to be particularly widespread both in the southern alluvium and in the Diyala river basin. Attested as early as EB III, this Type sees its maximum frequency only in the EB IV period.





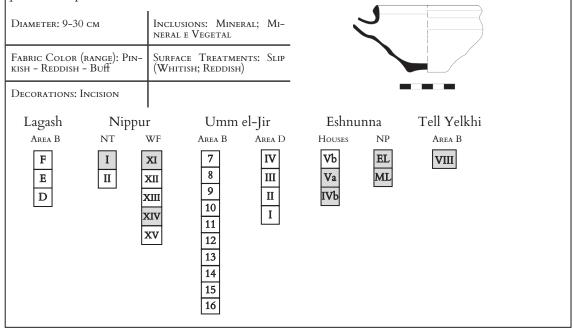
O20 - Bowl with Grooved Sides

This bowl, characterized by grooves all over its body, is attested both in Southern Mesopotamia and in the Diyala region during the EB IV period (with the exception of a sporadic finding from ED levels to Tell Yelkhi), while it is completely absent in the following period.



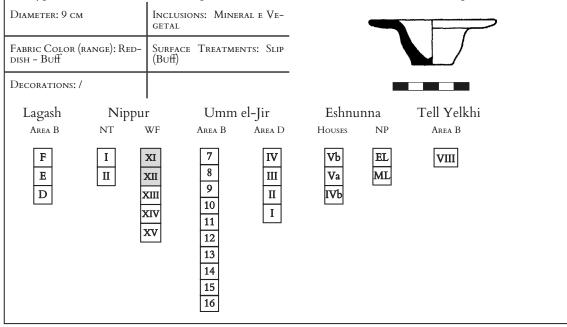
O21 - Bowl with High Carination and Spout

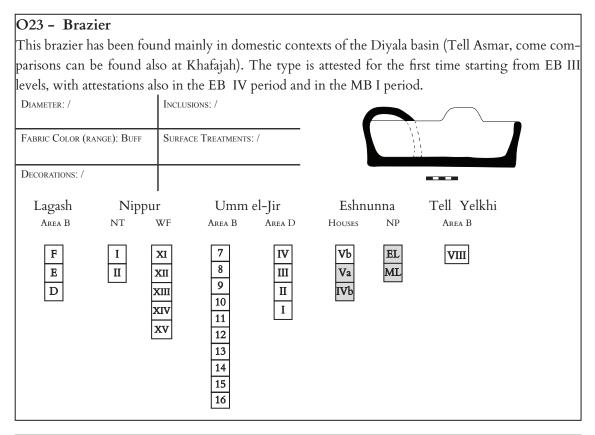
This bowl is characterized by high carinated sides and a spout. The type is attested starting from levels that have been dated by archaeologists to the EB IV period, with specimens also present in the subsequent MB I period.



O22 - Lid with Flared Rim

This type is attested only in two sites: Nippur and Tell Asmar. While the find at Tell Asmar can be defined as sporadic (only one specimen found in an MB I level), the case of Nippur is different: here the Type is attested both in EB IV period contexts and in contexts dated to MB I period.



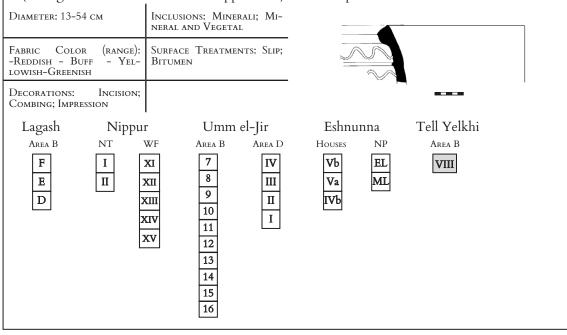


O24 - Strainer

This type of bowl-shaped strainer is characterized by very small dimensions (the diameter generally ranges between 5.5 and 10 cm, with one exception – coming from Tell Yelkhi – in which the diameter exceeds 15 cm). It is attested in both geographical areas for a long period of time (EB III-MB II).

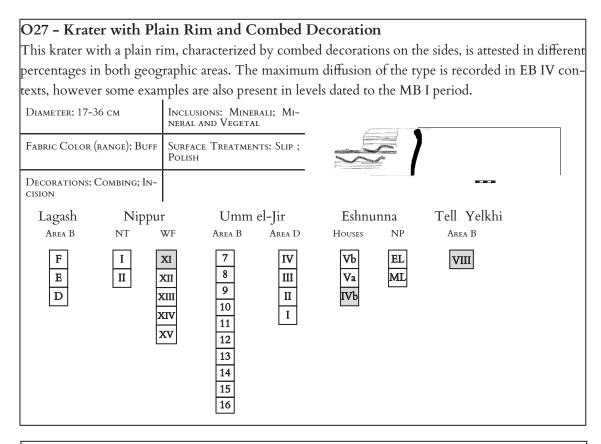
Diameter: 5,5-3	18 см	Inclusions: N NERAL AND VE	Minerali; Mi- getal			10 0	
Fabric Color (range): Buff -Greenish		SURFACE TREA					
Decorations: /							
Lagash Area B	Nippu NT	ır Umm el-Jir WF Area B Area D		Eshnu _{Houses}	nna NP	Tell Yelkhi _{Area B}	
	I II	XI 7 XII 8 XIII 9 XIV 10 XIV 11 XV 12 13 14 15 16	IV III I I	Vb Va IVb	EL ML		

O25 - Krater with triangular or rectangular rim and incised or combed decoration This krater with a triangular or rectangular rim, characterized by an incised or combed decoration, is attested exclusively in the Diyala region (Tell Yelkhi). The type is attested in contexts dated to the EB IV (during which it seems to make its appearance) and MB I periods.



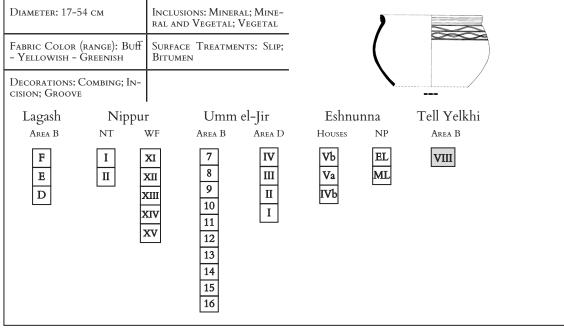
O26 - Krater with Grooved Rectangular Rim and Incised or Combed Decorations This krater with a grooved rectangular rim, characterized by incised or combed decorations, is attested exclusively at Tell Yelkhi, from which five specimens come. The maximum frequency of the type is recorded during the EB IV period.

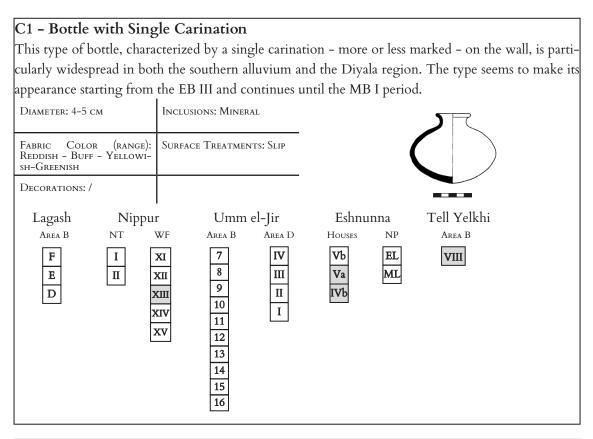
Diameter: 29-44 cm		Inclusions: Minerali; Mi- neral and Vegetal					
Fabric Color (range): Buff		Surface Treatments: Slip					
Decorations: Combing	Incision;						
Lagash	Nippu	r Umm	el-Jir	Eshnur	nna	Tell Yelkhi	
AREA B F D	NT I II X	WF AREA B XI 7 XII 8 XII 9 XIV 10 XIV 11 XV 12 13 14 15 16	AREA D IV III I I	Houses Vb Va IVb	NP EL ML	Area B VIII	



O28 - Kraters with Multiple-Ridged Rim and Incised or Combed Decorations

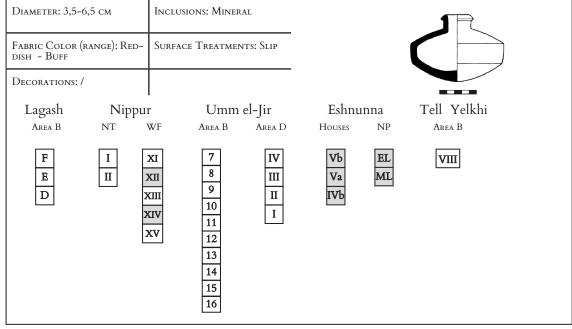
This krater with a multiple-ridged rim and incised or combed decorations on the sides is mainly attested at Tell Yelkhi (only one specimen comes from Nippur). Appearing for the first time in contexts dated to the EB IV period, the type records its highest frequency during the MB I period.

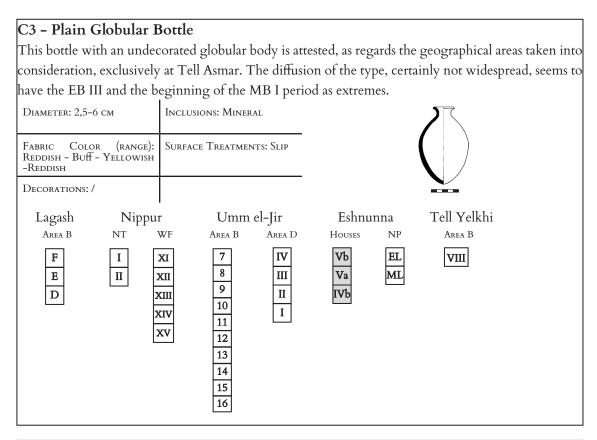




C2 - Bottle with Double Carination

This type of bottle, characterized by a double carination on the wall, is particularly common both in the southern alluvium and in the Diyala river basin. The highest peak occurs in the EB IV period, even if the type already exists during EB III and has a subsequent development up to the MB I period.

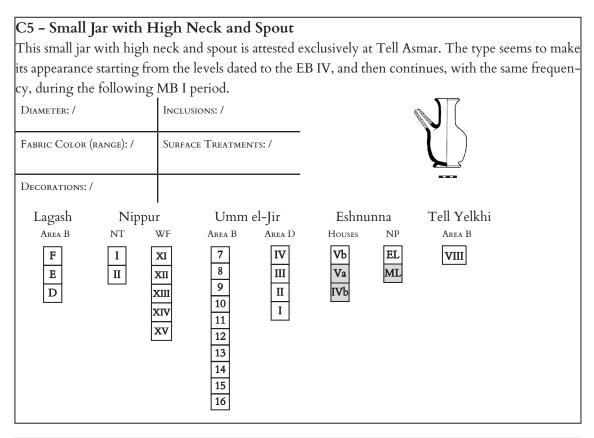




C4 - Flask with Flared Profile

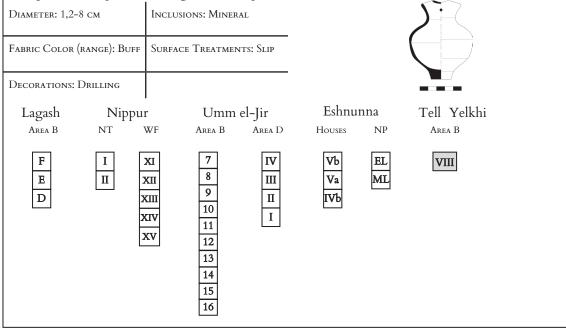
This flask with flared profile features a narrow neck and circular flattened handles. Its presence is attested exclusively at Tell Asmar. Recorded starting from contexts dated to EB III, this type sees its maximum development especially during the EB IV period.

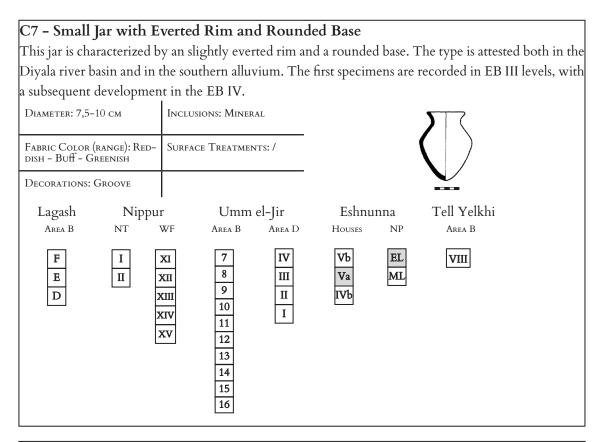
Diameter: ca 5 cm		Inclusions: /		F	Fri	
Fabric Color ((range): /	Surface Treatn				
Decorations: /	1					
Lagash Area B	Nippu NT	r Umi WF Area B	m el-Jir _{Area D}	Eshnu Houses	nna NP	Tell Yelkhi _{Area} B
F E D	Π	XI 7 XII 8 YIII 10 XIV 11 XV 12 13 14 15 16	IV III I	Vb Va IVb	EL ML	VIII



C6 - Small Jar with Double Pinched Rim

This pouring jar with double pinched rim is attested exclusively at Tell Yelkhi, while some comparisons can be found with the site of Kish. Here, the Type is first recorded during the EB III period, with subsequent developments during the EB IV period.

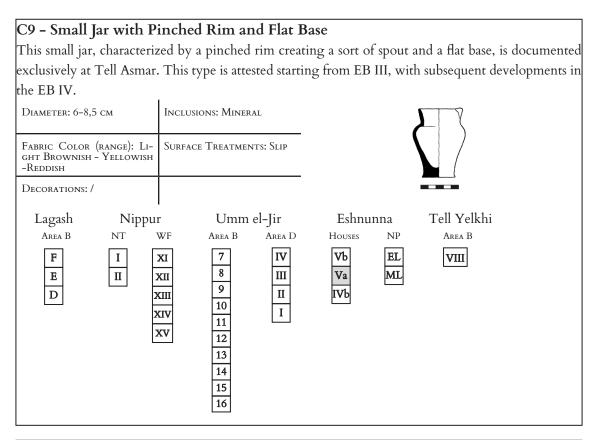




C8 - Small Jar with Plain Rim and Flat Base

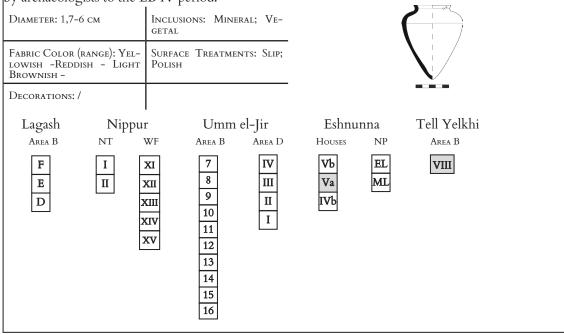
This small jar is characterized by a plain vertical rim and a flat base. The type is well documented both in Southern Mesopotamia and in the Diyala region. The first examples attested can be dated to EB III, although the greatest frequency is registered only from the EB IV period.

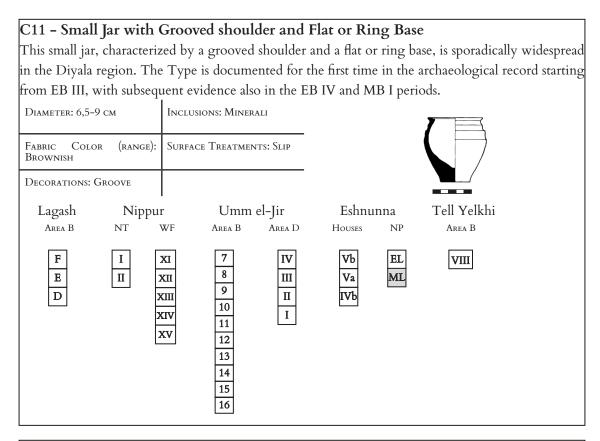
Diameter: 3-12	СМ	Inclusions: Mi neral e Vegetai		-			
Fabric Color (1 kish - Reddish - - Greenish	range): Pin- - Yellowish	Surface Treaty Polish					
Decorations: /							
Lagash Area B	Nippu NT	r Umi WF Area B	m el-Jir _{Area D}	Eshnu _{Houses}	nna NP	Tell Yelkhi _{Area B}	
F E D	I II 22	XI 7 XII 8 9 10 KIV 11 XV 12 13 14 15 16	IV III II I	Vb Va IVb	EL ML	VIII	



C10 - Small Carinated Jar with Plain Rim and Pointed Base

This small carinated jar with a plain vertical rim and pointed base is documented in both geographic areas, although its diffusion is not endemic. This type is only attested in contexts that have been dated by archaeologists to the EB IV period.

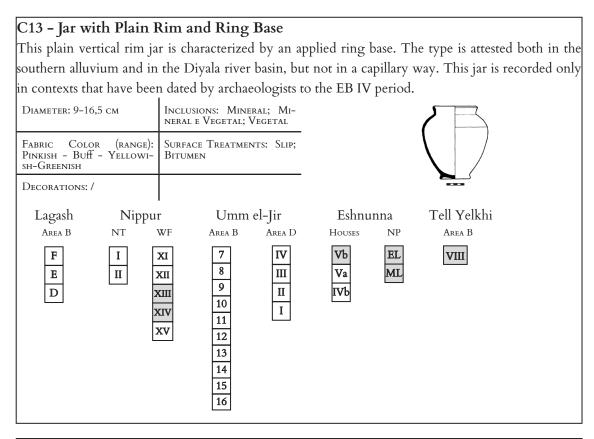




C12 - Small Jar with Short Neck and Rounded Base

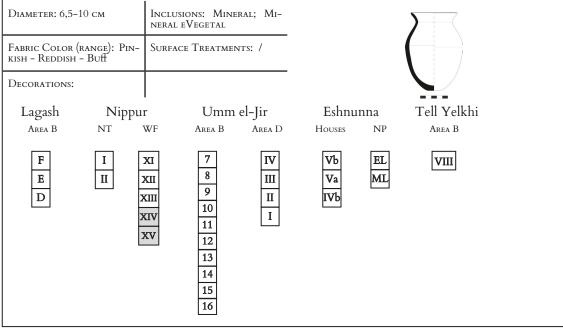
This small jar, with a short neck and rounded base, is attested almost exclusively in the Diyala river basin (only one sporadic specimen is documented in Nippur). The diffusion of this type covers a period of time that goes from the EB III to the EB IV period.

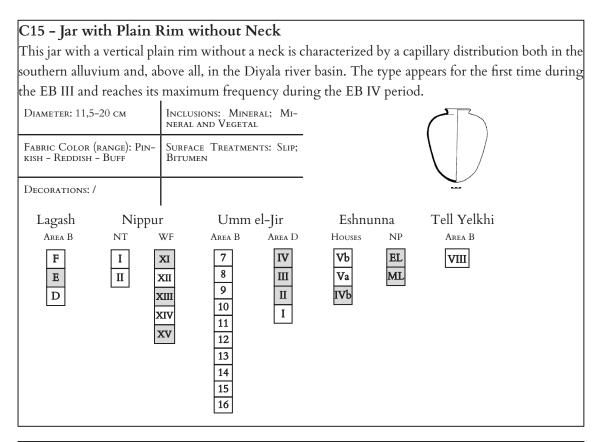
Diameter: ca 10	Inclusio	Inclusions: Mineral						
Fabric Color Reddish - Light - Greenish	Surface Treatments: /							
Decorations: /								
Lagash	ash Nippur Umi			el-Jir	Eshnunna		Tell Yelkhi	
Area B	NT	WF	Area B	Area D	Houses	NP	Area B	
F E D	Ι	XI XII XIII XIV XV	7 8 9 10 11 12 13 14 15 16	IV III I	Vb Va IVb	EL ML	VIII	



C14 - Jar with Vertical Plain Rim and Rounded or Flat Base

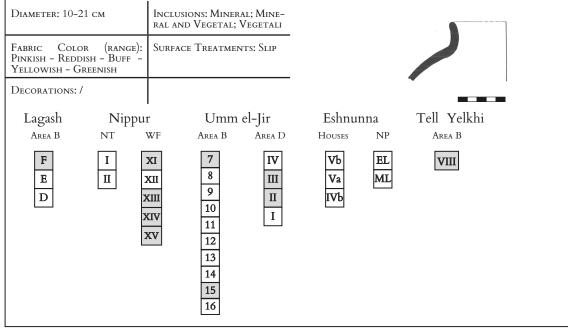
This vertical plain rim jar is characterized by a rounded or flat base and had been found exclusively in the site of Nippur (few comparisons are available from the site of Kish). The type seems to make its appearance in the EB III, but it is only in the EB IV period has its greatest frequency.





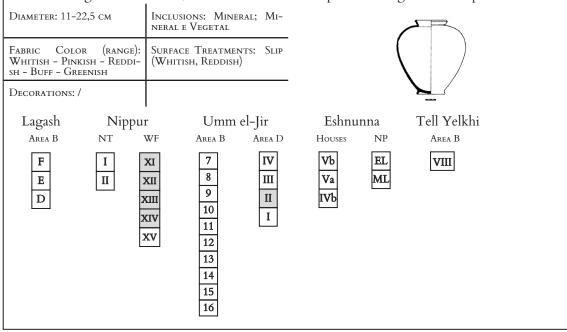
C16 - Jar with Plain Rim and Unpreserved Base

In this type have been grouped ll those ceramic fragments whose only preserved part is the rim and for which it was not possible to determine whether they belong to Type C15 or Type C16. There are attestations of these fragmentary forms starting from the EB III up to the EB IV period.



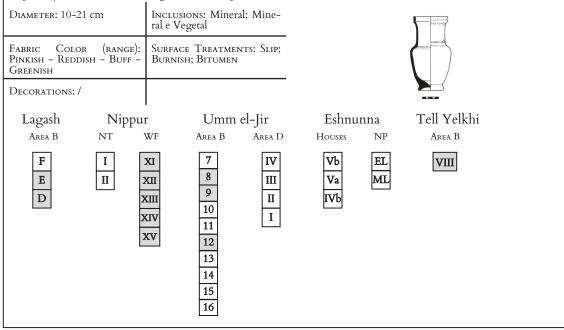
C17 - Band Rim Jar withouth Neck

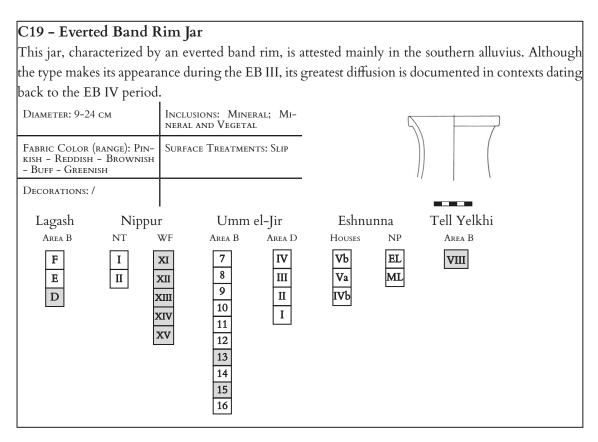
This jar, characterized by a band rim and shoulder that is grafted directly under it, is attested mainly in Southern Mesopotamia, with late appearances in the Diyala river basin. The type, although it is attested starting from the EB III, sees its maximum development during the EB IV period.



C18 - Band Rim Jar with Flat or Ring Base

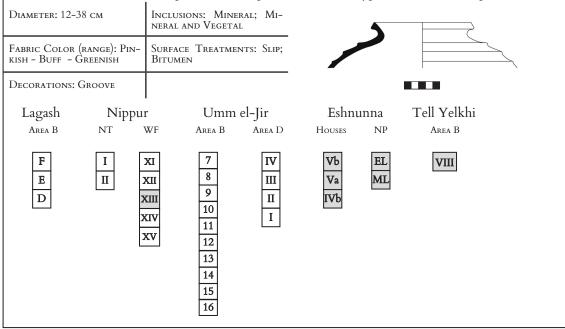
This jar, with a band rim and a ring or flat base, is attested in both in Southern Mesopotamia and in the Diyala region. Although the type is present starting from levels dated to the EB III, its highest frequency is recorded during the EB IV period.

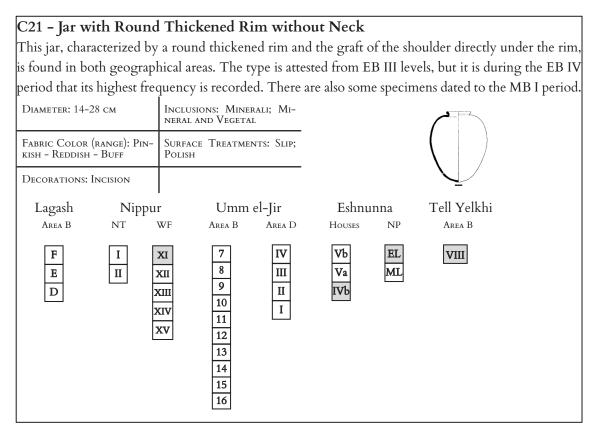




C20 - Jar with Ridged Shoulder

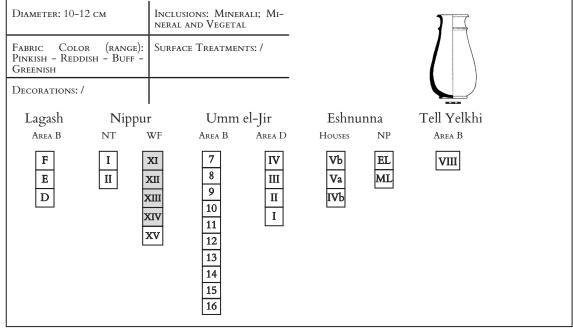
This large jar with a ridged shoulder is particularly widespread within the two different geographical areas. Although some examples are recorded as early as EB III levels, most of the specimens examined are concentrated in the EB IV period, with a persistence of the type also in the MB I period.

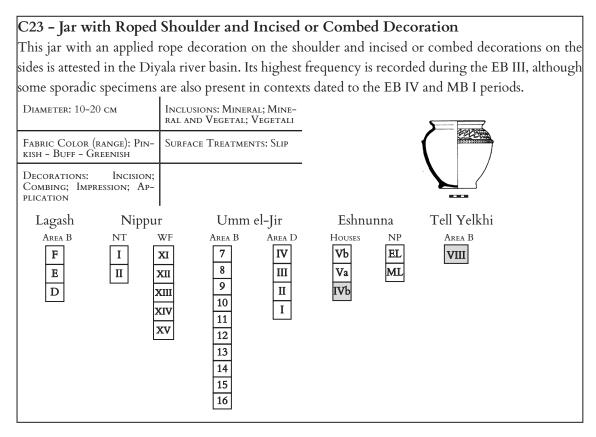




C22 - Jar with Everted Rim and Marked Shoulder

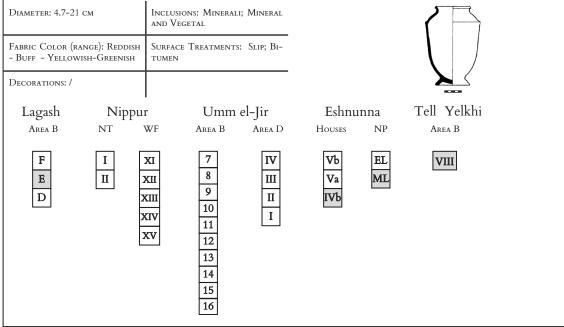
This jar, characterized by an everted rim and a strongly marked shoulder, is mainly recorded in the southern alluvium, with sporadic specimens from the Diyala river basin. The type first appears during the EB IV period, its greatest development is recorded from the beginning of the MB I period.

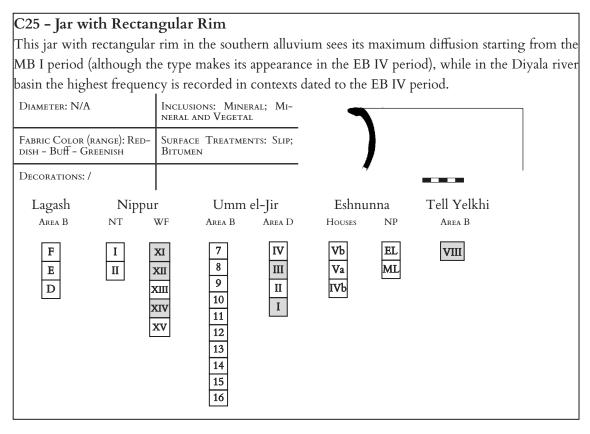




C24 - Jar with Applied Ridge and Ring or Rounded Base

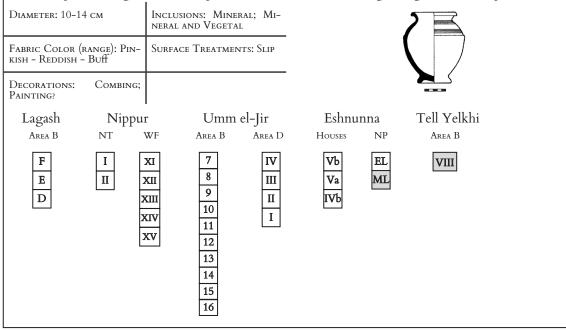
This jar with an applied ridge on the shoulder, characterized by a ring or rounded base, is widespread in the Diyala region. Attested starting from the end of the EB III, this type reaches its highest frequency during the MB I period, even if some specimens from EB IV contexts are also attested.

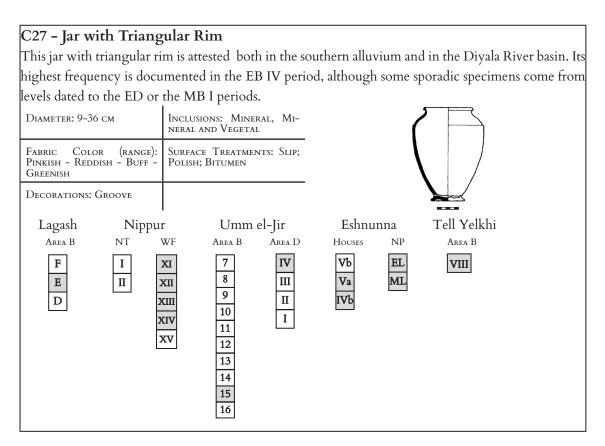




C26 - Jar with Combed Shoulder

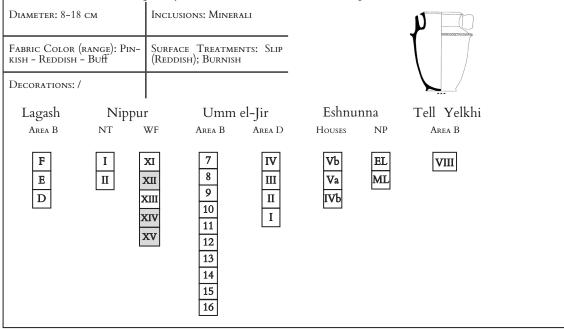
This jar, characterized by an everted rim and a strongly marked shoulder, is mainly recorded in the southern alluvium, with sporadic specimens from the Diyala river basin. The type first appears during the EB IV period, its greatest development is recorded from the beginning of the MB I period.

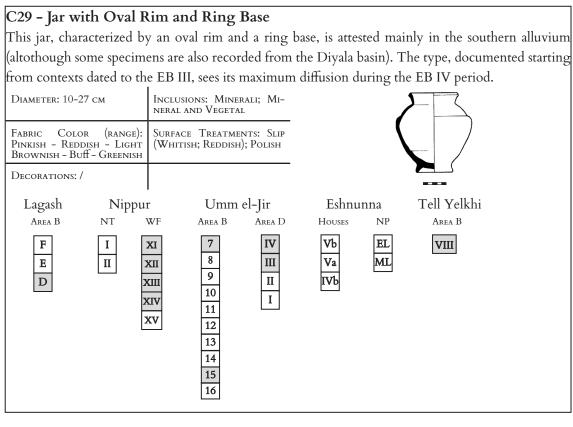




C28 - Jar with Elongated Triangular Rim

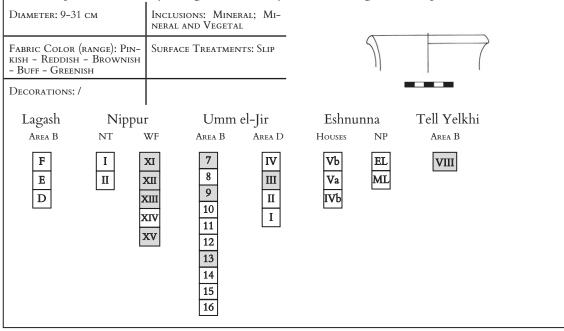
This jar with an elongated triangular rim is recorded exclusively in the southern alluviumarea, in particular in Nippur. Attested in the archaeological record starting from the end of the EB III, this type records its maximum frequency in contexts dated to the EB IV period.

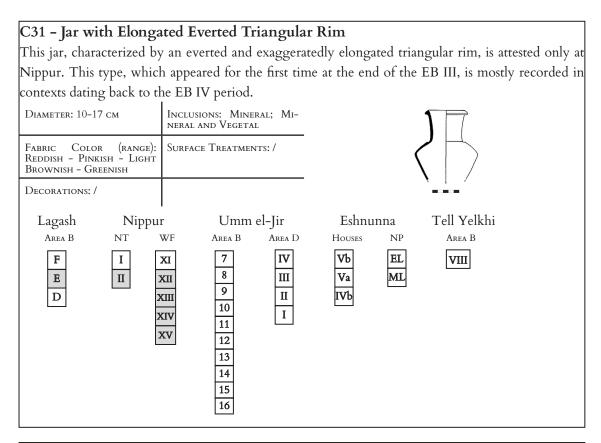




C30 - Jar with Everted Triangular Rim

This jar with an everted triangular rim is documented starting from the end of the EB III, butseems to have had different developments: while in the southern alluvium the highest frequency is attested in the EB IV period, in the Diyala region it is mostly attested during the MB I period.

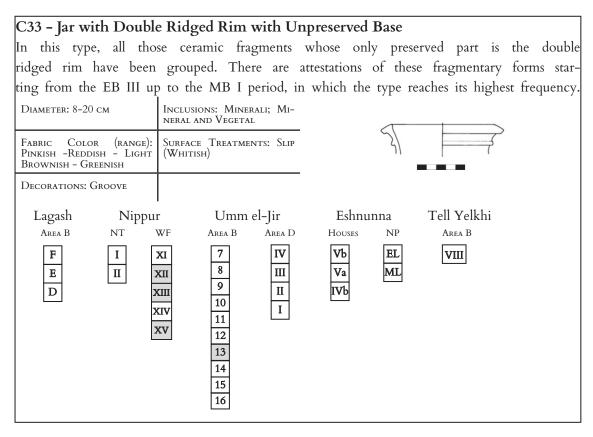




C32 - Jar with Grooved Rim and Rounded Base

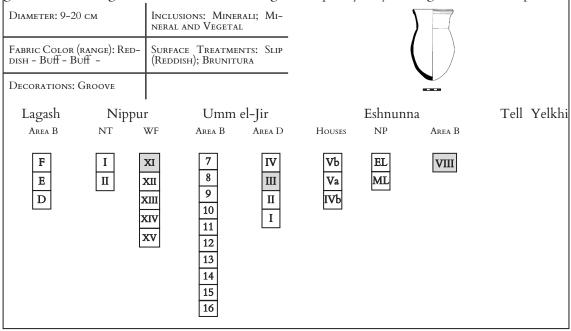
This jar, characterized by a grooved rim and a rounded base, is attested in the Diyala river basin and in the southern alluvium. The type is present in the archaeological record starting from the EB III, with subsequent developments during the EB IV period .

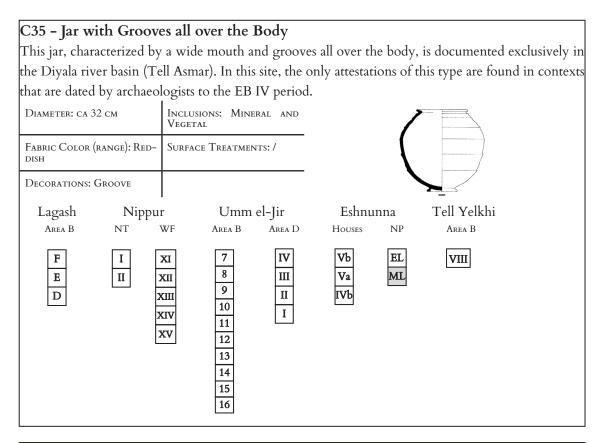
Diameter: 9–12	cm	Inclusions: Mineral; Mi- neral and Vegetal						
Fabric Colof Reddish - Light - Greenish		Surface Treatments: Slip; Burnish						
Decorations: G	roove							
Lagash	agash Nippur			r	Eshnunna		Tell Yelkhi	
Area B	NT	WF Are.	A B AR	ea D	Houses	NP	Area B	
F E D		XI 7 XII 8 XIII 9 XIV 10 XIV 11 XV 12 13 14 15 16			Vb Va IVb	EL ML	VIII	



C34 - Jar with Multiple-Ridged Rim and Rounded Base

This jar, characterized by a rim with multiple ridges and - where preserved - by a rounded base, is attested in the southern alluvium and in the Diyala river basin. The type is attested in the archaeolo-gical record starting from the EB IV, with its highest frequency only starting from the MB I period.





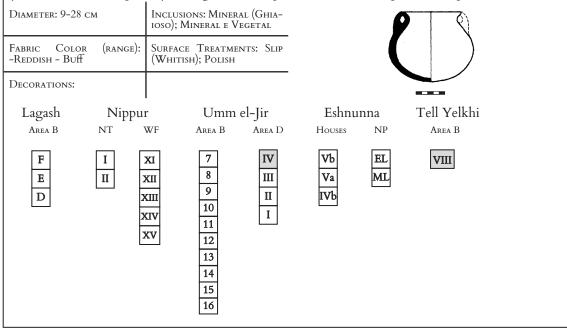
C36 - Jar with Spout and Flat or Ring Base

This jar with a spout and flat base is not particularly widespread either in the southern alluvium or in the Diyala basin. The few attested specimens refer to contexts dated to the EB III, with only a few sporadic vessels belonging to EB IV levels.

Diameter: 9-12.5 cm	Incl	usions: Mine		G			
Fabric Color (range): dish – Buff	Red- Surf	ace Treatme					
Decorations: /							
Lagash Ni	ippur	Umm	el-Jir	Eshnunna		Tell Yelkhi	
Area B NT	WF	Area B	Area D	Houses	NP	Area B	
F I E II D	XI XII XIII XIV XV	7 8 9 10 11 12 13 14 15 16	IV III I	Vb Va IVb	EL ML	VIII	

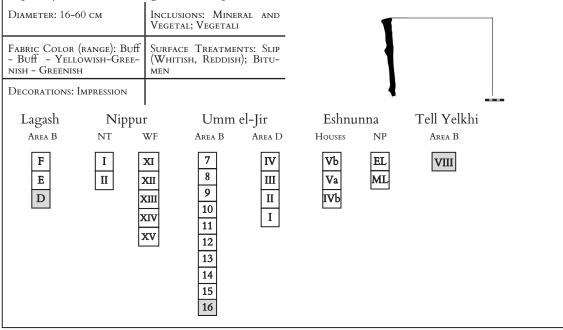
C37 - Cooking Pot

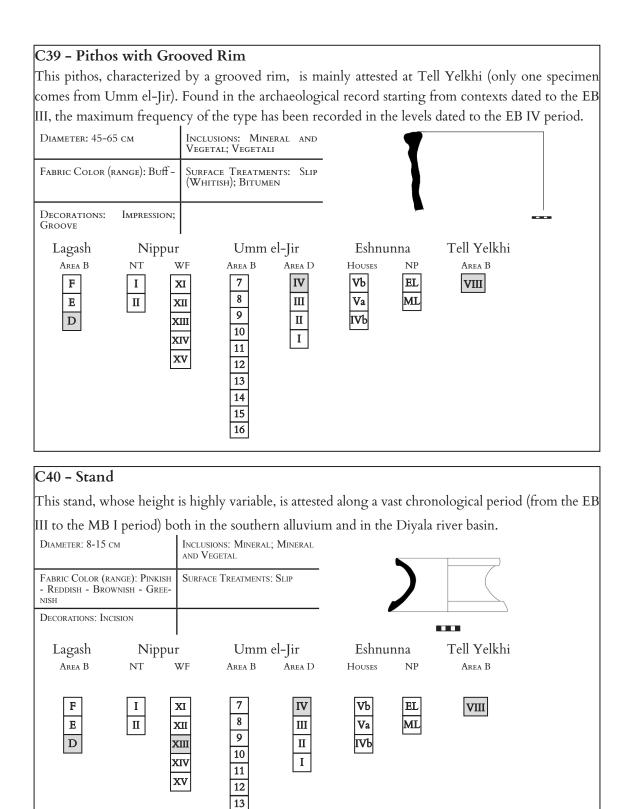
This type of cooking pot, with big mineral inclusion, is mainly attested at Tell Yelkhi (there is also a sporadic example from Umm el-Jir). Recorded starting from the ED levels, the type is characterized by a wide diffusion especially during the EB IV period and the subsequent MB I period.

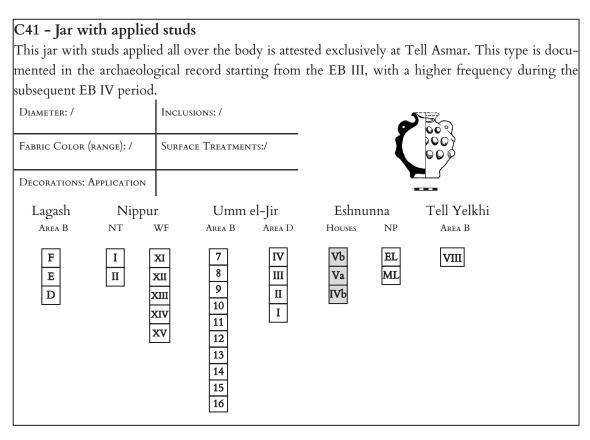


C38 - Pithos with Plain Rim

This plain rim pithos is predominantly attested at the site of Tell Yelkhi (few sporadic specimens from Umm el-Jir). Although the type is recorded starting from levels dated to the EB III, its maximum frequency is attested during the EB IV period.



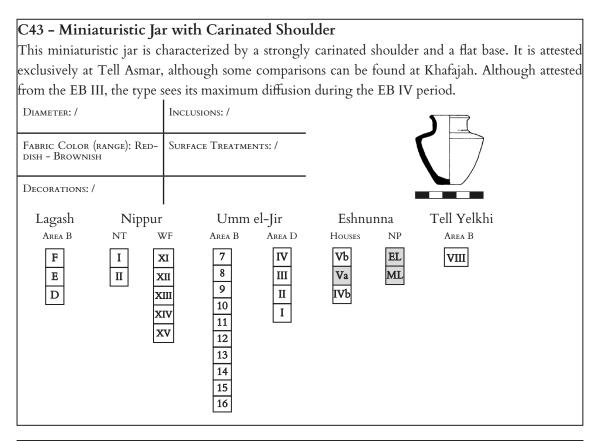




C42 - Miniature Globular Jar with Rounded Base

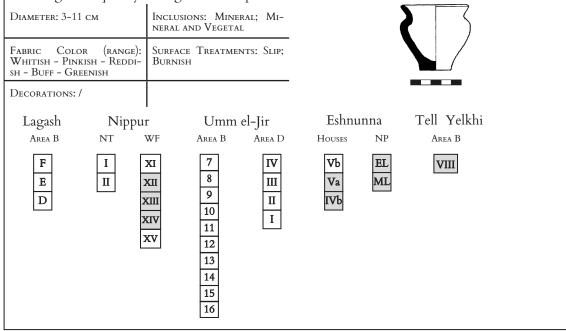
This globular miniature jar with a rounded base is mainly attested in the Diyala river basin (Tell Asmar), although two specimens are recorded also from Nippur. The type is recorded starting from the EB III, with a higher frequency during the EB IV period.

Diameter: /	Inclusio	Inclusions: /						
Fabric Color (Surface	Surface Treatments: /				()		
Decorations: /	/							
Lagash Area B	Nippi NT	ır WF	Umm Area B	el–Jir Area D	Eshnu _{Houses}	nna NP	Tell Yelkhi _{Area} B	
F E D	II	XI XII XIII XIV XV	7 8 9 10 11 12 13 14 15 16	IV III I I	Vb Va IVb	EL ML	VIII	



C44 Miniaturistic Carinated Jar with Plain Rim and Thickened Base

This miniature carinated jar with vertical rim, characterized by a thickening of the base, are widespread in both geographical areas. This type is attested starting from the EB III up to the MB I period, with a higher frequency during the EB IV period.



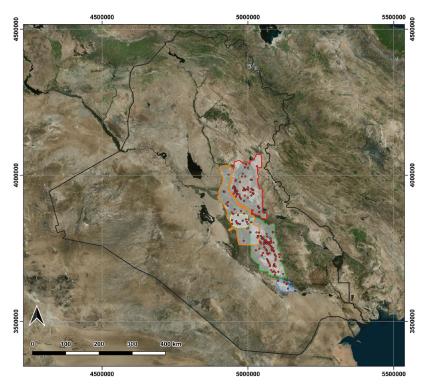
Chapter 12 CONCLUSIONS

12.1 THE EARLY BRONZE IV SETTLEMENT PATTERNS IN SOUTHERN MESOPOTAMIA

As underlined by previous narratives and studies, the central centuries of the 3rd millennium BCE correspond to the peak of urban nucleation in southern Mesopotamia, with the emergence and growth of the Sumerian city-states. Thus, the study and analysis of settlement patterns can provide insight into political control through the administration of land and space, shedding light also on the extent, power, and networks of the Akkadian empire. As a consequence of the shortage of new EB IV information from extensive excavations and surveys, mostly due to the resumption only in recent years of archaeological investigation in Iraq, it was necessary to rely mainly on old data, which has been combined with the new dataset provided by the QADIS survey project. These archaeological and textual data can provide us with a clearer overview of the Akkadian control over the land of Sumer and Akkad, and in general, of the Mesopotamian alluvium.

The QADIS project surveyed and identified 19 settlements that were undoubtedly inhabited during the EB IV period (some of which had also been previously investigated by Adams). In addition, the recent publication by Renette on the pottery assemblage from the ancient city of Lagash has yielded new useful information for the definition of an EB IV pottery horizon in central and southern Mesopotamia.

Based on the dataset created through the analysis of surveys carried out in the Mesopotamian alluvium, a comprehensive map of the sites settled during the EB IV period has been produced (Map 12.1.1).



Map 12.1.1 Surveyed areas considered in this dissertation, with the related EB IV settlements.

During the EB IV period, the settlement patterns show a clear and continuous decrease of the smaller centers, with a corresponding increase of the large ones. These data suggest a shift of the overall population towards larger centers, which were mostly located along the main watercourses.

During the EB IV period, the presence of the Akkadian state in some areas, especially in the southern alluvium, seemed to decrease consistently, as indicated by the scarcity of Akkadian settlements in the extreme southern end of the alluvium¹⁶⁰. In the QADIS survey area, the EB IV landscape is characterized by a harsh overall decrease of settlements, when compared with the previous EB IIIb period, marked by a major urban density, and with the MB I situation, when the number of settlements grows sharply. In addition, the EB IV sites in the QADIS area showed a decrease of the settled area, while the centers on the watercourses are characterized by an increase of the total settled area, as in the case of QD049 – Adab.

At present, the evidence thus indicates that several settlements in the southern alluvium had been abandoned by the end of the EB IV period, with the clustering

¹⁶⁰ Wright 1981.

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of medium-sized sites along the southern branches of the Tigris river. The harsh decrease of settlements, the abandonment of the subsidiary channels that crisscrossed the floodplain during the EB IIIb, and the shift of the overall population on the southern branch of the Tigris might be correlated to the 4.2 Ka BP event and the resulting reduction of water availability caused by a drier climatic condition. However, if settlement patterns reflect the political control and the state power, the abandonment of settled areas might reflect a contraction of the Akkadian empire's central power in the alluvium, while the sharp growth of inhabited sites during the following MB I period might indicate a strong reorganization of the state apparatus, with the ascent of the third dynasty of Ur.

12.2 THE EPIGRAPHIC EVIDENCE: SOCIETY, ADMINISTRATION AND ECONOMY DURING THE EARLY BRONZE IV

The sources for the whole Akkadian period encompass around 150 royal inscriptions, mostly known from later copies, which provide the historical, politicalm, and geographical background of the various phases of the empire.¹⁶¹ Also, more than eight thousand records, mostly from the time of Naram-sin and Sharkalisharri and coming from the archives of the major provinces' governors, document the administrative structure of the empire and the management of different agricultural, productive, and economic activities.¹⁶²

Under Sargon's dominion, the most important archival documents come from the cities of Adab, Nippur, and Umma, while almost nothing comes from the northern stretches of the empire, due also to the fact that Akkad itself, the capital of the kingdom, has yet to be identified.¹⁶³ These archives, although characterized by a great continuity of local administrative traditions and scribal conventions, for the first time affirmed the Akkadian influence on the land of Sumer: in fact, the records coming from Umma and from the archives of Meskigala at Adab attest to the presence of Akkadian royal officials and soldiers in Southern Mesopotamia,¹⁶⁴ while, in the ar-

¹⁶¹ Gelb and Kienast 1990; Frayne 1993; Kienast and Sommerfeld 1994.

¹⁶² Westenholz 1984; Visicato 2000; Foster 2016: 51–80; Schrakamp 2015; 2017; 2016: 1; 2020: 616.

¹⁶³ Several hypotheses have been proposed for the location of Akkad, among which Gelb 1981: 71 (between Assur and the Diyala basin); Garelli 1982: 86 (the region between Tell Asmar and Babylon); Foster 1997 and 2016 (area east of the Tigris, near the confluence with the Diyala River); Sommerfeld 2014; Schrakamp 2020: 612 (area of modern Samarra); Steinkeller 2021: 46 (area of modern Baghdad); for a general overview see Westenholz 1999: 31–34.

¹⁶⁴ Visicato and Westenholz 2010: 4–8; Sallaberger and Schrakamp 2015: 88; Schrakamp 2017; 91–2.

chival records from Nippur, the occurrences of Sargon's year names and of the royal standard measurement "royal kor" (gur lugal) reflect an attempt of centralization of the local administration.

Furthermore, after the conquest of the southern lands, a reorganization of the kingdom's administration and structure was necessary. The main evidence of these changes in the administration of lands comes mostly from Sargon's royal inscriptions because the contemporary archival records, as pointed out above, are characterized by the continuation of local administrative traditions and practices¹⁶⁵. After the conquest of cities and the subsequent dismantling of the fortifications and destruction of the walls, Sargon designated "sons of Akkad" (DUMU.DUMU $A-ka_3-de_3^{ki}$) as governors of the main cities¹⁶⁶, thus reducing the previous city-states to provinces administrated on behalf of the king by loyal followers. In fact, the expression "sons of Akkad" does not refer exclusively to native Akkadians, as was generally assumed in the past,¹⁶⁷ because at least one governor, Meskigala of Adab (whose name was clearly Sumerian), was ensi of Adab at the time of Lugalzagesi and maintained its position also after the victories of Sargon¹⁶⁸, while only two officials with Akkadian names — Ennanum and Šuruš-kin of Umma¹⁶⁹ — are known to have been governors in the land of Sumer at the time of Sargon. This considered, we can assume that the "sons of Akkad" were loyal supporters of the household of Akkad, regardless of their origins. In this regard, the diorite four-sided stele known as the Manishtusu Obelisk is particularly noteworthy.¹⁷⁰ In fact, the text of this stele records land purchases by the king in the area of Kish for a total of 3430 hectares, with the aim of extending and consolidating the territories belonging to the crown, since these lands bounded the royal domains.¹⁷¹ With all probabilities, the vendors could not refuse to sell their lands to the king. The beneficiaries and witnesses of these purchases were forty-nine "sons of Akkad", strictly connected with the royal entourage. The Akkadian names of forty-one of them

167 Diakonoff 1982: 69–70 and 97–98; Foster 2000; Schrakamp 2020: 622.

¹⁶⁵ Michalowski 1987: 57-59.

¹⁶⁶ Frayne 1993: 12, lines 82–85; 15, lines 88–91.

¹⁶⁸ Visicato 2010; Visicato and Westenholz 2010; Such-Gutiérrez 2015; Sallaberger and Schrakamp 2015: 87-88, 93–94; Schrakamp 2020: 622.

¹⁶⁹ Marchesi 2011.

¹⁷⁰ This stele was discovered at Susa and now it is housed at the Louvre (Paris). Principal inventory number Sb 20, second inventory number AS 6063.

¹⁷¹ Gelb, Steinkeller, and Whiting 1991: no. 40 (pp. 116-140; pls. 67-72); Westenholz 1999: 44-46; Foster 2016: 1; Schrakamp 2020: 629.

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openly indicate that they had a strong Akkadian background, while just three of them bore Sumerian names, thus indicating integration of local dignitaries in the Akkadian structure of power, in order to expand and stabilize the roots of the empire. Thus, the designation "sons of Akkad" was presumably used to refer to supporters of the king and servants of the Akkadian crown, whose loyalty was rewarded through the distribution of productive lands from the royal domain. Furthermore, to gain control over the local priesthood and break the power of the local clergy elites, Sargon appointed his daughter Enheduanna as high priestess (en) of the God Nanna at Ur, and, probably, another daughter of his in a similar priestly position at Nippur.

As has been pointed out above, the majority of the archival records date to the reigns of Naram-Sin and Sharkalisharri. The most important texts of this period mostly come from the archive of Tutub, in the north, and from the southern archives of Lagash, Umma, Adab, and Nippur. The archives of the governor of Tutub (modern Khafajah, in the Diyala basin) include sixty-five administrative records from the reign of Naram-Sin.¹⁷² These texts are characterized by the use of Sargonic Akkadian conventions and show a strong presence and influence of the Akkadian royal family and court in the administration of the northern provinces, in particular in the city of Tutub itself, where a son of the king was governor.¹⁷³

The archives of Lagash,¹⁷⁴ composed of 3800 texts (administrative and legal documents, school ts, and correspondence) from the reigns of Naram-Sin and Sharkalisharri, and those of Umma,¹⁷⁵ consisting of 270 administrative texts, some letters, and few legal documents from the reign of Sharkaklisharri, show the functioning of the administrative structure of the empire in the Sumerian south. Here, in both the archives, Sumerian is the predominant language, although the documents clearly indicate that the governors were dedicated supporters of the crown, thus fully adhering to the royal patronage network, and that the cities were fully integrated into the state administration and economy of the kingdom. At Adab, unlike the governors' archives of Lagash and Umma, the texts were written in the Sargonic Akkadian language, although similar, in content, to the texts of the above-discussed archives¹⁷⁶.

¹⁷² Sommerfeld 1999: 29–38; Sallaberger 2000: 113–117; Sommerfeld 2014: 164–165; Foster 2016: 53–54.

¹⁷³ Foster 1977: 301–302; Westenholz 1999: 38–9; Sommerfeld 2011: 46.

¹⁷⁴ Foster 1982: 11– 26; 2016: 70–2; Westenholz 1984: 18–23; Visicato 2000: 124–128; Schrakamp 2017: 104–109.

¹⁷⁵ Sallaberger and Schrakamp 2015: 38–40; Schrakamp 2015: 266.

¹⁷⁶ Foster 1982: 84-85; 2016: 66-8; Visicato 2000: 176-7; Schrakamp 2015: 223-224.

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Two archives are known from Nippur, and both are dated to the reigns of Naram-Sin and Sharkalisharri: the "Onion Archive," consisting of 110 administrative texts written in a local Sumerian dialect,¹⁷⁷ and the "Akkadian Archive," composed of forty administrative texts characterized by the use of Akkadian language, units of measurement, and calendar.¹⁷⁸ While the former dealt with the agricultural and exchange activities related to onions or garlic, the latter concerned the organization of the restoration works of the Ekur temple of Enlil in Nippur. Both the archives testify the importance given by the Akkadian kings to the city of Nippur, sacred to Enlil, the major god of the Sumerian pantheon.

From these archives, it emerges that the administration of the empire was strictly connected to different patronage networks, underlined, in the northern part of the empire, by the distribution of major productive lands among people depending on the ruler and his notables. In turn, the notables surrounded themselves with two classes of subordinates: "the selected ones," probably armed men, and "the boys," some sort of servants. Also, the patronage network is very clear in the management of productive land. Here, as pointed out by Foster, a tripartite structure was developed (undoubtedly recognized also in ancient times¹⁷⁹), which saw in the first place the cities' governors appointed by the king, in the second the major religious officers of the cult, and lastly the notables employed in the control of the royal lands.¹⁸⁰ The Akkadian governors, as discussed above, received by the king himself the task to administrate productive lands and maintain roads, canals, and buildings in their territory, with the help of a large specialized entourage. The notables, heads of the management of the governors' lands, were scribes and cadastral officers, whose task was to organize the subordinated workers, calculate the expenses of cultivation and control the lands of the "sons of Akkad"¹⁸¹. As it concerns the figure of the high priest or priestess in the cult centers, these roles were frequently assigned to members of the royal family, as in the case of Sargon and Naram-Sin's daughters, in order to gain control over the local priesthood. Another important role connected to the religious office was the sanga, the "temple administrator", who, however, during the Akkadian dominion, was sub-

¹⁷⁷ Westenholz 1999: 60–2; Visicato 2000: 196–98; Foster 2016: 66; Schrakamp 2017: 112–3.

¹⁷⁸ Westenholz 1999: 61; Visicato 2000: 193–4; Foster 2016: 15–6; Schrakamp 2017: 113–15.

¹⁷⁹ See the Curse of Agade, Cooper 1983: 52–53 (Appendix IIIb) lines 51–52.

¹⁸⁰ Foster 2016: 40.

¹⁸¹ Foster 1982: 36; 2016: 39–44.

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ordinated to the local governor and to the king's entourage.

The economy of the Akkadian empire was based mostly on agricultural production and on trade with the neighboring areas. As shown by the administrative records, effective agrarian policies were undertaken by the Akkadian kings through the network of patronage and land holdings. The countryside was extensively irrigated, to allow the production of cereals, mostly barley and wheat, and the areas close to water resources hosted date orchards. The major public waterworks made by the Akkadian kings were in the Sumerian south, thus indicating that the northern Akkadian heartland was strongly relying, for agricultural production, on the fertile land of Sumer.¹⁸² During the Akkadian rule, as noted by Liverani (1988: 207), we witnessed an incredible expansion of the economic and political horizons of the Mesopotamian alluvium: through the undefeated power of the army, both Sargon and Naram-Sin widened the borders of the empire, gaining control over a vast territory that extended from the Upper to the Lower Sea. The aim of the Akkadian kings was surely to take possession of the trade routes belonging to Mari and Ebla, to the north, and to Elam, to the east. However, these military campaigns led to the destruction and collapse of the traditional trade patterns, especially in the Syrian north, where the political fragmentation following the destruction of Ebla made it impossible, for the Akkadian kings, to take over the northern commercial routes.¹⁸³ Long-distance sea trade with the well-known markets of Dilmun, Makkan, and Meluhha directly connected the alluvium with the distant east, as some texts recorded.¹⁸⁴ Copper, precious stones, seashells, exotic animals, and spices were shipped to Mesopotamia in return for barley and silver. As suggested by Foster¹⁸⁵, on the basis of some Akkadian-period documents from Susa, this city probably served as "a hub in an international trade network linking southern Mesopotamia with the Iranian plateau, the Gulf, and the Indus Valley".

¹⁸² Foster 1986; 2016: 35; Frayne 1993: 86.

¹⁸³ Liverani 1988: 208.

¹⁸⁴ Heimpel 1987/90; 1993/97; Potts 1993; Michalowski 2020.

¹⁸⁵ Foster 2016: 180.

12.3. TOWARDS A RECONSTRUCTION OF THE MATERIAL CULTURE OF MESOPOTAMIA AT THE EVE OF THE TRANSITION FROM THE EAR-LY TO THE MIDDLE BRONZE AGE

The material culture of the period between the EB III and the MB I in Southern Mesopotamia, and more specifically the ceramic repertoire, was analyzed with the aim of identifying the elements of continuity and discontinuity, such as to define different archaeological phases.

The analysis of the archaeological contexts of the five sites taken into consideration as case studies focuses on understanding the organizational dynamics of the Southern alluvium during the EB IV. Overall, the study of material culture and settlement patterns, together with the analysis of the epigraphical data, provided the prerequisites for the reconstruction of the historical period between the end of the EB III and the beginning of the MB I.

The dynamics of change in material culture may be manifold, but it can be misleading to subdivide a particular period solely on the basis of historical definitions; thus, it was strictly necessary to establish a terminology different from that still used today for Southern Mesopotamia. This new terminology must enable the understanding of cultural phenomena regardless of the dynamics related to political domination or art-historical features.

The research presented here proposes a reexamination of the stratified material culture from five guide sites located both in the Southern alluvium and in the Diyala region (Lagash, Nippur, Umm el-Jir, Eshnunna, and Tell Yelkhi) together with the study of the ceramic repertoire from the QADIS Survey Project, according to the most recent methodologies.

In fact, this dissertation has reviewed in detail the ceramic repertoire of Lagash, Nippur, Umm el-Jir, Eshnunna, Tell Yelkhi, and the QADIS Survey Project, through steps: typological classification, chronological seriation, and macroscopic analysis. This work would not have been possible without the fruitful collaboration with the QADIS Survey Project (Alma Mater Studiorium – University of Bologna), in the person of its director, Prof. N. Marchetti, and without the availability of well-published data.

During the study and analysis of the ceramic material, it was possible to observe morphological and technological differences with regard to the ceramic types. In particular, the macroscopic analysis of the fabrics was fundamental for the identifica-

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tion of the different manufacturing areas of the ceramics under study. In fact, different regions had the possibility of drawing on different clay deposits, a determining factor in the differences in the composition of the fabrics.

As for the technological aspects, the most salient feature of the ceramic repertoire coming from southern Mesopotamia in the period between the EB IIIb and the MB I is the absolute predominance, for the fabric, of light brown colors, with extremes ranging from beige to pink-red. There is also a prevalence of mineral inclusions (generally sand) which is the most frequent degreaser for most of the ceramic classes; in the medium-large shapes, a mixture of minerals and vegetables is used; only vegetable inclusions are rare and are generally associated with large storage jars or coarse fabrics.

This analysis led to two different results; the first is the revisiting of the ceramics phases from the guide sites themselves, arriving at conclusions both akin to and sometimes discordant with the chronological attribution given by the scholars. The second is the establishment of large-scale cultural dynamics, establishing which forms were common among the Southern alluvium during the EB IV and which forms were mainly widespread locally.

Additionally, the comparison between the ceramic material from the five sites not only allowed the development of a comparative stratigraphy table but also laid the groundwork for the identification of the pottery types from the QADIS Survey Project. In carrying out this work, the methodological approach used has put in the foreground the importance of the archaeological data. The choice of using material ceramics from sites with reconstructable archaeological stratification made it possible to set aside temporarily the historical premises and thus to develop conclusions based solely on the spread of ceramic material.

However, the historical and political dynamics strongly influenced southern Mesopotamia from the EB III to the MB I; the analysis proposed here on the distribution of settlements takes this into account.

The results achieved by the analysis proposed here are part of an innovative line of investigation regarding the Mesopotamian region and lay the foundation for further technological and typological studies on the material, together with the ones on settlement patterns.

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