

F. ZAINA

THE URBAN ARCHAEOLOGY OF EARLY KISH

3RD MILLENNIUM BCE LEVELS AT TELL INGHARRA

Ante Quem

ALMA MATER STUDIORUM – UNIVERSITÀ DI BOLOGNA
DIPARTIMENTO DI STORIA CULTURE CIVILTÀ

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with an Appendix by
Aage Westenholz

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PREFACE AND ACKNOWLEDGMENTS

This research reconsiders one of the most important phases of the history of the ancient city of Kish in a way that Harriet Martin (1988: 7) defined as an “*academic kind of salvage archaeology*”.

Kish first became known to modern scholars as the group of tells to the west of Babylon from textual evidence correctly read by Thureau-Dangin (1909) at the beginning of the 20th century (see 1.1). Then, archaeological excavation carried out in the area of Kish during the first three decades as well as the last two of the 20th century produced a terrific amount of data on a wide chronological range. In particular, the site was systematically investigated in 1912 by a French expedition and again between 1922 and 1933 by an Anglo-American team. Between the end of the 1980s and the 1990s two more campaigns at the site were conducted by a Japanese expedition.

The task of re-analyzing the archaeological evidence of the site by means of a contextual analysis and according to an urban perspective was first assigned to me in 2007 by Nicolò Marchetti during my attendance of his BA course of Archaeology of the Ancient Near East at the then Department of Archaeology (now of History and Cultures) of the Alma Mater Studiorum – University of Bologna. The potentials of this line of research were explored first considering a single area (the Y sounding) during my BA (2008) and then expanding the case studies in my MA (2011, University of Bologna) and PhD (2015, Sapienza University of Rome – University of Paris 1 Panthéon Sorbonne) dissertations.

One of the key points of this type of research and others originated from the Bologna seminars was the contextual approach applied to pre-WW II excavations in the Near East. In the case of Kish, the potential of this approach had been, until that new wave of research, only cursorily explored, making necessary a systematic and thorough review of the data. Indeed, the reconstruction of the archaeological evidence from Kish had been addressed by several scholars following various research lines a. The starting points on the archaeology of Kish from the early prehistory to the Late Antique periods are the volumes by McGuire Gibson “*The Kish and Area of Kish*” (1972) and by Roger Moorey “*Kish 1923-1933*” (1978). These studies provided the first comprehensive reassessment of the development of the site particularly concerning the settlement pattern and the material culture. However, numerous stratigraphic, chronological and functional issues remained partially or totally unsolved by them and the subsequent studies. In 2006, the volume on Mesopotamian royal statuary by N. Marchetti appeared and the renewed stratigraphic analysis of early Kish presented there constituted the departing point for my detailed analyses. Indeed, my aim was not only to study afresh the architectural and urban development as well as the changes in the material culture

at Kish, but also to investigate (where possible) issues regarding household archaeology and specialized productions. With this idea in mind, only some excavation areas, the archaeological evidence of which could be satisfactorily reconstructed, have been considered.

Other areas including Tell A, PCB and areas JA and JP which provided a reliable stratigraphic sequence (Moorey 1970; Zaina 2015a; Matsumoto 1991) have been integrated in the final discussion in order to provide a comprehensive chronostratigraphy and urban reconstruction (see below).

The text has been organized as follows: Chapter 1 provides an overview on the history of the research on Kish (from early the 1900s until today), with the aim of understanding the process and stages that led us to the current understanding of the site and the related issues. Chapter 2 illustrates the aims and methods applied in this research. Chapters 3 to 5 are organized according to the three macro-periods of occupation discussed in this research (i.e. from the late 4th millennium BCE to the end of the 3rd millennium BCE). In each chapter, a detailed discussion of the stratigraphy, architecture, burials and the stratified material culture (pottery assemblage and small finds) is provided for each structural phase.

The urban origins of the city (Jemdet Nasr to Early Dynastic I-II periods, 3100–2600 BCE) are described in Chapter 3, while Chapter 4 discusses the development of the city during its most flourishing period (Early Dynastic III, 2600–2350 BCE). In Chapter 5 the evidence dating from the Akkadian and Ur III (2350–2000 BCE) periods from Tell Ingharra are considered.

In the concluding chapter (Chapter 6) the results of the stratigraphic, architectural and urban analyses are correlated with other relevant areas of the site with a reliable and comparable sequence (PCB, Tell A and areas JA and JP), in order to offer a new comprehensive chronostratigraphy and the urban reconstruction of the site between the late 4th and the end of the 3rd millennium BCE.

Three Appendixes have been included to integrate and clarify the results of this study. Appendix 1 by Aage Westenholz provides a detailed philological analysis and general comments on the stratified inscribed documents from the areas discussed in the text. A reappraisal of the stratigraphic sequence and the functional interpretation of the structural evidence from Tell A is presented in Appendix 2. The aim is to support both the chronostratigraphic and the urban reconstructions discussed in the concluding chapter (Chapter 6). The relative chronology of the excavated areas is also supported by the pottery typology discussed in Appendix 3.

Supplemental files (Additional Online Kish Files, AOKF) downloadable from www.orientalinscriptions.net/pubs include:

AOKF 1 – Catalogue of the finds by context

AOKF 2 – Small finds at the Ashmolean and Field museums

AOKF 3 – Pottery materials at the Ashmolean and Field museums and others

AOKF 4 – Catalogue of the graves

AOKF 5 – The epigraphic finds

AOKF 6 – Unpublished letters and reports of the Anglo-American Expedition kept in archives

This research would not have been possible without the help and encouragement of many colleagues and friends.

My deep-felt gratitude goes to Nicolò Marchetti (Alma Mater Studiorum – University of Bologna) for teaching me how to conduct academic and fieldwork research, supporting and encouraging me since my undergraduate period in Bologna.

I wish to thank also Gianni Marchesi (Alma Mater Studiorum – University of Bologna), Pascal Butterlin (Université Paris 1 – Panthéon Sorbonne), Roger Matthews (University of Reading), Aage Westenholz (University of Copenhagen) and Frances Pinnock (Sapienza University of Rome) for many precious comments and suggestions during my research periods in Italy, Denmark, France and the U.K.

Special thanks go to Paul Collins (Ashmolean Museum, University of Oxford) for supporting my research since 2011 providing access to the Kish collection, along with fruitful critiques and supporting several related projects. I'm also indebted to Jack Green (University of Chicago) for allowing me to study the Kish documentation in the Ashmolean Museum during my 2010 research visits, at the time when he was Curator there.

In the U.S. thanks are due to Jim Phillips, Jamie Kelly, Karen Wilson and Alan Francisco of the Field Museum in Chicago for providing complete access to the Kish collection and archives during my research, also allowing me to publish some of the finds. In summer 2013 I had the chance to discuss several stratigraphic issues about the PCB and the Y sounding with McGuire Gibson to whom I express my gratitude for suggestions and critiques.

In France I wish to acknowledge Beatrice André-Salvini and Ariane Thomas from the Musée du Louvre for their help and valuable assistance during my research in their archives.

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Research and travel grants obtained during my MA and PhD have been provided by different institutions to support archives research and the participation in several conferences in EU and US. In 2010 a Postgraduate scholarship was provided by the Alma Mater Studiorum – University of Bologna (tutor Nicolò Marchetti), to complete the MA dissertation project at the Field Museum of Chicago (USA). A second research grant issued in the frame of the Italian Project FIRB – Futuro in Ricerca 2012–2015 “Time Through Colours” (resp. Davide

Nadali) of the Sapienza University of Rome allowed me continue my research in 2013 on the Kish archives in the Field Museum of Chicago (USA). Two travel grants were provided by the Université Paris 1 – Panthéon Sorbonne (tutor Pascal Butterlin) to attend the BANE conference, 7-9 January 2015, London, UK and the 9th ICAANE, 14-16 June 2014, Basel, Switzerland. The radiocarbon analysis performed on a sample of 12 stratified finds from Kish was supported by the 2013 John Fell Fund Award for Humanities (Small Award Scheme), University of Oxford. This research was undertaken in collaboration with Dr. Paul Collins (Jaleh Hearn Curator for Ancient Near East, Ashmolean Museum of Oxford) at the Oxford Radiocarbon Accelerator Unit. I also wish to acknowledge Glenn Schwartz (Johns Hopkins University), Peter Miglus (University of Heidelberg) and Steve Renette (University of British Columbia) for their comments and critiques to the first draft of this volume. I am grateful to many colleagues and friends for providing feedback and sharing information, among whom – Giacomo Benati (University of Bologna), Camille Lecompte (CNRS, Paris), and Agnese Vacca (University of Milan).

New topographic plans and sections have been done by the author in collaboration with Studio KULLA (Bologna), while cylinder seals and seal impressions have been drawn by Claudia Cappuccino.

Thanks are also due to Mohammed Al-Khafaji from the Museum of Babylon for allowing me to visit the site of Kish on the 8th March 2019 (Pls. CLX-CLXI).

Needless to say, that this work would not have been possible without the help, support and love of my family Anna, Davide, Gabriella, Gianluca and Giulia, to all of whom I dedicate this work.

CHAPTER 1

EXPLORERS OF A DEEP PAST

In this chapter I provide an overview of the explorations and researches at Kish (Pl. I) with the aim of highlighting the most relevant events and stages¹ and their results. I first illustrate the early 19th century explorations that allowed the identification of the site with the ancient Kish. I then discuss the circumstances which led the first archaeologists to work at the site (1920s-1930s) and their most relevant discoveries. Then, I move forward in time to consider how the data retrieved from the Kish excavations have been newly analyzed from the early 1960s, thanks to the improvement in the research methodology. The final section illustrates the new directions taken by researches on Kish in the 2000s with the emergence of the digital era.

1.1 EARLY EXPLORATIONS AND THE IDENTIFICATION OF KISH

As observed by Gibson, “*The history of the exploration at Kish/Hursagkalama is entangled with that of the city of Babylon*” (1972a: 67). At the beginning of the 19th century the city of Babylon and its surroundings became a favourite focus of European travelers with Bible-oriented interests (Lundquist 1995: 68). Following Herodotus’ exaggerated measures on the extent of Babylon, the area of Kish was presumed to be the eastern limit of ancient Babylon. This was the conviction of Bellino, Buckingham, Porter, Mignan, Rennel, Rich and others who visited the ruins of the ziggurat of Uhai mir during the first half of the 19th century, sometimes providing descriptions, general notes or plans² (Gibson 1972a: 67-68).

1 A detailed description of the history of the explorations at Kish has been already provided by Moorey (1978: 1-13) and Gibson (1972a: 67-111).

2 The first attestation of the area of Kish in the modern literature is from C.J. Rich who visited the site on December 20, 1811 (Moorey 1978: 1).

However, from the 1830s, increasing visits to the site, together with more detailed descriptions of the area, revealed some inconsistencies in the previous identification. The debate became more pressing from the 1850s, when Layard first (in 1850–51) and then Fresnel and Oppert (in 1852) opened some trenches at the site. In particular, the young Oppert firmly stated that the ruins uncovered in the northern part of the site (the modern Isan el-Khazna and Tell Bandar) were those of the ancient city of Kutha (Moorey 1978: 7–10). This interpretation was soon challenged by George Smith's discovery of "... *a fragment of alabaster with a cuneiform inscription*" at Tell Uhaimir bearing the name of Kish (Moorey 1978: 11). For the next three decades, the growing interest in Babylon followed by the German excavation at the site overshadowed the mounds of Uhaimir, Ingharra and their surroundings, where visits dramatically decreased.

However, the discussion around its identification remained vibrant. The general agreement on the identification of Kish with Tell Uhaimir and the surrounding area was seriously challenged by Weissbach in 1906, who argued that Opis and Kish must have been closely related cities on the river Tigris (Weissbach 1906). This assumption was then rejected by Thureau-Dangin (1909), who successfully proved that Kish must have been located on the Euphrates and associated with the modern Tell Uhaimir.

1.2 FROM THE FRENCH EXCAVATION TO THE ANGLO-AMERICAN EXPEDITION (1911–1933)

The archaeological explorations at the site of Kish were largely undertaken between the 1910s and 1930s. Both the scientific and political environments in which this ultimate stage of the explorations and researches at Kish took place must be kept in mind. In terms of modern research, the relatively poor quantity and quality of the results achieved by both the French and the Anglo-American expeditions were due to the undeveloped fieldwork methods and to the lack of a research question-oriented approach at that time.

de Genouillac Expedition (1911–1912)

With the promising evidence provided by the 19th century explorers, on 23rd January 1912, the French archaeologist Henri de Genouillac (Pl. III.1), assisted by the architect Raoul Drouin, began the first systematic excavations at Kish. From a scientific point of view, the interest of the French archaeologists in the site was not only due to the numerous epigraphic documents already retrieved by illicit excavations, but also to the potential in the reconstruction of the site during the Akkadian period (de Genouillac 1925: 10).

As a result of their three-month work, mainly concentrated at Tell Ingharra, two massive structures and several other features in a very complex stratification were uncovered (Pls. II, CL, CLI). Among others were the well preserved remains of a huge Neo-Babylonian temple, located on the top of the tell. De Genouillac exposed only a minor wing of this building (which will be fully exposed later by the Anglo-American expedition), erroneously interpreting it as a palatial structure (Gibson 1972a: 69–70). The other major feature brought to light by the French archaeologist consisted of a U-shaped building located south-west of Tell Ingharra (de Genouillac 1924: 29).

The excavations at Tell Uhaimir revealed several superimposed phases, frequently disturbed, and to the west of the ziggurat of Uhaimir they exposed an extended Old Babylonian area of private houses. The excavations in this area also yielded more than 1400 tablets, most of which came from one set of rooms that could have been a scribal school (de Genouillac 1924: 19–23). At Tell Bandar, de Genouillac discovered part of a Parthian fortress with rounded corner towers.

If compared with the modern research aims and methodology, those of de Genouillac were regrettably imprecise, in some cases affecting the interpretation of the data. He started digging with eighty workers and finished with almost two hundred, all under his control (Gibson 1972a: 69–70). Such a careless methodology is reflected by the scanty information on the stratigraphy and the findings published in the two volumes of site reports (de Genouillac 1924; 1925).

The Joint Oxford-Chicago Expedition (1923–1933)

A renewed interest for the ruins of Kish came ten years later, in 1921, when Stephen H. Langdon, Professor of Assyriology at Oxford University proposed to Berthold Laufer, then Curator of Anthropology at Field Museum of Chicago, a joint expedition to Mesopotamia. A first survey in Iraq was conducted by H. Weld-Blundell during the winter of 1921–22, with the aim of identifying a suitable site for investigation. Of the many potential candidates, Weld-Blundell suggested the area of Kish as being among the most advantageous (Gibson 1972a: 70–71).

The excavations started in March 1923 under the direction of S. Langdon, with Ernest Mackay as field director (Pl. III.2). The latter was replaced from 1927 by the French excavator Louis Charles Watelin (Pl. IV.1) who remained in charge until the final campaign in 1933. As already highlighted by Gibson (1972a: 70–71) and Moorey (1978: 15–16) the expertise of the two field directors were very different. On one hand Mackay demonstrated a high capability especially in understanding and interpreting the stratigraphy and architecture, on the other hand under Watelin's direction the quantity of the artefacts discovered was prioritized over the quality of the contextual data (Gibson 1972a: 70–71; Moorey 1978: 14). The Kish pub-

lications suffered from this lack of accuracy, which is noted in Langdon and Watelin's final reports (Langdon 1924; 1930; Watelin and Langdon 1934), while Mackay's reports (Mackay 1925; 1929), albeit still problematic for a number of reasons, were very well discussed and documented for the time. Watelin and Langdon died a few years after the end of the expedition (1934 and 1937 respectively) and their records were further scattered. In addition, most of the materials uncovered after 1925 are still unpublished.

The Anglo-American expedition investigated many of the mounds of the ancient site of Kish. Both Mackay and Watelin applied various strategies of digging in the excavation areas in order to achieve different aims.

Most of the work was carried out in the two main mounds of Tell Ingharra and Tell Uhaimir (Langdon 1924; 1930; Watelin and Langdon 1934; Gibson 1972a; Mackay 1925; 1929: 79–83; Moorey 1978). Tell Ingharra is the most prominent archaeological area in the eastern part of the city, consisting of several tells named Tell A, Tell B, Tell D, Tell E, Tell F, Tell G, Tell H plus Tell Bandar (also known as Tell V). Mackay cut several trenches (called IGS and ISW) along the south-western slope of Tell E and, on the top of it, exposed the whole Neo-Babylonian temple (called IGQ). On Tell A, he made one of the most striking discoveries of the expedition: a huge, well-preserved palatial structure termed “Palace A” (Mackay 1925; Margueron 1982). Watelin cut a series of parallel trenches all around the Neo-Babylonian temple (trenches A, B, C, Z) in season 1926–27. Below them he opened four “smaller” soundings (Y, YW, YWN and ZY sounding) in order to reach the “*earliest periods of the city*” (Watelin and Langdon 1934: 5).

In this area there were also several smaller mounds, Tell C, Tell G and Tell H all of which had been at least partially investigated. The northern part of eastern Kish revealed a complex stratification stretching at least from the Neo-Babylonian period to the Islamic one. The most extended and well preserved phase was the Sassanian one (Langdon 1934: 122; Gibson 1972a: 77–78) with eight elite residences identified.

Tell Uhaimir is a large mound including three minor hills named Tell Z, Tell T and Tell X. Mackay resumed the excavation in the area of the ziggurat (Tell Z), in order to check de Genouillac's work and further refine the archaeological sequence. On Tell X he also reported the presence of a fort which Gibson (1972a: 75; see also Moorey 1978: 19–29) proposed to date between the early 1st millennium BCE and the Neo-Babylonian period. On the last tell of Uhaimir area (Tell T) the excavators unearthed some Old Babylonian structures.

Between Uhaimir and Ingharra, more mounds were explored by the Anglo-American expedition: Tell Y, Tell I and Tell V. However, one of the most important discoveries was made further east, on Tell W, where the excavation under the direction of Langdon himself yielded an entire Neo-Babylonian archive of cuneiform tablets. Unfortunately, little attention was devoted to the stratigraphy (Pl. IV.2), meaning that only 300 tablets (those discovered by

Mackay), out of more than 1,000 total recovered, have been securely associated to specific context.

North of Tell W, almost isolated from the other tells, there was another important area of Kish known as the “Plano-convex building” area. The work conducted under the direction of E. Mackay revealed an Early Dynastic large scale building and other later evidence.³

Beside the work at Kish over the eleven excavation campaigns, the Joint Oxford-Chicago also investigated other sites. The most important was Jemdet Nasr, dug between 1926 and 1928, where the excavators discovered a large scale building and a completely new type of material culture characterized by painted pottery, geometric or stylized animal style seals and proto-cuneiform tablets (Mackay 1931).⁴ Other sites investigated were Tell Barghuthiat, a group of low hills dating between the Parthian and Sassanian periods, and Umm el-Djerab (Jir), excavated during the 1932 season⁵, where Watelin identified some Akkadian and Neo-Babylonian levels (Langdon 1924: 115; Gibson 1972c).

Excavation and recording methods

Concerning the excavation methodology, Seton Lloyd (1969: 48) said that “*Ingharra was badly excavated, the excavations were badly recorded and the records were correspondingly badly published*”.

Langdon became the director of the project while, initially, Ernest Mackay, a skilled archaeologist who had studied with the famous Egyptologist Sir Flinders Petrie, was chosen as field director due to his great experience. He remained in charge from 1923 to 1926, when Langdon decided to stop the work for a year. Although he changed his mind shortly after, Mackay had already accepted an appointment to direct excavations at Mohenjo-Daro, so Langdon was forced to hire a new field director. His choice was the French Louis Charles Watelin, who had neither the experience nor the talent of Ernest Mackay. Grown up working with the French expedition at Susa, under the direction of de Morgan, he brought the somewhat disputable methods learnt there to Kish (Gibson 1972a: 96-97). Watelin remained in charge from 1927 until 1933. Other relevant members of the expedition were H. Field and T.K. Penniman, who provided great contributions to the project especially as far as the

3 Although the work was generally well done, the archaeologists paid little attention to this building in the Kish final reports (Langdon 1924; Mackay 1925). A re-analysis by Moorey (1964) followed by a short account of Gibson (1972a) provided more detailed information about it. Recently an updated report on the PCB has been published by the author (Zaina 2015a).

4 For a more updated discussion on the Jemdet Nasr period see Matthews 1992, while for a recent reanalysis of the excavations at Jemdet Nasr see Matthews 2002.

5 There is no published report about the early excavations at Umm el-Jir. Some clues can be found in Langdon 1924 and Mackay 1925, while most of the information comes from the 1932 unpublished correspondence between Watelin and Langdon. For a recent overview see Gibson 1972a; 1972c.

anthropological remains are concerned.⁶ Langdon went to the field only twice during the whole period. The field directors sent him letters and weekly reports with attached photographs, on the basis of which he directed the overall operation (these have been listed here in AOKF 6 for readers' convenience).

The unpublished documentation provides useful insights on the way the excavations were conducted, with a substantial difference in the methodological approaches of the field directors. Due to his solid archaeological training, Mackay applied a more scientific method (considering the period) than Watelin, who prioritized the "search for the best" or better preserved finds.⁷ Curiously, this second approach was more appreciated by Langdon, as more objects were found.⁸ The general fieldwork methodology can be resumed as follows:

1. Cutting several deep juxtaposed trenches, usually 5 m wide, and more than 15 m deep, (Gibson 1972a: 96, n. 49). These were divided in groups named with a capital letter followed by a number for each trench (for example, "Trenches Z" were composed of trenches Z-1, Z-2, Z-3, Z-4, etc.). This technique, employing many men and a small gauge railroad, was designed to move the greatest amount of earth in the shortest span of time.

2. Cutting scattered trenches of different length, width and depth. This method was mainly used when a tell was dug for the first time.

3. Digging up soundings of varying width and depth. In several cases these soundings were enlarged (for example to better expose a particular structure), or reduced (as happened when they reached virgin soil). The aim was different, depending on the dimensions and depth of the sounding.

Workers were divided in two groups: those who removed the earth with baskets (Pl. V.1) and those who worked with the light railway trucks⁹ (Pl. V.2). The first group was subdivided into the adult men who used the pick-axes, and the basket boys that collected the earth with baskets and carried it away to the dump. *Bakshish* for findings was a common practice to avoid looting and robbing. During the excavation, Mackay was aware of both stratigraphic relations and the spatial distribution of the findings. Watelin instead showed a similar care in only few cases, where relevant structures or objects were present. As a result, it is possible that

6 Field 1929. Although Pennimann's contribution remains mostly unpublished, some of the data from his work are given by Algaze (1983–84) and Moorey (1978).

7 Gibson 1972a: 96, n. 49. Here Gibson explains that, "*Watelin was initially an engineer and was far more concerned with logistical problems, such as the placement of dumps, most efficient method of laying track, etc., than with any minor archaeological problem*".

8 Langdon to Director, 13-10-1926.

9 For a detailed description of the methods of excavations, see Field 1929: 25–32.

several thick layers (sometimes corresponding to an entire phase) identified by Watelin were actually composed of many more layers.¹⁰

Several observations can be made about the recording methods. First, since the area of Kish/Hursagkalama comprises of many tells, the excavators gave new names to all of them. In the case of Tell Bandar, Tell Ingharra and Tell Uhaimir, which already had names but were actually composed of multiple mounds, an inner sub-division was adopted. Tell Bandar was divided into Tell C and V, Tell Ingharra was split in Tell A, B, D, E, F and G, while Tell Uhaimir became Tell K, T and Z. A further feature of the excavation strategy on which both of the field directors agreed was the elevation system (Gibson 1972a: 80–83; Moorey 1978: 90–91). Elevations were calculated considering a hypothetical “plain level” located at the foot of the *tell* deemed to be “0 m”. Above this point, up to the top of the mound, each elevation was usually assigned a + (for example, four metres above the plain level was written + 4 m). Conversely, below the plain level, elevations were generally designated with a – before the number (for example, four metres below the plain level was written – 4 m). In addition, artefacts from trenches A, B, C and D received a double number. The first referred to the elevation from the top of the mound, while the second (usually in brackets) referred to the maximum elevation of the mound at that point. For example, an object located in C-3, 4 (5), means that it is from trench C no. 3, at 4 m below the top of the tell, where the top is 5 m high from the plain level.

The recording method applied to the deep shaft from the water table to the virgin soil was even more complicated and sometimes misleading, with the elevation of the finds recorded in two different ways (Pl. VI; Langdon 1930: pl. VII; Watelin 1929a: 103; Watelin 1929b: 66–67, fig. 1; Watelin and Langdon 1934: pl. VI: 2). The water table could be either 6 m under the “plain level” or 0 m, like the plain level itself! This double labeling in some cases affected the calculation of the elevation of the strata excavated beneath the water table, so that an object could have been deemed to be – 7 m under the plain level or, at the same time, – 1 m underneath the water table.¹¹

Another notable issue concerns the excavation of the graves. Moorey (1978: 104) argued that in the 1920s–1930s it was common to record only the lower elevation of the tombs (the earthen or paved surface upon which the dead was laid). This assumption implies that the majority of the graves cannot be clearly associated to a specific phase, causing a considerable loss of information. A further problem regards the recording of the objects and their division (to–

10 Watelin and Langdon 1934: 3, fig. 1. This argument is based on the evidence from some published and unpublished sections, where Watelin is shown to pay more attention to the stratification when structures or objects were unearthed.

11 Some unpublished section sketches give an account of the issue: see Letter Watelin to Langdon, 14–12–1928; Letter Watelin to Langdon, 07–12–1930. For the original sections see: Langdon 1930: pl. VII; Watelin 1929b: 66, fig. 1. For revisited sections see, Lloyd 1969: pl. VII; Gibson 1972a: 308, fig. 61; Moorey 1978: 86.

gether with the related documentation) between the Ashmolean Museum, the Field Museum and the Iraq Museum. Mackay originally established a relatively orderly recording system which consisted of an alphabetical abbreviation for the areas (e.g. HMR for Uhaimir, IG or UG for Ingharra) followed by progressive numbers. The abbreviations were often changed or modified (e.g. IGS was Ingharra south, IGA was Ingharra Tell A etc.), and in some cases they did not refer to an area, but to a building. This was the case of the Plano-Convex brick Building, labeled as “PCB” (Gibson 1972a: 180–181). Watelin’s system was even more problematic. Unlike Mackay, his recording system was divided according to the excavation campaign. Each campaign was distinguished with one or two capital letters (e.g. “Y” for 1927–28 season, “V” for 1928–29 etc.) followed by progressive numbers. A similar method was applied to the photographs, making easy to confuse artefact and photograph numbers from different season (Gibson 1972a: 180–181). To add further confusion to this system, at the end of each season the finds were divided between the Field Museum of Chicago, the Ashmolean Museum of Oxford and the Iraq Museum of Baghdad. According to the conditions, half of the objects, together with “unique pieces”, were brought to Iraq Museum. The Ashmolean acquired all the inscribed documents and part of the finds, while the Field Museum all the anthropological and faunal remains as well as the remaining artefacts. All the letters, cards and drawings should have been double copied and given to the Ashmolean and Field Museum. However, this operation was never entirely accomplished.

The plan for publications represented another major problem. According to Langdon’s project, two separate series of archaeological reports on Kish would have been published. The first and more popular one was written by him,¹² while the other one edited by the Field Museum, with a more scientific approach, was prepared by Mackay (1925; 1929; 1931). As a result, there is a striking difference in the quality of the publications, not just because of the different purposes of the series, but also due to the methods used in the fieldwork and the results achieved.

1.3 BACK TO KISH FROM AFAR: RESEARCHES BETWEEN 1960s AND 1980s

After the end of the expedition and the loss of both Watelin and Langdon within few years, the publications plan was halted and most of the documentation and materials remained unstudied for more than two decades.

¹² Langdon 1924; Watelin and Langdon 1934. According to Gibson (1972a: 96, n. 48), volume II should have been a popular report on Mackay’s work at the A Palace, but was soon published as Mackay himself was quickly producing the more scientific accounts.

Interest in the Kish materials was revived only at the beginning of 1960s. At that time a newly graduated P.R.S. Moorey was hired as the Assistant Keeper of Antiquities by the Ashmolean Museum. He immediately undertook the troublesome tasks of reordering and re-analyzing the Kish archaeological collection and the documentation held by the Ashmolean Museum. The first result of his work was a 1964 paper about the so-called “Plano-convex building” (Moorey 1964), followed shortly after by an account on the Y sounding (Moorey 1966) and in the early 1970s by a contribution on the “A” Cemetery of Tell Ingharra (Moorey 1970). He was assisted in his work by Seton Lloyd, a leading authority in British archaeology who also produced an important contribution about the archaeological sequence on Tell Ingharra (Lloyd 1969). In addition, the catalogue of the Ashmolean Museum’s cylinder seals and seal impressions by Briggs Buchanan (1966) provided precious information about the glyptic of Kish.

At the same time on the other side of the world, a young McGuire Gibson began to work on the artefacts and records of the Kish Expedition held by the Field Museum of Chicago. His research also extended to the archives of the Louvre Museum in Paris and the Archaeological Museum of Istanbul, where de Genouillac expedition materials and documentation were stored (Gibson 1972a: XI). The desire to integrate the information acquired in those research visits persuaded him to travel to Iraq in 1966–67. His aim was to carry out a small scale survey in the area of Kish, followed by a brief excavation at Umm el-Jir (Gibson 1972b), a small site 27 km from Tell Uhaimir and just 8.5 km from Tell Barghuthiat, a site already explored by S. Langdon¹³ (Gibson 1972b: 237–238). The results were published in 1972, in two articles on the Kish textual documentation (Gibson 1972c) and the excavations at Umm el-Jir (Gibson 1972b), and in a volume (*The City and Area of Kish*, Gibson 1972a) which collected the whole corpus of work done by Gibson in attempting to reconstruct the contexts of the Kish excavations. In this wake of research, the book on the human remains from Kish was published in 1975 by Ted Rathbun, providing an updated view on the anthropological evidence from the site.

The second half of the 1970s saw another step forward in the re-evaluation of the excavations at Kish. From 1975 to 1978, P.R.S. Moorey published two more papers (Moorey 1975; 1976) and a book (*Kish Excavations 1923–1933*, Moorey 1978) which represents one of the best contributions to the archaeology of Kish. In this book, detailed descriptions of the main excavation areas and the associated finds in the Ashmolean Museum were provided, while the bulk of material evidence was confined to an accompanying set of microfiches (which can nowadays be consulted with considerable difficulty).

The works of Gibson and Moorey inspired a new generation of scholars. Algaze (1983–84) performed a detailed new study of the Y sounding cemetery, while Hrouda and Karsten

13 Watelin to Simms, 02–02–1932; Watelin to Simms, 18–02–1932; Watelin to Simms, 26–02–1932.

(1966), Whelan (1978) and Breniquet (1984) applied different approaches to the study of the “A” Cemetery. Some light was shed on the archaeology and history of the site during the 2nd millennium BCE by McEwan (1983) and Clayden (1992), who investigated the Late Babylonian and the Kassite periods respectively.¹⁴

These studies fuelled the opening of a new season of excavation at Kish after more than fifty years. The first, beginning in 1988, was conducted by the British School of Archaeology in Iraq under the direction of R.J. Matthews at Jemdet Nasr (Matthews 1989; 1990; 2002). The aim of the British archaeologist was to re-investigate Mounds A and B, with particular interest in the palatial structure found by Langdon on Mound B in 1926–28. The second project began in 1989 at Tell Ingharra, where a Japanese expedition under the leadership of Hideo Fuji aimed to reconsider the stratification of Tell A (Matsumoto 1991). Regrettably, due to the onset of the 1st Gulf War in August 1990, further campaigns to both sites could not take place. In 2000, a further attempt to work at the site was undertaken by the Japanese expedition to complete the excavation on Tell A as well as newly investigate the area around the Plano-convex Building (Matsumoto and Oguchi 2002; 2004). Their work at Kish was again interrupted after the second campaign by the terrorist attack that struck the U.S. on the 11th of September 2001 and the subsequent invasion of Iraq.

1.4 KISH IN 2000 CE: RECENT STUDIES AND ONGOING RESEARCH PROJECTS

At the beginning of the 21st century, despite the number of works published, a synthetic report on the excavation at Kish is still lacking. Therefore, more effort is necessary to provide a clearer picture of the history of Kish, especially considering that out of three main collections, only the Ashmolean one has been studied. The other two collections, in the Field Museum in Chicago and the Iraq Museum in Baghdad, remained largely unpublished.

The onset of the 2nd Gulf War affected the entire Iraqi nation, contributed to worsening the situation and led to uncountable damage to the cultural heritage of the country through looting, bombing, etc.¹⁵ Among others, the looting of the Iraq Museum of Baghdad caused the loss of a significant part of the huge, and largely unpublished, Kish collection.

In 2003, the Field Museum of Chicago started a six years project, funded by the U.S. federal government, the National Endowment for the Humanities and private donors, with the ambitious aim of producing a new final report, drawing together the ten seasons of excava-

¹⁴ See also Charvát 1981; 2010.

¹⁵ For detailed accounts on the consequences of the 2nd Gulf war on the Iraqi heritage see Emberling and Hanson 2008, Fales 2004; Marchetti, Al-Hussainy, Valeri and Zaina 2018.

tion at Kish.¹⁶ As a result of this work, an online objects database was published in 2007, with photographs and information about around 9,000 objects, most of which were previously unpublished.

A further useful initiative was the online database of the clay figurines in the Ashmolean Museum¹⁷ produced in 2004 by its former Keeper, P.R.S. Moorey. Among the vast collection of clay figurines of the catalogue, more than one hundred belongs to the Kish expedition. More work has been undertaken by the subsequent keepers, Jack Green and Paul Collins, especially on the rich collection of cuneiform tablets and other inscriptions (more than 2,000).

The analysis of the stratigraphy of early Kish, based on new insights and perspectives, provided by N. Marchetti (2006: 96–105, table 10), based on all published evidence and selectively considering stratified materials in order to obtain a detailed chrono-stratigraphical sequence, is still valid in its general outline. This breakthrough opened the way to a systematic and comprehensive analysis of all recorded evidence from the early levels of Kish, which I have attempted in this book.

In addition to these main lines of research, a project of new radiocarbon analyses on selected samples from Kish was implemented in 2013 by the author, in collaboration with Paul Collins and the Oxford Radiocarbon Accelerator Unit (Zaina 2015b).

16 <http://www.fieldmuseum.org/Kish/past.asp>. Apart for the Oriental Institute annual reports (<https://oi.uchicago.edu>), a preliminary research related to the Kish project dealing with the human remains has been recently published (Torres-Rouff, Pestle and Davermann 2012).

17 www.ashmolean.museum/ash/amocats/anet/am-anet-search.php. Moorey decided not to publish the catalogue but to make it available online, splitting the chapters in a series of PDF files. See <http://www.ashmolean.org/ash/amocats/anet/ANET-Download.html>

CHAPTER 2

FROM DUST TO DATA: RESEARCH AIMS AND METHODOLOGY

2.1 AIMS OF THE RESEARCH

The aim of this research is to reconstruct some of the most significant phases of the urban history of the eastern part of the city of Kish, from the Jemdet Nasr to the Ur III period (late 4th-3rd millennium BCE), by means of the analysis of the contexts and the stratified material culture recovered by the Anglo-American expeditions between 1923 and 1933. As suggested by Gibson (1972a: 115), *“Further research at Kish itself must be governed by well-considered, limited investigation of specific problems. There is an obvious need to re-examine key trenches to re-established stratigraphy and clear up some of the mysteries left us by the old excavations.”* Although, previous research conducted by Gibson (1972a), Moorey (1978) and Algaze (1983-84) among others, made some order in the original documentation, it was necessary to propose a more detailed analysis of the stratigraphic sequence and function of various buildings in particular as regards the 3rd millennium BCE. The new chronological sequence and functional interpretations proposed here make use of a numerous unpublished stratified materials dating from the 3rd millennium BCE. This study is part of a line of research established for decades¹⁸ which proposes new interpretations of excavations undertaken between the late 19th century and the first half of the 20th century CE (Zaina 2018). The purpose of these studies was not only the production of updated excavation reports, but they were real attempts to reconstruct the history of the archaeological sites considered. The chronological phases and the areas of Tell Ingharra/Kish discussed in this volume have been selected for diverse reasons:

18 Apart from the earlier studies on Kish (among which foremost Gibson 1972a and Moorey 1978), see for instance the works by H. Martin on the site of Fara/Shuruppak (1988) and the Early Dynastic cemetery of Tell al-Ubaid/Nutur (1982), the re-analysis of the excavations at Jemdet Nasr by R. Matthews (2002), the recent review of the 1900s excavations at Bismaya/Adab by K. Wilson (2012) and the researches on the 3rd millennium BCE levels at Ur by G. Benati (2013, 2014, in press).

1. According to both philological and archaeological sources, the 3rd millennium BCE (and in particular the Early Dynastic period, 2900-2350 BCE) is the period of greatest urban as well as socio-political growth in the history of Kish.

2. The 3rd millennium BCE phases are among the most adequately documented ones by the 1920s-1930s Anglo-American expedition, with several areas providing a reliable stratigraphic and architectural sequence as well as a large quantity of stratified materials (Table 2.1).

3. Levels dating from the 3rd millennium BCE have been uncovered in many excavation areas. In addition, the variety of contexts investigated including domestic, public (both religious and secular) and funerary spaces makes possible to reconstruct a comprehensive picture of the urban development of the city.

4. The studies carried out in the last decades of the 3rd millennium BCE at Kish provided a preliminary or partial reconstruction of the archaeological contexts here considered. It is therefore necessary to undertake a thorough review to refine the results.

5. Approximately 2/3 of the materials from the excavations at Kish were not considered by previous studies. Most of them are currently housed in European or American museums, and are thus accessible for new researches.

Six areas, all located on Tell Ingharra, have been identified as relevant case studies: the Y, YW, YWN and ZY soundings, the Z trenches, and the Z.1 and Z.2 ziggurats. Further areas of interest have not been considered here for different reasons. Some of them are too poorly documented for any stratigraphic or contextual reconstruction (Tell W or Trenches C) while other areas such as area P (Moorey 1964; Zaina 2011; 2015) and tell A (Mackay 1925; Mackay 1929; Hrouda and Karsten 1966; Moorey 1970; Whelan 1978; Breniquet 1984) have been extensively discussed elsewhere.

Area	Chronology	Type of context/s	Number of finds
Y sounding	JN - early Akkadian	Domestic, Funerary, Religious	1423
YW sounding	ED I - Akkadian	Domestic, Funerary	120
YWN sounding	ED IIIa - Akkadian	Domestic	91
ZY sounding	ED I - ?	Domestic	0
Trenches Z	Akkadian - Ur III	Domestic, Funerary, Religious	263
Ziggurats Z.1 and Z.2	ED IIIa - Ur III	Religious	0

Table 2.1 List of the selected areas, their chronological range, type of context and the number of finds.

However, the stratigraphic evidence and the stratified pottery assemblage from area P and tell A is used in the analysis of urban development, space use and the chronology of the material culture, in different chapters of the present volume. The new analysis of the archaeological excavation at Kish has been conducted according to a contextual approach. In Chapters 3 to 5 stratigraphy, architecture and materials were discussed together in order to describe and possibly interpret the contexts. This method was preferred to the distinction in different chapters dedicated respectively to stratigraphy, architecture and to the different classes of materials, which makes the connection between them and their context of origin more difficult. Furthermore, in order to integrate the contexts analyzed in the chronological framework, a chrono-typological study of two diagnostic classes of materials was carried out: the cuneiform texts (Appendix 1) and the ceramic (Appendix 3).

2.2 AN ARCHAEOLOGY OF THE ARCHIVE

In a recent reanalysis of the excavations at Dura-Europos, J.A. Baird has highlighted the importance of studying excavated materials kept in universities and museums archives:

“Recent years have seen the emergence of scholarship on the history of archaeology and receptions of the past. Neither of these trends has fully engaged with the visual evidence, particularly that of photography, or with the material form of the archive itself.” She also underlined how *“... the study of archaeological photographs – and materials – and archaeological archives can contribute to our understanding of the history and epistemology of archaeology ...”* (Baird 2011: 427).

The study of the artefacts and the documentation housed in the museums and universities archives was one of the starting points of this study, which in its very first stage consisted of an accurate data collection, in order to challenge existing gaps in knowledge (Zaina 2018).

To date, the collection of archaeological finds and documentation of the Anglo-American expedition to Kish is mainly divided between three museums:¹⁹ the Iraq Museum in Baghdad (Iraq), the Ashmolean Museum in Oxford (UK) and the Field Museum Chicago (US). Further smaller collections (the amount of objects can vary from no more than a dozen to fewer than a hundred objects) are located in various museum in UK and France, including the Pitt Rivers Museum in Oxford, the British Museum in London, the UCL stores, the Museum of Archaeology and Anthropology of Cambridge, the Birmingham Museum of Art and the Louvre in Paris, or in the US like the Oriental Institute Museum in Chicago.²⁰

19 A detailed list of the documentation in the Field Museum of Chicago, Ashmolean Museum of Oxford and the Iraq Museum of Baghdad was provided by McG. Gibson (1972a: 177-179). However, both the Ashmolean Museum and the Field Museum collections have been recently reorganized in the frame of internal projects.

20 It is not possible to determine with certainty the amount of artefacts allocated to a single museum collection due to loans or exchanges, as well as the inaccuracies in the old museum records.

Due to the impossibility of accessing the Iraq Museum collection²¹, the research has mainly been carried out at the Ashmolean Museum of Oxford, the Pitt Rivers Museum of Oxford, the Louvre Museum in Paris and the Field Museum of Chicago. The study of this last collection, previously largely unpublished was of particular interest.

Ashmolean Museum Oxford

The collection of Kish in the Ashmolean Museum of Oxford includes excavation documents (letters, photographs, sketches, etc.), and several thousands of artefacts. In addition, there are numerous notebooks, lists and letters written by Roger Moorey and his collaborators between the early 1960s and the mid 1990s.

The excavation documents consist of several hundred photos and glass negatives of both the fieldwork and the finds organized in various folders. In addition to these, there are plans and sections of the area of Tell Ingharra as well as drawings of artefacts from Jemdet Nasr and Kish, the former made by P.R.S. Moorey during his time at the Iraq Museum in Baghdad, while the latter by the Anglo-American archaeologists (some of which are published in Harden 1934).

One of the most important sources in the Oxford archives are the ca. 8,400 object cards,²² containing more or less detailed data on almost each artefact found during the eleven excavation campaigns. A typical card provides the identification number of the object, information on the find-spot (area, level, etc.), a description of the object (shape, size, material, interpretation), and other remarks. It is interesting to note how this system was developed and meticulously applied by E. Mackay, while almost totally ignored by his successor L.Ch. Watelin. Indeed, while the cards of the 1923–1926 campaigns contain almost all the information listed above, those of the 1927–1933 seasons give only few details such as the excavation number, the object type and the general context. The cards were also used by E. Mackay as proper excavation notebooks. Among others, there are two examples concerning the excavation of the Plano-convex building (area P) and Palace A for both of which about 50 to 100 typewritten cards contain a wealth of information, including the size of the rooms and the artefacts recovered. In addition, the collection also includes a small photocopied selection of letters regarding Watelin's excavations campaigns from 1927 to 1933 in English.

21 However, some information on the Iraq Museum archive can be gathered from notebooks, lists and drawings in the Ashmolean Museum archives compiled by P.R.S. Moorey during his research visits at Chicago and Baghdad in the early 1970s. These precious data include “excavation number-museum number concordance lists” (prepared in collaboration with Naomi King), list of finds in the Iraq Museum with general information on each one and drawings of dozens of pottery vessels (mostly from the 2nd and 1st millennium BCE) and some objects.

22 This number does not reflect the total amount of finds from the Anglo-American excavation at Kish as in many cases (such as for almost the entire collection of epigraphic finds as well as the majority of glyptic) no excavation number was given and no card was compiled.

The objects collection from Kish in the museum mostly consists of epigraphic materials (about 2,000 clay tablets and stone inscriptions) as well as a more modest group of finds, including a corpus of pottery and glyptic. This division was due to the interests of the director of the excavation, the Assyriologist S. Langdon, who left the larger part of the archaeological finds and almost all the human and animal bones to the Field Museum (Gibson 1972a: 70; Moorey 1978: 15).

Part of the epigraphic collection from the Ashmolean museum is accessible online through the Cuneiform Digital Library Initiative (CDLI) database,²³ while since 2004 the collection of clay figurines from Kish is available through the AMOCAT – ANET website (Moorey 2004).²⁴

Pitt Rivers Museum Oxford

The Kish collection in the Pitt Rivers Museum (hereafter PRM) derives mostly from two small lots of finds from the 1926 and the 1932 campaigns. By the mid-1940s and the early 1970s it was further enriched through loans and exchanges.

The small archive includes some copies of excavation photographs and artefacts from the Ashmolean Museum of Oxford, while the collection counts 123 objects (mostly flint tools), generally out of context and dating from the 4th millennium BCE, according to the museum catalogue.²⁵

National History Museum London

The National History Museum (hereafter NHM) in London holds a small collection of human remains from Kish (20) from the Y sounding and the cemetery A. Those were moved from the Ashmolean Museum in the 1950s.

University College of London

Only a few finds from the Kish excavation are housed in the stores of the Institute of Archaeology of the University College of London (about 40), the majority of which are out of context. As in the case of the NHM and the PRM, they were moved to UCL following their initial registration at the Ashmolean. The complete list is available online.²⁶ No written documents or photos are present in the archives, apart from some notes by S. Lloyd probably related to the stratigraphical review of the excavations at Tell Ingharra published in the late 1960s (Lloyd 1969).

²³ <http://cdli.ucla.edu/collections/ashmolean/ashmolean.html>.

²⁴ <http://www.ashmolean.org/ash/amocats/anet/am-anet-search.php>.

²⁵ <http://www.prm.ox.ac.uk/databases.html>.

²⁶ <http://www.archcat.museums.ucl.ac.uk/>.

Field Museum Chicago

The Kish collection in the Field Museum of Chicago is one of the largest and includes many unpublished documents (letters, photographs, sketches, etc.) and several thousands artefacts. Moreover, there are also numerous notebooks, lists and letters written by various scholars and staff members who worked on Kish between the 1940s and 1980s.

The Kish archive has been recently re-organized within the frame of the “Kish project” directed by Karen Wilson. It now includes about 64 folders with letters, notebooks, sketches, plans and sections from the excavations of Kish, Jemdet Nasr, Tell Barguthiat and Umm el-Jir.

One of the main sources of the collection is the written correspondence, over 230 letters sent by field directors E. Mackay and L.Ch. Watelin or their collaborators (such as the anthropologists D. Buxton, H. Field and T.K. Penniman and the archaeologist E. Schroeder) to the Director of the expedition S. Langdon or the directors of the Field Museum (D.C. Davies from 1923 to 1928 and S.C. Simms from 1929 to 1933). These letters must be considered as proper excavation reports as they contain detailed information on the stratigraphy, architecture and materials. The photographic archive has nearly 1300 images taken between 1922 and 1933 by various members of the expedition. The images are organized in 10 folders according to different topics (pictures of objects by type and photos of excavation by campaign). Furthermore, the museum’s archives have a 54 minutes-long video with various scenes from the fieldwork and daily life. The Kish collection includes several thousands artefacts and more than a hundred human skeletons and animal bones from the Y sounding, Tell A and Tell W. As already mentioned, this division was due to the interest of the director of excavations, S. Langdon, who left the larger part of the archaeological finds and nearly every human and animal bone to the Field Museum. The archaeological collection of the museum is accessible online through the Kish Project website.²⁷

In order to provide fresh and consistent data, 697 stratified finds (pottery and small finds) from the areas considered have been newly recorded (described, photographed and drawn) and studied. Among these, 302 are housed in the Ashmolean Museum of Oxford, while 395 are kept in the Field Museum of Chicago.

2.3 DATA MANAGEMENT SYSTEM

Given the amount of information collected as well as the different levels of accuracy and detail, the data have been organized in hierarchical and differentiated Microsoft Excel® spreadsheets.

²⁷ <http://archive.feldmuseum.org/kish/introduction.asp>

A spreadsheet containing all the objects from Kish excavations was first compiled using data from the cards, lists, letters and publications (Table 2.2). The document contains 8,716 finds divided into 11 sub-folders, one for each excavation campaign (from 1923 to 1933).

The “primary key” assigned to the document is the excavation number which is the only field almost always filled. Four types of information are provided by this spreadsheet in order to identify and quantify the materials and to select the sample to be studied: 1. Identification; 2. Context; 3. Type of object; 3. Others remarks.

Type of information	Field	Description
Identification	Excavation number	Number given in the field
	Museum number	Accession number
	New number	New number given by the Author
Context	Site	“Kish”
	Area	One the 40 tells of Kish (Tell Ingharra, Tell Uhaimir etc.)
	Sub-area	The excavation area (Y sounding, Plano convex-building etc.)
	Context/elevation	Square/area/room where the object was found or just the elevation (in case the rest is missing)
Type of object	Definition	Type of object (pottery, seal, tool, statue etc.)
	Material	Description of the object’s material
Other remarks	Reference	Bibliography, essentially referred to the primary publication.

Table 2.2 General list of objects from Kish.

As regards the identification number, for some objects it was possible to establish neither the excavation nor the museum number. This is the case of more than 300 pottery vessels mostly from the Y sounding graves, listed by Algaze (1983–84, and AOKF 1–2, 4), to which a new identification code named “New number” followed by progressive digits (e.g. 001, 002, 003 etc.) was given.²⁸ Since Algaze (1983–1984: 169–191) provided a typological analysis of all classes of finds, these objects were not drawn individually, but an explanatory drawing is

²⁸ It must be noted that some new numbers have been deleted and not reassigned. Indeed, during the analysis, the excavation or museum number was identified for about 25 of them.

provided for each type. For this reason, the drawings identified only by the New Number in the plates have a “T” at the bottom left.

The second spreadsheet developed is the Objects List (Table 2.3) which contains all the objects discussed in this research. The purpose of this spreadsheet is therefore the organization of the objects from the study areas. The organization of the spreadsheet differs from the previous one: it has been divided into 4 sub-folders, one for each excavation area that provided stratified materials.²⁹ Beside the information provided in the previous spreadsheet, additional fields related to the context (archaeological phase) and the description (notes) have been created.

Type of information	Field	Description
Identification	Excavation number	Number given in the field
	Museum number	Accession number
	New number	New number given by the Author
Context	Site	“Kish”
	Area	“Tell Ingharra”
	Operation	Excavation area (Y sounding, Plano convex-building etc.).
	Context/elevation	Square/area/room or just the elevation (in case the rest is missing).
Object	Type of object	Type of object (pottery, seal, tool, statue etc.)
	Material	Description of the object’s material
Others	Publication	Bibliography, essentially referring to the primary publication.
	Notes	Other relevant information

Table 2.3 Objects list.

A simplified version of the Objects List including a complete list of stratified finds (AOKF 1 – Catalogue of the finds by context) considered in this study, divided according to the struc-

²⁹ No stratified materials are associated to the ziggurats Z.1 and Z.2 the dating of which is based on their stratigraphic relations with the Y sounding. The same is for the ZY sounding only the lowermost phase of which is tentatively dated to the ED I on the basis of the presence of the water table at 6 m below the plain level which is comparable with the Y and YW soundings (see § 3, 4, 5).

tural phase, can be downloaded from website <http://www.orientlab.net/pubs/> as an additional online file.

The third level of data management focuses on the research conducted in the museums and university collections. Two spreadsheets, one for the small finds and another for the pottery, have been created.

The Small Finds Recording Sheet (Table 2.4) consists of 26 fields (based on the other spreadsheets) and was compiled for each object studied in the museum. A total amount of 397 small finds from the Ashmolean Museum and the Field Museum has been described.

Type of information	Field	Description
Identification	Excavation number	Number given in the field
	Museum number	Accession number
	Plate	The reference in the text
Context	Site	“Kish”
	Area	“Tell Ingharra”
	Operation	The excavation area (Y sounding, YW sounding etc.)
	Context/elevation	Square/area/room or just the elevation
Object	Preservation	State of conservation of the find (complete, fragmentary etc.)
	Class	The functional group of the object (vessel, glyptic, figurine etc.)
	Object type	Type of object (seal, tool, statue etc.)
	Material	Description of the object’s material
Production technique and dimensions	Technique	Way of production (wheel, hand, coil etc.)
	Fabric colour/s (3 columns)	Inner/Outer/Core fabric colour using Munsell Colour Soil Chart ®
	Height	Measurements expressed in centimetres
	Length	Measurements expressed in centimetres
	Width	Measurements expressed in centimetres
	Thickness	Measurements expressed in centimetres
	Diameter	Measurements expressed in centimetres
	Weight	Measurements expressed in grams

Decoration and surface treatment	Type of surface treatment (2 columns)	Burnish, slip, glaze, reserved slip etc.
	Colour of the surface treatment	The colour of slip or glazed treatments
	Type of decoration	Applied, incised, impressed etc.
Others	Notes	Other relevant information

Table 2.4 Small Finds Recording Sheet.

The small finds recording sheet can be downloaded from the website <http://www.orientlab.net/pubs/> as an additional online file (AOKF 2 – Small finds at the Ashmolean and Field museums).

The Pottery Recording Sheet (Table 2.5) consists of 34 fields (based on the previous spreadsheets). A total of 301 ceramic fragments and complete shapes from the Ashmolean Museum and the Field Museum has been described.

The pottery spreadsheet compiled in the museums was then integrated with all the stratified pottery vessels analysed in this study but not studied in the museums (such as those from the Iraq Museum in the unpublished P.R.S. Moorey archive). The new entries do not provide all the information listed above but they are useful for typological, chronological and functional purposes. These entries also include ceramic vessels from the Plano-convex building (Moorey 1964; Zaina 2011; 2015a), Tell A excavated by E. Mackay (1925; 1929) and from area JA excavated by the Japanese expedition during the 1990s and 2000s (Matsumoto 1991; Matsumoto and Oguchi 2002; 2004). A critical review of the stratigraphic and architectural reconstructions of Tell A is here provided (see Appendix 1) in order to contextualize the huge amount of pottery from those areas (427 entries, almost half of the total pottery sample), in particular from the graves dating between the late Early Dynastic to the Akkadian period that are of paramount importance for a thorough analysis of the entire 3rd millennium BCE pottery assemblage.

As a result, the integrated Pottery Recording Sheet contains 974 pottery vessels (both complete shapes and sherds), which have been discussed in detail in the Appendix 3.

The Pottery Recording Sheet can be downloaded from the website <http://www.orientlab.net/pubs/> as an additional online file (AOKF 3 – Pottery materials at the Ashmolean and Field Museum).

Type of information	Field	Description
Identification	Excavation number	Number given in the field
	Museum number	Accession number
	New number	New number given by the Author
	Plate	The reference in the text
	Type	Type of vessel according to the new pottery analysis (§ Appendix 3)
Context	Site	“Kish”
	Area	“Tell Ingharra”
	Operation	The excavation area (Y, YW sounding)
	Phase	The archaeological phase from which the objects come
	Context/elevation	Square/area/room or just the elevation
	Type of context	Domestic, funerary, religious, palatial
Object	Preservation	State of conservation of the find (complete, fragmentary etc.)
	Functional class	The function of the vessel (Simple Ware, Kitchen Ware or Preservation Ware)
	Shape	The shape of the vessel (dish, bowl, jar, jug etc.)
Production technique and dimensions	Technique	Way of production (wheel, hand, coil)
	Fabric colour (3 columns)	Inner/Outer/Core fabric colour using Munsell Colour Soil Chart ®
	Firing	High, medium or Low
	Inclusion type	Mineral, Vegetal or Mixed
	Inclusions freq./dim.	Inclusions frequency and dimensions according to a specific chart (cf. § 8)
	Rim diameter	Measurements expressed in centimetres
	Rim width	Measurements expressed in centimetres
	Wall width	Measurements expressed in centimetres
	Bottom width	Measurements expressed in centimetres
	Bottom diameter	Measurements expressed in centimetres
	Height	Measurements expressed in centimetres
	Volume	Measurements expressed in litres

Decoration and surface treatment	Type of surface treatment (2 columns)	Burnish, slip, glaze, reserved slip etc.
	Colour of the surface treatment	The colour of slip or glazed treatments
	Type of decoration	Applied, incised, impressed etc.
	Colour of the decoration	The colour
Others	Notes	Other relevant information

Table 2.5 Pottery Recording Sheet.

One last file (Graves Recording File) was designed to organize the information on the graves dating from the 3rd millennium BCE from the Y sounding and Trenches Z. The file is organized according to the area, operation, context and burial no. and information have been divided in two tables:

1. The first organized in 6 fields with data regarding the context, structure and dimension of each burial as well as the gender and number of skeletons and the quantity of associated grave goods (Table 2.6).

2. The second (when present) is divided into 7 columns with general information on the grave goods (Table 2.7).

The Graves recording File can be downloaded from the website <http://www.orientlab.net/pubs/> as an additional online file (AOKF 4 – Catalogue of the graves).

Type of information	Field	Description
Context and burial description	Stratigraphy and spatial location	Square/area/room where the grave was found or just the elevation (in case the rest is missing)
	Type of structure and dimensions	Detailed description of the structure and dimensions (when available)
Body	Gender and age	Male, female, indeterminate, etc.
	Body position and treatment	Position of the body and type of treatment.
	State of preservation	Complete, fragmentary, disturbed etc.
Others	Reference	Bibliography, essentially referred to the primary publication.

Table 2.6 Graves Recording Sheet.

Type of information	Field	Description
Identification	Excavation number	Number given in the field
	Museum number	Accession number
	New number	New number given by the Author
Context	Context	No. of burial
Type of object	Type of object	Type of object (pottery, seal, tool, statue etc.)
Others	Reference	Bibliography, essentially referring to the primary publication.
	Plate	The reference in the text

Table 2.7 Objects list from the graves.

2.4 THE VALUE OF SOURCES: A RATIONALE FOR ACCESSING RELIABILITY

How many times do we have information which initially was deemed fully reliable, while after a more fine-grained analysis must be rejected or critically reconsidered? In most cases, the solution can be found relatively quickly by comparing the data or going back to the primary source. In some cases, however, this is not enough and more precise systems for evaluating sources become necessary.

In the case of Kish the presence of conflicting sources (often provided by the same author after a short time span!) may affect interpretations. A typical example concerns discrepancies between the unpublished documentation and the data provided in the excavation volumes and articles. But there are also some, albeit rare, examples of inconsistencies between the data provided in different publications after a short time.

Examples of mismatching information may include different absolute elevations, excavation/museum numbers or even excavation areas ascribed to the same object. But this kind of errors also concern structures (walls, floors, tombs) for which different topographic and stratigraphic data in unpublished documents and publications are supplied. For this reason, it was decided to create a method for assessing the reliability of sources. This system was specifically designed for the stratigraphic and architectural reconstructions, while for the material culture, the information provided in the cards remains the main reference (Table 2.8).

I have first distinguished between the type of source and the type of information provided. The “source” is defined as the published or unpublished document, such as letters or notebooks (hand-written or type-written), a photo or a drawing. The “information” instead regards the

type of data provided by each source, like identification numbers (excavation or museum), stratigraphic data (relations between layers, structures etc.) or topographic data (dimensions, spatial locations etc.).

I have then defined “primary” and “secondary” sources and information. “Primary sources” are letters, photographs, object cards and sketch plans, written or taken directly in the field. “Secondary sources” usually relate to published or unpublished documents based on primary source material, often re-interpreting or modifying the primary information. Secondary sources include unpublished letters written after the excavation by third people, while among the published secondary sources there are the excavation reports and various scientific and newspaper articles.

“Primary information” means stratigraphic and/or topographic data, such as elevations or spatial distribution of floors, walls, burials installations etc. The “Secondary information” allows to infer stratigraphic and/or topographical data through clusters of objects located at the same elevation (which in certain cases may indicate the presence of an unrecognized or undocumented floor).

This method has been applied to the reconstruction of the excavation contexts considered in this research. Each archaeological phase has thus been identified according to this system, specifying the type of sources available for the reconstruction of that context and the type of information provided by them. In the following chapters, sources and information are specified in a footnote at the beginning of each paragraph.

Type of source/information	Description
Primary source	Letters written on the field, object cards, drawings, photographs, written or taken in the field.
Secondary source	Generally based on primary sources, sometimes re-interpreting them. Scientific publications, newspaper articles, letters written out of the field to third people.
Primary information	Elevation or spatial distribution of walls, floors, burials, installations.
Secondary information	Elevation or spatial distribution of objects.

Table 2.8 Overview on the definition of primary/secondary sources and information.

2.5 DIGITIZATION: FINDS, MAPS, PLANS AND SECTIONS

From a topographic point of view, the excavations at Kish have had mixed fortunes. While under the direction of E. Mackay, thanks to the presence of Col. W.H. Lane, several good quality plans and sections were produced, the topographic work was generally neglected by L.Ch. Watelin. This poverty of data was partly integrated with the analysis of the sketch plans and sections, together with excavation photos, that in many cases allowed us to enrich or even newly create both of them. The topographic work was done in collaboration with the Studio KULLA of Bologna using AutoCAD® and then post-processed with Adobe Photoshop® software.

A topographical map of the entire site of Kish has been created (Pl. I), based on the new maps from the archives of the Ashmolean Museum, integrated with others published by de Genouillac (1925: pl. 43) and Gibson (1972a: 289, fig. 42) and declassified CORONA satellite photos downloaded from USGS websites <https://earthexplorer.usgs.gov/>. In the absence of any secure georeferenced points on the map, a grid with relative coordinates has been created. This map has become the basis for the work on each excavation area, whose plans and sections were created by integrating sketches and photographs. In the case of Tell Ingharra a specific plan with contour lines at 1.5 m (Pl. II) has been also generated on the basis of the same above-mentioned sources.

As for the archaeological finds, the digitization process aimed at standardizing the documentation. Two types of data were used: published drawings and newly drawn objects from research visits at the museums. Pottery, metal and stone vessels drawings were scanned and then inked using Adobe Illustrator®. As for the small finds, some relevant classes such as the cylinder and stamp seals, as well as the seal impressions (all the drawings of glyptic have been made by Claudia Cappuccino, University of Bologna) have been newly drawn, while for the rest of the objects we used the post-processed images and sometimes published drawings.³⁰

2.6 THE STUDY OF THE POTTERY ASSEMBLAGE

The pottery assemblage is one of the most relevant types of material culture establishing a reliable relative chronology. Therefore, despite the often problematic contexts under analysis, an attempt to reconstruct a 3rd millennium BCE pottery typology from Kish has been carried out. To this aim, while Chapters 3 to 5 illustrate the material culture from the excavation

³⁰ In the following chapters pottery drawings and photographs are generally 1:4 to 1:5 cm scale, while the scale of small finds may vary between 1:1 and 1:3 according to the dimensions and the necessity to highlight specific details.

areas at Kish according to a contextual approach, Appendix 3 provides a detailed discussion on the chronology using the pottery assemblage as the main diagnostic class of finds. In the conclusions (Chapter 6), the discussion on the resulting chronological pattern emerged from the analysis of the pottery has been integrated with other diagnostic classes of finds in order to reconstruct the 3rd millennium BCE relative chronology from Kish.

Selection and recording method

The pottery assemblage selected comes from seven areas excavated at Kish. Beside the areas discussed before (areas Y, YW, YWN, Z), three additional ones (A, JA and P) have been considered due to both their contextual relevance and the number of vessels retrieved (Table 2.9)³¹.

These areas also provided a wide range of contexts (from the domestic to the palatial and from the funerary to the religious), which allowed to detect patterns of occurrence for different types of vessels within specific contexts.

Area	Excavators	Season/s of excavation	Type of contexts	No. of vessels/sherds
P (PCB)	Oxford-Chicago (Mackay)	1923-1924	Palatial; Funerary	22
Z	Oxford-Chicago (Watelin)	1926-1927	Religious (?); Domestic; Funerary	28
Y	Oxford-Chicago (Watelin)	1927-1931	Religious?; Domestic; Funerary	462
YW	Oxford-Chicago (Watelin)	1929-1930	Domestic; Funerary	14
YWN	Oxford-Chicago (Watelin)	1930	Domestic	9
A	Oxford-Chicago (Mackay)	1923-1925	Palatial; Funerary	427
JA	Kokushikan University	1988-1989	Religious	12
				974

Table 2.9 Selected areas from Kish with stratified pottery assemblage dating from the 3rd millennium BCE.

³¹ 52.7 % of the pottery sample comes from the areas newly analysed here (Y, YW, YWN and Z).

Within these areas, vessels (complete, complete profiles or fragments) from a known find-spot³² and with a drawing (or the possibility to draw them) have been selected. The final sample consists of 974 entries, 87.8% of which (856) are complete vessels or complete profiles.³³ Moreover, in order to collect as much information as possible about the 3rd millennium BCE pottery assemblage from Kish, 301 vessels (30%) housed in the Ashmolean Museum of Oxford (158) and the Field Museum of Chicago (143) have been newly recorded, drawn and photographed. This new analysis provides a considerable previously unknown information, from dimensions to volume, from fabrics colours to firing and from surface treatments to decorations.

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:

1. Identification and context
 - 1a. Excavation number
 - 1b. Museum number³⁴
 - 1c. Area
 - 1d. Phase
 - 1e. Context
 - 1f. Type of context
2. Morphological data
 - 2a. Shape
 - 2b. Preservation
 - 2c. Dimensions
3. Technological data
 - 3a. Fabric colour/s (inner, outer and core)
 - 3b. Surface treatment/s (type and location)
 - 3c. Decoration/s (type and location)
 - 3d. Technique
 - 3e. Inclusions (type, size/frequency and frequency)
 - 3f. Firing

32 In many cases, by find-spot I mean the elevation at which the object was found, that allows the association to a specific phase.

33 Among those, a group of vessels (309, 36%) was previously published as typologies by Algaze (1983–84) in the reassessment of the soundings from Tell Ingharra. Unfortunately he only provided one representative shape for each type.

34 A third number called “New number” has been given to those vessels with no excavation or museum numbers which come from stratified contexts and have an existing drawing or photo.

4. Others

4a. Reference (if already published)

4b. Notes

Group 1 entries represent the *conditio sine qua non* for each vessel to be considered in the assemblage, while groups 2 and 3 provide the newest and most interesting information about the pottery assemblage.

The shape (2a) of the vessels has been defined by selecting among the most updated literature related to the 3rd millennium BCE Mesopotamia.³⁵

Among the technological data (Group 3), some clarifications are necessary:

– Fabric colours (3a) have been identified using the Munsell Colour Soil Chart™. The fabric has been divided into inner, outer and core. In cases of homogeneous firing, only the “core” entry has been filled.

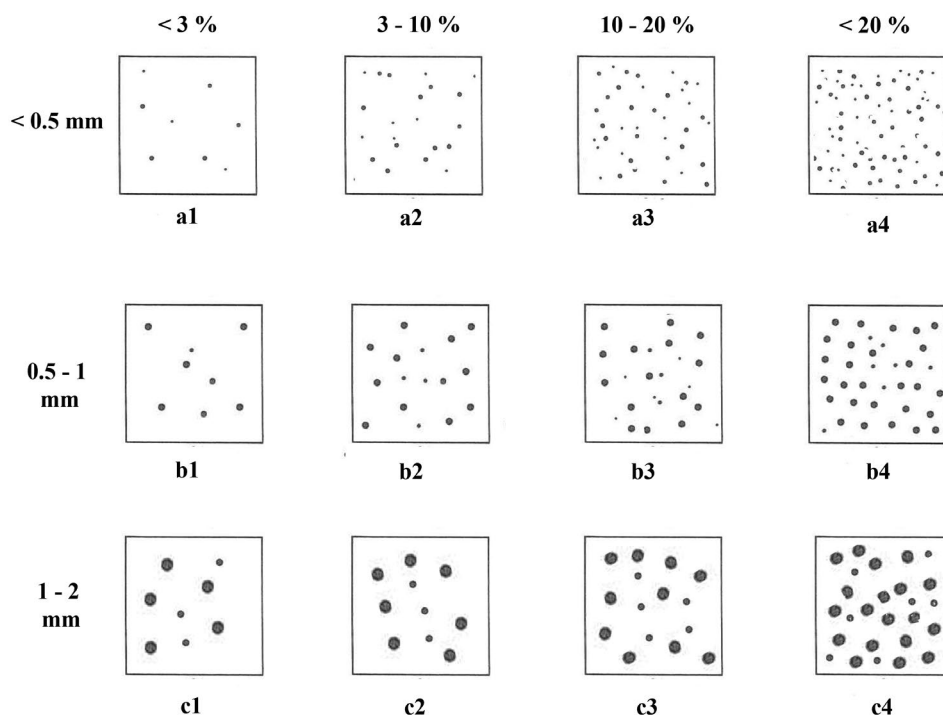


Fig. 2.1 Inclusions chart.

³⁵ Apart for some studies specifically devoted to the pottery assemblage considered here for both the late 4th (Matthews 1992) and the 3rd millennium BCE (McMahon 2006; Moon 1987), recent analyses carried out in the frame of the ARCANE project (<http://www.arcane.uni-tuebingen.de/>, for example Thalmann's pottery chart) have been considered.

– Surface treatments (3b) identified are slip³⁶, burnished³⁷, reserved slip and a combination of the first two named slip-burnished. This kind of surface treatments can be found separately or together on the inner and outer surfaces.

– Decorations (3c). A wide range of decorations has been detected. Vessels from Kish can be combed, grooved, incised, excised, painted, pierced or having a variety of applied decorations including ropes (with nail marks and/or finger prints) and dots.

– Inclusions (3e). Two types of inclusions are recognized: mineral and vegetal (in some cases occurring together). In order to define dimensions and frequency, a proper chart has been created according to the framework proposed by S. Levi (2010).³⁸ The chart is designed to produce an accurate and quick autoptical analysis of the inclusions (Fig. 2.1).

Frequency is calculated in percentage of the whole assemblage, according to four different ranges (<3%, 3–10%, 10–20%, >20%, from 1 to 4), while dimensions are in millimetres and divided into three different groups (>0.5 mm, 0.5–1 mm, 1–2 mm, from a to c).

– Firing (3f). Three types of firings have been identified, high/homogeneous (H), medium (M) and low/black core (L). Homogeneous firings have a single colour and are usually associated to fine wares. Medium firing may have two different colours, one for the inner and the other for the outer surface, or one for the inner and outer surfaces, and another for the core. Low or black core fabric are generally characterized by a homogeneous dark colour due to over-firing or continuous heating (typical of cooking pots).

Analysis and typology

The aim of the study of the pottery assemblage from Kish has been to identify the development of ceramic material culture during the 3rd millennium BCE. The new pottery sequence has been integrated with the study of other diagnostic types of material culture and the radio-carbon to provide a new and reliable chronological sequence.

The first step was to group vessels according to their morphological and technological data in order to create types. The definition of typologies is not influenced by contextual data, preliminary dating or parallels with other sites. Types are identified by a progressive number and a definition of the shape (es. Type 1, Small shallow dish with flat base). Except for a few highly diagnostic cases, at least two vessels are necessary to create a typology, as they provide

36 Slip is defined by Gibson and Woods (1997: 47) as a “Surface treatment involving the application of a suspension of clay in water to a vessel in the leather-hard stage. It can be both decorative and functional: it is most usually employed to change the colour of a vessel but may also be used to reduce the permeability of food and drinking vessels by partially sealing the surface”.

37 According to Sinopoli (1991: 229) Burnishing is the process of “Rubbing leather-hard vessel with hard tool, such as a stone or potsherd, to produce glossy surface, with irregular luster and polishing marks visible”.

38 Another source used to create the chart is the one developed by the Munsell Colour Soil Chart TM (2009 version) for soil determination.

a minimum evidence of occurrence (see Appendix 3). Nevertheless, it is possible that shapes which are very rarely attested at Kish are typical of other regions (where they could easily become a typology).

According to a more anthropological perspective, this methodology follows that described by A. McMahon (2006: 65) on the theoretical framework of Nippur WF area pottery analysis, “*The types identified are certainly modern creations that may or may not have been culturally significant or functionally distinct at the time when the vessels were produced*”. Nevertheless, unlike area WF where the “... *typology is a tool created for a purely contemporary purpose, as an aid in chronological determination*”, the variety of contexts analysed here also allows us to address issues concerning the function of the vessels.

Following this methodology, 84 types have been identified and ordered from open (dish, bowl, beaker and box) to closed shapes (bottle, jug, jar).

Among the open shapes (276), 28 types have been defined, including three types of dishes (Types 1-3), 13 types of bowls (Types 7-8, 10-13, 15-21) and three types of beakers or goblets (Types 23-25). Besides these macro-groups, other types may have peculiar shapes reflecting a specific function. These include boxes (Types 4-5), braziers (Type 6), colanders (Type 9), funnels (Type 14), stands (Type 22), and the so-called “stemmed dishes” (Types 26-28).

The 641 closed vessels have been grouped in 56 types, chiefly according to their shapes and then into relevant morphological or technological variations. The main vessel forms recognized are bottles/small jars (Types 29-42, 46-48, 51, 64, 70-71, 73), jars (Types 43-45, 49-50, 52-63, 65-69, 72, 74-78) and lids (Types 79-81), while the last three groups (Types 82-84) include miscellaneous, usually miniature closed shapes.

Less than 6% of the sample (57 vessels) does not fit within a specific type and is thus part of the miscellaneous group (termed MISC).

In the tables (see Appendix 3), the most important information has been summarized for each type. Each table has been organized in four parts according to different types of information provided: 1. Drawing/s; 2. Technological and contextual data; 3. Stratigraphic/chronological data; 4. Parallels.

2.7 INTRODUCTION TO THE CASE STUDIES: TOPOGRAPHY AND DEVELOPMENT OF THE EXCAVATIONS

Y sounding and Z trenches

Between 1925 and 1931, the Anglo-American expedition cut a 14 m deep sounding in SW part of Tell Ingharra (Pl. II), providing the most complete stratigraphic sequence for the 3rd millennium BCE at Kish. The work was originally conducted by E. Mackay, who exposed

the highest phases (mainly consisting of the so-called Monument Z, phase 13a-b according to this study), and continued by the end of 1926 under the direction of L.Ch. Watelin. The upper part (the first 5 m above the plain level) of the area was named Trench Z, while the lower one (lower 9 m, all cut from the surface downwards) is known as the Y sounding.

These two areas have been usually treated separately by scholars, even though their stratigraphic continuity is often admitted (Gibson 1972a: 88; Moorey 1978: 92-93). For this reason I considered it more appropriate to discuss them together, merging their reconstructed sequences into a single and homogeneous one. As a detailed account of the excavations in the Z trenches and the Y sounding has been already described by P.R.S. Moorey (1978: 92-94) and McG. Gibson (1972a: 82-83), in this introductory paragraph I only provide an overview on the history of the excavations, the topography, the stratigraphy, as well as the excavation methods applied, focusing on the open issues and the new interpretations proposed.

The 5 m sequence of archaeological deposits dug as Z trenches represented a great chance to shed light on the chronology and the urban layout of the south-western part of Ingharra at the end of the 3rd millennium BCE. Unfortunately, both the quality and quantity of data provided by the excavators only permitted to give a broad interpretation of the evidence. The excavation was first conducted by Ernest Mackay during the 1925-1926 season (Gibson 1972a: 87-88; Moorey 1978: 94-96). He started by cutting a series of small juxtaposing trenches oriented northeast/southwest between the greater ziggurat and Palace A. Some of these were further extended toward the ziggurat, where he uncovered a huge wall named "Sargon Wall" (Gibson 1972a: 88; Moorey 1978: 94-96). Investigation continued from 1926 to 1928 under Watelin's direction, who followed Mackay's strategy and exposed a large "monumental" building called Monument Z. The strategy was then changed, due to the difficulties of removing the building. As a result, five new trenches, named "2 m trench", Z1, Z2, Z3 and ZA, of the same length but different width, were dug from about +5 m (upper elevation) to the plain level (0 m). Apart for the "2 m trench", Z1 was 5 m wide, while Z2 and Z3 were 6 m and ZA was 14 m wide,³⁹ and when cleared to the plain level, Trench Z took the shape of a deep rectangular area.

Given the current state of the documentation and the recent re-interpretation, there are some unsolved problems. The main feature from this area is the so-called Monument Z. However, the excavation method and the succeeding removal of this building deeply affected the understanding of its architectural layout and function as well as of the rest of the stratigraphic sequence. Of particular difficulty is also the reconstruction of the 2 m of depos-

39 The reconstruction of the excavation of the Z trenches and the Y sounding, with their numerous extensions, has been possible by integrating the previous interpretation by Gibson (1972a: 304-307, figs. 57-60) with several unpublished sketch plans.

its (Phases 11 and 12) located between the Monument Z and the uppermost phase of the Y sounding (the Red Stratum, Phase 10).

Another relevant issue concerns the burials found here, the majority of which are contemporary with the Monument Z. Beside the total lack of information about their original context, we know nothing about the grave goods. Indeed, from notebooks and report of Field, (1947), who was in charge of the excavation of the burials, we can discern several anthropological data and stratigraphic notes, but no information on associated objects. No further clarifications are provided by the later studies although the unpublished reports are often mentioned (Gibson 1972a: 87–88; Moorey 1978: 95–96).⁴⁰

The Y sounding provided an almost uninterrupted sequence of domestic and perhaps public buildings, spanning through the first three quarters of the 3rd millennium BCE. Starting from the easternmost trench of area Z (trench ZA), Watelin cut a 6 m wide sounding, named Y (Pls. II, VI), down to the water table (6 m below the Plain level). Afterwards an extension, labelled Ya,⁴¹ was opened to the west below trenches Z1, Z2 and Z3, reaching the so-called Flood Stratum (3 m below the Plain level). In 1928–29 the sounding was further extended to the southwest and the entire area was brought down to 6 m. More work was done during the following campaigns (1929–30 and 1930–31), in particular the small pit (6x7.5 m)⁴² that was dug below the water table, which reached virgin soil (9 m), and two long strips on the northwest and southeast side of the sounding. As a result, at the end of 1931, the Y sounding covered an area of approximately 70x40 m.

At the bottom of the sounding, in the pit down to 9 m, some phases dating from the Jemdet Nasr to the very beginning of the Early Dynastic I period (hereafter JN and ED) were found. Ubaid and Uruk sherds are said to come from the lowest level of the sounding,⁴³ but no specimens can be securely associated with this occupation.

Above these layers, between 6 m and 3 m below the plain level, the excavators discovered some superimposed buildings, with associated intra-mural burials, named “Early Houses Stratum (EHS)” (Langdon 1930; Watelin and Langdon 1934: 3–9, figs. 1–2, pls. IV, V, no.

40 Both Gibson and Moorey mostly considered the burials located in the levels between Monument Z and the top of the Y sounding (i.e. Phases 11 and 12) for chronological purposes. The upper graves are not cited.

41 This designation was generally discarded or used only sporadically.

42 Watelin's *Rapport sur le sondage exécuté à Kish en 1930 sous le niveau de l'eau*.

43 “Pennimann unpublished autobiography”, 73–75. According to the museum catalogue, a single pottery sherd in the Pitt Rivers Museum of Oxford is “Uruk style” (Accessed firstly at the Ashmolean Museum as AM 1929.236a and then moved to the Pitt Rivers in May 1950 and accessed as PRM 1950.5.25). This sherd is mentioned, but not published, by Moorey (1978: Microfiche 2, D 02) as coming from ~ 3/– 5 m below the plain level.

2, VI, nos. 1-2, IX, X, no. 1, XI).⁴⁴ Both Watelin and Langdon gave different stratigraphic interpretations of the EHS, making the reconstruction challenging. To this aim, the most reliable data are probably those in the notebooks rather than in the publications, as they were written in the field.

If the first phase of the EHS can be safely located at -6 m, the rest of the sequence has long been debated. Two stratigraphic sections from the unpublished letters show a sequence of four phases at - 6 m, - 5.55 m, - 4.9 m and - 3.9 m,⁴⁵ the walls of the first three phases being 0.45 m (EHS 1), 0.65 m (EHS 2) and 1 m (EHS 3). In the final report a slightly different interpretation is presented (Watelin 1929b: 66, fig. 1; Watelin and Langdon 1934: 3, fig. 1). Here, the walls of the EHS 1 and EHS 2 are about 0.8 m high, while EHS 3 has walls 1 m in height. Thus, the new sequence would be as follows: EHS 1 at - 6 m, EHS 2 at - 5.2 m, EHS 3 at - 4.6 m, EHS 4 at - 3.6 m. However, another section (Watelin and Langdon 1934: 53, fig. 7) in the report shows four structural phases under the Flood Stratum (labelled as “flood 1”, “flood 2”, “flood 3” and “flood 4”) with no elevation given. A multi-phase plan (Watelin and Langdon 1934: 7, fig. 2) from the same publication illustrates three architectural phases, two of which belong to the EHS. Some scattered walls, found at - 6 m, can be associated to EHS 1, while an almost complete neighbourhood with several buildings was found at - 5 m. This second phase matches with the second level in the unpublished sections and it may correspond to EHS 2.

In recent years, several scholars proposed a reassessment of the EHS sequence. Among others, Lloyd's (1969) and Marchetti's (Marchesi and Marchetti 2011: 75-82) works deserve attention. The first one recognized three phases in the EHS, without exhaustively explaining the reasons and the sources used for this interpretation. The second provided a more precise picture of the sequence of the EHS, although some sub-phases had yet to be identified. The new reconstruction proposed here (Table 2.11), integrates Marchetti's analysis (Marchesi and Marchetti 2011: 77, table 10) with the unpublished documentation.

A most notable feature of the Y area is the abundant presence of intra-mural burials. The excavations of the pit-graves found in the Y sounding were jointly conducted by the field directors and a team of anthropologists (H. Field in 1927 and 1928, T.K. Penniman in 1929). Despite the care taken by the anthropologists, some basic information, such as the upper elevation of the burial cut, is missing. Attempts to contextualize the graves have been made by Gibson (1972a: 84-86) and Algaze (1983-84). However, both of them admitted the impossibility of proposing a secure and definitive contextualization for the majority of graves from the Y sounding (including the cart-burials). In some cases, a reconstruction of the

44 For detailed reviews on the term “EHS” see Algaze 1983-84: 136-137; Gibson 1972a: 84-85; Marchesi and Marchetti 2011: 77-78; Moorey 1966: 33; Moorey 1978: 99.

45 Watelin to Langdon, 20-02-1929, Watelin to Simms, 20-02-1929.

stratigraphic location of the graves is possible. Indeed, 24⁴⁶ out of 148 graves excavated in the Y sounding are sealed by a layer of organic debris at a given elevation (this may vary between 20 cm and 1 m).⁴⁷

Phase	Elevation	Type of context
13c	+4 / +5 m (Monument Z)	Public building (?) and graves
13b	+3 / +4 m (Monument Z)	Public building (?) and graves
13a	+2 / +3 m (Monument Z)	Public building (?) and graves
12	+1 / +2 m	Domestic buildings and graves
11	0 / +1 m	Domestic buildings and graves
10	-1.5 / 0 m	Domestic and public buildings
9	-2 / -1.5 m	Domestic buildings and graves
8	-2.7/5 / -2 m	Domestic buildings and graves
7	-3 / -2.7 m	Domestic buildings and graves
6	-3.5 / -3 m	Domestic buildings and graves
5	-4 / -3.5 m	Domestic buildings and graves
4c	-4.5 / -4 m	Domestic buildings and graves
4a-b	-5 / -4.5 m	Domestic buildings and graves
3c	-5.5 / -5 m	Domestic buildings and graves
3b	-6 / -5.5 m	Domestic buildings and graves
3a	-6.5 / -6 m	Domestic buildings
2	-7.2 / -6.5 m	Domestic buildings
1b	-8.7 / -7.2 m	Domestic buildings
1a	-9 / -8.7 m	Domestic buildings

Table 2.11 Newly revised stratigraphic sequence of the Y sounding.

46 G 420, G 478, G 479, G 481, G 491, G 494, G 495, G 496, G 498, G 499, G 509, G 511, G 513, G 517, G 519, G 521, G 522, G 523, G 524, G 527, G 531, G 535, G 538, G 539.

47 The majority of well stratified graves in the Y sounding have a medium depth ranging from 0.4 to 0.65 m (18 out of 24). See the table at the bottom of Algaze 1983-84.

These burials are also of primary importance for the identification of floors and phases in the Y sounding. For the other graves, a hypothetical contextualization is here proposed, based on the association of each burial with the nearest upper floor (considering a minimum depth of 0.5 m).⁴⁸ In order to test this hypothesis, the grave goods assemblages from the 24 well stratified graves have been compared to the other, less well stratified assemblages. More complex is the contextualization of the so-called cart-burials, which have been tentatively associated to Phase 8 on the basis of the stratigraphic evidence and material culture.

To sum up, 13 structural phases and several sub-phases have been recognized thanks to the new analysis of the Y sounding (Phase 1 to 10) and the Z Trenches (Phases 11 to 13).

YW sounding

The YW⁴⁹ sounding is a 20x15 m area, excavated in 1929–1930, in the northwest part of Tell Ingharra below the C trenches (Pls. II, CXIX.2). The excavators went down to the Water Table (7 m) exposing a long sequence of buildings dating from the 3rd millennium BCE. However, their interpretation of the archaeological evidence suffered from an extreme lack of data. Moorey (1966: 32–33; 1978: 114) and Gibson (1972a: 90) provided some stratigraphic and chronological insights, assuming that no precise sequence could be reconstructed. Nevertheless, a reassessment of the archaeological phases of the sounding can now be proposed on the basis of the unpublished documentation.

The evidence revealed a substantial similarity between the urban and architectural sequence of the YW and Y sounding (Gibson 1972a: 90; Moorey 1966: 32–33; 1978: 114). Parallels with the latter, in terms of both stratigraphy and architecture, have already been noted, though only general conclusions have been made. At least three stratigraphic connections between the Y and YW soundings can be safely proposed. In the first instance, the soundings share the reddish packing of collapsed mudbricks known as Red Stratum (Watelin and Langdon 1934: 48–49; Moorey 1978: 114). Moreover, the Flood Stratum and the Water Table were both found in the Y and YW soundings. According to Watelin (Watelin and Langdon 1934: 48–49), these layers were approximately located 1 m below those from the Y sounding.⁵⁰ However, as correctly pointed out by Gibson (1972a: 90, 109, n. 215), all the

48 The hypothesis is also based on the medium depth calculated for the Early Dynastic intra-mural burials at Abu Salabikh (Martin, Moon and Postgate 1985; Steele 1990) and in the Diyala region (Delougaz, Lloyd and Hill 1967) which is around 0.70–0.80 m.

49 YW means Y “west”.

50 For example, the Flood Stratum was found in the Y sounding at 3 m while in the YW is located at 4 m. The Water Table has been reached at 6 m in the Y sounding and at 7 m in YW.

elevations from either the YW or the YWN sounding must be raised 1 m (therefore aligned with the Y sounding) due to the initial incorrect interpretation of the excavators⁵¹.

In this study, eight phases dating from the ED I to the Akkadian period (Table 2.12) have been identified. Only one grave was dug in the area, interpreted by Gibson (1972a: 90) as the evidence from the restriction of the ED intra-mural cemetery to the Y sounding.

Phase	Elevation	Type of context
8	0 / +1 m	Domestic building
7	-1.5 / 0 m	Domestic building
6	-2.7 / -1.5 m	Domestic building
5	-3 / -2.7 m	Domestic building
4	-3.5 / - 3 m	Domestic building
3	-4 / -3.5 m	Domestic building
2a-b	-5 / -4 m	Domestic building
1b	-5.5 / -5 m	Domestic building
1a	-6 / -5.5 m	Domestic building

Table 2.12 Newly revised stratigraphic sequence of the YW sounding.

YWN sounding

Between 1927 and 1930 along the NW slope of the mound the excavators cut a large sounding, named YWN, 2 m deep.⁵² Although a general assessment of the stratigraphy and chronology of this sounding has been provided by Moorey (1978: 114) and Gibson (1972a: 90), a new detailed analysis of the unpublished documentation allows a new interpretation of the archaeological sequence. In addition, a ¹⁴C date from a stratified sample of Phase 2, dating to the transition between the late Early Dynastic and Akkadian periods, can be compared with existing dates for the destruction of numerous sites in northern Mesopotamia and Syria usually attributed to the expansion of the Akkadian empire.

Several later intrusions such as drains, burials and debris, perhaps from pits or materials perhaps from pits, damaged at least the uppermost layer (Gibson 1972a: 90) as observed in the YW sounding. Indeed, it is likely that the two soundings shared a common stratigraphic sequence (at least for the first 2 m), due to their proximity.

⁵¹ Watelin and Langdon 1934: 48-49.

⁵² Watelin's excavation report 1929-1930.

The new reconstruction of the YWN sounding here presented has revealed two structural phases (Table 2.13; Pls. II, CXXXIV-CXXXV), one at the plain level (0 m), and another at – 1 m below the plain level.⁵³ While no plan of the buildings exists for the upper level (Phase 2), it is possible to propose a reconstruction of the lower one (Phase 1) by comparing sketch plans with archival photographs.

Many artefacts were discovered on the floors of the buildings (especially Phase 2), including gold and silver tools, cylinder seals, and inscribed tablets. Based on these finds, it is possible to make some suggestions about the function of the structures.

Phase	Elevation	Type of context
2	0-1 m	Domestic building
1	1.5-0 m	Domestic building

Table 2.13 Newly revised stratigraphic sequence of the YWN sounding.

ZY Sounding

The ZY sounding is the southernmost area opened on the main mound of Tell Ingharra where Early Dynastic structures were brought to light. This 10x10 m square was cut down 6 m below the plain level until the water table was reached. The archaeologists produced only a sketch plan of the lowest building phase⁵⁴ (Pl. CXLII.2), found at 6 m and probably dating from the ED I, while the rest of the sequence was not recorded.

The Ziggurat Z.1

Two massive ziggurats were found by the archaeologists on Tell Ingharra (Fig. 2.14, Pl. CXLIV), one at the southern end (Z.1) and the other in the centre of the main mound (Z.2) (Watelin and Langdon 1934: 45, 55-56).

Both Mackay and Watelin's efforts were focused on the larger (Z.1) for which information had to be gleaned from the unpublished sources.⁵⁵ A detailed account on the excavation of the ziggurats has been already published by Moorey (1978: 87-88), and I thus focus on its dating as well as on its relation to the surrounding ED structures. The impressive overlapping walls of plano-convex mudbricks belonging to the bigger ziggurat were exposed during the

53 In the absence of georeferenced maps or plans, the grid plans of Tell Ingharra and the YWN sounding are made of 25x25 m squares. In addition, as a local coordinate system was missing, the new grid was provided with new letters (on the abscissa) and numbers (on the ordinate).

54 Watelin to Langdon 03-03-1931.

55 Watelin to Langdon 03-01-1931; 16-02-1931; 03-03-1931.

investigations in the Y and ZY soundings. Their foundations cut through the uppermost ED III phases (Y 10, Y 9 and perhaps part of Y 8), while the lowest run below them. Therefore, although a direct stratigraphic connection with the buildings in the Y or ZY sounding is missing, it is reasonable to suppose that these monumental complexes were built in the ED IIIa during the monumentalization of the city (corresponding to the new sequences of Y 9-10, YW 6-7, YWN 1 and JP 2, PCB 2a-b and the Tell A Palace phases, Pls. CL, CLI), as suggested by both Gibson (1972a: 112) and Moorey (1970: 104; 1978: 88). Further support derives from the interpretation of the Red Stratum as part of the mudbrick collapse of the ziggurat (Gibson 1972a: 308, fig. 61) which also acts as a *terminus ante quem* for the construction (therefore built in Phase 9).

Phase	Elevation	Type of context
4	2-5 m	Re-use?
3	0-2 m	Abandonment
2a-b	-2 / 0 m	Ziggurat construction and use
1	-3 / -2 m	Pre-ziggurat (chariot burials)

Table 2.14 Newly revised stratigraphic sequence of the Z.1 ziggurat.

CHAPTER 3

AN EMERGING TOWN: FROM JEMDET NASR TO EARLY DYNASTIC I

Although the area of Kish was probably already inhabited since the Ubaid period (Gibson 1972a: 66, n. 43; Moorey 1978: 101)⁵⁷, the earliest evidence retrieved by the archaeological excavations dates from the Jemdet Nasr period. In this chapter I describe the archaeological sequence of the late 4th and early 3rd millennium BCE, corresponding to the Jemdet Nasr and Early Dynastic I period as uncovered in the Y, YW and ZY soundings at Tell Ingharra.

3.1 Y SOUNDING - PHASES 1-5

PHASE 1a (Basal Stratum)

Stratigraphy and architecture

The lowest archaeological phase excavated in the Y sounding was reached at 9 m (i.e. Phase 1a), in the small sounding opened within the wider Y trench (at 6 m below the plain level),⁵⁸ between 1929 and 1930 (Pls. VI-VIII). Both the stratigraphic and the functional interpretations of this phase are somewhat controversial. According to Watelin,⁵⁹ at this elevation they found “virgin soil” (Pl. VII.2). However, that interpretation has been criticized by T.K. Penniman⁶⁰ who co-supervised the excavations at that time. This 30 cm thick level here defined

57 See also Watelin to Langdon 02-01-1929.

58 The stratigraphic and functional reconstruction of Phase 1a is based on: 1. Primary information (layers and hearths) from both primary and secondary sources (letters and excavation reports); 2. Secondary information (objects at 9 m) from primary sources (object cards and letters).

59 Watelin and Langdon 1934: 1, fig. 7. In addition, see Moorey 1978: 10; Crowfoot-Payne 1978: Microfiche 2, D09-E07.

60 In his unpublished autobiography, T.K. Penniman raised some doubts about Watelin's argumentations on the identification of the virgin soil at 9 m below the plain level.

as “Basal Stratum” (the upper elevation is 8.7 m, see Watelin and Langdon 1934: 1-3) was characterized by several hearths, ashy soil and charcoal fragments.⁶¹

The repertoire of findings from this early phase mostly consists of faunal remains, such as animal bones, marine shells including gastropods and bivalves, together with small finds such as lithic and microlithic tools (Watelin 1929b), as well as pottery vessels.

Pottery

The ceramic assemblage from Phase 1a is characterized by a single Jemdet Nasr style painted sherd (Pl. XXVII.10, type 60⁶²), probably belonging to a large closed vessel. Moreover, a large amount of polychrome pottery is also reported,⁶³ mixed with ashes and earth.

Small Finds

Crowfoot-Payne (1978: D 10-11) reported 189 borers made of coarse-grained greyish flint coming “... from the ash-beds at the bottom of the shaft, 3.0 m below the water level ...” of the sounding (Pl. XXVII.1-9) although only a very small sample (9) was published. According to her, such flint tools were used for working stone or shell. Incision, polishing and drilling might have been the main activities performed. These assumptions are also based on the assemblages from Shar-i-Sokhta and Tepe Hissar where comparable stone workshops, dating from the 3rd millennium BCE, have been recovered (Tosi and Piperno 1973: 15-23; Vidale and Lazzari 2017).

PHASE 1b (Jemdet Nasr Stratum)

Stratigraphy and architecture

Above the Basal Stratum, the archaeologists excavated a 1.5 m⁶⁴ thick deposit (approximately between 8.7 and 7.2 m below the plain level) with few traces of buildings and installations, and many artifacts (Pl. VII.2).⁶⁵

61 Watelin to Field 18-12-1928 and Watelin to Langdon 18-12-1928. See also the unpublished «*Rapport sur le sondage exécuté à Kish en 1930 sous le niveau de l'eau*» by L.Ch. Watelin.

62 For a detailed description of the pottery types see Appendix 3.

63 Langdon to Simms 02-01-1929.

64 The stratigraphic and functional reconstruction of Phase 1b is based on: 1. Primary information (layers and hearths) from both primary and secondary sources (letters and excavation reports); 2. Secondary information (objects at 8.5 and 8 m) from primary sources (object cards and letters).

65 Watelin and Langdon 1934: 3-6. The thickness of the layer is the only information given by the excavators, as no lower or upper elevations are reported. Nonetheless, we should keep in mind that this datum is not confirmed by the unpublished letters and reports although traces of hearths and walls are reported.

Here, room foundations have been identified together with ash deposits and hearts,⁶⁶ although no precise elevation for the pavements was reported.

The artifacts collected from this phase are clustered at two different elevations (8 m and 8.5 m), thus suggesting either the presence of another phase (that cannot be securely discerned) or a sequence of superimposing layers covering the rooms.

Pottery

The pottery from Phase 1b is characterized by both sherds and complete shapes (25 in total), generally simple and storage jars, including specimens with incisions and painted decorations (red and black) in the typical Jemdet Nasr geometric pattern. Among those there are eight fragments of painted jars (Pl. XXVIII.1-3, type 60) dating from the Jemdet Nasr period, one storage jar (Pl. XXVIII.4, type MISC), two small jars (Pl. XXVIII.8-9, type MISC), a coarse circular stand (Pl. XXVIII.12, type MISC) and several fragments of walls and bases also belonging to large vessels (Pl. XXVIII.5-7, 10-11, type MISC).

More unpublished recorded sherds and complete shapes with painted or incised decorations are included in the table below, although no drawings or photographs are available.

Small finds

A handful of small finds can be associated to Phase 1b. Among others, a Piedmont style steatite cylinder seal (Pl. XXIX.8) was found 8 m below the plain level together with a small limestone bead (Pl. XXIX.7). The cylinder seal is characterized by a geometric pattern frieze decoration which is mostly found in seals made of glazed steatite (Amiet 1972; Collon 2005: 20; Marchetti 1996: 81-82; Pittman 1994: 133-135). Parallels are provided by stratified finds from the temple of Şamuş⁶⁷ at Khafajah (level II onwards) as well as the Abu Temple of Tell Asmar among others (Frankfort 1955: pl. 14-15). The Diyala region is in fact considered one of the two main areas of production of this style (Rova 1988: 124, n. 99) which then spread both northward (up to the Hamrin region, Marchetti 1996: 86), and southward at least as far as Nippur (Wilson 1986: 63-65, pl. 1c), Fara (Martin 1988: nos. 87, 100) and Ur (Collon 2005: 21, no. 40).

In addition, a stone weight (Pl. XXIX.9) and six flint tools were uncovered at 8.5 m (Pl. XXIX.1-6). Such tools can be functionally related to the assemblage from Phase 1a.

⁶⁶ Watelin and Langdon 1934: 3-6. See also Watelin to Simms 16-12-1928 and Watelin to Langdon 16-12-1928.

⁶⁷ For the new identification of the former Sin temple as dedicated to the god Şamuş, see Marchesi 2011: 226-227.

PHASE 2 (Mixed Soil Stratum)

Stratigraphy and architecture

Phase 2 was identified between 7.2 m and 6.5 m below the plain level. (Pl. VII.1)⁶⁸ This level was named “Mixed soil” due to the “... *layer of mixed earth of no definite character*” (Watelin and Langdon 1934: 5). Despite this preliminary interpretation, the presence of hearths associated with ashy and sandy soil is confirmed by several unpublished letters.⁶⁹

Pottery

The pottery assemblage from Phase 2 consists of four Jemdet Nasr style decorated sherds and an almost complete jar (all type 60, Pl. XXX.1–3), showing a remarkable continuity with the previous period.

Small finds

Only a handful of small finds has been reported from this phase. A flint tool and another unidentified bitumen artifact have been found at 7 m, together with another clay tool for which no detailed description and photograph are available.

PHASE 3a

Stratigraphy and architecture

Phase 3a is mostly characterized by traces of buildings found at 6.5 m below the plain level (0.5 m below the Water Table, see Pl. VII.2).⁷⁰ At this elevation the excavators recovered “... *the oldest horizontal cylindrical drain and the first foundations of buildings...*” (Watelin and Langdon 1934: 5). A primary source for the architectural evidence of this phase is the unpublished correspondence between the field director (i.e. Watelin) and the general director (i.e. Langdon). Indeed, more than once Watelin reports walls, floors and drains at 6.5 m.⁷¹

68 The stratigraphic and functional reconstruction of Phase 2 is based on: 1. Primary information (layers and hearths) from primary sources (letters and drawings); 2. Secondary information (objects at 7 m) from primary sources (object cards and letters).

69 See the unpublished «*Rapport sur le sondage exécuté à Kish en 1930 sous le niveau de l'eau*» by L. Ch. Watelin. It must be noted that many walls from this phase could have been not recognized due to the wet earth found below the Water Table (see also Gibson 1972a: 308, fig. 61).

70 The stratigraphic and functional reconstruction of Phase 3a is based on: 1. Primary information (layers and buildings) from primary sources (letters and drawings). 2. Secondary information (objects at 6.5 m) from primary sources (object cards and letters).

71 Watelin to Langdon, 3-12-1928, Watelin to Langdon, 12-12-1928 and *Rapport sur le sondage exécuté à Kish en 1930 sous le niveau de l'eau* by L.Ch. Watelin.

This is also confirmed by Penniman's notes on the burials found below the water table.⁷²

A few architectural and stratigraphic remarks can be made. Both the wall and the pavements at 6.5 m were made of plano-convex baked or unbaked bricks coated with some sort of plaster or bitumen. Pavements were covered by a layer of ashes mixed with pottery sherds of different types. Horizontal drain pipes for water drainage were found within the house rooms.⁷³

Pottery

Among the artifacts recovered, the excavators reported a decrease of painted sherds in association with a good assemblage of "*poterie noir fine*" and what might be ED I incised and reserved slip specimens.⁷⁴ However, only two sherds, the base of a white slip large storage jar and a Jemdet Nasr style jar fragment (Type 60, Pl. XXX.4) can be securely associated to this phase.

Small finds

A small group of artifacts was retrieved at 6.5 m: two copper tools (one of which was an axe-head), a shell tool and a stone pestle (Pl. XXX.5). Moreover, a cylinder seal associated with this phase shows a typical Jemdet Nasr style cross hatch pattern (Pl. XXX.6). This geometric pattern is attested elsewhere in central and southern Mesopotamia during the Jemdet Nasr period such as Khafajah (Frankfort 1955: pl. 8.57) and Fara (Martin 1988: 230, fig. 71).

PHASE 3b

Stratigraphy and architecture

Overlying level 3a is one of the better preserved and recorded phases of the sounding (Phase 3b, Pls. IX.1-2, X.1).⁷⁵ Pavements, made of both unbaked and baked bricks, have

72 Penniman to Langdon, 06-12-1928, where he argues that "... tomb 419 in Y 6.5, (was found) within a house wall."

73 Watelin to Langdon, 3-12-1928 and Watelin to Langdon, 12-12-1928.

74 Watelin to Langdon 12-12-1928. In the «Rapport sur le sondage exécuté à Kish en 1930 sous le niveau de l'eau» Watelin notes the presence of «... des fragment portant le mode de décoration dit «au peigne» par enlèvement, (Reserved slip) sur une partie du vase de engobe déposée.»

75 The stratigraphic and functional reconstruction of Phase 3b is based on: 1. Primary information (layers and buildings) from both primary and secondary sources (letters, drawings and excavation reports); 2. Secondary information (objects at 6 m) from primary sources (object cards and letters).

been found at 6 m, where the Water Table first appeared.⁷⁶ A stratigraphic section drawn by Watelin (Watelin 1929b: 66, fig. 1; Watelin and Langdon 1934: fig. 1) shows the sequence of superimposed layers covering the rooms of the houses and the streets. Here the floors are generally covered by two overlapping layers,⁷⁷ the upper one consisting of a thick deposit of loose earth, artifacts and animal bones, while the lower one is characterized by a thin line of organic debris. Although the majority of pavements are made of unbaked or baked bricks,⁷⁸ the lines of organic debris are here interpreted as earthen floors.⁷⁹ This interpretation is supported by the stratification of floors excavated in the main street. Here, the archaeologists have reported a sequence of yellow or grey clay layers, perhaps to be interpreted as rubbish, covering thin layers of organic debris.⁸⁰ As for the later phases, burial shafts (and probably some unidentified pits) damaged the structures of this phase, preventing the reconstruction and the interpretation of the plans.

Some hints on the stratigraphy of this phase are also suggested by the drainage system. A photograph showing four superimposed drains (Pl. IX.2) perhaps associated beaten earth floors should be considered as an indicator of three sub-phases within at least one of the buildings. Further evidence of continuous rebuilding is provided by the stratification of floors and layers observed during the excavation of burial 538 (Pl. XIV.2).⁸¹ The burial is sunk through different layers, between 5.4 m and 5.8 m, also cutting the unbaked brick floor at 5.5 m below the plain level. Although more “organic debris” floors may be hypothesized, no finds or associated burials are reported (apart from at 6 m and 5.5 m).

The architectural evidence for Phase 3b should be derived from the sketch plans and photographs. The only published plan of this phase (Watelin and Langdon 1934: 7, fig. 2) shows two long walls northeast-southwest oriented, running along the northwest side of what may be a street.⁸² A smaller, almost parallel wall is located to the northeast. There are two perpendicular flimsy walls to the southwest, on the other side of the street, and a square room to the northeast. With regard to the latter, three more adjoining square rooms can be dis-

76 Langdon 1930: pl. VII; Mallowan 1964: pl. XIX; Watelin 1929a: 66–67, fig. 1; Watelin 1929b: 103; Watelin and Langdon 1934: 5–7, fig. 2. See also the unpublished letter Watelin to Simms 16–12–1928 and Watelin to Langdon 29–01–1929.

77 Defined by Watelin (1929b: 66, fig. 1) “*id. silex*”.

78 Watelin to Langdon 20–02–1929. In addition, the skeletons belonging to burials 426 and 500 were lying on baked brick pavements at this elevation (6 m).

79 In the sketch section most of the organic debris layers correspond to the floors of the houses. In addition several burials are sealed by the same kind of layers. Both data suggest that they were indeed beaten earth floors.

80 Watelin 1929b: 103–107.

81 For a more detailed description of G 538 see Phase 4b.

82 The orientation of these walls is the same of those of Phase 4a.

cerned from the excavation photographs (Pl. X.1). More structures can be detected within the entire trench (Pls. X.2, XI.1), suggesting that the general plan of the houses, as well as the urban layout of Phase 3b, was very similar to that of Phase 4a (see below). On the basis of this new reconstruction, it is possible to notice that the outer walls were generally preserved for 0.8–1 m, with an average thickness of 0.8–1 m, while the inner walls were about 0.5–0.7 m in width. The masonry consisted of plano-convex mudbricks⁸³ with a standard module of 19x13x6 cm, while those used for pavements were around 23x15x7 cm (Pl. XI.2). Hearths and ash deposits are also attested in association with pottery sherds, small finds, and animal bones.⁸⁴ Also, several pit burials were sunk below the floors of the houses.

Distribution of finds

Phase 3b revealed a great amount of artifacts, including clay, flint, stone, shell, bone and copper finds. However, both the scattered architectural remains and the poor quality of the find-spot recording do not facilitate a thorough contextual analysis. Nevertheless, by comparing the different stages of the excavations in the Y sounding (Pl. VI) and the different unpublished sources (letters, plans and cards), it is possible to isolate groups of objects and to assign them to different macro-areas. For example, during 1928–29 campaign, two sectors of the Y sounding were dug down to the Water Table (6 m). We know from some of Watelin's letters⁸⁵ that the northern part was excavated first, and the southern one was excavated towards the end of the season. According to the cards, the first group of artifacts from this campaign was found at – 6 m and numbered V 034–V 248, while a second group has excavation numbers ranging from V 389 to V 917 (with several minor gaps).⁸⁶

Therefore, we may presume that the first group comes from the northern sector, while the second one from the southern. This methodology has been tentatively applied to the assemblages from Phases 3b, 3c, 4a, 4c, 5 and 9, in order to determine distributional patterns that may help to interpret possible activities taking place in the area. As a result, five macro-areas have been identified and labelled with a capital letter (A, B, C, D, E) in clockwise order. The artifacts are represented by symbols and their quantity (Pl. XII.2). Unfortunately, it is not possible to associate the finds from a macro-area to a single house, as each macro-area contains multiple houses.

83 The excavators used to define them as extremely “*bombé*” (Watelin and Langdon 1934: 5–6).

84 Watelin 1929b: 103.

85 Watelin to Langdon 18–11–1930.

86 Excavation numbers V249 to V388 mostly refers to objects from trenches C.

Sector A: This long thin strip, located at the eastern end of the sounding, was dug during 1930–31 season. Very few objects belonging to Phase 3b have been found here (Pl. XII.2). Among these are three pottery vessels (two lids and a jar),⁸⁷ a bone awl (Pl. XXXI.1), a necklace made of reddish frit beads (Pl. XXXI.2) and a stone bowl with a pierced base (Pl. XXXI.5). A stone cylinder seal is also attested in the unpublished records, although it seems to be lost. In addition, a somewhat peculiar architectural element made of clay and grooved on all sides (Pl. XXXI.3) also comes from the area.

An early workshop in Sector B?: Sector B was investigated between 1927–28 and 1928–29 seasons and it covers a rectangular surface 30 m long and 20 m wide.

Together with sector E, this part of the Y sounding revealed the richest assemblage of finds (Pl. XII.2). The most remarkable group of objects from this phase is composed of hundreds of flint tools, probably found in the same context. A small sample from the Ashmolean Museum has been already studied by J. Crowfoot Payne (1978: D09–E06) as a contribution to the larger Kish monograph by Roger Moorey (1978). However, such a detailed analysis has two pitfalls: firstly, little attention was paid to defining the original context of the flints, thus preventing any functional analysis. Secondly, the sample from the Ashmolean is just a small part of the entire flints collection, most of which is now stored in the Field Museum of Chicago.⁸⁸

The 78 flints⁸⁹ attested represent the largest stratified corpus of this kind found in the 3rd millennium BCE layers at Kish. The stratified sample from Phase 3b is characterized either of coarse-grained or fine-grained greyish flints.⁹⁰ Among the most recurring types are numerous objects derived from primary flaking, such as flakes (Pl. XXXII.1–9), cores (Pl. XXXIII.1–2) and blades (Pl. XXXIII.3–10), as well as tools resulting from secondary flaking such as borers (Pl. XXXIV.1–5) and sickle blades (Pl. XXXIV.6–8). These could have been used for different purposes, and it is therefore impossible to determine with certainty if there was any specialized production within the workshop.

Although Watelin mentioned a large quantity of microborers to drill lapis lazuli, carnelian or shell beads and other small objects (such as cylinder seals), no evidence of those is attested in the stratified sample. In this respect, the high frequency of necklaces, bracelets or other ornamental as well as utilitarian objects made of such material is remarkable. Microborers are

87 No drawing or photo is available. The description of vessels is provided in the cards.

88 The total amount of flints from Kish excavation now in the Field Museum consists of about 9,240 specimens (Phillips and Ekwall in press), 4,846 of which were recovered from the Y sounding. On the basis of the unpublished documentation, only 136 could be re-contextualized.

89 It is likely that the corpus would be larger if the number of flints in the Field Museum is also considered.

90 At least 11 obsidian blades were found between the Water Table and the Flood Stratum, although they are out of context.

widely attested in 3rd millennium BCE domestic contexts in association with beads and other stone finds.

The rest of the artifacts consists of working tools, such as a copper arrow head and a copper mirror (Pl. XXXI.7), two indeterminate stone tools, a stone vessel, two pottery vessels and a bitumen lid (Pl. XXXI.8). In addition, the presence of a cylinder seal (Pl. XXXIV.9) and a seal impression (Pl. XXXIV.10) indicates that some bureaucratic activities might have taken place there. The cylinder seal is badly worn, although Langdon's description and the drawing (1930: 606) suggest a typical ED I Brocade style design. The stratigraphic distribution of this motif in the Y sounding is remarkably neat and restricted to domestic contexts from Phases 3, 4 and 5. A high number of Brocade style seals were found mostly in the ED I level in the temple of Şamuş (Frankfort 1955: pls. 22-23, 29-30). The style is also attested in some southern Mesopotamian centres such as Fara (Amiet 1980: pl. 50.694) and Ur (Amiet 1980: pl. 49.691), among others.

The tiny seal impression fragment, depicting the body and legs of a bovid, stylistically belongs to the Jemdet Nasr period, according to Moorey (1978: Microfiche 2, D 04, D 07). Finally, two animal figurines (Pl. XXXI.4, 6) were also found here.

Sector C: Sector C was dug in 1927-28 season, reaching a maximum depth of 6 m (Pl. XII.2). The aim was to understand the stratigraphic and chronological relationship between the buildings in the sounding, the chariot burials and the ziggurat. Nevertheless, few structures and finds have been reported by Watelin at each elevation. If this pattern can be tentatively explained with the construction of the ziggurat in the latest phases of the sounding (at least from Phase 8 onwards), for the lowest levels it remains a matter for discussion. Certainly the presence of graves indicates activities prior to the new urban layout. Only a copper tool can be associated to this area (Pl. XII.2).

Sector D: This sector was cut in 1930-31 season, along the southeastern side of the area down to the water table (6 m). A significant similarity in the type of finds shared with sector E (Pl. XII.2) suggests that they were probably related to another household involved in similar activities.

Of the three pottery vessels attested, only two are recorded. One is a large bowl with out-turned rim and ring base (Pl. XXXV.1 type 16), while the second one is a bowl with applied rope decoration on the walls (Pl. XXXV.2, type MISC). The glyptic repertoire from this sector consists of two ED I Brocade style cylinder seals (Pl. XXXV.3-4), and a JN style cylinder seal (Pl. XXXV.5, see Basmachi 1994: 219). The first ones are characterized by the patterns of passing horned animals carved (Collon 2005: 24), typical of the ED I glyptic repertoire of central and southern Mesopotamia (Amiet 1980: pls. 49.691, 50.694; Frankfort 1955: pls.

22-23, 29-30). The rest of the assemblage consists of two necklaces made with carnelian or frit beads, and a few utensils, such as two stone bowls (Pl. XXXV.6-7), another stone tool, a metal tool, and a shell tool.

Sector E: This sector covers almost the entire southern part of the Y sounding. It was excavated down to the water table in 1928-29 season and completed in the following campaign with a small shaft which reached the Jemdet Nasr phases.

Beside several scattered structures (see above), the archaeologists reported 16 finds from Phase 3b (Pl. XII.2). These include five animal clay figurines (Pl. XXXVI.1, 3), two pottery vessels, some working tools made of clay, flint and bone (Pl. XXXVI.4), as well as a stone hammer (Pl. XXXVI.5) and a few personal ornaments such as a shell (Pl. XXXVI.2), a necklace, and a copper pin (Pl. XXXVI.7). A typical ED I solid footed goblet comes from this sector.

Glyptic finds include an unpublished cylinder seal stored in the Iraq Museum for which no information is available and a seal impression (Pl. XXXVI.6) showing a typical monster scene motif. At Kish two seal impressions and three cylinder seals belong to this group. These scenes generally show one or more human figures struggling with monstrous animals or creatures of fantasy (sometimes animal-human hybrids). Small or big size animals can be also present in such representations. Scenes depicting monsters are relatively widespread, particularly in central Mesopotamia, for example at Nippur and Fara (Martin 1988: 72), suggesting a regional ED I horizon (Martin 1988: 72).

Other finds from Phase 3b: A group of pottery vessels (18) from Phase 3b has no excavation number and so it cannot be associated to a specific sector of the Y sounding. These vessels belong to 11 types showing a low degree of standardization in shape and volume.

Among open shapes there is a distinctive type of "Grey ware" shallow open conical bowl with rounded base (Pl. XXXVII.1, type 12) and the typical ED I solid footed goblet (Pl. XXXVII.2, type 25). The repertoire of closed vessels consists of medium size simple ware spouted jars (Pl. XXXVII.3, 5, types 71 and MISC), a small jar with an out-turned rim and flat base (Pl. XXXVII.4, type 32), and several storage jars with triangular rims, high carination, and ring bases (Pls. XXXVI.8-10, XXXVII.6, 8, types 50, 52, 68 and 69). A small lid also comes from this phase (Pl. XXXVII.7, type 79).

Distribution of burials

The nine burials associated with Phase 3b have all been found in the deep sounding cutting the early ED I phase (3a) and partially reusing the previous structure (Pl. XII.1). The skeletons of all the burials lay at - 6.5 m below the plain level (0 m).

G 382: Simple pit grave type burial found at the southern end of the Y sounding, northeast of G 370. The poor remains of the skeleton of an adult were in very bad condition. No grave goods were associated with this burial.

G 406: Simple pit grave type burial, cut through the centre of an ancient room and using its mudbrick floor as base. According to H. Field⁹¹ a “*slightly crushed calvarium and some long bones*” were documented, while no grave goods are reported from this burial.

G 419: This burial was disturbed by later activities (Algaze 1983-84: 169). This may be the reason why the two associated skeletons, interpreted by T.K. Penniman as adult women,⁹² were found in bad condition. Two large pottery storage jars with high carinated and ring bases (Pl. XXXVIII.1-2, type 77) were found together with the human remains, though it is not possible to say whether they were associated with one or both of the deceased.

G 423: This burial was located next to the mudbrick walls of a house. The body is of an adult man (Algaze 1983-84: 169; Watelin and Langdon 1934: 70) and lain upon a beaten earth floor. No objects were found with the deceased.

G 425: Simple pit burial containing the body of a child (Algaze 1983-84: 169; Rathbun 1975: 54). No objects were found with the deceased.

G 427: Simple pit grave of two adults, one male, the other of indeterminate sex. The bottom of the pit is made of mudbricks, probably the floor of an ancient house (Algaze 1983-84: 169). There were also a storage jar with an out-turned rim and high carination (Pl. XXXVI-II.3, type 76), and a stone vessel.

91 H. Field unpublished report: 118.

92 Penniman to Langdon 23-02-1929.

G 431: This burial was disturbed by later activities (Algaze 1983–84: 169). The base of the grave consisted of a mudbrick floor, probably belonging to an earlier house. Although neither human bones nor grave goods were recovered, the excavators reported several fish bones.⁹³

G 433: This burial was disturbed by later activities (Algaze 1983–84: 169). The base was the mudbrick floor of an earlier house. The skeleton was badly crushed and two pottery vessels, including a solid footed goblet (Pl. XXXVIII.4, type 25) were found in association.

G 474: Simple pit grave of an adult cut below the beaten earth floor of a house (Algaze 1983–84: 169). The grave goods mainly consist of pottery, copper and stone vessels. Among these, there are four pottery vessels, a shallow bowl with a rounded base (Pl. XXXIX.1, type 12), a large spouted jar with a flat base (Pl. XXXIX.2, type 74), a large carinated storage jar with an out-turned rim (Pl. XXXIX.3, type 49), and a carinated jar with trinagular rim and ring base (Pl. XXXIX.4, type 50).

PHASE 3c

Stratigraphy and architecture

At 5.5 m, the excavators found some floors of organic debris sealing simple pit burials.⁹⁴ In the absence of more detailed descriptions (no plans or sections have been done), the floors are considered as a sub-phase of level 3.⁹⁵ As suggested by the artifact distribution, sectors B and E should be the areas where such rebuilding activities took place (Pl. XIII.1).

Distribution of finds

Materials from Phase 3c were excavated during 1928–29 in the central strip of the sounding (Pl. XIII.1). In particular, it is possible to distinguish two clusters of finds, one in the northern part (sector B) and the other in the southern area (sector E).

Sector B: Nine objects, with excavation numbers ranging from V 85 to V 120, can be attributed to this sector. They include working tools, such as three spindle whorls (Pl. XL.1–2)

⁹³ Algaze 1983–84: 169

⁹⁴ The shafts of burials 479, 499, 513, 522 and 524 are 0.5 m deep, the lower elevation of which being 5 m. See Algaze 1983–84: 169.

⁹⁵ The stratigraphic and functional reconstruction of Phase 3c is based on: 1. Primary information (burials) from both primary and secondary sources (letters, drawings and excavation reports); 2. Secondary information (objects at 5.5 m) from primary sources (object cards and letters).

a clay tool and bitumen lumps. In addition, two human figurines (Pl. XL.3) and a stone necklace were found.

Sector E: The assemblage from the southern part of the sounding is different from that of sector B. Six pottery vessels, including a beaker with rounded base (Pl. XL.6, type 24), some large handled jars with white slip and incised or applied decoration (Pl. XL.9-10, types 68, 69) and two lids (Pl. XL.7-8, types 79, 80), confirm the presence of storage activities. The rest of the assemblage comprises a clay spindle whorl (Pl. XL.4), an indeterminate ornament made of mother-of-pearl (Pl. XL.5), two indeterminate clay tools, and fragment of shell.

Other finds from Phase 3c: A fragmentary inscribed clay tablet (Pl. XL.13, Appendix 1, Cat. 1) and two fragments of storage jars with applied and incised decoration were also found at 5.5 m (Figs. Pl. XL.11-12, type 68), although the exact spatial location is unclear.

Distribution of burials

25 burials can be associated with Phase 3c, although spatial data are available for only 22 of them (Pl. XIII.2). All the burials were discovered in the northeast and southeast parts of the area, thus strengthening the interpretation of the presence of a public, perhaps religious, building in the southwest sector. Among those two burials, G 495 and G 496 are well stratified, with beaten earth floors sealing the shafts at 5.5 m.

G 363: Simple pit grave found at the southeast corner of the sounding. The skeleton was found at 6 m below the plain level, badly crushed and could barely be recovered. The rich assemblage consisted of three stone vessels: a long beaker and two indeterminate open shapes (Algaze 1983-84: 170), two open vases made of copper, and five pottery vessels, among which a small jar with an out-turned rim and pointed base (Pl. XLI.3, type 38) and two lids (Pl. XLI.1-2, type 79). Other goods include a copper chisel and a flint tool.

G 370: Simple pit grave found at the southeast end of the sounding. The skeleton of an adult of indeterminate sex was found at 6 m below the plain level, laid on the left side (Algaze 1983-84: 171). The volume of recovered grave goods makes this burial one of the richest of the Y sounding. The assemblage mainly consists of seven stone vessels, six bowls (Pl. XLI.4-8) and one jar with a ledge rim and high carination (Pl. XLI.9), and ornaments such as two complete necklaces and several other carnelian beads, together with three copper pins. Other goods include two copper tools and six shells or shell tools.

G 386: This grave was excavated towards the southeast end of the sounding (Algaze 1983–84: 171) at about 6 m below the plain level. Information about both the structure and the preservation of the skeleton is very meagre, while the rich grave goods assemblage closely resemble that of G 370, G 622, G 685 and G 689. This consists of pottery vessels only. Among the 15 specimens are seven conical bowls (Pl. XLII.2–8, type 13) and a spouted jar (Pl. XLII.1, type 74). There is no information available on the remaining vessels.

G 391: This is a chamber burial found at 6 m below the plain level, close to G 390. The whole structure (walls, floor and roof) is made of mudbrick. Inside the chamber, an adult male was found crammed into the left side (Algaze 1983–84: 172; Watelin and Langdon 1934: 25, fig. 4bis).

The objects included many stone, copper and pottery artifacts. The stone finds assemblage consists of a slender beaker and two bowls, while among the copper finds are two open vessels, an indeterminate tool and a dagger. The pottery assemblage is characterized by two different types of open conical bowls (Pl. XLIII.1–10, types 12–13) and a large storage spouted jar (Pl. XLIII.11, type 76).

G 396: This grave was found at 6 m below the plain level, at the north end of the sounding, east of G 390. The body of an adult was crushed and the remains scattered all over the grave.⁹⁶ No objects were found associated with the burial.

G 399: This grave was found at 6 m below the plain level, at the southeast of the sounding. The body of an adult was badly crushed and the remains scattered all over the grave (Algaze 1983–84: 172).⁹⁷ No objects were found associated with the burial.

G 426: Simple pit grave of an adult female found at 6 m below the plain level, the base of which is the mudbrick floor of an earlier house (Algaze 1983–84: 172; Moorey 1978: Microfiche 2, F09; Watelin and Langdon 1934: 12, 69).⁹⁸ The skeleton recovered belonged to an adult female (Algaze 1983–84: 172). Two objects were found with the body: a flint tool (Pl. XLIV.1) and a carnelian bead, probably part of necklace or a bracelet.

G 428: Simple pit grave of an adult female (Algaze 1983–84: 172; Moorey 1978: C14) found at 6 m below the plain level in the centre of the sounding. Further information on the

96 Penniman to Langdon 20–12–1928; H. Field unpublished report.

97 See also Penniman to Langdon 20–12–1928, H. Field unpublished report.

98 Penniman to Langdon 28–12–1928.

structure of the burial or the body is not available. The associated assemblage is composed of a single small spouted jar with a tall neck and ring base (Pl. XLIV.2, type 71).

G 429: Simple pit grave of an adult of indeterminate sex, found at 6 m below the plain level, the base of which is the mudbrick floor of an earlier house (Algaze 1983–84: 169). The only artifact from this burial is a small jar with an out-turned rim and rounded base (Pl. XLIV.3, type 37).

G 430: Simple pit grave of an adult of indeterminate sex (Algaze 1983–84, 172; Moorey 1966, pl. IV) found at 6 m below the plain level in the centre of the sounding. Two worn stamp seals bearing some JN geometric drilled style motifs (Pl. XLIV.4–5) were found close to the body. This horizon has parallels in central and southern Mesopotamia during JN and ED I periods. In particular, numerous examples of drilled and linear style glyptic are attested at Khafajah and other sites from the Diyala region (Frankfort 1955: pls. 4.17–18, 5.22–24, 19.204–206, 20.214).⁹⁹ The rest of the grave goods consists of some stone beads (Pl. XLIV.6) and a complete marine shell.

G 481: This was probably a small chamber grave, though only a few broken mudbricks, probably related to the collapsed roof, were found. It was found in the centre of the Y sounding, at 6 m below the plain level. The walls of the burial were made of mudbrick as well, while the body was laid on the right side on a beaten earth floor (Algaze 1983–84: 169). The small assemblage consists of vessels, ornaments and stone tools: two stone bowls (Pl. XLIV.7), beads and a copper mirror. The only tool found in the burial is a small flint core.

G 495: This chamber burial has been disturbed by the shaft of another grave (G 494), and only the lower 40 cm were well preserved (Algaze 1983–84: 169). The upper elevation of the cut was located at 5.5 m, where a “*line of organic debris*” (beaten earth floor) was observed (Algaze 1983–84: 169). The structure consisted of a rectangular chamber with mudbrick walls and roof, while the floor was made of beaten earth. The skeleton was badly preserved and no objects are reported from this grave.

G 496: This burial is very similar to G 495. It is a chamber burial disturbed by the shaft of another grave (G 494) and only the lower 40 cm were well preserved (Algaze 1983–84: 169). The upper elevation of the cut was located at 5.5 m where a “*line of organic debris*” (a beaten earth floor) was observed (Algaze 1983–84: 169). The structure consists of a rectan-

⁹⁹ See also Basmachi 1994.

gular chamber with mudbrick walls and roof, while the floor was made of beaten earth. The skeleton was badly preserved and no objects are reported from this grave.

G 533: This grave was excavated towards the south end of the sounding at 6 m below the plain level (Algaze 1983–84: 173). No information about both the structure and the preservation of the skeleton is available. Two grave goods, a small spouted jar (Pl. XLIV.8, type 76) and a stone bead (Pl. XLIV.9) were found with the deceased.

G 621: Simple pit grave of an adult female whose body was laid on the side (Algaze 1983–84: 173) at 6 m below the plain level at the extreme south end of the Y sounding. The grave goods assemblage consists of three pottery vessels, including a small bottle with an out-turned rim (Pl. XLV.1, type 46), while the others were not properly recorded.

G 622: Simple pit burial containing the body of an adult of indeterminate sex found at 6 m below the plain level, at the extreme south end of the Y sounding (Algaze 1983–84: 173; Moorey 1978: F09). A wealth of goods was found in association. Among these, there was a cylinder seal, some personal ornaments including three necklaces (Pl. XLV.2–3) and a bracelet, as well as many pottery vessels. This rich assemblage consists of a variety of miniature shapes (Pl. XLV.6–7, 9–15, type 84, MISC), a small jar with pointed base (Pl. XLV.16, type 37) a small high carinated jar (Pl. XLV.8, type 49), and some small spouted jars (Pl. XLV.4–5, type 71) with ring base.

G 624: Simple pit grave of an adult male found at 6 m below the plain level, at the extreme south end of the Y sounding (25–35 years, Rathbun 1975: 55). Information about both the structure and the preservation of the skeleton is very meagre (Algaze 1983–84: 173; Moorey 1978: F09). The grave goods consist of three pottery vessels, a large spouted jar (Pl. XLVI.1, type 76) and two carinated bottles with out-turned rims (Pl. XLVI.2, type 46).

G 628: Simple pit grave of an adult of indeterminate sex found at 6 m below the plain level, at the extreme south end of the Y sounding (Algaze 1983–84: 174; Rathbun 1975: 55). No other information about both the structure and the preservation of the skeleton is available. The grave goods assemblage is represented by a carinated bottle with an out-turned rim (Pl. XLVI.3, type 47) and a stone tool.

G 629: Simple pit grave of an adult female of about 25–35 years found at the extreme south end of the Y sounding, 6 m below the plain level (Algaze 1983–84: 174; Rathbun 1975: 55). Information about both the structure and the preservation of the skeleton is very meagre.

Three objects were associated with the skeleton: two pottery vessels, one of which was a small jar with an out-turned rim and rounded base (Pl. XLVI.4, type 37) and a shallow stone bowl (Pl. XLVI.5) .

G 683: Simple pit grave of an adult male found at 6 m below the plain level (Algaze 1983–84: 174; Moorey 1978: G01). There is no available information on the location, the structure and the preservation of the skeleton. Some objects were found within the grave. These included three bowls, two of which were made of stone (Pl. XLVI.6) and the third one made of pottery. In addition, there were three stone tools, including a pestle and an axe, along with a complete marine shell.

G 684: Simple pit grave of an adult of indeterminate sex, found at the extreme south end of the Y sounding at 6 m below the plain level (Algaze 1983–84: 174; Moorey 1978: G01). According to a photograph of the burial, the rich grave goods assemblage was found all around and covering the body. Although not listed in the dataset below, the photo clearly shows some pottery vessels (such as a spouted jar) which are now (probably) lost. This burial custom is very similar to others from contemporary and neighbouring graves, such as G 685 and G 686.

The majority of objects are vessels, among which are four copper and three stone bowls. In addition, a stone mortar (Pl. XLVI.7) with a pestle as well as a copper dagger (Pl. XLVI.8) and copper saw were found with the body.

G 685: Simple pit grave of an adult female, found at the extreme south end of the Y sounding at 6 m below the plain level (Rathbun 1975: 55). According to an unpublished photograph of the burial,¹⁰⁰ the body was laid upon some finds and other goods were placed all around it (Algaze 1983–84: 174–75). As with G 684, although not listed in the dataset (AOKF 4), the photograph clearly shows some pottery vessels (such as conical bowls) which are now (probably) lost. This burial custom is very similar to others from contemporary and neighbouring graves such as G 684 and G 686.

The majority of objects are vessels, among which are six stone (Pl. XLVII.1–5) and a copper spouted jar (Pl. XLVII.7). The rest of the assemblage consists of several tools made of both copper and stone, including a copper pin (Pl. XLVII.6) and a stone mortar with its pestle. The assemblage also includes several marine shells (Pl. XLVIII.1–3) and a copper-alloy pin.

G 686: Simple pit grave of an adolescent (16–18 years) and an adult female found at 6 m below the plain level (Algaze 1983–84: 175; Rathbun 1975: 55). Both stratigraphic and struc-

¹⁰⁰ Kept in the Ashmolean Museum of Oxford archive.

tural data are almost completely missing. The funerary equipment comprises 29 finds, among which are eight stone bowls (Pl. XLVIII.4-5, XLIX.1-5) and 11 marine shells. More working tools include three vases, one ceramic and two made of copper, two spindle whorls and a flint borer (Pl. XLIX.6). The personal ornaments include a copper mirror and one copper pin, as well as a stone necklace (Pl. XLIX.7).

G 687: Information about both the structure and the preservation of the skeleton is very poor (Algaze 1983-84: 175). It was found at the extreme south end of the Y sounding at 6 m below the plain level. The small assemblage includes vessels and ornaments. Among the former are a stone and a copper bowl, while the ornaments include a stone necklace, some scattered beads (probably belonging to a second necklace or a bracelet, Pl. L.1-2) and a shell.

G 689: Simple pit grave of an indeterminate adult found at the extreme south end of the Y sounding at 6 m below the plain level (Algaze 1983-84: 175). No other information about both the structure and the preservation of the skeleton is available. The small assemblage includes vessels and tools. Among the vessels are a stone bowl and a small ceramic jar. Tools include a copper spearhead, a copper axe and another indeterminate tool, also made of copper. In addition, a complete shell was also found.

PHASE 4a

Stratigraphy and architecture

The domestic and productive area attested from Phase 3 is still in use during the following phase (4a). According to the excavators,¹⁰¹ the floors of Phase 4a (Watelin's Houses Stratum II) are located at 5 m below the plain level.¹⁰² Two more sub-phases are attested at 4.8 m, Phase 4b and at 4.5 m, Phase 4c. The sequence of layers covering the floors and streets is similar to that of Phase 3a. The walls of the houses are preserved to about 0.65 m in height, maintaining approximately the same width of those of Phase 3b. Some disturbances in the stratigraphic sequence must be ascribed to the intra-mural pit burials dug from the overlying levels.

Urban layout and architecture

The excavated remains of Phase 4a allow to outline both the urban layout and the architecture of the area (Pl. XIV.1), which, according to the excavators (Watelin and Langdon 1934:

101 Langdon 1930, pl. VII; Watelin and Langdon 1934: figs. 2 and 7 ("flood 2"); Watelin to Langdon 29-01-1929; Watelin to Langdon 05-02-1929.

102 The stratigraphic and functional reconstruction of Phase 4a is based on: 1. Primary information (layers, buildings, burials) from both primary and secondary sources (letters, drawings and excavation reports); 2. Secondary information (objects at 5 m) from primary sources (object cards and letters).

pl. 7)¹⁰³ was already in use from Phase 3b (with minor changes) and continued until at least Phase 6. According to the new reconstruction of the plan of Phase 4a proposed here, based on the unpublished plans and photos, there are five buildings (Pl. XV.1) arranged along one main street and three alleys (Pl. XV.2).

Street 1 is about 2.5 m broad and runs northwest/southeast for more than 60 m, covering almost the entire length of the sounding. Along the northwest side of Street 1 there are Alley 1 and Houses 1 and 2, while on the southeast side three houses (House 3, 4 and 5) and two alleys (2 and 3) have been newly recognized. Alley 1 is slightly narrower than Street 1, but it remains the largest alley, lending credence to the hypothesis that it could be another major road. On the east of Street 1, Alley 2 can be confidently recognized thanks to the neat corner made by Houses 5 and 4 and for its width, which mirrors that of Street 1. The only road with conjectural interpretation is Alley 3. Indeed, this 10 m long but very narrow space dividing Houses 3 and 4 could also be part of one of the houses.

HOUSE 1 (Pl. XVI.1): House 1 is a large unit with a thick (> 1 m) southeast wall more than 30 m long and a thinner northeast wall (probably representing the limit on that side) approximately 9 m long with a doorway opening onto Alley 4. The preserved plan only consists of a single large room (17x9 m c.ca), inside of which a bitumen-coated installation (Pl. XVI.2) leaning against the inner side of the southeast wall, and a small drain perpendicular to the northwest wall were found. Another room, or maybe more than one, may have been located to the southwest of the previous one, as confirmed by the prosecution of the southeast perimeter wall. According to Moorey (1978: 99) and Algaze (1983–84: 137), the structure was interpreted as a public building due to its large dimensions.

HOUSE 2 (Pl. XVII.1): Although somewhat patchy, the plan of House 2 allows us to hypothesize the existence of more rooms. The perimeter of the house cannot be securely ascertained, as only its southeast side is delimited by a massive wall almost 2 m large and 22 m long. Nevertheless, the southern limit of this wall, in my opinion, was not linked to the angle of House 1, as it is thicker and not completely aligned. This allows the assumption of the potential existence of the southeast angle of House 2 there, which would consequently delimit Alley 4. The inner structure is composed of a large room of which only the southeast and southwest walls are preserved, the first about 1.5 m thick and 14 m long, while the second is 1 m thick and 11 m long. Between the large room and the southeast perimeter wall there is an “L shaped” space, with several partially preserved walls of different thicknesses, suggesting the existence of at least four more rooms. Within this space, parallel to the southwest wall of the large room, there is a structure consisting of two parallel long walls, with a circular hol-

103 For an updated plan of Phase 4a see Algaze 1983–84: 165; Gibson 1972a: 309.

lowed installation at the southeast end. It could be interpreted as a vertical pottery drain¹⁰⁴. An attempt to reconstruct the plan of the houses can be proposed on the basis of the hypothetical connection of the large room with the northeast perimeter wall through the existing but poorly preserved walls. Furthermore, a southern end for the houses could correspond to the northern limit of Alley 2. This interpretation may suggest a typical plan with a central squared courtyard and minor rooms arranged around it. This plan was widespread in Mesopotamia¹⁰⁵ from the second part of the 3rd millennium BCE onwards, while earlier examples are rare¹⁰⁶.

HOUSE 3 (Pl. XVII.2): This is the biggest and most complex house found in the eastern sector. It is located between Street 1 (to the west) and Alley 4 (to the south). This has been divided into three unconnected units (labelled as unit 1, 2 and 3), which have been associated on the basis of their general relationship with the urban layout and the neighbouring houses, as well as some architectural observations. To the northeast (unit 1), this building is characterized by a huge room (the largest uncovered in the sounding), with three preserved walls. It measures 13x12 m with northwest and southwest walls, which are more than 1 m thick and the southeast one less than 1 m. A doorway in the middle of the southwest wall allows entrance to this room. A short, thick, badly preserved wall found in the southwest corner of the room may be interpreted in different ways (for instance, as a small room, or perhaps a working installation). The only furniture documented inside the room is a small drain near the northwest wall. A northwest/southeast oriented wall perpendicular to the southeast wall of the room further delimits inner spaces, but due to its bad state of conservation and extension, it is not possible to provide any further interpretation. The connection between unit 1 and unit 2 is guaranteed by two wall fragments, the westernmost of which is not only aligned to the northwest perimeter wall of unit 2, but has also the same thickness, suggesting that they could be the same wall. The space between these units could be interpreted as a sort of corridor or a vestibule, with a main entrance on street 1. Unit 2 is composed of three rooms, two northeast/southeast are oriented about 10x2.5 m, with walls 1.5 m large, while the third room, northeast/southeast oriented, is smaller (6x2 m c.ca), with walls of the same thickness. Unit 3 consists of two perpendicular walls which hardly fit with the general plan of the entire building. Three spaces can be identified: to the north, together with the northern unit, a

104 Similar specimens are quite common in the domestic houses throughout the Near East. Some examples can be found at Abu Salabikh, Area E (Postgate 1977, 282-283) and Khafajah, Private Houses (Delougaz, Lloyd and Hill 1967, 12, pl. 10).

105 Similar plan are attested in ED IIIa-b period at Khafajah, Houses 3-1 (Delougaz Lloyd and Hill 1967), Abu Salabikh, Area E (Postgate and Moorey 1976: fig. 3), Fara, House VIak (Martin 1988: fig. 29), Nippur, NT II 1b (McCown, Haines and Biggs 1978: pl. 34), Mari, Maison du Piège (Margueron 2004: fig. 138).

106 No ED I courtyard houses have been found yet, while ED II parallels are represented by Houses 6-4 of Khafajah (Delougaz, Lloyd and Hill 1967).

square room (or rooms), to the southeast, a single room which was not completely excavated, while to the southwest, with unit 2 a rectangular northeast/southeast oriented room. The walls of unit 3 are all about 1.5 m width.

Since House three has one of the most complete plans, a brief note can be given on its inner circulation. The gap between Units 1 and 2 suggests the presence of a doorway on Street 1 (no other possible places can be identified). Once in the vestibule, two entrances can be detected: immediately on the right a gap may be interpreted as the access to the northern room of Unit 2, while on the left there is the doorway to the large room of Unit 1. Despite the bad state of conservation, parallels to this plan can be proposed. Unit 2, in fact, with its rectangular parallel rooms and a third one perpendicular to them, represents a well-known scheme since the ED I¹⁰⁷.

HOUSE 4 (Pl. XVII.1): House 4 is located between Houses 3 and 5, with Street 1 delimiting it to the northwest, Alley 4 to the northeast and Alley 3 to the southwest indicating at least three perimeter walls. The plan of the house is clearer in the southern part, while the northern one consists of a single northwest/southeast oriented perimeter wall, approximately 8 m long and less than 1 m thick. This wall has no connection to the southern part of the building and its association is based on the architectural analysis of House 3, which seems to have its limit in the southernmost walls of Unit 2. The southern part of the house shows five rooms in different states of preservation. The dimensions of the walls are notable, the outermost one having an average thickness of about 1.5 m, while the inner one being less than a half metre in width. The rooms appear to have been designed according to a precise scheme, with a central room, although not well preserved (court?), and three other rooms regularly distributed around. A fifth room projecting from the southwest corner of the building has its walls as part of the perimeter. In addition, House 4 is the only one with documented intramural burials,¹⁰⁸ although it is clear that many others should have existed.¹⁰⁹ The plan of House 4 recalls that of House 2, the typical Mesopotamian house with a central court (see above).

HOUSE 5 (Pl. XVII.2): At the southeast corner of the sounding lies the fifth house of this phase, labelled no. 5. As for House 4, the two outermost walls, thicker than the others, should delimit the house on its northeast side (on alley 3) and northwest side (on street 1). The north-

107 The best examples for the ED I period are Houses 7-8 at Khafajah (Delougaz, Lloyd and Hill 1967: 8-11, pls. 6-7) and those on Hill B at Tell Agrab (Delougaz, Lloyd and Hill 1967: 268, pl. 50b).

108 Watelin and Langdon (1934: 17) and Algaze (1983-84: n. 6) stated that the graves involved are G 535, G 525 and G 464. As regards to G 464, Algaze (1983-84: 186) affirmed that its lower elevation is - 4 m thus suggesting to associate it to this phase because its lower elevation is higher than the point from which the pit would have been sunk (i.e. - 5 m).

109 The description of the stratigraphic relations of some graves is reported by Algaze (1983-84: 169-191).

west perimeter wall is about 1.5 m, like those of Houses 2, 3 and 4, and it is preserved for about 8 m, while the northeast wall is smaller and shorter (less than a metre wide and almost 6 m long). The plan is similar to that of House 3, unit 2, with three rooms, two rectangular ones northeast/southwest oriented 6x2.5/3 m (the easternmost is slightly larger than the other), and the third one perpendicular of about 7x2.5 m. The walls are all less than 1 m wide. In the eastern part of the house, a wall oriented northeast/southwest encloses a fourth room (to the southwest) and a probable fifth one (to the northeast). The strange location of this wall (it lies in the middle of the northern room) suggests that it could belong to a subsequent phase.

Distribution of finds

A large quantity of finds can be associated with the buildings of Phase 4a, although it is not possible to establish exactly to which building each object belongs (Pl. XVIII.2).

Sector A: Many objects have been found in this long and thin strip at 5 m below the plain level. Among them there are two ED I Brocade style cylinder seals, (Pl. LI.1-2), similar to the other specimens from Phase 3 and characterized by the typical pattern of passing horned animals (Basmachi 1994: nos. 130, 550), also attested from centres like Khafajah (Frankfort 1955: pls. 22-23, 29-30), Fara (Amiet 1980: pl. 50.694) and Ur (Amiet 1980: pl. 49.691). In addition, small finds from Sector A include one stone tool and two bone tools (Pl. LI.3-4), a small group of figurines (Pl. LI.5-7,) among which a standing bearded male (Pl. LI.7), and some personal ornaments. stone and ceramic vessels constitutes/represents the majority of the materials from this sector. The assemblage consists of three stone bowls, and ceramic bowls of various size (Pl. LII.1, 3, type 16-17), or various types of closed vessels such as a slender bottle with pointed base (Pl. LII.6, type MISC), a medium-size carinated jar with out-turned triangular rim (Pl. LII.8, type 50), a large spouted jar (Pl. LII.7, type 75), two lids (Pl. LII.4-5, type 79), and others miscellaneous shapes (Pl. LII.2, type 17).

Sector B: The large amount of finds associated with this sector shows a strong similarity with the previous phases. In addition to a discrete number of flint tools, suggesting a functional continuity with Phase 3b, there are also several bitumen (Pl. LIII.3) and bone (Pl. LIII.5-9) tools, a copper object, several indeterminate clay tools, a stone pestle (Pl. LIII.2) and a clay spindle whorl (Pl. LIII.10).

The other relevant cluster of finds is represented by some pottery vessels and 15 clay and bitumen animal (Pls. LIII.4, LIV.1-8) and human figurines (Pl. LIV.9-11).

A Jemdet Nasr style cylinder seal is also attested from this sector (Pl. LIII.1).

Sector C: Only three objects come from this part of the Y sounding: a shell inlay (Pl. LIV.12), a stone bowl, and some stone beads.

Sector D: Various types of objects come from the long, thin strip located along the south-eastern limit of the area. These include an ED I Brocade style cylinder seal (Pl. LV.7) and copper vessels or storage vessels. Among those are large spouted jars (Pl. LV.1, type 71) and small jars with pointed or flat bases (Pl. LV.2-3, types 32, 37). Two animal figurines (Pl. LV.4, 6), a fragment of shell, a necklace and a bone awl (Pl. LV.5) come from this area, too.

Sector E: The objects associated with this sector are similar to the assemblage from sector B. Among others, the number of clay tools and pottery vessels such as a small box (Pl. LVI.1, type 4), three spindle whorls (Pl. LV.10-12), as well as bone (Pl. LVI.2-3), flint and stone tools is noteworthy. The presence of some type of workshop is therefore plausible, although, as in the case of the sector B, it is not possible to establish with certainty the type of processing. Again as in sector B, various clay figurines, five humans (Pl. LVI.4-8) and four animals (Pl. LVI.9-12), come from the southern portion of the area. While most figurines tend to be interpreted as toys (Ochsenschlager 2004; Rainville 2005: 74), it is possible that some of them also had a votive function (Moorey 2003; 2004). Indeed, besides the fact that at least one of them may represent a female deity (Pl. LVI.7), also a votive stone plaque is attested from this sector. Several stone beads were also recovered in sector B (Pl. LVI.13).

Two seal impressions were also attested from this sector (Pl. LV.8-9). One of them has a typical JN Piedmont style decoration, similar to the cylinder seal from Phase 1. The presence of this seal impression as well as of another cylinder seal in Phase 5 (see below), confirms the conclusions already drawn by various scholars (Collon 2005: 23; Marchetti 1996: 101) that consider the Piedmont Style as emerging in the JN and ED I periods alongside few other representative types (such as Brocade style) and disappearing in the later stages.

The second seal impression represents an animal procession. From the stratigraphic point of view, it is interesting to note that the seal impressions bearing this type of motif are clustered in Phases 3b and 5, while the cylinder seals have been found in Phases 10 and 11. Parallels with the central and southern Mesopotamia suggest an early date for such specimens (Amiet 1980: 330-340), thus confirming the primary importance of the seal impressions. Indeed, there are several archaic examples dating back to either the Jemdet Nasr (Matthews 1992: fig.10.6) or the successive ED I period. In particular, there are strong similarities with the late ED I Fara glyptic style (Amiet 1980: pl. 53; Martin, 1988: 71-72, 243, nos. 188-192), which are also attested at Nippur Inanna IX dated between the late ED I and the early ED II (Hansen 1971: 46-47). Karg (1984: 35-38; contra Martin 1988: 133-134, n. 29), considering the horizon from Ur (SIS 4-8) and the Diyala region (in particular at Tell Asmar and Tell

Agrab), has suggested a slightly later date for this style. However, a number of cylinder seals with animal processions has been also found in late ED contexts together with ED III contest scene seals (Frankfort 1955: pl. 36-37).

Other finds from Phase 4a: One clay tablet with an administrative text (Pl. LIV.13, Appendix 1, Cat. 2) was found in Phase 4a. No more detailed information on the macro context can be provided.

In addition, several fragments of ED I-II hole-mouth jars with applied and incised decoration (Pls. LI.9-14, LII.12, type 68) as well as ED I-II some reserved slip jars (Pl. LII.9-11, type 69) have been found at 5 m below the plain level, although no spatial data are available. More pottery shapes from phase found at 5 m but without spatial information include, among others, a wide open conical bowl with rounded base (Type 12), a single handled jar (Type 52), two spouted jars (Types 74 and 76), and a lid (Type 79).

Distribution of burials

29 burials have been associated to the buildings of Phase 4a. The reconstruction of the spatial distribution of the tombs (Pl. XVIII.1) here proposed is based on the analysis of the letters, the reconstruction of the different stages of the excavation as well as other unpublished data. As a result, the tombs seem to concentrate in the northern sector of the sounding, probably associated with House 2, while the rest are distributed in a rather heterogeneous way in the northeast, central and southeast sectors. The only area that does not reveal graves is that of House 1. This evidence further supports the interpretation of this building as a cultic place. Among those, five burials, G 491, G 494, G 523, G 531 and G 535, are well stratified, with beaten earth floors sealing the cuts at 5 m. If not specified, information on the burials is taken from an unpublished report drafted by H. Field.¹¹⁰

G 365: The burial was located in the east side of trench close to cart-burial 2 (Algaze 1983-84: 177), at 5.5 m below the plain level. There are no data on the structure and the skeleton, as their state of preservation is very poor.

G 371: This burial was found at the southeast corner of the Y sounding, at 5.5 m below the plain level (Algaze 1983-84: 177). Information about both the structure and the preservation of the skeleton has not been provided by the excavators and no objects appear to have been found in association.

¹¹⁰ H. Field unpublished report.

G 380: Simple pit burial found at the north end of the sounding, at 5.5 m below the plain level (Algaze 1983–84: 177). There is no information about the structure and the preservation of the skeleton. No object assemblage is recorded from this grave.

G 381: Simple pit burial of an adult found northwest of G 370 at the north end of the sounding, at 5.5 m below the plain level (Algaze 1983–84: 177). Information about the structure and the preservation of the skeleton has not been provided by the excavators. The rich assemblage of grave goods includes eight conical bowls (Pl. LVII. 7, type 13), two wide open conical bowls with rounded base, a small globular jar with triangular rim and a shell (Algaze 1983–84: 177; Watelin and Langdon 1934: 31, fig. 5).

G 383: Simple pit burial found at the southeast corner of the Y sounding 5.5 m below the plain level. Information about both the structure and the preservation of the skeleton is very poor and no objects appear to have been found in association.

G 385: Simple pit burial of an adult found at the southeast corner of the Y sounding 5.5 m below the plain level. Information about the structure and the preservation of the skeleton is very poor. The burial has no associated grave goods.

G 390: Simple pit burial found at the north end of the sounding, at 5.5 m below the plain level (Moorey 1978: F06). There is no information about the structure and the preservation of the skeleton. No object assemblage is recorded from this grave.

G 392: Simple pit burial found at the north end of the sounding west of G 390 at 5.5 m below the plain level. There is no available information on the structure and the preservation of the skeleton. No object assemblage is recorded from this grave.

G 393: Simple pit burial found at 5.5 m below the plain level. No information on the spatial location as well as the body is available. Three objects were found in the pit: a stone bowl and two pottery vessels.

G 394: Simple pit burial of an adult found southwest of G 390 at 5.5 m below the plain level. Information about the structure and the preservation of the skeleton has not been provided by the excavators. The burial has no associated grave goods.

G 395: Simple pit burial of an adult found close to G 394 at 5.5 m below the plain level. Information about the structure and the preservation of the skeleton has not been provided by the excavators. The burial has no associated grave goods.

G 397: This burial was located in the east side of trench, to the west of Chariot burial 2, at 5.5 m below the plain level. There are no data on the structure and the preservation of the skeleton. In addition, no artifacts were found with the skeleton.

G 451: Simple pit burial found at the north end of the sounding close to G 466, at 5.5 m below the plain level (Algaze 1983-84: 178; Moorey 1978: F06). There is no information about the structure and the preservation of the skeleton. No object assemblage is recorded from this grave.

G 466: Simple pit burial found at the north end of the sounding close to G 451, at 5.5 m below the plain level (Moorey 1978: F06). There is no information about the structure and the preservation of the skeleton. No object assemblage is recorded from this grave.

G 468: The identification of this burial is problematic. The excavators said that it was found “*in the street outside the cemetery*”, at 5.5 m below the plain level (Algaze 1983-84: 178; Moorey 1978: F06; Watelin and Langdon 1934: 68), meaning that the burial was probably a skeleton, complete or fragmentary, found in loose earth, rather than a proper pit and without any associated grave goods.

G 476: This burial was excavated in the northwest part of the trench, at 5.5 m below the plain level. It was 1.5 m long and 0.5 m wide, with the body laid on a beaten earth floor (Moorey 1978: F13). Three pottery vessels were found in association, among which were a conical bowl (Pl. LVII.1, type 13) and a carinated small jar with a triangular rim and rounded base (Pl. LVII.2, type 46).

G 491: This burial was found in the northern part of the Y sounding (Algaze 1983-84: 178; Moorey 1978: F076), at 5.5 m below the plain level. It was 0.5 m deep with a mudbrick roof and walls (at least one of which was part of an earlier house), above which was a layer of organic debris (a beaten earth floor) sealing the burial. The body of an adult of indeterminate sex was found on the beaten earth floor of the burial. The grave goods assemblage consisted of an open conical bowl (Pl. LVII.3, type 13) and a small jar with an out-turned rim and round base (Pl. LVII.4, type 37).

G 494: According to T.K. Penniman,¹¹¹ this burial contained the body of a “*big strong male*” (the burial is 2.4x 1.3 m) and it was located at 5.5 m below the plain level in the centre of the sounding. A line of organic debris seals the shaft 50 cm above the body. The structure consisted of a mudbrick roof and walls. The rich assemblage includes many copper, pottery, and stone containers (Algaze 1983–84: 178–179; Moorey 1978: F07). The copper and stone vessels are either open bowls and dishes or small spouted jars (Pl. LVIII.3–4), while among the pottery vessels there are only closed shapes, such as a high carinated small jar with a triangular rim and rounded base (Pl. LVIII.5, type 46) and three large storage spouted jars (Pl. LVIII.6–7, type 74). Other grave goods include a stone pestle and mortar (Pl. LVIII.1–2), as well as a peculiar copper stand in the shape of a frog.

G 500: This burial was found in the northwest part of the Y sounding, and it is cut through by G 499. The body lay at 5.5 m below the plain level (Algaze 1983–84: 173; Moorey 1978: F 13). Both the walls and the floor were made of mudbricks (a possibly being of a house of Phase 3b). A stone bowl (Pl. LVII.5) and two pottery vessels, among which a carinated small jar with a flat base (Pl. LVII.6, type 32) were found with the body.

G 509: This burial was found in the northwest part of the Y sounding, at 5.5 m below the plain level (Algaze 1983–84: 179; Moorey 1978: F07). Both the walls and the floor were made of mudbricks (probably re-using those of a house of Phases 3b or 3c). Three stone bowls were found with the body, along with two personal ornaments (a necklace and a shell tool) and three pottery vessels: a carinated small jar with a triangular rim and rounded base (Pl. LIX.1, type 46) and two large spouted jars with flat bases (Pl. LIX.2–3, type 74).

G 510: This burial was found in the northwest part of the Y sounding, at 5.5 m below the plain level (Algaze 1983–84: 179; Moorey 1978: F07). Both the walls and the floor were made of mudbricks (probably re-using those of a house of Phases 3b or 3c). The associated assemblage is similar to that of G 509, including a stone bowl, a complete shell and a shell ring (Pl. LIX.4–5) and three pottery vessels: an open conical bowl (Pl. LIX.6, type 13), a carinated small jar with a flat base (Pl. LIX.7, type 46) and a large spouted jar with a flat base (Pl. LIX.8, type 74).

G 523: This burial was found below G 522, at 5.5 m below the plain level, and it is 0.5 m deep (Algaze 1983–84: 179). The walls of an earlier house were re-used to limit the pit, at the bottom of which was laid the body of a child (6–10 years, Rathbun 1975: 61). A large spouted jar (Pl. LX.1 type 75) was found in association.

¹¹¹ Penniman to Langdon 20–03–1929.

G 525: Simple pit burial found in the centre of the sounding, at 5.5 m below the plain level (Algaze 1983–84: 179; Moorey 1978: F07). There is no information about the structure and the preservation of the skeleton. No object assemblage is recorded from this grave.

G 527: This burial was found in the northern part of the area at 5.5 m below the plain level. Information concerning both the structure and the preservation of the skeleton is very meagre, though a good number of grave goods was found with the body (Algaze 1983–84: 179; Moorey 1966: pl. VI). Indeed, a complete necklace made of various types of stone was found with several pottery vessels, among which were two miniature shapes, a dish and a jar (Pl. LX.2–3, types 1, 84), two small jars (Pl. LX.4–5, types 35, 48) and two large spouted jars (Pl. LX.6–7, type 74).

G 531: This burial was found in the northwest part of the Y sounding, at 5.5 m below the plain level. It was about 0.5 m deep, 1 m long and 0.5 m large (Algaze 1983–84: 176; Moorey 1978: F08). The body of an adult of indeterminate sex was found with four pottery vessels and a stone axe. The object assemblage is composed by a stone axe and four pottery vessels: a small jar with pointed base (Pl. LXI.2, type 37), a single handled jar with triangular rim (Pl. LXI.1, type 52) and two large spouted jars with flat rim, (Pl. LXI.3–4, type 74).

G 534: This burial was found in the centre of the Y sounding, at 5.5 m below the plain level (Moorey 1978: F13). Information about the structure and the preservation of the skeleton has not been provided by the excavators. Two pottery vessels among which a large spouted jar with flat base (Pl. LXI.5, type 74) and a necklace were found with the skeleton.

G 535: This grave was excavated in the northern part of the sounding, at 5.5 m below the plain level and contained the poorly-preserved remains of an adult of indeterminate sex (Algaze 1983–84: 179; Moorey 1978: F07). The grave is 0.5 m deep, 1.8 m long and 0.5 m wide. Both the walls and the roof of the burial were made of mudbrick (likely some reused house walls). The grave goods consisted of a single handled jar (Pl. LXII.1, type 52), a small spouted jar with a rounded base (Pl. LXII.2, type 73) as well as two more unidentified pottery vessels. Other grave goods include a stone tool and a shallow stone bowl (Pl. LXII.3).

G 623: This burial was found in the southern part of the Y sounding (Algaze 1983–84: 173; Moorey 1978: G01) at 5.5 m below the plain level. Information about the structure and the preservation of the skeleton has not been provided by the excavators. A shell (Pl. LXII.5), a necklace and a small jar with out-turned rim and flat base (Pl. LXII.4, type 32) were found with the skeleton.

G 679: This burial was found in the southern part of the Y sounding close to G 690 at 5.5 m below the plain level. Two indeterminate adults (one between 25–35 years, Rathbun 1975: 56; Algaze 1983–84: 180) we found in the pit. The grave goods assemblage is composed of a necklace and a stone bowl, none of which was drawn or photographed.

G 690: Simple burial of an adult of indeterminate sex (Rathbun 1975: 56) found in the southern part of the Y sounding, close to G 679 (Algaze 1983–84: 176). A stone bowl (Pl. LXII.6) and two pottery vessels, including a single handled jar with a ring base (Pl. LXII.7, type 52) were found in association with the body.

PHASE 4b

Stratigraphy and architecture

The identification of this sub-phase is based on the upper elevation of burial 538 (i.e. 4.8 m).¹¹² T.K. Penniman excavated this burial identifying several floors cut by the pit (Pl. XIV.2) and an organic debris pavement sealing that at 4.8 m.¹¹³

Distribution of burials

G 538: This is the only material evidence for the identification of Phase 4b (Algaze 1983–84: 176; Moorey 1978: F08). The burial was 1.2 m deep and 2 m long and it had mudbrick walls, while the body was lain on a beaten earth floor. The grave goods assemblage consists of many pottery vessels together with a few other tools. The pottery horizon is characterized by four large spouted jars (Pl. LXIII.1–4, type 74) and an open conical bowl (Pl. LXIII.5, type 13), while the rest of the assemblage includes a copper bowl, spearhead and axe, and a shell.

PHASE 4c

Stratigraphy and architecture

A second sub-phase (4c) has been newly identified at 4.5 m below the plain level. The presence of floors at this elevation is confirmed by the stratigraphy of four intra-mural burials (G 479, G 499, G 513 and G 524). They are all about 0.5 m deep, with the body lying 5 m below the plain level and sealed by a line of organic debris at 4.5 m (Algaze 1983–84: 178, 181–182).

¹¹² The stratigraphic and functional reconstruction of Phase 4b is based on primary information (floor) from both primary and secondary sources (letters and scientific publications).

¹¹³ Moorey 1978: Microfiche 2, F03, fig. 16.

Further support to the identification of Phase 4c is provided by the small assemblage of finds, excavated during 1928–29 season. Half of them came from sector B, while the remaining ones were found in sector E.

Distribution of finds

The small amount of finds from Phase 4c supports the hypothesis that we are dealing with a minor sub-phase involving only a few houses (Pl. XIX.2).

Sector B: In sector B, the excavators found only two pottery vessels and a worn cylinder seal (Pl. LXIV.1). Although the motif cannot be fully reconstructed, the technique suggests an ED I Brocade style specimen with possibly a single line of horned animals (Collon 2005: 24).

Sector E: Three artifacts can be associated to this sector, a cylinder seal (Pl. LXIV.4), a bone awl and an animal clay figurine. The cylinder seal is characterized by a Geometric style motif possibly representing a schematic animal. A similar example comes from the same phase (G 630).

Other finds from Phase 4c: Seven pottery vessels have been found 4.5 m below the plain level, although no spatial data are available. These include two types of open conical bowls (Pl. LXIV.2–3, type 12–13), a small globular jar with triangular rim (Type 46), a miniature jar with triangular rim and flat base (Type 48), two jars with triangular rim and ring base (Type 50) and a carinated spouted jar with rounded base (Type 76).

Distribution of burials

20 Burials have been newly associated to this phase on the basis of the unpublished documentation. For 18 tombs, information of the spatial location is also available (Pl. XIX.1). Among those, four burials, G 479, G 499, G 513 and G 524, are well stratified, with beaten earth floors sealing the pits at 4.5 m. If not specified, information on the burials is taken from an unpublished report drafted by H. Field.¹¹⁴

G 343: Simple pit burial of an adult (35+ years) male (Rathbun 1975: 54) found at 5 m below the plain level. It was found at the northern end of the sounding. Further information on the stratigraphy and the structure of the burial is not available. No objects were found with the body.

¹¹⁴ H. Field unpublished report.

G 360: Simple pit grave of an adult whose sex cannot be determined. It was found 5 m below the plain level, in the southeast part of the Y sounding close to cart-burial 1 (Algaze 1983-84: 177; Moorey 1978: F06).¹¹⁵

A large amount of finds was associated with the body. In addition, the burial appears to be very similar to burials G 463, G 480, G 513 and G 614, among others, including three main types of artifacts: shells, stone tools (generally vessels), and pottery. In this case, the assemblage consists of three shell objects (mostly personal ornaments), three stone bowls and two different types of carinated small jars with out-turned rim and flat bases (Pl. LXIV.5-6, types 33 and 49).

G 364: Simple pit burial of an adult whose sex is not determined. It was found 5 m below the plain level, at the northern end of the sounding close to G 384. Further information on the stratigraphy and the structure of the burial is not available. No objects were found with the body.

G 373: This burial was found in the southern part of the area, together with G 360, and was partially cut by Chariot burial 1 (Algaze 1983-84: 177; Moorey 1978: F06). The body belongs to an adult of indeterminate sex (Rathbun 1975: 56). No information on the structure is given.

The grave goods assemblage is similar to that of burials G 463, G 480, G 513 and G 614, among others, as it includes two of the three main artifact types; in this case, stone tools (generally vessels) and pottery.

A stone bowl and four pottery vessels were found with the body, among which were an open conical bowl (Pl. LXV.2, type 13), a large shallow bowl with a rounded base (Pl. LXV.3, type 12), a large spouted jar with a flat base (Pl. LXV.1, type 75), and a miscellaneous miniature shape.

G 384: Simple pit burial of an adult whose sex is not determined (Algaze 1983-84: 180). It was found 5 m below the plain level, at the northern end of the sounding close to G 364. Further information on the stratigraphy and the structure of the burial is not available. No objects were found with the body.

G 417: This burial was found in the northwestern part of the area, 5 m below the plain level, part of the larger group from Phase 4c. We have no information on the structure of the burial, though some notes on the skeleton, provided by T.K. Penniman,¹¹⁶ suggest that

¹¹⁵ See also H. Field unpublished report.

¹¹⁶ Penniman to Simms 06-02-1929.

it belongs to an adult male, probably covered with matting (Algaze 1983-84: 180; Moorey 1978: E14).

The grave goods assemblage is very similar to those of other burials such as G 480, G 489, G 513 and G 614, among others, and includes the three main types of artifacts: marine shells, stone objects (generally vessels) and pottery.

In this case, the grave goods assemblage from G 417 includes two marine shells, a stone bowl, and four pottery vessels, among which is a high carinated small jar with a triangular rim and rounded base (Pl. LXV.4, type 46), and three large spouted jars with convex bases (Pl. LXV.5-7, type 76).

G 421: Simple pit burial of an adolescent (12 years) of indeterminate sex found in the northwestern part of the Y sounding, 5 m below the plain level, (Rathbun 1975: 55). It was 0.9 m long and 0.6 m large with mudbrick walls (Algaze 1983-84: 180). The grave goods assemblage was quite poor, consisting of just two small jars with out-turned rims and rounded bases (Pl. LXIV.7-8, type 37).

G 455: This is a multi-phase burial found in the northwestern part of the Y sounding at 5 m below the plain level. Three periods of use have been distinguished (Algaze 1983-84: 180-183; Moorey 1978: F01).¹¹⁷ Each phase contained the body of an adult, to which several finds were associated.

The grave goods from the first phase include a shell (Pl. LXVI.1), and six pottery vessels, three storage jars (Pl. LXVI.3-5, type 76) and three lids (Pl. LXVI.2, 6-7, types 80-81). Associated to the second phase five pottery vessels, a bone tool and some personal ornaments were found. Among those there are three open conical bowls (Pl. LXVII.1-3, type 13), and two large spouted jars (Pl. LXVII.4-5, type 76). The grave goods from phase III consist of eight objects among which a large carinated jar with triangular rim (Pl. LXVIII.1, type 52) and three large spouted jars (Pl. LXVIII.2-4, type 76).

G 463: This burial was found in the northwestern part of the area, 5 m below the plain level, part of the larger group from Phase 4c. It cuts through the deposits covering an earlier house (Algaze 1983-84: 181; Moorey 1978: F01; Watelin and Langdon 1934: 31, pl. XIX). The structure of the burial consists of mudbrick walls and roof, and a beaten earth floor upon which the body of an adult male (Rathbun 1975: 55) was placed.

The grave goods are very similar to those from burials G 480, G 489, G 513 and G 614, consisting of three main types of artifacts: marine shells, stone tools (generally vessels) and

¹¹⁷ Penniman to Langdon 14-01-1929.

pottery. G 463 also includes the rarer personal ornaments (like necklaces, and copper tools (such as bowls).

In this respect, G 463 represents one of the most complete grave assemblages, including a marine shell, two stone bowls, a copper vessel, two necklaces and six pottery vessels. Among the vessels there are a large open shallow bowl (Pl. LXIX.1, type 12), three storage jars with triangular rim (Pl. LXIX.3-5, types 50 and 52) and a spouted jar with a convex base (Pl. LXIX.2, type 76).

G 479: Simple pit grave of an adult found in the northwestern part of the area, 5 m below the plain level. The skeleton was found covered with matting (Algaze 1983-84: 181; Moorey 1978: F01-02). The burial is 0.5 m deep, and some of its walls and the floor are made of mud-bricks (probably belonging to an earlier house).

The rich assemblage of grave goods consists of a copper bowl, two stone bowls and 20 pottery vessels. The majority of them are open conical bowls (Pl. LXX.1-10, type 13), while the rest of the group includes three small jars (Pl. LXX.11-14, type 37, 46) and several large spouted jars (Pl. LXXI.1-4, types 75-76).

G 480: This burial was found in the northwestern part of the area, 5 m below the plain level (Algaze 1983-84: 181; Moorey 1978: F02), close to G 479 and part of the larger group from Phase 4c. It was a 1.7 m long and 0.8 m large pit cutting the deposits of an earlier house until its mudbrick floor was exposed. The body of an adult male was placed over this floor, probably wrapped in matting. At least one of the walls was part of an earlier house.

The grave goods assemblage is very similar to those of burials G 463, G 489, G 513 and G 614, among others, including three main types of artifacts: marine shells, stone tools (generally vessels), and pottery.

In this case, the grave goods consist of a marine shell, a stone bowl, a stone axe, and six pottery vessels. Among the vessels there are three open conical bowls (Pl. LXXII.1-3, type 13) a large shallow bowl with a rounded base (Pl. LXXII.4, type 12), a small jar with an out-turned rim and rounded base (Pl. LXXII.5, type 37), and two large spouted jars with a flat base (Pl. LXXII.6-7, type 74).

G 489: This burial was found in the northwestern part of the area, part of the larger group from Phase 4c (Algaze 1984-83: 178). No information on the body is given, even though we know that the structure of the burial consisted of mudbrick walls and a beaten earth floor.

The grave goods assemblage is similar to that of burials G 463, G 480, G 513 and G 614 among others, including two of the three main types of artifacts, stone objects (generally vessels), and pottery.

In this case, a stone bowl (Pl. LXXIII.1) and six pottery vessels were found with the body, among which were an open conical bowl (Pl. LXXIII.2, type 13), a large shallow bowl with a rounded base (Pl. LXXIII.4, type 12), a small jar with an out-turned rim and rounded base Pl. LXXIII.3, type 37), and a large single handled jar with high carination (Pl. LXXIII.5, type 52).

G 499: This chamber burial was found in the northwestern part of the area close to G 479, 5 m below the plain level (Algaze 1983–84: 181; Moorey 1978: F02; Watelin and Langdon 1934: 28–29), part of the larger group from Phase 4c. It was a 0.5 deep pit, cutting the deposits of an earlier house until its mudbrick floor, upon which was placed the body of an adult male was exposed. At least one of the walls was that of an earlier house, while the top of it was sealed with a mudbrick roof.

The grave goods assemblage from G 499 is richer than most of the others from Phase 4c. It includes the four main types of artifacts: tools, shells, containers (pottery and stone vessels) and personal ornaments. The repertoire of working tools includes a copper basin and a stone mortar with its pestle, while personal ornaments are represented by two necklaces and three copper pins. The large group of containers includes seven stone bowls and six pottery vessels, among which are three open conical bowls (Pl. LXXIII.6, 9–10, types 12 and 13), two medium size jars with out-turned rims (Pl. LXXIII.7–8, type 50) and a large spouted jar with a flat base.

G 513: This burial was found in the northwestern part of the area, 5 m below the plain level (Algaze 1983–84: 181; Moorey 1978: F02), as part of the larger group from Phase 4c. It was a 1.8 m long, 0.6 m large and 0.5 m deep pit, cutting the deposits of an earlier house until its mudbrick floor was exposed. Upon this the excavators documented the bodies of an adolescent and an adult male (Rathbun 1975: 62).

The grave goods list shows a common pattern (it can be observed also in burials G 463, G 480 G 489 and G 614, among others), including three main types of artifacts: marine shells, stone tools (generally vessels), and pottery. In this case, the grave goods consist of a marine shell (Pl. LXXIV.1), a stone bowl (Pl. LXXIV.2) and five pottery vessels, among which are an open conical bowl (Pl. LXXIV.3, type 13), a high carinated small jar with a triangular rim (Pl. LXXIV.4, type 46) and three large spouted jars with flat bases (Pl. LXXIV.5–7, types 74, 76).

G 522: This chamber burial was found below G 521, 5 m below the plain level, although its spatial location is unknown. It was a 2.65 m long, 0.6 m large and 0.55 deep pit, cutting the deposits of an earlier house until its beaten earth floor was exposed, upon which was placed the body of an adult female and a child (Algaze 1983–84: 182; Moorey 1978: F04).

The rich assemblage found with the skeleton consists of 13 artifacts, including pottery vessels. Among those, are some miniature vessels (Algaze 1983–84: 182; Moorey 1978: F04), a small jar with an out-turned rim, and a large spouted jar. The rest of the finds includes a stone hammer, a necklace, a stone vessel, and two copper mirrors.

G 524: This burial was found against a house wall, 5 m below the plain level, with a line of organic debris unbroken at 4.5 m below the plain level (Algaze 1983–84: 183; Moorey 1978: F04). It was a 2.25 m long, 1.1 m large and 0.6 m deep pit, cutting the deposits of an earlier house until its mudbrick floor was exposed. Upon this, the bones of two adults of indeterminate age were uncovered (Algaze 1983–84: 183).

The rich assemblage found with the skeleton consists of 21 artifacts, including many pottery vessels (14). Among those, are five open conical bowls (Pl. LXXV.6–10, type 13), some carinated small jars with triangular rim (Pl. LXXV.11–14, types 49, 51) and several large spouted jars (Pl. LXXVI.1–4, type 75). The rest of the finds includes a copper mirror (Pl. LXXV.1), two stone vessels (Pl. LXXV.2–3) and a stone pestle (Pl. LXXV.2–4).

G 614: This is one of the burials from Phase 4c for which almost no stratigraphic and spatial data were provided. It is a simple pit grave of an adult male, found 5 m below the plain level, (18–25 years) (Algaze 1983–84: 183; Moorey 1978: F04; Rathbun 1975: 54). The assemblage mostly consisted of vessels, among which was an alabaster bowl (Pl. LXXVII.2), and three pottery vessels, including were an open conical bowl (Pl. LXXVII.3, type 13) and a large spouted jar with a flat base (Pl. LXXVII.4, type 75). In addition, a shell and a copper mirror (Pl. LXXVII.1) were found with the body.

G 617: Simple pit burial of an adult male (25–35 years) (Algaze 1983–84: 183; Rathbun 1975: 61). It was found at the extreme south end of the area with G 618 and G 630, 5 m below the plain level. With the skeleton were two objects, a stone bowl and a perfectly preserved tall stone mortar.

G 618: Simple pit burial of a male of indeterminate age found 5 m below the plain level (Rathbun 1975: 61). It was found at the extreme south end of the area with G 617 and G 630. A stone dish is the only grave good found with the body (Pl. LXXVII.5).

G 630: There is almost no information about the stratigraphy (except for the lower elevation which is 5 m below the plain level) and the structure of this burial. We have data about the spatial location (at the extreme south end of the Y sounding, close to G 617 and G 618), and three objects associated with the body: an ED I brocade style cylinder seal (Pl. LXXVII.6)

characterized by a frieze with two goats and several drill holes, probably filling the empty space (possibly a JN tradition). This motif can be paralleled with specimens from ED II levels at Khafajah (Frankfort 1955: 22, pl. 29, no.293). The other published object from this burial is the ring base of a vessel (probably a bowl, pl. LXXVII.7).

PHASE 5

Stratigraphy and architecture

The buildings of Phase 5 were found at 4 m below the plain level¹¹⁸. Again, the stratigraphic datum can be determined from the section (Watelin and Langdon 1934: 3, fig. 1), showing different superimposed layers of clay and organic debris over the streets and rooms. A huge amount of materials can be associated to the floors, including pottery and glyptic. Furthermore, the excavators reported that burials G 478, G 511 and G 517 were sealed by floors of organic debris at 4 m (Algaze 1983–84: 184), while the body excavated in G 519 was resting on a floor of organic debris at the same elevation, close to a house wall (Algaze 1983–84: 187). Despite the lack of available plans it might be possible that the urban layout was similar to the previous phases¹¹⁹.

Distribution of finds

Stratified finds associated with Phase 5 have been retrieved from all the five sectors in which the area has been divided by this study (Pl. XX.2).

Sector A: During Phase 5, a large number of objects was unexpectedly discovered from the long thin strip along the northwest limit of excavation. The type of recovered materials partially matches those from sector B in Phases 3b and 4a. Indeed, the assemblage mostly consists of three bone (Pl. LXXVIII.2–3) and six copper (Pl. LXXVIII.4) tools, a clay spindle whorl (Pl. LXXVIII.5), and two stone tools including a mace-head (Pl. LXXVIII.6).

Three more relevant clusters can be observed: the first one includes various ceramic vessels such as two lids (Pl. LXXVIII.7–8, type 79) and four small jars (Pl. LXXVIII.9–12, type 41, 46 and MISC).

The second cluster confirms the patterns already observed during the previous phases (although the location is slightly different). There are, in fact, seven clay figurines (Pl. LXXVIII.13–15), mainly animals usually interpreted as toys (Ocsenschlager 2004). How-

¹¹⁸ The stratigraphic and functional reconstruction of Phase 5 is based on: 1. Primary information (layers, buildings and burial shaft) from both primary and secondary sources (letters and excavation reports); 2. Secondary information (objects at 4 m) from primary sources (object cards and letters).

¹¹⁹ According to the stratigraphic section (Watelin and Langdon 1934: 3, fig. 1), at least Street 1 remained in use during this period.

ever, it is possible that some of them also had a votive function (Moorey 2003; 2004), as confirmed by the presence of a bitumen human statuette (Pl. LXXVIII.13).

An ED I Geometric style cylinder seal (Pl. LXXVIII.1), a shell and a necklace (Pl. LXXVIII.16) also come from this sector.

Sector B: Only three stratified objects can be associated to this sector: a stone tool, a cylinder seal (Pl. LXXIX.1) and a small stone relief fragment (Pl. LXXIX.2). The cylinder seal shows animal and human fighting figures. At Kish the same motif has been found associated with ED IIIa cuneiform tablets. From a stylistic viewpoint, this can be compared to ED II-IIIa contexts at Fara (Martin 1988) and the Diyala region (Frankfort 1955: pl. 31, nos. 314, 330).

Sector C: There are just a few finds from sector C that do not permit a secure interpretation of the possible function of the area. The assemblage consists mostly of stone tools, such as a stone weight, a mortar (Pl. LXXIX.3) and an unidentified tool, a complete marine shell (Pl. LXXIX.4) and clay figurine fragment.

Sector D: Various types of materials come from this sector. Among those, are an ED I Brocade style cylinder seal (Pl. LXXX.1) and many stone and ceramic vessels, the former including two shallow stone bowls (Pl. LXXX.2-3).

The assemblage also consists of bone (Pl. LXXX.4), metal (Pl. LXXX.6) and clay tools, a couple of clay figurines (Pl. LXXX.5), and a votive stone plaque (Pl. LXXX.7), possibly indicating some kind of religious context.

Sector E: The large number of seals (Pl. LXXXI.1-6, 8-10) and the seal impression (Pl. LXXXI.7) from sector E suggest administrative activities on a wider scale than in the previous phases. The stylistic variety of these sealings is remarkable. They may range from early Jemdet Nasr Piedmont style specimens (Pl. LXXXI, 8, 10) to ED I Brocade style examples (Pl. LXXXI.1-3), from animal processions (Pl. LXXXI.7) to Geometric designs (Pl. LXXXI.5-6). The last two styles do not represent a firm chronological marker within the Kish assemblage, as they are attested from the ED I to the Akkadian period. Elsewhere, animal procession shows the same trends as the earlier examples documented at ED I Fara (Amiet 1980: pl. 53; Martin, 1988: 71-72, 243, nos. 188-192), as well as at Nippur Inanna IX dated between the late ED I and the early ED II (Hansen 1971: 46-47). Karg (1984: 35-38; contra Martin 1988: 133-134, n. 29), considering the horizon from Ur (SIS 4-8) and the Diyala (in particular Tell Asmar and Tell Agrab), has suggested a slightly later date for this style. However, a number of cylinder seals with animal processions have been found also in late ED contexts together with ED III contest scene seals (Frankfort 1955: pl. 36-37), or even later ones. Geometric designs

appear from the Jemdet Nasr period onwards in northern, central and southern Mesopotamia (Quenet 2007, 2008: 186). In particular, a group of seals bearing geometric designs has been found in level IV from the Temple of Şamuş at Khafajah (Frankfort 1955: pls. 16-17).

The numerous parallels from Fara confirm the degree of similarity between the two centres already observed by McCarthy (2010: 842-843). The same author (McCarthy 2010: 843) also suggests a remarkable uniformity in the Kish glyptic that is also observed in this study.

Clay (Pl. LXXXII.1), flint, metal and stone tools (Pl. LXXXII.3-5) are attested in larger quantities, thus confirming the presence of specialized production activities in the Y sounding throughout ED I period.

Nine clay figurines representing humans, animals and part of chariot are also attested from this sector (Pl. LXXXII.10-12). In addition, the stratified materials from sector E include a spindle whorl (Pl. LXXXII.6), three pottery vessels (Pl. LXXXII.7-9), a fragment of inlay and two fragments of shell (Pl. LXXXII.13).

Other finds from Phase 5: Twelve pottery vessels have been found 4 m below the plain level, although no spatial data are available. The assemblage includes two reserved slip jars (Pl. LXXIX.8, type 69), six hole-mouth jars with applied and incised decoration (Pl. LXXIX.5-7, type 68), a small jar with out-turned rim and flat base and three miscellaneous shapes (Pl. LXXIX.9, type MISC).

Distribution of burials

Five burials have newly been associated with this phase. The majority of them (G 478, G 511, G 517 and G 539) are well stratified, with beaten earth floors sealing the pits at 4 m (Pl. XX.1).

G 379: Simple pit grave including the skeletons of two adults of indeterminate sex found at 4.5 m below the plain level (Algaze 1983-84: 183; Rathbun 1975: 55). It was found at the north end of the trench. No objects were associated with this grave.

G 478: This burial was found at 4.5 m below the plain level. It is 50 cm deep, with a floor of organic debris sealing at 4 m. The walls of the burial were made of mudbricks, while the floor was of organic debris (Algaze 1983-84: 184; Moorey 1966: Pl. IV; Moorey 1978: E14). Upon the floor, the remains of two adults of indeterminate age were recovered by the excavators. The grave goods assemblage comprises a necklace made mostly of shell beads (Pl. LXXXIII.2) and a large open bowl with a rounded base (Pl. LXXXIII.1, type 12).

G 511: This is the burial of a child, 1.1 m long and 0.7 m large, found at 4.5 m below the plain level. The walls of the burial were made of mudbricks, while the body rested on the beaten earth floor of a house (Algaze 1983–84: 184; Moorey 1978: E14). The grave goods assemblage is composed of a necklace and 12 vessels. Among those, there are nine open conical bowls (Pl. LXXXIII.3–11, type 13), a small jar with an out-turned rim and rounded walls (Pl. LXXXIII.12, type 37), and two large spouted jars (Pl. LXXXIII.13, type 74).

G 517: This grave was found at 4.5 m below the plain level. The excavators found the body wrapped in matting with some associated objects, but could not identify the limit of the burial (Algaze 1983–84: 184; Moorey 1978: E14). However, they also reported a thin layer of organic debris sealing the body at 4 m, for a total depth of about 50 cm. The grave goods assemblage is very similar to that of G 511, with a stone necklace and four pottery vessels, among which were two open conical bowls (Pl. LXXXIV.1, type 13) and two miniature miscellaneous vessels.

G 539: This is a 1 m deep burial of an adult of indeterminate sex found above G 524, 4.5 m below the plain level (Algaze 1983–84: 184; Moorey 1978: E14). Seven objects were found in association with the body, including a stone bowl (Pl. LXXXIV.8) and six pottery vessels. Among these, are two open conical bowls (Pl. LXXXIV.2–3, type 13), two small jars with triangular rims and flat bases (Pl. LXXXIV.4–5, types 49 and 51) and two small high carinated spouted jars (Pl. LXXXIV.6–7, type 73).

3.2 YW SOUNDING - PHASES 1–3

PHASE 1a

Stratigraphy and architecture

The lowermost phase of the YW sounding is located at the bottom of the area (6 m below the plain level, Pl. CXXI.1)¹²⁰ where the water table first appears. Even though neither plans nor sections are available, evidence for buildings is confirmed by Watelin himself, who wrote: “*les murs sont jusqu’à 6.5 m (- 5.5 m)*.”¹²¹ The second measure should be taken as the upper elevation of Phase 1a. Some complete vessels, many flint tools and a horizontal drain have also been found, suggesting some kind of activities at this elevation. In addition, the buildings of Phase

¹²⁰ The stratigraphic and functional reconstruction of Phase 1a is based on: 1. Primary information (floors and walls) from both primary and secondary sources (letters and scientific publications). 2. Secondary information (objects at 6 m) from primary sources (object cards and letters). I have here provided the corrected elevations of both the structures and the finds, following Gibson (1972a: 90, 108, n. 215).

¹²¹ Watelin to Langdon 21-01-1930, Watelin to Langdon 26-01-1930.

3b in the Y sounding, right above the Water Table (i.e 6 m below the plain level), provide a good stratigraphic comparison.

Pottery

The ceramic horizon from Phase 1a is characterized by only two Old Babylonian sherds, probably coming from an unrecognised pit. One has a black on white painted decoration (Pl. CXXIV.1), while the other is a fragment of a jar bearing an incised head (Pl. CXXIV.2) within a geometric patterned frame.

Small Finds

The small finds assemblage from this phase is quite meagre, including six fragments of seal impressions bearing the same motif and originally belonging to a single piece (Pl. CXXIV.3)¹²² and an elaborate anthropomorphic head of a clay figurine (Pl. CXXIV.4).

The clay sealing consists of multiple rollings characterized by rearing ibexs (in some cases with head turning back) and on both sides a tree tipped with three rosettes. Recent studies do not agree on the dating of these specimens. Buchanan (1966: 24) and Moorey (1978: Microfiche 2, G 05) proposed to date them between the late JN and the ED I. According to Amiet (1980: 40, pl. 48), a cylinder seal from Susa dated to the Jemdet Nasr period is the closest comparison, although he also proposed to parallel the motif with JN-ED I shell plaques from the royal tombs of Ur. The former appears to be more similar especially for the scene of facing rearing caprids in front of a mountain. The dating proposed in this study, on the basis of the stylistic comparisons with other Mesopotamian (Frankfort 1955: pl. 76, no. 10) contexts and the previous studies, is JN-ED I.

PHASE 1b

Stratigraphy and architecture

At - 5.5 m¹²³ the archaeologists found some “*lits de poterie et des cendres*” associated with walls preserved for about 50 cm (the upper elevation of this phase is 5 m below the plain level). Watelin also reported the presence of few later materials, such as pottery sherds and small finds from Old-Babylonian drains (Gibson 1972a: 90, 108, n. 215).¹²⁴ As for the previ-

¹²² The four different seal impressions have been given four different Ashmolean Museum numbers: 1930.387a-e; Buchanan 1966: no. 102; Moorey 1978: Microfiche 2, G 05; Watelin-Langdon 1934: 60, pl. XXXIX, no. 3.

¹²³ The stratigraphic and functional reconstruction of Phase 1b is based on: 1. Primary information (floors and walls) from primary sources (letters). 2. Secondary information (objects at 5.5 m) from primary sources (object cards and letters).

¹²⁴ Watelin to Langdon 26-01-1930.

ous level, there is not enough information to propose a functional interpretation of this phase. Parallels with the Y sounding suggest that mostly domestic building were located here. Many objects have been found also at - 5 m. In the absence of associated structures or graves, these materials must be considered as a secondary deposition belonging to this phase.

Pottery

Three complete pottery vessels and a sherd are reported from Phase 2a. There are two miniature carinated jars with no necks and flat bases (Pl. CXXIV.5-6, type 84) the function of which is difficult to understand. Food or liquids transportation and storage certainly must be excluded, as the significantly reduced volume (around 0.14 l) may be more suited for oil and perfumes. The third vessel is a jar with triangular rim and flat base (Pl. CXXIV.8, type 49), belonging to a well standardized and chronological widespread type. The only attested sherd belongs to a small single handled jar (Pl. CXXIV.7, type 52).

Small Finds

Three small finds can be associated to this phase: a stone plaque fragment probably made of steatite (Pl. CXXIV.9), a cylinder seal and a clay figurine. These objects suggest a variety of activities and types of contexts, from domestic to administrative. The stone plaque may be also an indicator of a religious context.

PHASE 2a-b

Stratigraphy and architecture

The buildings of Phase 2a have been found at 5 m¹²⁵ while those of Phase 2b were uncovered at 4.5 m. In both levels the excavators reported beds of ashes mixed with artifacts in association with pavements and walls.¹²⁶ Furthermore, at the south end below the beaten earth floor at Phase 2a the excavators found the only burial from the YW sounding. No other materials are reported from this phase.

Small finds

The only stratified artifact recorded from this phase is an ED seal impression (Pl. CXX-IV.10) found at 5 m below the plain level. The scene depicted on the seal impression rep-

¹²⁵ The stratigraphic and functional reconstruction of Phase 2a-b is based on: 1. Primary information (floors and walls) from primary sources (letters). 2. Secondary information (objects at 5 m) from primary sources (object cards and letters).

¹²⁶ Watelin to Langdon 26-01-1930.

resents two lions attacking two goats. Buchanan (1966: 24, no. 101a-b)¹²⁷ proposed a close parallel with some seals from the Diyala region (Tell Agrab, Šara temple, Frankfort 1955: nos. 798-801) and Ur (Legrain 1936: nos. 232, 235) stylistically dating from the ED II.

Burials

G 001: Simple pit grave, about 50 cm deep (Pl. CXXI.2). A surviving photo shows the poor remains of a skeleton, with several associated complete vessels, among which are five conical bowls (Pl.CXXV.1-5, type 13.), a small jar (Pl.CXXV.6, type 49) and a spouted jar (Pl.CXXV.7, type 76).

PHASE 3

Stratigraphy and architecture

At 4 m below the plain level, another level of domestic buildings was uncovered by the archaeologists.¹²⁸ The paucity of both stratigraphic and architectural evidence on this phase can be partially integrated with the objects recovered at this elevation, confirming the presence of a structural phase.

Pottery assemblage

The only pottery vessel from this phase is a fragment of bowl (base and lower wall) with pattern incised decoration also attested in the Y sounding (Pl. CXXVI.1, type 17).

Small finds

The repertoire of small finds from Phase 3 mostly consists of administrative tools, such as a fragmentary clay inscribed tablet (Pl.CXXVI.2, Appendix 1, Cat. 8) probably bearing a lexical text (Westenholz 2014: 22), a weight and another clay tool (Pl.CXXVI.3). Other finds from this phase are two clay figurines: a zoomorphic body (Pl.CXXVI.4) and a chariot (Pl. CXXVI.5)

127 Nonetheless, Buchanan noted that the context to which the Diyala seal belongs is defined on the basis of the pottery assemblage more likely associated with ED I.

128 The stratigraphic and functional reconstruction of Phase 3 is based on: 1. Secondary information (objects at 4 m) from primary sources (object cards and letters).

3.3 ZY SOUDING - LOWEST PHASE

The ZY sounding is the southernmost area opened on the main mound of Ingharra which revealed ED structures. It was opened in order to understand the stratigraphic and architectural sequence below the ziggurat Z.1, thus integrating the evidence from the Y sounding. This 10x10 m square was cut down 6 m below the plain level until the water table was reached. The archaeologists produced only an unpublished sketch plan of the lowermost building phase¹²⁹ which has been digitized and reconstructed (Pl. CXLIII.8), found at 6 m and probably dating from the ED I, while the rest of the sequence has not been recorded.¹³⁰ Given the presence of the Water Table, this phase can be tentatively connected to Phases Y 3b and YW 1a.

No stratified materials from the ZY sounding have been identified from the cards and the rest of the documentation. Therefore the chronology of the lowermost phase must be considered as hypothetical.

129 Watelin to Langdon 03-03-1931.

130 The stratigraphic and functional reconstruction of the ZY sounding is based on: 1. Primary information (floors and walls) from primary sources (letters).

CHAPTER 4

SHAPING A CAPITAL CITY: EARLY DYNASTIC II-III

The central centuries of the 3rd millennium BCE represent the time of maximum urban and political expansion of Kish. These developments are confirmed by the construction of several large-scale buildings, both secular as the Palace A (Mackay 1929; Moorey 1970) and the Plano-convex building (Moorey 1964; Zaina 2015a), and religious like the two ziggurats of Tell Ingharra (Gibson 1972a: 81; Moorey 1978: 97) and the small temple in area JA (Matsumoto 1991). Epigraphic sources confirm the primary political (Yoffee 2005: 57, 85, fig. 3.33; Marchetti and Marchesi 2011: 97; Cooper 1983: 7; Steinkeller 1993: 118) and cultural role (Gelb 1992) of the city during this period in the southern Mesopotamian alluvium and beyond.

The excavation of the archaeological phases dating from the ED II, ED IIIa and ED IIIb at Tell Ingharra in the Y sounding (Phases 6–10), YW sounding (Phases 4–8), YWN sounding (Phase 1) and Z.1 area (Phases 1–2) partially confirms the historical framework.

4.1 Y SOUNDING – PHASES 6–10

PHASE 6

Stratigraphy and architecture

The stratigraphy of this phase is probably the most controversial of the whole Y sounding.¹³¹ While previous studies have provided different interpretations about the elevation of the floors,¹³² the starting points for the reconstruction of Phase 6 are Watelin's letters and

131 The stratigraphic and functional reconstruction of Phase 6 is based on: 1. Primary information (burial shafts) from both primary and secondary sources (letters, drawings and excavation reports); 2. Secondary information (objects at 3.5 m) from primary sources (object cards and letters).

132 The existence of this phase has been already proposed by Marchesi and Marchetti 2011: 77, table 10.

his final report.¹³³ According to him, a level of buildings was recovered “*just below the flood*” (Watelin and Langdon 1934: 3, fig. 3) with some materials associated to the earthen floors. This evidence is further clarified by a schematic section showing four overlying “floods” (Watelin and Langdon 1934: 53, fig. 7), also recognized by both Moorey and Gibson as a fourth “Houses Stratum”.¹³⁴ Its precise elevation is provided by the stratigraphy of two burials: G 519, G 521 and G 613 are sealed by a line of organic debris (floor) at 3.5 m, while the body associated to burial G 518 (Phase 7) lies at – 3.5 m, reusing the pavements and walls of a house (Algaze 1983–84: 142). Therefore we may assume that the floors of Phase 6 were located at 3.5 m below the plain level. Due to the lack of excavation numbers associated with the stratified pottery, it is not possible to reconstruct their spatial distribution.

Pottery

The pottery assemblage from Phase 6 is characterized by two fragments (a rim and a wall, Pl. LXXXIV.9–10, type 68) of large storage jars with incised and applied decorations, and a small sherd of a reserved slip jar (Pl. LXXXIV.11, type 69).

Distribution of burials

20 burials have been associated to Phase 6. It is not possible to provide a comprehensive distribution of the burials as for less than a half of them spatial information is provided. Three burials, G 519, G 521 and G 613, are well stratified, with beaten earth floors sealing the cuts at 3.5 m. If not specified, information on the burials is taken from an unpublished reports drafted by H. Field and T.K. Penniman.¹³⁵

G 349: This burial was found 4 m below the plain level, in the centre of the sounding (Algaze 1983–84: 185). No information about the structure and the preservation of the skeleton is given. No objects are recorded from here.

G 352: Simple pit burial found in the centre of the sounding 4 m below the plain level (Algaze 1983–84: 185). The skeleton belonged to an adult female (Rathbun 1975: 60). No information about the burial structure is available. No objects are recorded from this grave.

133 See Watelin to Langdon, 20-02-1929, and Watelin to the Simms, 20-02-1929: “... *at water level there was a general plan of baked pavements... Above there is a level of organic debris (2) which corresponds with an indication in the wall, showing that they reconstructed one wall on top of the other – likewise for 3 and 4*”.

134 According to Gibson (1972a: 104, n.147), the fact that the fourth level was not considered as part of the EHS (see also Moorey 1966: 33), did not affect its identification.

135 H. Field unpublished report.; Unpublished Penniman’s letters.

G 378: Simple pit grave found 4 m below the plain level, the location of which is not given. Further information on the stratigraphy and the structure of the burial is not available. Three individuals were found in the shaft: 1 adult male, 1 adolescent (14–16 years) and 1 adult of indeterminate sex (Rathbun 1975: 57). No objects were found with the bodies.

G 422: Simple pit burial found 4 m below the plain level, in the northern part of the Y sounding (Algaze: 1983–84: 185; Moorey 1978: E10). The only associated object is a large spouted jar with an out-turned rim and convex base (Pl. LXXXV.1, type 76).

G 424: Simple pit burial of an adult female, found 4 m below the plain level, in the northern part of the sounding (Algaze: 1983–84: 185). There is no information about both the structure and the preservation of the skeleton. Few objects were found with body: a flint tool, a stone bead and a fragmentary shell.

G 432: This burial was found 4 m below the plain level, in the centre of the sounding (Algaze: 1983–84: 186). No information about both the structure and the preservation of the skeleton is given. Only a pottery vessel was found in the grave.

G 460: Simple pit grave of an adult whose sex is not determined yet (Algaze 1983–84: 186). The body was found 4 m below the plain level, wrapped in matting. Further information on the stratigraphy and the structure of the burial is not available. The grave goods assemblage is composed of 17 pottery vessels, among which are 13 open conical bowls (Pl. LXXXV.2–14, type 13), two different types of small jars (Pl. LXXXVI.1–2, type 37 and 46) and two large spouted jars (Fig Pl. LXXXVI.3–4, type 76).

G 464: Simple pit grave of an adult female of about 25–35 years (Algaze 1983–84: 186; Moorey 1978: E10; Rathbun 1975: 55). No information about the burial structure is given.

With the body a clay figurine (Pl. LXXXVI.5) and four pottery vessels were found: an open conical bowl (Pl. LXXXVI.6, type 13), a carinated small jar with an out-turned rim and flat base (Pl. LXXXVI.7, type 64), and two miniature miscellaneous vessels.

G 469: Simple pit grave of an adult female (about 35 years, Rathbun 1975: 56). It is 1.9 m long and 0.9 m large, with mudbrick walls and floor, probably belonging to an earlier house (Algaze 1983–84: 186; Moorey 1978: E10; Watelin and Langdon 1934: Pl. XIX).

The grave goods assemblage is rich, and the types of finds share a pattern with the other graves, consisting mostly of shells, stone and pottery vessels. In this case, the majority of objects are stone tools, such as four bowls (Pl. LXXXVI.8–9), a grinder and mortar with its

pestle, and pottery vessels encompassing a conical bowl (Pl. LXXXVII.4, type 13), different types of small jars (Pl. LXXXVII.3, 5, type 37, 39) and large storage jars (Pl. LXXXVII.6–7, types 50 and 52) including a spouted jar (Pl. LXXXVII.8, type 75). But also other objects were found with the body, like a shell (Pl. LXXXVII.1), two flint tools and a collection of copper finds including two bowls, a mirror and an axe (Pl. LXXXVII.2).

G 473: Simple pit burial of an indeterminate adult found 4 m below the plain level (Algaze 1983–84: 186; Moorey 1966: Pl. VI; Moorey 1978: E12). No detailed information concerning the structure of the grave is given. Three objects were found with the body: a copper tool and two pottery vessels: a strainer (Pl. LXXXVIII.1, type 9) and a storage jar with high carination and a triangular rim (Pl. LXXXVIII.2, type 50).

G 503: Simple pit burial found in the southern part the sounding, 4 m below the plain level, close to G 505 and G 506 (Algaze 1983–84: 187; Moorey 1978: E12). The burial was located near a house wall and it was 1.7 m long, 0.9 m large: three bodies, one adolescent and two indeterminate adults were found in the shaft (Rathbun 1975: 57). The grave goods assemblage is composed of eight pottery vessels, among which are six open conical bowls (Pl. LXXXVIII.3–8, type 13), and two miniature vessels.

G 505: Simple pit burial found in the southern part the sounding, 4 m below the plain level, close to G 503 and G 506. There is no information about both the structure and the preservation of the skeleton. No objects are recorded from this grave.

G 506: This is a pit burial found in the southern part the sounding, 4 m below the plain level, close to G 503 and G 505 (Algaze 1983–84: 187; Moorey 1978: E13). It was made of mudbrick walls and a beaten earth floor. No information about the body is given. Two pottery vessels, a small spouted jar (Pl. LXXXVIII.10, type 73) and a miniature vessel (Pl. LXXXVIII.9, type 84) were found in association.

G 519: This grave was found 4 m below the plain level, below G 518. It was 0.5 m deep, 1.5 m long and 0.7 m large. The structure consisted of the re-used mudbrick wall of an earlier house and a beaten earth floor, upon which the bodies of two adults, a male and a female were lain (Algaze 1983–84: 187; Moorey 1966: Pl. VI; Moorey 1978: E13). A line of organic debris seals the burial at 3.5 m below the plain level.

The finds assemblage is somewhat peculiar, including a bone tool (Pl. LXXXVIII.11), a grinding stone and a small jar with an out-turned rim and rounded base (Pl. LXXXVIII.12, type 37).

G 521: This tomb was found 4 m below the plain level, “*self standing in the middle of a room*” and cutting G 523.¹³⁶ It was 0.5 m deep, with a beaten earth floor sealing the top of the grave, 1.6 m long and 0.8 m large (Algaze 1983–84: 187; Moorey 1978: E13). The structure consisted of the re-used mudbrick walls of a previous house and a wooden roof covering it and sealed by the house floor. Inside the burial there was the skeleton of an adult of indeterminate sex.

The grave goods assemblage is fairly rich including shells, stone and pottery vessels. There are two shells, two stone vessels (Pl. LXXXIX.1–2) and nine pottery vessels, including a large shallow conical bowl (Pl. LXXXIX.3, type 12), a small jar with an out-turned rim and high carination (Pl. LXXXIX.4, type 32), a small jar with triangular rim (Pl. LXXXIX.6, type 49), six single handled jars (Pls. LXXXIX.5, 7, XC.1–4, types 52–53), and a large spouted jar (Pl. XC.5, type 75).

G 611: There is no detailed information concerning both the structure of the grave and the skeleton. The burial was found 4 m below the plain level. The grave goods assemblage is similar to that of other burials from this phase (such as G 612) and of the previous ones (such as Phase 4). It comprises three main types of artifacts: stone tools (generally vessels), shells and pottery. Associated with the body there were a copper mirror, a shell, two stone bowls and two pottery vessels, including a large spouted jar with a flat base (Pl. XC.6, type 75) (Algaze 1983–84: 188; Moorey 1978: E13).

G 612: Simple pit burial found 4 m below the plain level, in the northern part of the sounding. There is no information about the burial structure, while the skeleton belonged to an adult of indeterminate sex (Algaze 1983–84: 188; Moorey 1978: E13).

The grave goods are similar to G 611 and other earlier burials, including shells, stone tools (generally vessels) and pottery. From this burial the excavators reported a copper mirror, a shell (Pl. XCI.1), a spindle whorl (Pl. XCI.2), two stone bowls (Pl. XCI.3) and six pottery vessels, including a small jar with out-turned rim and rounded or pointed base (Pl. XCI.4, type 37), a small jar with an out-turned rim and flat base (Pl. XCI.5, type 37), an open conical bowl (Pl. XCI.6, type 13), the rim and shoulder of a jar with simple handle (Pl. XCI.8, type 52) and two spouted jars with flat bases (Pl. XCI.7, 9, types 75, 77).

G 613: Simple pit grave of an adult female (18–21 years) (Rathbun 1975: 57) found 4 m below the plain level and 0.5 m deep. No information about the burial structure or the body position and treatment is available. The grave goods include a stone bowl and two pottery

136 Penniman to Langdon 03–03–1929.

vessels: an open conical bowl (Pl. XCII.1, type 13) and a large spouted jar with a flat base (Pl. XCII.2, type 74).

G 615: Simple pit burial of an adolescent (12–16 years) discovered 4 m below the plain level (Algaze 1983–84: 188). There is no information about both the structure and the body position and treatment. A stone bowl was found in association.

G 631: Simple pit burial of an adult of indeterminate sex found 4 m below the plain level (Algaze 1983–84: 189). There is no information about both the structure and the body position and treatment. Ten copper tools of different types, not only working tools like a hook (Pl. XCII.4), but other finds such as a blade (Pl. XCII.5) and another copper tool of indeterminate function (Pl. XCII.3) were found with the body. This assemblage has no parallels with other graves from the Y sounding.

PHASE 7 (Flood Stratum)

Stratigraphy and architecture

Between 3 m and 2.7/2.5 m below the plain level¹³⁷ the excavators¹³⁸ found a layer of thin laminated beds of sand and silt, with several freshwater mussels, shells and fish bones (Field 1936: 75; Watelin and Langdon 1934: 40, pl. I) as well as rubble and pottery sherds. This layer extends through the western part of Tell Ingharra to at least as far as the YW sounding.¹³⁹ Rooms with associated materials have been identified by the excavators in this level.¹⁴⁰ Beside the letters, some unpublished photographs help to further clarify the interpretation of this phase. One of them shows two horizontal drains *in situ* (Pl. XXI.1), while in the second photograph a bitu-

137 The stratigraphic and functional reconstruction of Phase 7 is based on: 1. Primary information (layers, buildings and burial shafts) from both primary and secondary sources (letters, drawings and excavation reports); 2. Secondary information (objects at 3 m) from primary sources (object cards and letters).

138 Langdon (1930: 603) says that the Flood stratum is 1.5 feet (45 cm) from the lower elevation (– 3 m under the plain level), suggesting an upper elevation of – 2.55 m. In the same article (1930: pl. VII; see also ILN, 08–02–1929, p. 207), a picture showing a section of the sounding does not help to clarify the elevation. In the final report (Watelin and Langdon 1934: 40, pl. I), Watelin says that the Flood Stratum was 30 to 50 cm thick and was located between – 3 m and – 2.7/– 2.5 m. Further studies (Lloyd 1969: pl. VII; Moorey 1978: 86, 98) and the visit made by McG. Gibson in the 1960s at Kish (Gibson 1972a: 84, 308 fig. 61) confirmed Watelin's latest interpretation.

139 Watelin and Langdon 1934: 40; Watelin to Langdon, 03–03–1931.

140 See Watelin to Langdon 05–02–1929 «*Le stratum e (stamped earth in thin layers etc...) correspond, à mon avis, à une inondation importante plutôt qu'à un nivellement... on a trouvé l'an dernier à ce niveau, dans une chambre, une épaisseur des poisson correspondante à l'épaisseur de la couche...*». This observation was then confirmed by Watelin to Langdon 08–12–1929 «*Le cylindre... me donne un repère précieux pour l'étude de niveau (i.e. Flood Stratum) et tend à me faire croire que le Déluge est intervenu pendant les... d'un même Dynastie et qu'il n'a pas été un hiatus dans la vie du peuple...*»

men vessel is placed on a mudbrick floor (Pl. XXI.2), both located at 3 m below the plain level. In addition, another floor of organic debris seals burial G 420 at 3 m (Algaze 1983-84: 185; Watelin and Langdon 1934: 71). Nevertheless, a detailed architectural analysis is not possible due to the lack of plans. More evidence for an occupational phase at 3 m is given by the number of artifacts recovered. A spatial distribution of the finds cannot be provided for Phase 7 due to the lack of coherent groups of objects with similar excavation numbers.

Pottery

The pottery assemblage from Phase 7 includes four vessels: two open shapes and two closed shapes. Among the open shapes, there are a carinated bowl with an out-turned rim (Pl. XCIII.1, type 3) and a funnel (Pl. XCIII.2, type 14). Closed vessels comprise a storage jar with applied decoration and white slip (Pl. XCIII.3, type 68), two lids (Pl. XCIII.4-5, type 80) and a carinated storage jar with triangular rim and ring base (Pl. XCIII.6, type 50).

Small finds

A large number of objects was found during the excavation of the Flood Stratum. In this case, due to the lack of data, it is not possible to provide a refined spatial location for the findings.

The assemblage is composed by a seal impression (Pl. XCIV.1), a cylinder seal (Pl. XCIV.2), a stone weight (Pl. XCIV.3) and many stone vessels, among which several bowls and plates of small and medium size (Pl. XCIV.4-5). Both glyptic documents are badly worn and characterized by geometric patterns which are difficult to date.

The repertoire of tools is also significant, including a flint core (Pl. XCIV.6), three stone tools among which a mace-head (Pl. XCIV.7), some spindle-whorls, a stone tool (Pl. XCIV.12), a bitumen lid (Pl. XCIV.13) and several copper and bone tools, among which are four bone awls (Pl. XCIV.8-11).

There is also a group of animal figurines (Pl. XCIV.14-16, Pl. XCV.1) and chariot wheel (Pl. XCV.2). Some metal ornaments include a copper pin (Pl. XCV.4) and a copper mirror.

An important find from Phase 7 is a partially carved stone votive plaque (Pl. XCV.3). This interesting piece further supports the hypothesis on the existence of some kind of religious building already emerged from Phase 4.

Distribution of burials

The seven burials, all found 3.5 m below the plain level and associated with Phase 7, are clustered in two main sectors of the area: the extreme north end and the south/southeast end. Both the structures and the type of deposition are very simple and do not show any relevant

difference to the previous phases. If not specified, information on the burials is taken from an unpublished report drafted by H. Field.¹⁴¹

G 347: This simple pit grave was found 3.5 m below the plain level, at the north end of the area near the so-called “*fish room*”.¹⁴² No information on the skeleton is available and no objects were found within the grave.

G 350: Simple pit grave of an adult of indeterminate sex, found 3.5 m below the plain level. It was found at the north end of the area close to burial G 351. No information on the skeleton is available and no objects were found within the grave.

G 351: Simple pit grave of an adult of indeterminate sex, found 3.5 m below the plain level. It was found at the north end of the area close to burial G 350. No objects were found within the grave.

G 355: Simple pit grave of an adult of indeterminate sex, found 3.5 m below the plain level. It was found at the south end the area (Algaze 1983–84: 189). No objects were found within the grave.

G 361: This simple pit grave was found 3.5 m below the plain level, at the south end of the sounding (Moorey 1978: E10).¹⁴³ No information on the skeleton is available. The grave good assemblage is composed of four objects: two stone vessels, including a miniature bowl (Pl. XCV.5), a stone mortar and a further unidentified stone tool.

G 420: Simple pit burial discovered 4 m below the plain level, found in the northern part of the sounding (Algaze: 1983–84: 185; Moorey 1978: E10). It was about 1 m deep and contained the body of an adult male. No objects are recorded from this grave.

G 518: Simple pit grave of an adult of indeterminate sex located just above G 519, 3.5 m below the plain level (Algaze 1983–84: 189; Moorey 1978: E10; Watelin and Langdon 1934: 69). The walls of the burial were made of mudbrick, probably belonging to a previous house from Phase 6. According to the excavators, the bones associated with the burial belonged to an adult of indeterminate sex. No objects were found in association with the skeleton.

141 H. Field unpublished report.

142 Field to Langdon 07-03-1928.

143 See also H. Field unpublished report.

PHASE 8

Stratigraphy and architecture

Between the Flood Stratum (Phase 7) and the Red Stratum (Phase 10) the excavators found two layers of buildings.¹⁴⁴ The lower one was identified at 2.5 m,¹⁴⁵ just above the Flood Stratum. This phase of “... *reconstructed buildings*”¹⁴⁶ had a particular type of mudbrick with two half-pierced holes (35x18.5x5 cm and 40x20x6 cm). The same phenomenon is attested in the YW sounding¹⁴⁷, where houses were identified only in the Flood Stratum. The upper elevation of Phase 8 is 2 m where the buildings of Phase 9 were discovered.

Any architectural analysis cannot be performed without being affected by the lack of information. An important feature tentatively associated to this phase is constituted of the Chariot burials. A spatial distribution of the artifacts cannot be provided for Phase 8 due to the lack of coherent groups of objects with similar excavation numbers.

Pottery and small finds

Just a couple of finds, a small clay boat (Pl. XCVI.1), and a pottery lid (Pl. XCVI.2, type 80) can be associated to this phase.

Distribution of burials

Apart for the Chariot burials, that is discussed in the following paragraph, five simple graves, all found 3 m below the plain level, have been newly associated to this phase. If not specified, information on the burials is taken from an unpublished report drafted by H. Field.¹⁴⁸

G 314: Simple pit grave of an adult of indeterminate sex, found 3 m below the plain level (Algaze 1983–84: 189; Moorey 1978: E10). It was found at the south end the area. No objects were found within the grave.

144 Field to Langdon 07-03-1928, “... *two bands have been identified, one just above the Y burials found in profusion ... Here potsherds and rubble have been found.*”

145 The stratigraphic and functional reconstruction of Phase 8 is based on: 1. Primary information (layers, buildings) from both primary and secondary sources (letters, drawings and excavation reports); 2. Secondary information (objects at 2.5 m) from primary sources (object cards and letters).

146 Watelin to Langdon, 12-12-1928, «*J'ai trouvé en Ya dans une construction remaniée à 2.5 m sous le plain level deux briques cuites plates avec deux ... moitié ... (35x18.5x5cm, 40x20x6 cm)*”.

147 Watelin to the Director of the Field Museum, 24-02-1930. This passage has been also discussed by Algaze (1983–84: 142, n. 27).

148 H. Field unpublished report.

G 356: Simple pit grave of an adult male, found 3 m below the plain level. It was found at the south end of the area (Algaze 1983–84: 189). No objects were found within the grave.

G 362: Simple pit grave found 3 m below the plain level, at the south-east end of the Y sounding. Two skeletons, a child (3–6 years) and an adult of indeterminate sex, were found together with some grave goods (Algaze 1983–84: 189; Rathbun 1975: 56).¹⁴⁹ The assemblage consists of two stone vessels: a beaker (Pl. XCVI.4) and a bowl (Pl. XCVI.3); two large storage jars (Pl. XCVI.5–6, type 59), and a shell.

G 368: Simple pit grave of an adult female (25–35 years) (Rathbun 1975: 56), found 3 m below the plain level. It was found at the south end of the area near G 370. No objects were found within the grave.

G 447: Simple pit grave of an adult of indeterminate sex (Algaze 1983–84: 190; Moorey 1978: E10), found 3 m below the plain level. No information on the spatial location of the burial was given. The only two objects found with the skeleton are a jar with a vertical spout and ring base (type 77) and a shell.

Chariot Burials

During the excavations in the Y sounding (Pl. XXII.1), the archaeologists brought to light several large multi-chambered graves (hereafter ‘Chariot burials’). The shaft was much deeper than the other common pit graves and the inner structure was more complex and elaborate (Algaze 1983–84: 177; Gibson 1972a: 85, n. 158; Moorey 1978: 104–105, 110; Watelin and Langdon 1934: 30, 40). It was generally characterized by an access ramp, leading to one or more chambers, in the centre of which there was a mudbrick platform with human and animal remains, together with grave goods. In addition, wooden wheels were found, indicating the presence of a chariot pulled by the animals, upon which the dead was deposited. There is a number of issues concerning these burials, such as 1) the small number of Chariot burials recorded compared to the high number of burials found; 2) the paucity of architectural and stratigraphic data; 3) the quantity of recorded grave goods.

1) Concerning the first issue, the unpublished letters¹⁵⁰ provide some clues. In one of them, 16 burials with associated animals are mentioned, while in the final report the list is reduced

¹⁴⁹ See also H. Field unpublished report.

¹⁵⁰ H. Field to the Director, 02–03–1928 in which he stated that “Yesterday found part of another chariot at the same level as no. 1 and it gives details for reconstruction lacking in nos. 1 and 2”; Watelin to Director, 23–01–1929; Watelin to Langdon, 09–12–1930, in which he said “Work shows that Sumerian city extends low down towards the big Ziggurat. Found 16 tombs already... tomb with chariot in bad state, may be able to save the heads of the animal...”.

to three: cart burials 1, 2 and 3 (Watelin and Langdon 1934: 40). Later studies¹⁵¹ successfully detected six burials from the Y sounding, and among those only three could be properly recognized.

2) With regards to the stratigraphy and the architectural remains, Moorey and Gibson, followed by Algaze, proposed to associate them with the settlement phases (Phase 8 or 9) covered by the Red Stratum. This assumption is based on two arguments: the first one is that at least one chariot burial was found below the greater ziggurat (Z.1) and is at least contemporary with the Red Stratum (Moorey 1978: 105). The second one, proposed by Moorey (1978: 104–105), focused on the minimum elevation necessary for covering these burials, comparing the burials from Kish with the rich shaft graves at Ur. Both these points have been accepted by other scholars, although Algaze (1983–84: 152) rightly admitted that they are not conclusive proofs. Gibson tried to go beyond providing a tentative picture of the context from which they were cut.¹⁵²

3) Moving to the finds, Moorey (1978: 96) proposed to compare the chariot burials with some very rich shaft graves of Ur (PG 789, PG 800 and PG 1232). Even in this case, Algaze (1983–84: 152–54) correctly noted that for at least the first two graves the comparison would not fit, although he accepted that the pattern of Kish chariot burials is similar to tomb PG 1232, both in dimension and richness.

Chariot burial 1

This burial has been labeled under different numbers which represent the skeletons (G 322, G 323, G 324, G 326 and G 329, Gibson 1972a: 85, n.158; Moorey 1978: 110) then grouped together to form Chariot burial 1 (Pl. XXII.2). The lower elevation of this chariot burial is – 4 m. In addition, Algaze (1983–84: 177), Gibson (1972a: 85) and Moorey (1978: 107) pointed out that this chariot burial covered (and probably cut) grave 373. The structure of the grave consists of a ramp which leads to the bottom of the pit divided into two parts (rooms) by a low mudbrick wall. The human skeletons were located in one area of the grave, while the animal (bovid) skeletons and two wheels of a chariot were located elsewhere in the grave.

The assemblage from this burial is largely unpublished. The only published objects are a copper rein ring (Pl. XCVII.1), a large conical bowl with a rounded base (Pl. XCVII.2, type 12), and a spouted jar with out-turned rim and flat base (Pl. XCVII.3, type 77).

151 Algaze 1983–84: 149–150; Gibson 1972a: 84–86; Moorey 1978: 110. Moorey in particular proposed to identify graves 631 and 684 as unrecognized chariot burials, by virtue of the types (metal tools) of objects found. Excavations at Abu Salabikh (Postgate and Moon 1982: 134–135, fig. 10) or Tell Razuk (Gibson 1981: 73–75, pls. 45, no.1, 46, no. 1) revealed instead that these kinds of burial can be poor.

152 Gibson 1972a: 84, where he said, “*I cannot see any possibility that royal tombs would have been placed in an area occupied by contemporary houses. The chariot burials and associated skeletal remains must be dated from the period after the complete abandonment of houses in this area. The remains of structures in the stratum above the Flood Level may have been religious in nature, and associated with the royal tombs*”.

Chariot burial 2

This burial was first recorded as G 357¹⁵³ located 6 m below the plain level. A stratigraphic reconstruction is not possible, although Gibson underlines that the small dimensions of the shaft support the idea that it was cut from below the Flood Stratum (Gibson 1972a: 85; Moorey 1978: 107). The structural remains consisted of a ramp that led to a plano-convex mudbrick platform (45 cm thick) lying at the bottom. On the platform a four-wheel chariot was found (Pl. XXIII.1-2) with a single (bovid) animal skeleton (Pls. XXIII.3, XXIV.1) and many associated objects such as reins and yokes.¹⁵⁴ Along the ramp, four more bovid skeletons were identified at - 5.5 m.

The grave goods assemblage consists of 29 objects mostly made of copper or clay. The majority of the copper artifacts, apart for the rein ring (Pl. XCVIII.1) can be interpreted as weapons: two copper blades (Pl. XCVIII.2-3) and two axe-heads or working tools as in the case of two chisels (Pl. XCVIII.4-5). Other copper tools include some personal ornaments like a pair of small pins.

The pottery assemblage is characterized by seven vessels, among which there are three miniature shapes, three lids (Pl. XCVIII.6-8, types 79-80) and a small box (Pl. XCVIII.9, type 4).

In addition, there are some animal figurines (Pl. XCVIII.10), indeterminate tools made of clay, bone, flint and stone such as a stone mortar and pestle (Pl. XCVIII.11-12), and few ornaments like stone beads and shells.

Chariot burial 3

Chariot burial 3 was found 4 m below the plain level and was originally recorded as G 529 (Pl. XXIV.2). According to the unpublished field sketches and notes, the general arrangement of the burial was very like that in Chariot burial 2 with animal bones (possibly equid) lain on the right side of four wheels, the front two still in the original position, the rear two displaced where the vehicle was crushed by the earth burden above.

The majority of the assemblage consists of copper tools, several of which were probably pertaining to the chariot itself such as the copper rein guide (Pl. XCIX.1). In addition, there are two tall copper bowls (Pl. XCIX.2-3), two daggers (Pl. XCIX.4) and other miscellaneous tools (Pl. XCIX.5-7). The pottery assemblage consists of three small jars with triangular rims and high carination (Pl. XCIX.8, type 46).

¹⁵³ Not G 237, as reported by Watelin (Watelin and Langdon 1934: 30).

¹⁵⁴ A detailed description of Chariot burial 2 is provided by Moorey 1978: 108.

Moorey (1978: 110) also proposed to recognize more Chariot burials. He tentatively identified four more (IV to VII), often associated with simple graves found at 4 m or 6 m below the plain level.

PHASE 9

Stratigraphy and architecture

Above Phase 8, 2 m¹⁵⁵ below the plain level, more traces of buildings were recovered. A squared room was securely identified with some associated materials.¹⁵⁶ Moreover, burial G 498 was found resting on a floor made of organic debris at this elevation. The presence of walls and pavements has been noted also by Gibson (1972a: 64, ns.149-150), while Moorey (1966: 31), following Field and Langdon¹⁵⁷, interpreted this layer as an incoherent flood deposit.

Distribution of finds

The 14 objects were found in four of the five macro-areas (B, C, D and E). No objects were recovered from sector A (Pl. XXV.1).

Sector B: In sector B, the excavators found a complete stone open bowl with a flat rim and a spindle whorl (Pl. C.1). Given the gap in the excavation numbers, it is unlikely that the objects were found in association.

Sector C: The assemblage from area C consists of a seal impression and a typical Geometric style cylinder seal (Pl. C.2). This style is attested at Kish and elsewhere from the JN period onwards (Quenet 2007; 2008: 186). In particular, a group of seals bearing geometric designs has been found in level IV from the Temple of Şamuş at Khafajah (Frankfort 1955: pls. 16-17).

155 The stratigraphic and functional reconstruction of Phase 9 is based on: 1. Primary information (layers, buildings and burial shafts) from both primary and secondary sources (letters, drawings and excavation reports). 2. Secondary information (objects at 2 m) from primary sources (object cards and letters).

156 Penniman to Simms 20-01-1929; Gibson 1972a: 309, fig. 62. It could be possible that Watelin (Watelin and Langdon 1934: pl. VI, no. 1) wrongly showed part of the Monument Z in the plan, which is not “2 metres below plain level” but 2 m above it. Unfortunately, the comparison between those buildings and Monument Z (Gibson 1972: 311, fig. 64) does not reveal any similarities. In this light, following Gibson’s plan, the buildings would pertain to the layers recovered excavating the Z trenches between the Monument Z and the Red Stratum. Curiously, most of the objects (see below) associated to this phase were found at - 2 m. This datum might mean that there was an upper sub-phase at - 2 m, or that they simply come from the fill covering the pavements at - 2.5 m.

157 Field to Langdon 07-03-1928, “Above this another level with basically no anthropic evidences was intercepted. This was covered by the Red Stratum.”

Further small finds include an unidentified stone tool and a fragment of human statue (for which no more detailed information is provided).

Sector D: A fragment of clay chariot is reported from sector D (Pl. C.3.).

Sector E: Sector E provided the largest number of finds. The assemblage includes a seal impression with multiple rollings, probably sealing a large vessel (Pl. C.4), two pottery vessels, a lid (Pl. C.5, type 80) and a miniature jar with high carination and a flat base (Pl. C.7, type 39), and a clay figurine.

The seal impression shows a human figure struggling with a monstrous animal (sometimes these are animal-human hybrids), according to a relatively widespread glyptic design (particularly in central Mesopotamia, such as at Nippur and Fara, Martin 1988: 72), suggesting a regional horizon that Martin (1988: 72) limits to the ED I. However at Kish monsters and other mythological scenes are attested up to the Akkadian period.

Among the stone objects there are an open bowl and an unidentified tool (Pl. C.6); an unidentified copper tool is also attested.

Distribution of burials

Five burials can be associated to the buildings from Phase 9: G 290, G 440, G 441, G 442 and G 446. It is not possible to provide a general distribution of the burials as for the majority of them spatial information is not provided. If not specified, information on the burials is taken from an unpublished report drafted by H. Field.¹⁵⁸

G 209: This burial was found at the south end of the Y sounding. Associated skeletons and grave goods are not reported.

G 440: Simple pit burial (Algaze 1983–84: 190). Associated skeletons and grave goods are not reported.

G 441: Simple pit burial (Algaze 1983–84: 190). The excavators did not provide any information on the skeleton. The grave goods assemblage consists of an open conical bowl (Pl. C.8, type 13).

G 442: Simple pit burial of an adult (25–35 years) and an adolescent (6–10 years), both of indeterminate sex (Algaze 1983–84: 190; Rathbun 1975: 55). Together with the skeletons, a carnelian necklace and four vessels were found: a large spouted jar with an out-turned rim and

¹⁵⁸ H. Field unpublished report.

convex base (Pl. C.9, type 76), an open conical bowl (Pl. C.10, type 13), and two miniature vessels of indeterminate shape (Algaze 1983–84: type 40).

G 446: Simple burial of an indeterminate adult (Algaze 1983–84: 190; Rathbun 1975: 55). The only associated good is a miniature vessel of indeterminate shape.

PHASE 10 (Red Stratum)

Stratigraphy and architecture

The uppermost phase excavated in the Y sounding is the so-called Red Stratum¹⁵⁹ (Pls. XXV.2, XXVI.1). All of the phases found above this have been excavated as Trenches Z. As for other levels of the sounding, the upper elevation may vary. According to Watelin's letters "... *le stratum rouge a une épaisseur moyenne de 1.5 m...*"¹⁶⁰ and cuts irregularly the Y sounding from 2 m above the plain level (upper elevation) to 2 m below the plain level (lower elevation).¹⁶¹ Watelin's sketch sections¹⁶² depicts a slightly different scenario, with the Red Stratum located under 10 m of stratification, thus starting at the plain level and not 2 m above this. More conjectures about the connection between the Red Stratum and Flood Stratum¹⁶³ or the Monument Z¹⁶⁴ are therefore to be rejected.

In the final report (Watelin and Langdon 1934: 45), it is stated that the upper elevation of the Red Stratum was irregularly found between 0.5 m above the plain level and 0.4 m below (in the southern part of the tell) and it had an average thickness of 2 m. In the same publication two sections,¹⁶⁵ with the Red Stratum located between the plain level (0 m) and – 1.5 m were published.

The research on the field performed by McG. Gibson (1972a: 86–87) at Kish in the late 1960s, helped to shed some light on this problem. He compared the elevations recorded after the cleaning of part of the section with those taken by Mackay for the Neo-Babylonian temple and by Watelin. Eventually, he proposed an upper elevation of + 0.5 m to 0 m, and a lower one

159 The stratigraphic and functional reconstruction of Phase 10 is based on: 1. Primary information (layers, buildings) from both primary and secondary sources (letters, drawings and excavation reports); 2. Secondary information (objects at 1 m and 0 m) from primary sources (object cards and letters).

160 Watelin to Langdon, 07-05-1928; Watelin to Langdon, 14-12-1928.

161 Watelin to Langdon, February 1929.

162 Watelin to Field, 23-03-1928; Watelin to Langdon, 07-05-1928.

163 Field to Langdon, 07-03-1928.

164 Field to Davis, 11-01-1928, "... *the Red stratum seems continuous right under and through Monument Z...*"

165 Watelin and Langdon 1934: 53, fig. 7, pl. I.

1.30–1.50 m. This means that the Red Stratum was located 2–1.50 m under the Monument Z and 1.50 m ca. over the Flood Stratum.

To shed light on the stratigraphy and architecture of the Red Stratum, some letters of T.K. Penniman¹⁶⁶ are of paramount importance. He noted that burial G 493 was found at 1.5 m below the plain level “... *in an angle of an almost squared room*”. Still on burial G 493, he said that “... *under the body (i.e. burial G 493) were broken pieces of badly baked cushion bricks, which lay on a sort of floor of organic debris, charcoal and sherds. I traced this floor for several yards in different directions, as far as a brick unbaked wall on one side... The organic deposit was about 3 cm thick*”.¹⁶⁷ Walls and pavements were found at –1.5 m which can be considered the lower elevation of the Red Stratum.

Some notes on the stratigraphic relation between Red Stratum and the Greater Ziggurat can help to interpret the reddish layer (Pl. XXVI.2). The greater ziggurat (Z.1, see pl. CXLIV.1–2) is composed of at least four thick layers of plano-convex bricks laid in the “herring bone” fashion; the first three layers are made of unbaked grey bricks. The fourth, separated from the others by a thin layer of ashes and matting (located at 3 m above the plain level and 1 cm ca. thick), is made of red bricks¹⁶⁸. The upper elevation of the Red Stratum rises towards the ziggurat and the upper part of the stratum is cut by the massive retaining wall near the ziggurat.¹⁶⁹ Nonetheless, two sections show that the lower part of the Red Stratum leans against the second and third strata of bricks of the greater ziggurat. A spatial distribution of the artifact cannot be provided for Phase 10 due to the lack of coherent groups of objects with similar excavation numbers.

Pottery

The pottery assemblage from Phase 10 consists of 12 specimens belonging to three main functional groups: small jars or bottles, storage jars, and other miscellaneous vessels.

The first group is characterized by a miniature jar with ring base (Pl. CI.4, type 42), a small or medium size globular jar with out-turned rim (Pl. CI.6, type 44) or a carinated small jar with triangular rim (Pl. CI.5, type 46). Storage jars include a typical large carinated jar with a triangular rim (Pl. CI.7, type 50), a handled jar with ring base (Pl. CII.2, types 53), a high carinated jar with a vertical rim (Pl. CII.1, type 61) and jar with an out-turned rim and high foot and spout (Pl. CII.3, type 66). The third group is composed of a stemmed dish (Pl. CI.2–3, type 28), a miniature beaker (Pl. CI.1, type 84) and peculiar type of storage jar with a highly out-turned rim and thick handle (Pl. CII.4, type MISC).

¹⁶⁶ Penniman to Langdon, 20-02-1929.

¹⁶⁷ Penniman to Langdon, 13-02-1929.

¹⁶⁸ Watelin to Langdon, 03-01-1931; Watelin to Langdon, 13-01-1931; Watelin to Langdon, 20-01-1931.

¹⁶⁹ Gibson 1972a: 308, fig. 61. In addition see Letter Watelin to Langdon, 20-01-1931.

Small finds

The repertoire of stratified small finds from the Red Stratum consists of various types of objects among which there were six cylinder seals (Pls. CII.5-6, CIII.1-3), one of which can be stylistically dated to the Neo-Assyrian period and is therefore to be considered out of context. Another one has a typical late ED motif and a small inscription¹⁷⁰ (Pl. CII.6, Cat. 37): *i-lum-KA. NI/IR*.

The five seals considered have different designs including animal processions and contest scenes. The majority of them date between the ED IIIa and Akkadian periods, although animal procession scenes are attested as early as the ED I (Amiet 1980: 330-340; Matthews 1992: fig.10.6).

Furthermore, there is a small group of inscriptions (Pls. CIII.4, CIV.1-6). Regrettably, it is not possible to say with certainty whether these epigraphic materials were found together or not, due to the lack of precise contextual information. Among the main topics covered by these documents, there are lists of personnel, distribution (rations?) of bread and sheep. Other tablets are problematic to interpret; but in some cases it is at least possible to recognize their administrative nature (see Watelin and Langdon 1934: pl. XL.9; Grégoire 1996: pls. 5-6), in other cases the content is completely indecipherable (see Gelb 1970: no. 27).

Possible indicators of a religious context are a votive plaque (Pl. CV.3) and a shell inlay (Pl. CV.1) depicting a hand holding a weapon. There is also a small group of miscellaneous finds, including personal ornaments made of stone and shell, two zoomorphic clay figurines (Pl. CV.4-5) a chariot (Pl. CV.6) and two chariot wheels (Pl. CV.7-8), and other kinds of tools such as a spindle whorl, two stone vessels, a bird-shaped stone bead (Pl. CV.2) a small alabaster jar (Pl. CVI.2) and a fragment of bowl with a low relief decoration (Pl. CVI.1) and a necklace (Pl. CVI.3).

Distribution of burials

Eleven burials have been newly associated to this phase. It is not possible to provide a general distribution of the burials as for the majority of them spatial information is too vague or not provided. If not specified, information on the burials is taken from an unpublished report drafted by H. Field.¹⁷¹

G 289: This burial was found at the south end of the sounding, 2 m below the plain level. Both the skull and the post-cranial skeleton were badly damaged. No grave goods were reported.

¹⁷⁰ See also Westenholz in Appendix 1 for the corrected and updated transliteration of the original one given by S. Langdon (1930: 605, see also Watelin and Langdon 1934: 64).

¹⁷¹ H. Field unpublished report.

G 291: This burial was found 2 m below the plain level, while no information on the spatial location is available. Only the skull was preserved. No grave goods were reported.

G 295: Simple burial found 2 m below the plain level, at the north end of the Y sounding (Algaze 1983–84: 190). The body was badly broken, with the skull being very fragmentary and probably belonging to an adolescent (6–12 years). No grave goods were reported.

G 338: Simple burial found 2 m below the plain level, at the extreme south end of the Y sounding. Both the skull and the post-cranial skeleton were badly damaged. The body belonged to an adult male (18–21 years). No grave goods were reported.

G 341: This burial was found 2 m below the plain level, while no information on the spatial location is available (Algaze 1983–84: 190). Only the skull of a child (8–10 years) was still preserved. No grave goods were reported.

G 354: Simple burial found at the south end of the sounding, 2 m below the plain level. The body was badly broken, with the skull being very fragmentary. No grave goods were reported.

G 358: This burial was found 2 m below the plain level, at the north end of the Y sounding, north of G 359 (Algaze 1983–84: 190). Just a few bones from the lower part of the body were preserved. An unidentified pottery vessel comes from this burial.

G 359: Simple burial found at the north end of the Y sounding 2 m below the plain level, south of G 358. Both the skull and the post-cranial skeleton were badly damaged. No grave goods were reported.

G 369: Simple burial found at the south end of the sounding, west of chariot burial 2, 2 m below the plain level. Both the skull and the post-cranial skeleton were badly damaged. No grave goods were reported.

G 375: This burial was found 2 m below the plain level, in the centre of the Y sounding. The body was badly broken, with the skull very fragmentary. No grave goods were reported.

G 488: This burial was found 2 m below the plain level, while no information on the spatial location is available (Algaze 1983–84: 190). Just a few bones from the lower part of the body were preserved. No grave goods were reported.

4.2 YW SOUNDING - PHASES 4-7

PHASE 4

Stratigraphy and architecture

Phase 4, is located at – 3.5 m,¹⁷² where the archaeologists uncovered “*lits de poterie et des cendres*”¹⁷³ associated with mudbrick buildings. A group of seal impressions and inscribed tablets was probably found inside one of these buildings. The upper elevation of this phase is – 3 m below the plain level, that is the lower elevation of Phase 5 (Flood Stratum). No pottery from this phase was kept or recorded.

A storehouse from Phase 4?

The typology of small finds from this phase is quite uniform, consisting of glyptic and epigraphic materials. These are of great interest for the reconstruction of the economic activities carried out in the area (or at least part of it). These objects were found together in a layer of ashes covering the floor of a room.¹⁷⁴

The corpus consists of five seal impressions¹⁷⁵ (Pl. CXXVII.1-4a/d), three of which form a single although incomplete impression (Buchanan 1966: 29).¹⁷⁶ All of them show human figures fighting with caprids, a typical contest scene generally dating from the ED II-III (Martin 1988: 73; Frankfort 1955: pl. 31, nos. 314, 330; Evans 2007: 606-607). The other two impressions have multiple rolled seals with inscriptions. In particular, two of them show the same seal with inscription. As argued by Buchanan (1966: 29) and Amiet (1980: no. 946) the style of the two seals is very similar. Instead the inscriptions refer to two characters whose

172 The stratigraphic and functional reconstruction of Phase 4 is based on: 1. Primary information (floors and walls) from primary sources (letters and drawings). 2. Secondary information (objects at 3.5 m) from primary sources (object cards and letters).

173 Watelin to Langdon 26-01-1930.

174 Watelin to Langdon 26-01-1930 arguing that “*en YW les tablettes étant à 4.5 m sous le plain level dans un lit des poteries et de cendres....*”.

175 About 20 seal impressions from the YW sounding now stored in the Ashmolean Museum have the same accession number AN 1930.408 of the two listed above (1930.408e and 1930.408m). Nevertheless, as two other seal impressions from the same group (1930.408h and 1930.408p) come from Phase 8 in the YW sounding (0 m was scratched on them), it is not possible to say where the 20 seal impressions come from.

176 Watelin (Watelin and Langdon 1934: 60) stated that the inscribed seal impressions were found below the Flood Stratum in the YW sounding, associated with a group of tablets. On the contrary, both Buchanan (1966: 29) and Moorey (1978: Microfiche 2, G05) claim that at least AN 1930.89a/152 was found at 3 m, but without specifying where they took this information.

respective profession is reported. In the first case (Pl. CXXVII.2, Cat. 31) O.R. Gurney (Buchanan 1966: 223) provided the following translation:¹⁷⁷

[g]anun.[zī]z(?)	storehouse of wheat (?)
IGI+DUB(=agrig)	supervisor
Il.ÚR(?).ma	Il-ur-ma(?)

The other two seal impressions (Pl. CXXVII.3-4a-d, Cats. 26-30) have the following inscription:

[d]ub-sar ganun	Scribe of the storehouse
[l]l-gu-ru _x (KU)	Il-kurub

Among the inscribed clay tablets, one (Pl. CXXVIII.1) is so poorly preserved that the content is unreadable, seven are most likely administrative (Pls. CXXVIII.2-8, CXXIX.3) (Marchesi and Marchetti 2011: 332, pl. 23.2-4; Westenholz 2014: 31-38), while the other groups concern list of personnel (Pl. CXXIX.2), accounts of barley (Pl. CXXIX.5) and livestock (Pl. CXXIX.4, 6). Three more documents probably contain an incantation (Pl. CXXIX.7), one is a school exercise tablet (Pl. CXXIX.1) and two are lexical texts (Pl. CXXIX.8-9).

Therefore, the evidence above shows, the presence of at least a storehouse with a small archive and two professionals connected with it: the supervisor (IGI + DUB) Il-ur-ma and the scribe (dub.sar) Il-gu-KU. This datum has a twofold significance:

1. It allows us to partly understand the organization of the storehouse.
2. It shows the increase of management activities firstly attested in Phase 3.

We have therefore a number of activities mostly related to agriculture (barley and wheat) and breeding (livestock) probably performed by an independent household or less unlikely related to a temple.¹⁷⁸

¹⁷⁷ This reading is confirmed by Visicato (2000: 22-25), contra Rohn (2011, 106, nos. 3-4). According to Westenholz (Appendix 3) and Marchesi (p.c.) the sign “[zī]z” is not visible and not attested in other contemporary published texts.

¹⁷⁸ The second hypothesis is based on the presence of votive plaques and other materials possibly connected to religious contexts found in other phases from the YW sounding.

PHASE 5 (Flood Stratum)

Stratigraphy and architecture

Between – 3 m and – 2.7 m below the plain level,¹⁷⁹ the archaeologists found a thin deposit, 30 cm deep and extended throughout the area, covering the beaten earth floors and the few associated walls recognised.¹⁸⁰ This layer, consisting of mussels and some artifacts in a sandy soil, corresponds to the Flood Stratum also uncovered in the Y sounding. Several sections help to clarify the stratigraphic relations between this and the other phases. However, no plans were drawn by the excavators.

Pottery and small finds

The pottery assemblage from Phase 5 consists of two vessels. The first (Pl. CXXX.1, type 4) is a somewhat peculiar 10x7 cm rectangular box with two holes on the upper part of the short sides, suggesting that it was hung with passing ropes, although its precise function remains unclear. The second is the rim of a 2nd millennium BCE large storage jar with blackish decoration on a white slip surface (Pl. CXXX.2), which probably comes from an unrecognised later pit (Moorey 1978: Microfiche 2, G05).

With regards to the small finds, only a stone cylinder seal has been recorded by the excavators.

PHASE 6

Stratigraphy and architecture

Phase 6 was set upon the Flood Stratum at – 2.7 m.¹⁸¹ Watelin himself said¹⁸² that “*Il y a des constructions directement sur le flood, briques cuites en petite quantité...*”. It is difficult to identify the upper elevation of this phase, as the archaeologist only briefly mentioned the layers covering this phase as follows¹⁸³ “*... l'intervall entre le Flood et le Red Stratum est occupé par un terre mé-*

179 The stratigraphic and functional reconstruction of Phase 5 is based on: 1. Primary information (floors and walls) from primary sources (letters and drawings). 2. Secondary information (objects at 3 m) from primary sources (object cards and letters).

180 Watelin to Langdon 02-12-1929, Watelin to Langdon 31-12-1929, Watelin to Langdon 03-02-1930, Watelin to Simms 04-04-1930.

181 The stratigraphic and functional reconstruction of Phase 6 is based on: 1. Primary information (floors and walls) from primary sources (letters and drawings). 2. Secondary information (objects at 2.5 and 2 m) from primary sources (object cards and letters).

182 Watelin to Langdon 24-02-1930.

183 Watelin to Langdon 24-02-1930.

langée difficile à définir...". As the Red Stratum have been mentioned here and in other letters,¹⁸⁴ we might hypothesize the upper elevation on the basis of this data. The lower elevation of the Red Stratum in both Y and the YW sounding is 1.5 m below the plain level as also confirmed by numerous studies (Gibson 1972a: 90; Moorey 1978: 114).

From a stratigraphic point of view, this phase is problematic when compared to other contexts, such as the Y sounding to which probably two phases must be associated (Phases 8 and 9).

Pottery

Pottery vessels recorded from Phase 6 were found probably at different elevations, one at about 20 cm while the other at 70 cm over the floors of the houses. These sherds (Pl. CXXX.3-4) have a black on white painted decoration very similar to the storage jar found in Phase 5 and they probably date to the Old Babylonian period. Such evidence probably indicates the presence of a pit (at least 3-4 m deep) cutting through the 3rd millennium BCE phases.

Small finds

The repertoire of small finds from Phase 6 consists of a small group of administrative finds, a cylinder seal and a seal impression¹⁸⁵ (Pl. CXXX.5). The seal impression is characterized by a contest scene with a standing human figure on the extreme left. Buchanan (1966: 28, no. 151a-b.), proposed to date it to the ED II. This dating is also confirmed by parallels with late ED II crossed style glyptic from Fara (Martin 1988: 74, 261, no. 364). In addition, there are also a shell and another unidentified clay tool.

PHASE 7 (Red Stratum)

Stratigraphy and architecture

The presence of a Red Stratum in the YW sounding has been debated by Gibson (1972a: 90). However, two letters confirm the existence of a reddish layer of collapsed mudbrick.¹⁸⁶ Moreover, some clarifications about the existence of this layer can be found in Moorey (1978: 114): "*The difference may be no more than a matter of description. Though it is not so distinctively coloured red hereabouts, being much further removed from the ziggurat collapse which coloured the level in the area of the Y sounding, it is contemporary...*". The upper elevation of this phase is 1 m

¹⁸⁴ Watelin to Langdon 02-12-1929, Watelin to Langdon 22-12-1929.

¹⁸⁵ Only the seal impression has photographic documentation or drawing.

¹⁸⁶ The stratigraphic and functional reconstruction of Phase 7 is based on: 1. Primary information (floors and walls) from primary and secondary sources (letters and drawings as well as scientific publications). 2. Secondary information (objects at 1.5 and 1 m) from primary sources (object cards and letters).

below the plain level where the pavements of Phase 8 were recovered.¹⁸⁷ Few scattered remains of mudbrick walls are attested in the western part of the area (Pl. CXXII.1). From the reconstructed plan we can distinguish at least three rooms along the northwest limit of the area and an isolated wall at the southern end. The orientation of the walls and the almost empty space in the central strip (only some badly damaged mudbrick channel was found there), very similar to the layout of the Y sounding, suggest the existence of a road oriented southwest-northeast.

Small Finds

A good number of small finds comes from the layers covering the structures of this phase. The administrative corpus is composed by three ED III cylinder seals,¹⁸⁸ among which one depicts two standing figure on a chariot pulled by an onager (Pl. CXXX.6), while another represents an stylized eagle and two gazelles with heads turned back, both in front of a plant (Pl. CXXX.7). The former motif occurs at Ur (Woolley 1934: pl. 196, no. 54), Khafajah (Frankfort 1955: pl. 52, no. 546) and other ED III and Akkadian contexts from central and northern Mesopotamia at Tell Brak and Tell Beydar (Oates, Oates and McDonald 2001: 290, fig. 313).¹⁸⁹

The coroplastic collection consists of a small stone statuette and three animal figurines, all very fragmentary and worn. Two of them, a chariot wheel (Pl. CXXX.8) and a small animal (Pl. CXXX.9), were probably found together. Further objects from this findspot are two indeterminate clay tools, one of which was found together with the stone statuette.

4.3 YWN SOUNDING - PHASE 1

PHASE 1

Stratigraphy and architecture

Floors of the earliest phase uncovered in the YWN sounding lay about 1 m below the plain level.¹⁹⁰ Although no plan was published by the excavators, a tentative schematic reconstruction

¹⁸⁷ Watelin to Langdon 02-12-1929, Watelin to Langdon 22-12-1929.

¹⁸⁸ Only two seals have photographic documentation or drawing.

¹⁸⁹ For more parallels see Amiet 1980: 170, pl. 92, nos. 1212-1216.

¹⁹⁰ Watelin's excavation report 1929-1930. As Gibson (1972a: 89-90) pointed out, the elevation of the floors in the YW and YWN soundings must be risen of 1 m due to the difference in "plain level" between the C trenches (overlying the two soundings) and the Y sounding.

of the structures have been newly produced¹⁹¹ (Pl. CXXXVI.1) using a rough sketch by the field director L.Ch. Watelin, together with photographs of the sounding taken at the time of excavation.¹⁹² The new plan reveals a large building, oriented NW-SW, with at least 15 rooms of different size and shape, separated from the poor remains of a smaller unit by a street 4 m wide (Pl. CXXXV.2).

Both structures were made of mudbrick walls preserved up to a height of approximately 2 m and of variable thickness (from less than 50 cm to about 2 m) with a coating of a whitish plaster. According to the excavation report, the floors and/or street were made of “organic debris” (Watelin and Langdon 1934: 48) which can be interpreted as beaten earth.

Despite the limited excavations, the complex plan of the building and the lack of information about the context of the finds do not permit a full understanding of the function of the structures, some general conclusions can be drawn. The relatively large number of rooms in the building as well as its dimensions (about 300 m² and only partially revealed) suggest a wealthy and extended household. Two large rooms to the south (13, 15) must have played a pivotal role in the general circulation, while the northwest sector consisted of smaller interconnected rooms (1, 2, 3, 4, 6, 7), of which the long and narrow ones could have been used for storage.

The architectural evidence can be partially integrated with the analysis of the stratified materials. Indeed, the presence of cylinder seals, together with tools and containers, may indicate small scale administrative as well as domestic activities. The rooms of Phase 1 were filled with a thick packing of clayish soil sealed by the pavements of Phase 2, suggesting that the rooms had been cleared and the building was rebuilt with the same plan.

Pottery

The pottery assemblage from this phase is characterized by only three diagnostic vessels: a dish with straight rim and wall (Pl. CXXXVII.1, type 2), a small, handmade cylindrical strainer with irregular holes (Pl. CXXXVII.2, type 82), and a miniature vessel with vertical rim, slightly globular wall and pointed base (Pl. CXXXVII.3, type 38).

Small finds

A handful of finds have been recorded from the buildings in Phase 1. No information about the precise retrieval context they were retrieved is available. The assemblage consists of a variety of objects among which there is a group of figurines and statuettes. In particu-

191 The stratigraphic and functional reconstruction of Phase 1 is based on: 1. Primary information (layers and structures) from both primary and secondary sources (letters, photos and excavation reports). 2. Secondary information (objects at 1 m) from primary sources (object cards and letters).

192 Watelin to Langdon, January 12 1930; Watelin to Langdon January 21 1930; Watelin to Langdon, April 21 1930; Watelin's excavation report 1929-1930.

lar, they are two clay figurines, one human (Pl. CXXXVII.6) while the other representing an animal, two human statuettes, one having only the upper part of the body preserved (Pl. CXXXVII.7) and an animal inlay made of lapis with a small central hole (Pl. CXXXVII.5). The rest of the assemblage is characterized by a shell bead (Pl. CXXXVII.4)¹⁹³ four tools, (two made of bone, one of stone and the fourth made of frit) for which no photos or drawings and only little information are available. In addition, a cylinder seal and a stamp seal are attested from this phase but probably lost. A tentative association of a fragmentary cuneiform tablet paleographically dated to this phase (Pl. CXXXVII.8) is here proposed, although the information scratched on it (YWN 03) raises doubts about the real stratigraphic location.

4.4 ZIGGURAT Z.1 - PHASES 1-2

Two massive ziggurats were found by the archaeologists on Tell Ingharra (Pls. II, CXLV, CL-CLII), one at the southern end (Z.1) and the other in the centre of the main mound (Z.2) also known as mound E (Watelin and Langdon 1934: 45, 55-56; Mackay 1929: 82; Moorey 1978: 81). Their interpretation as ziggurat is doubtful and Moorey (1978: 88-89) stressed the fact that the original ED III structure was probably a temple on a high terrace. Both Mackay's and Watelin's efforts were mostly concentrated on the larger construction, (Z.1) for which information can be gleaned from the unpublished sources¹⁹⁴. According to excavators, part of the original structure of these ziggurats was cut by the later Neo-Babylonian temple (Moorey 1978: 81). However, much of at least their lower part was preserved, showing impressive overlapping walls of plano-convex mudbricks belonging to the larger ziggurat (Z.1) exposed during the investigations in the Y, YW and ZY soundings. A detailed account of the excavation of the ziggurats has been already published by Moorey (1978: 87-88) and Gibson (1972a: 86 ff.), and I simply provide a tentative schematic phasing and chronology of their interpretation integrated with the study of the unpublished documents. Due to the lack of securely associated stratified material, the chronological interpretation is based solely on the stratigraphic connection with the Y and YW soundings.

¹⁹³This type of shell bead could be a *Fasciolaria trapezium* or a *Turbinella pyrum* (Kenoyer 2008: 20, fig. 3). This type of marine shells were highly attested during the Bronze Age from the Indus valley to the Mesopotamian floodplain and they may have been used also in the production of cylinder seals.

¹⁹⁴ Watelin to Langdon 03-01-1931; 16-02-1931; 03-03-1931. Minor activities were carried out especially by Mackay (1929: 82) north-east of the smaller ziggurat (Z.2).

PHASE 1

Stratigraphy and architecture

Before the construction of the ziggurats the area was most likely occupied by houses and graves (including the chariot burials) like the rest of Tell Ingharra (Pl. CL).¹⁹⁵ Although a secure connection with a structural phase from the Y and YW sounding cannot be provided¹⁹⁶, it is reasonable to suppose that the neighbourhood uncovered in the sounding was extended in the area of the ziggurat until Phase Y 7/YW 5 or Y 8. Indeed, the foundations of Ziggurat Z.1 cut the uppermost ED III phases (Y 10, Y 9 and perhaps part of Y 8), while the lowest level run below them (Pls. CL-CLI). According to Watelin¹⁹⁷ (Watelin and Langdon 1934: 45, 55-56) many buildings and associated common burials were visible in the section of the Y sounding under the ziggurat brickwork. But what is most interesting is that at least one more chariot burial (No. IV) was partially under the edge of the Z.1 ziggurat (Gibson 1972a: 82-85; Moorey 1978: 88, 105, 110).

PHASE 2a-b

Stratigraphy and architecture

The construction of the two ziggurats should probably be associated with the great monumentalization of the city as also suggested by both Gibson (1972: 112) and Moorey (1970: 104; 1978: 88).¹⁹⁸ According to the present reconstruction, this large scale urban event archaeologically corresponds to Phases Y 9 and YW 6 on Tell Ingharra (see above).

The chariot burials provide a *terminus post quem* for the construction of the ziggurat (Y 7-8 corresponding to Z.1-Z.2 Phase 1). In addition, further support derives from the interpretation of the Red Stratum as part of the mudbrick collapse of the ziggurat proposed by Gibson (1972a: 308 fig. 61) which is followed in this study.¹⁹⁹ This evidence may provide both a *terminus ante quem* for the construction of the ziggurats, here defined as Phase 2a (therefore

195 The stratigraphic and functional reconstruction of Phase 1 is based on: Primary information (layers and structures) from both primary and secondary sources (letters, photos and excavation reports).

196 The presence of the Flood Stratum under the ziggurats should be considered as hypothetical (Moorey 1978: 86-88). Indeed this is not mentioned by the excavators in association with ziggurats.

197 Watelin to Langdon 23-01-1931.

198 The stratigraphic and functional reconstruction of Phase 2a-b is based on: Primary information (layers and structures) from both primary and secondary sources (letters, photos and excavation reports).

199 Contra the excavators (Watelin to Langdon 03-01-1931; 13-01-1931) and Moorey (1978: 88) who have argued that this layer could represent the platform on which the two ziggurats were set.

confirming its association with Phases Y 9, Y 6 at East Kish) and the chronology of their destruction named Phase 2b (i.e. Y 10, YW 7, YWN 1 at East Kish).

The remains of the two ziggurats (Z.1 and Z.2) are about 8 to 10 m high and they cover an area of approximately 150 x 300 m (Pl. CXLIV.1-2; Moorey 1978: 81). Details on the architecture of the Z.1 ziggurat were partially documented by Watelin during the excavation in the Y sounding (Pl. CXLV.1-2). In his reports²⁰⁰ he described an irregular mass of plano-convex bricks in which he observed a bed of 'ashes' a metre thick. Above this level the bricks were red and baked, below it they were grey and unbaked (Moorey 1978: 87).

200 Watelin to Langdon 03-01-1931; 13-01-1931; 23-01-1931; Watelin to Simms 07-01-1931; 20-01-1931.

CHAPTER 5

IMPACT OF EMPIRES: FROM AKKADIAN TO UR III

The extensive destruction attested in both Y (10) and YW (7) soundings and dating from the ED IIIb has been connected to similar evidence from other sectors of the city such as the PCB (Moorey 1964; Zaina 2015a; 2016) and the Palace A (Moorey 1970; Zaina 2016). This destruction, tentatively attributed to En-šakuš-Ana of Uruk (Frayne 2008; Marchesi and Marchetti 2011; Rowton 1970) marks a break in the urban history of the city. This event eventually contributed to the decline of its political power shortly after overshadowed by the emerging centre of Akkad (Gibson 1972a: 3).

Evidence of the successive periods was found in all the three areas, corresponding to Phases 11 to 13 in the Z trenches (the continuation of the Y sounding upwards), Phase 8 in the YW sounding and Phase 2 in the YWN sounding.²⁰⁰ A substantial diversity of contexts can be observed in both a diachronic and synchronic perspective. Indeed, while the northern sector (YWN sounding) of Tell Ingharra showed continuity with the previous phases, the western and southwestern parts (represented by the YW sounding and Z trenches) were entirely abandoned during the Akkadian phases and then massively reoccupied from the Ur III period.

²⁰⁰ Further levels probably dating from the Akkadian and Ur III period were also recovered in trenches C overlying both the YW and YWN soundings. These 15 trenches were 5 m large and almost 100 m long, while their depth was variable according to the morphology of the terrain. Despite the outstanding quantity of materials uncovered in the trenches, due to the chaotic documentation and missing data (Gibson 1972a: 82-83, figs. 54-55, 57-61; Moorey 1978: 89-90), it is not possible to evaluate the nature and evolution of the structural phases excavated.

5.1 Z TRENCHES – PHASES 11–13

PHASE 11

*Stratigraphy and architecture*²⁰¹

In the 1927–28 unpublished report, Langdon²⁰² said that “*the Red stratum is separated by six feet (i.e. approximately 2 m) of debris from the foundation of the Sargonid building (i.e. Monument Z, Phase 13a–c) above it*”. He also divided this thick deposit in two “*periods*” (Pl. CVII.1), the lower one (Phase 11) starting from the plain level (0 m)²⁰³ just above the Red Stratum, about 1 m thick and characterized by buildings made of plano-convex bricks (the module was 22x11x5 cm).²⁰⁴

The stratified objects associated with this thick deposit have been found at 0 m which could be taken as the most probable elevation of the floors of Phase 11. Also eleven pit graves with the bodies found at 0.5 m below the plain level were newly associated to this phase.

The excavators provided quite detailed information on the original findspots of both the objects and the burials, thus allowing at least a broad reconstruction of their spatial location. However, these data are not enough to support any architectural or functional analysis of the area.

Distribution of finds

Twelve stratified finds (both pottery vessels and small finds) belong to Phase 11 (Pl. CVII.2). Nine of them can be associated to the five trenches into which the area is divided, while other eight are only referred as generally coming from Trenches Z plus the elevation.

Trenches Z1, Z3 and ZA: The majority of finds come from Trench ZA, along the south-east limit of the area. The assemblage is quite mixed, consisting of two unidentified pottery vessels, a shell bead, a copper vessel and a very badly preserved clay figurine (Pl. CXIV.1).

A couple of objects were also recovered in trench Z1, including a pottery vessel and a stone tool, while an inlay made of shell and incised with a standing male figure (Pl. CXIV.2) comes from trench Z3. The style of the inlay motif can be paralleled with that from Palace A (Dolce 1978).

201 The stratigraphic and functional reconstruction of Phase 11 is based on: 1. Primary information (layers, buildings) from both primary and secondary sources (letters, drawings and excavation reports). 2. Secondary information (objects at 0 m) from primary sources (object cards and letters).

202 Langdon's 1927–28 unpublished report, 13.

203 Watelin to Langdon 07–05–1928, see sketch section.

204 Langdon's 1927–28 unpublished report, 13.

Other finds from Phase 11: Two pottery vessels and one unidentified stone tool can also be associated with this phase, although it is not possible to establish the precise trench number.

Distribution of burials

Eleven burials have been newly associated with this phase (Pl. CVIII.1). All but two (G 317 and G 344) apparently have no associated grave goods. As for the Y sounding, thanks to the stratigraphic reconstruction as well as the spatial information provided by H. Field's notebooks²⁰⁵, it is possible to locate all the graves in their approximate original position. According to the tentative reconstruction proposed here, a significant cluster of burials was found in the centre of the Z trenches (between Z1 and Z3), while the rest of the burials were scattered to the north and south. If not specified, information on the burials is taken from an unpublished report by H. Field.²⁰⁶

G 298: Simple pit burial of an adolescent (14–18 years, Algaze 1983–84: 191; Rathbun 1975: 57). The excavators found it in the centre of Trench Z3 close to G 307 and G 317. The body was almost completely preserved, although the skull was partially damaged.

G 307: Simple pit burial of an adult female (Rathbun 1975: 57). Only a few bones from the lower part of the body (including the femur and humerus) were preserved. The excavators found the burial in the centre of Trench Z3 close to G 298 and G 317.

G 309: Simple pit burial. Only a few bones from the lower part of the body were preserved. The excavators found it in the centre of Trench Z3.

G 310: Simple pit burial containing the bodies of an adolescent and an adult (35+ years, Rathbun 1975: 54). The skull of the adult was nearly complete, while the post-cranial skeleton was almost totally missing. The excavators found the burial at the south end of Trench Z3.

G 311: Simple burial found at the south end of Trench ZA. The skull belonging to an adult female was in a quite good condition, though the post-cranial skeleton was almost totally missing (Rathbun 1975: 55).

G 312: Simple burial found at the south end of Trench Z2. Both the skull and the post-cranial skeleton were badly damaged.

205 H. Field unpublished report.

206 H. Field unpublished report

G 317: Simple pit burial of an adult female. Just a few bones from the lower part of the body (including the femora and humerus) were preserved. It was found in the centre of Trench Z3 close to G 298 and G 307. The excavators also reported some “rich” objects²⁰⁷ made of ivory and stone, although nothing matching this description has been found in the unpublished lists and catalogues.

G 318: Simple pit burial of an adult of indeterminate sex (Rathbun 1975: 60). It was found in the centre of Trench Z1 near G 319. The remains of the body were apparently wrapped and waxed in clothes.

G 319: Simple burial found at in the centre of Trench Z1 near G 318. The skull was in a quite good condition, while the post-cranial skeleton was almost totally missing.

G 332: This burial was found in the centre of Trench Z2. The skull was crushed but complete, while the post-cranial skeleton was mostly missing.²⁰⁸

G 344: Simple pit burial discovered at the north end of the “2 m trench”. No more information on both the structure and the body is given, though a huge number of grave goods is reported. The objects are all stored in the Iraq Museum and only a photo of the complete assemblage (Pl. CXIII.2, see also Watelin and Langdon 1934: pl. XXXV) and the cylinder seal (Pl. CXIV.3) is available. The seal shows a contest scene with crossing human and animal figures fighting. At Kish this style is generally found in Phase 10 to 12 in the Y sounding. Elsewhere the nearest parallels are in the ED III–Akkadian phase in the Diyala region (Frankfort 1956: pls. 35–36).

PHASE 12

Stratigraphy and architecture

Phase 12 starts 1 m²⁰⁹ above the plain level and is about 1 m thick²¹⁰. The excavators²¹¹ also distinguished this level on the basis of the different modules of the plano-convex bricks

207 H. Field unpublished report. See also Moorey 1970: pl. XVII.

208 H. Field unpublished report.

209 The stratigraphic and functional reconstruction of Phase 12 is based on: 1. Primary information (layers and buildings) from both primary and secondary sources (letters, drawings and excavation reports). 2. Secondary information (objects at 1 m) from primary sources (object cards and letters).

210 Watelin to Langdon 07-05-1928, see sketch section p. 1.

211 Langdon's 1927-28 unpublished report, p. 13.

(19x13x6 cm) from the buildings. In addition, a considerable amount of artifacts was found 1 m above the plain level, thus suggesting that the floor of Phase 12 was located at this elevation.

Distribution of finds

Objects from Phase 12 were retrieved in almost all the trenches, although the largest amount was clustered in trench Z3 and trench ZA (Pl. CVIII.2). No finds are attested from the “2 m trench”.

Trenches Z1, Z2, Z3 and ZA: The repertoire from trench Z1 consists of six objects, two copper blades (of daggers?), two clay figurines, a small boat (Pl. CXIV.4) and the body of an animal.

A single clay figurine can be linked to Trench Z2, while the inventory of objects found in Trench Z3 includes a stone tool, a silver earring, an ivory inlay²¹² and two cylinder seals, one of which shows crossing fighting animals probably dating from the Akkadian period (Pl. CXIV.6), while the second shows a Geometric style motif too poorly preserved to be dated (Pl. CXIV.7).

Trench ZA yielded a number of finds typologically and functionally similar to those from Trench Z3. There are, among others, two cylinder seals, and numerous copper, bone and stone tools such as a pestle (Pl. CXIV.5). There are also other types of artifacts such as some silver ornaments, clay figurines in the shape of a small chariot (Pl. CXIV.8) and a shell.

Other finds from Phase 12: There are two more objects for which no spatial location is given: a small jar and a cuneiform tablet probably early ED III in date (c.f. Westenholz in Appendix 1) (Pl. CXIV.9).

Distribution of burials

Twenty burials have been newly associated to Phase 12 (Pl. CIX.1), five of which were found at +0.5 m above the plain level, while the other 15 were on the plain level (0 m). Although the two different elevations suggest two distinct phases, all the tombs should be attributed to a single period, at least preliminarily, due to the absence of other floors (as in Phases 4a and 4b in the Y sounding). As in the previous phase, we note a remarkable clustering of burials in the central part of the trenches (14 out of 20), with the remaining ones scattered all around. According to the excavators, none of these graves had associated goods.

²¹² As observed by Caubet and Poplin (1987) during the Early Bronze Age, hippopotamus ivory was propably as popular as the elephant ivory. Moorey (1994: 119), based on both the French and Anglo-American excavations at Kish (de Gennouillac 1952; Watelin and Langdon 1934), suggested the presence of objects made of elephant ivory at site. However, no analyses have conducted so far to confirm this evidence.

If not specified, information on the burials is taken from an unpublished report drafted by H. Field.²¹³

G 234: Simple burial found in the centre of Trench Z1. Both the skull and the post-cranial skeleton were badly damaged.

G 239: Simple pit burial from Trench Z1, found close to G240. The skull was in a quite good condition, while the post-cranial skeleton was almost totally missing.

G 240: Simple pit burial from Trench Z1, found close to G239. in detail and as very well preserved by H. Field.²¹⁴

G 247: Simple pit burial excavated at the north end of Trench Z1. The skull was crushed but complete, while the post-cranial skeleton was mostly missing.

G 248: Simple pit burial, located in the central part of Trench ZA. The skull was badly preserved, while the post-cranial skeleton is totally missing (Rathbun 1975: 59).

G 250: Small pit burial found in the centre of the “2 m trench” containing the body of a child.

G 265: This burial was found at the north end of trench ZA. It contained the skeleton of a child (possibly a neonate).

G 266: Simple pit burial, located in the central part of Trench ZA. The skull was badly preserved, while the post-cranial skeleton is totally missing.

G 271: This burial was recognized only by the very fragmentary remains of a child’s skull. It is located in Trench Z2.

G 272: This burial was found in trench Z2. It contained the body of an adult of indeterminate sex.

G 274: Simple pit burial found at the north end of Trench Z2. It contained the remains of a child.

213 H. Field unpublished report

214 H. Field unpublished report. See also Rathbun 1975: 54.

G 277: Simple pit burial of two adult males and one adolescent (Rathbun 1975: 61). The burial was found in the north-central part of Trench Z2. H. Field reported that the skull of one of the three skeletons was fragmentary while the post-cranial skeleton was almost completely gone.

G 285: Simple pit burial found at the south end of Trench Z3. The poor skeletal remains of an adult mostly consisted of some crushed cranial fragments.

G 286: Simple pit burial found in the central part of Trench Z3. Just a few bones from the lower part of the body of an indeterminate adult (Rathbun 1975: 59) were preserved.

G 287: This burial was found in the central part of Trench Z3 close to G 288. According to Rathbun (1975: 54) the skeleton belonged to an adult male.

G 288: The poor remains of this burial were uncovered in the central part of Trench Z3 closed to G 288. The skull belonging to an adult male (18-25 years) was crushed but complete while post-cranial skeleton was mostly missing (Rathbun 1975: 55).

G 297: This burial was found in the centre of Trench Z3 with the body lying at 0 m. Few bones of an indeterminate adult (Rathbun 1975: 59) were recovered from the burial.

G 299: Simple pit burial found in the centre of Trench Z3. Just a few bones from the lower part of the body were preserved.

G 300: Simple pit burial found in the centre of Trench Z3. Just a few bones from the lower part of the body were preserved.

G 305: Simple pit burial found at the north end of Trench Z3. The skull was badly preserved, while the post-cranial skeleton is totally missing.

PHASE 13a-c (Monument Z)

Stratigraphy and architecture

The massive building named Monument Z²¹⁵ (Pl. CIX.2) was identified immediately below the topmost elevation of the Z trenches (5 m above the plain level). It was originally excavated by Mackay during the 1925–26 campaign and then removed by Watelin in the following seasons (Pl. CX.1–2).

In the final publication it is said that the building lay just above the Red Stratum (Watelin and Langdon 1934: 47–48). However it is clear, both from the unpublished documentation²¹⁶ and the cleaning of the section carried out by Gibson (1972a: 88) in the 1960s, that the foundations began 2 m above.

The walls of Monument Z were preserved for approximately 3 m (Pl. CXI.1–2), with the earliest associated floors located 2 m above the plain level.²¹⁷ According to Watelin and Langdon, “*The building Z showed traces of several modifications and pavements at different depths*” (Watelin and Langdon 1934: 47). If nothing related to the possible architectural changes can be hypothesised, some clues about the presence of pavements at different depths are given by the stratification of the objects. Indeed, most of the finds from Monument Z were found at three different elevations: + 2 m, + 3 m and + 4 m above the plain level. The quantity of objects at each elevation, both inside and outside the Monument Z, is remarkable and quite uniform dating from different and successive periods.

If we combine these scraps of information, it is possible to hypothesise that the Monument Z had at least three major sub-phases (Pl. CVII.1), named Phase 13a (at 2 m above the plain level), Phase 13b (at 3 m above the plain level) and Phase 13c (at 4 m above the plain level). However, we can only broadly determine the duration of the occupation of this building, since the thick deposits that separate the floors could be the result of a number of processes, including the long abandonment of the structure or (more likely) the levelling activities for the reconstruction of the building.

The published plan does not allow to understand fully the size of the rooms and the general circulation.²¹⁸ Indeed, while at least 13 rooms can be confidently recognised, the presence of more badly preserved walls at various points suggests a much more dense division and organization of the space.

The two central rooms 7 and 10 may have played an important role in the building: room 7 was probably further divided into two minor spaces, as suggested by the portion of a large wall running northwest/southeast from room 8. More difficult is the analysis of the other

215 The stratigraphic and functional reconstruction of Phase 13a–c is based on: 1. Primary information (layers and buildings) from both primary and secondary sources (letters, drawings and excavation reports); 2. Secondary information (objects at 3–5 m) from primary sources (object cards and letters).

216 Watelin to Langdon 07-05-1928.

217 Watelin to Langdon 07-05-1928; Langdon Report 1927–28.

218 The rooms of Monument Z have been renumbered by the Author.

spaces. Due to their peculiar elongated shape, rooms 1, 2 and 3 may be tentatively interpreted as storage rooms.

The bodies of 37 burials, lain at different elevations between 1 m and 3 m above the plain level (Pls. CXII.1-2, CXIII.1), were found. A reconstruction of the burial distribution, based on H. Field's report²¹⁹, reveals that they were generally randomly distributed and they quantitatively decreased in the later phases. If we compare the plan of Monument Z with the reconstruction of the burials, it seems that some of them had been cut within the building. The association of each burial with the nearest floor of Monument Z and the surrounding area reveals that there were 13 tombs 1 m above the plain level, 8 tombs 1.5 m above the plain level, 8 tombs 2 m above the plain level, 2 tombs 2.5 m above the plain level and 6 tombs 3 m above the plain level.

The stratigraphic and architectural relationship between Monument Z and the retaining wall of the ziggurat is stressed by the excavators (Watelin and Langdon 1934: 47-48). In Watelin's words, "*The building seemed to be separated from the supporting wall, which touched the north-west face of the ziggurat, by a passage or hall. We found no wall which connected the two edifices*" (Watelin and Langdon 1934: 47). According to Gibson (1972a: 88, fig. 65), the NW section of the trenches shows some layers sloping from the retaining wall to the base of the Monument Z. He concludes that "*the latter structure (i.e. Monument Z) was built after the retaining wall, but existed for some time contemporaneously with it*" (Gibson 1972a: 88).

In my opinion, it is difficult to propose such an interpretation on the basis of the photograph. The uncleaned section and the poor quality of the photo affect any analysis. The foundations of the retaining walls were larger and approximately 1 m deeper (Gibson 1972a: 88), perhaps cutting part of the Red Stratum close to the ziggurat (Z.1). However, if no conclusive stratigraphic relationship between the Monument Z and the retaining wall can be inferred, it is possible to assume, following Gibson (1972a: 88), that the buildings existed contemporaneously for some time at least.

Distribution of finds from Phase 13a

40 artifacts have been newly associated to Phase 13a (2 m above the plain level). Among those, 19 finds came from Monument Z, while 21 were recovered outside the building, although the exact location cannot be ascertained.

Monument Z Phase 13a: Four main functional types of finds are associated to the most archaic phase of the Monument Z: ceramic and stone containers, stone and clay tools, administrative materials, and figurines. The first group comprises two stone vessels, including a complete alabaster beaker (Pl. CXV.1) and seven pottery vessels. Among these, are three

219 H. Field unpublished report.

fragments of handles from late ED upright handled jars (Pl. CXV.2-4, type 54), a miniature jar with ring base (Pl. CXV.5, type 42), a small carinated jar with ring base (Pl. CXV.6, type 50) and a small beaker (Pl. CXV.7, type 84). Stone tools include a pestle, a stone mace-head (Pl. CXV.8), a mortar (Pl. CXV.9) and two unidentified clay tools. A clay tablet (Pl. CXV.11) with a letter (Westenholz, Appendix 1, cat. 48; Gelb 1970: 2; Kienast and Volk 1995: pl. 8, Ki 1) and a stone weight represent the repertoire of administrative materials. The rest of the artifacts consists of three clay figurines (Fig. Pl. CXV.10), two of which may come from the same context, and an ostrich egg.

Other finds from Phase 13a: The objects from Phase 13a recovered outside the Monument Z are mostly clustered in trenches Z1 and ZA (a pattern already observed in previous phases).

The assemblage from trench Z1 comprises a cylinder seal, several storage vessels, a small pottery box (Pl. CXVI.1, type 4), a complete shell (Pl. CXVI.2), silver and stone objects, two human figurines (Pl. CXVI.3-4) and a chariot (Pl. CXVI.5). One of the human figurines was probably the upper part of a votive small plaque, as confirmed by the evidence from other contexts in Trenches Z.

There are also several working tools, among which a clay sickle blade (Pl. CXVI.6), a copper blade (Pl. CXVI.7), a stone mace-head (Pl. CXVII.1) and another stone tool (Pls. CXVI.8).

Distribution of burials from Phase 13a

31 burials have been newly associated with this phase (Pl. CXII.1). However, only for 26 of them information on the spatial location is available. The skeletal remains lay at 1 m below the plain level and have therefore been associated with the closest documented floor. Despite the presence of the Monument Z, the central parts of the Z trenches still represent a pivotal area for burying. If not specified, information on the burials is taken from an unpublished report drafted by H. Field.²²⁰

G 210: This burial was found in Trench Z. The excavators did not specify the number of the trench, although they noted that the burial was found together with G 211 above a door socket. Only a few scattered bones of an adult male were collected by the excavators.

G 211: This burial was found in Trench Z. The excavators did not specify the number of the trench although they noted that the burial was found together with G 210 above a door socket. Just few scattered bones were collected by the excavators.

²²⁰ H. Field unpublished report

G 219: Simple pit burial of an adult of indeterminate sex found in the centre of Trench ZA. Only a few scattered bones were collected by the excavators (Rathbun 1975: 61).

G 224: This burial was found in the southern part of Trench ZA. It contained the skeletons of an adult female (25–35 years) and an adolescent (6–10 years) (Rathbun 1975: 61).

G 231: This burial was found in Trench Z. The excavators did not specify either the number of the trench or the precise findspot. The few bones recovered belonged to an adult of indeterminate sex.

G 232: This burial was found in the northern part of Trench Z3. The body consisted of a few badly crushed bones of an adult male, mostly related to the skull and the lower part of the body (Rathbun 1975: 59).

G 233: This burial was found in Trench Z. The excavators did not specify the number of the trench. Just few scattered bones of an adolescent (16–18 years) were collected by the excavators (Rathbun 1975: 60).

G 235: Simple pit burial of an adult of indeterminate sex found in the center of Trench ZA. Only the skull and some badly broken long bones were preserved.

G 236: This burial was found in the northern part of Trench Z1. Few bones of an adult male were collected by the excavators (Rathbun 1975: 60).

G 237: This burial was found in the centre of Trench Z1. Only the skull and some broken long bones of an adult male and an adult female were preserved (Rathbun 1975: 59).

G 241: This burial was found in Trench Z. The excavators did not specify either the number of the trench or the precise findspot. The few bones belonged to an adult of indeterminate sex (Rathbun 1975: 56).

G 242: This burial was found at the extreme north end of Trench Z1. Two skeletons of an adult male (35+ years) and adult of indeterminate sex (Rathbun 1975: 60) were found. Only few bones from the skull and the lower part of the bodies were preserved.

G 243: This burial was found at the extreme north end of Trench Z1. The bones belonged to an adult of indeterminate sex (Rathbun 1975: 60).

G 244: This burial was found at the extreme north end of Trench Z1. The body consisted of a few badly crushed bones, mostly related to the skull and the lower part of the body.

G 249: This burial was found west of the north-south railway line in Trench Z1. The body of an adult of indeterminate sex was found broken, the skull in particular being very fragmentary.

G 251: Simple pit burial of an adult of indeterminate sex. It was found in the central part of the "2 m trench", where a couple of fragments of a skull was detected.

G 252: Simple pit burial of an adult of indeterminate sex. It was found in the central part of the "2 m trench", where just a few scattered bones were discovered.

G 267: Simple pit burial of an adult of indeterminate sex. It was found in the central part of Trench Z2, where the fragments of a skull were detected.

G 268: Simple pit burial of an adult of indeterminate sex. It was found in the central part of Trench Z2, where just a few scattered bones were collected by the excavators.

G 269: Simple pit burial of an adult male (Rathbun 1975: 62). It was found in the central part of Trench ZA. No detailed information about the bones is given.

G 270: Simple pit burial of an adult of indeterminate sex. It was found in the central part of Trench ZA, where a few skull fragments were detected.

G 275: Simple pit burial of an adult male. It was found in the central part of Trench Z2. No details about the bones are given.

G 276: This burial was found in the northern part of Trench Z2. The body consisted of a few badly crushed bones, mostly from the skull and the lower part of the body.

G 280: This burial was found in the southern part of Trench Z3. The body belonged to an adult of indeterminate sex and it consisted of a few badly crushed bones, mostly related to the skull and the lower part of the body (such as the femur).

G 292: This burial was found in the southern part of Trench Z3. The body belonged to an adult of indeterminate sex.

G 302: Simple pit burial of an adult of indeterminate sex. It was found in the central part of Trench Z3, where just a few scattered bones were collected by the excavators.

G 303: Simple pit burial containing the remains of an adult and an adolescent both of indeterminate sex (Rathbun 1975: 54). It was found in the central part of Trench Z3, where a couple of skull fragments was detected.

G 304: This burial was found in the southern part of Trench Z3. The body belonged to an adult of indeterminate sex.

G 306: This burial was found in the northern part of Trench Z3.²²¹ The body consisted of a few badly crushed bones, mostly related to the skull and the lower part of the body. The fairly rich assemblage mainly consists of a high number of pottery and stone vessels. In addition several ornaments, including a copper pin, a gold bead and others made of different types of stone were found with the body. However, the only published and chronologically diagnostic find is an Akkadian cylinder seal showing fighting gods (Pl. CXVII.2).

G 353: This burial was found in the northern part of Trench Z3, about 2 m south of G 306. The body consisted of a few badly crushed bones, mostly related to the skull and the lower part of the body.

G 377: Simple pit burial of an adult male. It was found in the central part of Trench Z3. No detailed information about the bones is given.

Distribution of finds from Phase 13b

42 artifacts have been newly associated to Phase 13b (3 m above the plain level). Among these, 24 came from Monument Z, while 18 were recovered in other contexts outside the buildings (although the exact location cannot be defined).

Monument Z Phase 13b: Objects from the second structural phase of Monument Z primarily belong to four functional types: figurines, ceramic containers, tools, and precious objects (mostly personal ornaments).

The first group consists of a human and an animal (Pl. CXVII.6) figurine and two anthropomorphic statues of white limestone, one of them headless (Pl. CXVII.3), representing a

²²¹ Watelin and Langdon 1934: 50, pl. XXXVI. They say that G 306 was found in Trench Z3 at 8.5 m below the plain level. Keeping in mind that the lower elevation of the Trenches Z is the plain level, 8.5 m below the plain level would mean in the JN phases from the Y sounding. On this issue see also Moorey 1970: 127.

standing figure carrying a small caprid. The lozenge-patterned skirt shows clear connections with the Early Dynastic and Akkadian tradition. As in other cases, the cluster of consecutive excavation numbers (X 434, X452, X454–455, different from other classes of finds) may indicate that these objects come from the same context.

The last group includes four personal ornaments and two inlays made of precious stones and metal. Among the ornaments are three pendants, in the shape of small animals, one made of ivory, another made of lapis lazuli (Pl. CXVII.4), and the third one made of shell (Pl. CXVII.7). A gold earring (Pl. CXVII.5) and two ivory inlays also form part of this group.

Ten pottery vessels come from the excavation of Phase 13b of the Monument Z. These include two small jars with double out-turned rims and high carination (Pl. CXVIII.1–2, type 55), three small jars with high carination and ring bases (Pl. CXVIII.3–5, types 41 and 42), and a peculiar high-footed cup (Pl. CXVIII.6, type MISC). The repertoire of tools consists of a stone pestle (Pl. CXVIII.8), a duck-shaped stone weight (Pl. CXVIII.7), a spindle whorl, and a copper tool.

Other finds from Phase 13b: The finds associated with Phase 13b, but found outside the Monument Z, mainly consist of a rich ceramic assemblage, which may be attributed either to the same context or to two different contexts (see below, excavation numbers X 474–X 481 and X 528–X 535). Among others, the group includes small or miniature shapes such as a beaker (Pl. CXVII.10), a carinated spouted bowl (Pl. CXVIII.12) and several small jars (Pls. CXVII.8–9, CXVIII.9–11).

A cylinder seal, some figurines and small statuettes were also recovered in this phase. The group of the statuettes includes a fragment of an anthropomorphic limestone statue (Pl. CXVIII.13), an animal with a rider, and the poorly preserved remains of an animal. Again, although the function of these finds is still debated, it is possible that at least part of them may have had a votive function given the consistent occurrence of clay figurines in association with stone statuettes.

Some ornaments and miscellaneous objects, such as a clay tool, an ivory tool and a shell, complete the assemblage.

Distribution of burials from Phase 13b

19 burials have been newly associated to this phase (Pl. CXII.2), showing a substantial decrease compared to Phase 13a. The skeletal remains were lying at 2 m below the plain level and they have therefore been associated with the closest documented floor. If not specified, information on the burials is taken from an unpublished report drafted by H. Field.²²²

²²² H. Field unpublished report

G 220: This burial was excavated in Trench Z. The skeleton belonged to an adult female (Rathbun 1975: 57). No other information of both burial structure, the body position and treatment is given.

G 227: Simple pit burial of an adult of indeterminate sex. It was uncovered in the central part of Trench ZA close to G 228, where a few skull fragments of an adult of indeterminate sex were recovered. No other information of both burial structure, the body position and treatment is given.

G 228: Simple pit burial found in Trench ZA close to G 227, where a few skull fragments of an adult of indeterminate sex were detected. No other information of both burial structure and the body position and treatment is given.

G 230: Simple pit burial found in the central part of Trench ZA where a few skull fragments of an adult of indeterminate sex were detected (Rathbun 1975: 61). The body was broken, with the skull in particular being very fragmentary.

G 238: This burial consists of a single skull found in a small pit in the centre of Trench Z1.

G 246: This burial was found in the central part of Trench ZA. The body consisted of a few badly crushed bones, mostly related to the skull and the lower part of the body.

G 257: This burial was found in the central part of Trench ZA. It contained the skeletons of two adults on indeterminate sex (Rathbun 1975: 57).

G 260: This burial was found in the centre of Trench ZA. The skull was fragmentary, though more bones were found scattered around it.

G 261: This burial was uncovered in the centre of the “2 m trench” and contained the body of an adult female (21–25 years, Rathbun 1975: 59). Just a few bones from the skull were preserved.

G 262: This burial was found in the central part of Trench ZA, where a few fragments of an adult of indeterminate sex were detected.

G 263: This burial was found in the northern part of Trench Z2 close to burial G 264. The body consisted of a few badly crushed bones, mostly related to the skull and the lower part of the body.

G 264: This burial was found in the northern part of Trench Z2 close to burial G 263. Few bones of an adult of indeterminate sex were recovered by the excavators.

G 273: This burial was found in the central part of Trench ZA. Few bones of an adult of indeterminate sex were recovered by the excavators.

G 278: This burial was found in the central part of Trench ZA. The body an adult of indeterminate sex was found badly broken, with the skull in particular being very fragmentary.

G 281: This burial was found in the northern part of Trench Z3. The body consisted of a few badly crushed bones of an adult, mostly related to the skull and the lower part of the body.

G 282: Simple pit burial of an adult male. It was found in the southern part of Trench ZA, where a few skull fragments were detected.

G 283: This burial was found in the southern part of Trench Z3. Few bones of an adult of indeterminate sex were recovered by the excavators.

G 284: Simple pit burial of an adult of indeterminate sex. It was found in the southern part of Trench ZA, where a few skull fragments were detected.

G 293: This burial was found in the northern part of Trench Z3. The body consisted of a few badly crushed bones, mostly related to the skull and the lower part of the body.

Distribution of finds from Phase 13c

28 artifacts have been newly associated with Phase 13c. Among those, 18 came from the monument Z, while 10 came from nearby contexts (although it is not possible to precisely determine their spatial location).

Monument Z Phase 13c: The last phase of the Monument Z has a rather peculiar repertoire of materials. Over two thirds of the stratified finds are clay figurines. Although it is not possible to determine their precise original context, on the basis of the excavation numbers, there

seem to be two clusters found at different times in the season (thus suggesting two different contexts). A first group consists of eleven figurines (X270–X287), including four anthropomorphic figures (both males and females) (Pl. CXIX.1–3) and five animals: two rams (Pl. CXIX.6–7) and three equids (Pl. CXIX.4–5, 8). The second cluster (X457–X459) consists of only two figurines, including a chariot and the small fragment of a bird (Pl. CXIX.9).

The other materials include of two stone and copper tools, a miniature jar with high carination and ring base (Pl. CXIX.10, type 42), and a necklace with beads of different materials such as lapis lazuli, carnelian and alabaster.

Other finds from Phase 13c: The assemblage from Phase 13c, found outside the Monument Z, is quite heterogeneous. There are metal and stone tools (Pl. CXX.5), pottery and stone vessels, such as a miniature alabaster jar (Pl. CXX.2) and a highly carinated miniature jar (Pl. CXX.1, type 41), as well as a cylinder seal. In addition a pair of copper earrings comes from here (Pl. CXX.4).

In addition, there are three clay figures (including two anthropomorphic animals, Pl. CXX.3), an anthropomorphic white limestone statue which is similar to the two stratified specimens from Phase 13b, and a stone plaque. As in the case of the coroplastic finds from Monument Z, the excavation numbers (Y20–29) may indicate that at least four out of the five objects come from the same context.²²³

Distribution of burials from Phase 13c

Only 7 burials have been newly associated to this phase, confirming the decreasing trend already attested in Phase 13b (Pl. CXIII.1). The skeletal remains lay at 3 m below the plain level and they have been therefore associated with the uppermost documented floor. While the graves from the previous phases are mainly located outside the Monument Z, the presence of all the burials in the central sectors of the Z1, ZA and the “2 m trench” supports the association with the building at least in the first two cases (although the stratigraphic data do not allow to confirm this hypothesis). If not specified, information on the burials is taken from an unpublished report drafted by H. Field.²²⁴

G 245: Simple pit burial of an adult of indeterminate sex (Rathbun 1975: 60). It was found in the centre of Trench Z1. Only a few bones (including the femur) were collected in the pit.

223 Note that all the other objects have very different excavation numbers.

224 H. Field unpublished report

G 253: Simple pit burial found in the centre of the “2 m trench”. H. Field²²⁵ described a quite complex situation with commingled bones of at least two different people (an adolescent and an adult, both of indeterminate sex). In addition, he noted three pots close to the skull, although no evidence of these has been found in the unpublished lists or catalogues.

G 254: Simple pit burial of an adult of indeterminate sex. It was found in the central part of Trench ZA, close to G255. Only a few scattered bones were collected by the excavators.

G 255: Simple pit burial of an adult male. It was found in the central part of Trench ZA, close to G255. Only the skull was still preserved.

G 256: Simple pit burial of an adult of indeterminate sex. It was found in the central part of Trench ZA, where a couple of skull fragments was detected.

G 258: Simple pit burial of an adult of indeterminate sex, found in the centre of Trench ZA. No detailed information about the bones is given.

G 259: Simple pit burial of an adult of indeterminate sex, found in the centre of Trench ZA. Just a few scattered bones were collected by the excavators.

5.2 YW SOUNDING - PHASE 8

PHASE 8

Stratigraphy and architecture

The uppermost level excavated in the YW sounding was identified at 0 m below the plain level.²²⁶ At this elevation the archaeologists (Watelin and Langdon 1934: 48) found pavements associated with walls and installations such as drains (Gibson 1972a: 90), covered by layers of debris (Pl. CXXII.2). According to Watelin (Watelin and Langdon 1934: 48) and followed by Gibson (1972a: 90), sewers and drain pipes from the upper level damaged the structures of this phase (Pl. CXXIII.1-2). One of these was probably the tile drain belonging to the phase above, detected by Gibson (1972a: 90) and removed during the excavation of the C trenches.

225 H. Field unpublished report.

226 The stratigraphic and functional reconstruction of Phase 8 is based on: 1. Primary information (floors and walls) from primary sources (letters and drawings). 2. Secondary information (objects at 0 and 1 m) from primary sources (object cards and letters).

According to the new reconstruction proposed by Gibson (1972a: 90), the upper elevation of this phase should be 1 m above the plain level.²²⁷

The presence of objects found at three different elevations (0 m, 0.5 m and 1 m above the plain level) may indicate the existence more floors and sub-phases. However, unlike other situations such as the Monument Z, this datum is not supported by evidence of floors or different walls at this elevation. An alternative interpretation may be that these groups of objects were associated to three different layers covering the architectural remains of Phase 8.

Although no plan was published, a schematic reconstruction of the uncovered structures is here proposed. This has been possible by cross-referencing a number of sources, a sketch plan from Watelin's letters and some photos. On the basis of the scanty architectural evidence, at least two rooms towards the eastern corner can be detected. Other walls are located along the northern and western excavation limits. The buildings were made of plano-convex bricks and coated with plaster (Watelin and Langdon 1934: 48).

Pottery

Only two complete pottery vessels were recovered from Phase 8: a complete moulded bowl (Pl. CXXXI.1, type 10) and a small jar.

Small Finds

A large amount of finds was found at three different elevations (0, 0.5 and 1 m above the plain level) in Phase 8.

We can distinguish many types of administrative documents (glyptic, inscribed documents, small weights), ornaments often made of precious materials (not only copper, but also silver and gold), figurines as well as tools made of stone, bone and clay. Unlike the Y sounding, it is not possible to identify the macro location of these findings.

A good amount of administrative documents was discovered in Phase 8, including 7 cylinder seals (Pl. CXXXI.4-7) and 4 seal impressions (Pl. CXXXI.8-9) as well as a good number of inscribed documents, such as two stone inscriptions (Pl. CXXXII.1-2, Appendix 1, cats. 44-45) and one cuneiform tablet (Pl. CXXXII.3, Appendix 1, cat. 57).

The earliest sealing motifs (Pl. CXXXI.4) are characterized by wavy lines, sometimes depicting stylized animals. Although attested from the Jemdet Nasr period, they are also very common in the later phases of the ED (Frankfort 1955: l. 32 329). Most of the repertoire has ED III contest scenes with crossing animals and humans comparable with Fara (Martin 1988) and the Diyala region (Frankfort 1955). The latest example is a cylinder seal showing a seated

²²⁷ However, the precise depth might vary as the C Trenches were often excavated below the plain level (0 m) itself.

figure with a winged door and other symbols probably dating from the Akkadian period (Pl. CXXXI.7).

The two stone kudurrus relate to land transactions in silver (Gelb et al. 1991: 200, 281), while the tablet deals with administrative issues not better defined (Grégoire 1996: pls. 3, 9). In addition, two different types of stone weights (Pl. CXXXIV.9-10) may be related to some kind of administrative activities.

It is interesting to notice the high number of fragments of shell inlays depicting animals or geometric patterns (Pl. CXXXIII.3-4, 6), similar to those retrieved from Palace A (Mackay 1929: pls. XXXV-XXXVI; Dolce 1978) and generally associated with large scale buildings with secular or religious functions. The number of animal clay figurines (Pl. CXXXIII.1-2, 5) and stone statuettes depicting both human and animal figures (Pl. CXXXIV.5-6), provides further support to this interpretation.

The high level of wealth of these buildings is also emphasised by the numerous metal ornaments and tools. Beside a copper pin and a copper binding strip (Pl. CXXXIV.8), there are two gold beads (Pl. CXXXIV.7), an unidentified silver and two silver and gold objects. Other findings include various clay tools (Pl. CXXXIV.1, 3), a copper dagger (Pl. CXXXIV.4) a bitumen tool (Pl. CXXXIV.2), a clay boat (Pl. CXXXI.3), a stone bead of elongated shape (Pl. CXXXI.2) and a bone nail.

5.3 YWN SOUNDING - PHASE 2

PHASE 2

Stratigraphy and architecture

In Watelin's words "*... on a découvert un certain nombre des constructions sous le plain level...*".²²⁸ In the 1929-30 unpublished report, he described this building as "*la partie d'un monument qui s'étend encore sous un terrain non excavé...*".²²⁹ In the final report, the excavators specified that this building was found in the topmost meter of the sounding (0 m) (Watelin and Langdon 1934: 48).²³⁰ Some burials were attributed to this layer, at least one containing diagnostic materials such as "mother goddess vases" dating from the ED IIIb.²³¹ The excavators reported the same building techniques as in the earlier phase, that is plano-convex mudbricks walls coated

²²⁸ Watelin to Langdon, 21-01-1930. For the real elevation cf. n.4.

²²⁹ Watelin's excavation report 1929-1930.

²³⁰ See also Gibson 1972a: 89-90.

²³¹ Watelin to Langdon, 21-01-1930; Watelin's excavation report 1929-1930. It is not clear for example whether these burials are associated with the latest building or they are later.

with plaster together with earthen floors (Watelin and Langdon 1934: 48). Based on the preserved walls of Phase 1, it is likely that the general plan of this building was maintained during Phase 2²³² (further changes are not visible) and that a new beaten earth floor was set at 0 m by filling and leveling the earlier rooms with clay soil (Pls. CXXXV.2; CXXXVI.1).

The artifacts from Phase 2 ranging from working tools (such as hooks, awls and spindle whorls), containers, and administrative objects (cylinder seals and tablets) to ornaments (such as pins, gold rings and silver earrings), and other valuable goods (shell inlays or stone statuettes), are indicators of a wealthy household where some administrative and other small scale manufacturing activities taking place. Unfortunately none of them can be precisely placed in its original context, thus preventing more accurate functional analyses.

Pottery

The pottery assemblage from Phase 2 is characterized by several diagnostic shapes such as a small handmade cylindrical stand strainer with irregular holes (Pl. CXXXVI.4, type 82), comparable with the example from Phase 1. A ceramic stand with a top dish and pouring lip (Pl. CXXXVI.5, miscellaneous type) may have been used in association with bowl-shaped strainers. A fragmentary jar's handle with an applied anthropomorphic and geometric decoration (Pl. CXXXVI.6, type 54) belongs to the ED III upright handle jar tradition. Other shapes include a miniature conical bowl (Pl. CXXXVI.2, type 13), a small box (Pl. CXXXVI.3, type 4) and a small jar with rounded body and vertical rim (Pl. CXXXVI.7, type 84).

Small finds

An impressive amount of finds has been retrieved in Phase 2, most of which probably coming from the large southwestern building. Among others, there are 18 cylinder seals and one seal impression, showing a wide stylistic repertoire. The earliest examples include the typical Jemdet Nasr style seals with geometric patterns (Pl. CXXXVIII.1) or animal scenes (Pl. CXXXVIII.3-5) as well as the well-known drilled style technique (Pl. CXXXVIII.2). Later motifs are represented by Fara style animal friezes (Pl. CXXXIX.1), banquet scenes (Pl. CXXXIX.2), standing figures (Pl. CXXXIX.3, 6), fighting gods (Pl. CXXXIX.4) and an

232 The stratigraphic and functional reconstruction of Phase 2 is based on: 1. Primary information (layers and structures) from both primary and secondary sources (letters, photos and excavation reports). 2. Secondary information (objects at 1 m) from primary sources (object cards and letters).

Akkadian introduction scene depicting a procession of sacrificial animals towards a standing deity together with an inscription (Pl. CXXXIX.5, Appendix 1, cat. 46).²³³

Besides cylinder seals and seal impressions, some inscribed documents provide evidence of the administrative activities carried out in the southwestern house. The small archive consists of at least eight clay tablets²³⁴ (Gelb 1970: 36–42, 56–57) and three stone inscriptions (Gelb, Steinkeller and Whiting 1991: 64–66; Grégoire 1996: pls. 172, 174). A group of tablets found at 0.5 m provides lists of workers, both men and women (Pls. CXL.1–2, 5, Pl. CXLI.1, Pl. CXLI.3, Appendix 1, cats. 50–51, 53–55), while a second one from 1 m mentions the purchase of fields in shekels of silver (Pl. CXL.4, Pl. CXLI.4–6, Appendix 1, cats. 41–43 52, see also Gelb, Steinkeller and Whiting 1991: 200). Other documents deal with wool and lambs (Pl. CXLI.2, Appendix 1, cat. 56, found at 1 m, see Gelb 1970: 56–57) or the distribution of unidentified items (Pl. CXL.3, Appendix 1, cat. 47, found at 0.5 m, see Gelb 1970: 40).

A significant collection of anthropomorphic and zoomorphic clay figurines and stone statuettes is also attested from Phase 2. Among others, four small chariots (Pl. CXLII.1–4) are almost complete. Further clay specimens include the body of an equid (Pl. CXLII.6), and two fragments of human bodies (Pl. CXLII.8–9), while another human head with a peculiar headdress is made of stone (Pl. CXLII.7). Figurines could be interpreted in a number of ways according to their context. They are generally viewed as toys, often made by children themselves (Ochsenschlager 2004: 81–84) although other functions such as religious cannot be totally rejected (Moorey 2003; 2004). Unfortunately the paucity of contextual data does not allow to provide a satisfying interpretation.

The excavation in the large scale building also revealed a small collection of jewellery, including a silver ornament (probably part of a necklace) and two gold artifacts, a ring (Pl. CXLIII.6) and a bead. More precious finds are represented by a small group of shell inlays (Pl. CXLIII.1–3, 5) and a copper pin (Pl. CXLIII.4).

On the other hand, the quantity of working tools from this phase is somewhat scarce. A couple of clay tools, one of which likely interpreted as a mould (Pl. CXLII.5), a spindle whorl and a handful of bone (Pl. CXLIII.7) and copper tools represent the entire set of this type.

²³³ The inscription has been read in different ways by Van Buren (1951: 47) and Buchanan (1966: 68). According to Westenholz (Appendix 3) the inscription of the seal in question reads DINGIR-GU₂/se₁₁-da-um (see also Rohn 2011: 129). For the term se₁₁-da-um, of unknown meaning, denoting a title or an occupation, see Steinkeller and Postgate 1992: 92.

²³⁴ Two tablets (AN 1930.404b and AN 1931.144c), both containing an account of barley, likely came from the same context, although no precise information is given. Three more tablets (AN 1930.404, 1930.405a–b), dating from the Neo-Babylonian period, might come from some unrecognised pits or dump.

5.4 ZIGGURAT Z.1 - PHASE 3-4

PHASE 3

Stratigraphy and architecture

After the destruction of the city, during the ED IIIb (i.e. Y11, YW8 and YWN2) and probably for some time afterwards, the area of the ziggurat was abandoned (Pls. CL-CLI). This datum is supported by the lack of evidence for restoration or other building activities that could be connected with Y11-12. Similar conclusions have been also proposed by Gibson (1972a: 87).

PHASE 4

Stratigraphy and architecture

There is no clear evidence of the re-use and the possible restoration of the ziggurats after the destruction during the ED IIIb (Pls. CL-CLI). Both the archaeologists (Watelin and Langdon 1934: 45, 55-56, pl. III) and the following researchers (Moorey 1978: 88; Gibson 1972a: 87-90)²³⁵ have attempted to connect the construction of the Monument Z and the retaining wall with the Z.1 ziggurat. While no conclusive proofs support a stratigraphic and architectural connection between them, it is likely that they coexisted for some time. Indeed the retaining wall may have been part of a partial rebuilding or restoration of the Z.1 ziggurat. If we accept this hypothesis, we should imagine, after a first period of abandonment of the area of the ziggurats (Phase 3), a renewed utilisation of the buildings following the construction of the Monument Z and possibly the retaining wall.

²³⁵ Several trenches were cut all around the ziggurats providing materials dating from the Isin-Larsa to the Old-Babylonian periods. However it is not possible to precisely place these sounding and thus to connect them to ziggurats themselves (Gibson 1972a: 80-81).

CHAPTER 6

CONCLUSIONS: URBAN TRAJECTORIES AT KISH

The new contextual analysis of the archaeological evidence from Tell Ingharra/East Kish allows us to attempt an updated reconstruction of the late 4th – late 3rd millennium BCE urban development of the eastern part of Kish (Pls. I, CL–CLI, CLII–CLIX).²³⁵

In this chapter, the new stratigraphic and chronological sequences as well as the reanalysis of the contexts from the five areas of East Kish (Y, YW, YWN, Z and Ziggurat Z.1) discussed in the previous chapters is integrated with four additional areas from south and north Kish. These additional areas, excavated on Tell Ingharra south (Tell A and Area JA) as well as the northern end of the city (Area P/PCB and JP), provided reliable stratigraphic sequences and comparable contexts.²³⁶ Additional data have also been integrated from the intensive survey at the site carried out by Gibson in the 1960s (Gibson 1972a). The aim is to propose a new comprehensive analysis of urban archaeology of Kish between the late 4th and late 3rd millennium BCE.

In order to support the integrated analysis of the areas analysed in this chapter, I provide a number of stratigraphic connections (Pl. CL; Zaina 2016), listed below:

1. Three archaeological Phases (1. Water Level, 2. Flood Stratum, 3. Red Stratum) are attested in both the Y and YW sounding at the same elevation.
2. The construction of the ziggurat complex must be earlier than Phase 10 Red Stratum (which represents its collapse) but later than Phase 8 in the Y sounding, where the foundation of the Ziggurat partially cut the buildings and the chariot burials.
3. The elevation of the upper floors of the building phases in the YWN sounding (1–2) corresponds to those in the YW sounding (7–8).

²³⁵ The latest period considered in this study is the Ur III. Considering the similarity of the material culture from this period with the Isin–Larsa and Old Babylonian (see for example Armstrong and Gasche 2014) it is here recognized as the transition between the Early Bronze Age and the Middle Bronze Age.

²³⁶ For Areas JA and JP see Matsumoto 1991; Matsumoto and Oguchi 2002. For Tell A see Gibson 1972; Moorey 1970; 1978. For Area P/PCB see Moorey 1964; Zaina 2015a.

4. At the lowest level of the ZY sounding (6 m below the plain level), the archaeologists reached the Water Table, as in the Y (3b) and YW sounding (1a).

5. Despite the considerable distance, we may observe that the elevation of the latest phase of the PCB (2b) is 1.5 m below the plain level, such as at the Y (10) and YW (7) soundings. This should not be considered a proper stratigraphic connection but rather a suggestion.

Three more levels of correlation have been considered in order to strengthen the final reconstruction (Pl. CLI):

1. Destruction layers have been found all over the site in different but contemporary contexts such as the Y Phase 10, YW Phase 7, PCB Phase 2b (Zaina 2015a), and Palace A (here named as Phase 2b). According to Matsumoto (2002: 6, also quoting Moorey's p.c.), level 2 in Area JP may be connected to the destruction of the city on the basis of both the material culture and the contextual evidence.

2. Evidence of cemeteries with ED IIIb to Akkadian materials is attested in the PCB area Phase 3 (Zaina 2015a), Tell A Phase 3,²³⁷ JP Phase 1 (Matsumoto and Oguchi 2002) and Y Phase 11. Moreover, there are buildings contemporary with the cemeteries providing precious materials and inscriptions dating from the ED IIIb-Akkadian periods in YW Phase 8 and YWN Phase 2 (spatially very close one to the other). These two clear, although opposite, patterns suggest a restriction of the settlement in the Akkadian period.

3. Monumental architecture is attested in contemporary contexts, i.e. PCB 2a-b (Zaina 2015a), Palace A 2a-b, Ziggurat Z.1, JP 2 (Matsumoto and Oguchi 2002). The chronological association between these areas is supported by the material culture and the stratigraphy (ED IIIb Red Stratum is stratigraphically contemporary with the Z.1 Ziggurat, and the material culture from the Red Stratum is contemporary with the other areas).

These levels of correlation have been particularly helpful to connect the more distant Tell A and area P, where the archaeological sequences have been reconstructed and tentatively associated to Phases 8 to 11 of the Y sounding.

The newly emerging picture is that of a long, continuous occupation of the site from the Jemdet Nasr to the late Akkadian/early Ur III periods. At least for the eastern part of Kish, as a result, I propose 13 Macro-phases of occupation (Pl. CLI).²³⁸ From a historical perspective, this sequence reflects several major episodes of the history of Kish, among which the first relevant occupation, which started as early as the ED I, and the urban development and monumentalization of the late ED IIIa were the two key periods. With this perspective in

237 The new stratigraphic sequence proposed for Tell A in this publication is discussed in Appendix 2.

238 To date there is no stratified evidence of the 3rd millennium BCE on Tell W. Some scattered evidence of at least a late 3rd millennium BCE occupation from Tell Uhaimir has been exposed by the 1910s French excavation in the area of the ziggurat (de Gennouillac 1924) and then by the intensive survey carried out by Gibson in the 1960s (Gibson 1972a; 1972b).

mind, a tentative reconstruction of the settlement pattern and urban organization of eastern Kish between the late 4th and late 3rd millennium BCE is here proposed.

An emerging city: Jemdet Nasr and Early Dynastic I urban trends (3100-2700 BCE)

Archaeological evidence dating from the late 4th millennium BCE is quite meager (Gibson 1972a: 226, fig. 26a), and the oldest phases exposed by the excavators at the bottom of the Y sounding belong to the late Jemdet Nasr period (Phase 1a-2, Pl. CLII). By integrating the reconstructed stratigraphic data with the results of the intra-site survey carried out by Gibson (1972a: 266), it is possible to situate the main settlement of the Jemdet Nasr period on Tell Ingharra (Pl. CLVI). A second contemporary occupation has been also hypothesised by Gibson (1972a: 266) on the basis of the survey data on Tell Uhaimir. Given the great distance between Tell Ingharra and Tell Uhaimir (more than 2 Km), it is likely that they were two separate settlements in the Jemdet Nasr period. During these early periods the western side of Tell Ingharra was occupied by some scattered domestic buildings and an open area with associated hearths suggesting some specialized stone crafting activities (attested by the large amount of flint tools and other finds).²³⁹ Moorey (1978) and Crowfoot-Payne (1978) provided a detailed interpretation suggesting stone and shell cutting as the main activities.

Evidence of the ED I occupation retrieved from both excavation and the intra-site survey (Gibson 1972a) suggests a remarkable urban expansion during this period (Pl. CLVII). The passage from Phase 2 to Phase 3a in the Y sounding is marked by the imposing emergence of mudbrick buildings, probably reflecting the process of urbanization at Tell Ingharra between the end of the JN and the ED I periods. Similar evidence can be observed also in the neighbouring YW sounding (Phases 1-2) and in the lowest phase of the ZY sounding, both occupied by one or more domestic buildings over the entire ED I.

ED I structural phases at Tell Ingharra were exposed over a wide area (Pl. CLIII), enabling us to draw a more complete picture of the development of the city of Kish in the early centuries of the 3rd millennium BCE. Of the greatest relevance are in particular Phases 3 and 4 from the Y sounding, when the area was probably occupied by several domestic buildings arranged on a main street and minor alleys. On the basis of the stratification of floors and drains it is possible to assume the presence of multiple reconstructions or restorations.

A productive area probably connected to stone cutting, modelling or polishing is attested from Phase 3b to at least Phase 4a in the Y sounding.²⁴⁰ This interpretation is supported by the huge number of flint, bone and copper tools clustered in the northern part of the area.

239 Watelin and Langdon 1934: 2, "In the ash bed layer were found fragments of white quartz intentionally broken and mixed with flint matter in the proportion 2 kilos 400 grams to 26 kilos 600 grams of the total material...".

240 This interpretation benefited from several discussions with J. Phillips (Field Museum, Chicago) to whom I would express all my gratitude.

Similar evidence has been retrieved throughout the Near East although the most detailed one comes from the early 3rd millennium BCE Iranian sites from Shar-i Shokta (Tosi and Piperno 1973) to Tepe Yahya (Piperno 1973) and Tepe Hissar (Dyson 1972). Some contexts are also present in ED Mesopotamia although their real function is still a matter of debate. This topic has been recently discussed by Angevin (2014: 49) who proposed to identify different types of productive areas connected to the use of flint instruments. For the early 3rd millennium BCE, the best case studies are represented by Mari (Chantiers L and B, Coqueugniot 1993), Uruk (square NXII-a4, Eichmann 1985) and Abu Salabikh (Crowfoot Payne 1980), while further parallels must be searched as far as in the northern fringes of Mesopotamia like in the late 3rd millennium BCE sites of Titriş Höyük (Hartenberger et alii 2000; Nishimura 2012) and Hassek Höyük (Otte and Pelegrin 1992) where the only proper *sol d'atelier* can be recognized according to Angevin (2014: 47). Notwithstanding Angevin's thesis, both the high number of flint tools and their highly plausible common contextual provenience suggest the presence of an ED I small workshop from Phase 3b in the Y sounding. In terms of chronology, as observed by Crowfoot Payne (1978: Microfiche 2, E02), the ED I flint industry shows remarkable typological differences compared to that of the JN period. The workshop remained in use until Phase 4a (but probably also during Phases 4b and 4c).

Another notable ED I structure excavated in the Y sounding is the large scale building attested from Phase 4a onwards in the western part of the sounding (western part of sector E). According to both Moorey (1978: 99) and Algaze (1983–84: 137), this building can be recognized due to its large dimensions and the lack of burials. This new study allowed to propose a more precise location of the building in the southwestern part of the sounding (House 1) and to suggest that it remained in use (probably with continuous restorations and/or rebuildings) until at least Phase 6. Beside the stratigraphic and architectural evidence, the presence of some classes of finds including shell inlays, votive plaques, figurines and statues, together with administrative documents (tablets, seals and seal impressions) mostly coming from this part of the area, indicates a possible religious function of this building, perhaps a temple or part of a religious complex. The glyptic repertoire from this area is particularly remarkable for the amount and the quantity of styles compared to the rest of the neighbouring (domestic) buildings. A similar pattern is attested in several ED I religious buildings including the Shamush temple levels IV–VII at Khafajah (Delougaz and Lloyd 1942: 142–145) and the ED I Abu Archaic Shrine at Tell Asmar (Delougaz and Lloyd 1942: 206–208).²⁴¹ However, the data currently available are not sufficient to establish a connection between the workshop and the religious building.

The development of burial customs and distribution is of particular interest, too. From at least Phase 3c there is a continuous and extensive distribution of graves in the eastern side of

241 For the revised chronology of those sites see Marchesi and Marchetti 2011: 87, table 12.

the area. From Phase 4a, intra-mural burials are also attested in the northwestern part of the area (House 2) and their number remains steady in the following periods. Broadly speaking, elaborate burials, including those having one or more mudbrick walls and the few ones with walls, floors and roof made of plano-convex mudbricks, are mainly found from Phase 3b to 4c in the northwestern part of the area roughly corresponding to House 2.

The burials structure generally consists of a rectangular pit about 1 to 2.5 m long, 0.5 to 1.5 wide and 0.4 to 1.2 m deep. They were placed in the corner of the houses reusing the foundation of the walls or even reusing the foundations of the walls or part of walls belonging to previous houses. The majority of burials contained only one body, while multiple burials are mostly attested from Phase 4a onwards. A more careful analysis of the spatial and chronological distribution of all the graves indicates two different clusters: from Phases 3b to 4a multiple burials are only attested in the southeastern part of the area (approximately the location of Houses 4 and 5), while in the following periods (Phases 4c onwards) all the graves were located at the northwestern end of the area (probably House 2). As regards gender and age, the high number of fragmentary bodies (Algaze 1983–84; Rathbun 1975) deeply affects any analysis.

The grave goods are probably the most interesting feature from the intra-mural burials. The grave goods assemblage from ED I at Kish is usually characterized by pottery vessels (mainly bowls, spouted jars and small jars), stone vessels (bowls, rarely jars), metal vessels (mostly bowls and dishes) and ornaments such as necklaces and bracelets (generally made of stone beads among which principally carnelian). Tools (stone mortars and pestles as well as other utilitarian tools), weapons, shells and clay figurines are less common goods. The quantitative analysis of grave goods has not revealed any relevant pattern such as a specific number or type of pottery or stone vessels associated to some (or all the) burials, or a defined set of grave goods including other types of artifacts or even a connection between gender or age and a set of finds.

At first glance, what emerges is a profusion not only of pottery vessels but also of objects made of imported materials such as stone or copper. While the stone vessels appear to be rather standardized, the types strictly related to funerary contexts, such as the ED III upright handled jars or the stemmed dishes, are still missing. As for now, no clearly defined sets are attested, like for example the ED III ones found in the intra-mural graves at Abu Salabikh (Postgate and Moorey 1976: pl. XXVc; Steele 1990: 171) or at Kish (Zaina 2015a), and composed of 4 pottery vessels: a large bowl, a strainer, a colander and a beaker (Zingarello 2017; 2020). A similar situation might be reflected by the high number of conical bowls²⁴² and spouted jars, although the quantitative analysis does not show any relevant pattern.

²⁴² It is interesting to note that when pottery bowls are missing or are present in low number they are often replaced by stone bowls.

A detailed analysis of the spatial distribution of burials indicates that those with no grave goods are mainly restricted to the eastern part of the area, mostly in the northeastern part of the area. This pattern is more evident when considering Phase 3c to 4c with 84% (16 out of 19) of burials approximately located in the area of Houses 3 and 4. This datum alone does not necessarily indicate the presence of social differentiation between people and households, as we do not know almost anything about ritual differentiation (Parker Pearson 1982: 99–102). However, it is interesting to note that the total amount of objects recovered from non-funerary contexts in this sector during both Phases 3 and 4 is less than five.

The Jemdet Nasr material culture is characterized by few diagnostic pottery shapes (Pl. CXLVI) and glyptic styles. Painted vessels (type 60) and other shapes are limited to the structural phases excavated in the deep sounding, while glyptic styles endure through the entire ED. The ED I material culture, emerging from Phase Y 3b, YW 1, replace the diagnostic classes typical of the previous period (Pl. CXLVI). Therefore, we may consider Macro-Phases 3b to 5 as ED I. In the Y sounding a further distinction between early ED I (Phases 3b, 3c and probably 4a) and late ED I (Phases 4a, 4b, 4c and 5) based on the pottery assemblage can be proposed. However, this trend is not paralleled in the contemporary levels from the YW sounding. In addition, no other classes of finds confirm the pattern. As a result, a distinction between early ED I (ED Ia) and late ED I (ED Ib) cannot be considered for the whole site.

Shaping a capital city: Kish in the ED II-IIIa-b

Macro-Phase 6 (Y 6, YW 4) probably marks the beginning of the slow passage from the emerging town to the larger regional capital city (Pls. CLIV, CLVIII). No relevant changes in the use of space are attested, with domestic and possibly religious buildings (only in Y 6) occupying the two areas. Elements of discontinuity with the previous periods can be observed from the style of material culture and the increasing number of administrative documents mostly from the YW sounding (YW 4) and to a lesser extent from the Y sounding (Y 6).

The stratigraphic connection between these two structural phases is supported by their common elevation and the presence of the Flood Stratum (Y 7, YW 5) sealing both of them at 3 m below the plain level (Pl. CL). In terms of material culture, the soundings show two different situations. In the Y sounding most of the pottery assemblage still belongs to Pottery Group 2 (hereafter Pg, see Appendix 3) and Pg3, thus indicating a connection with the previous periods. However, it is during Y 6 that new pottery shapes including the earliest ED III types emerge (Pg 4b). Of similar relevance are the changes observed in the YW sounding. The group of seals and tablets recovered from YW 4 indicates the presence of a previously unattested administrative building. The administrative documents dating from the ED III have been found in a layer

of ashes associated with a mudbrick building (Watelin to Langdon 26-01-1930).²⁴³ The possible *ganun* (storehouse) documented in the texts represents the earliest administrative structure recognized from the excavation.

No relevant variations in the burials practices from Macro-phase 6 have been observed with respect to the previous periods.

Dating Macro-phase 6 to a hypothetical ED II period based on the sequence of Diyala would be misleading, particularly in view of the intense ongoing debate on this topic started in the 1960s-1970s (Abu al-Soof 1967; Gibson 1972a; Hansen 1971) that has yet to result in a shared consensus (Evans 2007; Gibson 2011). However, the pottery assemblage suggests a transition between the ED I and the ED III traditions. An ED III date is also confirmed by administrative documents retrieved from YW 4. Therefore, it would be equally incorrect to associate this phase to the ED I or to the ED IIIa from a purely chronological point of view. If we consider the ED II as a short period not definable by a distinctive material culture, but rather based on a mixture of ED I and ED III material culture, we may apply this label to Macro-phase 6. In this sense, the ED II of Kish remains a local urban phenomenon (as recent studies have suggested for the Diyala region), although additional evidence is needed to confirm this hypothesis.

During Macro-phases 7 and 8 an abrupt decrease in the architectural and funerary evidence as well as in the number of stratified materials is observed.

Given the peculiar matrix of the main layer of Macro-phase 7 (Y 7, YW 5, Z.1 1), the archaeologists initially interpreted the evidence as a conclusive proof for the biblical deluge.²⁴⁴ This theory was soon criticized by M. Mallowan (1964). Nowadays, it is generally accepted that during this period the area of Tell Ingharra was probably flooded due to the inundation of one the two Euphrates branches crossing the city.²⁴⁵ Nevertheless, despite the frequent Euphrates inundations, the development of channel systems as well as water locks mitigated flooding damage. An alternative explanation already suggested for Phases 3, 4, 5 and 6, could be that the houses and the streets were periodically levelled and rebuilt with layers of clay and rubbish.²⁴⁶

243 An alternative explanation suggests that, due to the state of conservation of the administrative documents (very fragmentary), this may be interpreted as a discard, possibly related to a public institution. While this hypothesis cannot be fully rejected, the connection with a mudbrick building favours the hypothesis proposed in the text.

244 Langdon 1924: 207. This interpretation was the result of a regrettable approach of many scholars at that time, which was still closely based on biblical interpretations of the archaeological evidence.

245 Gibson 1972a: 84; Moorey (1966: 31; 1978: 98-99) following Watelin (Watelin and Langdon 1934: 40), proposed that the Flood Stratum marked the end of the use of this area for domestic occupation, but Gibson (1972a: 83, n. 148) rejected this theory.

246 This interpretation benefited from several discussions with P. Butterlin (Université Paris 1 – Panthéon Sorbonne), to whom I would like to express my gratitude.

With regard to the architectural evidence, several scholars curiously rejected the presence of any structural evidence from Macro-phase 7 (Lloyd 1969; Moorey 1966; 1978), although Gibson himself (1972a: 83–84) had confirmed the presence of buildings after having cleaned part of the sounding section in the mid-1960s. The meagre amount of materials does not allow any functional analysis of both Y 7 and YW 5, although it is presumed that the area housed domestic structures with associated intramural burials and perhaps a religious building.

The study of the material culture from Macro-phase 7 confirms the trend started in Macro-phase 6. In particular, the persistence of certain Pg2b types (type 68, Pl. CXLVI) dating from the ED I, the presence of long-term Pg3 types (type 50, Pl. CXLVII) and the emergence of new forms associated to an ED IIIa-b horizon are worthy of note.

During Macro-phase 8, in the north-eastern sector of Y 8, some large burials 2 to 4 m deep (Chariot burials) probably belonging to high-ranking persons were cut. The bodies lay on two or four-wheeled chariots pulled by one or more animals. Even though the dimensions of these burials cannot be appreciated, it is likely that they were cut in open areas as also confirmed by the dearth of other structural evidence. Although not comparable with the richer royal tombs of Ur (Cohen, 2005; Pollock 1999; 2007; Vogel 2013), the Chariot burials from Kish were probably associated with some wealthy households and the different dimensions and furnishing could be read in the frame of socio-political competition between households (Pollock 2007). A similar scenario has been recently proposed for Cemetery A at Kish although in a different period (Torres-Rouff, Pestle and Davermann 2012). The contradictory stratigraphy and the lack of structural evidence from YW 6 do not permit an interpretation of the urban layout in this part of Tell Ingharra. The few graves related to this phase (that cannot be spatially located) may be considered as intramural depositions associated with unrecognized buildings (thus following the previous urban arrangement of the area) or may have belonged to people connected to the high-ranked individuals of the Chariot burials. Burial customs do not show relevant changes with the past tradition compared to only two burials enriched with a few grave goods.

The chronology of Macro-phase 8 is built on a handful of pottery shapes and on the parallels with the previous Macro-phases. The majority of pottery types from both funerary (simple grave and chariot burials) and extra funerary contexts belong to Pg3, thus covering a large chronological range within the internal stratigraphic sequence at Kish. Differently from Algaze (1983–84: 150–151), who assigned the pottery assemblage from the Chariot Burials to

the ED I,²⁴⁷ it would be coherent to place this Macro-phase still within the ED II,²⁴⁸ on the basis of the chronology of Macro-phases 6 and 7 (see above).

Macro-phases 9 and 10 represent a period of vast urban and economic development for the city with a massive reorganization and monumentalization (Pls. CLIV, CLVIII). The textual evidence confirm the emergence of Kish as a regional power (Marchesi and Marchetti 2011: 100–101) with its kings extending their influence through most of alluvium.

The larger amount of archaeological evidence from several Macro-phase 9 areas (not just Y 9 YW 6, Z.1 2a but also PCB 2a, JA 3 and A 2a-b) allows more comprehensive reconstruction of the urban layout of the city. One, or maybe two ziggurats (Z.1 and Z.2) and an élite building (Palace A) were built in the central and southernmost parts of Ingharra. To the north, another large scale building (the PCB, Moorey 1964; Zaina 2015a), and to the southeast an extended residential neighbourhood with possibly more public complexes were attested (Stone 2013: 165, fig. 8.4). The similar orientation (NE-SW) of the Plano-Convex Building and this newly identified residential neighbourhood suggest a high degree of urban planning typical of the late Early Dynastic period in central and southern Mesopotamia (Postgate 1992: 73–79; Stone 2013: 165 ff.). In the same way, the new organization of the eastern part of Kish seems to have followed a careful urban planning. The new religious area (Z.1 Ziqqurat, Phase 2a), built on the eastern side of Tell Ingharra, has the same orientation of the contemporary structures and roads from the Y (Phases 9–10), YW (Phases 6–7) and YWN soundings (Phase 1) (Pl. CLIV). The similar orientation and the distance (500 m) between the new religious complex and the “palaces” stressed by E. Stone (2013: 163–164), find a good parallel at Eridu and might be a further indicator of an improved urban planning. Also the orientation of the small temple excavated in Area JA (Phase 2) and of Palace A uncovered to the south seems to be coherent.

If we integrate these data with the intra-site survey by Gibson (1972a: 58), a remarkable urban expansion is confirmed, with ED III Kish extending as far as Tell Uhaimir (Pl. CLVIII). The hypothesis that the areas of Tell Ingharra and Tell Uhaimir were independent towns is not convincing (Moorey 1978; Gibson 1972a; Yoffee 2005), particularly in light of the presence of the Plano-convex building and area JP (Matsumoto and Oguchi 2004) halfway between the two main mounds. In addition, both the ED III evidence from the western part of Kish (Gibson 1972a: 58), and the recent archaeological evidence brought to light

247 Algaze's dating of the pottery assemblage from the Chariot Burials is based on “*internal ceramic evidence from the Chariot Burials*” (1983–84: 150–151, fig. B) and on parallels with the other sites. However, he did not consider these shapes within the internal pottery sequence from the stratified contexts at Kish. Moreover, at least half of the types (i.e. 4, 12, see Appendix 3), associated with both Macro-phase 8 non funerary contexts and the Chariot Burials, have ED III parallels.

248 With regards to the “sterile layer” between the Flood Stratum (Y 7) and the Red Stratum (Y 10) Gibson (1972a: 84, n. 150) reported that “*In a section I cleaned on the northwestern face of the Y trench, this stratum yielded a number of sherds, the latest dating to ED II– III*”.

through satellite imagery (Stone 2013: 165) contradict this hypothesis. What field archaeology as well as remote sensing analyses still failed to identify are the city walls, mentioned in the cuneiform texts as early as the 2nd millennium BCE (Gibson 1927a: 3–4; Postgate 1994: 75), and the squares, two elements relevant for the development of Mesopotamian early cities. Another relevant issue concerning the reconstruction of the ancient urban landscape of Kish is the channel system. We know from the texts that the city was cut by two main streams named Me'enlila and Buranuna from at least the beginning of the 3rd millennium BCE (Carroué 1991; Gianni Marchesi p.c.). To date, our most updated interpretation on the precise location of the channels comes from the survey carried out by McG. Gibson (1972a). Therefore, in the absence of more detailed data, Gibson's proposal is here followed.

The stratigraphic correlations within Macro-phase 9 at Tell Ingharra must be considered as tentative, due to the difficulty to connect YW 6²⁴⁹ to Y 8–9 and to Z.1 2a (Pls. CL–CLI). Parallels proposed in plate CL with Tell A (A 2a–b and JA 2) and the PCB area (PCB 2a, JP 1) are mostly based on the material culture including the pottery assemblage, the glyptic and textual evidence.

Macro-phase 10 represents the second period of the great urban and political development of Kish which ended with the destruction of a large part of the city probably due to a violent event. Stratigraphic connections between collapse layers, the so-called Red Stratum, allow to associate Y 10, YW 7 and Z.1 2b. The Red Stratum has been interpreted in a number of ways, which are here briefly described. At first, the excavators, interpreted this stratum as a platform associated with the greater ziggurat.²⁵⁰ This hypothesis was then rejected in favour of a destruction layer (Watelin and Langdon 1934: 55–57). According to Moorey (1966: 29–30), the Red Stratum was the pavement of a building placed over the Flood Stratum. Lloyd (1969: 44–45) supported Watelin's theory of a destruction layer, rejecting Moorey's hypothesis. Finally, Gibson (1972a: 86), followed by Algaze (Algaze 1983–84: 142–143, n. 27), proposed that the Red Stratum was a settlement phase with debris fallen from the ziggurat. This last interpretation seems the most complete and acceptable. The Red Stratum could be the result of the collapse of part of the greater ziggurat and the destruction of the buildings located along the eastern flank of Tell Ingharra. Nonetheless, in the case of the ziggurat it is not possible to draw a final conclusion whether the bricks fell down due to intentional destruction or to some structural deficiencies of the ziggurat.

But what kind of buildings were buried by this massive collapse? Although the majority of buildings from Phase 10 were certainly domestic households, the analysis of the material

249 However, a stratigraphic distinction of Phase 6 into two sub-phases is also a possibility that should be taken into account for a number of reasons, including the excessive thickness of the layer/s separating it from Phase 7 as well as the presence of two distinct phases at these elevations in the nearby sounding Y.

250 Watelin to Langdon 18–12–1927, Watelin to Langdon 04–02–1931, Langdon's final report 1927–28.

culture also suggests the presence of another type of context. In particular, the stone plaque, the shell inlay, as well as the number of figurines, suggest the existence of a religious building, perhaps connected to the great ziggurat (Z.1), devoted to religious and economic activities – as confirmed by both seals and inscribed documents.

Moreover, it should be noted that pottery type 28 usually occurs in funerary contexts in association with types 54 and 55, although similar assemblages can be found also in religious contexts. This is the case of the Ishtar temple at Mari (Parrot 1956: 213–217, fig. 105) and the North Temple at Nippur (McCown, Haines and Biggs 1978: 28) among others.²⁵¹

In a larger urban perspective, the possible destruction of the Z.1 ziggurat, also affecting the buildings of Y 10 and part YW 7, can be compared to the violent destruction of Palace A (Moorey 1978: 62–64)²⁵² and the PCB (Zaina 2015a). The emerging picture is that of a pervasive violent destruction of the city of Kish at the end of the ED IIIb. Similar evidence has been uncovered at Mari (Butterlin 2010, 2014), where the destruction resulted in two thick reddish layers of collapsed mudbricks, the most recent of which was levelled to build new structures. A tentative connection of the archaeological evidence with the historical events may indicate the conquest of the city by the ruler Enšagkušu'anak of Uruk (Frayne 2008; Maeda 1981: 5–7; Marchesi and Marchetti 2011: 201; Moorey 1978: 171; Rowton 1970) as the reason for the extensive destruction attested from Macro-phase 10.

A different scenario may be depicted from the reconstruction of the stratigraphic and architectural sequence of YWN 1. While the massive collapse of bricks from the Z.1 ziggurat did not affect the area, connections with Y 10 and YW 7 are proposed on the basis of the same elevation. The reconstruction proposed (Zaina 2015b) indicates the presence of a street oriented northwest/southeast with a large building on its southwestern side, with at least 15 rooms and extending over more than 300 m², and the fragmentary remains of another structure to the northeast. Few artifacts have been found in this structural phase which was probably cleared (and not destroyed as the surrounding buildings) and rebuilt during the late ED IIIb–early Akkadian periods (Macro-phase 11, see below). However, the rich assemblage retrieved from the following phase suggests the presence of a wealthy household already in Macro-phase 10.

The material culture from these two Macro-phases shows a series of gradual changes already started in the Macro-phases prior to 9. This datum emphasises how the variation in the

251 For a more detailed analysis and interpretation of the so-called up-right handle jars and the stemmed dishes see Moon 1982: 65–66.

252 Contra Gibson (1972a: 77) who sees “little evidence of destruction by enemies or fire as did Mackay. There is no sign of burning on the walls still standing. The paucity of objects from the building seems to me to indicate an orderly clearing, rather than a sacking.” However, traces of burned walls are reported by Mackay (unpublished card, Ashmolean Museum, University of Oxford) from room 15 while a thick layer of ashes was documented in rooms 53, 56, 58 and 59. In the light of this, the criticisms raised by Gibson on the destruction of Palace A are as questionable as Mackay’s arguments.

ceramic, glyptic and epigraphy among others only reflects part of the urban history of the site. The pottery assemblage sees the emergence of groups Pg5a and Pg4 in Macro-phase 9, while in Macro-phase 10 Pg5b appears (Pls. CXLVIII-CXLIX). Less evident are the glyptic and epigraphic trends from this period. ED III glyptic contest scenes emerge, in fact, as early as in Macro-phase 8, although it is during Phases 9 and 10 that this type reaches its peak. Epigraphic documents dating from the ED IIIa remain in use until Phase 11, while ED IIIb/early Sargonic specimens appear in Macro-phase 10, reinforcing the idea that this phase starts during the ED IIIa – ED IIIb transition and continues into the ED IIIb. This new archaeological interpretation also correlates with the epigraphic evidence concerning the urban and political role of Kish between the ED IIIa and the end of the ED IIIb, the full extent of which might have reached several hundred hectares (Yoffee 2005: 57; 2013; Marchesi and Marchetti 2011: 97-103).²⁵³

The Impact of the Empires: Kish during the Akkadian and Ur III periods

The flourishing period documented in Phases 9 and 10 finishes abruptly at the end of the ED IIIb, with violent destructions attested in several areas, such as the two élite buildings (Palace A and the PCB), the Y (Phase 10) and YW (Phase 7) soundings, and the Ziggurats themselves. In the following periods, corresponding to Macro-phases 11 and 12, two different but interrelated patterns are observed (Pls. CL-CLI, CLV, CLIX). Indeed, the majority of the areas considered (Y sounding, area P, area JP, Tell A and area JA) were occupied by scattered graveyards and small buildings, while in two areas (YWN sounding, Phase 2; YW sounding, Phase 8) some well-preserved buildings with no traces of destruction and with a significant number of administrative materials (seals and inscriptions), as well as precious objects in gold and silver, were found.

Therefore, I here propose to recognise two main patterns of space use and funerary practices during this period: the first one is identified in Phases 11 and 12 of Trenches Z, Phase 8 in the YW sounding as well as Phase 2 in the YWN sounding, while the second pattern is attested only in Phase 13 in the Trenches Z.

The quantity of materials from Macro-phase 11, and in particular from Cemetery A, dates this phase to the ED IIIb-Akk transition (Moorey 1970; 1978; Gibson 1972a). The following phase (12) did not reveal a large amount of material and its dating is therefore based on the *ante* and *post quem* evidence provided by the other periods. Epigraphic materials and the 14C allow us to include this level of occupation between the reigns of Manishtusu and Sharkalisharri (Zaina 2015b). This evidence can be integrated with the data from Gibson's survey (1972a: Fig. 27b) and the settlement trend in the region (Adams 1981; Gibson 1972a: 248-

²⁵³ Contra Weiss (1975: 439, table 1), who stated that Kish must have reached a maximum of about 50 hectares during the ED III.

249; Weiss 1975: 439–440), which shows a decline in the number and especially in the size of the settlements. As a result, we may infer that the occupation was mostly concentrated on the western part of Tell Ingharra between the ED IIIb and the middle/late Akkadian period.

A considerable urban reduction in both the southern and western part of Tell Ingharra is confirmed by the poor structural evidence from Phases 11 and 12 from the Trenches Z and Phase 8 from the YW sounding. In particular, a gradual decrease in the number of buildings and a corresponding increase of burials (also compared to the previous phases) are observed during both Phases 11 and 12 in the Trenches Z. This datum is in line with the archaeological evidence uncovered in other areas of Kish dating from the early Akkadian period, among which the Cemetery A (Gibson 1972a; Moorey 1970; Torres-Rouf, Pestle and Davermann 2012), the Plano-convex building sector (Zaina 2015a) and its neighbourhood area JP (Matsumoto and Oguchi 2002).²⁵⁴ Here extended graveyards together with scattered buildings were documented by the archaeologists.²⁵⁵

Somewhat different is the urban history documented in the north-western part of Ingharra in the same period. Indeed, the structural remains of Phase 1 in the YWN sounding, contemporary with the Red Stratum (Y 10 and YW 7), continued in the following period with only minor changes. The finds recovered from the large southwestern building suggest the presence of a wealthy residence apparently unaffected by the widespread destruction of the neighbouring areas (Zaina 2015b). In particular, the quantity of glyptic and inscribed documents probably entirely from the southwestern building (Phase 2) provides useful insights on the activities carried out. The stratified texts mostly deal with workmen (5) and the purchase of fields (4), while only one is connected to the storage of goods. The glyptic finds have a wide variety of motifs which may point to different people, uses or goods. The rest of the finds consists of utilitarian pottery and tools for daily activities.

A considerable change of space use is observed from Phase 13a onwards. This evidence can probably be extended also to the whole southern sector of Tell Ingharra (Pls. CLV, CLIX). Almost the entire area is now occupied by a large building called Monument Z, the function of which remains hypothetical. However, the possible connection (at least from Phase 13b) between the Monument Z and the Ziggurat Z.1 (Gibson 1972a: 87–88) as well as the high amount of clay figurines found in all the sub-phases, and the presence of a stone statuette²⁵⁶ suggest a religious use.

254 The Japanese excavation in area JP probably brought to light part of a larger ED complex now clearly visible from satellite imagery (Stone 2014: 184, fig. 2; See also more detailed images on www.bing.com/mapspreview).

255 For a resume on the general chronostratigraphy and the urban layout of Kish between the ED III and the Akkadian period see Zaina 2016.

256 However some doubts on the original findspot can be raised by the fact that the statuette has a typical Early Dynastic III style.

The chronology of Monument Z and the associated structures in the Z trenches proposed by Gibson (1972: 88) and Moorey (1978: 95) can be slightly refined by re-examining the stratified pottery assemblage and the epigraphic documents. Among the two authors, Gibson's hypothesis provided more convincing and solid basis (1972a: 87–88, contra Moorey 1978: 95–96), by assigning the building to the kingdom of Sharkalisharri on an epigraphic ground. According to the new analysis proposed here, the pottery assemblage from Phase 13a–c (Pg5, Pl. CXLIX) can be dated from the late ED III to the Ur III period, although the majority of types have parallels from the Akkadian and the Ur III periods. In addition, a clay tablet dating from the Late Sargonic period (roughly between Sharkalisharri and Ur-Nammu, see Appendix 1) comes from Phase 13a. We may thus presume that the Monument Z and the associated structures (Phase 13a) were built as early as the late Akkadian period or at the beginning of the Ur III period and they remained in use until its end (Pls. CXLIV, CLV). No stratified evidence of the Old Babylonian period is attested (contra Moorey 1978: 96).

The number of graves found in the Z trenches reaches its peak in Phase 13a both inside and outside the Monument Z. Then, the quantity of burials drops dramatically from Phase 13b onwards. The scarce information available about the structure, body treatment and grave good does not allow to propose parallels with the previous tradition.

Burials from Phases 11 and 12 appear to be randomly distributed throughout the area. As a result it is not possible to understand whether and how many of those were cut below the floors of houses, or in non-domestic open spaces. The number of graves increases from Phase 11 onwards, reaching its apex during Phase 13a and then decreasing significantly. On a structural point of view and as far as body treating and position are concerned, burials from Phases 11 and 12 show a remarkable continuity with past tradition. The great majority are simple pit graves with mudbrick walls or roofs, generally rectangular in shape, while nothing is known of their mean depth. The body is usually placed crouched on one side without precise orientation and sometimes wrapped in a mat. What is curious and at the same time inexplicable is that almost no grave goods were found associated with the deceased. Indeed, apart for a couple of rich graves (G 306, G 344) comparable with the cemetery A, no grave goods are reported from the other burials. This evidence is rather difficult to explain,²⁵⁷ and it prevents exhaustive analyses and parallels.

257 An hypothesis albeit unconfirmed concerns the non-registration of objects from the tombs. The analysis carried out by the Author on the cards revealed that, during the 1926–1927 campaign, about 20% of the objects (20 out of 101) from the Z trenches has no information about the findspot. In the following campaign (1927–1928) the percentage of objects cards without information on the context is about 50% (78 out of 162). Although the total amount of objects compared to the number of tombs from the trenches Z is modest (a little more than one for burial) also compared to the cemetery A (about 10 objects for burial), it is possible that at least some of them were originally found in tombs and not registered.

APPENDIX 1

THE EPIGRAPHIC EVIDENCE

Aage Westenholz

This appendix presents the stratified inscriptions from excavation areas described in the text.²⁵⁷ Although most of them have already been published and edited (Gelb 1970; Grégoire 1978; 1996; Wagensohn 2014; Westenholz 1995; 2014; 2017), for the first time they are presented here together in not only an epigraphic but also in an archaeological perspective.²⁵⁸ Indeed, the epigraphic documents are organized primarily according to their paleographic date and then to their stratigraphic location within each area. The total body of 57 epigraphic documents is composed by: 44 clay tablets (mostly fragments), 5 stone kudurru fragments, 2 cylinder seals and 6 seal impressions. The chronological framework followed here (Table 1) is more or less the same as the one outlined in Westenholz 2014: xiv. It cannot be resolved here whether the philologist's "Sargonic period" is coterminous with the archaeologist's "Akka-dian period". Tablets explicitly dated to Sargon are epigraphically indistinguishable from tablets explicitly dated to ED IIIb rulers, so epigraphic dating is not an exact science.

Epigraphic date	Approximate time period
Uruk III	Jemdet Nasr texts, ~3000 BCE
Early Dynastic I-II	Archaic Ur texts, ~2800 BCE
Early Dynastic IIIa	Fara style texts, ~2600 BCE
Early Dynastic IIIb	From Ur-Nanshe to Sargon

²⁵⁷ Abbreviations used here: AAICAB = Grégoire 1996; Buchanan Cat. = Buchanan 1966; CDLI = Cuneiform Digital Library Initiative; CDLN = Wagensohn 2014; CUSAS 26 = Westenholz 2014; HANES 5 = Westenholz 1993; IAS = Biggs 1974; MAD 5 = Gelb 1970; MC 14 = Marchesi and Marchetti 2014; MSVO I = Englund and Grégoire 1991; NABU 2017/89 = Westenholz 2017; OIP 104 = Gelb, Steinkeller and Whiting 1991.

²⁵⁸ An "archaeological use of cuneiform tablets" was proposed by Gibson (1972b), in order to reconstruct the history of the site. The epigraphic finds from Kish are illustrated in the Plates as well as in AOKF 5 - The epigraphic finds..

Early Sargonic (ES)	Reigns of Sargon and Rimush
Middle Sargonic (MS)	Reign of Manishtusu and the first half of Naramsin's
Classical Sargonic (CS)	The second half of Naramsin's reign plus Sharkalisharri's
Late Sargonic (LS)	The time between Sharkalisharri and Ur-Nammu

Table 1. Chronological correlations of 3rd millennium BCE epigraphy.

Cat. 1 (Pl. XL.13)

AN 1930.752. Clay tablet fragment, 71×47×24 mm, one side destroyed

Photo: *CDLI* P222928 (a.c.); CUSAS 26, no. 12 (b.c.)

Drawing: EK IV, 34; CUSAS 26, no. 12 = MC 14, pl. 22.3

Paleographic date: ED I-II

Archaeological context: Y sounding, phase 3c

Date of archaeological context: ED I

Contents: List of men, purpose unknown. Only one name readable: dar-da.

Cat. 2 (Pl. LIV.13)

AN 1929.836. Clay tablet fragment, 53×38×22 mm, one side destroyed

Photo: *CDLI* P005308 (a.c.)

Drawing: EK IV, 37; MSVO I, 241

Paleographic date: Uruk III

Archaeological context: Y sounding, phase 4a

Date of archaeological context: ED I

Contents: Unidentifiable administrative.

Cat. 3 (Pl. CXXIX.1)

AN 1930.409a. Clay tablet fragment, 56×57×28 mm, many worm holes

Photo: *CDLI* P222929 (a.c.); MC 14, pl. 23.2, 23.4 = CUSAS 26, no. 23 (b.c.) + exp.ph. 1929-30, 18 (rev. only)

Drawing: EK IV, 36; CUSAS 26, no. 23

Paleographic date: ED IIIa

Archaeological context: YW sounding, phase 4

Date of archaeological context: ED I

Contents: Apparently large numbers of workmen with their overseers. The capacity measure *gur-sag-gál* suggests barley, but this measure is not otherwise attested at Kish. The last sign X is really KIŠ; is that the name of the city, or should we read *anše* “donkeys”? Too much of the tablet is missing to be sure; but certainly a substantial economy is involved.

obv. i	(two or three lines missing)	
	ʾ300 lá x ¹ guruš	<300 workmen
	[x]+1 ugula	x foremen
	kinda	Kinda
ii	(two or three lines missing)	
	[number] guruš	x workmen
	10 ugula	10 foremen
	úr:ni	Urani
	586 guruš	586 workmen
	(rest of obverse and the beginning of reverse missing)	
rev.	-----	-----
	gú-an-še 6786 ʾx ¹ gur-sag-gál X	In all, 6786
	[x]+125 [.....]	x+125
	(rest missing)	

Cat. 4 (Pl. CXXVIII.3)

AN 1930.409b. Clay tablet fragment, 47×50×20 mm

Photo: *CDLI* P225825 (a.c.); MC 14, pl. 23.2, 23.3 (b.c., obv. only); CUSAS 26, no. 31

Drawing: EK IV, 36; CUSAS 26, no. 31

Paleographic date: ED IIIa

Archaeological context: YW sounding, phase 4

Date of archaeological context: ED II

Contents: Unidentifiable administrative

Cat. 5 (Pl. CXXIX.4)

AN 1930.409c. Clay tablet fragment, 41×52×23 mm, one side destroyed

Photo: *CDLI* P225826 (a.c.); CUSAS 26, no. 25 = MC 14, pl. 23.2 (b.c.)

Drawing: CUSAS 26, no. 25

Paleographic date: ED IIIa

Archaeological context: YW sounding, phase 4

Date of archaeological context: ED II

Contents: Administrative, livestock and barley?

	(large amount of text missing)	
i'	[.....] ùz goats
	[.....] 'x' nita	... male
	[.....] l]i(?)	PN?
	(rest of col. i' and beginning of col. ii' missing)	
ii'	4.4 še [gur]	1440 liters of barley,
	su-m[u-.....]	Sumu-.....
	(large amount of text, including the total, missing)	

Cat. 6 (Pl. CXXVIII.5)

AN 1930.409d. Clay tablet fragment, 31×33×20 mm, one side destroyed

Photo: *CDLI* P225827 (a.c.); CUSAS 26, no. 35 = MC 14, pl. 23.4 (b.c.)

Drawing: EK IV, 36; CUSAS 26, no. 35

Paleographic date: ED IIIa

Archaeological context: YW sounding, phase 4

Date of archaeological context: ED II

Contents: Administrative?, only PN *ur-sag-gal-zu* preserved

Cat. 7 (Pl. CXXIX.3)

AN 1924.1561 (< 1930.409e) + 1930.409g. Clay tablet fragment, 60×58×25 mm

Photo: *CDLI* P222930 (409g only), P451120; CUSAS 26, no. 20 (all a.c.)

Drawing: EK IV, 36 and 59; CUSAS 26, no. 20

Paleographic date: ED IIIa

Archaeological context: YW sounding, phase 4

Date of archaeological context: ED II

Contents: Possibly a roster of agricultural workers and barley.

Cat. 8 (Pl. CXXVI.2)

AN 1930.409f. Clay tablet fragment, 40×44×16 mm, one side destroyed

Photo: *CDLI* P222932 (a.c.); CUSAS 26, no. 16 = MC 14, pl. 23.2 (b.c.)

Drawing: EK IV, 59; CUSAS 26, no. 16

Paleographic date: ED IIIa

Archaeological context: YW sounding, phase 3

Date of archaeological context: ED I

Contents: lexical?, beer (*kaš*) or jars (*dug*), two signs that are very similar.

Cat. 9 (Pl. CXXVIII.1)

AN 1930.409i. Clay blank, 31×19×12 mm, with five holes

Photo: *CDLI* P451556 (a.c.)

Drawing: EK IV, 60; description NABU 2017/89

Archaeological context: YW sounding, phase 4

Date of archaeological context: ED II

Contents: Uncertain, if any

Cat. 10 (Pl. CXXIX.1)

AN 1930.409h+y. Clay tablet fragment, 113×51×25 mm

Photo: *CDLI* P222934; CUSAS 26, no. 17 (a.c.); MC 14 pl. 23.2 (b.c.)

Drawing: EK IV, 60 (1930.409h only); CUSAS 26, no. 17

Paleographic date: ED IIIa

Archaeological context: YW sounding, phase 4

Date of archaeological context: ED II

Contents: List of personal names all beginning with *lugal*, discarded school exercise

Cat. 11 (Pl. CXXVIII.2)

AN 1930.409j+s. Clay tablet fragment, 48×40×20 mm

Photo: *CDLI* P222933; CUSAS 26, no. 32 (a.c.); MC 14, pl. 23.3, 23.4 (the latter b.c., obv. only)

Drawing: EK IV, 59; CUSAS 26, no. 32

Paleographic date: ED IIIa

Archaeological context: YW sounding, phase 4

Date of archaeological context: ED II

Contents: Administrative, unidentifiable

Cat. 12 (Pl. CXXIX.6)

AN 1930.409k. Clay tablet fragment, 40×23×24 mm

Photo: *CDLI* P427607; CUSAS 26, no. 24 (a.c.); MC 14, pl. 23.4 (b.c, rev. only)

Drawing: CUSAS 26, no. 24
Paleographic date: ED IIIa
Archaeological context: YW sounding, phase 4
Date of archaeological context: ED II
Contents: Administrative, livestock.

Cat. 13 (Pl. CXXIX.9)

AN 1930.409l. Clay tablet fragment, 48×55×22 mm
Photo: *CDLI* P427608 (a.c.); MC 14, pl. 23.2 (b.c.) + unpubl. exp. ph. 1929-30, 18
Drawing: CUSAS 26, no. 15
Paleographic date: ED IIIa
Archaeological context: YW sounding, phase 4
Date of archaeological context: ED II
Contents: Lexical?, cows.

Cat. 14 (Pl. CXXVIII.6)

AN 1930.409m. Clay tablet fragment, 59×44×25 mm, one side destroyed
Photo: *CDLI* P427609 = CUSAS 26, no. 36 = MC 14, pl. 23.2 (b.c.)
Drawing: CUSAS 26, no. 36
Paleographic date: ED IIIa
Archaeological context: YW sounding, phase 4
Date of archaeological context: ED II
Contents: Perhaps a map showing a field (like RTC 151ff.), with the wavy wedges to indicate the water of a canal or a ditch.

Cat. 15 (Pl. CXXIX.5)

AN 1930.409n. Clay tablet fragment, 54×35×24 mm, reverse blank.
Photo: *CDLI* P427610 (a.c.); CUSAS 26, no. 28 = MC 14, pl. 23.2 (b.c.)
Drawing: CUSAS 26, no. 28
Paleographic date: ED IIIa
Archaeological context: YW sounding, phase 4
Date of archaeological context: ED II
Contents: Administrative, the one and only readable line says [x]+20 *še gur*.

Cat. 16

AN 1930.409o. Clay tablet in four columns, 75×78×27 mm, mostly blank

Photo: *CDLI* P451557 (a.c.); description NABU 2017/89

Paleographic date: ED IIIa

Archaeological context: YW sounding, phase 4

Date of archaeological context: ED II

Contents: –

Cat. 17

AN 1930.409p. Blank clay tablet, 41×?×19 mm

Photo: none; description NABU 2017/89

Paleographic date: –

Archaeological context: YW sounding, phase 4

Date of archaeological context: ED II

Contents: none

Cat. 18 (Pl. CXXIX.8)

AN 1930.409q. Clay tablet fragment, 30×33×21 mm. The broken edge is curiously smooth. Some worm-holes.

Photo: *CDLI* P451555; CUSAS 26, no. 14 (both a.c.)

Drawing: CUSAS 26, no. 14; *CDLN* 2014:15

Paleographic date: ED IIIa

Archaeological context: YW sounding, phase 4

Date of archaeological context: ED II

Contents: Lexical, lines 1–3 of “Lú A” known from everywhere since the Uruk period.

Cat. 19 (Pl. CXXVIII.8)

AN 1924.1038+1930.409r. Clay tablet fragment, 35×38×23 mm

Photo: *CDLI* P450902; CUSAS 26, no. 38 (both a.c.)

Drawing: CUSAS 26, no. 38

Paleographic date: –

Archaeological context: YW sounding, phase 4

Date of archaeological context: ED II

Contents: Hardly enough survives to give a paleographic dating, or anything on contents.

Cat. 20

AN 1930.409t. Blank clay tablet, 58×52×26 mm

Photo: *CDLI* P451559; description NABU 2017/89

Paleographic date: –

Archaeological context: YW sounding, phase 4

Date of archaeological context: ED II

Contents: none

Cat. 21 (Pl. CXXVIII.4)

AN 1930.409u. Fragment of a large clay tablet, 62×76×38 mm, poorly preserved

Photo: *CDLI* P451560; CUSAS 26, no. 33 (both a.c.)

Drawing: CUSAS 26, no. 33

Paleographic date: ED IIIa

Archaeological context: YW sounding, phase 4

Date of archaeological context: ED II

Contents: Amounts of something measured by capacity (i.e., the *gur* system, most likely barley) set against personal names.

Cat. 22 (Pl. CXXVIII.7)

AN 1930.409v. Clay tablet fragment, 42×50×23 mm, reverse blank

Photo: *CDLI* P427611 (a.c.); CUSAS 26, no. 37 = MC 14, pl. 23.2 (b.c.)

Drawing CUSAS 26, no. 37

Paleographic dating: ED IIIa

Archaeological context: YW sounding, phase 4

Date of archaeological context: ED II

Contents: unidentifiable

Cat. 23

AN 1930.409w. Clay tablet fragment, 49×51×20 mm, obverse dissolved, reverse blank

Photo: *CDLI* P451562 (a.c.); description: NABU 2017/89

Paleographic date: –

Archaeological context: YW sounding, phase 4

Date of archaeological context: ED II

Contents: destroyed

Cat. 24

AN 1930.409x. Clay tablet, 69×41×25 mm, entirely obliterated

Photo: *CDLI* P451563 (a.c.); description: NABU 2017/89

Paleographic date: –

Archaeological context: YW sounding, phase 4

Date of archaeological context: ED II

Contents: destroyed

Cat. 25 (Pl CXXIX.7)

AN 1930.409z. Clay tablet fragment, 34×27×17 mm

Photo: *CDLI* P451564 (a.c.); CUSAS 26, no. 13 = MC 14, pl. 23.4 (b.c.)

Drawing: CUSAS 26, no. 13

Paleographic date: ED IIIa

Archaeological context: YW sounding, phase 4

Date of archaeological context: ED II

Contents: Amulet in clay? Text undecipherable.

Cat. 26 (Pl. CXXVII.4a)

AN 1930.164. Seal impression on clay, 82×61×44 mm

Photo: Ashmolean Museum, University of Oxford; Buchanan Cat. 135e

Reference: Buchanan Cat. 135; Marchesi *apud* Woods 2005: 31, n.101; Rohn 2011, no. 4.

Paleographic date: ED IIIa (?)

Archaeological context: YW sounding, phase 4

Date of archaeological context: ED II

Contents: Personal name and profession.

[d]ub-sar ganun Scribe of the storehouse

[l]l-gu-ru_x (KU) Il-kurub

Cat. 27 (Pl. CXXVII.4c)

AN 1930.369. Seal impression on clay, 70×52×31 mm

Photo: Buchanan Cat. 135d

Reference: Buchanan Cat. 135; Marchesi *apud* Woods 2005: 31, n.101; Rohn 2011, no. 4;
Visicato 2000: 22–25

Paleographic date: ED IIIa

Context: YW sounding, phase 4
Date of archaeological context: ED II
Contents: Same as no. 26.

Cat. 28 (Pl. CXXVII.4b)

AN 1930.370a-b. Seal impression on clay, 65×55×21 mm
Photo: Buchanan Cat. 135
Reference: Buchanan Cat. 135; Marchesi *apud* Woods 2005: 31, n.101; Rohn 2011, no. 4;
Visicato 2000: 22-25
Paleographic date: ED IIIa
Context: YW sounding, phase 4
Date of archaeological context: ED II
Contents: Same as no. 26.

Cat. 29 (Pl. CXXVII.4d)

AN 1930.372. Seal impression on clay, not measured
Photo: Buchanan Cat. 135a
Reference: Buchanan Cat. 135; Marchesi *apud* Woods 2005: 31, n.101; Rohn 2011, no. 4;
Visicato 2000: 22-25
Paleographic date: ED IIIa
Context: YW sounding, phase 4
Date of archaeological context: ED II
Contents: Same as no. 26.

Cat. 30 (Pl. CXXVII.3)

AN 1930.408m. Seal impression on clay, 58×36×22 mm
Photo: (Buchanan Cat. 135), unpublished
Paleographic date: ED IIIa
Context: YW sounding, phase 4
Date of archaeological context: ED II
Contents: Same as no. 26.

Cat. 31 (Pl. CXXVII.2)

AN 1930.164, 1930.369-370a-b, 1930.732a. Seal impression on clay, 48×56×24 mm

Photo: Buchanan Cat. 135; drawing C. Cappuccino

Reference: Buchanan Cat. 135; Marchesi *apud* Woods 2005: 31, n.101; Rohn 2011: no. 4; Visicato 2000: 22-25

Paleographic date: ED IIIa

Context: YW sounding, phase 4

Date of archaeological context: ED II

Contents:

[g]anun.[zī]z(??)	storehouse of wheat (?)
IGI+DUB(=agrig)	supervisor
Il.ÚR(??).ma	Il-ur-ma(?)

Cat. 32 (Pl. CIV.1)

Formerly AN 1928.17, now IM –. Clay tablet fragment (~½ of tablet preserved), 50×44×12 mm

Photo: CUSAS 26, no. 19

Drawing: EK IV, pl. xlv 7

Paleographic dating: ED IIIa

Archaeological context: Y sounding, phase 10 (Red Stratum)

Date of archaeological context: ED IIIb

Contents: Distribution of bread. It is unusual to give workmen processed foodstuffs (*in casu*, baked bread) to eat, so perhaps non-residents, or a festival of some kind? The persons named in the text are scarcely the workmen themselves, rather foremen of gangs.

obv. i	50 ninda	50 loaves of bread
	lugal-má(SI)-gur ₈	Lugal-magure
	20 má-gur ₈ me-bára-si 'ninda'	20 loaves, Magure (and) Me- barage-si
	40 MU [.....]	40,
ii	20 muhaldim-gal 'ninda'	20 loaves, the Chief Cook ...
	70 ninda sag- ^r x'	70 loaves, Sag-x
	30 [...] x [...]	30, [.....]
	(break)	
iii	20+[x]	20+x,
	(break)	
rev. i	[gú]-an?-[šè] 240+[20]+25	In all, 285 loaves
	ninda guruš kú	for the workmen to eat

Cat. 33 (Pl. CIV.4)

AN 1928.428. Clay tablet, 59×58×29 mm, reverse almost entirely eaten by worms

Photo: *CDLI* P222324 (a.c.); AAICAB I/1, pl. ii (b.c., obv. only)

Drawing: EK IV, pl. xliii 3; AAICAB I/1, pl. 5

Paleographic dating: ED IIIa

Archaeological context: Y sounding, phase 10 (Red Stratum)

Date of archaeological context: ED IIIb

Contents: Account of some kind of flour

obv. i	300 X zì gur	300 gur of X-flour (= 72.000 liters!)
	^d inanna-GAR	^d inanna-GAR (deity or PN?)
	10 ur- ^d ša-ma-gan	10, Ur-Šam(a)kan
	10 ur-mes-lam	10, Ur-Meslam
ii	20 lú-ANŠE×ÉRIN sumun	20, the man of old yoked donkeys
	-----	-----
	12 lugal-UD	12, Lugal-UD
	10 ba-zi	10, Bazi
rev.	32 ba-zi	32, Bazi
	ʾgú-an-šè 360 ¹ + [34] In all, 394 [gur of X-flour]	

Cat. 34 (Pl. CXIV.9)

AN 1928.432. Clay tablet, 50×52×29 mm, curiously pitted

Photo: *CDLI* P222328 (a.c.)

Drawing: AAICAB I/1, pl. 7

Paleographic dating: ED IIIa

Archaeological context: Y sounding, phase 10 (Red Stratum)

Date of archaeological context: ED IIIb

Contents: Enormous quantities of barley.

obv.	(largely illegible, ii 1 mentions 790 <i>gur</i> of barley)	
rev. i	< > gu ₄ -apin	plow-oxen
	2 eden(?)
ii	gú-an-šè 4270+[x] še gur	In all, 100800+x liters of barley
	ʾé ¹ (?) [^d]inanna ʾx ¹ (?)	the Inanna Temple (?)

Cat. 35 (Pl. CIII.6)

AN 1930.360. Clay tablet, 122×120×37 mm, obverse mostly destroyed

Photo: *CDLI* P222936 (a.c.); CUSAS 26, no. 18 (b.c.)

Drawing: EK IV, pl. xliii 1; CUSAS 26, no. 18

Paleographic dating: ED IIIa

Archaeological context: Y sounding, phase 10 (Red Stratum)

Date of archaeological context: ED IIIb

Contents: Large roster of workmen and professionals, but exact character unknown.

Cat. 36 (Pl. CIV.5)

AN 1928.434. Clay tablet, 55×52×34 mm, reverse blank

Photo: *CDLI* P222330 (a.c.); AAICAB I/1, pl. ii (b.c., obv. only)

Drawing EK IV, pl. xliii 2; AAICAB I/1, pl. 7

Paleographic dating: ED IIIa

Archaeological context: Trench Z, phase 11

Date of archaeological context: ED IIIb/Akk

Contents: Workmen and their officers, plus amounts of barley, purpose unclear.

obv. i	180 guruš 1 gur	180 workmen, 1 gur
	14 ugula 1 gur	14 foremen, 1 gur
	2 nu-banda ₃ 1 gur	2 ‘captains’, 1 gur
	gú-bar ^{ki}	in Gubar (a place name)
ii	300 guruš 1 gur	300 workmen, 1 gur
	20 ugula 1 gur	20 foremen, 1 gur
	2 nu-banda ₃ 1 gur	2 ‘captains’, 1 gur
	AN.GU.Ú.SIG ₇	in A.

Remarks: AN.GU.Ú.SIG₇ occurs as a place name in IAS 493 ii 1, from Abu Salabikh.

Cat. 37 (Pl. CII.6)

AN 1928.464b. Cylinder seal

Photo: Buchanan Cat. 339, Martin 1940: no. 3; *CDLI* Seals 006794

Drawing: C. Cappuccino

Paleographic date: ED IIIb – ES

Archaeological context: Y sounding, phase 10 (Red Stratum)

Date of archaeological context: ED IIIb

Contents: Interpretation unknown. Cf. *ì-lum-KA.NI*, BIN 8, 36:17, and AN.KA.IR, CU SAS 35, 279 o. 8. For the form of KA, compare Biggs 1973, 45 fig. 4, middle columns.

ì-lum-KA.NI/IR

Cat. 38 (Pl. CIV.2)

AN 1930.173a. Clay tablet, 37×38×20 mm

Photo *CDLI* P215351 (a.c.); MAD 5, no. 25 (b.c.)

Paleographic date: ED IIIb–ES

Archaeological context: Y sounding, phase 10 (Red Stratum)

Date of archaeological context: ED IIIb

Contents: Distribution(?) of sheep

Cat. 39 (Pl. CIV.3)

AN 1930.173b. Round clay tablet, 47×48×35 mm

Photo: *CDLI* P215352 (a.c.); MAD 5, no. 26 (b.c.)

Drawing: AAICAB 1/1, pl. 9

Paleographic dating: ED IIIb–ES

Archaeological context: Y sounding, phase 10 (Red Stratum)

Date of archaeological context: ED IIIb

Contents: Distribution(?) of sheep in small numbers.

Cat. 40 (Pl. CIV.6)

AN 1930.173c. Clay tablet fragment, 57×32×19 mm

Photo *CDLI* P222942 (a.c.); MAD 5, no. 27 (b.c.)

Paleographic dating: –

Archaeological context: Y sounding, phase 10 (Red Stratum)

Date of archaeological context: ED IIIb

Contents: Only one sign *é* preserved.

Cat. 41 (Pl. CXLI.4)

AN 1930.154. “Kudurru” fragment, white limestone, 130×124×75 mm

Photo: OIP 104, 65, no. 16b = AAICAB I/2, pls. xxxv–xxxvi + unpubl. exp. ph. 1929–30, 2

Drawing: OIP 104, 65, no. 16b; AAICAB I/2, pl. 172

Paleographic date: ED IIIb–ES
 Archaeological context: YWN sounding, phase 2
 Date of archaeological context: ED IIIb/Akk
 Contents: Multiple land sale transactions.

Cat. 42 (Pl. CXLI.5)

AN 1930.178a. “Kudurru”(?) fragment, white limestone, 57×39×21 mm
 Photo: OIP 104, no. 16e = *CDLI* P220625 = AAICAB I/2, pl. xxxix
 Drawing OIP 104, no.16e; AAICAB I/2, pl. 174
 Paleographic dating: ED IIIb–ES
 Archaeological context: YWN sounding, phase 2
 Date of archaeological context: ED IIIb/Akk
 Contents: indeterminable, presumably multiple land sale transactions

Cat. 43 (Pl. CXLI.6)

AN 1930.178b. “Kudurru” fragment, white limestone, 47×38×20 mm
 Photo: OIP 104, no. 16f = *CDLI* P220626 = AAICAB I/2, pl. xxxix
 Drawing: OIP 104, no. 16f; AAICAB I/2, pl. 174
 Paleographic dating: ED IIIb–ES
 Archaeological context: YWN sounding, phase 2
 Date of archaeological context: ED IIIb/Akk
 Contents: indeterminable, presumably multiple land sale transactions

Cat. 44 (Pl CXXXII.1)

AN 1930.180. “Kudurru” fragment, white limestone, 112×90×28 mm
 Photo: OIP 104, no. 16i = *CDLI* P220629
 Drawing: OIP 104, no. 16i
 Paleographic dating: ED IIIb–ES
 Archaeological context: YW sounding, phase 8
 Date of archaeological context: ED IIIb/Akk
 Contents: Presumably multiple land sale transactions.

Cat. 45 (Pl. CXXXII.2)

AN 1931.162. “Kudurru” fragment, white limestone, 38×34×24 mm

Photo: OIP 104, no. 16j = *CDLI* P220630 = AAICAB I/2, pl. xxxix

Drawing: OIP 104, no. 16j; AAICAB I/2, pl. 174

Paleographic dating: ED IIIb–ES

Archaeological context: YW sounding, phase 8

Date of archaeological context: ED IIIb/Akk

Contents: Presumably multiple land sale transactions

Cat. 46 (Pl. CXXXIX.5)

AN 1930.121. Cylinder seal, quartz, with one gold cap, 29×18 mm

Photo: Buchanan Cat. 367

Drawing: C. Cappuccino

Paleographic dating: ES–MS

Archaeological context: YWN sounding, phase 2

Date of archaeological context: ED IIIb/Akk

Reference: Buchanan Cat. 367; van Buren 1951: 47; Rohn 2011: 129

Contents:

dingir-gu ₂	Ilum-kišadi
se ₁₁ -da-um	(a title)

Cat. 47 (Pl. CXL.3)

AN 1930.559b. Clay tablet, oval, 37×31×12 mm

Photo: *CDLI* P215371 (a.c.) = MAD 5, no. 47 (b.c.) + unpubl. exp. ph. 1930–31, 48

Paleographic dating: ES–MS

Archaeological context: YWN sounding, phase 2

Date of archaeological context: ED IIIb/Akk

Contents: Administrative, unidentifiable.

Remarks: This tablet seems to be written in a late form of the local variety of cuneiform attested since the Fara period at Kish (see CUSAS 26, p. 18) which is largely unreadable yet.

Cat. 48 (Pl. CXV.11)

AN 1929.160. Clay tablet, 73×50×22 mm

Photo: *CDLI* P213213 (a.c.); MAD 5, pl. xlv no. 2 (b.c.)

Drawing: EK III, pl. xi; FAOS 19, Tf. 8, Ki 1

Paleographic dating: CS

Archaeological context: Trench Z, phase 11

Date of archaeological context: ED IIIb/Akk

Contents: Private letter. Translations: FAOS 19, 141 f; HANES 5, 166.

Cat. 49

AN 1930.404a. Clay tablet, 32×38×20 mm

Photo: *CDLI* P215368 (a.c.); MAD 5, no. 44 (b.c.)

Paleographic dating: CS

Archaeological context: YWN sounding, phase 2

Date of archaeological context: ED IIIb/Akk

Contents: Primary record of expenditure of barley. The text is laconic in the extreme. Presumably, it was clear to the ancient accountant, but not to us.

obv.	0.0.3 <i>te-mi-tum</i>	30 liters (of barley?), Temitum
	0.0.4 <i>šah-niga</i>	40 liters, the fattened pig(s)
	0.0.2 <i>kaš</i>	20 liters (for brewing) beer

rev.	<i>iti ti-ru</i>	Month Tiru
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Remarks: Temitum is a woman's name.

Cat. 50 (Pl. CXL.1)

AN 1930.406. Clay tablet, 91×81×20 mm

Photo: *CDLI* P215369 (a.c.); MAD 5, no. 45 (b.c.) + pl. xlv 45 = exp. phs. 1930-31, 30 and 31

Paleographic dating: CS

Archaeological context: YWN sounding, phase 2

Date of archaeological context: ED IIIb/Akk

Contents: Workmen, dead or HAL with their foremen, for one year in a place called Šitul-nisu. Gelb, MAD 5, no. 45, translated HAL as “fugitive”, probably as an abbreviation of *halqum*.

Cat. 51 (Pl. CXL.2)

AN 1930.559a. Clay tablet, 39×32×12 mm

Photo: *CDLI* P215370 (a.c.); MAD 5, no. 46 (b.c.)

Paleographic dating: CS

Archaeological context: YWN sounding, phase 2

Date of archaeological context: ED IIIb/Akk

Contents: Note on three workmen and their status. The exact meaning of *ṣabium* (rev. 4) is not clear, as so much else when you ask, “what does this actually mean?” rather than opting for some conventional translation.

Cat. 52 (Pl. CXL.4)

AN 1930.559c. Clay tablet fragment, 42×45×22 mm

Photo: CDLI P215372 (a.c.); MAD 5, no. 48 (b.c.)

Paleographic dating: CS

Archaeological context: YWN sounding, phase 2

Date of archaeological context: ED IIIb/Akk

Contents: Witnessed document of purchase of land.

obv.	(some lines lost)	[amount of silver]
	[a]- <i>na</i> šám aša ₅	to buy the field,
	ši <i>za-bí-a</i>	that of Šabiya,
	é-gi ₄ -a	Kallatum
	<i>da-áš-ku-ul</i>	paid.
	<i>iš-ku-dingir</i>	Yiskun-ilum
	(rest of obv., and beg. of reverse, about 10–15 lines, lost)	
rev.	[dumu]-lú/lúgal	son of PN;
	1 <i>ì-lí-iš-da-gal</i>	1 Ilis-takal
	dumu dingir- <i>su-kal</i>	son of IIsu-dan;
	1 <i>li-bur-me-šum</i>	1 L.
	[.....] sag	[profession?]
	(a few lines lost)
edge	[šu-nigín] 6 abba ₂ in kiš ^[ki]	In all 6 witnesses, in Kish.

Cat. 53 (Pl. CXL.5)

AN 1930.559d. Clay tablet, 59×33×12 mm

Photo: CDLI P215373 (a.c.); MAD 5, no. 49 (b.c.)

Paleographic dating: CS

Archaeological context: YWN sounding, phase 2

Date of archaeological context: ED IIIb/Akk

Contents: List of men with filiation, purpose unknown.

Cat. 54 (Pl. CXLI.1)

AN 1930.559e. Clay tablet fragment (~1/3 of original), 35×35×12 mm, rev. blank

Photo: CDLI P215374 (a.c.); MAD 5, no. 50 (b.c.)

Paleographic dating: CS

Archaeological context: YWN sounding, phase 2

Date of archaeological context: ED IIIb/Akk

Contents: List of women with filiation, purpose unknown.

Cat. 55 (Pl. CXLI.3)

AN 1930.559f. Clay tablet fragment (~½ of original), 55×49×22 mm, rev. blank

Photo: CDLI P215375 (a.c.); MAD 5, no. 51 (b.c.)

Paleographic dating: CS

Archaeological context: YWN sounding, phase 2

Date of archaeological context: ED IIIb/Akk

Contents: List of men, purpose unknown.

Cat. 56 (Pl. CXLI.2)

AN 1931.144a. Clay tablet, 28×32×22 mm

Photo: CDLI P215386 (a.c.); MAD 5, no. 63 (b.c.) + unpubl. exp. ph. 1930–31, 87

Paleographic dating: CS

Archaeological context: YWN sounding, phase 2

Date of archaeological context: ED IIIb/Akk

Contents: Wool and lambs.

Cat. 57 (Pl. CXXXII.3)

AN 1931.146. Clay tablet, oval, 28×32×22 mm

Photo: CDLI P222338 (a.c.) + unpubl. exp. ph. 1930–31, 85 (rev. only)

Drawing: AAICAB I/1, pl. 9

Paleographic dating: Uncertain, the tablet shape indicates ED IIIb to MS.

Archaeological context: YW sounding, phase 8. “YW1” written on tablet in the exp. ph. 1930–31, 85; incised twice “W 10”.

Date of archaeological context: ED IIIb/Akk

Contents: Uncertain. The text is written in the undeciphered local variety of cuneiform.

Cat. 58 (Pl. CXXXVII.8)

AN 1931.145. Clay tablet fragment, 37×55×23 mm

Photo: *CDLI* P451600 (a.c.); NABU 2017/89, no. 1 = exp. ph. 1930-31, 87 (rev. only)

Drawing: NABU 2017/89, no. 1

Paleographic date: ED IIIa

Archaeological context: “YWN 03” incised on tablet. Possibly interpreted as YWN phase 1, although very doubtful.

Date of archaeological context: ED IIIb

Contents: Lexical, list of geographical names.

APPENDIX 2

NOTES ON THE STRATIGRAPHY OF TELL A AT KISH

Two more areas in the southern part of Tell Ingharra have given substantial evidence of the Early Dynastic Kish. The integration of these areas into the general discourse is useful to provide a more complete picture on the development of the urban layout at east Kish between the 4th and 3rd millennium BCE. In this appendix I briefly discuss the results of the excavations in order to propose a stratigraphic sequence to be connected to the rest of the 4th and 3rd millennium BCE evidence from Tell Ingharra/Kish. This reassessment also made possible to include the stratified pottery assemblage from Tell A in the chronological study (Appendix 3). Any contextual analysis of Palace A or the burial customs from Cemetery A are beyond the scope of this publication.

On Tell A, the excavation revealed an extended cemetery covering the massive Palace A (Mackay 1925; 1929). Despite the general stratigraphic reassessment provided by previous studies (Gibson 1972a; Moorey 1970; 1978), a more refined hypothesis based on Mackay's notes is here proposed. As for the 3rd millennium BCE, this study recognises three phases, all dating between the ED IIIa and the early Akkadian periods. The earliest evidence (phase 1) was reached in a few soundings and did not provide sufficient architectural data (Mackay 1929: 149; Moorey 1978: 56). The massive multi-phase complex known as Palace A (Pl. CXLV.1, Phase 2a-b), built somewhere around the middle or late ED IIIa (Moorey 1970: 104), overlay and cut these early layers. According to both the excavators (Mackay 1929: 94) and the following studies (Gibson 1972a: 78-79; Moorey 1970; 1978: 55-56;) it is possible to distinguish at least three structural sub-phases. The earliest one is represented by the rectangular double-walled building (Rooms 1-31, Phase 2a) to which a monumental entrance and a few rooms are added to the east (Rooms 32-38, Phase 2b). The third and last portion of Palace A is the southern Annex with the pillared portico (Rooms 39-60, Phase 2c).²⁵⁹ This build-

²⁵⁹ According to the unpublished cards, three vessels (excavation no. 1646d-f) come from a "*second period pavement*" in room 53. This could indicate the presence of further structural subphase of the palace. The earlier would be therefore labeled as 2c1 while this second phase as 2c2. However, due to the lack of additional stratigraphic data, this remains an hypothesis.

ing remained in use until its destruction at the end of the ED IIIb, when the entire area was partially reoccupied by scattered domestic buildings and a large graveyard (Phase 3) for some time (Breniquet 1984; Gibson 1972a; Moorey 1970; 1978; Whelan 1978). As pointed out by Moorey (1978: 64), the lack of plans and the patchy and sometimes conflicting information on both the traces of buildings and the graves of Cemetery A do not allow to understand whether the buildings came first, then followed shortly after by the graveyard (which would split Phase 3 at best in 3a and 3b), or the area of Tell A was occupied by both at the same time. Here it has been preferred to tentatively keep them together in a single phase.

To the southwest, another area called JA which was excavated by a Japanese expedition between 1980s and 1990s revealed the remains of an ED building in level 2 (Matsumoto 1991: 280-283). This was interpreted by the archaeologists as part of a temple, probably contemporary with Palace A (Pl. CXLV.1-2). Although this last interpretation needs further investigation before being fully embraced, the pottery assemblage confirms the ED IIIa-b dating (Matsumoto 1991: fig. 32), while a radiocarbon date (Matsumoto 1991: 283) places the building just before the post-destruction phase of which Cemetery A is part (2916 BC (95.4%) 2461 BCE). In addition to this, layers of ashes and broken mudbricks were found in the southern part of the building in connection with many smashed pottery sherds lying just above the floors. This could be interpreted as evidence of a violent destruction, perhaps connected to the other destruction layers attested at the site, although it is hard to say conclusively. However, the combined data presented above strongly support this interpretation. Therefore it is probable, although not conclusive, that the building is contemporary with one (probably the last) of Palace A phases.

APPENDIX 3

THE POTTERY TYPES

The study of the stratified pottery assemblage at Kish has allowed to identify five macro-chronological groups (hereafter Pg = pottery group). In some cases it has been possible to establish the presence of sub-groups (Pg 2a and 2b as well as Pg 5a, Pg 5b and Pg 5c), although due to both the quantity and quality of the data these further subdivisions must be considered as tentative. The stratigraphic/chronological range for each macro-chronological group may vary from one or two archaeological phases (Pg 4) thus showing a rather well defined and restricted pattern, up to eight or nine phases (Pg 3), indicating a long period of use.

As regards the number of ceramic types for each group, apart from Pg 1, represented by a single ceramic type, the amount of types varies from 11-12 (Pg 3 and Pg 5) up to 29-30 (Pg 4). Nine ceramic types (2, 4, 14, 23, 24, 43, 47, 56 and 71) out of 84 do not show a significant pattern, and are therefore excluded from the analysis. In certain cases, some miscellaneous shapes (Type MISC) that were stratigraphically connected to a particular Pg, are included in the discussion.

The pottery types template (see below) has been designed in order to provide four groups of information:

1. On the upper left there are one or two drawings of the most diagnostic shapes of each type.
2. On the upper right details on production techniques, surface treatments and decorations as well as dimensions (volume in litres) are provided.²⁶⁰
3. In the centre of the template, a chronostratigraphy of the area discussed in the text is provided together with the occurrence of specimens in each structural phase.
4. At the bottom of the form parallels with other contemporary contexts from central and southern Mesopotamian sites are presented.

²⁶⁰ Abbreviations for the types of contexts are: F = funerary context, D = domestic context, P = public context (meaning both palatial and religious). Abbreviation for fabric colors are: I = inner, O = outer, I/O = inner and outer, C = core. For abbreviations for inclusions size and frequency see fig. 2.1.

Pottery group 1 (Pg 1)

The first group (Pg 1) is characterized by a single ceramic type (60) from the earliest phases of the Y sounding (Phases 1a to 3a) considered in this study (Pl. CXLVI). The carinated jars with geometric pattern decoration (Type 60) show a gradual decrease from phase 1a-b to Phase 3a.²⁶¹ Such vessels are generally well fired with a moderate percentage of small or medium sized (from <0.5 to almost 1 mm) vegetal or mineral inclusions (3–10%). Firing is quite homogeneous (10YR 7/3, 10YR 8/2). The technological data from type 60 partially match the assemblages of central Mesopotamia like those from Jemdet Nasr (Matthews 1989: 238; Matthews 1990: 33) or Nippur (Wilson 1986), where fabrics are generally high or medium fired with small mineral inclusions. The decoration of carinated jars is characterized by red and black geometric painted patterns on a white slip base. These motifs are widely attested in central and southern Mesopotamia, like at Jemdet Nasr (Matthews 1992: fig. 3.10), Tell Uqair (Lloyd and Safar 1943: pl. 22.5–7), Nippur (Wilson 1986: fig. 10.2–4), the Diyala region (Delougaz 1952: pl. 155, B. 513.170) and Uruk (Lenzen 1963: pl. 33a, 33d).²⁶²

Other noteworthy miscellaneous types from this phase include tall jars with out-turned rounded or out-turned ledged rims, or the stands that can be paralleled with the assemblage from the near Jemdet Nasr (Matthews 1992: 9, figs. 3.2, 3.6, 7.6). These vessels have a coarse fabric consisting of mineral and vegetal inclusions of large dimensions (mainly 1–2 mm) and frequency (10–20% or more than 20%), probably reflecting their storage function.

Following Matthews (1992: 17), Pg 1 vessels (Type 60 painted jars, tall jars and stands) may be ascribed to the middle-late Jemdet Nasr period. Indeed, no Late Uruk types seem to be present in the assemblage, while there are closer connections with the subsequent ED I period. At Nippur (Inanna XIV–XII), the number of painted shapes is amply attested in level XIV and decreases in the following strata (Wilson 1986). A similar pattern can be also observed in the Diyala assemblage. In the deep soundings of Khafajah (Delougaz 1952: pls. 35–36) painted pottery emerges in the middle-late JN levels (From at least Sin II onwards). The coexistence of some painted vessels with closed unpainted storage shapes is also attested in the middle-late JN levels of the Tell Asmar soundings (Delougaz 1952: pls. 63–64).

Pottery group 2 (Pg 2)

The second group is characterized by 189 specimens grouped in 16 ceramic types mainly attested between Macro-phases 3b and 6 from the Y and YW soundings (Pl. CXLVI). About half of the pottery types (Types 12, 17, 52, 68, 69, 74, 76 and 79) show strong continuity

261 A single type 60 sherd found in phase 4a can be considered as residual.

262 According to Matthews (1992: 24) the Jemdet Nasr material culture should be geographically restricted to central Mesopotamia, including Jemdet Nasr, Kish and Nippur areas, the Diyala and the Hamrin regions (see also Thuesen 1990).

between Macro-phases 3b and 6, while the remaining types can be divided into an early sub-group mostly attested from Macro-phase 3b to 4a-b (Types 1, 16, 21, 25, 48) and a later sub-group from Macro-phase 4c to 6 (Types 33, 51, 75). It is thus possible to identify at least two major sub-phases within which are three sub-groups (2a-c): Pg 2a between Macro-phases 3b and 4a-b, Pg 2b attested during the whole period (Macro-phases 3b to 6) and Pg 2c from Macro-phase 4c to 6. Therefore, Phase 4a-b may represent a transitional period.

Pg 2 mostly consists of open shapes, such as small shallow dishes with flat base (Type 1), large bowls with out-turned rim and ring base (Type 16), bowls with grooved wall (Type 21) and solid footed goblets (hereafter SFG, Type 25). The only closed shape attested is the miniature jar with a triangular rim and flat base (Type 48). Among these forms, some are typical of domestic (Type 16) or funerary contexts (Type 1), while in other cases the distribution is rather homogeneous (Types 25 and 48). They are well fired simple ware vessels with generally whitish (10YR 8/3-4) or reddish (5YR 6/6) fabric colours. In some cases they have whitish slip surface treatments (Types 1 and 48), even though no decorations are attested. From a chronological point of view, this group represents the earliest ED assemblage at Kish. The hallmark of this phase is the solid footed goblet (Type 25), widely diffused in ED I central and southern Mesopotamia. In the Diyala region, different types of solid footed goblets (Delougaz 1952: pl. 148, B.076.700, B.077.700a-b) are generally attested during the entire ED I period. However, the concentration of SFG in transitional JN-ED I levels of the temple of Samuṣ (levels V-VI), as well as in level 11 in the Houses of Khafajah (Benati in press; Delougaz 1952), suggests an early ED I date for their appearance. At Abu Salabikh, SFG have been retrieved in early ED I contexts on both the West Mound and the North-East Mound (Moon 1987: 17, figs. 97-99).

For the other shapes, it is more difficult to define a precise chronological horizon. Among these, the small shallow dishes with flat base (Type 1) can be compared with the ones from both Abu Salabikh (Moon 1987: 4, fig. 9) and from later contexts of the Diyala region (Delougaz 1952: pl. 146, B.001.200 a). Similarly, miniature jars with triangular rim and flat base (Type 48) may pertain to a later horizon (perhaps late ED I), based on comparisons with Abu Salabikh (Moon 1987: 66, fig. 318).

Other miscellaneous forms (Type MISC) stratigraphically associated to this sub-group are the large bowl with plain rim and applied rope on the wall, and the carinated small jar with high neck and pointed base. The first one is attested in Phase 3b and has parallels with various ED I contexts at Abu Salabikh (Moon 1987: 21, no. 115, 31, no. 161) and Fara (Martin 1988: 181, no. 53). The small carinated jars seem to be an isolated local shape restricted to Phase 4.

The sub-group 2b includes two open shapes (Types 12 and 17) and several closed shapes (Types 52, 68, 69, 74, 76 and 79).

Open vessels include the wide open conical bowl with a rounded base (Type 12) and a particular type of bowl (probably also used as a stand) with a pattern of incised arrow-shaped decoration (Type 17). Both types have similar fabrics and are high fired with a low or medium frequency (<3 to 10%) of small mineral inclusions (<0.5 mm). As for the surface treatment, a good amount of type 12 and type 17 has whitish slip. Bowls or stands (Type 17) mainly occur during the ED I in central Mesopotamia, such as at Fara (Martin 1988: 168, fig. 41.4) and Khafajah (Delougaz 1952: pl. 168, C.014.300, C.014.310). Type 12 instead seems to have a much broader chronological range of use. In the Diyala region, for example, the wide open conical bowls with rounded bases are attested up to the ED III (Delougaz 1952: pl. 168, C.002.500).

Among the closed shapes are certain diagnostic types attested at regional level, such as the jar with a simple handle (Type 52), the hole mouth jar with applied and incised decoration (Type 68) and the reserved slip jar (Type 69). Other less diagnostic types are the spouted jar with rounded wall and flat base (Type 74), the carinated spouted jar with rounded base (Type 76) and the high carinated lid (Type 79).

From a contextual perspective, it is interesting to note that types 52, 74 and 76 are more popular in funerary contexts, while others types, like 68 and 69 have been generally recovered in domestic contexts.

Types 68 and 69 show a high variety of fabrics in terms of both firing and inclusions (vegetal and mineral). The same can be said for the white slip surface treatment, which is shared by all types.

Types 52, 68 and 69 can be considered markers of the period, the former concerning the later phase (Phase 6), while the latter regarding the central ones (Phases 4 and 5). These trends are also attested in neighbouring sites such as Abu Salabikh, where jars with simple handles are documented from the ED I-II phases (Moon 1987: 151-152, figs. 711-715) or at Fara, where type 68 is present from the early ED I levels (Martin 1988: 181, figs. 64-65).

The chronological and quantitative ranges of spouted jars type 74 are also well defined, although this shape may not be considered as wholly distinctive of the period.

Three different types of jars (Types 33, 51, 75) are part of the sub-group 2c. Types 33 and 51 have coarse fabrics with a medium frequency (3-10%) of small or medium-size mineral inclusions (<0.5 mm to 1 mm), while firing tends to be homogeneous (7.5YR 7/6, 6/8). Type 75 has a typical storage ware fabric, characterized by a high dimension (<0.5 mm to 1 mm) and high frequency (<3% to 20%) of mineral inclusions.

Type 51 is a miniature version of type 52 (Phases 4 and 5). However, this may be considered a random pattern at Kish given the presence of this type in ED I and ED II contexts at Fara (Martin, 1988: 181, 68) and Tell Asmar (Delougaz 1952: pl. 71, A.525.273). Types 75 and 33 seem to be slightly earlier than type 51 and are mostly clustered in Phase 4.

The frequency of shapes with white slip and reserved white slip surface treatment belonging to groups 2a-c is also significant. However, given the impossibility to describe all the 189 specimens and due to the presence of numerous typologized vessels, a statistically significant analysis cannot be produced. Therefore, the aim is to show a relevant pattern, which requires external comparisons in order to be confirmed or rejected. White slip and reserved white slip show a gradual increase from phase 3b to 3c, reaching the highest occurrence in Phase 4a-b where the quantity is doubled (Pl. CXLVI). Toward the end of Phase 4c and in the following phases, white slip and reserved slip go back to Phase 3 levels, and gradually decrease until they completely disappear. Other surface treatments, such as burnishing or red slip, are very poorly attested and do not allow to identify a precise pattern of occurrence.

Pottery group 3 (Pg 3)

The 13 types belonging to Pg 3 are (262 specimens) somewhat evenly distributed over a long stratigraphic sequence spanning from Phase 3b to Phase 11²⁶³ (Pl. CXLVII). These types include the mass-produced open conical bowls (Type 13), the small jars with out-turned rims and flat bases (Type 32) and certain types of jars with triangular rims (Type 49, 50). From a stratigraphic and chronological point of view, Pg 3 types coexist with Pg 2 and Pg 4 as well as partially with Pg 5.

Despite the impossibility to distinguish any sub-group based on the stratigraphic attribution, we can observe five slightly earlier types (Types 13, 32, 49, 50 and 77) attested throughout the aforementioned chronological period, while eight types (Types 4, 35, 37, 46, 53, 59, 73 and 80) emerging as early as phase 3c.

There are only two types of open shapes, the open conical bowls with flat bases (Type 13) and the box (Type 4). The first one has been extensively analyzed by previous site- or regional-oriented studies, on morphological, chronological or functional bases (Gruber 2015; Martin 1982; 1988; Nissen 1970; Pollock 1990; Wright 1969). The comparative analysis recently carried out by Gruber (2015) on the open conical bowls from different sites of central and southern Mesopotamia emphasized the presence of two main types according to their size, confirming a pattern already hypothesized by others (Martin 1982: 154-56, 172-3, tables 3-4; Nissen 1970: 132-142; Wright 1969: 76-77, table 15). Both types appear in the ED I²⁶⁴ although a first group, taller and with a smaller diameter (Type 13 at Kish), is quantitatively more attested. This is then gradually replaced by the second type (Type 11, Pg 4 at Kish), here labeled as shallow open conical bowls with flat bases, which continues through the Akkadian period (Gruber 2015: 162-163, fig. 12). The trend is slightly different at Kish, with the open

²⁶³ Only 3 sherds out of 251 belonging to types 4, 37 and 50, have been found in later phases.

²⁶⁴ See in particular the study by H. Martin (1982: 154-56, 172-3, tables 3-4) on the samples from Fara, Tell al-'Ubaid and the Diyala region.

conical bowl (Type 13) disappearing only at the end of Phase 11 and the shallow bowl (Type 11) being attested only for a short period from Phase 8.

Little can be said about fabrics and surface treatments, which show no clear pattern. The former are generally reddish with a low frequency (<3%) of small or medium-sized (<0.5 mm to 1 mm) inclusions. Types 11 and 13 can be ascribed to the so-called “mass-produced types” (Jones 1996; Potts 1997: 150–153; Pollock, 2007: 29–30) the function of which has been largely speculated (Pollock, 2007: 28–29) from rations of barley to bread mold, or from beer containers to other types of drinks.

Two main shapes can be distinguished within Pg 3 closed shapes: jars or bottles (Types 32, 35, 37, 46, 49, 50, 59) and spouted jars (Types 73 and 77).

Among these, there are two variants of the jar with a triangular rim, one smaller with a flat base (Type 49) and the other larger with a ring bases (Type 50). Both of them are typical of funerary contexts (over 80%) and have a generally standardized shape and size, with two main volume ranges attested, the smaller one from 0.16 to 0.35 l, while the bigger one from 1.90 to 2.69 l. These forms are found in ED I and ED II levels at Fara (Martin 1988: 181, fig. 69) and Abu Salabikh (Moon 1987: 65, fig. 315), a trend confirmed by the quantitative occurrence of the Kish types that reach their peak in Phases 4 and 6.

There are also various types of small jars with out-turned rim and flat base (Type 32), or with out-turned rim and rounded or pointed base (Type 37), or even small miniature versions with plain rim and flat base (Type 35). The first two types show a strong similarity from both the dimensional (the volume ranging between 0.20–0.30 and 0.70 l) and the technological point of view (showing remarkable differences of inclusion frequency and size). However, the data related to the context and chronology are slightly different. Indeed, one third of type 32 shapes are attested in domestic contexts while the rest mostly comes from burials, with type 37 almost entirely restricted to the funerary sphere (85.7%). From a chronological point of view, type 37 seems to be more archaic (Phases 4 and 6), while type 32 is typical of the later phases. Type 59 is restricted to funerary contexts (Chariot burial) from Phase 8. Elsewhere in the region large storage jars with vertical rim, rounded wall and flat base have been found in transitional ED III to Akk domestic contexts (McMahon 2006: Pl. 98.1–9; Gibson 1972c: fig. 44, B7.23).

Two types of spouted jars (Types 73 and 77) are also popular in funerary contexts (from 75 to 100% of cases). Both types have high firing, reddish (5YR 5/6) to brownish (7.5YR 7/4, 7/8) fabric colours and small or medium size inclusions (<0.5 mm to 1 mm), with medium frequency (<3% to 10%). It is unlikely that these shapes are standardized, due to the morphological variability of the volume (in particular as regards type 77).

From the chronological point of view, these forms correspond to ED II horizons at Abu Salabikh (Moon 1987: 143-144, no. 690-692) and in the Diyala region (Delougaz 1952: pls. 192-193, D.515.362, D.525.362).

Pottery group 4 (Pg 4)

Pg 4 includes a large ceramic horizon (235 specimens) attested within a short time span and mainly related to the funerary contexts of the cemetery A. About one third of the types identified (34) have been assigned to this group and the majority of them occur during phase 11 only.

According to the stratigraphic evidence, it is possible to distinguish two sub-groups, one already attested from Phases 9 and 10 (4a), while the second restricted to Phase 11 only (4b).²⁶⁵ This distinction is relevant for two reasons:

1. It helps to clarify the chronology of this short but critical phase of occupation at the site.
2. It allows us to hypothesize the presence of multiple phases in the cemetery A during its short period of use.

Sub-group 4a is composed of ten types (Types 8, 10, 11, 28, 29, 44, 61, 65, 70 and 82) (Pl. CXLVIII). Among these, four types correspond to open forms: the conical bowls with pointed base (Type 8), the so-called shallow open conical bowls with flat base (Type 11), the moulded bowls (Type 10), and the stemmed dishes with decorated rim and base (Type 28). While no information is available for type 8, the other three types are very different in terms of manufacturing technology and function. Type 11 has a coarse fabric with a low to middle (<3 % to 10%) frequency of both vegetal and mineral inclusions. Fabric can be medium to high fired, with a reddish core (5YR 7-6/6) and a brownish inner/outer surface (5YR 7/4), while vessels are generally hand and wheel made. The function of the shallow bowls was rather utilitarian as everyday mass-produced food or drink containers (see above Pg 3, type 13) and they are attested in every type of context. Type 10 is a rather standardized production, with generally a high fired fine ware with reddish fabric (5YR 5/6) and few small mineral inclusions (<0.5 mm and <3 %). They are typical of domestic as well as public contexts, a trend also confirmed by evidence from Abu Salabikh (Moon 1987: 26-27). A particular feature of this type is the external applied decoration characterized by a geometric design. Similar specimens are well attested from ED III until the Akkadian period in central Mesopotamia like at Abu Salabikh (Moon 1987: 26, figs. 140-147) and Tell Asmar (Delougaz 1952: pl. 147, B.041.710).

Stemmed dishes with decorated rim and base (Type 28) represent the most elaborate type of three identified (Types 26, 27, 28). They have engraved geometric pattern decoration on

²⁶⁵ Only types 39 and 58 are attested from Phase 9 to 11. Therefore these types have been included in Pg 4, but not considered in the analysis.

the edge of the foot and are characterized by a fine fabric with few mineral inclusions. This type is attested throughout the ED IIIa-b in central and southern Mesopotamia (Moon 1982), such as at Abu Salabikh (Moon 1987: 8-53, figs. 234-255), in the Diyala region (Delougaz 1952: pl. 174, C.365.810cd) and at Ur (Moon 1982: 59-61, figs. 53-59).

With regard to closed shapes, there is a large group of small and medium-size jars among which type 29, the so-called Syrian bottles, is of particular interest (Matthews 1997: 51-52). This form is attested in three different variants at Kish, all stratigraphically assignable to Pg 4. It is characterized by a fine ware with high fired reddish fabric (5YR 7/6) and low mineral inclusions (<0.5 mm, <3 %). This shape is attested from the ED III onwards in both upper and lower Mesopotamia. In the north, Syrian bottles represent a marker of the ED III – early Akkadian phases in area SS at Tell Brak (Oates and Oates 1991: pl. 30e) and at Tell Khuera (Kühne 1976: pl. 65), among others. Parallels from central and southern Mesopotamia are found in ED III Abu Salabikh (Moon 1987: 67-68, figs. 323-324) and Ur (Woolley 1934: pl. 257, fig. 106).

Further diagnostic types from group 4a include the carinated jar with an out-turned rim and ring base (Type 65), the high carinated jar with a ring base (Type 61) and the small jar with a pouring lip and flat base (Type 70). All these are highly standardized shapes typical of funerary contexts (from 77% of type 70 to 100% of type 65) and characterized by fine ware fabrics. They are all very common in the region, in particular during the ED IIIa-b and in some cases attested until the late Akkadian period.

Sub-group 4b includes 22 ceramic types, ten open shapes and twelve closed shapes, the latter attested only during Phase 11 and mainly from cemetery A (Pl. CXLVIII). Open shapes include a carinated dish with a flat or rounded base (Type 3), box/dishes with flat base (Type 5), braziers (Type 6), inturned rim bowls (Type 7), two types of large bowls, one with a ring base (type 15), and the other with a ridge on the wall (Type 20), a carinated bowl with an out-turned rim (Type 18), a stand with shallow top dish (Type 22) and two sub-types of stemmed dish (Types 26 and 27). Most of these types may be equally associated to funerary or domestic contexts (such as Types 6, 7), or may be typical of funerary (Types 15 and 18 have 100% of shapes from burials) or domestic/palatial contexts (like Types 2 and 22). Fabrics usually have homogeneous firing (7.5YR 7/3-4) and few (<3 %) small (<0.5 mm) mineral inclusions. It is hard to say whether this type was a mass-produced shape due to the low amount of specimens attested. Carinated dishes (Type 3) are widespread in late 3rd millennium BCE Mesopotamia, with examples from ED IIIb at Abu Salabikh (Moon 1987: 39, fig. 189), until the late Ur III period at Umm el-Jir (Gibson 1972c: fig. 42c, fig. 43 B-4:3), Nippur (McMahon 2006: pl. 90.6-7), Fara (Martin 1988: 189, fig. 132) and Tell Wilaya (Hussein, Altaweel and Rejeb 2009: fig. 19, no. Wi_1423p). A similar chronological time span is also observed for type 20.

At Khafajah and Tell Asmar large bowls with ridges on the wall are attested from late ED III into Akkadian levels (Delougaz 1952: pl. 147, B.043.210b-c). More conservative is the bowl type 15, generally associated with ED III contexts both at Abu Salabikh (Moon 1987: 29-30, figs. 155-156) and Khafajah (Delougaz 1952: 168, pl. C.022.300).

At Kish types 5 to 7 are all typical of Macro-phase 11, while elsewhere they might have a wider chronological range. In particular types 5 and 6 appear to be earlier types, attested from the ED IIIa at Abu Salabikh (Moon 1987: 40-41, fig. 194-196, 198, 203-206) or Nippur (McMahon 2006: pl. 81.1), while type 7 belongs to an Akkadian-Ur III tradition both in central and southern Mesopotamia, such as at Tell Asmar (Delougaz 1952: pl. 147, B.043.200a-b), Nippur (McMahon 2006: pl. 88.3-4), Umm el-Jir (Gibson 1972b: fig. 46.D-3.1, fig. 47.C-2.3) or Tell al-Wilaya (Hussein, Altawell and Rejeb 2009: fig. 19, no. Wi_1064q).

At Kish, the stemmed dish (Types 26 and 27) is characteristic of funerary contexts, with a very small percentage of specimens attested elsewhere (about 10 to 12.5%). These forms seem to be a specialized production, as confirmed by the complexity of manufacturing, the decoration, and the quality of fabric. Although it is reasonable to suppose a gradual shift from simple undecorated shapes (Type 26), through partially (Type 27) and then highly decorated ones (Type 28), the stratigraphic data indicate that type 28 is attested at least from phase 10, while the others are restricted to phase 11 only. According to Moon (1982: 64-66), stemmed dishes (Types 26, 27 and 28) and handled jars (Types 52, 53 and 54) share a common chronological and distribution pattern with simple undecorated specimens attested as early as the ED II at Khafajah (Delougaz 1952: C.357.000b). More elaborate examples emerge from ED IIIa onwards in both funerary and religious contexts at Khafajah, Nippur and Mari (Moon 1982: 65). It is particularly difficult to recognize specific and independent trends for each type, given the short chronological and stratigraphic range.

Among the most diagnostic shapes from group 4b, there are two types of bottles (Types 30 and 31). Type 31 is quite rare within the late ED to late Akkadian periods, while type 30 is very similar to type 29 but with grooved wall. Two main differences can be highlighted: the greater volume (0.9 to 2.34 l for type 29, 3.55 to 3.70 for type 30), and the fabric which is slightly coarser in type 30. Parallels with type 30 are attested during the ED IIIa and ED IIIb at Abu Salabikh (Moon 1987: 67-68, figs. 325-326) and Khafajah (Delougaz 1952: pl. 164, B666.540b).

Two types of small or miniature jars (Types 34 and 40) are also typical of funerary contexts from Macro-phase 11. Their low capacity (0.10-0.57 l) may suggest some kind of consuming function connected to the funerary ritual or for the deceased. Elsewhere in central Mesopotamia, similar shapes are attested as early as the ED II (Delougaz 1952: pl. 156, B.525.220).

More shapes from sub-group 4b include medium and large size jars (Types 45, 57, 62, 63, 64 and 67). Type 45 is generally found in funerary contexts at Kish and Fara (Martin 1988:

185, fig. 95), while it is more typical of domestic contexts in the Akkadian levels of Khafajah (Delougaz 1952: 160, B.556.540) and Tell al-Wilaya (Hussein, Altaweel and Rejeb 2009: fig. 22, no. Wi_156c, Wi_1308d). This shape is a slender version of the type 55 carinated jar belonging to sub-group 5b, which appeared slightly earlier (Phase 10) and remained in use until Phase 13b.

Of great interest are the jars with high necks and rounded bases (Type 57). These have a pronounced vertical neck and straight horizontal shoulder, closely resembling later shapes. However, the closest parallels are with the ED IIIa-b graves from Abu Salabikh (Moon 1987: 80-81, 83, figs. 385, 387-89, 401-403).

Types 62 and 63 have a similar shape and are both attested in Cemetery A (Macro-phase 11). However, they remarkably differ in the range of dimensions. At Abu Salabikh these two types have been found together in burial 124 dating from the ED IIIb (Moon 1987: 111-112, fig. 543-551), thus suggesting also a strong functional relation between them.

Three more diagnostic types, mostly attested in the Cemetery A graves, are the small jar with grooved shoulder and ring base (Type 64), the jar with low carination and a ring base (Type 67) and a peculiar type of miniature jar (Type 83). All types are quite rare in central and southern Mesopotamia, although the peculiar shape makes them particularly diagnostic of the period. However, it is difficult to determine whether they were locally produced or not.

Among the diagnostic shapes stratigraphically contemporary to this group, but assigned to the type MISC, there is a large bowl with a ledge rim (Mackay 1929: pl. LII.46) from tomb 118 of Cemetery A. This type of bowl is geographically widespread with comparisons ranging from central and southern Mesopotamia to inland Syria.

Pottery group 5 (Pg 5)

Pg 5 includes 11 types (142 specimens), most of which are complete or have complete profile (Pl. CXLIX). The horizon mainly consists of both small (Types 41, 42 and 81) and medium-large (Types 36, 38, 54, 55, 66 and 78) closed shapes. The open shapes are less common (Types 9 and 19). The stratigraphic distribution of the types allows us to identify some chronological patterns, resulting in the division of Pg 5 into three sub-groups. However, given the highly nuanced evidence, as well as the low number of shapes, this division must be considered as tentative. Indeed, types like 54 and 66, although distributed along a wide chronological range, are mostly attested in the earliest phases such as 10 and 11. We must not therefore consider these divisions into groups and types as compartmentalized, but as a suggestion to better understand the wide chronological and quantitative variability of each type. Accordingly, three sub-groups are here proposed, all of them lasting until at least the period considered: Sub-group 5a ranges from Phase 9 to 13c and is composed of four types (Types

36, 38, 41 and 42); Sub-group 5b is attested from Phase 10 and it is composed of 4 types (54, 55, 66, 81); Sub-group 5c emerges from Phase 11 and includes 3 types (9, 19, 78).

Sub-group 5a is composed of two types of small jars (Types 36 and 38) and two miniature jars (Types 41 and 42). From a technological point of view these forms show some technological similarities, confirmed by the strong homogeneity of high fired reddish (5YR 7-6/6-8) fabrics and the low frequency (<3%) of small or medium-sized mineral inclusions (<0.5 mm to 1 mm). Within each type, at least part of the shapes have white slip surface treatment, confirming a trend extended throughout the 3rd millennium BCE.

The chronological analysis and the geographical distribution have revealed that group 5a is attested in the Kish area and beyond between the end of ED IIIb and the Akkadian period. Comparisons are particularly relevant with the region of Wilaya, where all the four types are attested in level 2 dating from the Akkadian period (Hussein, Altawell and Rejeb 2009: fig. 25, Wi_1315c, 13_28d, fig. 26, Wi_940d, W_1115b). Some jars of type 38 have also been found in ED IIIa-b, Houses 2-3 at Khafajah (Delougaz 1952: pl. 143, A.546.630).

Miniature types are the most widely attested, with parallels from both ED III and Akkadian phases at Abu Salabikh (Moon 1987: 170-171, fig. 802, 808), Nippur (McCown, Haines and Biggs 1978: pl. 47.5); Khafajah (Delougaz 1952: pl. 143, A.556.320, pl. 156, B.516.471a, B.516.473) as well as Lagash (Barhani 1989: 232, pl. VII, figs. 9-11, 13-16), among others.

Subgroup 5b is also composed of four types, among which are three closed forms (Types 54, 55 and 66) and a particular type of lid (Type 81). These shapes are mostly found in funerary contexts (50% to 80%), and more rarely in domestic or public ones. Types 54 and 66 have a rather coarse fabric (<3 % to 20%) rich in both small and medium size vegetal and mineral inclusions (<0.5 mm to 1 mm) and are generally either hand or wheel made. Type 55 usually has a finer fabric, whitish in color (10YR 8/3) with a low frequency (<3 %) of small mineral inclusions (<0.5 mm). Type 66 seems to be a standardized shape, as confirmed by both the morphological and volumetric data (0.40-0.68 l).

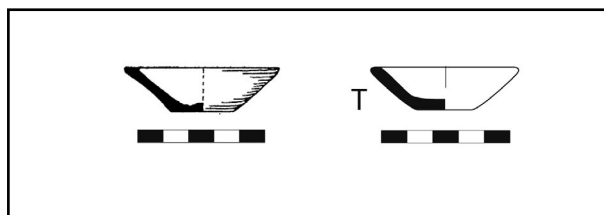
From a chronological point of view, subgroup 5b can be roughly dated to the Early Akkadian period, though some markers of the period, such as the jars with grooved shoulders as well as the carinated jars with out-turned rims and rounded bases, are missing from stratified contexts, but are attested from the Kish survey by Gibson (1972a: 281, fig. 34 types A and G Akkadian). Type 55 has been found in fully Akkadian contexts at Wilaya (Hussein, Altawell and Rejeb 2009, fig. 26, no. Wi_683e, Wi_1307f) and Nippur (McCown and Haines, 1962: pl. 82.1). Type 54 has been dated in different ways, considering the horizons from Kish, Khafajah and Abu Salabikh, among others (Moon 1982: 64-66; Gibson 1972a: 79). In particular, jars with anthropomorphic decoration on the handles have been uncovered

in several ED IIIa-b graves at Abu Salabikh (Moon 1987: 157-161, figs. 732-751) and in the Akkadian domestic contexts from Tell al-Wilaya (Hussein, Altawell and Rejeb 2009: fig. 27, no. Wi_1142e, Wi_1232c). The jar with high neck and high ring base (Type 66) is mostly attested during the Early Dynastic to Akkadian transition. This form is particularly common in the ED IIIb funerary contexts from Abu Salabikh, (Moon 1987: 124, nos. 601-607) thus confirming the trend at Kish.

Sub-group 5c consists of two open bowls (Types 9 and 19) and a double spouted jar (Type 78). These types are unevenly distributed in domestic (Type 78 at 100% and Type 9 at 50%) or funerary contexts (Type 9 at 50% and Type 19 at 75%), and are generally characterized by fine fabrics, reddish or brownish in colour (5YR 7/6, 7.5YR 7/4) with a low frequency (<0.5 mm) of small mineral inclusions (<3 %) in all cases.

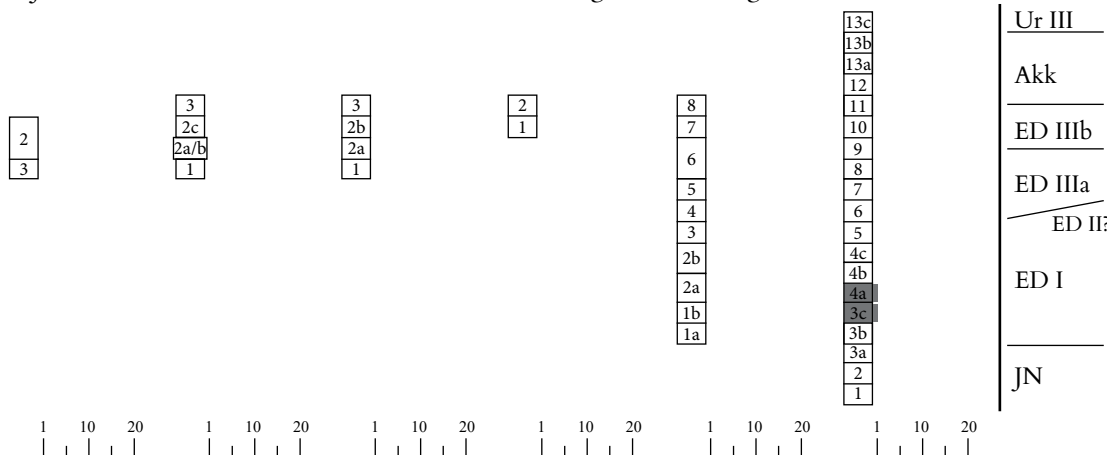
All the three types emerge at the end of ED IIIb, although they are principally attested during the Akkadian period. Colanders with round or straight walls (Type 9) are widely documented from the end of the ED III to the Ur III periods. The earliest example comes from ED IIIa-b Abu Salabikh (Moon 1987: 20, fig. 125-126), while both at Ur (Woolley 1934: type RC 248) and in the Diyala region (Delougaz 1952: pl. 147, B.041.200, B.042.500) this shape is generally found from Akkadian and Ur III levels. At the same time a slightly larger version of type 19 was retrieved from post-ED Abu Salabikh contexts (Moon 1987: 39, no. 192), while Gibson recognizes this shape as an Akkadian marker in the region of Kish (Gibson 1972a: 281, fig. 34 type B-C Akkadian).

Type 78 also seems to have originated in the ED III and continued at least until the end of the Akkadian period. It is one of the most common types within this assemblage, reaching several sites to the north such as Tell Brak (Oates, Oates and McDonald 2001: fig. 1423-1429) and Ashur (Beuger 2005: pl. 61.35-36). In central Mesopotamia this form is attested in late ED III contexts at Khafajah (Delougaz 1952: pl. 161, B.575.225) and Tell al-Wilaya, where it also continues during the Akkadian period (Hussein, Altaweel and Rejeb 2009: 7, fig. 33, Wi_1113, Wi_467 and Wi_314).

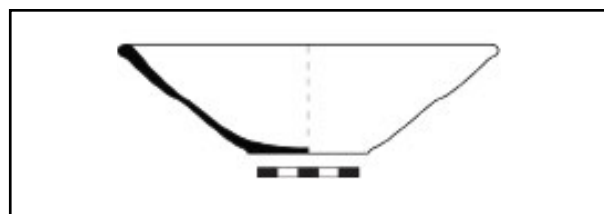
TYPE 1 - Small shallow dish with flat base (2)

TYPE OF CONTEXT/S: F (100 %)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O-C) 5YR 6/6	DECORATION/S: /
INCLUSION TYPE/S: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: b2	VOLUME (WATER): 0.01-0.02 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

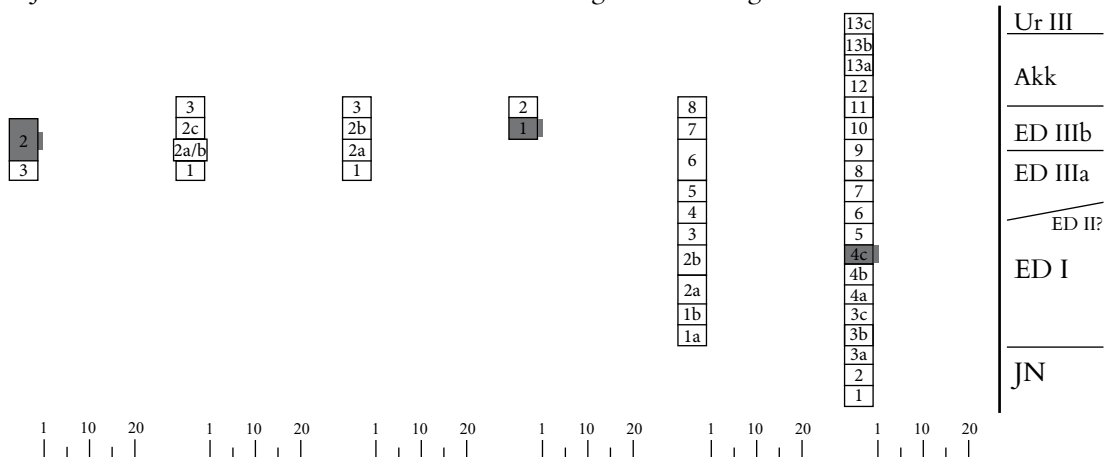


COMPARANDA: Abu Salabikh (2G46:74), Moon 1987: 4, fig. 9 (ED I); Tell Asmar (Northern Palace), Khafajah (Nintu V), Delougaz 1952: pl. 146, B.001.200a.

TYPE 2 - Large dish with flat base (3)

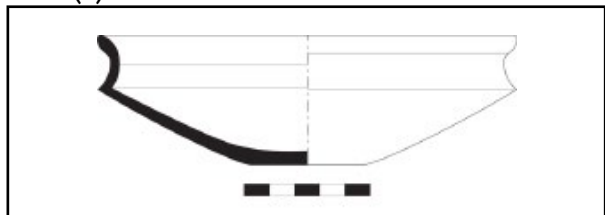
TYPE OF CONTEXT/S: F (50 %); D (50%)	SURFACE TREAT.: slip, whitish; slip-burnish
FABRIC COLOR/S: (I/O) 10YR 6-8/2, (C) 5YR 7/4	DECORATION/S: /
INCLUSION TYPE/S: mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: a1, b2	VOLUME (WATER): 0.42-0.60 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.



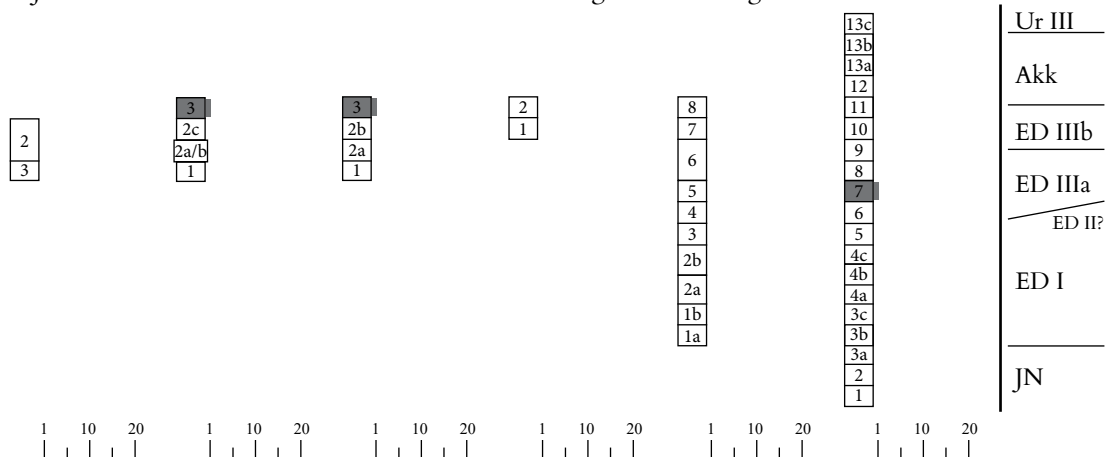
COMPARANDA: Abu Salabikh (Ash Tip), Moon 1987: 3, fig. 1 (ED IIIb); Tell al-Wilaya (Wilaya 1, lev. 2, Wi_1424k), Hussein et al. 2009: fig. 19 (Akk); Nippur (WF sounding XIIb-IX), McMahon 2006: pl. 76. 7-18 (ED IIIa-Akk).

TYPE 3 - Carinated dish with flat or rounded base (3)



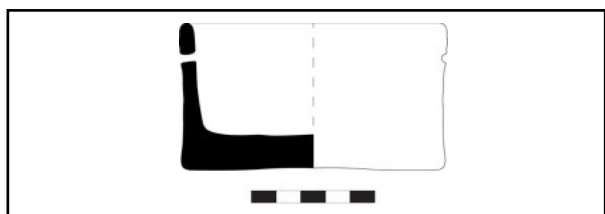
TYPE OF CONTEXT/s: D (66 %); P (34%)	SURFACE TREAT.: /
FABRIC COLOR/s: (I/O-C) 7.5YR 7/3-4	DECORATION/s: /
INCLUSION TYPE/s: mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: a1	VOLUME (WATER): 0.60-0.81 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.



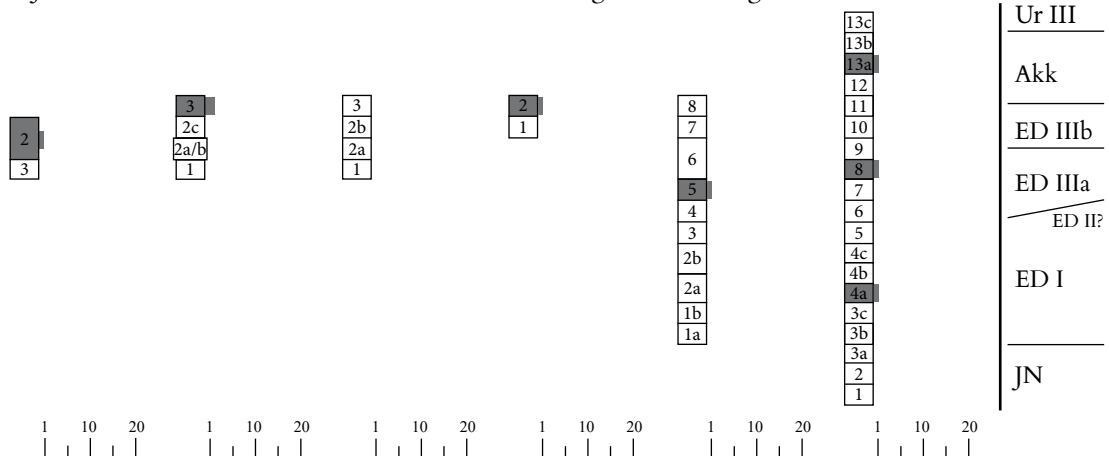
COMPARANDA: Abu Salabikh (G. 173), Moon 1987: 39, fig. 189 (ED IIIb); Umm el-Jîr (Area B, lev. 4), Gibson 1972b: fig. 42c (Akk-Ur III); Nippur (WF sounding VIII), McMahon 2006: pl. 90.6-7 (Ur III); Fara (Pit I) Martin 1988: 189, fig. 132 (Akk-Ur III); Tell al-Wilaya (Level 2), Hussein *et al.* 2009: fig. 19, no. Wi_1423p (Akk).

TYPE 4 - Small box (7)

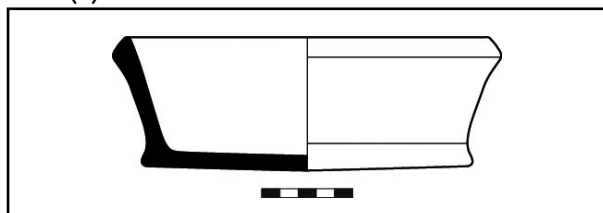


TYPE OF CONTEXT/s: D (42 %); P (28%); F (14%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/s: (I/O) 5YR 6/4, (C) 10YR 6-7-8/3	DECORATION/s: pierced
INCLUSION TYPE/s: mineral, vegetal and mineral	TECHNIQUE: hand
INCLUSION SIZE/FREQ.: a1, b2	VOLUME (WATER): 0.77 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.



COMPARANDA: Khafajah (Houses 1-2, Small Temple VI), Delougaz 1952: pl. 20e, pl. 170 C.201.200 (ED IIIa-b); Tell al-Wilaya (Level 2), Hussein *et al.* 2009: fig. 35, no. Wi_579c (Akk).

TYPE 5 - Large vertical box/dishes with flat base (9)

TYPE OF CONTEXT/S: D (77 %); F (23%)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: /
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 0.60-1.60 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

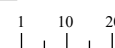
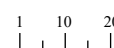
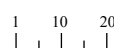
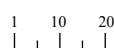
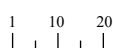
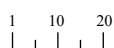
3
2b
2a
1

2
1

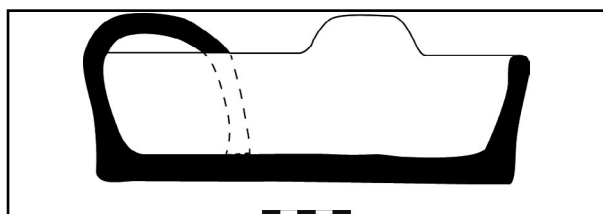
8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN



COMPARANDA: **Abu Salabikh** (6H31-82-10), Moon 1987: 40-41, fig. 194-196, 198 (ED II-III); **Nippur** (WF sounding XVIII), McMahon 2006: pl. 81.1 (ED IIIa); **Tell al-Wilaya** (Level 2), Hussein *et al.* 2009: fig. 26, no. Wi 162a (Akk).

TYPE 6 - Brazier (2)

TYPE OF CONTEXT/S: D (50 %); F (50%)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: /
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): /

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

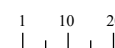
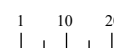
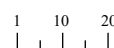
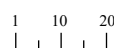
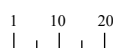
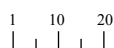
3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

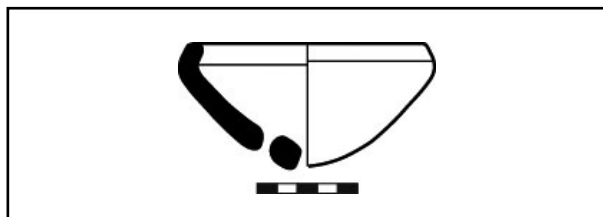
13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN



COMPARANDA: **Abu Salabikh** (Grave 126) Moon 1987: 40, fig. 203-206 (late ED IIIa); **Khafajah** (Houses 2-3) Delougaz 1952: C.011.201a-b, D.201.201 (ED IIIa-b); **Tell al-Wilaya** (Level 2), Hussein *et al.* 2009: fig. 35, no. Wi 1284d (Akk).

TYPE 7 - In-turned rim bowl (2)



TYPE OF CONTEXT/S: D (50 %); F (50%)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: /
INCLUSION SIZE/FREQ.:	VOLUME (WATER): /

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN

1	10	20
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1	10	20
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1	10	20
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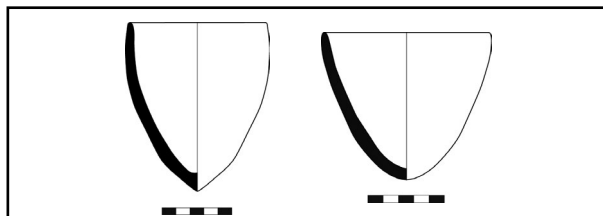
1	10	20
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1	10	20
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1	10	20
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COMPARANDA: Tell Asmar (Houses I-II), Delougaz 1952: pl. 147, B.043.200a-b (Akk); Nippur (WF sounding XIb), McMahon 2006: pl. 88.3-4 (Akk-Ur III); Umm el-Jir (Area D), Gibson 1972b: fig. 46.D-3.1, fig. 47.C-2.3 (Akk); Tell al-Wilaya (Level 2), Hussein *et al.* 2009: fig. 19, no. Wi_1064q (Akk).

TYPE 8 - Conical bowl with pointed base (3)



TYPE OF CONTEXT/S: P (100 %)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: /
INCLUSION SIZE/FREQ.:	VOLUME (WATER): 0.39-0.43 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN

1	10	20
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1	10	20
---	----	----

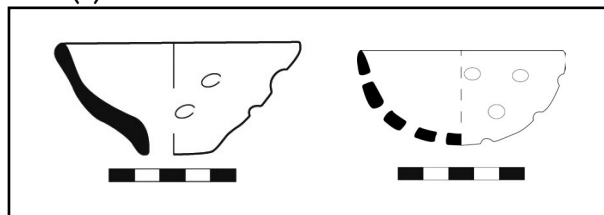
1	10	20
---	----	----

1	10	20
---	----	----

1	10	20
---	----	----

1	10	20
---	----	----

COMPARANDA: Tell al-Wilaya (Level 2), Hussein *et al.* 2009: fig. 33, no. Wi_104e, Wi_107d (Akk).

TYPE 9 - Colander with round or straight wall (4)

TYPE OF CONTEXT/s: D (50 %); F (50%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/s: (I/O) 5YR 6/6, 7.5YR 7/4	DECORATION/s: pierced
INCLUSION TYPE/s: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1	VOLUME (WATER): 0.2-0.11 l

Area JA

Area A

Area P

YWN sounding

YW sounding

Y + Z sound.

2
3

3
2c
2a/b
1

3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III

Akk

ED IIIb

ED IIIa

ED II?

ED I

JN

1	10	20
---	----	----

1	10	20
---	----	----

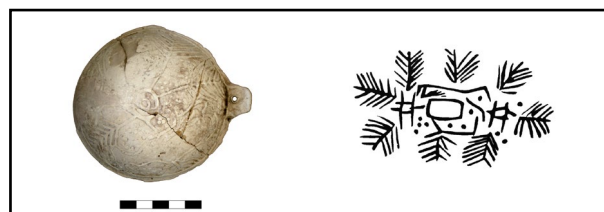
1	10	20
---	----	----

1	10	20
---	----	----

1	10	20
---	----	----

1	10	20
---	----	----

COMPARANDA: Abu Salabikh (Grave 2, 182), Moon 1987: 20, fig. 125-126 (ED IIIa-b); Tell Asmar (Houses IVa), Delougaz 1952: pl. 147, B.041.200, B.042.500 (late Akk);

TYPE 10 - Moulded bowl (4)

TYPE OF CONTEXT/s: D (50 %); P (50%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/s: (I/O) 5YR 5/6	DECORATION/s: applied, incised (100%)
INCLUSION TYPE/s: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1	VOLUME (WATER): /

Area JA

Area A

Area P

YWN sounding

YW sounding

Y + Z sound.

2
3

3
2c
2a/b
1

3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III

Akk

ED IIIb

ED IIIa

ED II?

ED I

JN

1	10	20
---	----	----

1	10	20
---	----	----

1	10	20
---	----	----

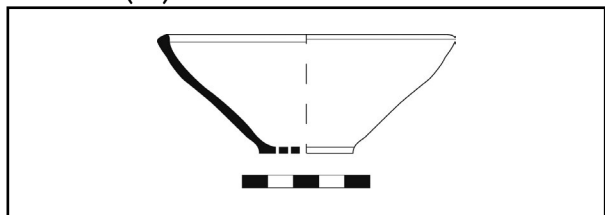
1	10	20
---	----	----

1	10	20
---	----	----

1	10	20
---	----	----

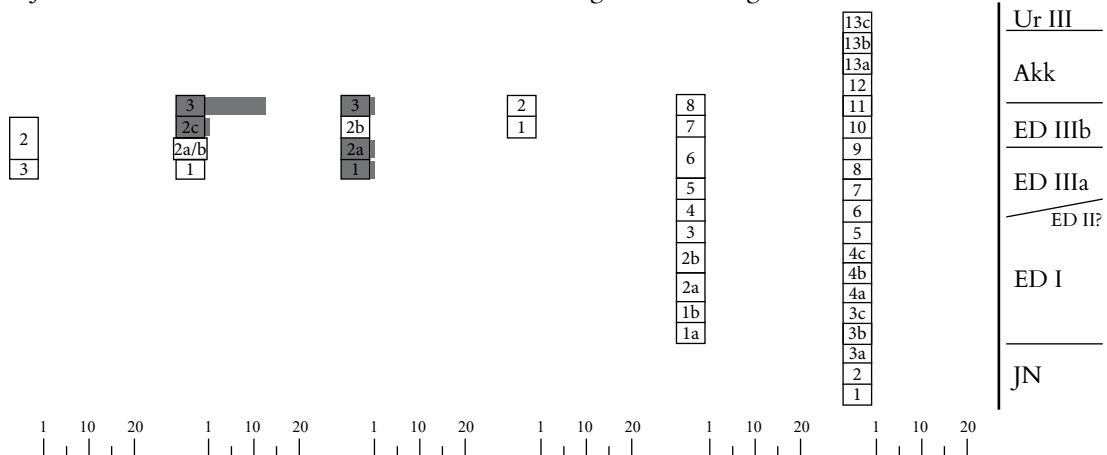
COMPARANDA: Abu Salabikh (Rooms 24 and 103; Grave 83; Ash Tip) Moon 1987: 26, figs. 140-147 (ED IIIa-b); Tell Asmar (Houses Va) Delougaz 1952: pl. 147, B.041.710 (ED IIIb-Akk).

TYPE 11 - Shallow open conical bowl with flat base (17)



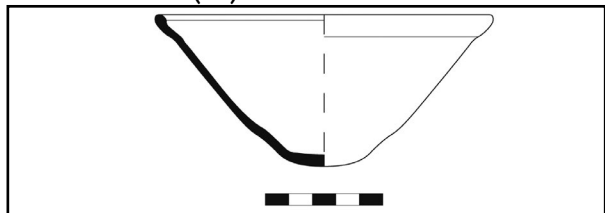
TYPE OF CONTEXT/S: D (35.5 %); F (52.5%); P (11%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O) 5YR 7/4 (C) 5YR 6-7/6	DECORATION/s: pierced
INCLUSION TYPE/S: mineral, vegetal and mineral	TECHNIQUE: hand, wheel
INCLUSION SIZE/FREQ.: a1, a2, b2	VOLUME (WATER): 0.5-1.12 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.



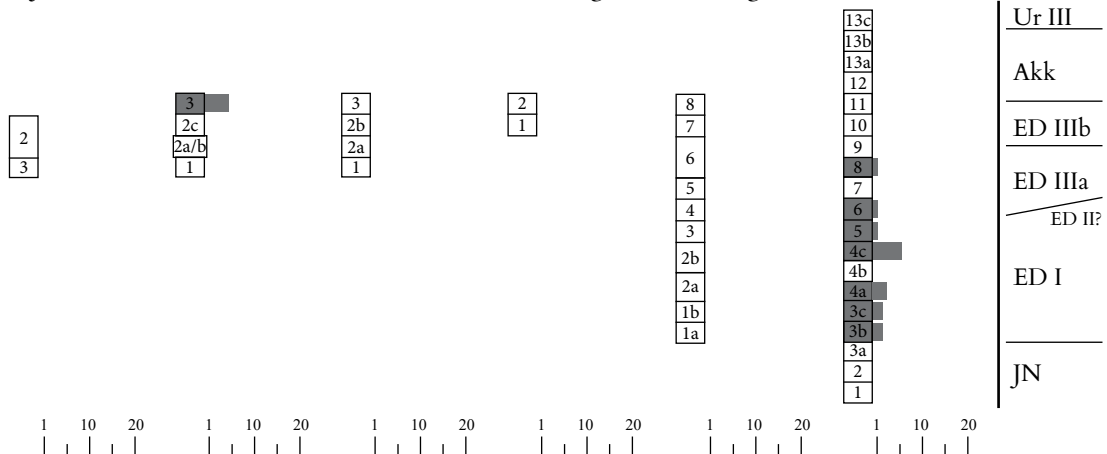
COMPARANDA: Abu Salabikh (Grave 195, 197), Moon 1987: 3, figs. 2-3 (ED III); Nippur (WF sounding XIIIb-c), McMahon 2006: pl. 76.5-9 (Akk); Fara (Graves and other contexts), Martin 1988: 177 (ED II-Akk); Tell al-'Ubaid (ED cemetery) Martin 1982: 173-174, tables 3-4 (ED II-Akk).

TYPE 12 - Wide open conical bowl with rounded base (22)

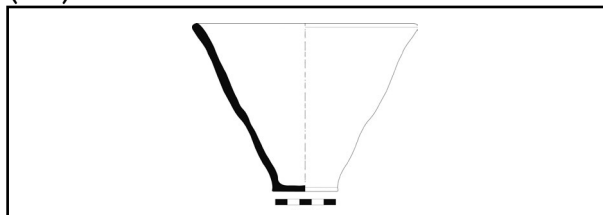


TYPE OF CONTEXT/S: D (23.8 %); F (76.2%)	SURFACE TREAT.: slip-burnished, greyish
FABRIC COLOR/S: (I/O-C) 10YR 5/1	DECORATION/s: grooved (4.7%)
INCLUSION TYPE/S: mineral	TECHNIQUE: coil-wheel
INCLUSION SIZE/FREQ.: a1, a2	VOLUME (WATER): 0.42-3.57 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

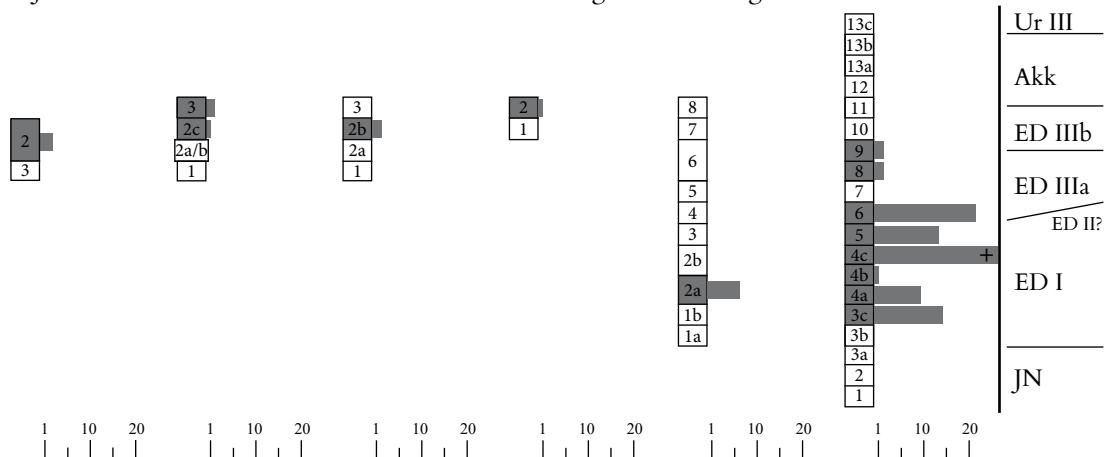


COMPARANDA: Khafajah (Houses 3), Delougaz 1952: pl. 168, C.002.500 (ED III).

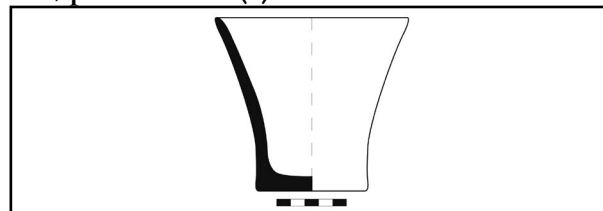
TYPE 13 - Open conical bowl with flat base (109)

TYPE OF CONTEXT/s: D (5.7 %); F (91.3%); P (3.0%)	SURFACE TREAT.: slip, whitish; burnished
FABRIC COLOR/s: (I/O) 5YR 6-6/6-7, 7.5YR 6/6-7/4	DECORATION/s: incised (1%)
INCLUSION TYPE/s: mineral	TECHNIQUE: coil-wheel, wheel
INCLUSION SIZE/FREQ.: a1, a2, b1	VOLUME (WATER): 0.39-1.05 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

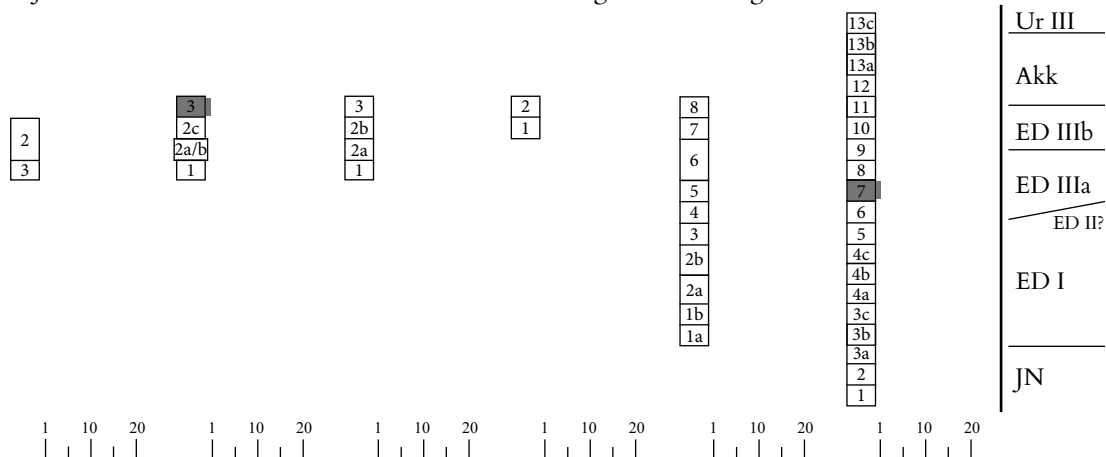


COMPARANDA: Abu Salabikh, Moon 1987: 12-16, nos. 72-93 (ED I-II); Khafajah (Houses 1-10), Delougaz 1952: pl. 146, B.003.200b (ED I-IIIb); Fara (Graves and other contexts), Martin 1988: 177 (ED I-II); Tell al-'Ubaid (ED cemetery) Martin 1982: 173-174, tables 3-4 (ED I-II).

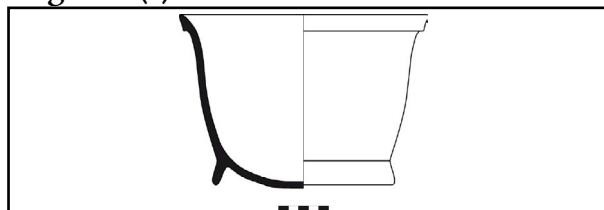
TYPE 14 - Funnels with out-turned wall and flat, pierced base (2)

TYPE OF CONTEXT/s: D (50%); F (50%)	SURFACE TREAT.: slip-burnished, greyish
FABRIC COLOR/s: (I/O) 10YR 4/2, (C) 7.5YR 6/6	DECORATION/s: /
INCLUSION TYPE/s: mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: b2	VOLUME (WATER): 0.36-0.70 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.



COMPARANDA: Abu Salabikh (Graves 124, 136), Moon 1987: 20, figs. 108, 114 (ED IIIb); Tell Asmar (Houses Va-c), Delougaz 1952: pl.149, B.085.210 (ED IIIb).

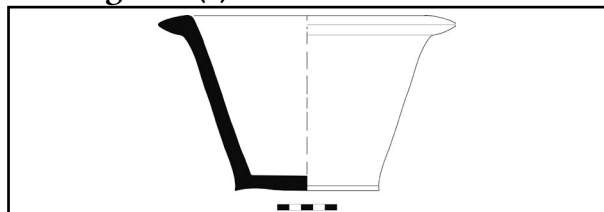
TYPE 15 - Large bowls with plain rim and ring base (3)


TYPE OF CONTEXT/S: F (100%)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 2.5-6.5 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2 3	3 2c 2a/b 1	3 2b 2a 1	2 1	8 7 6 5 4 3 2b 2a 1b 1a	13c 13b 13a 12 11 10 9 8 7 6 5 4c 4b 4a 3c 3b 3a 2 1	Ur III Akk ED IIIb ED IIIa ED II? ED I JN
1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	

COMPARANDA: Abu Salabikh (Graves 26, 73), Moon 1987: 29-30, figs. 155-156 (late ED IIIa); Khafajah (Mound A), Delougaz 1952: pl. 168 C.022.300 (ED III?).

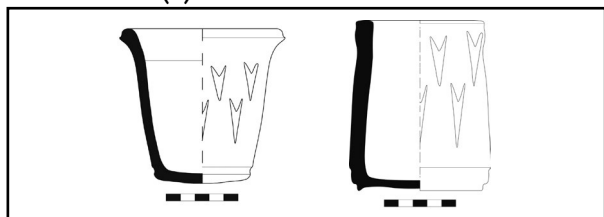
TYPE 16 - Large bowls with out-turned rim and ring base (2)


TYPE OF CONTEXT/S: D (100%)	SURFACE TREAT.: /
FABRIC COLOR/S: (I/O-C) 10YR 8/3-4	DECORATION/S: /
INCLUSION TYPE/S: mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: a1, a2	VOLUME (WATER): 5.60-6.12 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

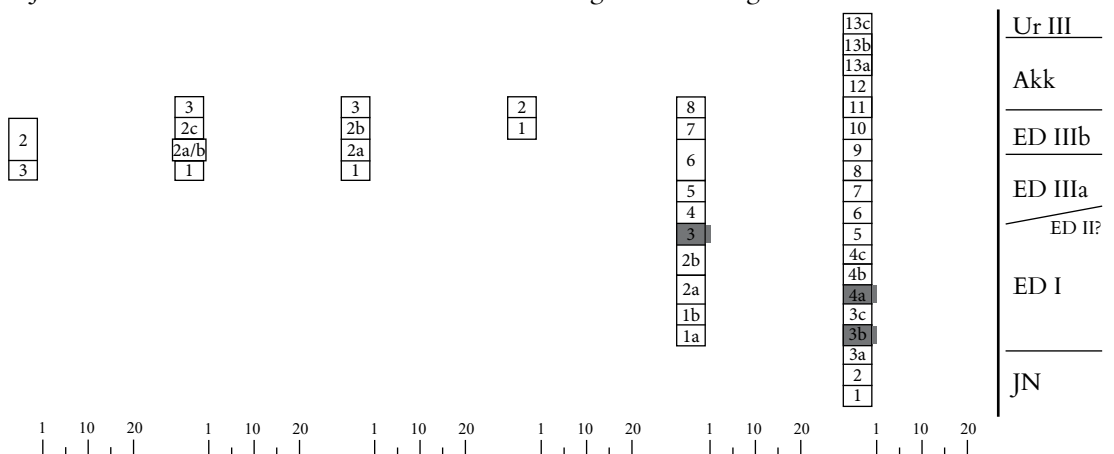
2 3	3 2c 2a/b 1	3 2b 2a 1	2 1	8 7 6 5 4 3 2b 2a 1b 1a	13c 13b 13a 12 11 10 9 8 7 6 5 4c 4b 4a 3c 3b 3a 2 1	Ur III Akk ED IIIb ED IIIa ED II? ED I JN
1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	

COMPARANDA: Abu Salabikh (North-East Mound surface), Moon 1987: 20, fig. 109 (ED I); Khafajah (Temple Oval I, Houses 3), Delougaz 1952: pl. 147 B.033.210 (ED II-III).

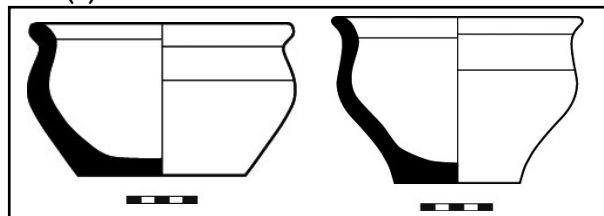
TYPE 17 - Bowls/Stands with pattern incised decoration (3)

TYPE OF CONTEXT/S: D (100%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O) 5YR 6/6, 10YR 8/3	DECORATION/S: excised (100%)
INCLUSION TYPE/S: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1, a2	VOLUME (WATER): 0.38 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

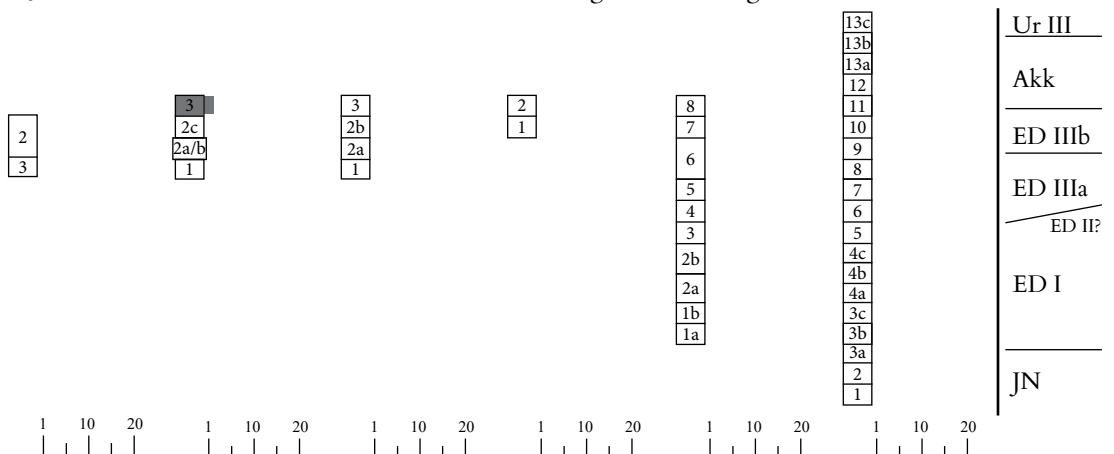


Comparanda: Fara (1973 survey), Martin 1988: 168, fig. 41.4 (ED I); Khafajah (Houses 8), Delougaz 1952: pl. 168, C.014.300, C.014.310 (ED I).

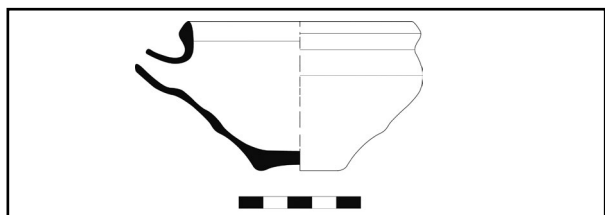
TYPE 18 - Carinated bowl with out-turned rim (2)

TYPE OF CONTEXT/S: F (100%)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: /
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 2.26-7.21 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.



COMPARANDA: Tell al-Wilaya (Level 2), Hussein *et al.* 2009: fig. 21, no. Wi_421e (EDIII-Akk).

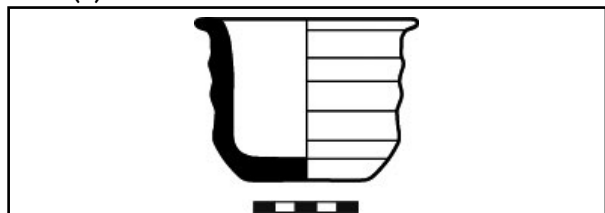
TYPE 19 - Highly carinated bowl (5)

TYPE OF CONTEXT/S: D (25%); F (75%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O) 10YR 8/3-4, (C) 7.5YR 7/4	DECORATION/S: /
INCLUSION TYPE/S: mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: a2	VOLUME (WATER): 0.04-0.20 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2 3	3 2c 2a/b 1	3 2b 2a 1	2 1	8 7 6 5 4 3 2b 2a 1b 1a	13c 13b 13a 12 11 10 9 8 7 6 5 4c 4b 4a 3c 3b 3a 2 1	Ur III Akk ED IIIb ED IIIa ED II? ED I JN
1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	

COMPARANDA: Abu Salabikh (Batch 2480) Moon 1987: 39, no. 192 (post-ED).

TYPE 20 - Large bowl with ridges on the wall (4)

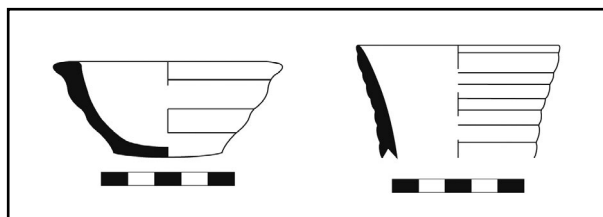
TYPE OF CONTEXT/S: D (50 %); F (50%)	SURFACE TREAT.: /
FABRIC COLOR/S: (I/O-C) 10YR 8/3-4	DECORATION/S: /
INCLUSION TYPE/S: mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: a1, a2	VOLUME (WATER): 0.43- 1.98 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2 3	3 2c 2a/b 1	3 2b 2a 1	2 1	8 7 6 5 4 3 2b 2a 1b 1a	13c 13b 13a 12 11 10 9 8 7 6 5 4c 4b 4a 3c 3b 3a 2 1	Ur III Akk ED IIIb ED IIIa ED II? ED I JN
1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	

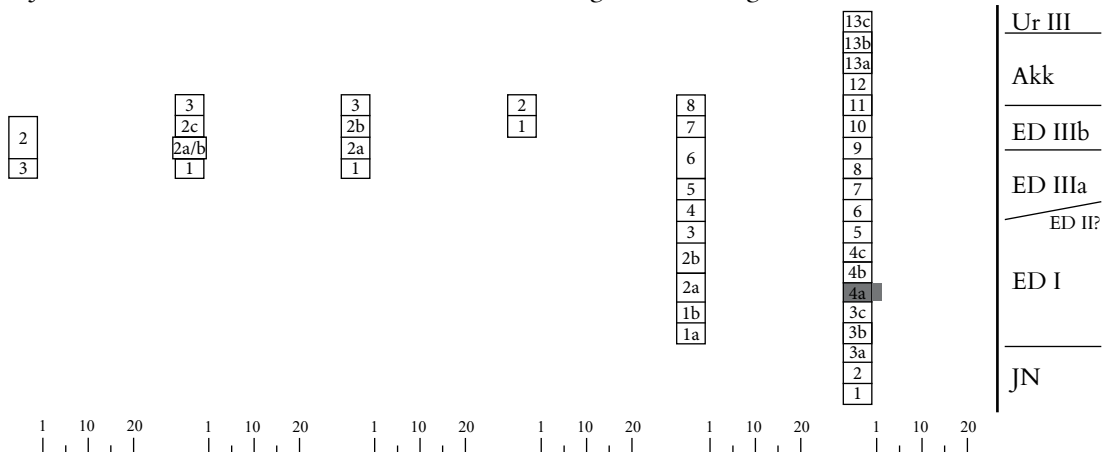
COMPARANDA: Khafajah (Houses 2-3), Tell Asmar (36.25 m), Delougaz 1952: pl. 147, B.043.210b-c (ED III-Akk).

TYPE 21 - Bowl with grooved wall (2)



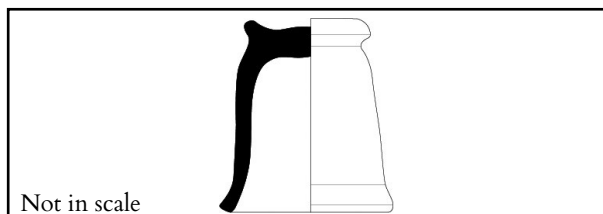
TYPE OF CONTEXT/S: D (100%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O-C) 7.5YR 5/1, 7.5YR 7/8	DECORATION/S: grooved
INCLUSION TYPE/S: mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: b2, b3	VOLUME (WATER): 0.07 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.



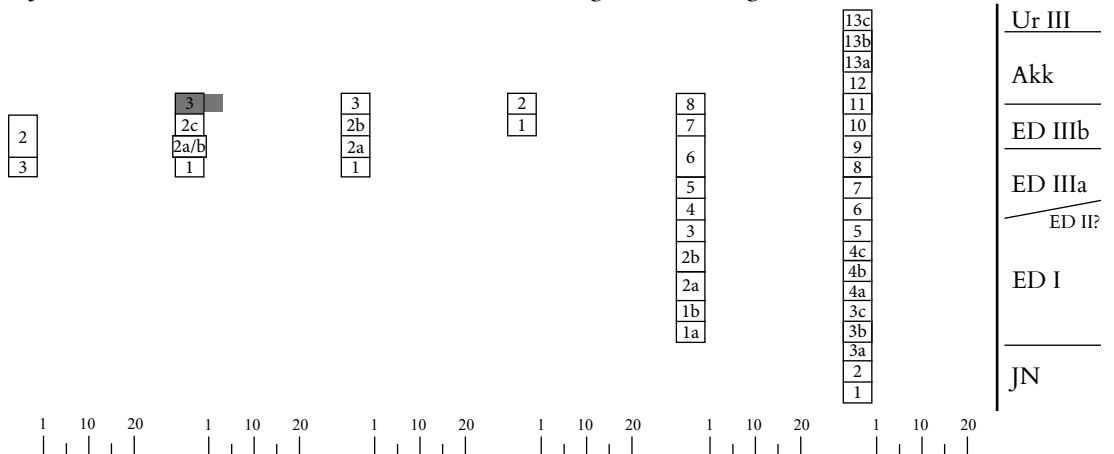
COMPARANDA: **Lagash** (Room 3, 87), Barhani 1989: 217, fig. 9 (ED IIIb); **Tell al-Wilaya** (Level 2), Hussein *et al.* 2009: fig. 21, no. Wi_970i (Akk).

TYPE 22 - Stand with shallow top dish (4)

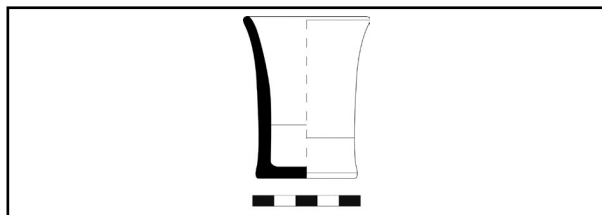


TYPE OF CONTEXT/S: D (100%)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: /
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): /

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.



COMPARANDA: **Abu Salabikh** (Graves 19, 143, 173), Moon 1987: 40, figs. 210-212 (ED IIIb); **Uch Tepe** (Grave 12), Gibson 1981: pl. 97.3 (Akk); **Mari** (Temple of Ishtar), Parrot 1956: fig. 106, no. 108, fig. 107, no. 1570 (ED III).

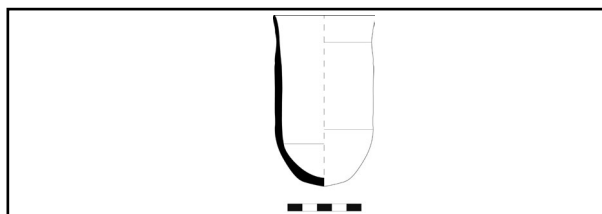
TYPE 23 - Beaker with flat base (6)

TYPE OF CONTEXT/S: D (33.3%); F (66.6%)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 0.05-0.13 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2 3	3 2c 2a/b 1	3 2b 2a 1	2 1	8 7 6 5 4 3 2b 2a 1b 1a	13c 13b 13a 12 11 10 9 8 7 6 5 4c 4b 4a 3c 3b 3a 2 1	Ur III Akk ED IIIb ED IIIa ED II? ED I JN
1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	

COMPARANDA: Abu Salabikh (Room 58; graves 1, 95) Moon 1987, 24-25, figs. 132-134 (ED IIIa);

TYPE 24 - Beaker with rounded base (9)

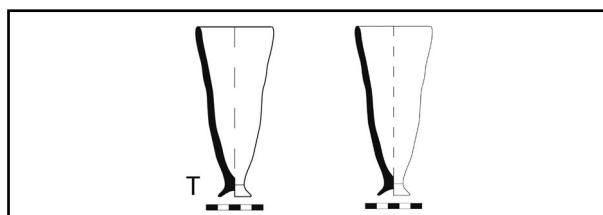
TYPE OF CONTEXT/S: D (50 %); F (50%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O-C) 7.5YR 7/4-6	DECORATION/S: /
INCLUSION TYPE/S: mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: a1	VOLUME (WATER): 0.12- 0.18 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2 3	3 2c 2a/b 1	3 2b 2a 1	2 1	8 7 6 5 4 3 2b 2a 1b 1a	13c 13b 13a 12 11 10 9 8 7 6 5 4c 4b 4a 3c 3b 3a 2 1	Ur III Akk ED IIIb ED IIIa ED II? ED I JN
1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	

COMPARANDA: Larsa (B33, phase IIIb) Thalmann 2003: 91, fig. 33.11 (ED III).

TYPE 25 – Solid footed goblet (3)



TYPE OF CONTEXT/S: D (66.6%); F (33.3%)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: /
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 0.17 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2 3	3 2c 2a/b 1	3 2b 2a 1	2 1	8 7 6 5 4 3 2b 2a 1b 1a	13c 13b 13a 12 11 10 9 8 7 6 5 4c 4b 4a 3c 3b 3a 2 1	Ur III Akk ED IIIb ED IIIa ED II? ED I JN
1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	

COMPARANDA: Abu Salabikh (North-East Mound, room 1; West Mound, level II), Moon 1987: 17, figs. 97-99 (ED I); Khafajah (House 9-10; Samus V-VI), Tell Asmar (Archaic Shrine III) Delougaz 1952: pl. 148, B.077.700a-b (ED I).

TYPE 26 – Simple stemmed dish (8)

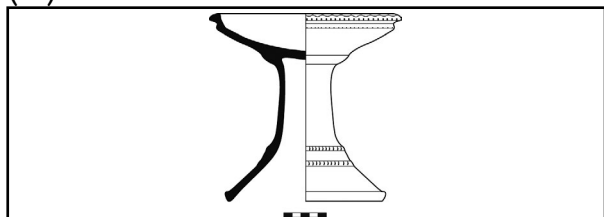


TYPE OF CONTEXT/S: D (12.5 %); F (87.5%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O-C) 7.5YR 7/6	DECORATION/S: Incised
INCLUSION TYPE/S: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1	VOLUME (WATER): /

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

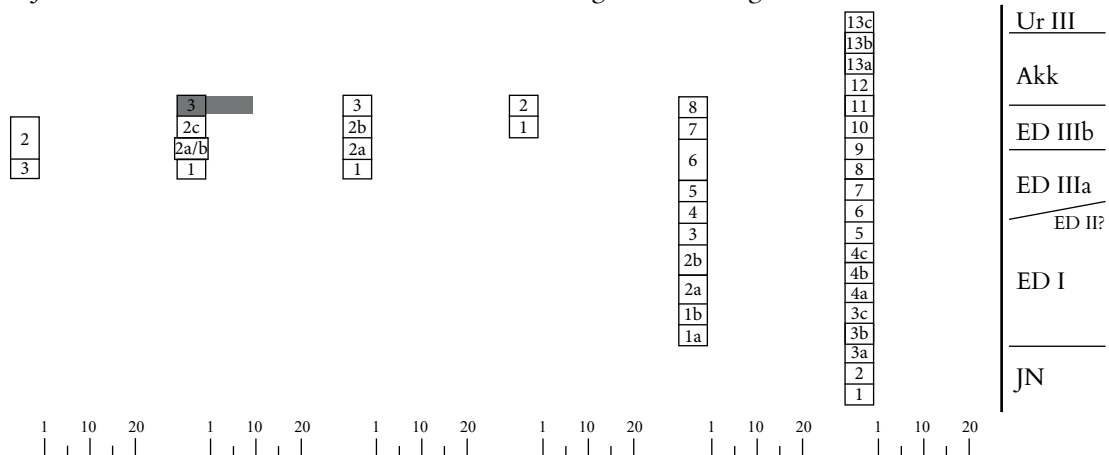
2 3	3 2c 2a/b 1	3 2b 2a 1	2 1	8 7 6 5 4 3 2b 2a 1b 1a	13c 13b 13a 12 11 10 9 8 7 6 5 4c 4b 4a 3c 3b 3a 2 1	Ur III Akk ED IIIb ED IIIa ED II? ED I JN
1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	

COMPARANDA: Abu Salabikh (Graves 4, 79, 88, 93, 116, 146), Moon 1987: 46-47, figs. 213-229 (ED IIIb); Khafajah (Houses 4-2), Delougaz 1952: pl. 174, C.363.810a-b, C.364.810a-b (ED II-Akk); Fara (HI 48/58), Martin 1988: 181, fig. 70 (ED II) 185, fig. 98 (ED IIIa); Tell Uqair (Grave 40), Moon 1982: 52, fig. 29 (ED III).

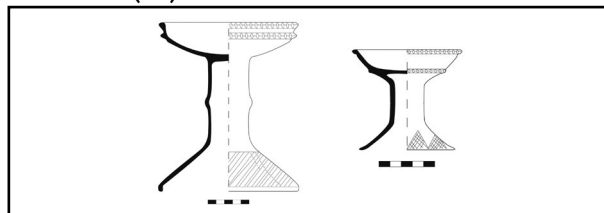
TYPE 27 - Stemmed dish with decorated rim (10)


TYPE OF CONTEXT/S: D (10%); F (90%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: 5YR 5/6	DECORATION/S: incised; grooved
INCLUSION TYPE/S: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1	VOLUME (WATER): /

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

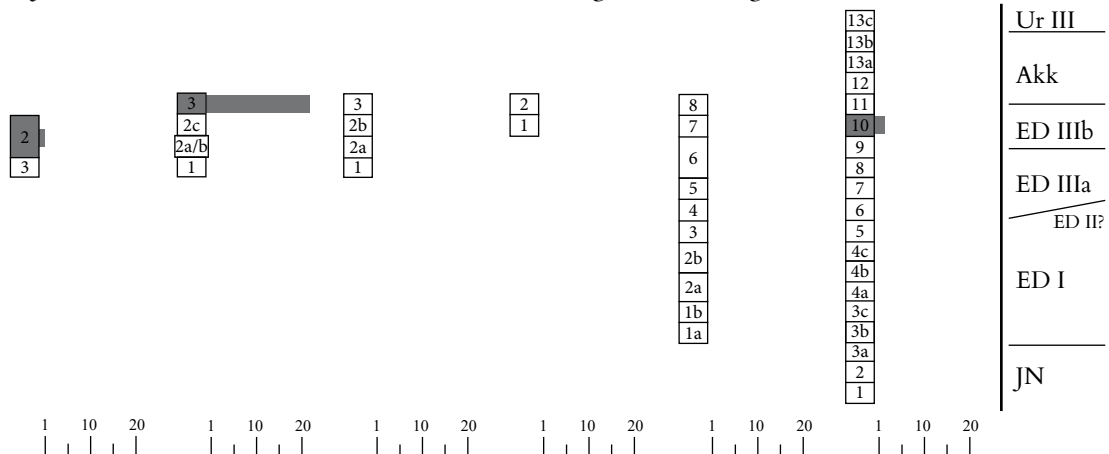


COMPARANDA: **Lagash** (Area C, Room 12, 58) Barhani 1989: 235, pl. VIII, figs. 1-4 (ED IIIb); **Susa** (Unknown) Moon 1982: 56, fig. 48 (ED II-III?); **Tell Uqair** (Grave 40) Moon 1982: 52, fig. 31 (ED IIIa).

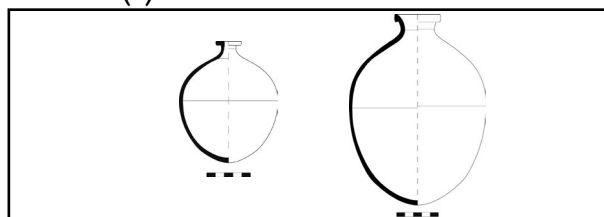
TYPE 28 - Stemmed dish with decorated rim and base (25)


TYPE OF CONTEXT/S: D (9.4 %); F (91.6%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O-C) 7.5YR 7/6	DECORATION/S: incised; grooved
INCLUSION TYPE/S: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1	VOLUME (WATER): /

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.



COMPARANDA: **Abu Salabikh** (Graves 1, 26, 28, 35, 42, 45, 50, 73, 124, 162, 168, 171, 176, 179, 198, 200) Moon 1987: 8-53, figs. 234-255 (ED IIIa-b); **Khafajah** (Houses 3-2, T. Oval II), **Tell Asmar** (E. North Palace) Delou-gaz 1952: pl. 174, C.365.810c-d (ED IIIb); **Ur** (Graves 379, 1391, 1603), Moon 1982: 59-61, figs. 53-59 (ED III).

TYPE 29 - Simple globular bottle/Syrian Bottle 1 (4)


TYPE OF CONTEXT/S: F (66.6%); P (33.3%)	SURFACE TREAT.: reserved slip, whitish
FABRIC COLOR/S: (I/O-C) 5YR 7/6	DECORATION/S: /
INCLUSION TYPE/S: mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: a1	VOLUME (WATER): 0.90-2.34 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

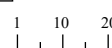
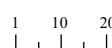
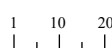
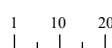
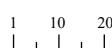
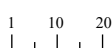
3
2b
2a
1

2
1

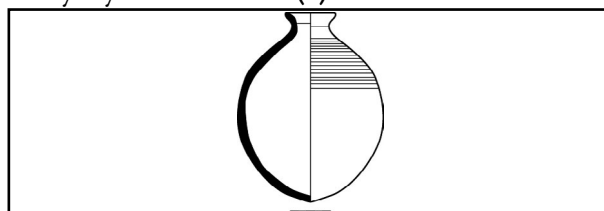
8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN



COMPARANDA: Abu Salabikh (Grave 42, 89, 162) Moon 1987: 67-68, figs. 323-324, 327 (ED IIIa-b); Ur (Royal cemetery) Woolley 1934: pl. 257, fig. 106 (ED III); Tell Brak (area SS), Oates and Oates 1991: pl. 30e (early Akk).

TYPE 30 - Globular bottle with grooved body/Syrian Bottle 2 (2)


TYPE OF CONTEXT/S: F (100%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O-C) 7.5YR 7/4	DECORATION/S: grooved
INCLUSION TYPE/S: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a2	VOLUME (WATER): 3.55-3.70 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

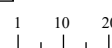
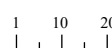
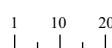
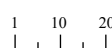
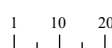
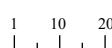
3
2b
2a
1

2
1

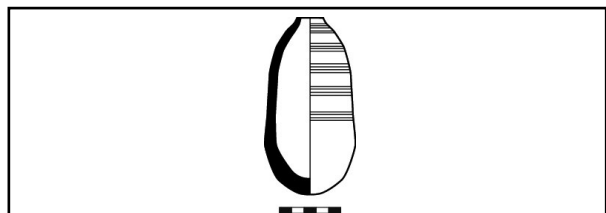
8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN



COMPARANDA: Abu Salabikh (Graves 89, 183) Moon 1987: 67-68, figs. 325-326 (ED IIIa-b); Khafajah (Houses 1) Delougaz 1952: pl. 164, B666.540b (ED IIIb).

TYPE 31 – Slender bottle (1)

TYPE OF CONTEXT/s: F (100%)	SURFACE TREAT.: /
FABRIC COLOR/s: /	DECORATION/s: grooved (?)
INCLUSION TYPE/s: /	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 0.23 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN

1	10	20

1	10	20

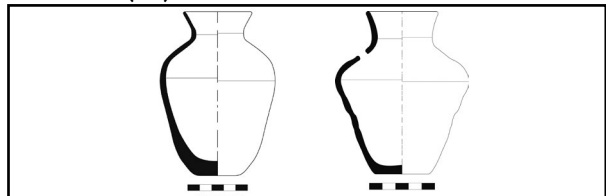
1	10	20

1	10	20

1	10	20

1	10	20

COMPARANDA: Tell Asmar (Houses IV-V), Delougaz 1952: pl. 189, C.757.540 (early Akk).

TYPE 32 – Small jar with out-turned rim and flat base (14)

TYPE OF CONTEXT/s: D (33.3 %); F (60.1%); P (6.6%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/s: (I/O) 10YR 8/4, (C) 10YR 8/2-3	DECORATION/s: incised;
INCLUSION TYPE/s: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1, a2, b2	VOLUME (WATER): 0.14-0.66 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN

1	10	20

1	10	20

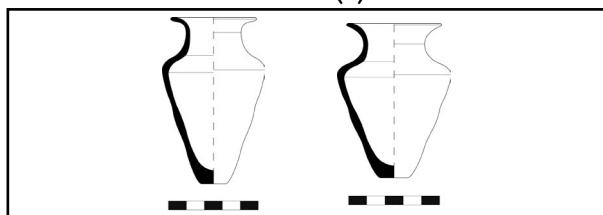
1	10	20

1	10	20

1	10	20

1	10	20

COMPARANDA: Abu Salabikh (Grave 28, 162) Moon 1987: 101, figs. 491 (ED IIIb); Fara (DE 38/39, grave 3) Martin 1988: 181, fig. 67 (ED II); Khafajah (Houses 3, 6), Tell Asmar (Archaic Shrine III) Delougaz 1952: pls. 72k, 160, B.566.560, B.556.520 (ED I-III).

TYPE 33 - High carinated small jar with out-turned rim and flat base (2)

TYPE OF CONTEXT/S: F (100%)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 0.19-0.20 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

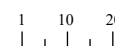
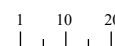
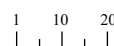
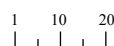
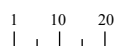
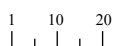
3
2b
2a
1

2
1

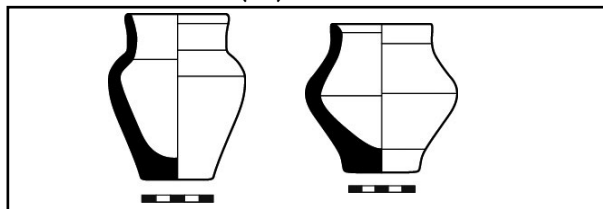
8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN



COMPARANDA: Khafajah (Houses 11-3) Delougaz 1952: pl. 158, B.545.220c, B.546.220, C.575.240 (ED I-III).

TYPE 34 - Carinated small jar with vertical rim and flat base (15)

TYPE OF CONTEXT/S: D (12.4%); F (86.6%)	SURFACE TREAT.: /
FABRIC COLOR/S: 5YR 5/6	DECORATION/S:
INCLUSION TYPE/S: /	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 0.13-0.57 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

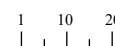
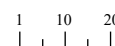
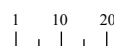
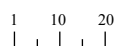
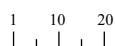
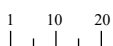
3
2b
2a
1

2
1

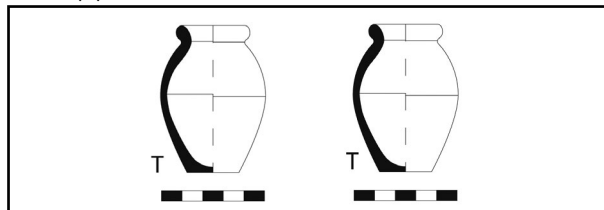
8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN



COMPARANDA: Khafajah (Houses 3, 6) Delougaz 1952: pl. 156, B.525.220 (ED II-III);

TYPE 35 - Small jar with plain rim and flat base (5)


TYPE OF CONTEXT/S: D (40 %); F (60%)	SURFACE TREAT.: /
FABRIC COLOR/S: (1/O-C) 10YR 8/4	DECORATION/S: /
INCLUSION TYPE/S: mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: a1	VOLUME (WATER): 0.07-0.08 l

Area JA

Area A

Area P

YWN sounding

YW sounding

Y + Z sound

2
3

3
2c
2a/b
1

3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN

1	10	20
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1	10	20
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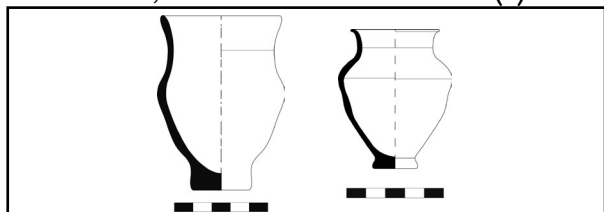
1	10	20
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1	10	20
---	----	----

1	10	20
---	----	----

1	10	20
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COMPARANDA: /

TYPE 36 - Carinated small jar with out-turned rim, tall neck and thick base (9)


TYPE OF CONTEXT/S: D (22.2 %); F (66.7%); P (11.1%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: 5YR 7/6	DECORATION/S: /
INCLUSION TYPE/S: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a2	VOLUME (WATER): 0.10-0.14 l

Area JA

Area A

Area P

YWN sounding

YW sounding

Y + Z sound

2
3

3
2c
2a/b
1

3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN

1	10	20
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1	10	20
---	----	----

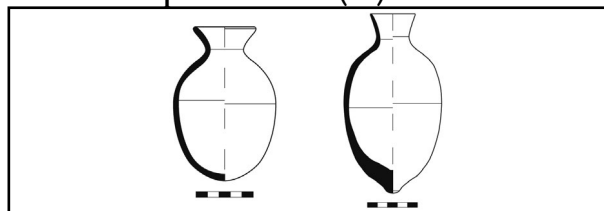
1	10	20
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1	10	20
---	----	----

1	10	20
---	----	----

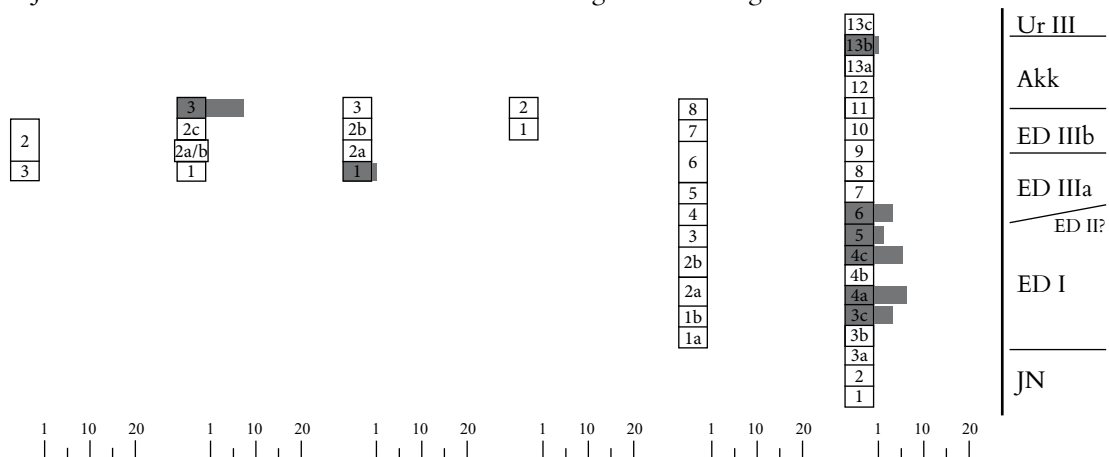
1	10	20
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COMPARANDA: Tell al-Wilaya (Level 2), Hussein *et al.* 2009: fig. 25, no. Wi_1315c (Akk).

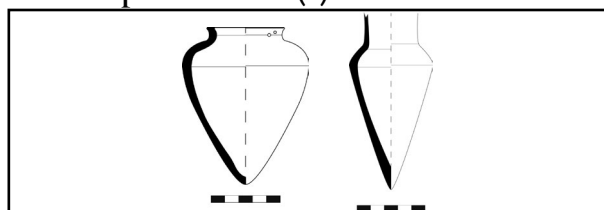
TYPE 37 - Small jar with out-turned rim and rounded or pointed base (32)


TYPE OF CONTEXT/S: D (9.6 %); F (85.7%); P (5.7%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: 5YR 7/6-8	DECORATION/S: /
INCLUSION TYPE/S: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1, b1, b2, b3	VOLUME (WATER): 0.38-0.61 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

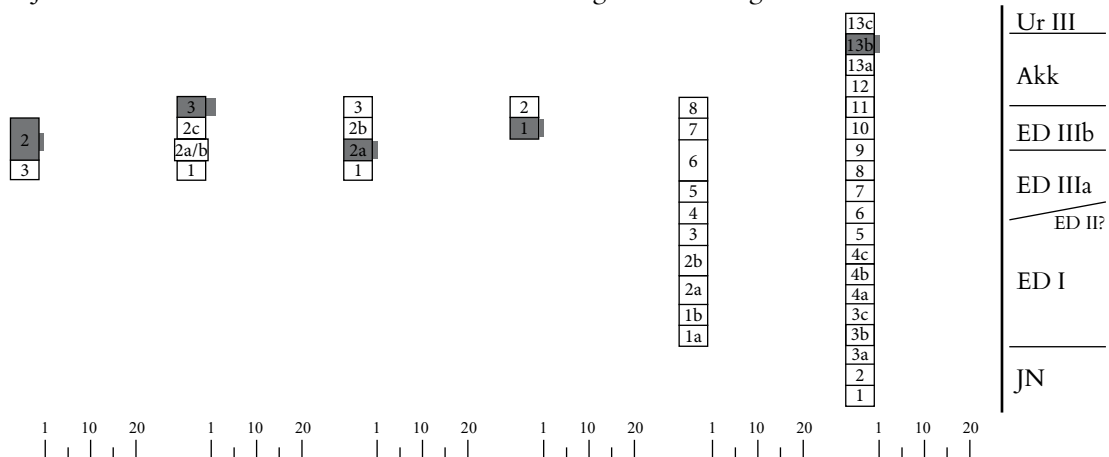


COMPARANDA: Fara (H 48/58, 1.8 m) Martin 1988: 185, fig. 93 (ED IIIa); Khafajah (Houses 3), Tell Asmar (Archaeic Shrine III) Delougaz 1952: pl. 165, B.666.620, B.666.640 (ED I, ED IIIa);

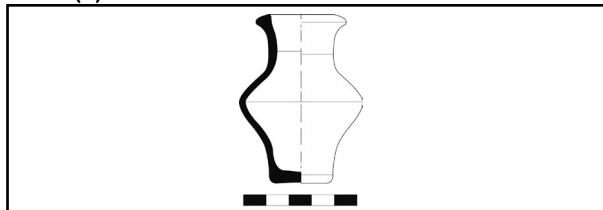
TYPE 38 - Carinated small jar with vertical rim and pointed base (7)


TYPE OF CONTEXT/S: D (66.6 %); F (16.6%); P (16.6%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O-C) 5YR 6/6	DECORATION/S: /
INCLUSION TYPE/S: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1, b2	VOLUME (WATER): 0.05-0.10 l 0.27-0.30 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

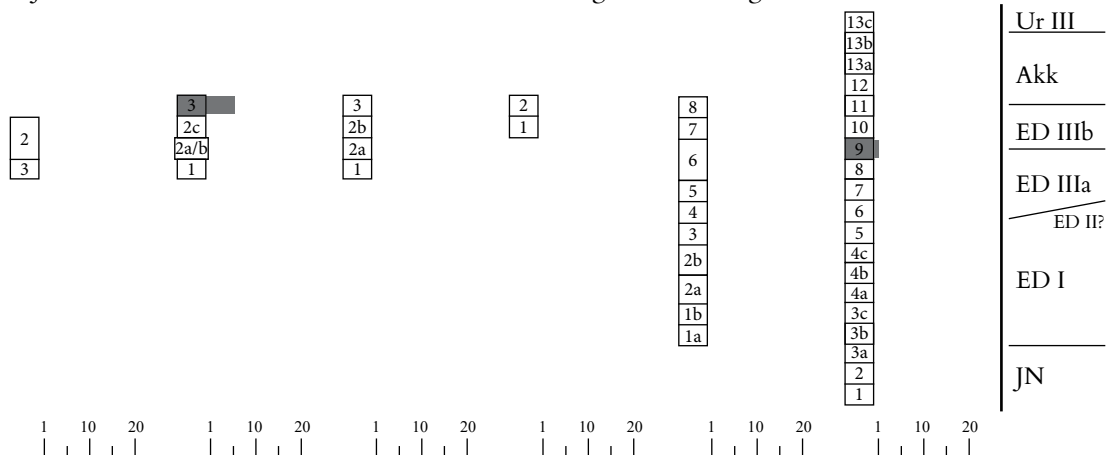


COMPARANDA: Khafajah (Houses 2-3) Delougaz 1952: pl. 143, A.546.630 (ED IIIa-b); Tell al-Wilaya (Level 2), Hussein *et al.* 2009: fig. 25, no. Wi_1328d (Akk).

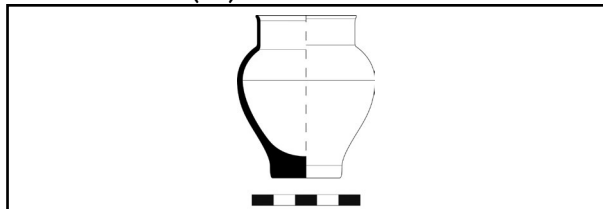
TYPE 39 - Carinated miniature jar with flat base (8)


TYPE OF CONTEXT/S: D (16.7 %); F (83.3%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O-C) 5YR 7/4, 10YR 8/4	DECORATION/S: incised
INCLUSION TYPE/S: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1	VOLUME (WATER): 0.04-0.15 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

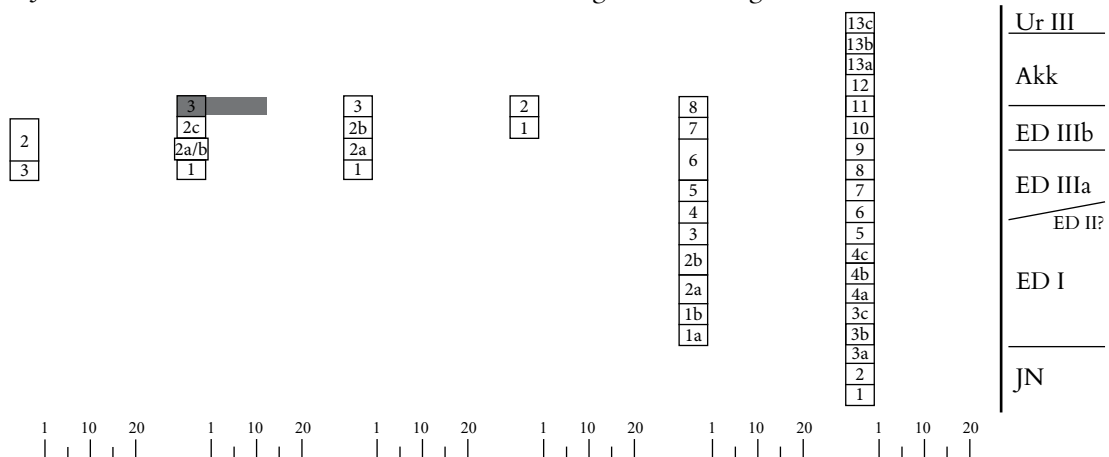


COMPARANDA: Abu Salabikh (Grave 73, Rooms 1, 63) Moon 1987: 97, figs. 457-459 (ED IIIa-b); Fara (Pit I, II) Martin 1988: 177, fig.48 (ED III-Akk), 187, figs. 105, 115 (ED III); Lagash (Area C, Rooms 39, 42, 43, 58, 65) Barhani 1989: 230-231, pl. VII, figs. 3-7 (ED IIIb).

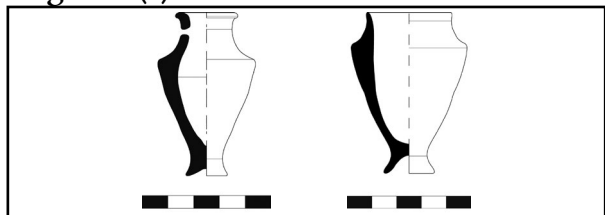
TYPE 40 - Small jar with high neck and rounded wall (13)


TYPE OF CONTEXT/S: F (100 %)	SURFACE TREAT.: /
FABRIC COLOR/S: ((I/O-C) 7.5YR 7/4, 10YR 8/2	DECORATION/S: /
INCLUSION TYPE/S: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1	VOLUME (WATER): 0.10-0.22 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.



COMPARANDA: /

TYPE 41 - High carinated miniature jar with ring base (9)

TYPE OF CONTEXT/S: D (33.3 %); F (33.3%); P (33.3%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O-C) 5YR 7/6-8	DECORATION/S: Incised (pierced)
INCLUSION TYPE/S: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1, a2	VOLUME (WATER): 0.04-0.17 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN

1 10 20

1 10 20

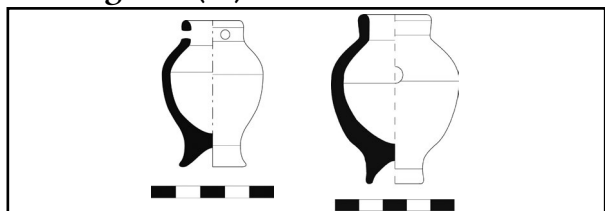
1 10 20

1 10 20

1 10 20

1 10 20

COMPARANDA: Abu Salabikh (Grave 129) Moon 1987: 171, fig. 808 (ED III); Khafajah (Houses 2), Tell Asmar (N. Palace) Delougaz 1952: pl. 156, B.516.471a, B.516.473 (ED III-Akk); Tell al-Wilaya (Level 2), Hussein *et al.* 2009: fig. 26, no. Wi_940d, Wi_941c (Akk); Nippur (NT III), McCown *et al.* 1978: pl. 47.5 (ED III-Akk).

TYPE 42 - Miniature jar with rounded wall and ring base (10)

TYPE OF CONTEXT/S: D (60 %); F (40%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O-C) 7.5YR 7/4	DECORATION/S: incised
INCLUSION TYPE/S: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1, a2	VOLUME (WATER): 0.04-0.13 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN

1 10 20

1 10 20

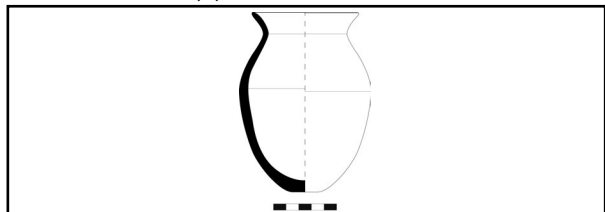
1 10 20

1 10 20

1 10 20

1 10 20

COMPARANDA: Abu Salabikh (Grave 130) Moon 1987: 170, fig. 802 (ED III); Lagash (Area C, Room 39) Barhani 1989: 232, pl. VII, figs. 9-11, 13-16 (ED IIIb); Khafajah (Houses 2) Delougaz 1952: pl. 143, A.556.320 (ED IIIa-b); Tell al-Wilaya (Level 2), Hussein *et al.* 2009: fig. 26, no. Wi_1115b (Akk).

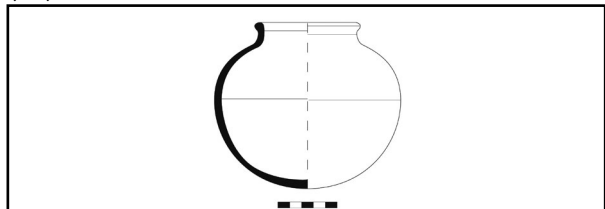
TYPE 43 - Jar with out-turned rim and rounded base (9)


TYPE OF CONTEXT/s: D (23.3 %); F (77.7%)	SURFACE TREAT.: /
FABRIC COLOR/s: /	DECORATION/s: /
INCLUSION TYPE/s: /	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 0.41-1.49 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2	3 2c 2a/b 1	3 2b 2a 1	2 1	8 7 6 5 4 3 2b 2a 1b 1a	13c 13b 13a 12 11 10 9 8 7 6 5 4c 4b 4a 3c 3b 3a 2 1	Ur III Akk ED IIIb ED IIIa ED II? ED I JN
1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	

COMPARANDA: Abu Salabikh (Grave 73, 77, 83, 127) Moon 1987: 81, 83-84, fig. 390-392, 407-411 (ED IIIa-b).

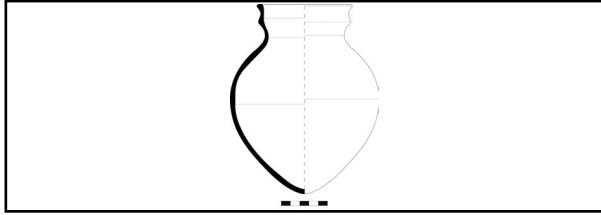
TYPE 44 - Globular jar with out-turned rim (10)


TYPE OF CONTEXT/s: D (10%); F (90 %)	SURFACE TREAT.: /
FABRIC COLOR/s: (I/O-C) 5YR 6/6	DECORATION/s: /
INCLUSION TYPE/s: /	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: a1	VOLUME (WATER): 1.08-2.26 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2	3 2c 2a/b 1	3 2b 2a 1	2 1	8 7 6 5 4 3 2b 2a 1b 1a	13c 13b 13a 12 11 10 9 8 7 6 5 4c 4b 4a 3c 3b 3a 2 1	Ur III Akk ED IIIb ED IIIa ED II? ED I JN
1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	

COMPARANDA: Abu Salabikh (Graves 68, 95, 175, Room 80) Moon 1987: 72, figs. 338-342 (ED IIIa-b); Lagash (unknown) Barhani 1989: 223, figs. 1-4 (ED IIIb); Khafajah (Temple Oval 1, Houses 4-2) Delougaz 1952: pl. 187, C.653.620, C.654.510 (ED II-IIIb).

TYPE 45 – Jar with out-turned grooved rim and rounded base (2)

TYPE OF CONTEXT/S: F (100%)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 2.11-2.78 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

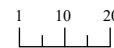
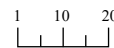
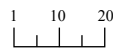
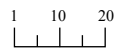
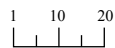
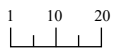
3
2b
2a
1

2
1

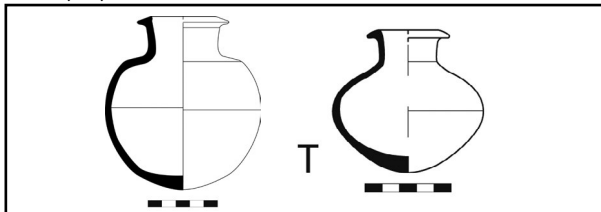
8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN



COMPARANDA: Tell Asmar (Houses IVa), Delougaz 1952: 160, B.556.540 (Akk); Fara (H 48/58, grave 33), Martin 1988, 185, fig. 95 (ED IIIa); Lagash (no context), Barhani 1989: 301, pl. XL, fig. 1 (ED IIIb); Tell al-Wilaya (Level 2), Hussein *et al.* 2009: fig. 22, no. Wi_156c, Wi_1308d (Akk).

TYPE 46 – Small globular jar with triangular rim (24)

TYPE OF CONTEXT/S: D (12.5 %); F (83.3%); P (4.2%)	SURFACE TREAT.: Reserved-slip; slip-burnished, whitish
FABRIC COLOR/S: (I/O-C) 5YR 6/6, 5YR 7/6	DECORATION/S: grooved
INCLUSION TYPE/S: mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: a1, b2	VOLUME (WATER): 0.13-0.23 l, 0.48-0.55 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

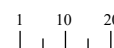
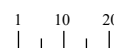
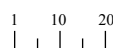
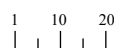
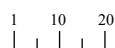
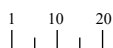
3
2b
2a
1

2
1

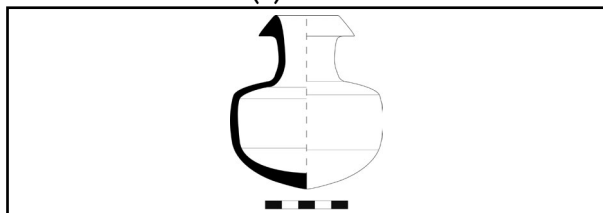
8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN



COMPARANDA: Abu Salabikh (Graves 80, 84, 111) Moon 1987: 65, figs. 309, 311, 314, 315 (ED I-IIIb); Khafajah (Temple Oval 1, Houses 2), Tell Asmar (Archaic Shrine III, Houses IVb) Delougaz 1952: pl.188, C.664.540a-b (ED I-Akk); Tell Razuk (Round building IVa) Gibson 1981: pl. 73, fig. 5 (ED I-II).

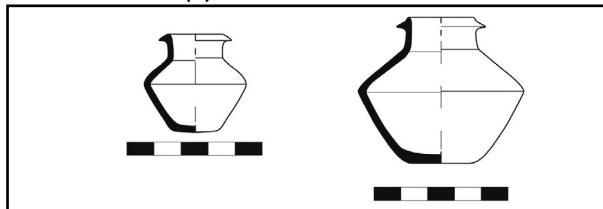
TYPE 47 – Small jar with triangular rim and double carination (8)


TYPE OF CONTEXT/S: D (37.5 %); F (62.5%)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 0.13–0.40 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2 3	3 2c 2a/b 1	3 2b 2a 1	2 1	8 7 6 5 4 3 2b 2a 1b 1a	13c 13b 13a 12 11 10 9 8 7 6 5 4c 4b 4a 3c 3b 3a 2 1	Ur III Akk ED IIIb ED IIIa ED II? ED I JN
1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	

COMPARANDA: Abu Salabikh (G. 184) Moon 1987: 65, fig. 312 (ED IIIb); Tell al-Wilaya (Level 2), Hussein *et al.* 2009: fig. 32, nos. Wi_956a, Wi_135b, Wi_1124d, (Akk); Nippur (area WF, lev. XIVb) McMahon 2006: pl. 114, fig. 4 (Akk); Tell Asmar (Houses Va, E. Palace) Delougaz 1952: pl. 165, B.703.560, B.704.570 (Akk).

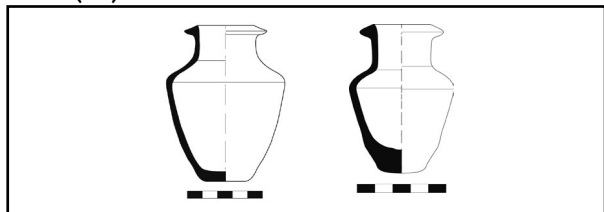
TYPE 48 – Miniature jar with triangular rim and flat base (6)


TYPE OF CONTEXT/S: D (16.7 %); F (83.3%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: ((I/O-C) 10YR 8/3)	DECORATION/S: /
INCLUSION TYPE/S: mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: a1	VOLUME (WATER): 0.04–0.06 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

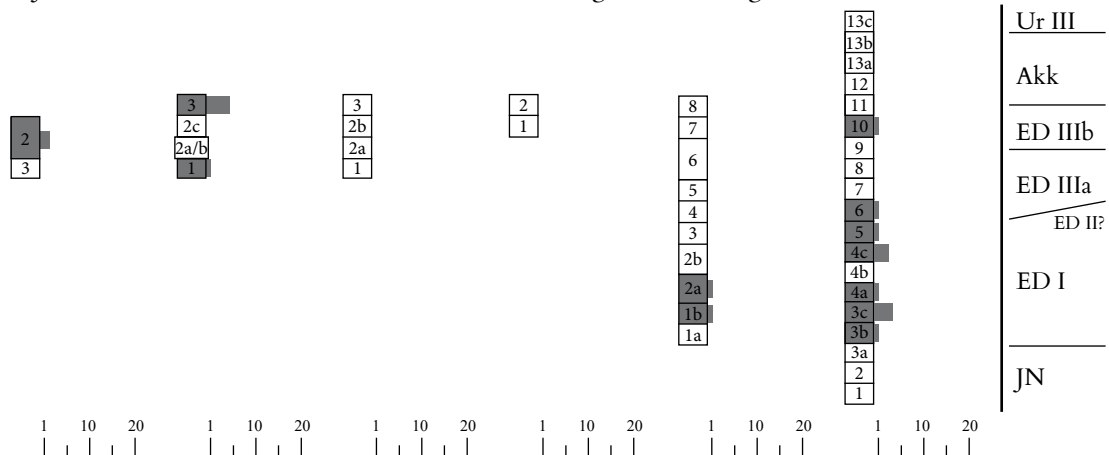
2 3	3 2c 2a/b 1	3 2b 2a 1	2 1	8 7 6 5 4 3 2b 2a 1b 1a	13c 13b 13a 12 11 10 9 8 7 6 5 4c 4b 4a 3c 3b 3a 2 1	Ur III Akk ED IIIb ED IIIa ED II? ED I JN
1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	

COMPARANDA: Abu Salabikh (Grave 81) Moon 1987: 66, fig. 318 (ED II).

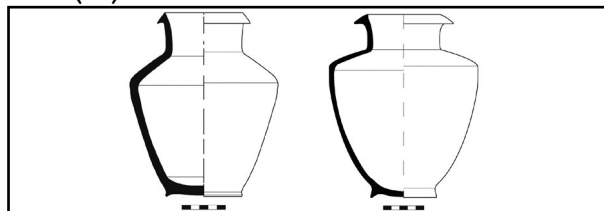
TYPE 49 - Jar with triangular rim and flat base (22)

TYPE OF CONTEXT/s: D (10 %) F (90%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/s: 7.5YR 7/3	DECORATION/s: incised
INCLUSION TYPE/s: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1, b2	VOLUME (WATER): 0.16-0.35 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

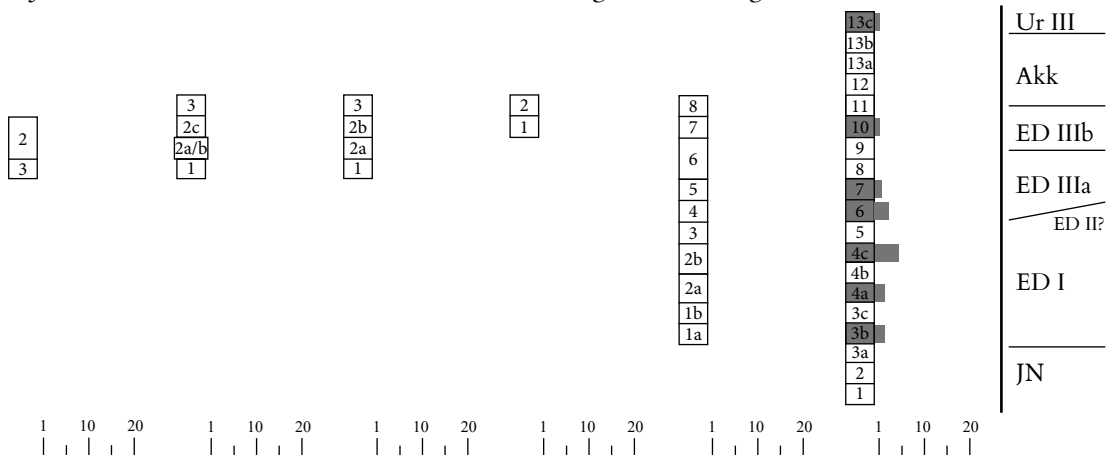


COMPARANDA: Abu Salabikh (Grave 38) Moon 1987: 65, fig. 315 (ED II); Khafajah (Houses 12-6) Delougaz 1952: pl. 158, B.545.240b (JN-ED II).

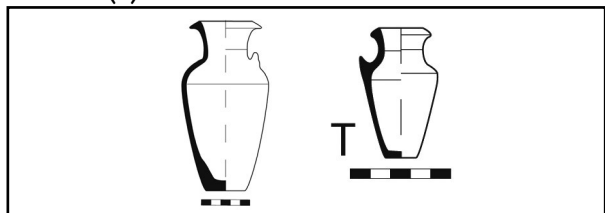
TYPE 50 - Jar with triangular rim and ring base (14)

TYPE OF CONTEXT/s: D (12.5 %) F (83.3%); P (4.2%)	SURFACE TREAT.: Reserved-slip; slip, whitish
FABRIC COLOR/s: (I/O-C) 7.5YR 7/4, 10YR 8/4	DECORATION/s: applied, incised
INCLUSION TYPE/s: mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: a1, a2	VOLUME (WATER): 0.17-0.28 l, 1.90-2.69 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.



COMPARANDA: Fara (DE 38/39, grave 12), Martin 1988: 181, fig. 69 (ED I-II); Khafajah (Houses 11-1, Temple Oval II), Delougaz 1952: pls. 178, C515.370a, 180, C525.370a (ED I-III, Akk).

TYPE 51 - Small jar with simple up-right handle (3)


TYPE OF CONTEXT/s: F (100%)	SURFACE TREAT.: /
FABRIC COLOR/s: (I/O-C) 7.5YR 7/6, 6/8	DECORATION/s: applied
INCLUSION TYPE/s: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a2, b2	VOLUME (WATER): 0.03-0.25 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

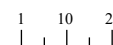
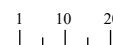
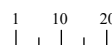
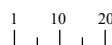
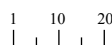
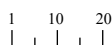
3
2b
2a
1

2
1

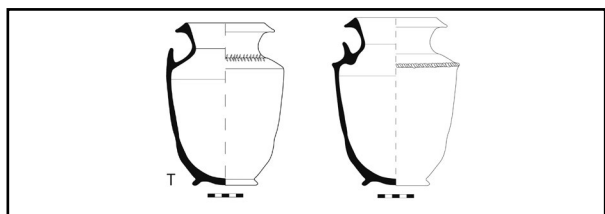
8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN



COMPARANDA: Fara (DE 38/39, grave 12), Martin 1988: 181, 68 (ED II); Khafajah (T. Oval I), Delougaz 1952: pl. 142, A.525.273 (ED I-II).

TYPE 52 - Jar with simple handle (20)


TYPE OF CONTEXT/s: D (20%); F (80 %)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/s: (I/O-C) 5YR 6/4, 10YR 8/4	DECORATION/s: grooved, applied, incised
INCLUSION TYPE/s: vegetal and mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: a1, a2, b2	VOLUME (WATER): 1.86-2.51 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

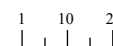
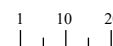
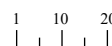
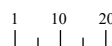
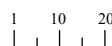
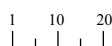
3
2b
2a
1

2
1

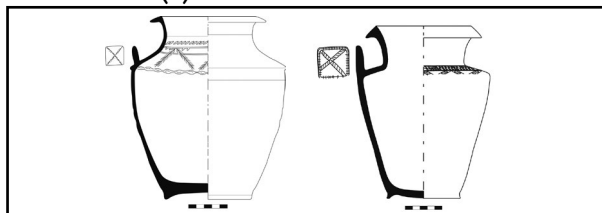
8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN

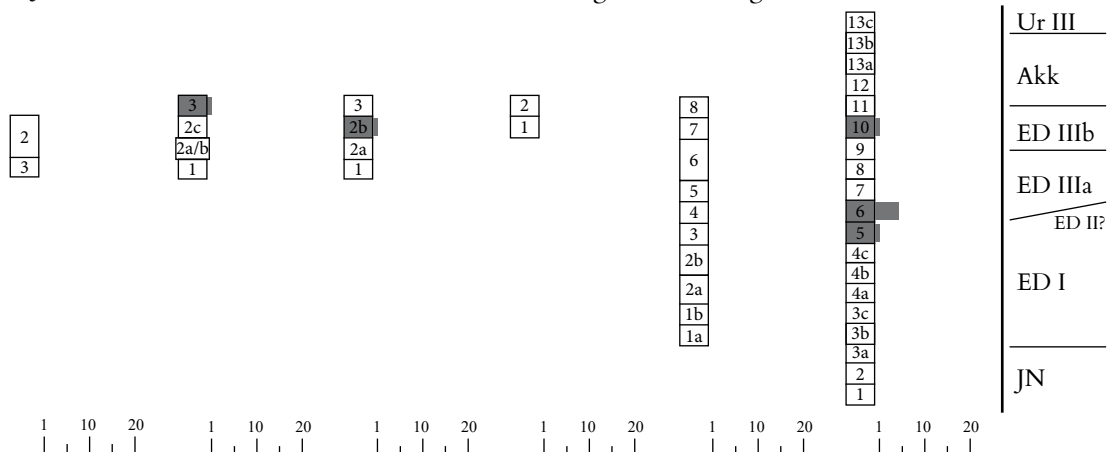


COMPARANDA: Abu Salabikh (Grave 2, 185, West Mound room 8) Moon 1987: 151-152, figs. 711-715 (ED I-II).

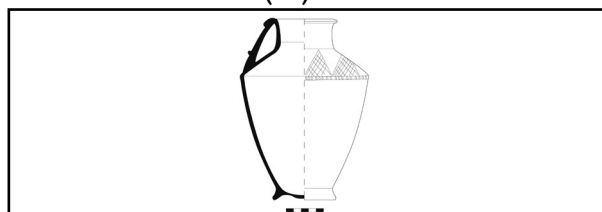
TYPE 53 - Jar with geometric decoration on the handle (9)

TYPE OF CONTEXT/S: D (22.3 %); F (66.6%); P (11.2%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O) 10Y R8/4 (C) 5YR5/6, 10YR8/2	DECORATION/s: applied, incised
INCLUSION TYPE/s: mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: a1, a2, b2	VOLUME (WATER): 1.13-3.21 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

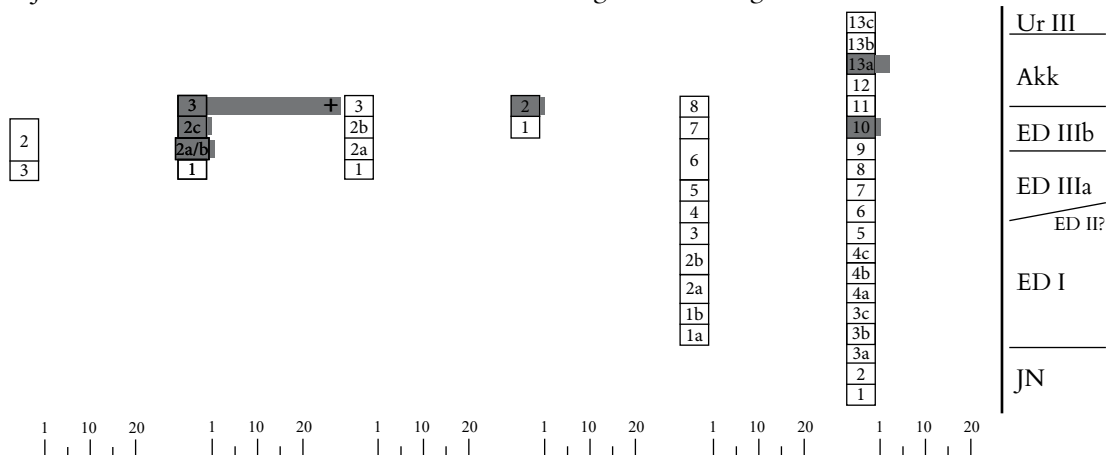


COMPARANDA: Abu Salabikh (Graves 1, 17, 94, 110, 115, 127, 165, 185, room 2 level II, room 7) Moon 1987: 153-155, figs. 719-728 (ED IIIa).

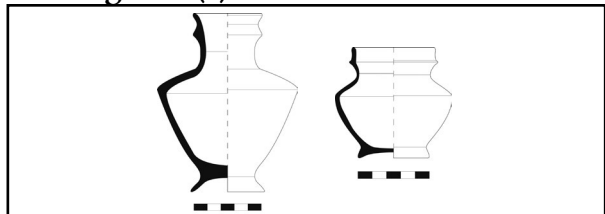
TYPE 54 - Jar with anthropomorphic decoration on the handle (57)

TYPE OF CONTEXT/S: D (13.8 %); F (81.1%); P (5.2%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O) 5YR 7/6 (C) 7.5YR 6-7-8/4	DECORATION/s: applied, incised
INCLUSION TYPE/s: vegetal, mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1, a2, a3, b1	VOLUME (WATER): 0.48-1.05 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

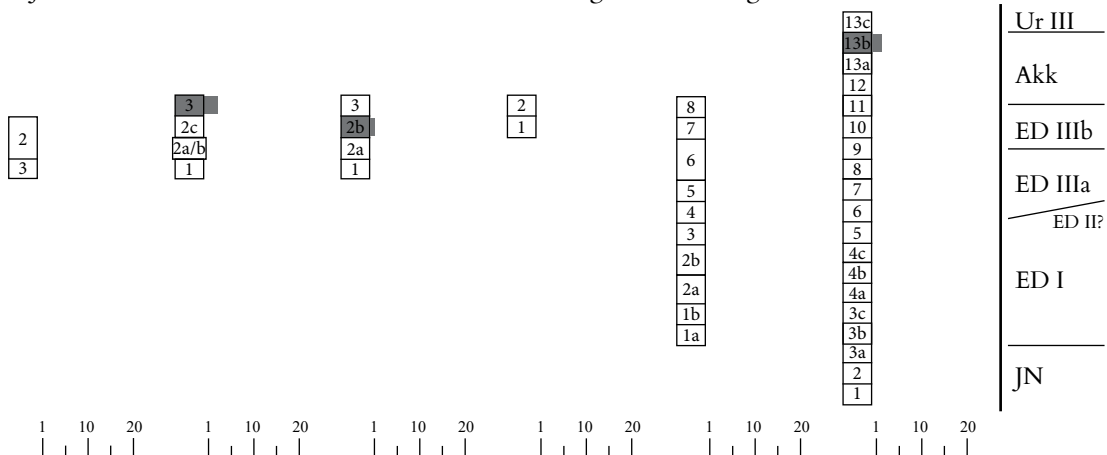


COMPARANDA: Abu Salabikh (Grave 5, 32, 84, 95, 143, 146, 162, 168, 173, 176, 195, Room 62, 110, 115) Moon 1987: 157-161, figs. 732-751 (ED IIIa-b); Tell al-Wilaya (Level 2), Hussein *et al.* 2009: fig. 27, no. Wi_1142e, Wi_1232c (Akk).

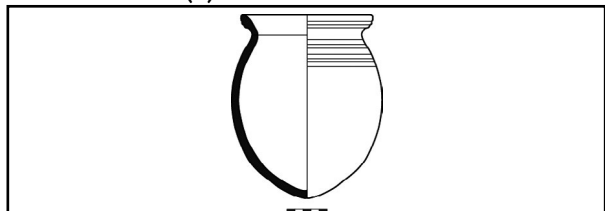
TYPE 55 - Jar with out-turned grooved rim and ring base (6)


TYPE OF CONTEXT/S: F (50%); P (50%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O-C) 10YR 8/3	DECORATION/S: grooved
INCLUSION TYPE/S: mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: a1	VOLUME (WATER): 0.09-1.72 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

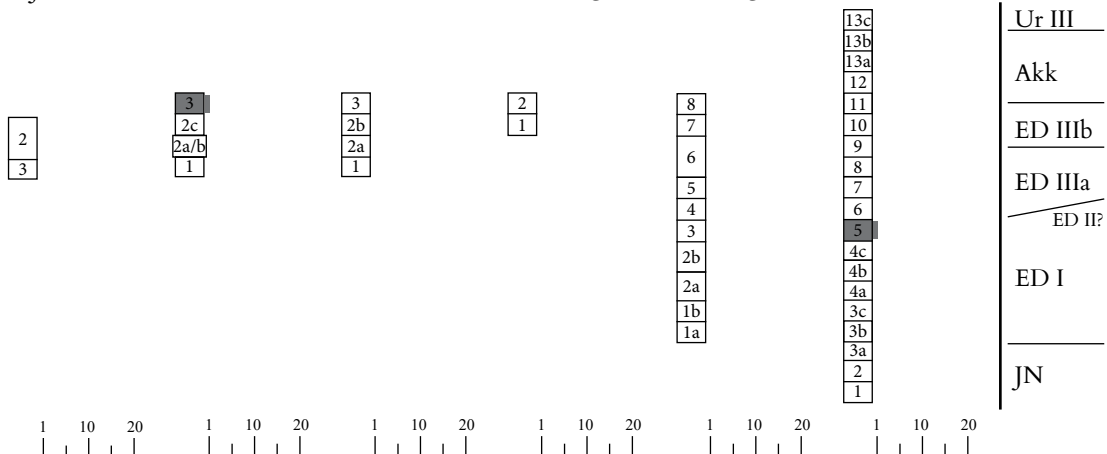


COMPARANDA: Abu Salabikh (Grave 194, 61 room) Moon 1987: 106, fig. 516, 118, fig. 576 (post. ED?); Nippur (TB 292 XI 1), McCown and Haines 1962: pl. 82.1 (Akk); Tell al-Wilaya (Level 2), Hussein *et al.* 2009: fig. 26, no. Wi_683e, Wi_1307f (Akk).

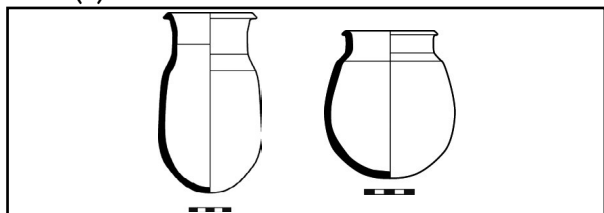
TYPE 56 - Jar with out-turned thick rim and rounded base(2)


TYPE OF CONTEXT/S: D (50%); F (50 %)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1	VOLUME (WATER): 1.54 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.



COMPARANDA: Nippur (WF sounding, levels VIII-IV), McMahon 2006: pl. 95.1-3 (Akk-Ur III); Abu Salabikh (Area A), Postgate and Moon 1984: fig. 21-22, 24 (ED III-Akk).

TYPE 57 - Jar with high neck and rounded base (7)

TYPE OF CONTEXT/S: D (28.6 %); F (71.4%)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 0.41-1.53 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

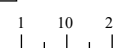
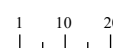
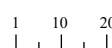
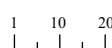
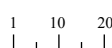
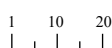
3
2b
2a
1

2
1

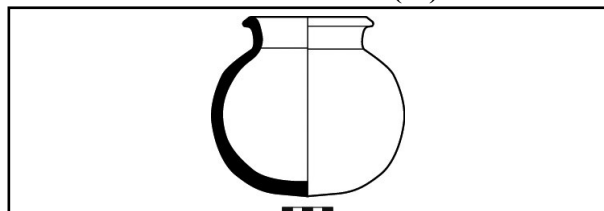
8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN



COMPARANDA: Abu Salabikh (Grave 151, 182, 184, room 115, 119) Moon 1987: 80-81, 83, figs. 385, 387-89, 401-403 (ED IIIa-b)

TYPE 58 Jar with out-turned rim and globular or rounded wall and base (11)

TYPE OF CONTEXT/S: F (100 %)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: /
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 2.96-14.2 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

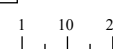
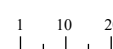
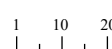
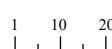
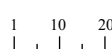
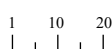
3
2b
2a
1

2
1

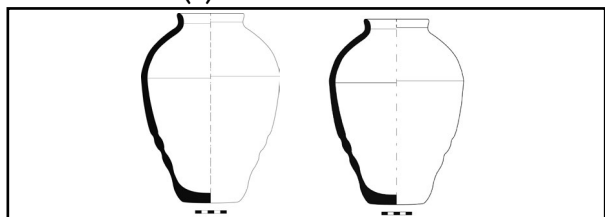
8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN



COMPARANDA: Khafajah (Houses 7-4, Temple Oval II), Delougaz 1952: pl. 164, B.663.540a-b (ED I-III).

TYPE 59 - Jar with vertical rim, rounded wall and flat base (2)


Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN

1 10 20

1 10 20

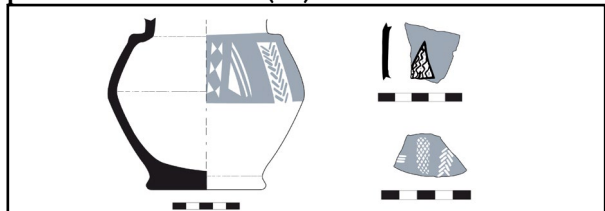
1 10 20

1 10 20

1 10 20

1 10 20

COMPARANDA: **Nippur** (WF sounding, levels XIX-XVII) McMahon 2006: Pl. 98.1-9 (ED III-Akk); **Umm el-Jir** (Area B) Gibson 1972c: fig. 44 B7.23 (Akk).

TYPE 60 - Carinated jar with geometric painted decoration (14)


Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN

1 10 20

1 10 20

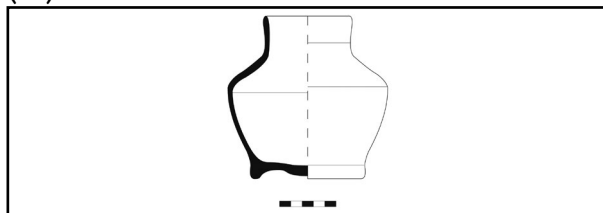
1 10 20

1 10 20

1 10 20

1 10 20

COMPARANDA: **Jemdet Nasr** (Administrative building), Matthews 1992: 8, figs. 3.9-10 (JN); **Nippur** (Inanna XIV-XII), Wilson 1986: figs. 10.2-4 (JN); **Khafajah** (Samus II), Delougaz 1952: pl. 155, B.513.170 (JN); **Tell Uqair** (Lloyd and Safar 1943: pl. 22, figs. 5-7 (JN).

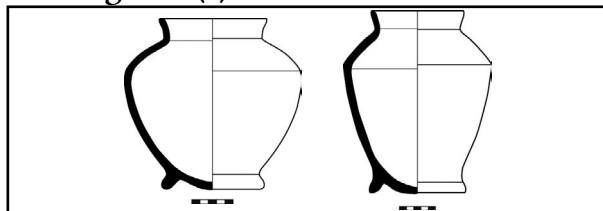
TYPE 61 - High carinated jar with ring base (14)

TYPE OF CONTEXT/S: D (14.3 %); F (85.7%)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 1.12 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2 3	3 2c 2a/b 1	3 2b 2a 1	2 1	8 7 6 5 4 3 2b 2a 1b 1a	13c 13b 13a 12 11 10 9 8 7 6 5 4c 4b 4a 3c 3b 3a 2 1	Ur III Akk ED IIIb ED IIIa ED II? ED I JN
1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	

COMPARANDA: Abu Salabikh (Grave 68, 73, 162), Moon 1987: 117, figs. 569-571 (ED IIIa-b).

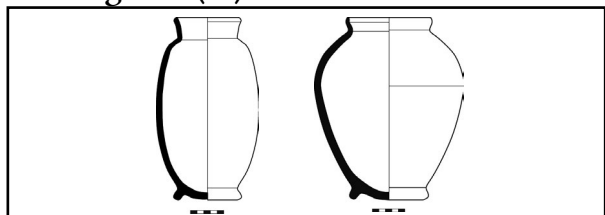
TYPE 62 - Carinated jar with vertical rim and ring base (6)

TYPE OF CONTEXT/S: F (100 %)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 2.05-4.28 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

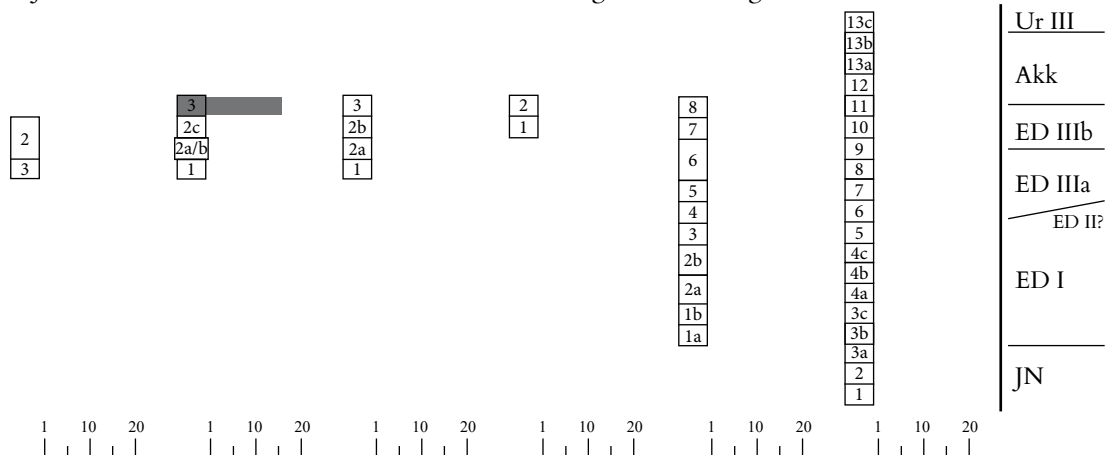
2 3	3 2c 2a/b 1	3 2b 2a 1	2 1	8 7 6 5 4 3 2b 2a 1b 1a	13c 13b 13a 12 11 10 9 8 7 6 5 4c 4b 4a 3c 3b 3a 2 1	Ur III Akk ED IIIb ED IIIa ED II? ED I JN
1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	1 10 20	

COMPARANDA: Abu Salabikh (Grave 124), Moon 1987: 111-112, fig. 543-544 (ED IIIb);

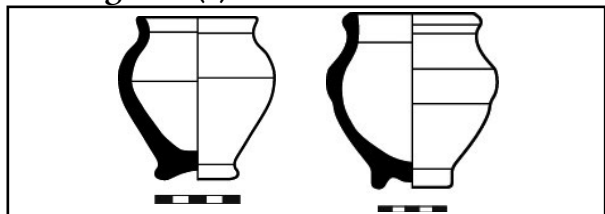
TYPE 63 - Carinated jar with out-turned rim and ring base (16)


TYPE OF CONTEXT/S: D (6.2 %); F (93.8%)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: /
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 1.98-10.02 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

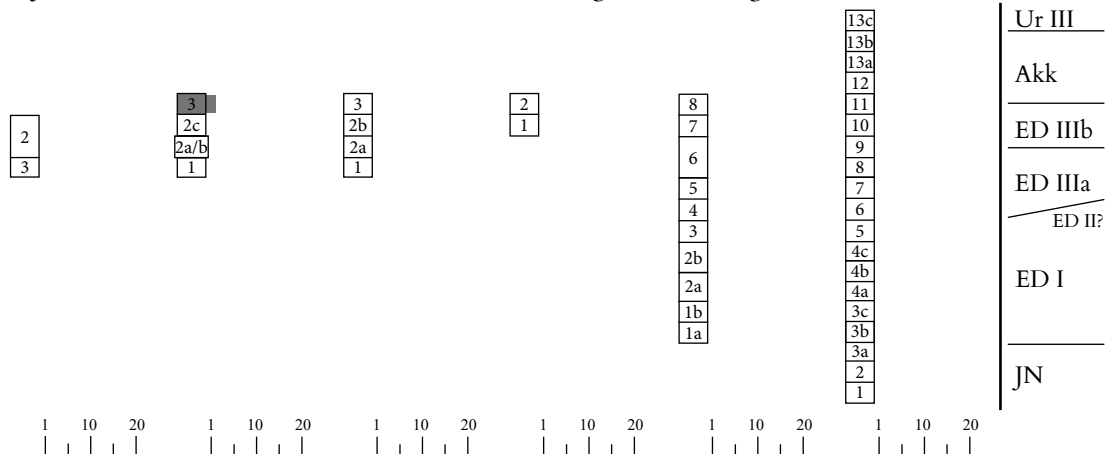


COMPARANDA: Abu Salabikh (Grave 124), Moon 1987: 112-113, figs. 545-551 (ED IIIb);

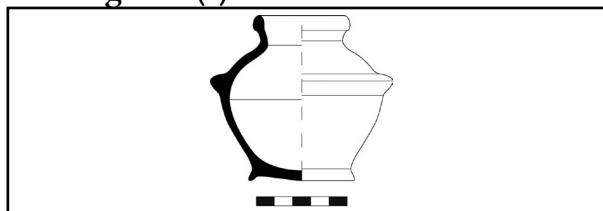
TYPE 64 - Small jar with grooved shoulder and ring base (2)


TYPE OF CONTEXT/S: F (100 %)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 0.26-0.32 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

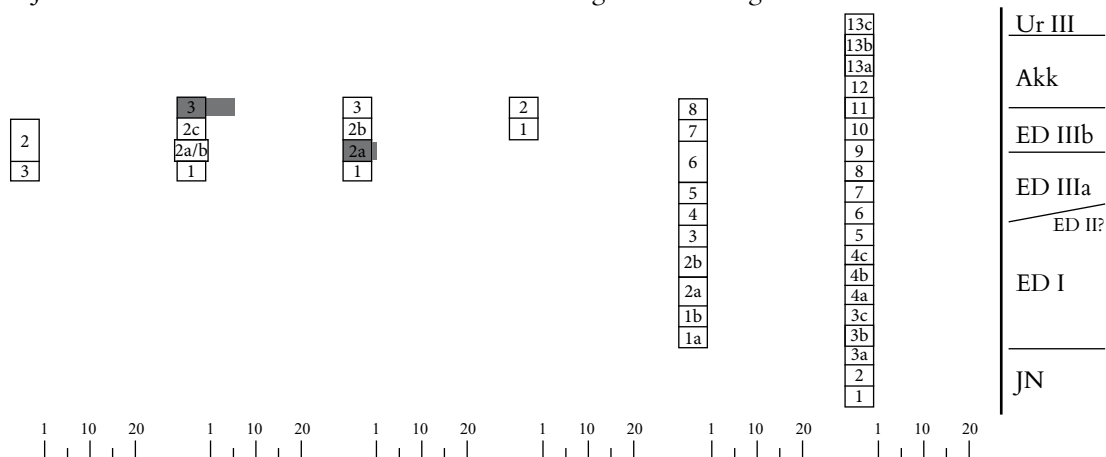


COMPARANDA: /

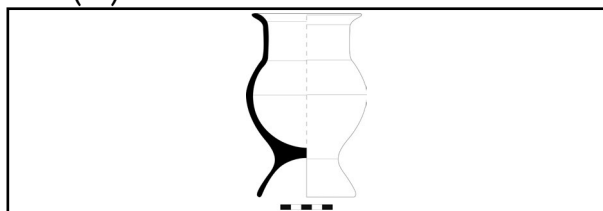
TYPE 65 - Carinated jar with out-turned rim and ring base (7)

TYPE OF CONTEXT/S: F (100 %)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 1.22-1.90 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

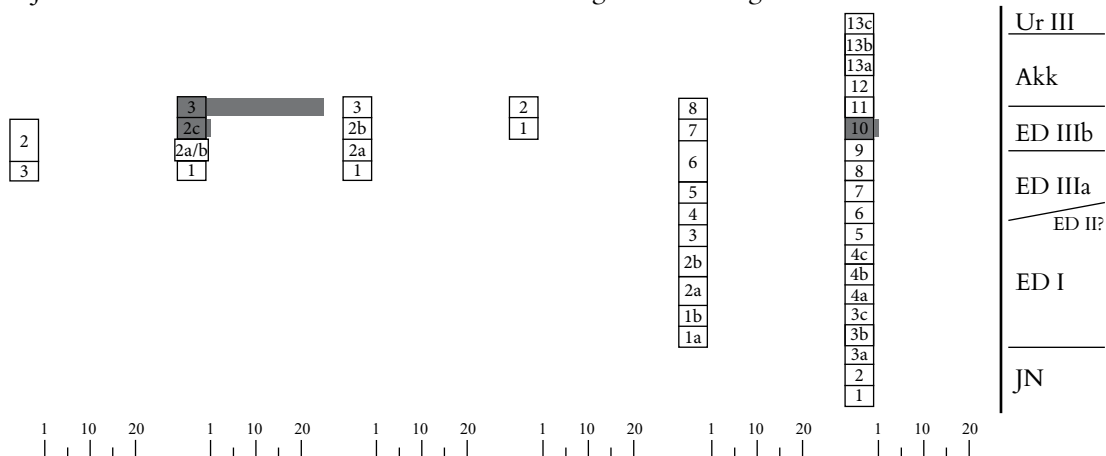


COMPARANDA: Khafajah (Houses 2), Delougaz 1952: pl. 177, C.504.360 (ED III).

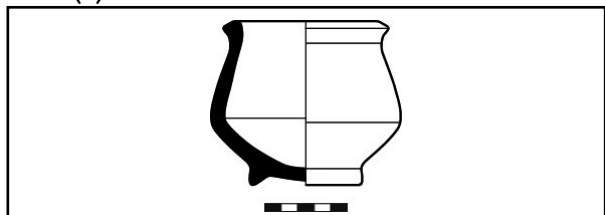
TYPE 66 - Jar with high neck and high ring base (26)

TYPE OF CONTEXT/S: D (18.5 %); F (70.7%); P (3.7%)	SURFACE TREAT.: slip whitish
FABRIC COLOR/S: (I/O-C) 5YR 7/6, 7.5YR 7/6	DECORATION/S: /
INCLUSION TYPE/S: vegetal and mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a3, b2	VOLUME (WATER): 0.40-0.68 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

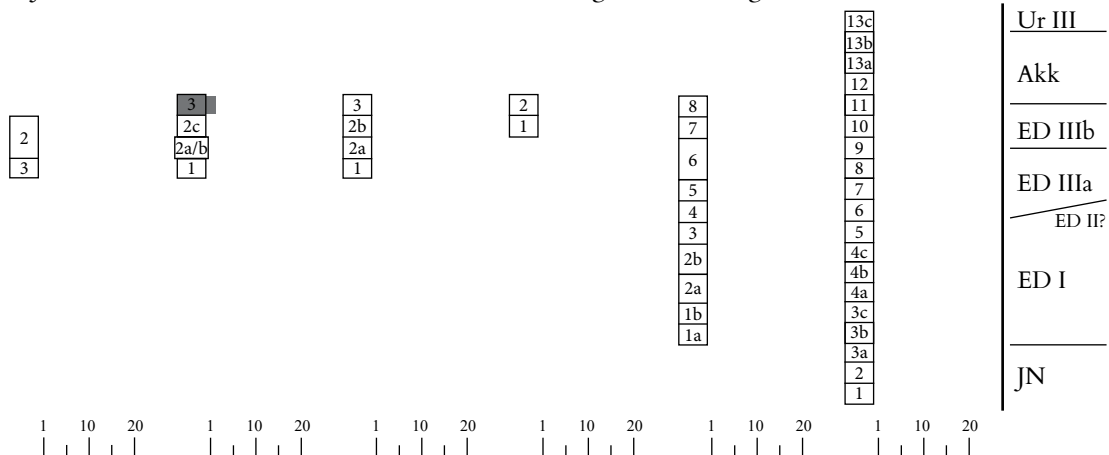


COMPARANDA: Abu Salabikh (Graves 5, 15, 76, 198) Moon 1987: 124, nos. 601-607 (ED IIIb).

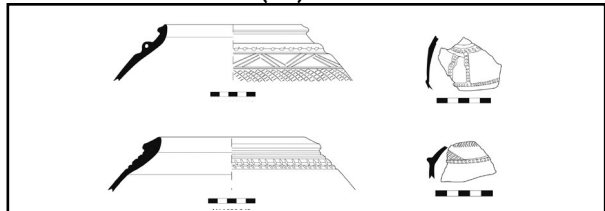
TYPE 67 - Jar with low carination and ring base (2)


TYPE OF CONTEXT/S: D (50 %); F (50%)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 0.44 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

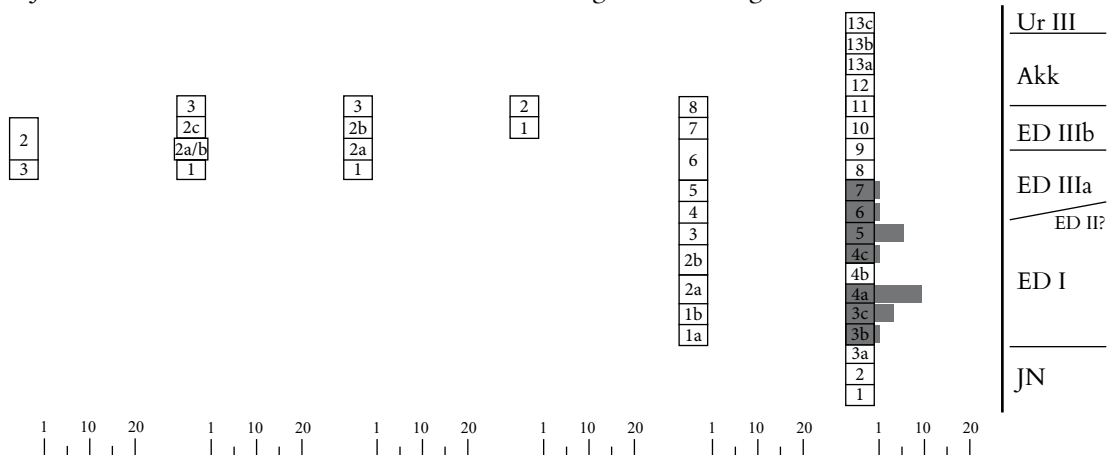


COMPARANDA: /

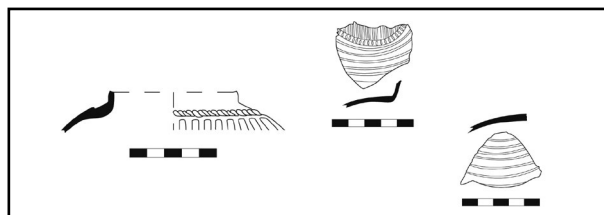
TYPE 68 - Hole-mouth jar with applied and incised decoration (24)


TYPE OF CONTEXT/S: D (100 %)	SURFACE TREAT.: reserved-slip; slip, whitish
FABRIC COLOR/S: (I/O-C) 7.5YR 6/4-7/8, 10YR 8/3-8	DECORATION/S: incised; applied
INCLUSION TYPE/S: vegetal and mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1, a2, b2, b3, c2	VOLUME (WATER): /

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

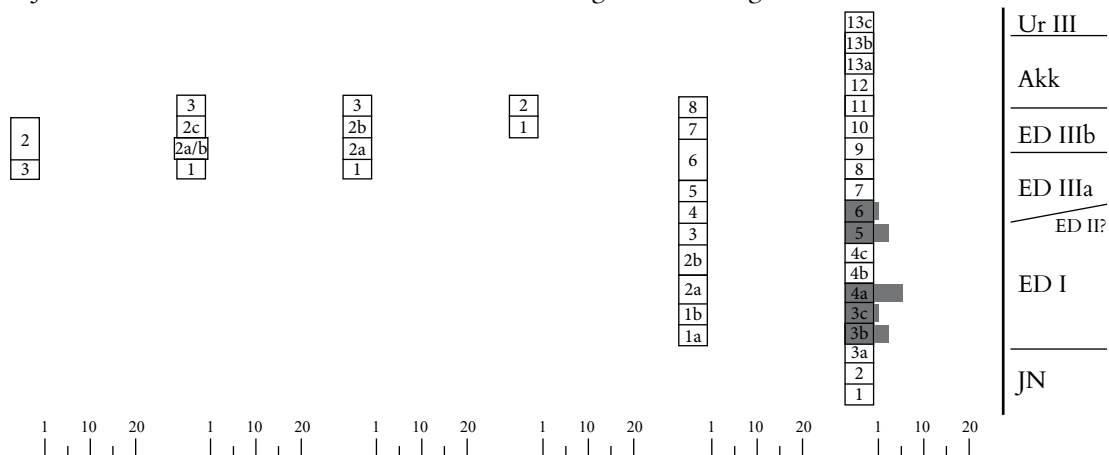


COMPARANDA: Fara (DE 38/39, 4-5 m), Martin 1988: 181, figs. 64-65 (ED I); Tell Asmar (D15:3, H18:14 soundings), Delougaz 1952: pls. 63.26, 31-34, 64.2-3 (ED I).

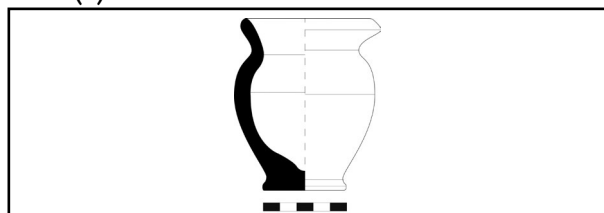
TYPE 69 – Reserved slip jar (13)

TYPE OF CONTEXT/S: D (100 %)	SURFACE TREAT.: reserved-slip; slip, whitish
FABRIC COLOR/S: (I/O-C) 5YR 7/4-6, 10YR 8/4	DECORATION/S: incised; applied
INCLUSION TYPE/S: mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: a1, b1, b2, c2	VOLUME (WATER): /

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

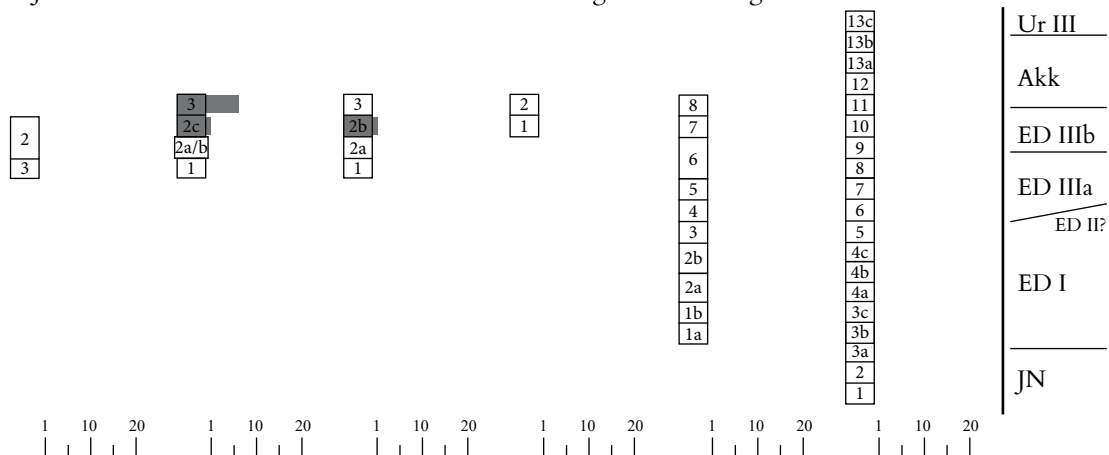


COMPARANDA: Tell Asmar (D15:3, H18:14 soundings), Delougaz 1952: pls. 63.2, 11, 38, 40, 54, 58, 64.13, 17, 21 (JN-ED I); Abu Salabikh (Level II), Moon 1987: 167, fig. 794 (ED I) .

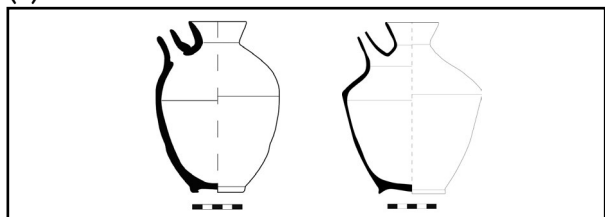
TYPE 70 – Small jar with pouring lip and flat base (9)

TYPE OF CONTEXT/S: F (77.7 %); P (22.3%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O-C) 5YR 6/6, 10YR 8/3	DECORATION/S: /
INCLUSION TYPE/S: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1	VOLUME (WATER): 0.13-0.24 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

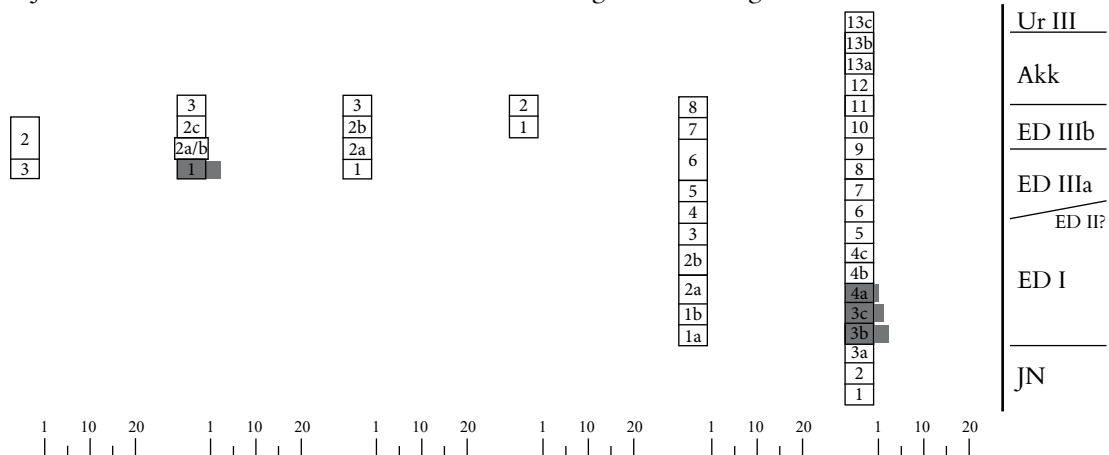


COMPARANDA: Khafajah (Houses 2), Tell Asmar (Houses IV-V, Northern Palace) Delougaz 1952: pl. 161, B.575.224 (ED IIIb-late Akk).

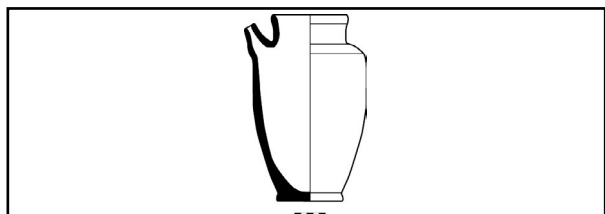
TYPE 71 – Small spouted jar with ring base (9)


TYPE OF CONTEXT/S: D (62.5%) F (37.5 %)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O-C) 7.5YR 7/4, 10YR 8/3	DECORATION/S: /
INCLUSION TYPE/S: vegetal and mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: a1, a2, b2	VOLUME (WATER): 0.70-1.10 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

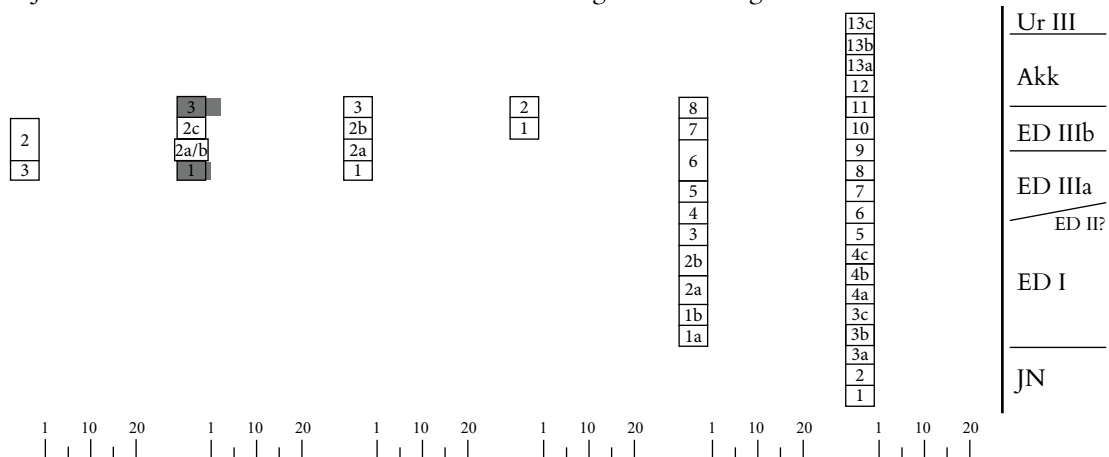


COMPARANDA: Fara (FG 42/43), Martin 1988: 183, fig. 89 (ED II); Khafajah (House 11-6), Delougaz 1952: D.515.362, D.665.222, D.596.362 (JN-ED II).

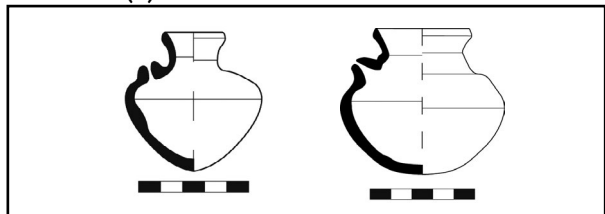
TYPE 72 – Spouted jar with flat base (4)


TYPE OF CONTEXT/S: D (25 %); F (75%)	SURFACE TREAT.: /
FABRIC COLOR/S: /	DECORATION/S: /
INCLUSION TYPE/S: /	TECHNIQUE:
INCLUSION SIZE/FREQ.: /	VOLUME (WATER): 1.44-2.22 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.



COMPARANDA: Tell Asmar (Square Temple), Delougaz 1952: pl. 180, C.5262.262c (ED II).

TYPE 73 – Small spouted jar with rounded or flat base (8)

Area JA

Area A

Area P

YWN sounding

YW sounding

Y + Z sound.

2
3

3
2c
2a/b
1

3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III

Akk

ED IIIb

ED IIIa

ED II?

ED I

JN

1	10	20
---	----	----

1	10	20
---	----	----

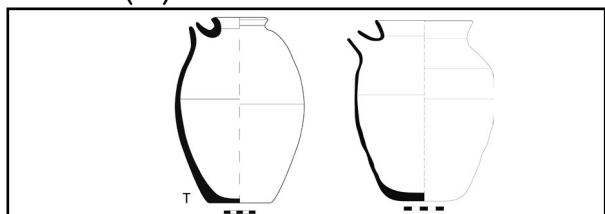
1	10	20
---	----	----

1	10	20
---	----	----

1	10	20
---	----	----

1	10	20
---	----	----

COMPARANDA: Khafajah (Houses 4), Delougaz 1952: pl. 155, B.514.572 (ED II).

TYPE 74 – Spouted jar with rounded wall and flat base (26)

Area JA

Area A

Area P

YWN sounding

YW sounding

Y + Z sound.

2
3

3
2c
2a/b
1

3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III

Akk

ED IIIb

ED IIIa

ED II?

ED I

JN

1	10	20
---	----	----

1	10	20
---	----	----

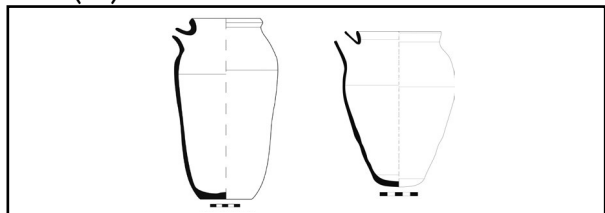
1	10	20
---	----	----

1	10	20
---	----	----

1	10	20
---	----	----

1	10	20
---	----	----

COMPARANDA: Abu Salabikh (Grave 160), Moon 1987: 145, fig. 696; Khafajah (Houses 8), Delougaz 1952: pl. 184, C.556.242 (ED I); Tell al-'Ubaid (Graves 15, 88), Martin 1982: 168, table 1, type LXXV_k (ED I).

TYPE 75 - Carinated spouted jar with flat base (18)

TYPE OF CONTEXT/S: F (100 %)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O-C) 5YR 6/4-6	DECORATION/S: /
INCLUSION TYPE/S: mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: a1, a2, b2, b3	VOLUME (WATER): 1.80-4.48 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

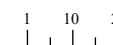
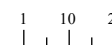
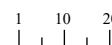
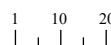
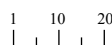
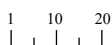
3
2b
2a
1

2
1

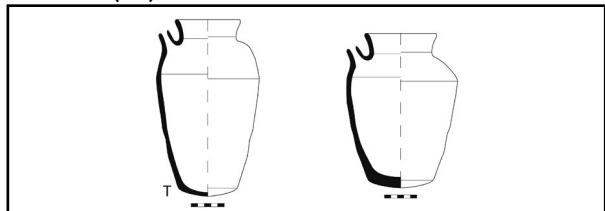
8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN



COMPARANDA: Abu Salabikh (Grave 185), Moon 1987: 140, fig. 676 (ED II).

TYPE 76 - Carinated spouted jar with rounded base (27)

TYPE OF CONTEXT/S: D (7.6 %); F (92.4%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O-C) 10YR 8/3-4	DECORATION/S: /
INCLUSION TYPE/S: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1, b2	VOLUME (WATER): 1.80-3.03 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

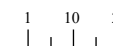
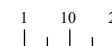
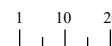
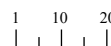
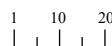
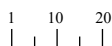
3
2b
2a
1

2
1

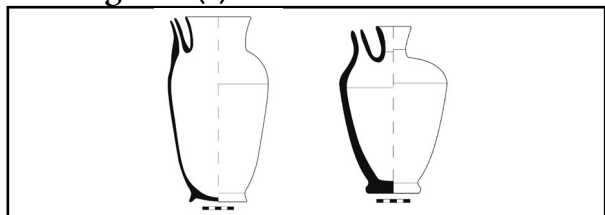
8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN



COMPARANDA: Fara (DE 38/39, graves 9, 10), Martin 1988: 177, fig. 52 (ED II); Tell al-'Ubaid (Graves 10, 88), Martin 1982: 168, table 1, type LXXXI (ED I).

TYPE 77 - Carinated jar with vertical spout and ring base (6)

TYPE OF CONTEXT/s: D (25%); F (75%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/s: (I/O-C) 5YR 7/4	DECORATION/s: /
INCLUSION TYPE/s: mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: b2	VOLUME (WATER): 1.74-3.14 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

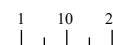
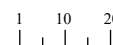
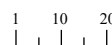
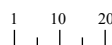
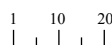
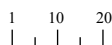
3
2b
2a
1

2
1

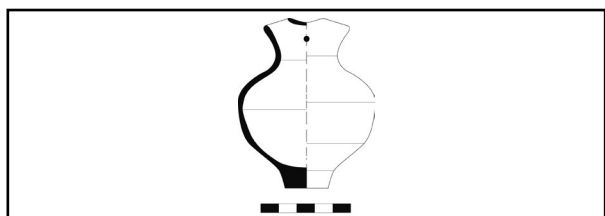
8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN



COMPARANDA: Abu Salabikh (Grave 185), Moon 1987: 143-144, no. 690-692 (ED II); Khafajah (Houses 11, 6, 5, 4), Delougaz 1952: pls. 192-193, D.515.362, D.525.362 (ED I-II).

TYPE 78 - Double spouted jar (6)

TYPE OF CONTEXT/s: D (100 %)	SURFACE TREAT.: /
FABRIC COLOR/s: (I/O-C) 5YR 7/6	DECORATION/s: incised (pierced)
INCLUSION TYPE/s: mineral	TECHNIQUE: wheel
INCLUSION SIZE/FREQ.: a1	VOLUME (WATER): 0.20-0.62 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

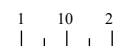
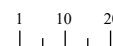
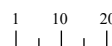
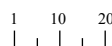
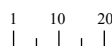
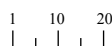
3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

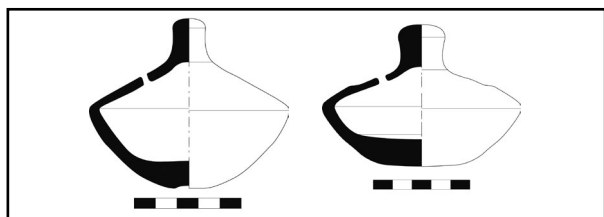
13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN



COMPARANDA: Fara (HI 48/58 1.8 m), Martin 1988: 183, fig. 79, 185, fig. 94 (ED IIIa); Khafajah (Houses 2), Delougaz 1952: pl. 161, B.575.225 (ED IIIb); Tell al-Wilaya (level 2) Hussein *et al.* 2009: 37, fig. 33, Wi_1113, Wi_467 and Wi_314 (ED IIIb-Akk).

TYPE 79 - High carinated lid (15)



Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN

1 10 20

1 10 20

1 10 20

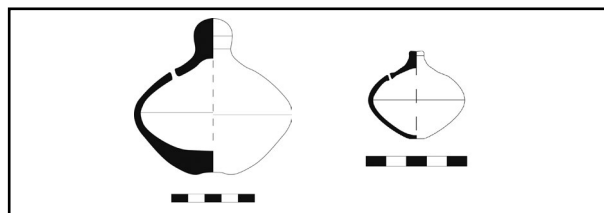
1 10 20

1 10 20

1 10 20

COMPARANDA: Fara (DE 38/39 2-0 m) Martin 1988, 181, figs. 61-62 (ED I/II); Khafajah (Sin VII), Tell Asmar (Archaic Shrine III-IV) Delougaz 1952, pl. 164 B.664.520b (ED I).

TYPE 80 - Lid with rounded wall (10)



Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN

1 10 20

1 10 20

1 10 20

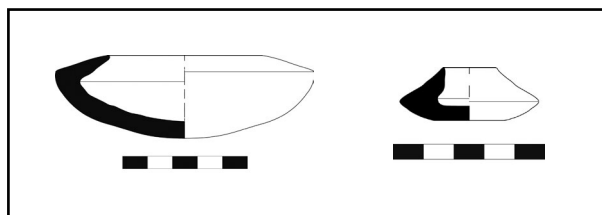
1 10 20

1 10 20

1 10 20

COMPARANDA: Abu Salabikh (2G13 surface), Moon 1987: 28, fig. 151 (ED I-II); Khafajah (Houses 6, Small Temple VI), Delougaz 1952, pl. 164 B.664.520c (ED II). Nippur (WF sounding, level XIIIc), McMahon 2006: pl. 114.6 (ED III).

TYPE 81 - Open lid (3)



Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN

1 10 20

1 10 20

1 10 20

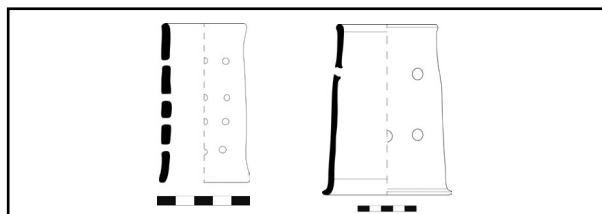
1 10 20

1 10 20

1 10 20

COMPARANDA: Fara (FG 42/43, 1 m), Martin 1988: 183, fig. 74 (ED II).

TYPE 82 - Stand (5)



Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN

1 10 20

1 10 20

1 10 20

1 10 20

1 10 20

1 10 20

COMPARANDA: Abu Salabikh (Grave 185), Moon 1987: figs. 300, 303-305 (ED IIIa-b); Nippur (WF sounding, XI), McMahon 2006: pl. 82, type O-7.3 (late Akk-Ur III); Uch Tepe (Level 1; Burial 12), Gibson 1981: pl. 77.8-9 (ED II), pl. 97.4 (early Akk).

TYPE 83 – Miniature jar (2)



TYPE OF CONTEXT/S: D (100 %)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O-C) 5YR 7/4	DECORATION/s: incised (pierced)
INCLUSION TYPE/S: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1	VOLUME (WATER): 0.03 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

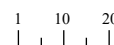
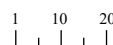
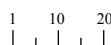
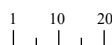
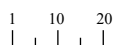
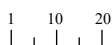
3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

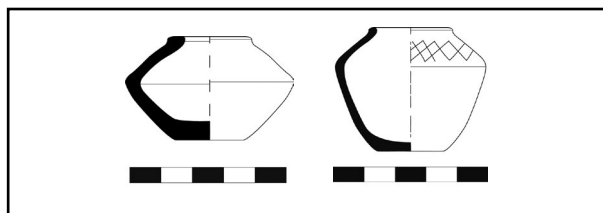
13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN



COMPARANDA: /

TYPE 84 – Miscellaneous miniature jars (27)



TYPE OF CONTEXT/S: D (71.4 %); F (21.4 %); P (7.2%)	SURFACE TREAT.: slip, whitish
FABRIC COLOR/S: (I/O-C) 5YR 6/6, 10YR 8/3-4	DECORATION/s: incised; grooved
INCLUSION TYPE/S: mineral	TECHNIQUE: hand-wheel
INCLUSION SIZE/FREQ.: a1, a2, a4, b2	VOLUME (WATER): 0.01-0.16 l

Area JA Area A Area P YWN sounding YW sounding Y + Z sound.

2
3

3
2c
2a/b
1

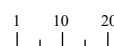
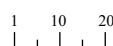
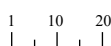
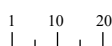
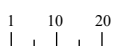
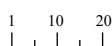
3
2b
2a
1

2
1

8
7
6
5
4
3
2b
2a
1b
1a

13c
13b
13a
12
11
10
9
8
7
6
5
4c
4b
4a
3c
3b
3a
2
1

Ur III
Akk
ED IIIb
ED IIIa
ED II?
ED I
JN



COMPARANDA: /

ABBREVIATIONS

AAICAB	Archives Administratives et Inscriptions Cuneiformes de l'Ashmolean Museum et de la Bodleian Collection d'Oxford
ADOG	Abhandlungen der Deutschen Orient-Gesellschaft
AJA	American Journal of Archaeology
ASJ	Acta Sumerologica (Japan)
AVO	Altertumskunde des Vorderen Orients
BAM	Baghdader Mitteilungen
BAR	British Archaeological Reports
CAH	Cambridge Ancient History
CDLJ	Cuneiform Digital Library Journal
CDLN	Cuneiform Digital Library Notes
CMAO	Contributi Materiali di Archeologia Orientale
CRAIBL	Comptes rendus de l'Académie des Inscriptions et Belles-Lettres
CUSAS	Cornell University Studies in Assyriology and Sumerology
FAOS	Freiburger Altorientalische Studien
HANES	History of the Ancient Near East
JAOS	Journal of the American Oriental Society
JFA	Journal of Field Archeology
JNES	Journal of Near Eastern Studies
JRAS	Journal of the Royal Asiatic Society
MAD	Materials for the Assyrian Dictionary
MSVO	Materialien zu den frühen Schriftzeugnissen des Vorderen Orients
NABU	Nouvelles Assyriologiques Brèves et Utilitaires
OECT	Oxford Editions of Cuneiform Texts
OBO	Orbis Biblicus et Orientalis
OIMP	Oriental Institute Museum Publication
OIP	Oriental Institute Publication
OIS	Oriental Institute Seminars
RIME	The Royal Inscriptions of Mesopotamia
SANE	Sources from the Ancient Near East
UE	Ur Excavations
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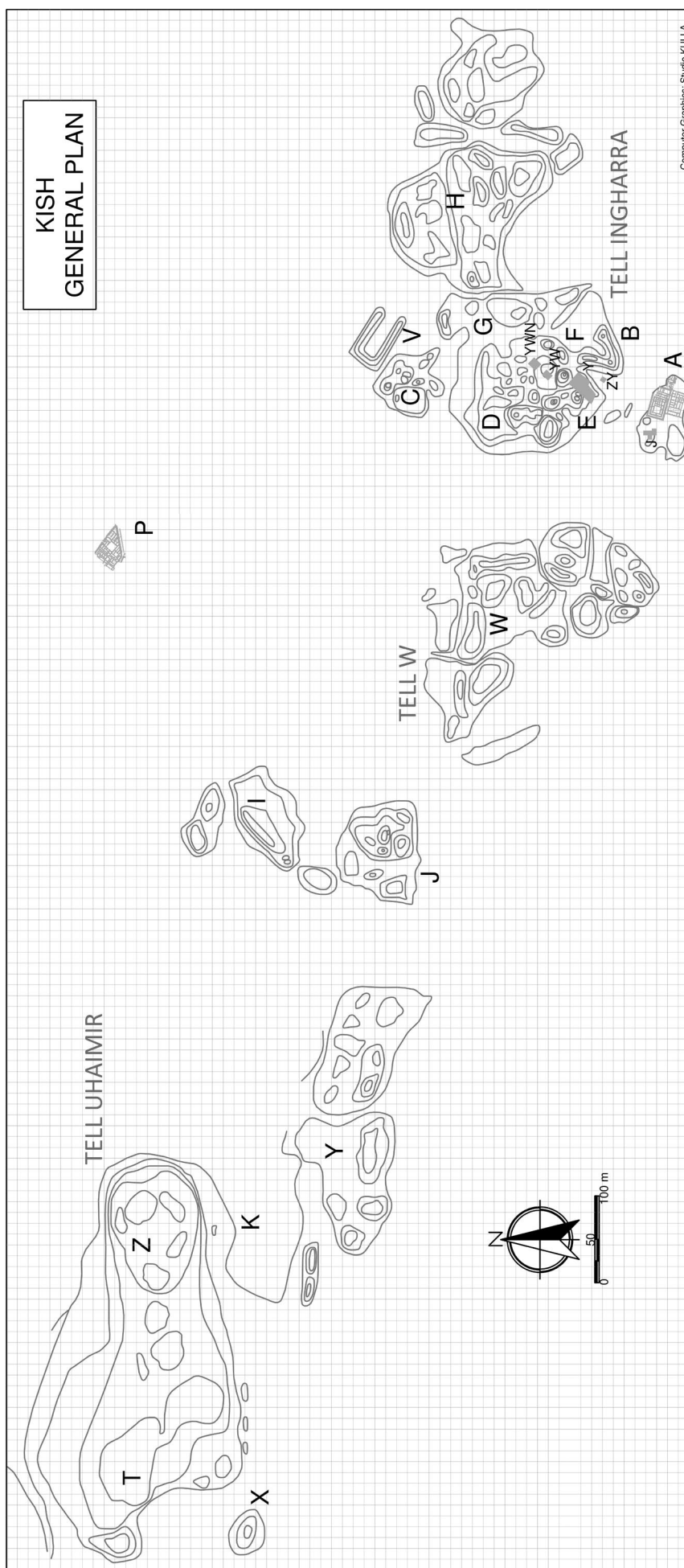
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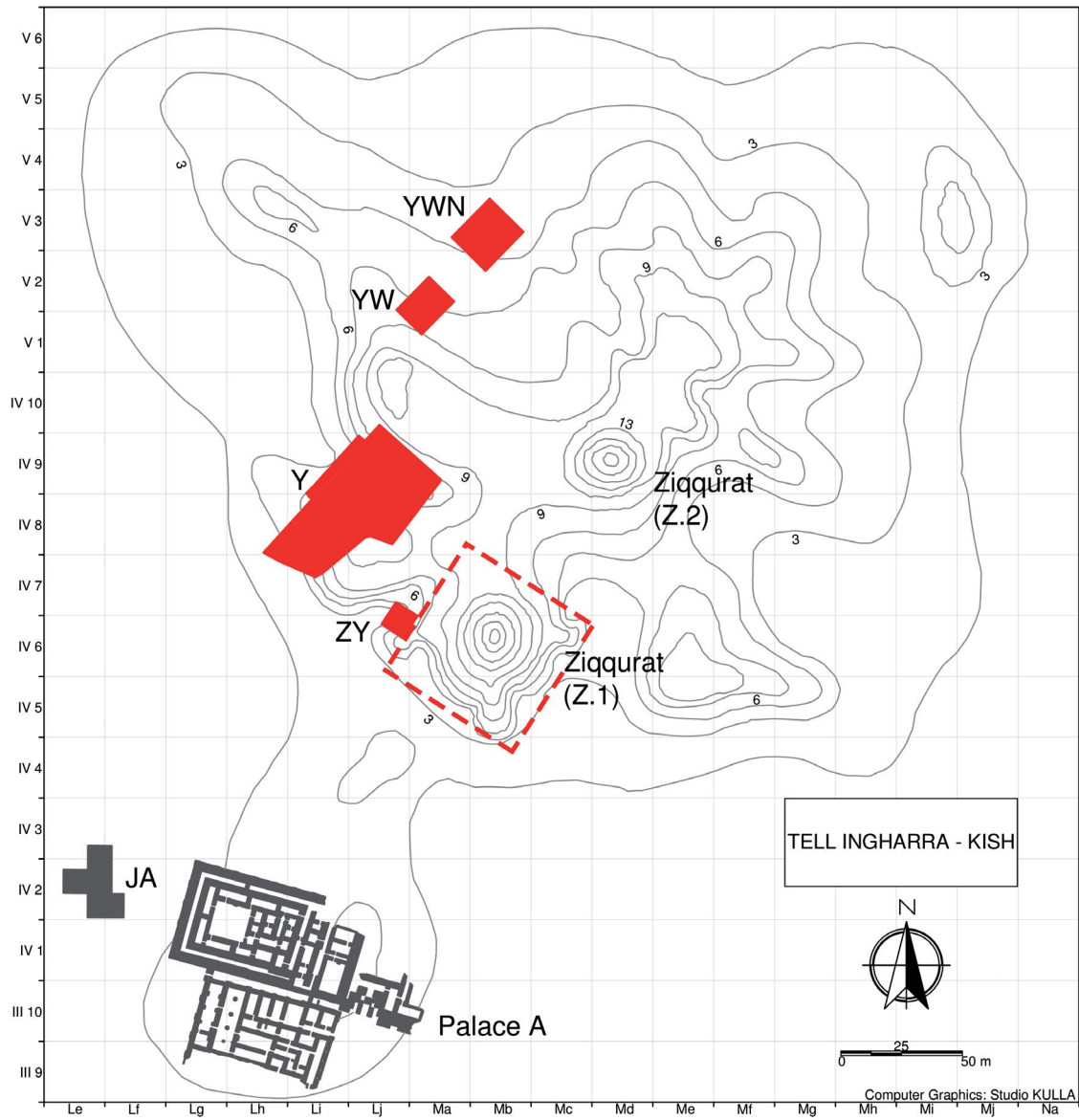
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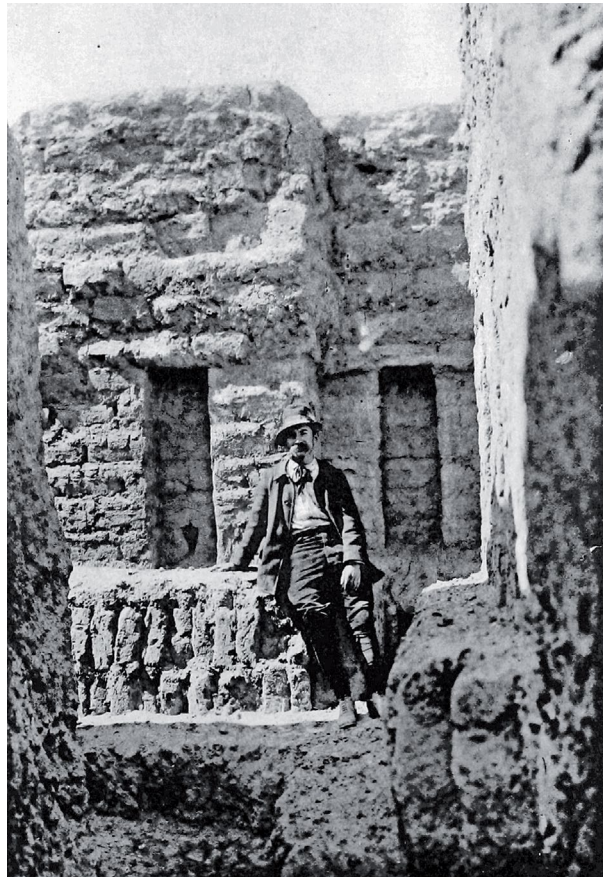


Topographic maps of Kish (redrawn after Gibson 1972a: 292, fig. 45).



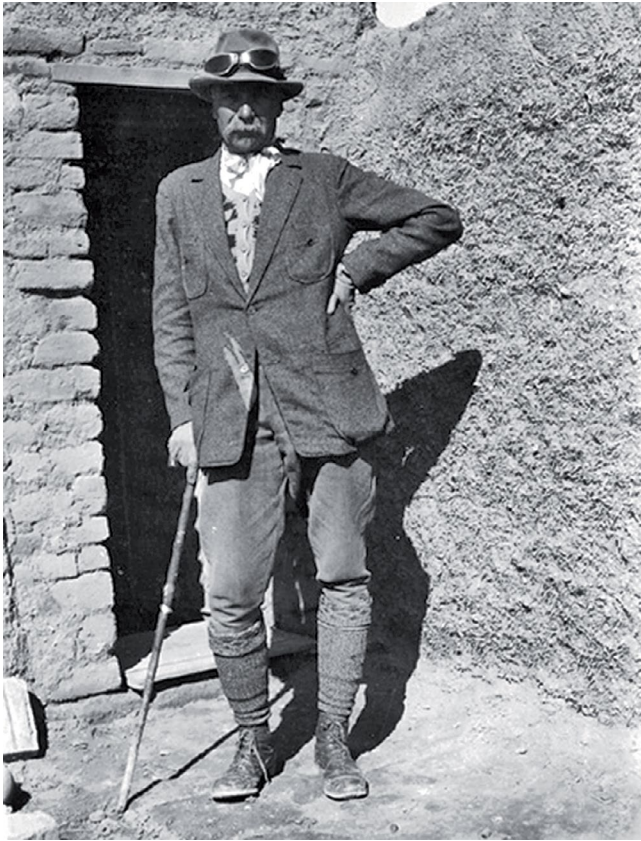
Topographic map of Tell Ingharra (East Kish). In red are the areas discussed in the text.

1. Henri de Genouillac sitting on a wall of Neo-Babylonian temple at Tell Ingharra (de Genouillac 1925: pl. XVI.2).



2. The 1923-1924 Oxford-Chicago expedition staff. From left to right, Ernest Mackay (Field Director), Stephen Langdon (Director) and Col. W.H. Lane (Topographer). (Ashmolean Museum, University of Oxford).





1. The 1926-1933 Field Director Louis Charles Watelin. (Courtesy of the Field Museum, Chicago).

2. S. Langdon showing how to extract a clay cuneiform tablet from the section on Tell W (Ashmolean Museum, University of Oxford).

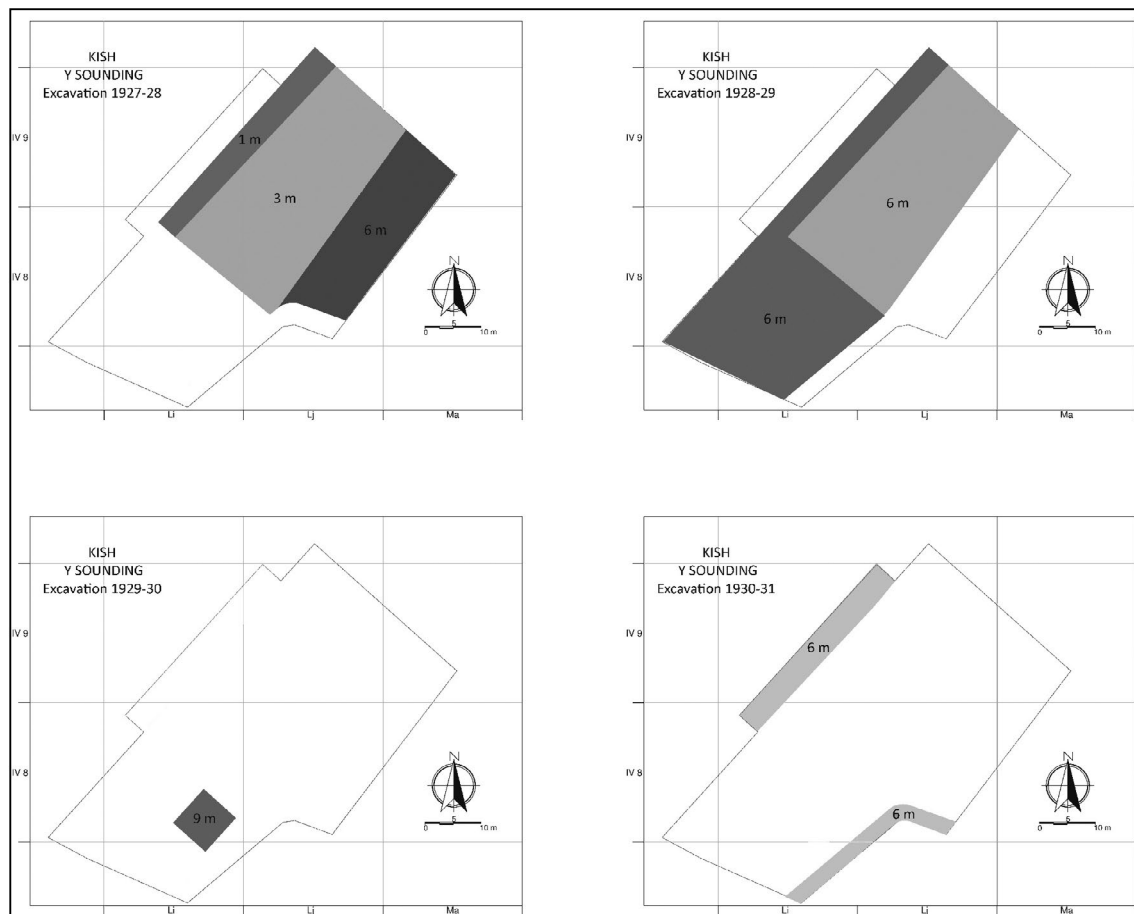


1. Basket boys at Kish
(Ashmolean Museum,
University of Oxford).

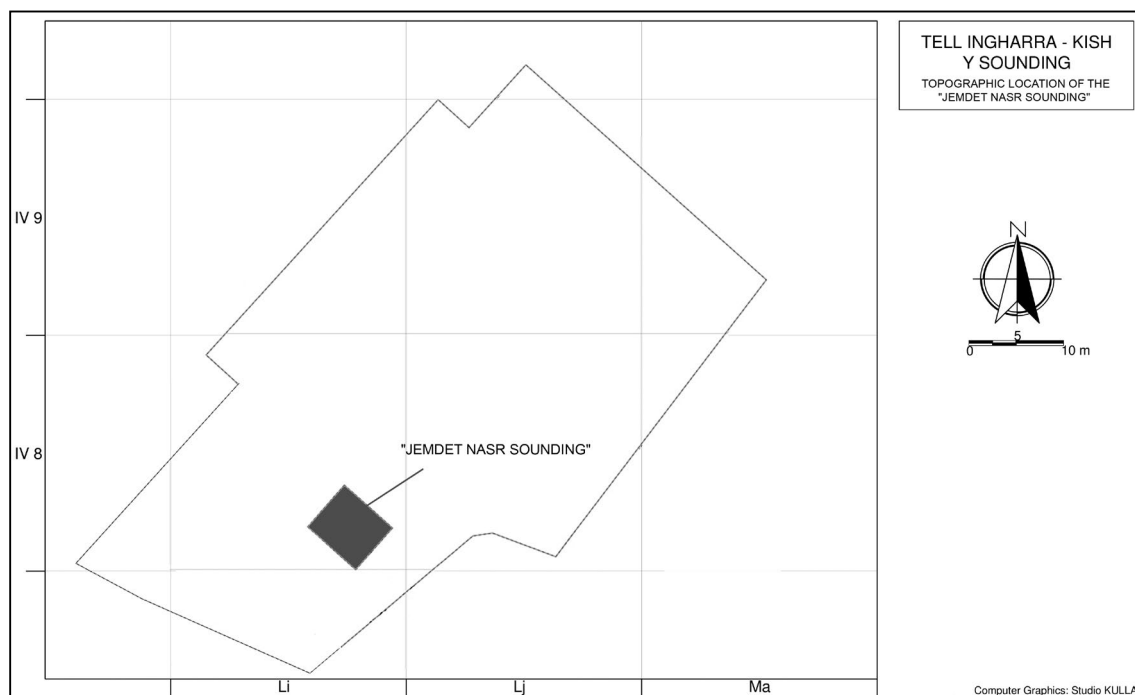


2. Adult men removing
dump with light railway
trucks (Ashmolean
Museum, University of
Oxford).

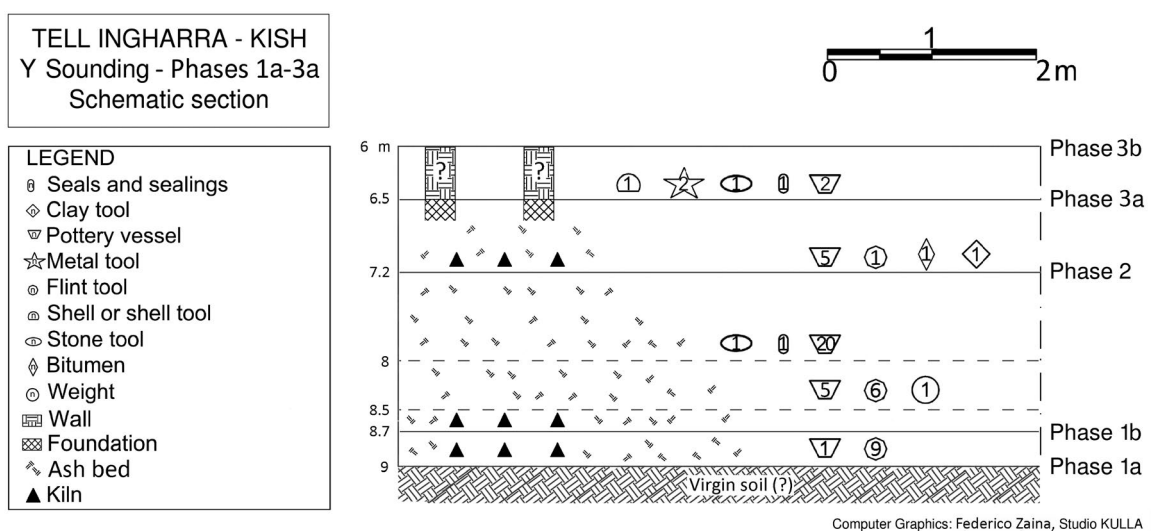




Reconstruction of the sectors of the Y sounding excavated between the 1927-28 and the 1930-31 campaigns by the Anglo-American expedition at Kish.



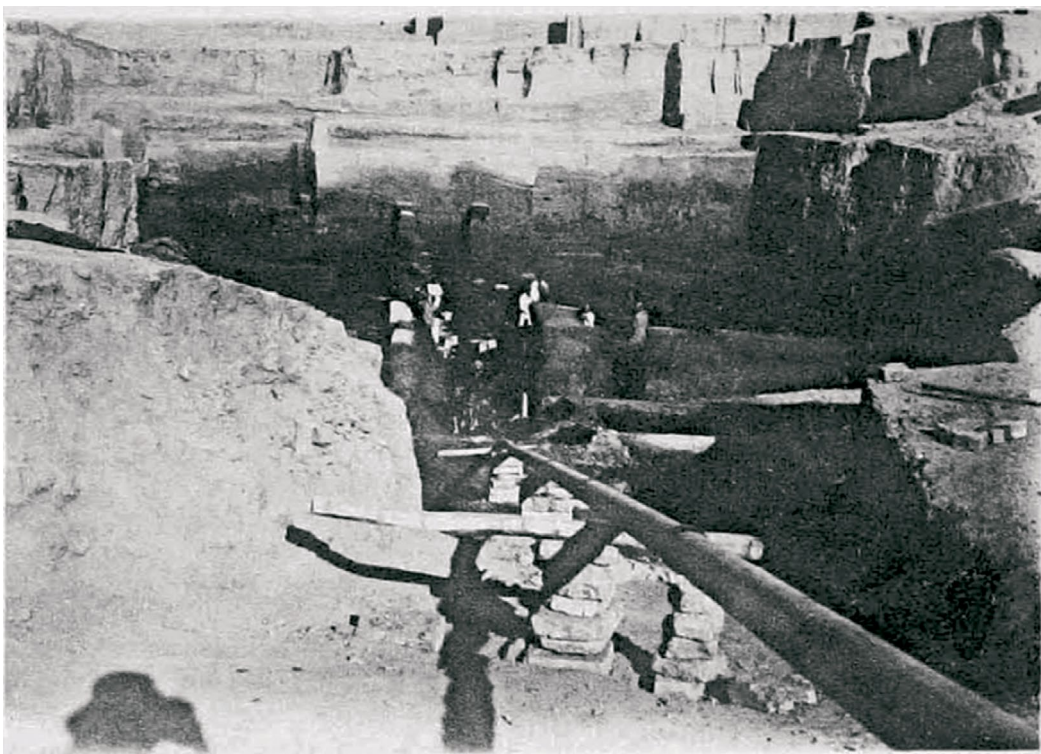
1. Topographic map of the Y sounding with the location of the cut reaching the Jemdet Nasr phases.



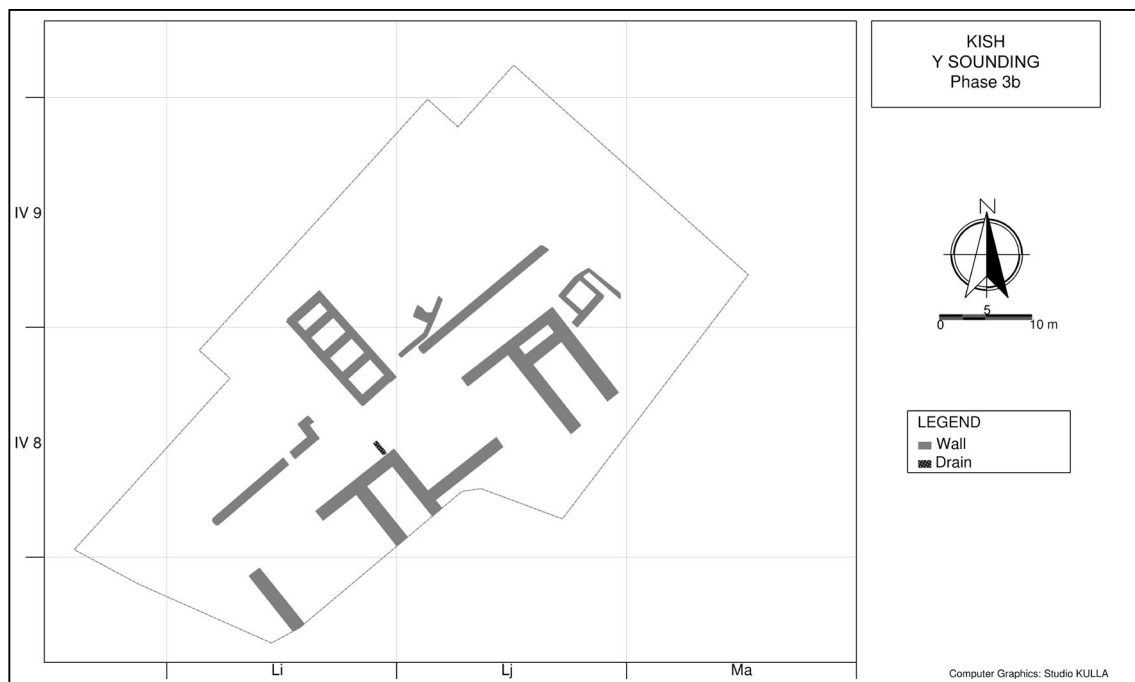
2. Schematic section of the stratigraphic sequence excavated in the deep sounding and the distribution of the structures and findings.



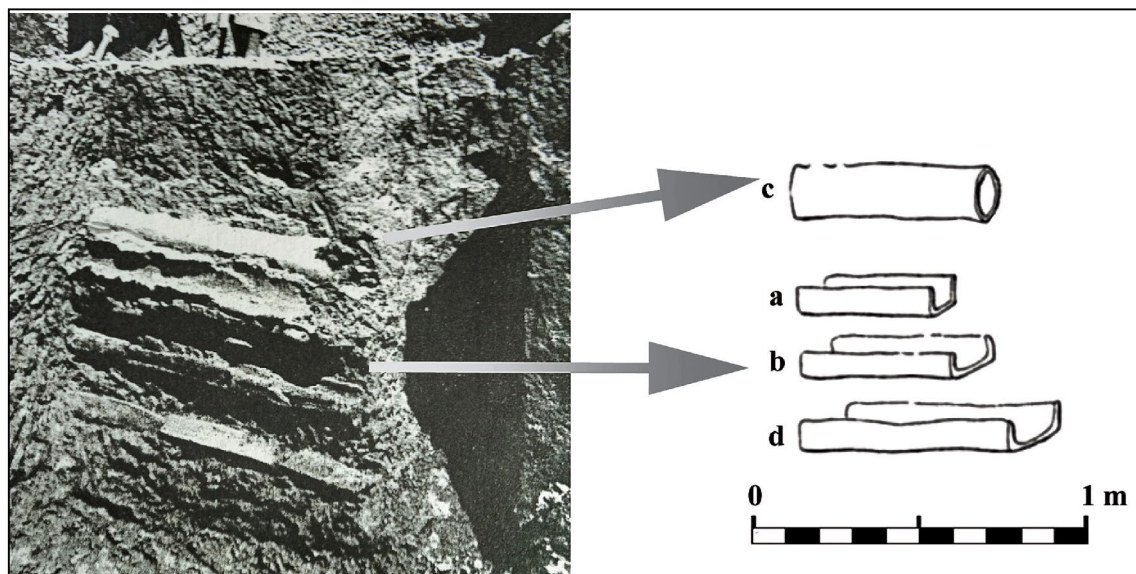
1. Reaching the water table during the excavations of the Jemdet Nasr phases (Ashmolean Museum, University of Oxford).



2. The pump used to take off the water during the excavation of the Jemdet Nasr sounding (Watelin and Langdon 1934: pl. VI.2).



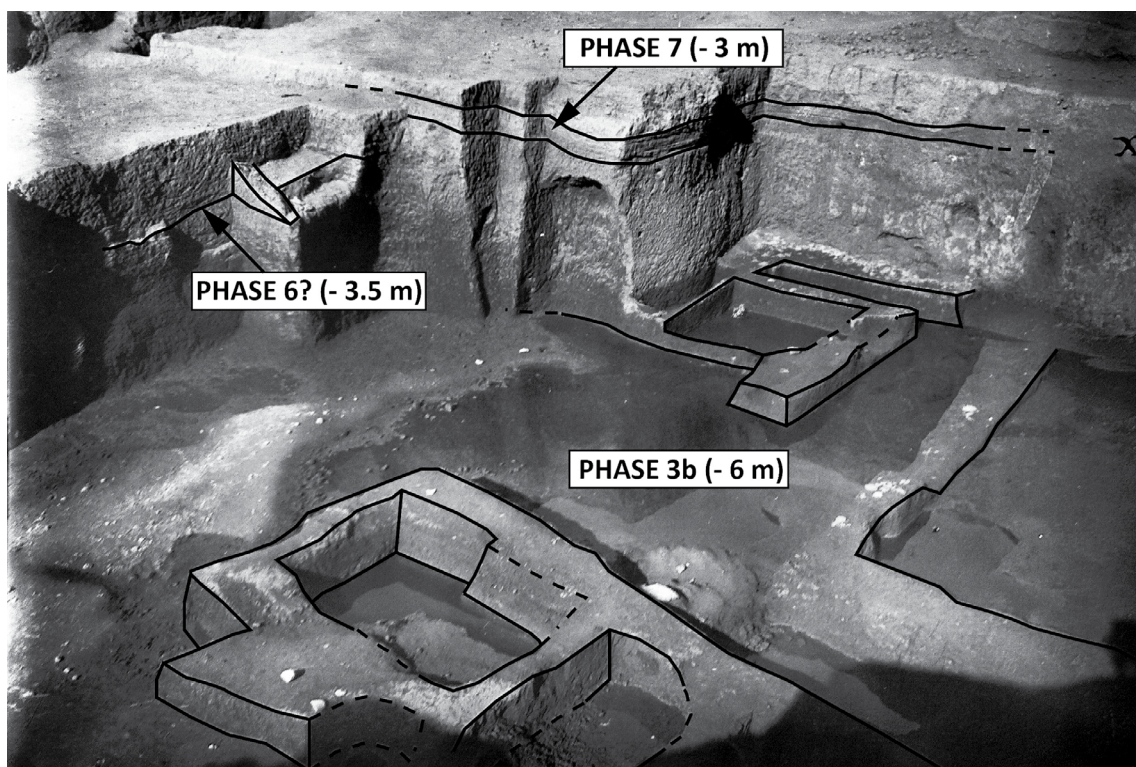
1. Reconstructed plan of Phase 3b.



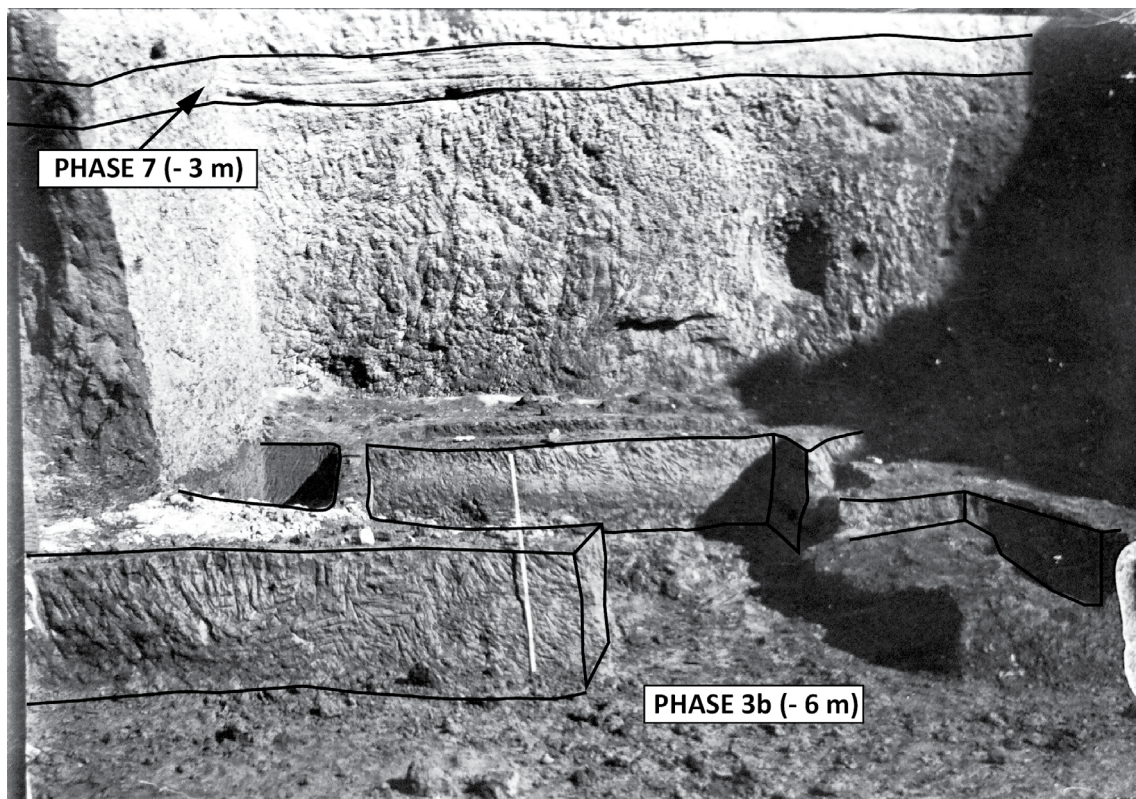
2. Superimposed horizontal drains in a house from Phase 3b (after Watelin and Langdon 1934: pl. X.1).



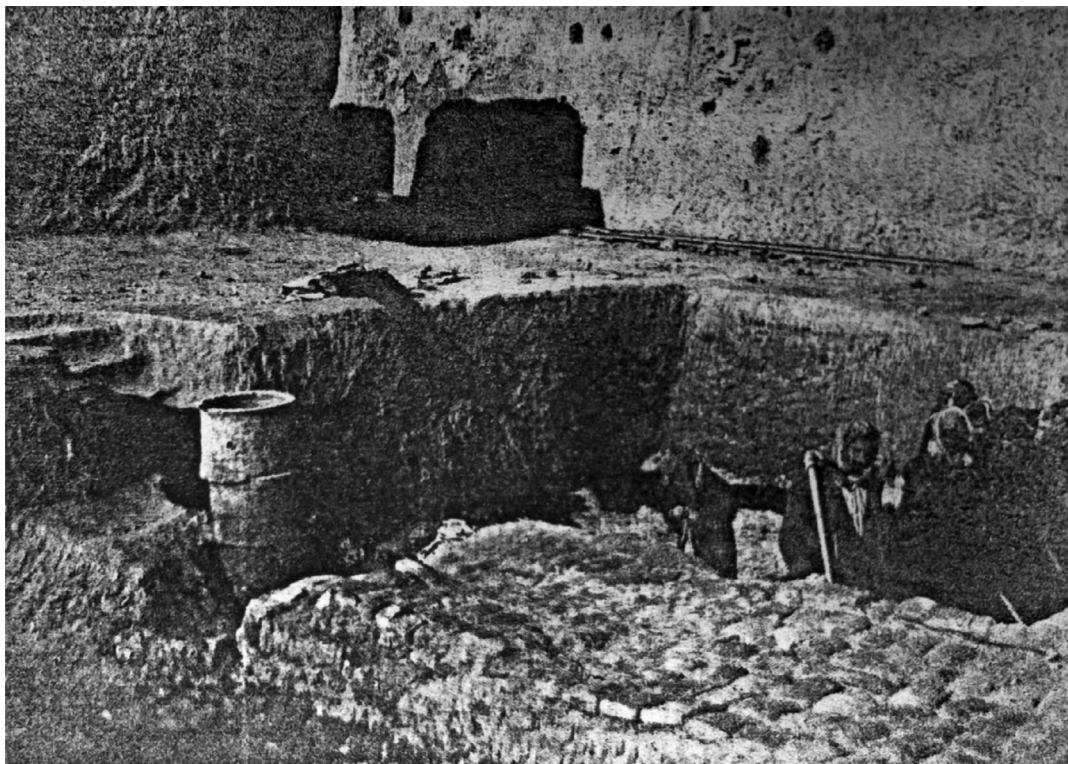
1. Unrecorded rooms of a building at the water level, 6 m, Phase 3b from northeast (Ashmolean Museum, University of Oxford).



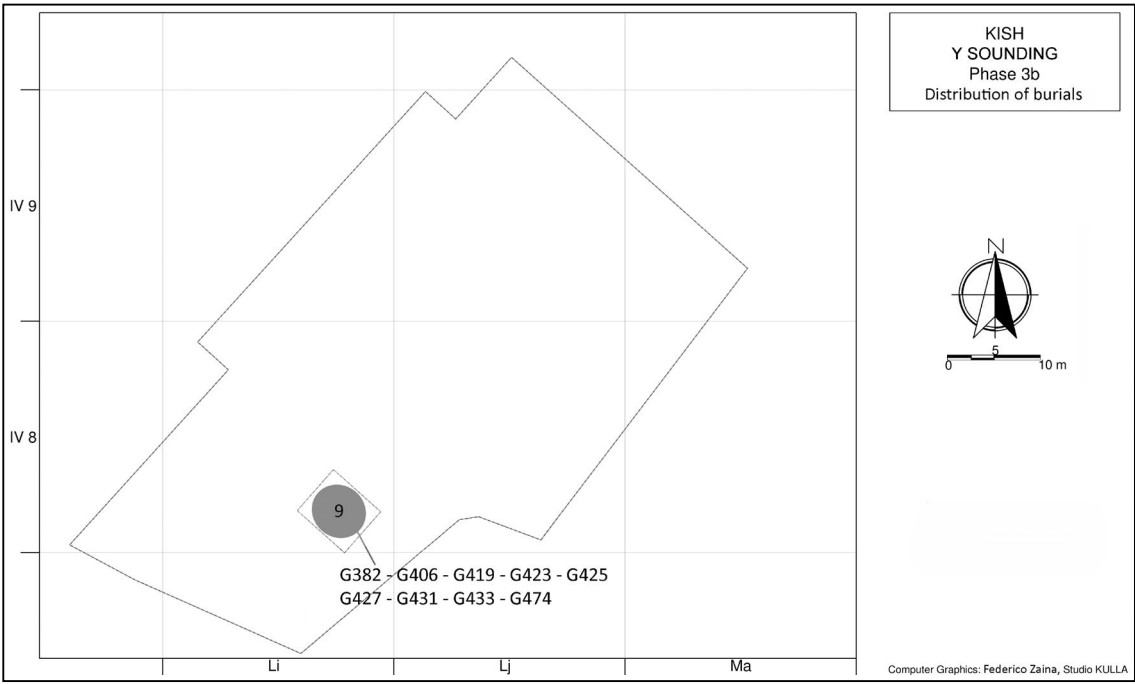
2. Unrecorded rooms of a building at the water level, 6 m, Phase 3b from northwest (Ashmolean Museum, University of Oxford).



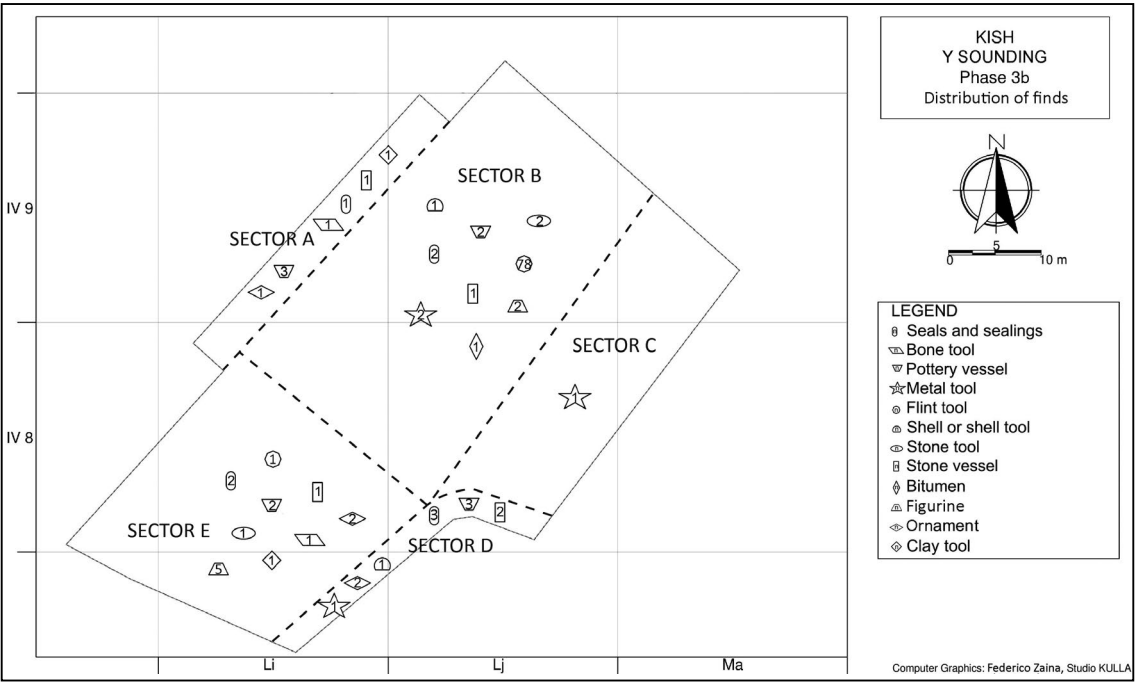
1. Unrecorded rooms of a building at the water level, 6 m, Phase 3b (Ashmolean Museum, University of Oxford).



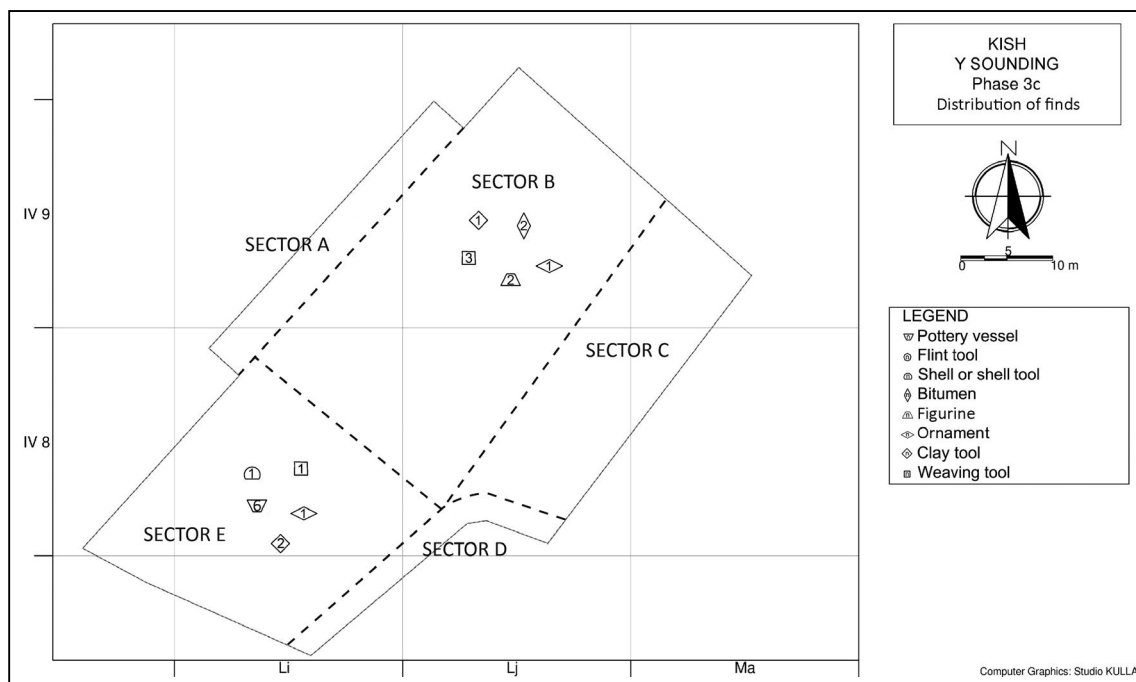
2. Mudbrick floor and vertical drain at 6 m, Phase 3b. In the background workmen in the deep sounding (Watelin and Langdon 1934: pl. VI.1).



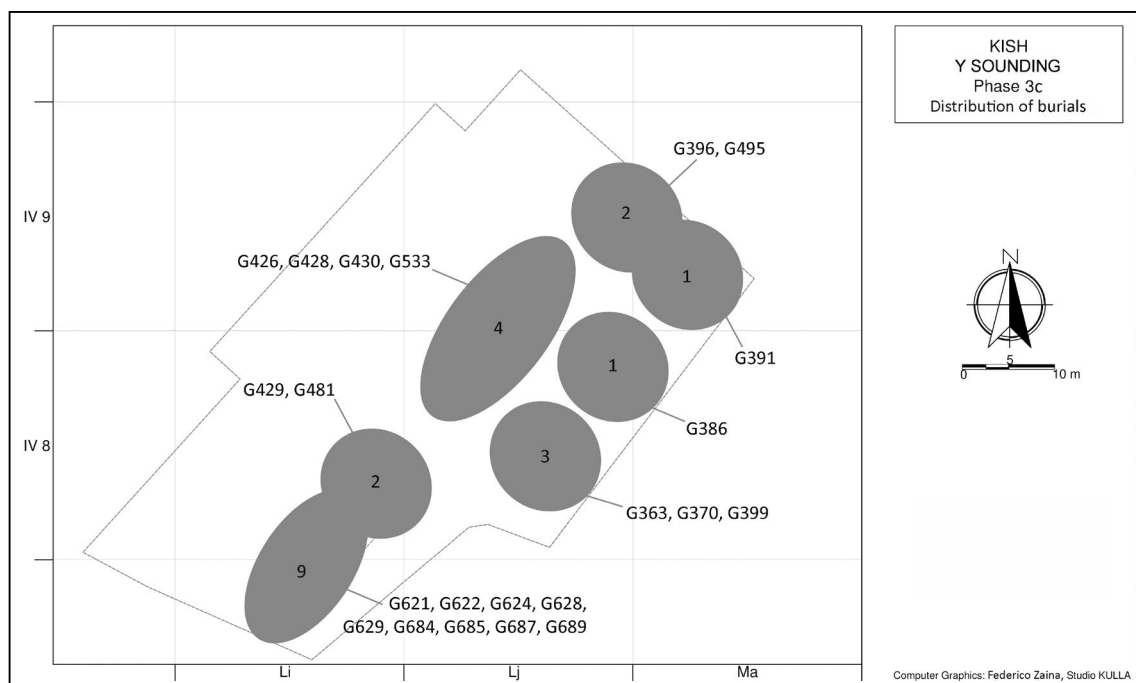
1. Distribution of intra-mural burials from Phase 3b.



2. Distribution of finds from Phase 3b.



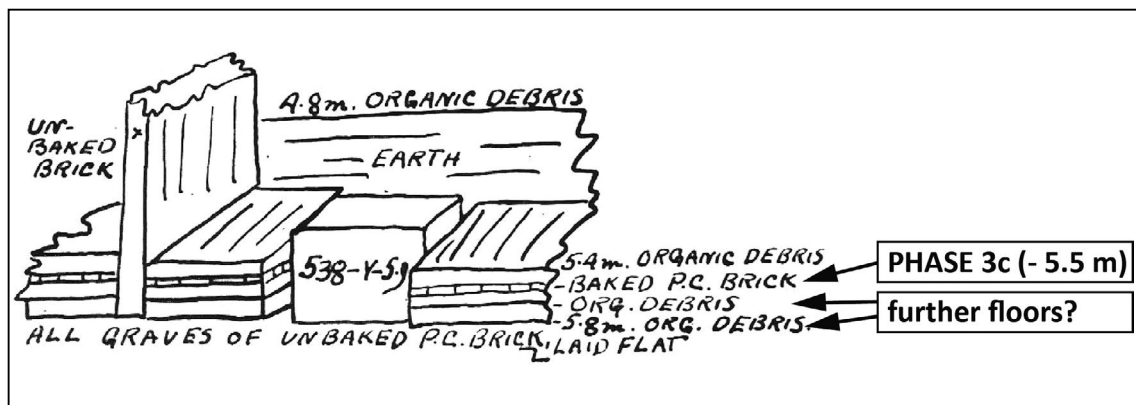
1. Distribution of finds from Phase 3c.



2. Distribution of intra-mural burials from Phase 3c.



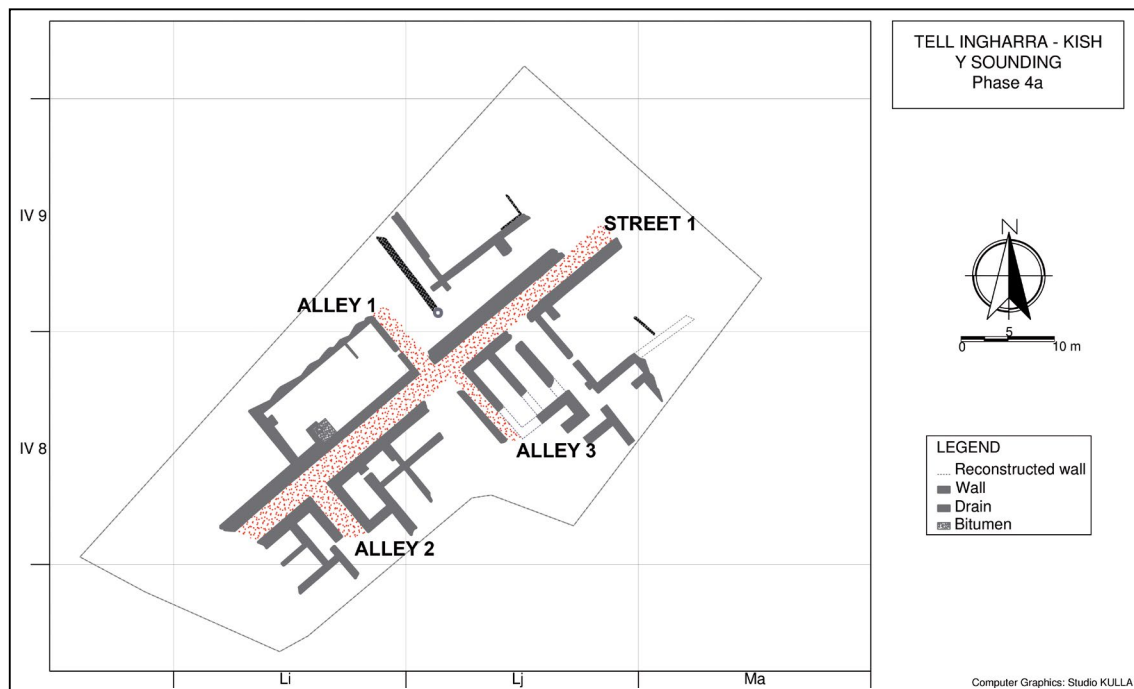
1. The Y sounding from south. In the foreground the architectural remains of Phase 4a, while in the background the structural evidence of Phase 3 (Ashmolean Museum, University of Oxford).



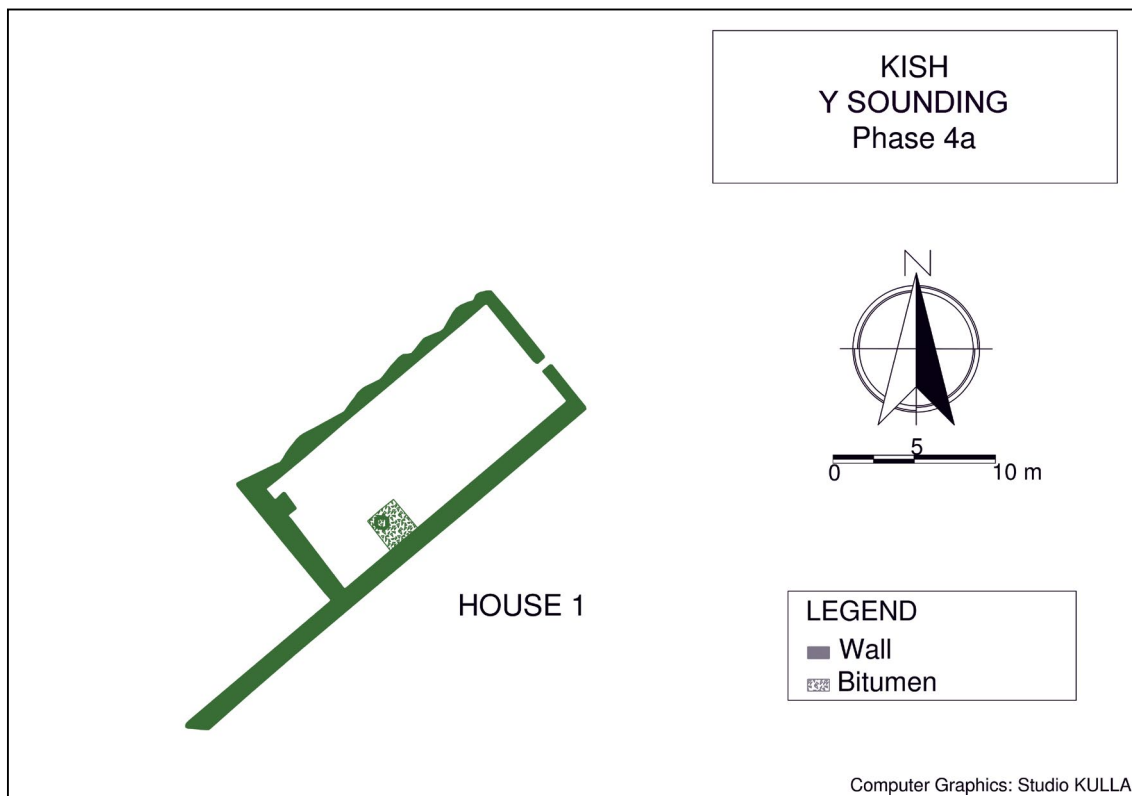
2. Schematic section of the sequence of floors between Phases 3b and 3c cut by G 538. (Ashmolean Museum, University of Oxford).



1. Plan of Phase 4a.



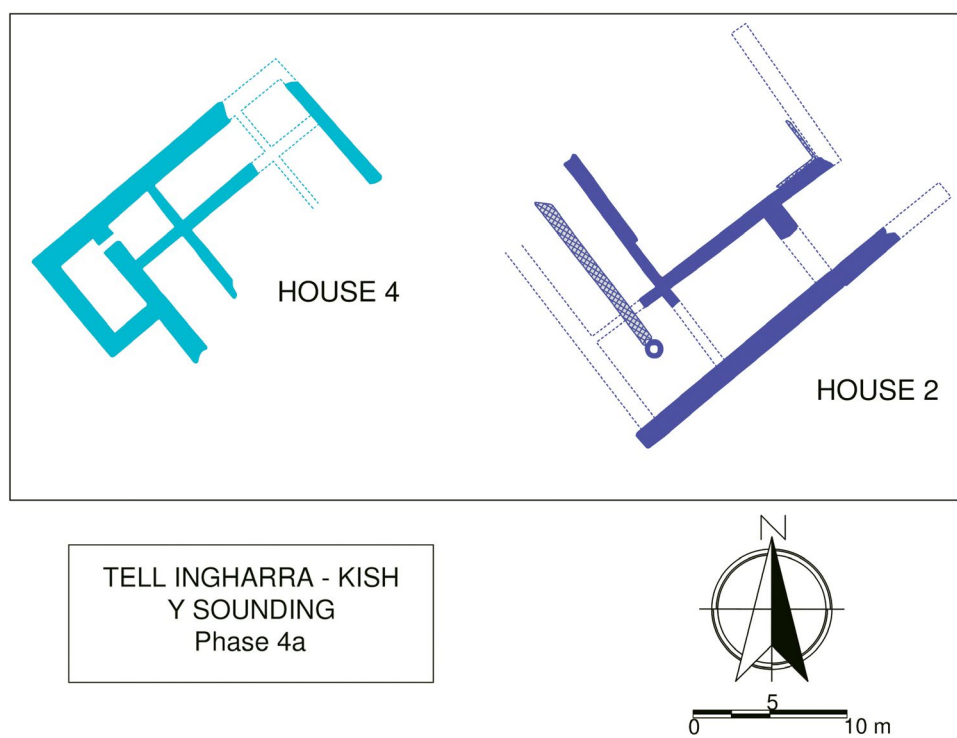
2. Hypothetical reconstruction of the urban layout of Phase 4a.



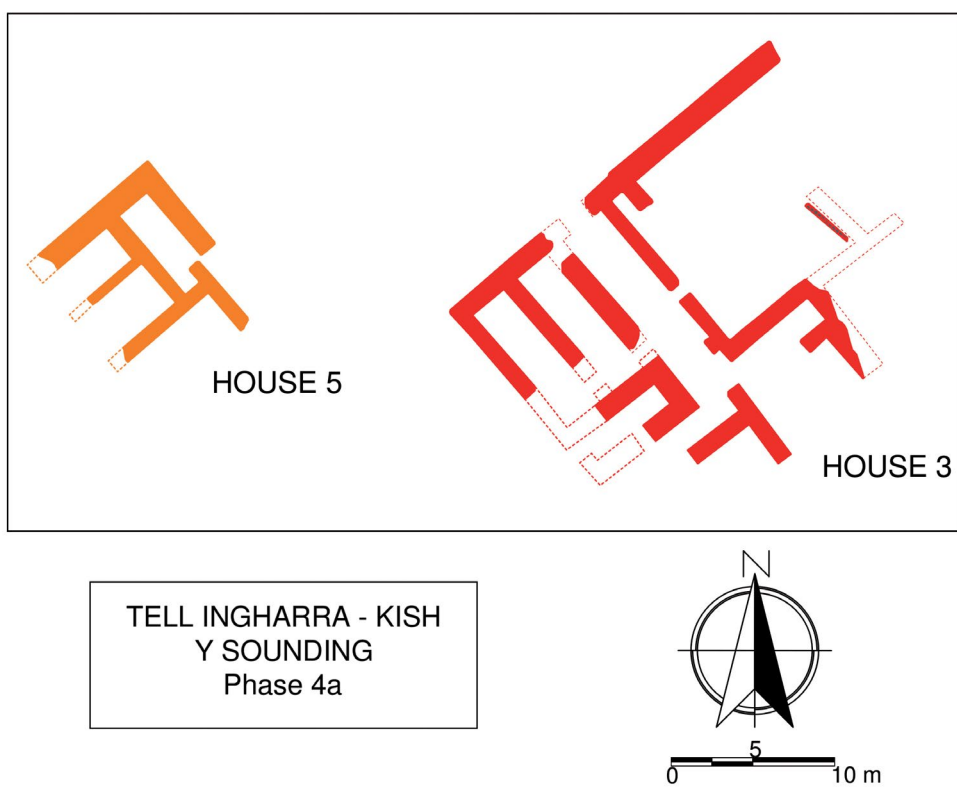
1. Plan of House 1, Phase 4a.



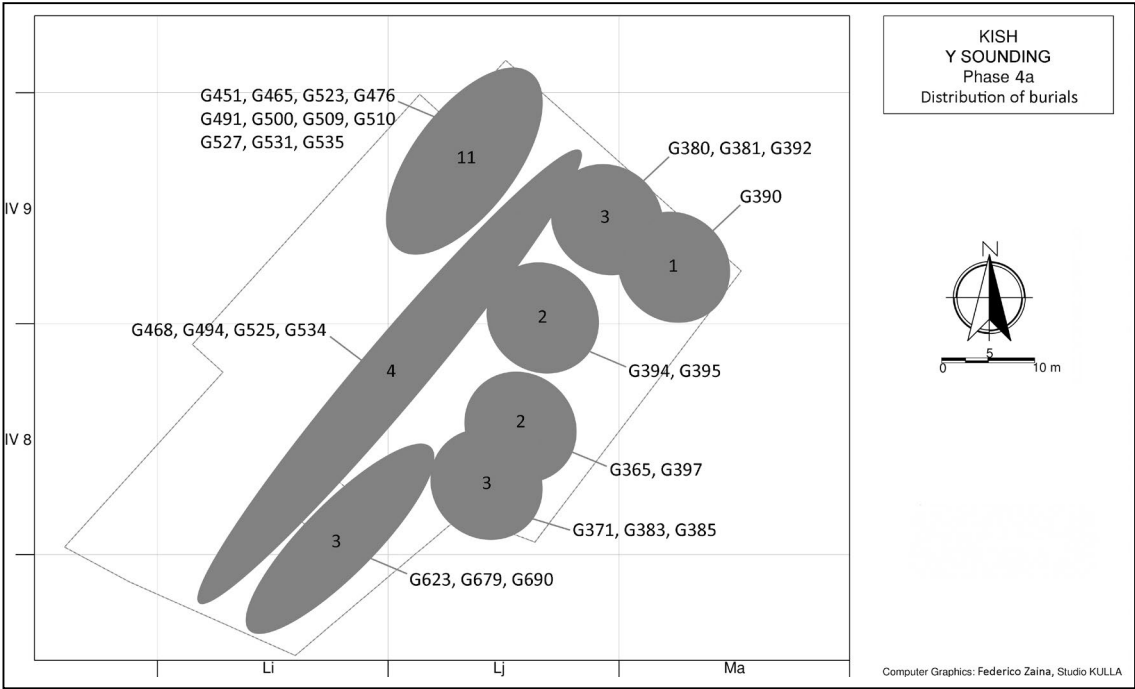
2. The bitumen coated installation found in the main room of House 1, Phase 4a (Watelin and Langdon 1934: pl. IX.1).



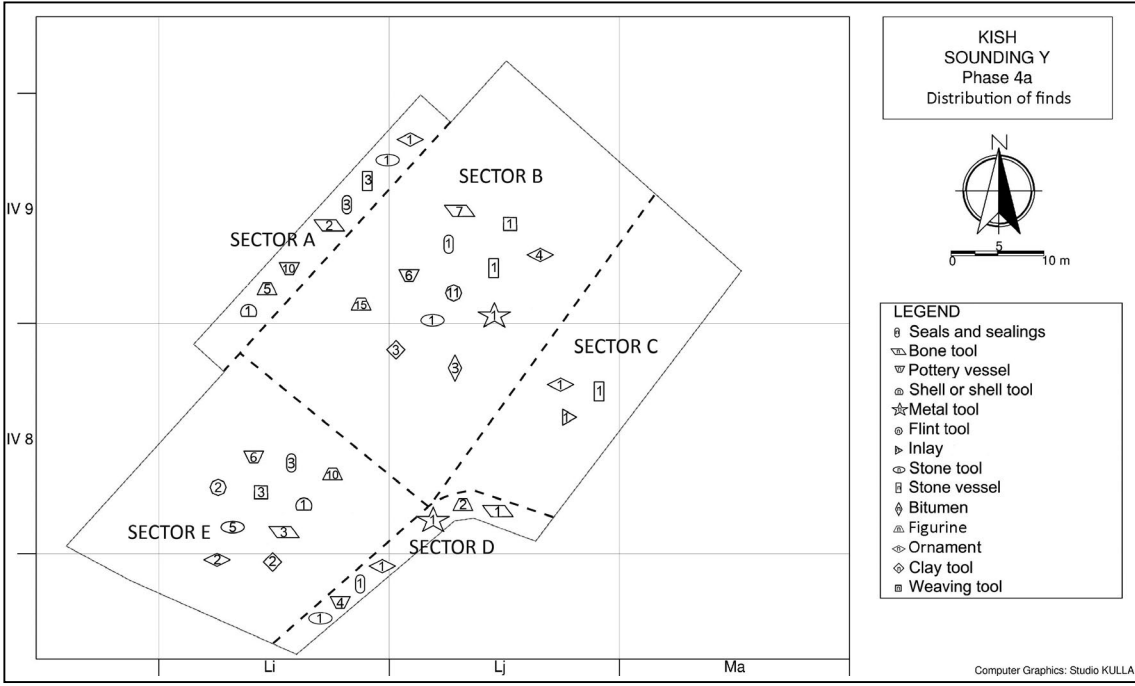
1. Reconstructed plans of Houses 2 and 4, Phase 4a.



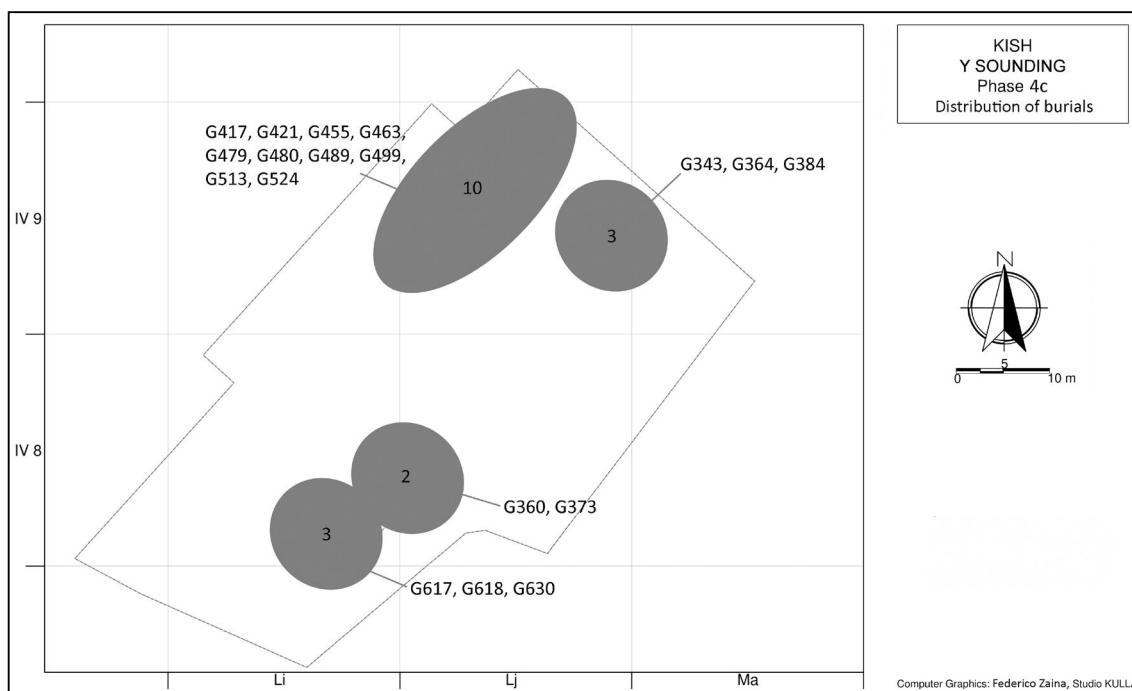
2. Reconstructed plans of Houses 3 and 5, Phase 4a.



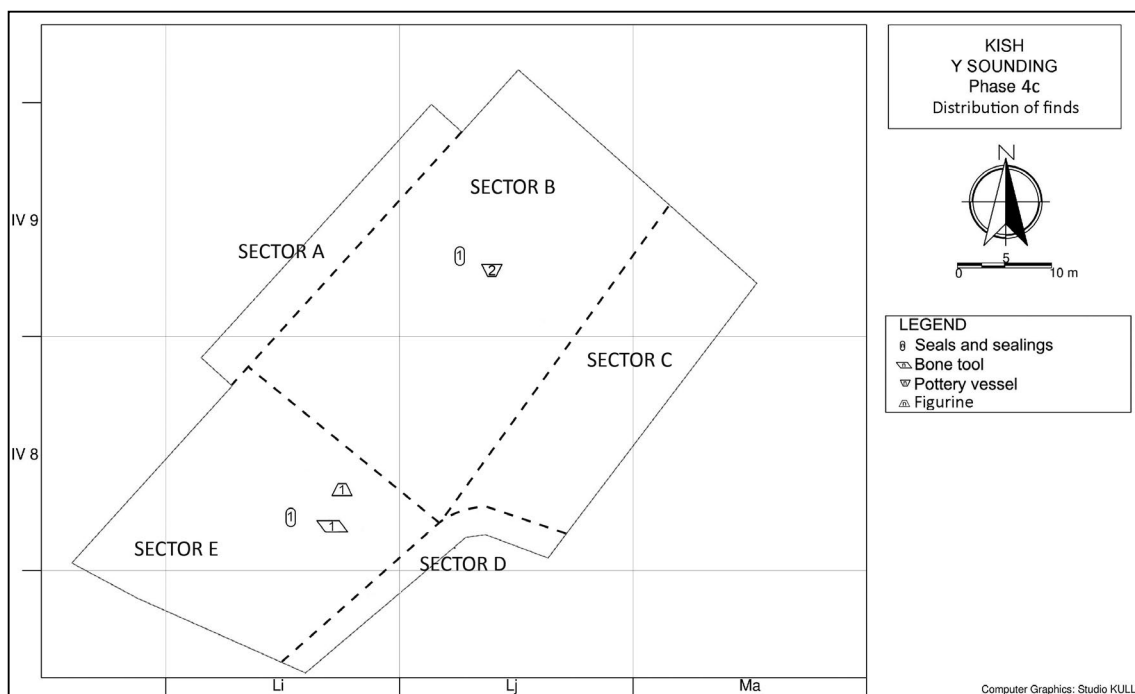
1. Distribution of intra-mural burials from Phase 4a.



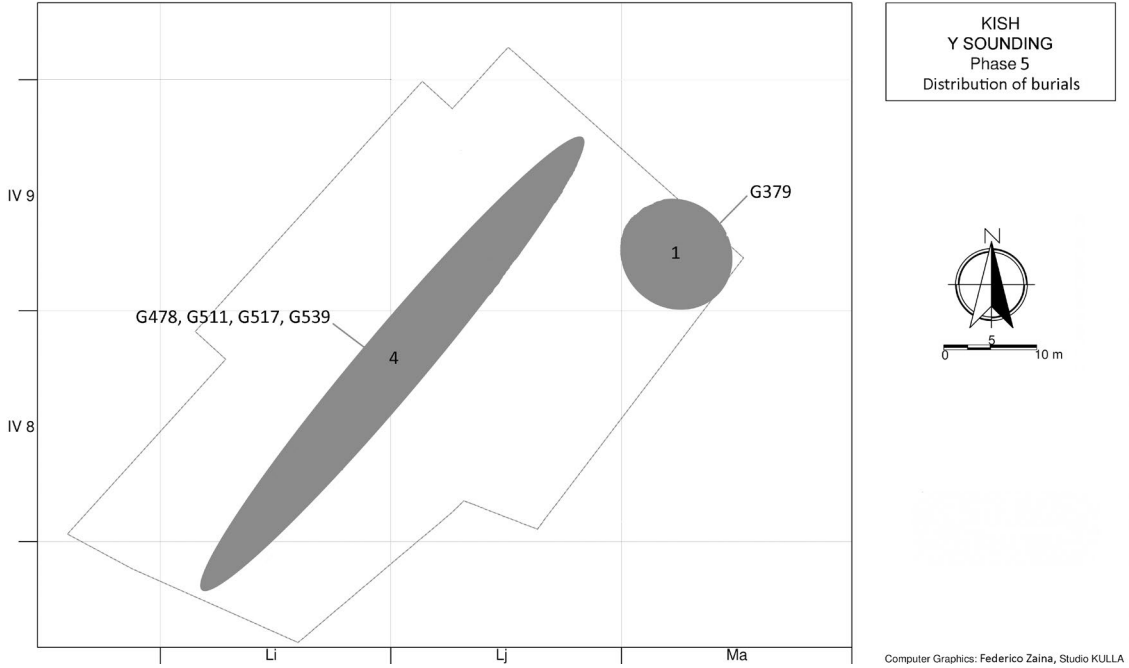
2. Distribution of finds from Phase 4a.



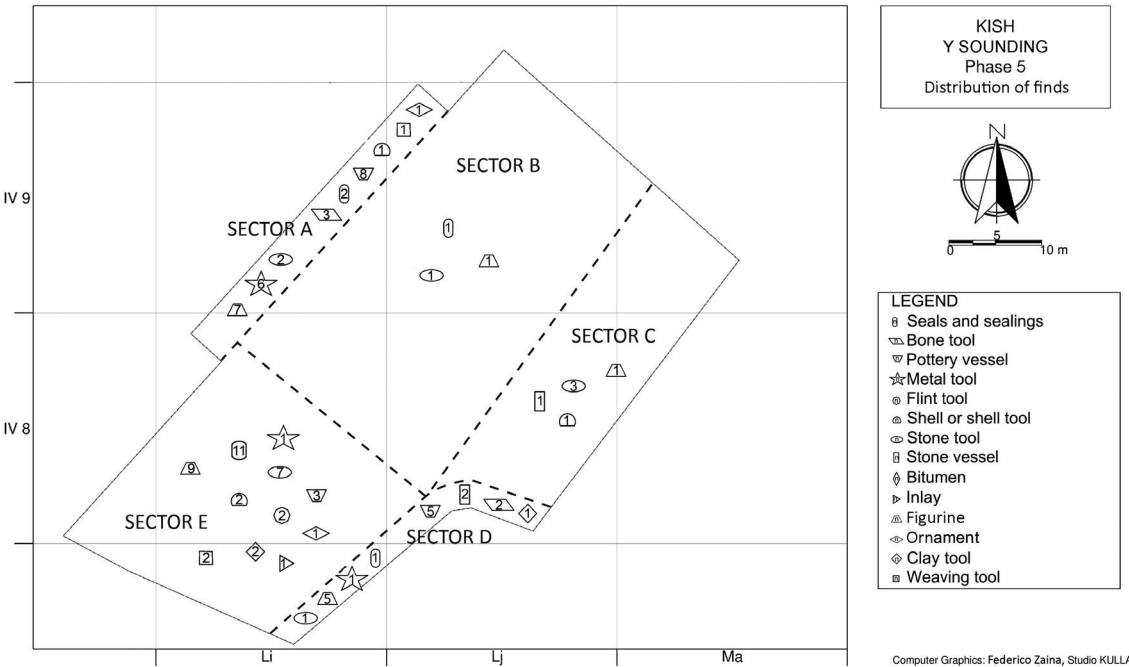
1. Distribution of intra-mural burials from Phase 4c.



2. Distribution of finds from Phase 4c.



1. Distribution of intra-mural burials from Phase 5.



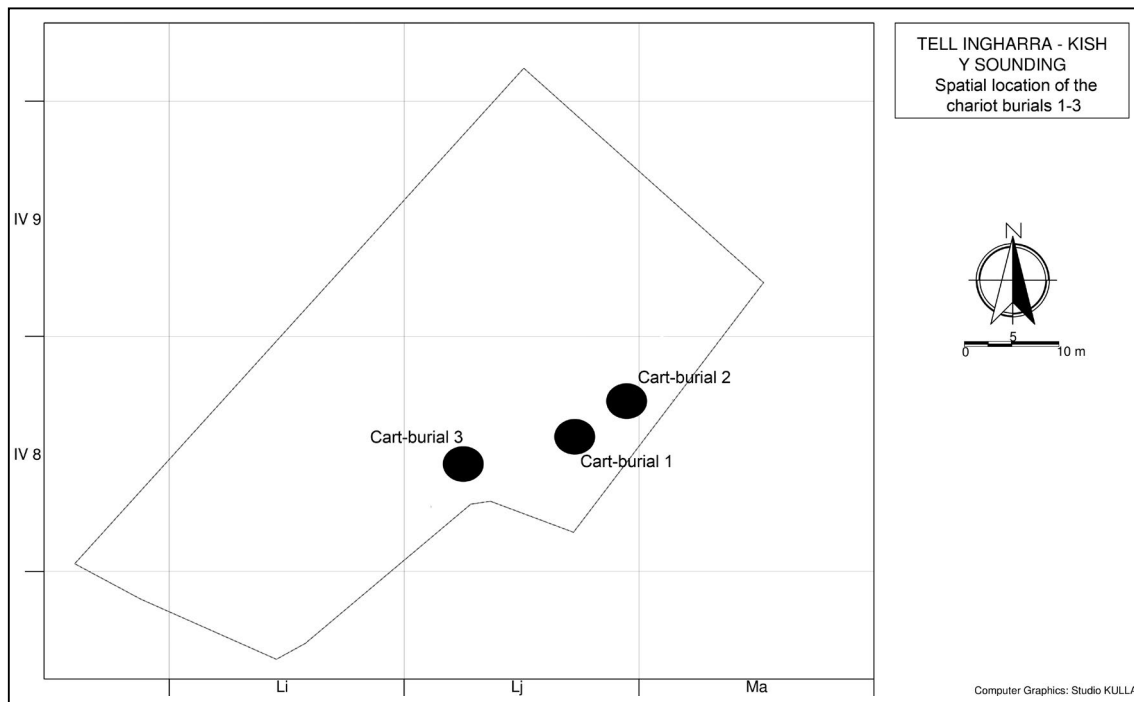
2. Distribution of finds from Phase 5.



1. Two horizontal drains at 3 m, Phase 7 (Ashmolean Museum, University of Oxford).



2. Bitumen vessel placed on a mud-brick floor at 3 m, Phase 7 (Ashmolean Museum, University of Oxford).



1. Spatial location of Chariot burials 1, 2 and 3, Phase 8.

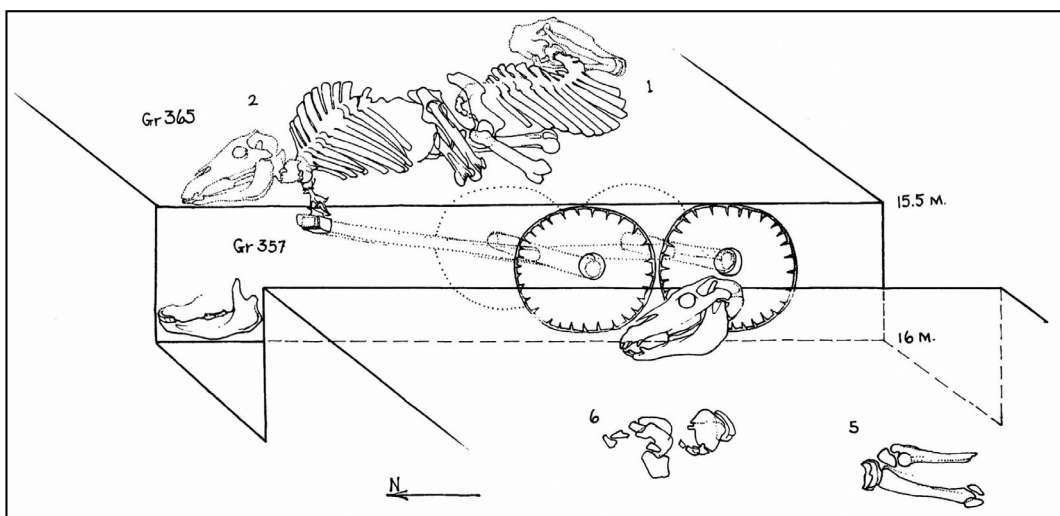


2. Chariot burial 1, Phase 8 (Ashmolean Museum, University of Oxford).



1. Two wheels from Chariot burials 2, Phase 8 (Ashmolean Museum, University of Oxford).

2. Reconstruction of the four wheels chariot from Chariot burial 2, Phase 8 (Gibson 1972a: 310).



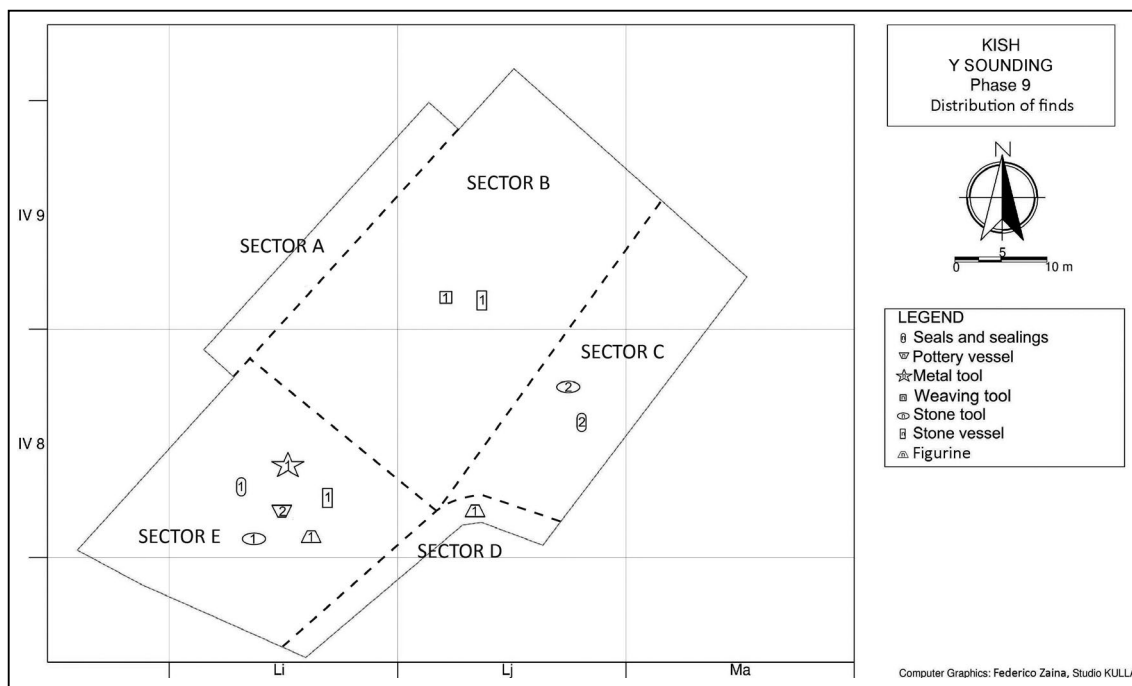
3. A skeleton of equid from Chariot burial 2, Phase 8 (Ashmolean Museum, University of Oxford).



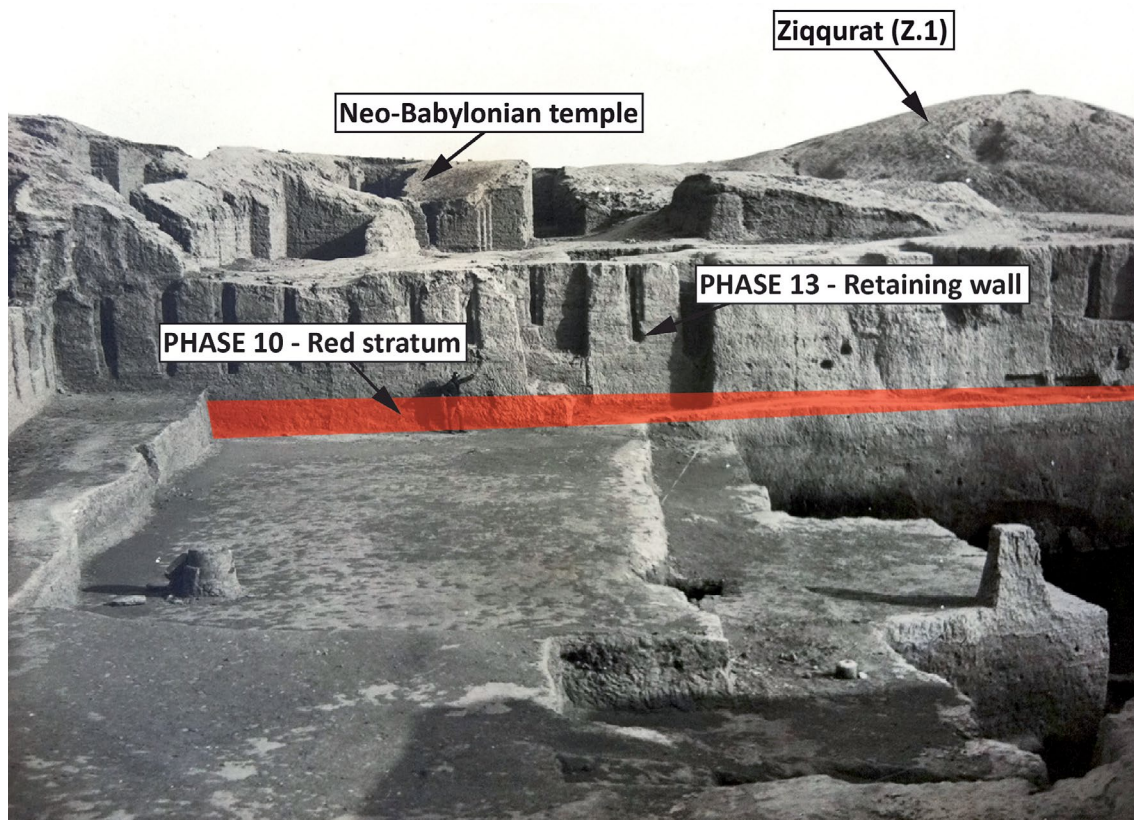
1. General view of Chariot burial 2, Phase 8 (Ashmolean Museum, University of Oxford).



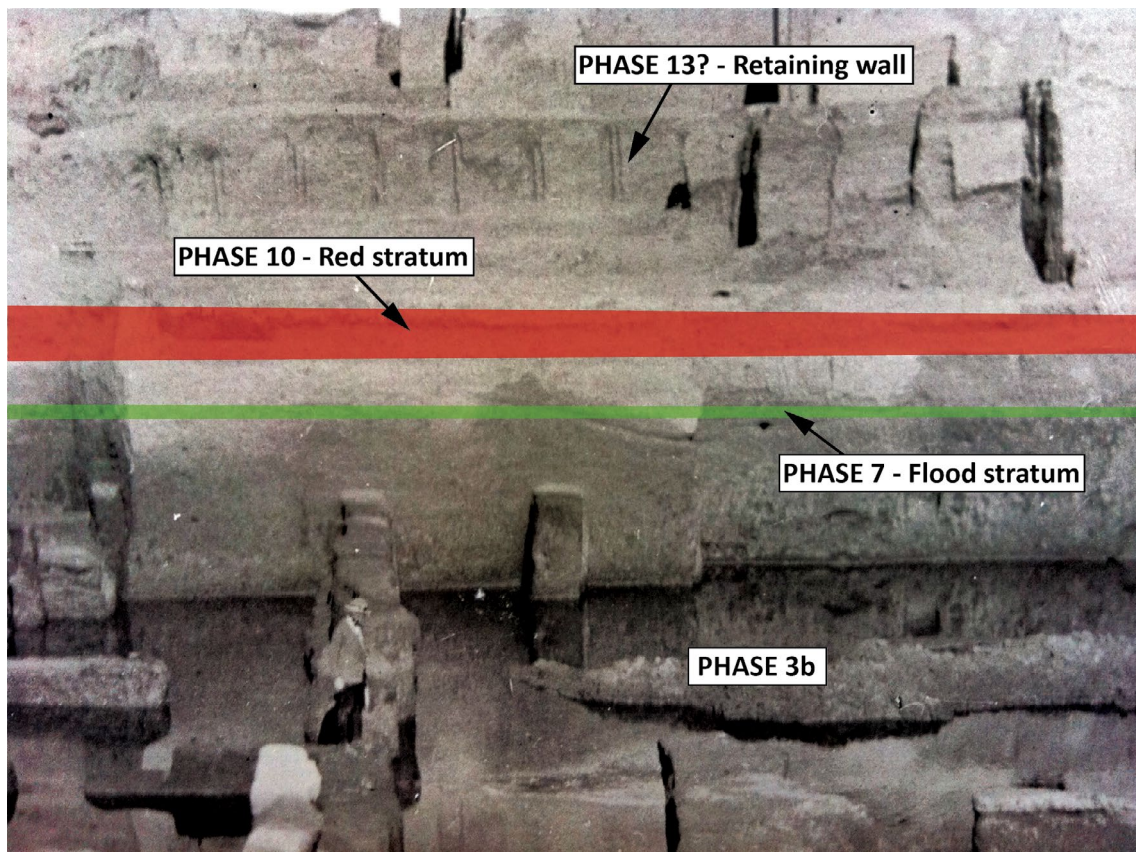
2. A wheel from the chariot of Chariot burial 3, Phase 8 (Ashmolean Museum, University of Oxford).



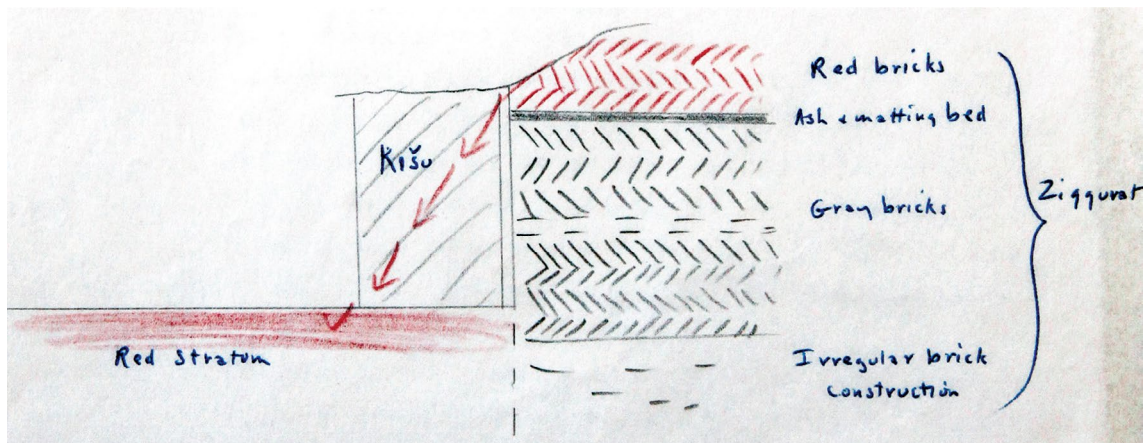
1. Distribution of finds from Phase 9.



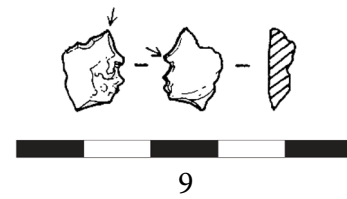
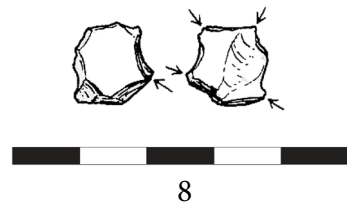
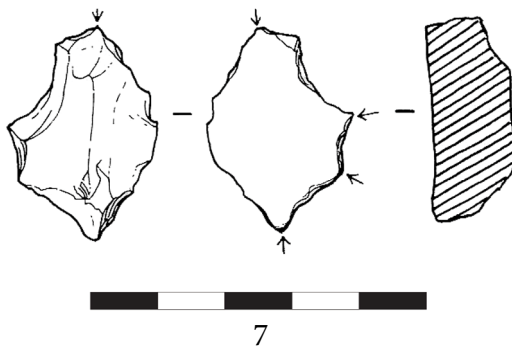
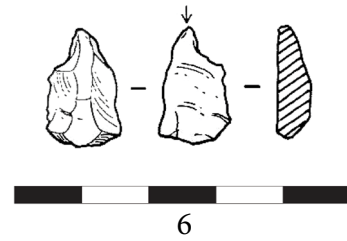
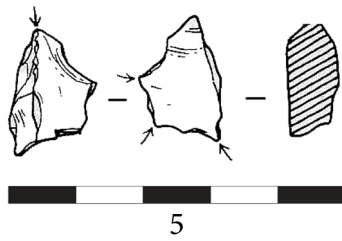
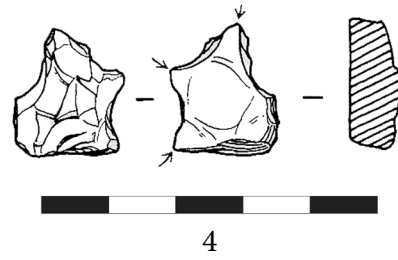
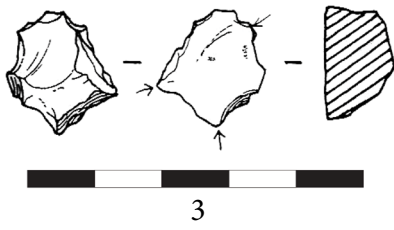
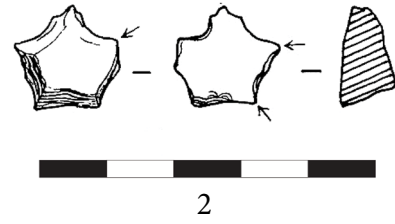
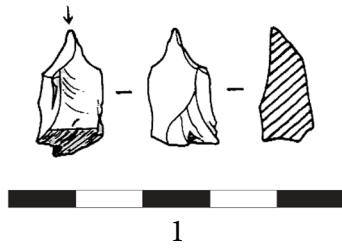
2. The Y sounding area from southeast, with the Red Stratum in red (Ashmolean Museum, University of Oxford).

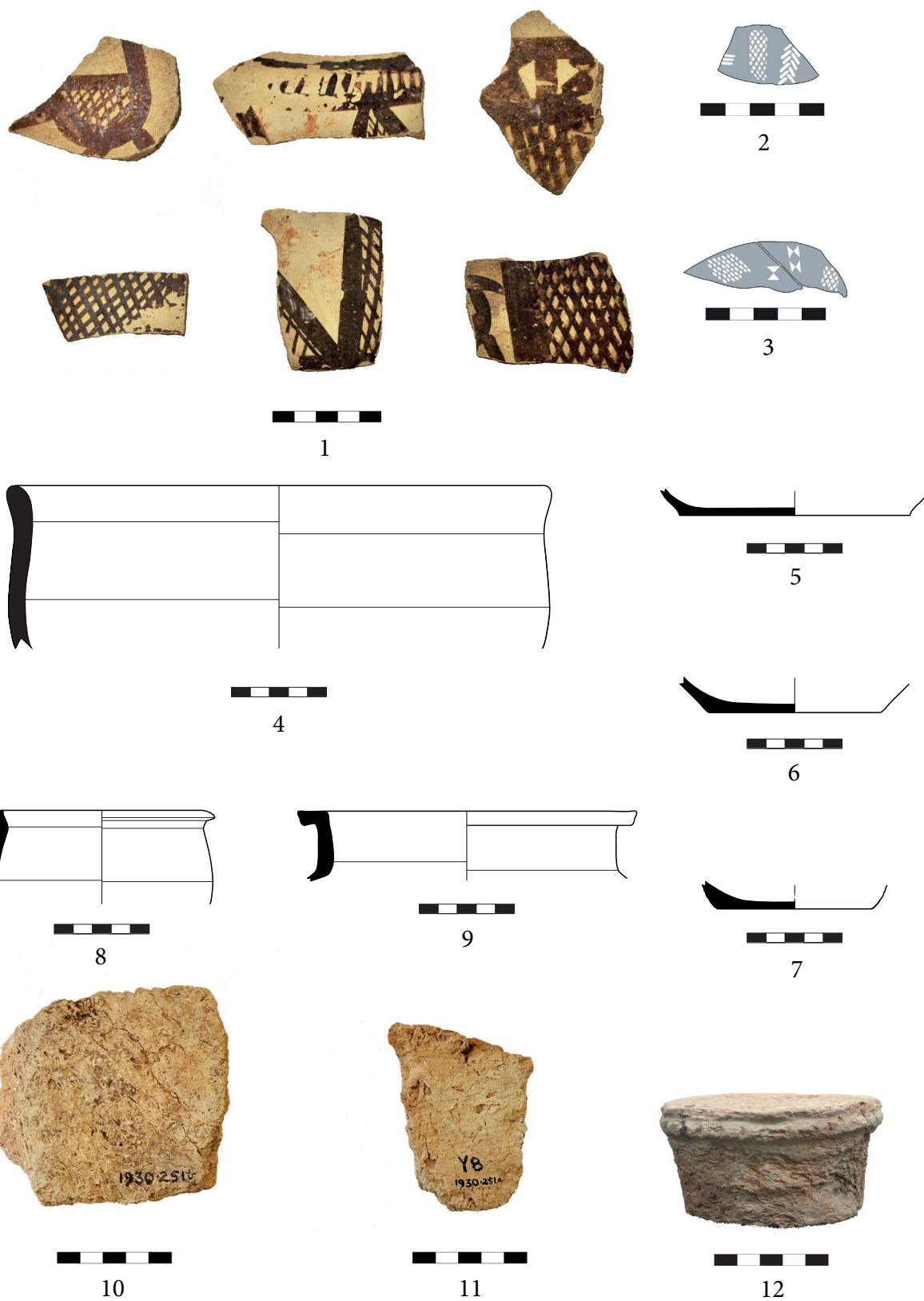


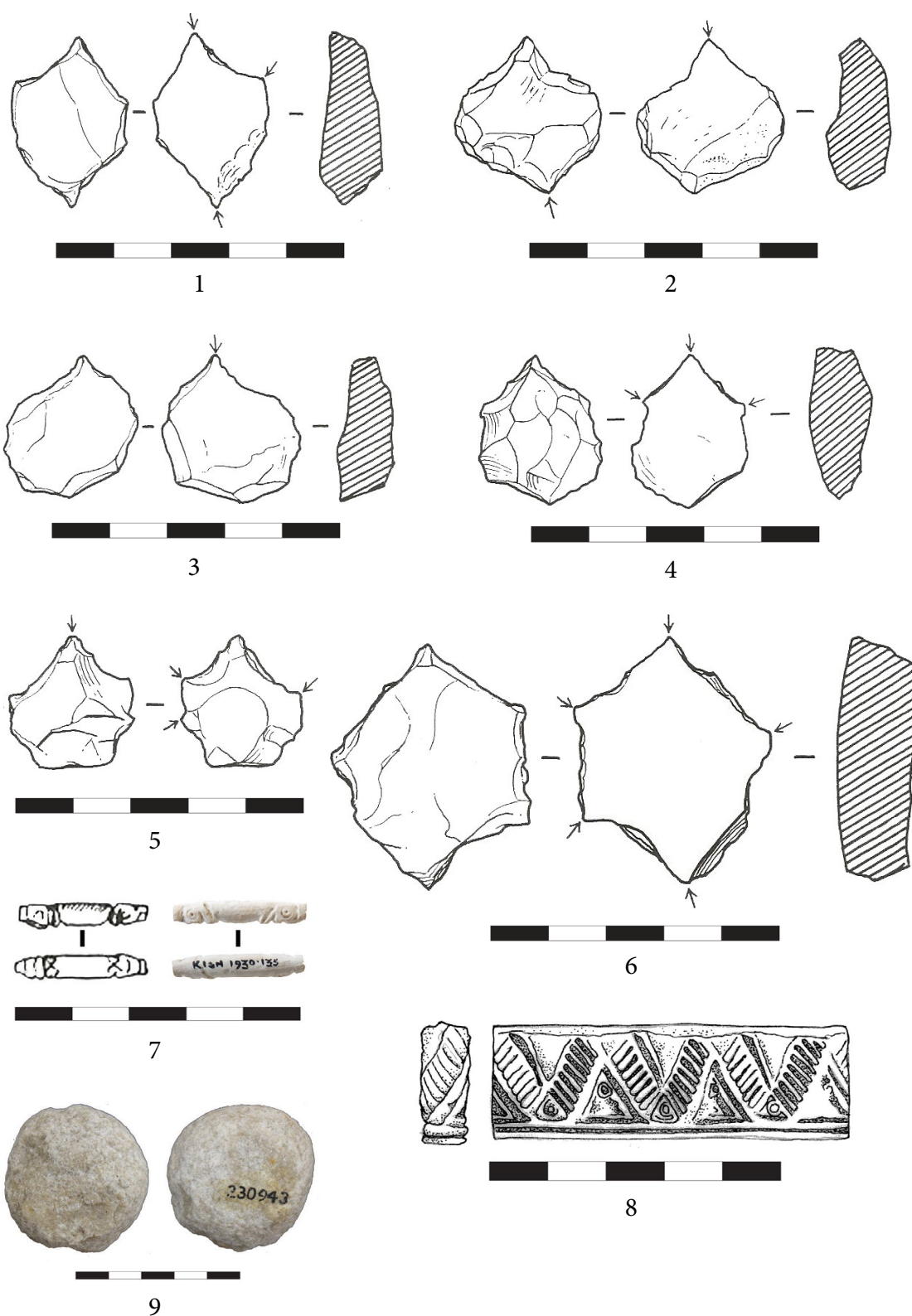
1. The southeast section of the Y sounding, with the Red Stratum in red and the Flood Stratum in green (Ashmolean Museum, University of Oxford).

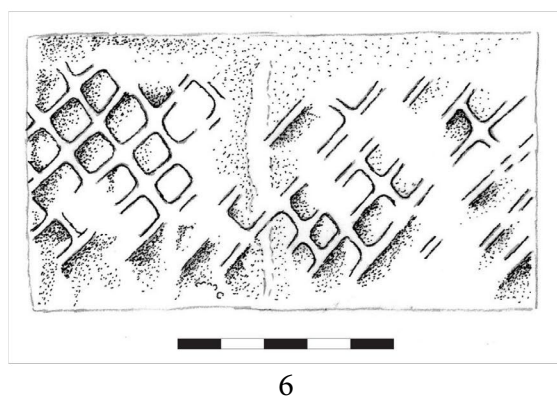
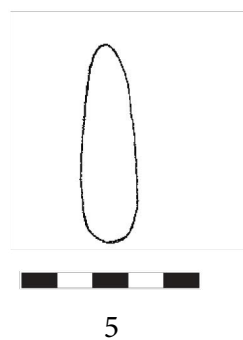
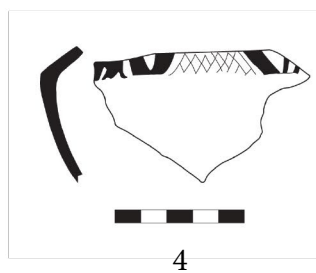
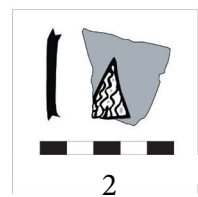
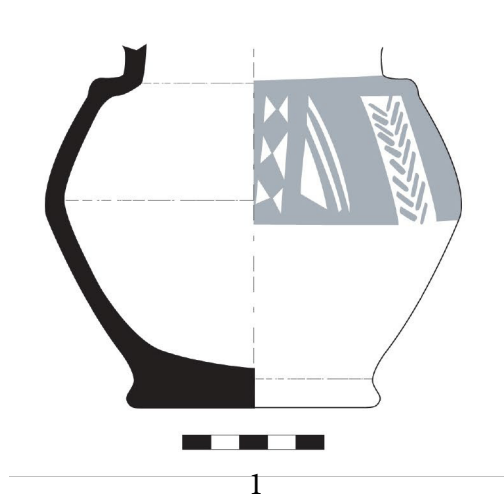


2. Unpublished sections drawn by Watelin showing the relation between the Red Stratum, the Retaining wall and the ziggurat (Ashmolean Museum, University of Oxford).











1



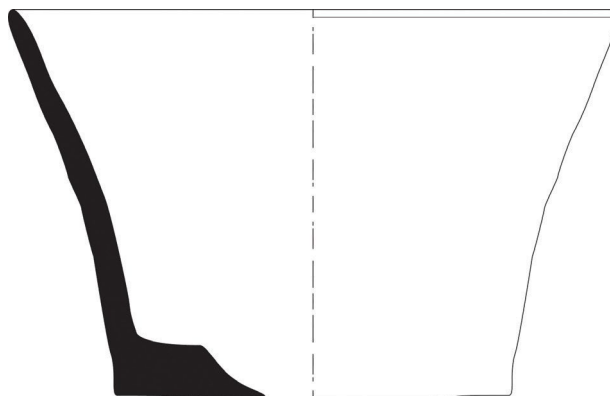
2



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9



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3



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10

Y Sounding, Phase 3b



1



2



3



4



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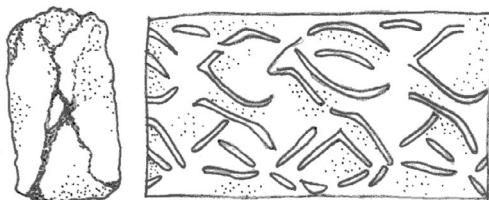
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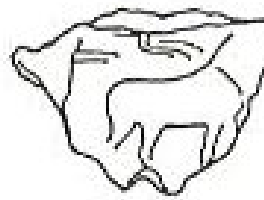
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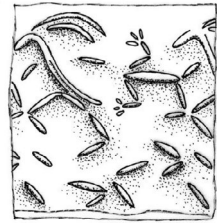
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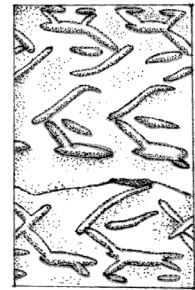
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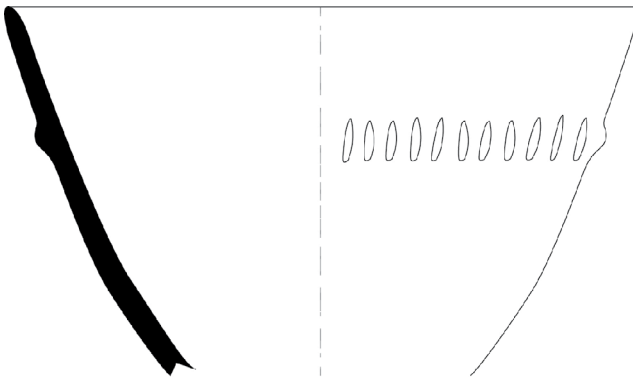
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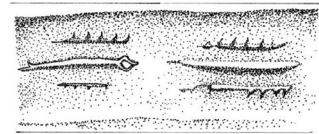
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6



7



1



2



3



4



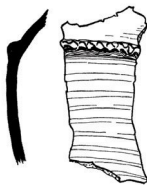
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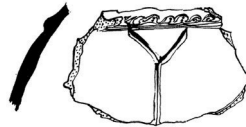
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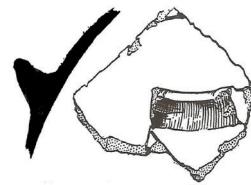
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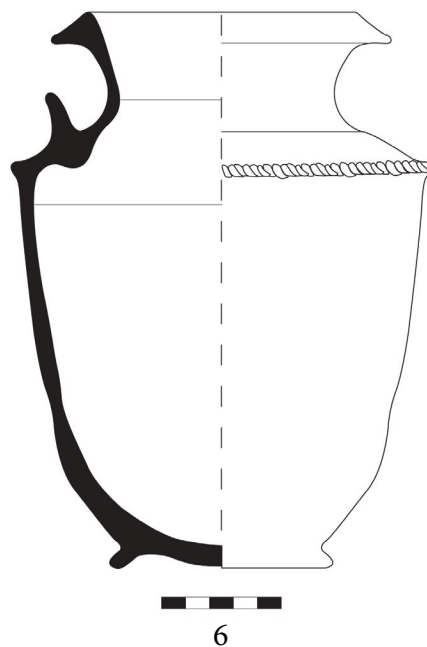
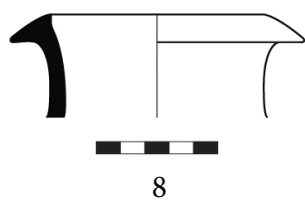
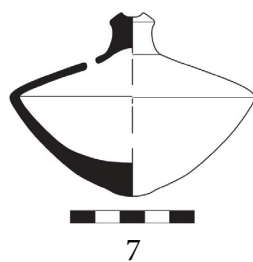
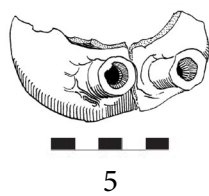
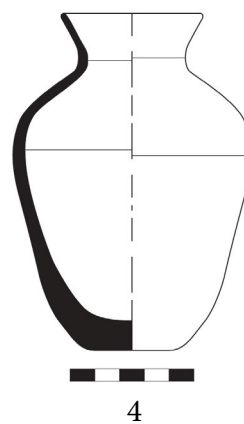
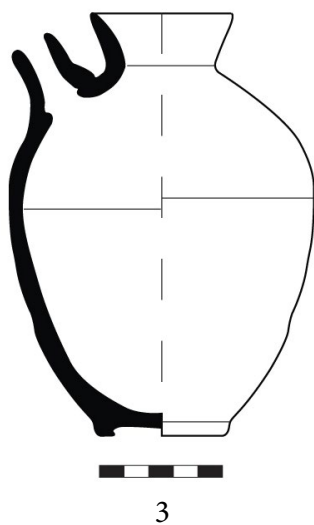
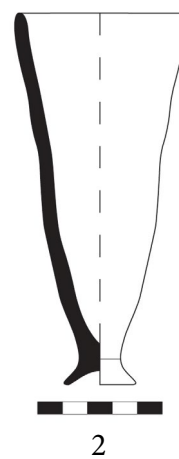
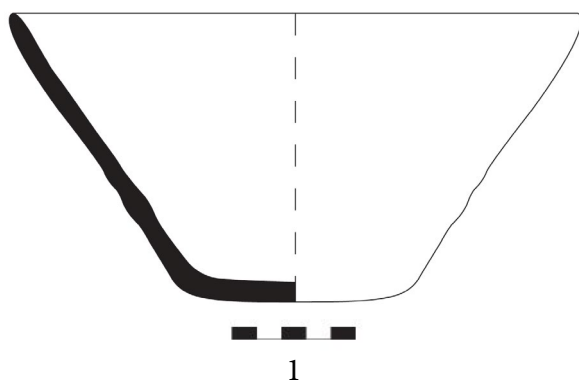
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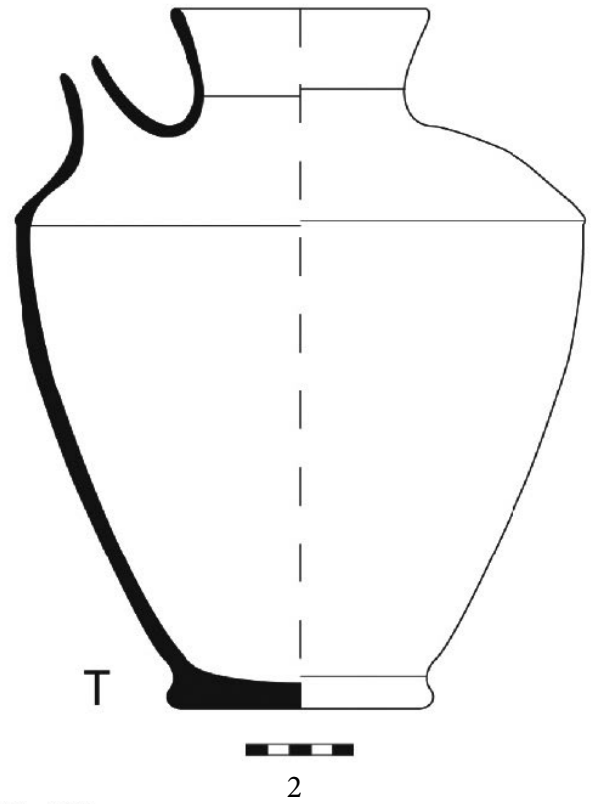
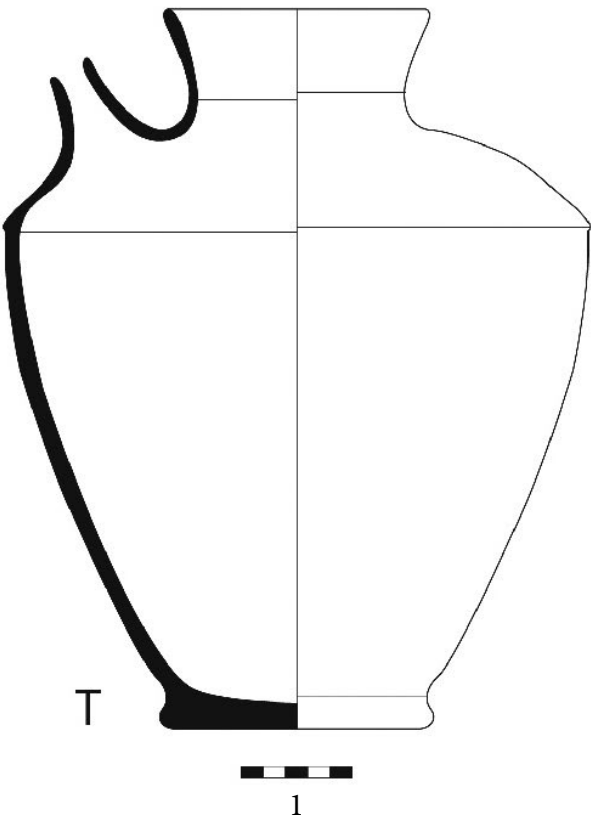


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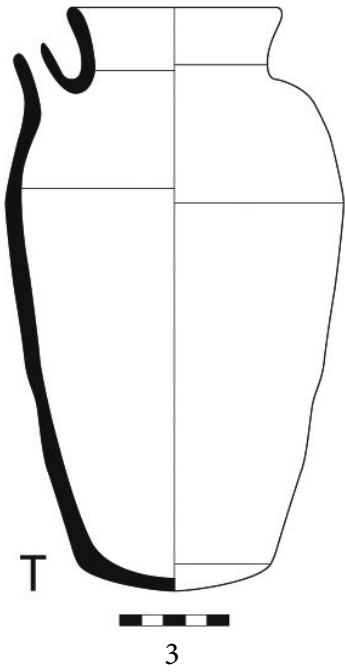


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G. 419

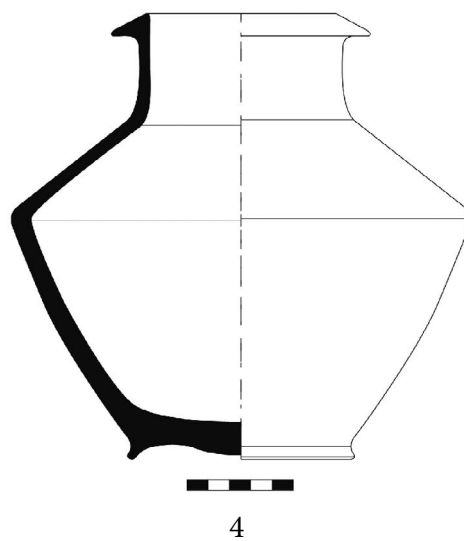
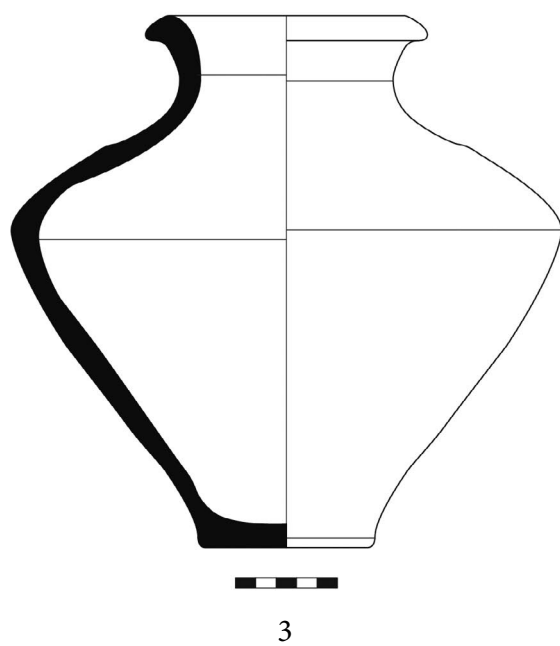
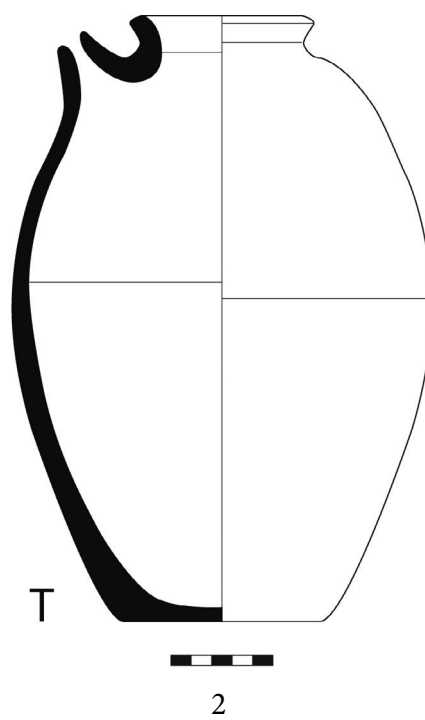
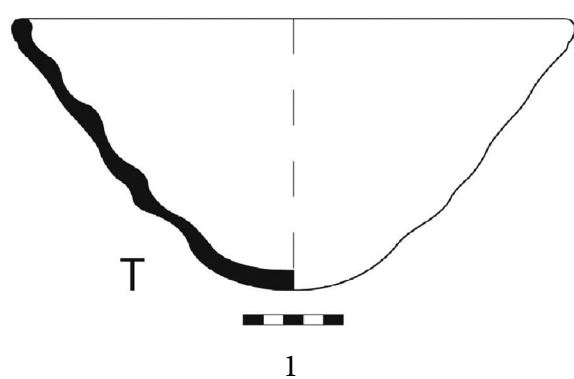


G. 427



G. 433

Y Sounding, Phase 3b



G. 474



1



2



3



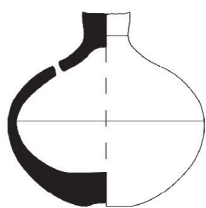
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5



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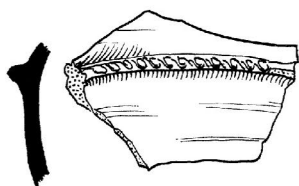
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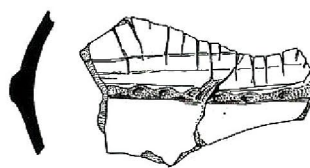
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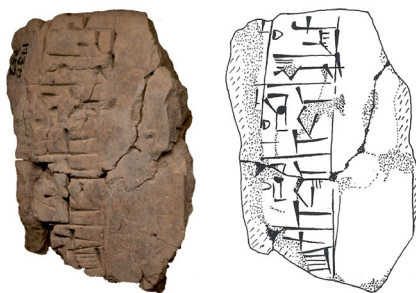
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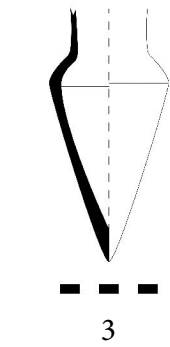
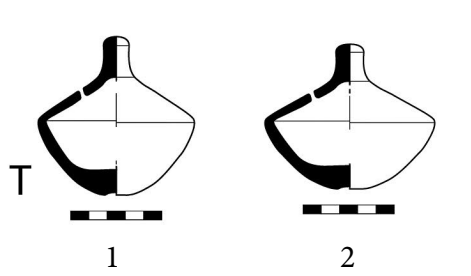
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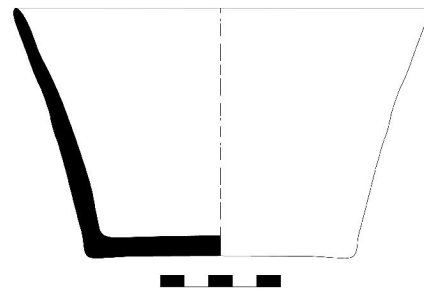
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13



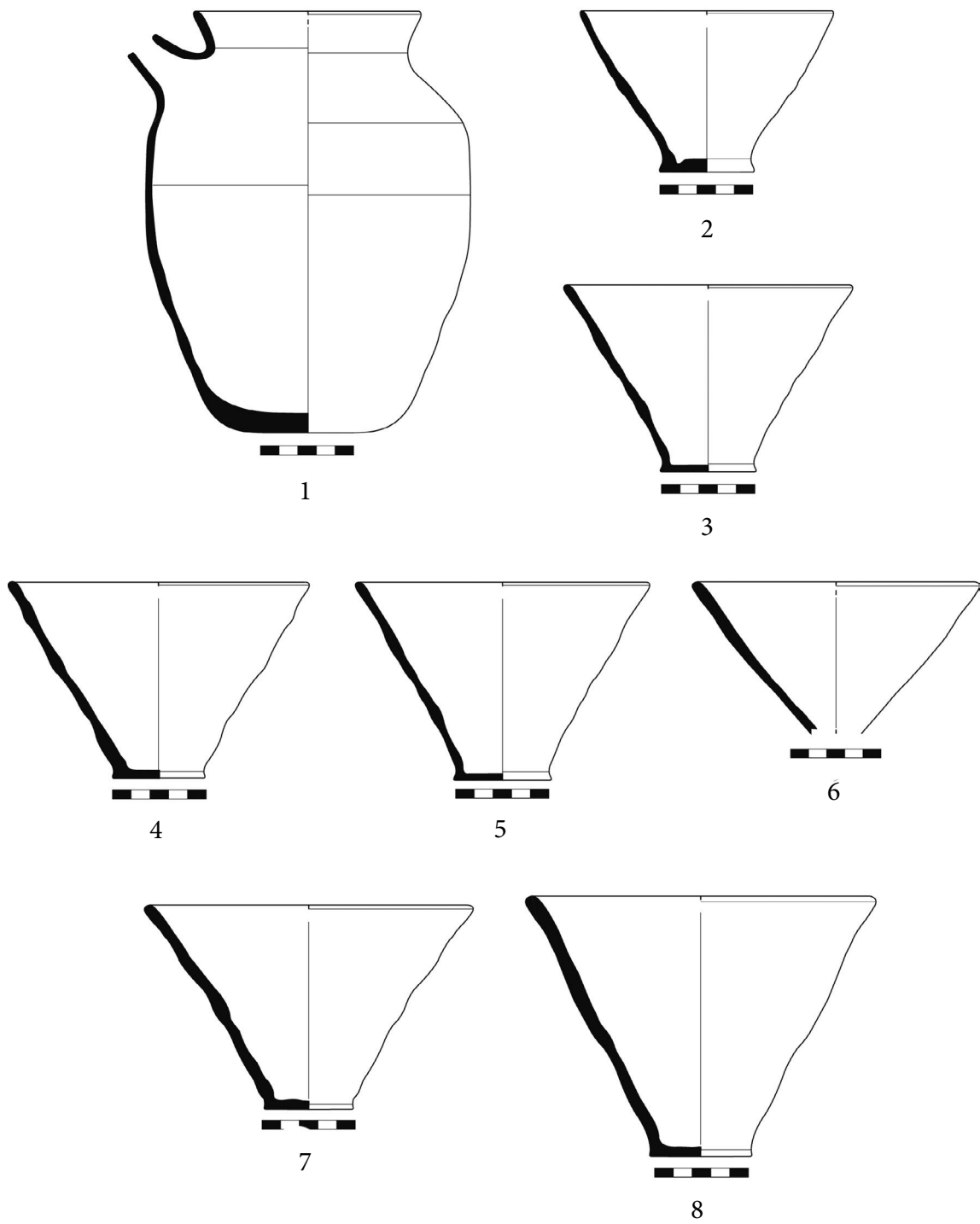
G. 363



G. 370

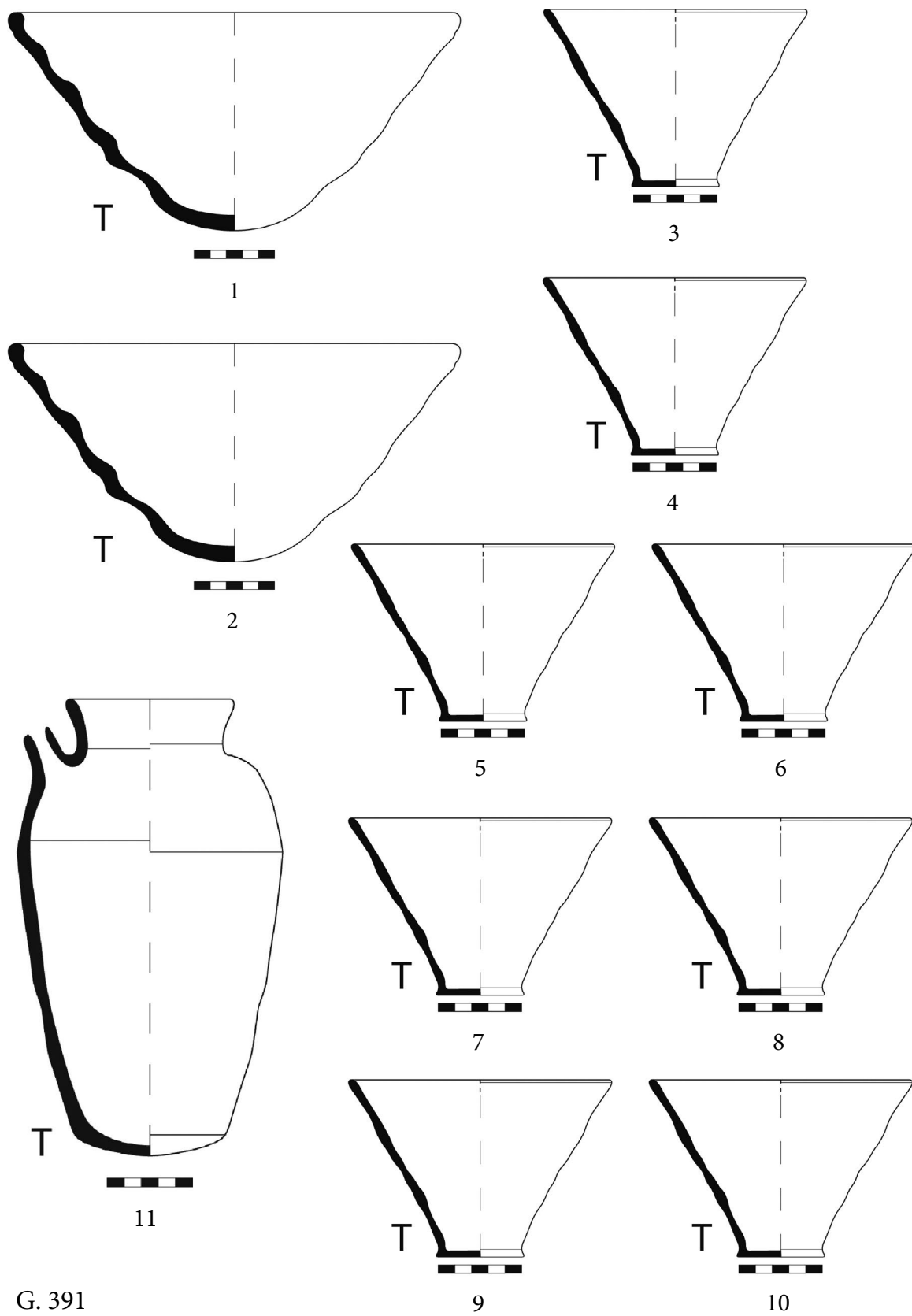


Y Sounding, Phase 3c



G. 386

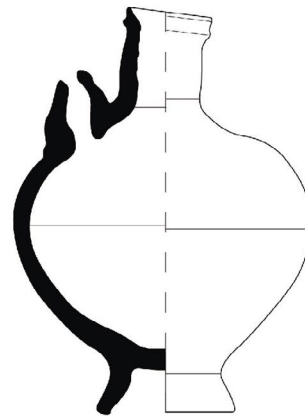
Y Sounding, Phase 3c



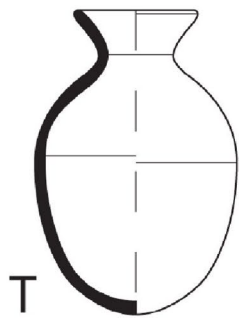
G. 391



1 G. 426



2 G. 428



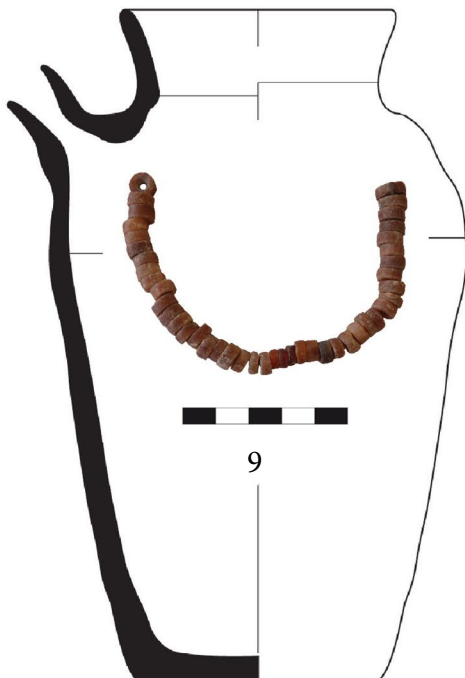
3 G. 429



4



5



9



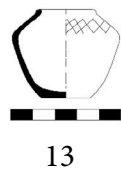
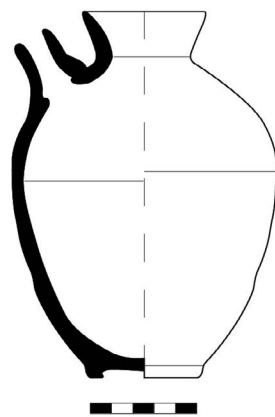
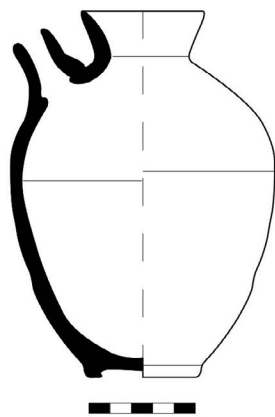
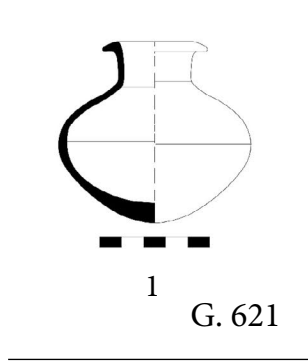
8 G. 533



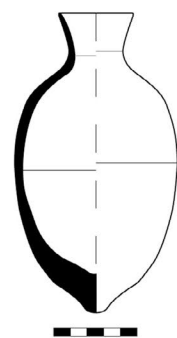
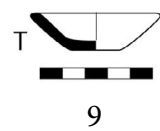
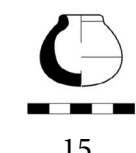
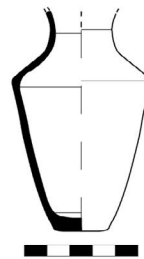
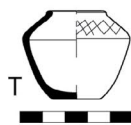
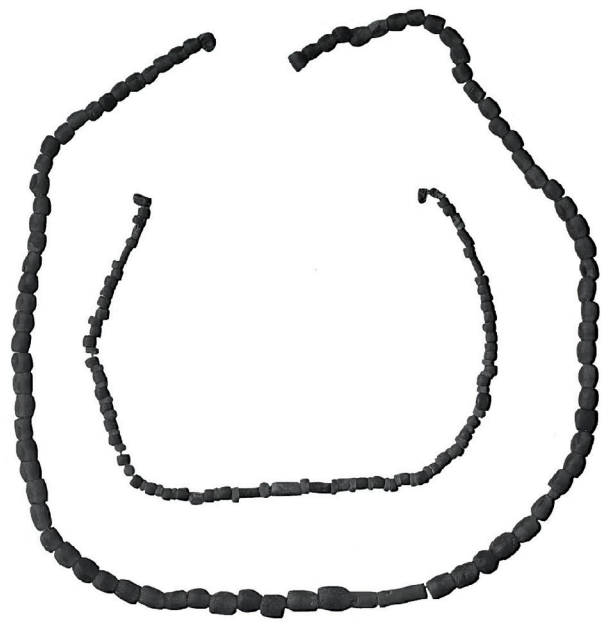
6 G. 430

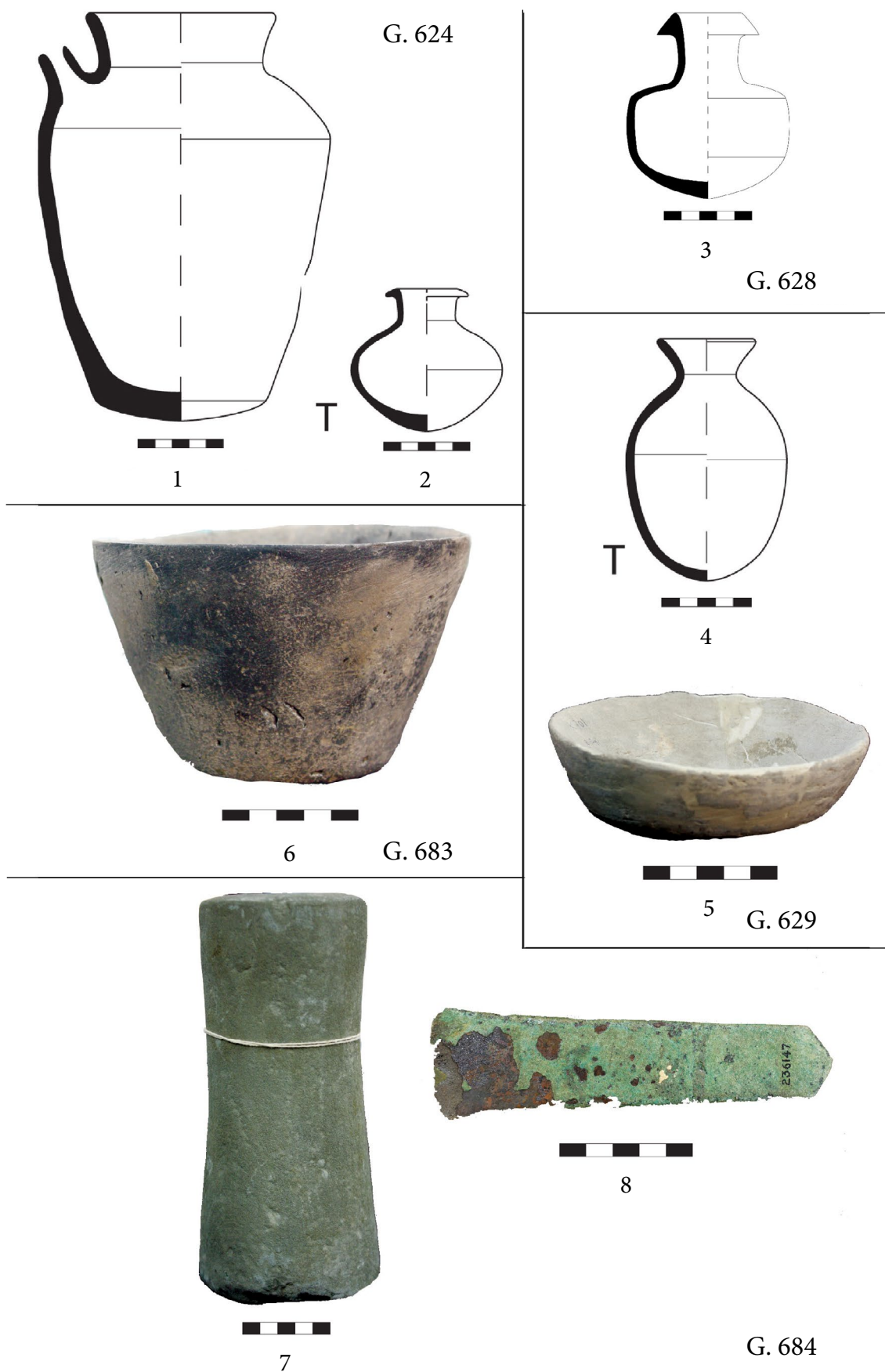


7 G. 481



G. 622







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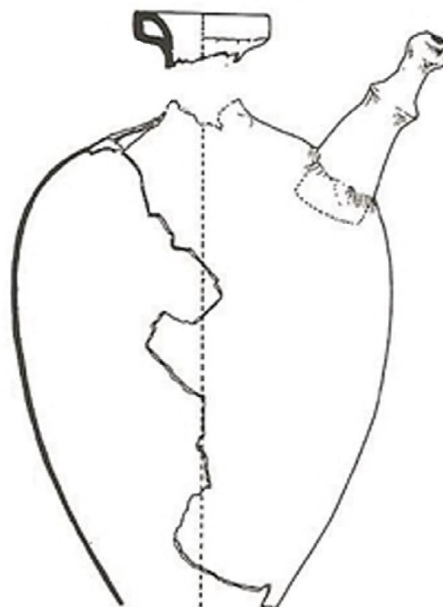
5



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G. 685



1



2

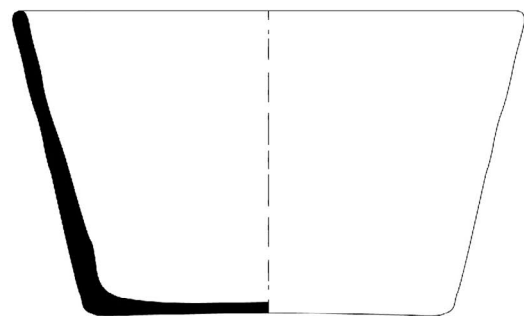


3

G. 685 (continue)



4



5

G. 686



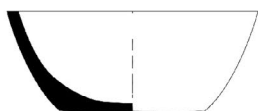
1



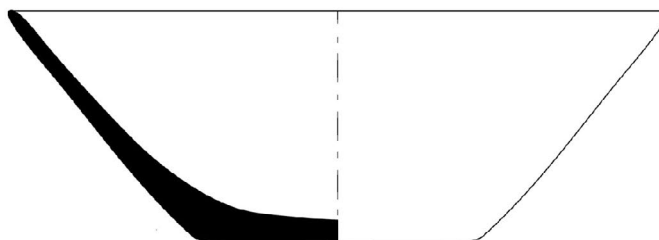
2



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G 686 (continue)

Y Sounding, Phase 3c

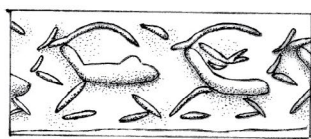


1



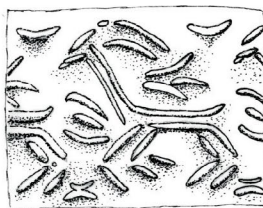
2

G. 687



IM 15226

1



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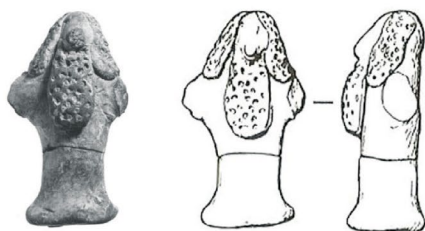
4



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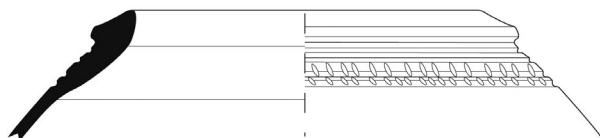
7



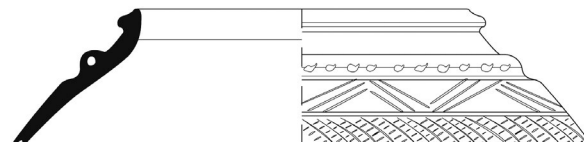
8



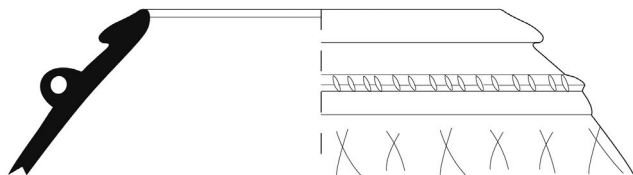
9



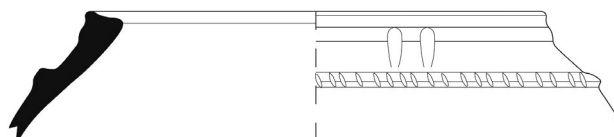
10



11



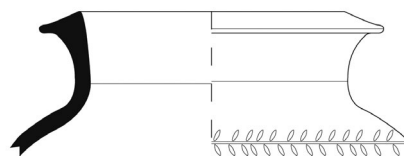
12



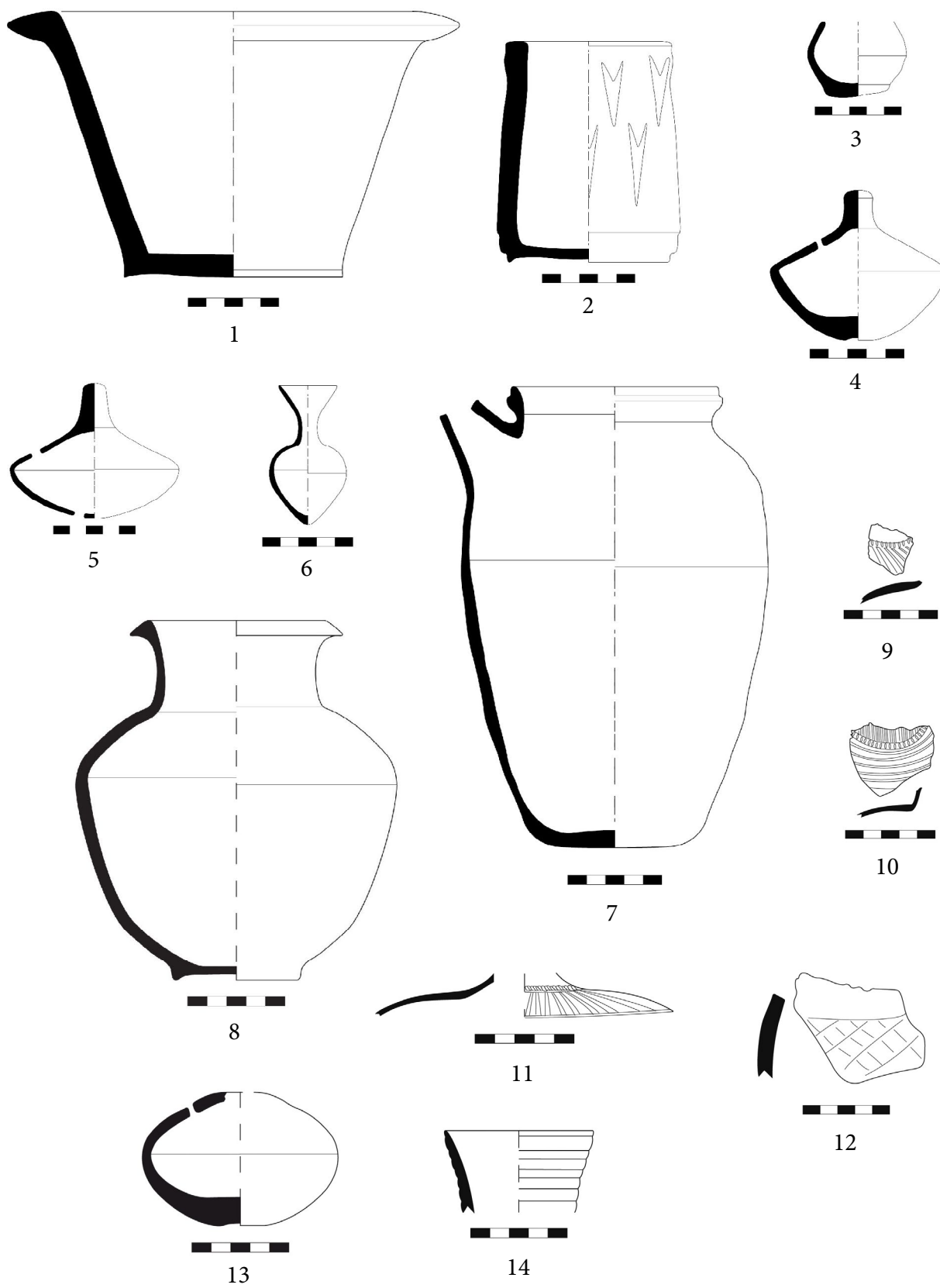
13

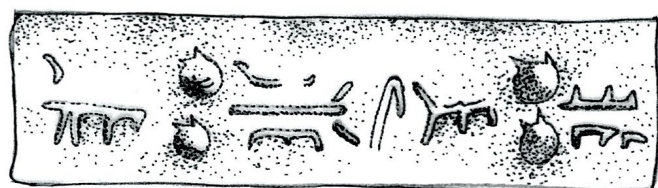


14



15





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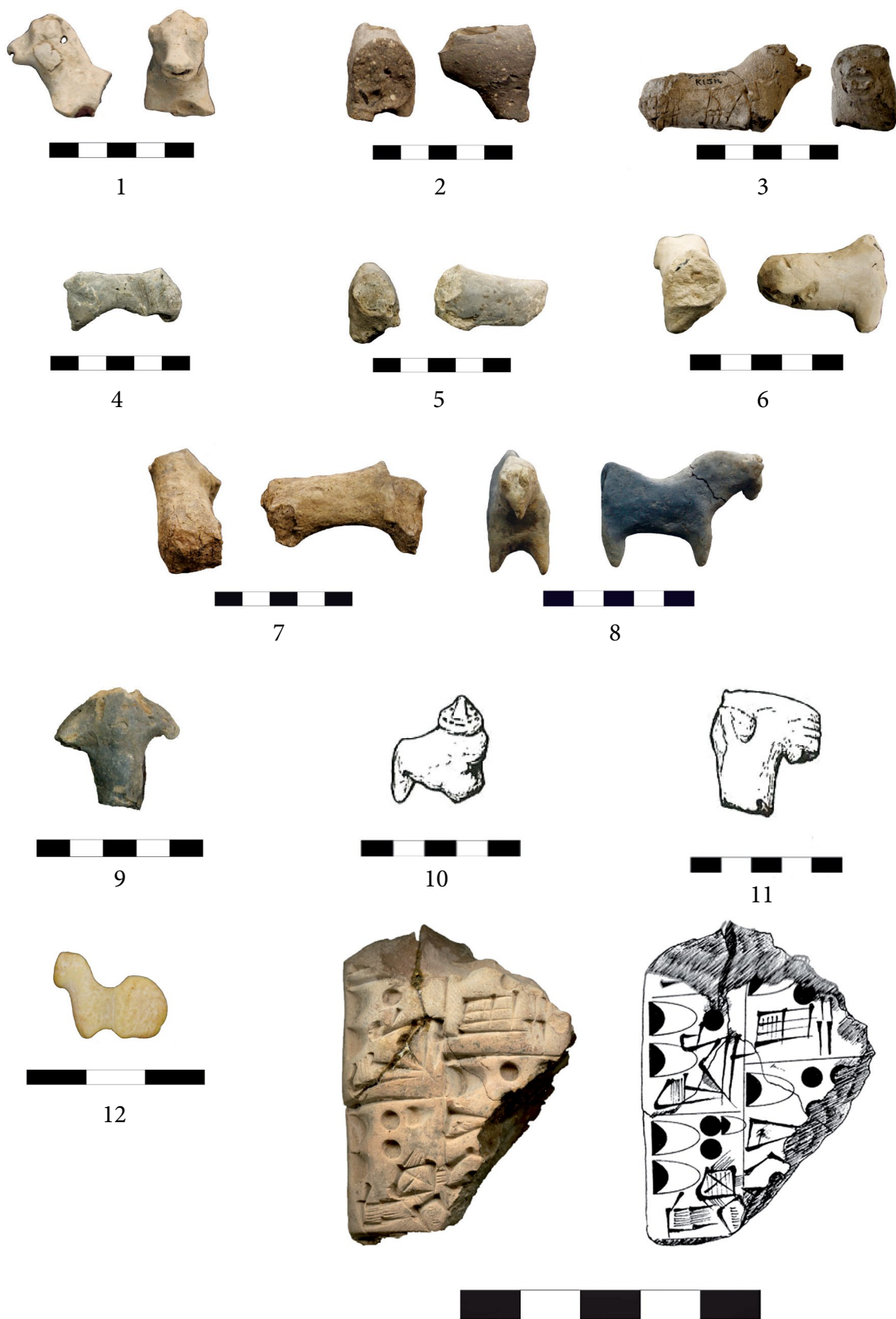
9

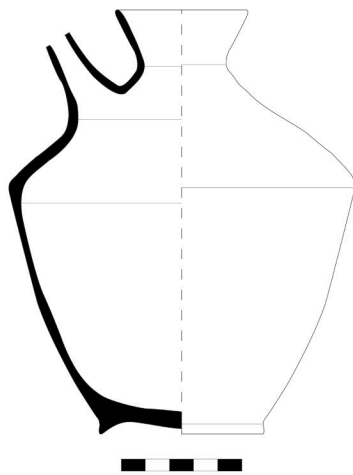


8

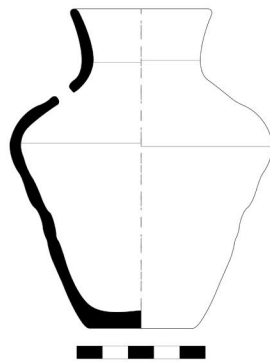


10

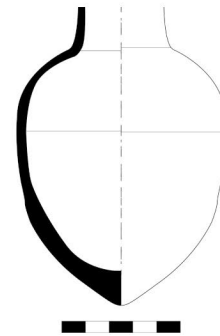




1



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3



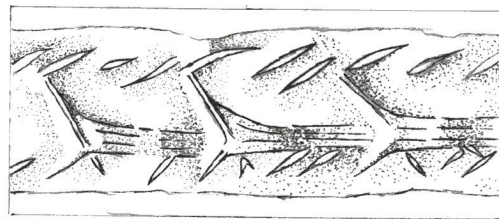
4



5



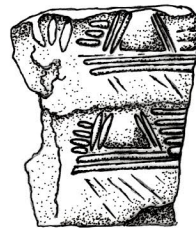
6



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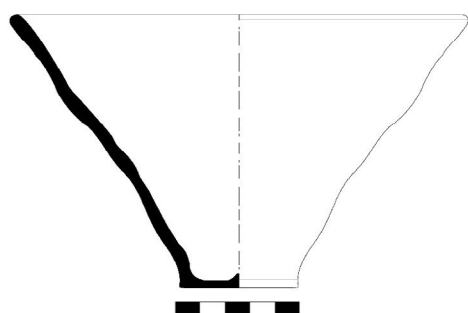
11



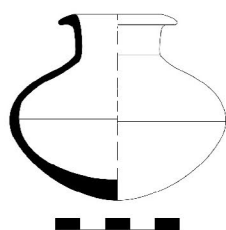
12





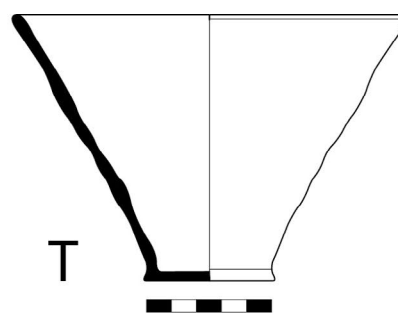


1



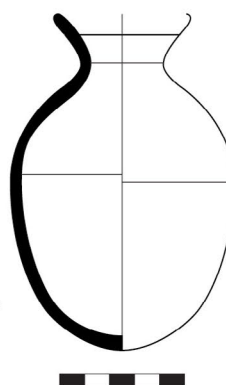
2

G. 476



3

T



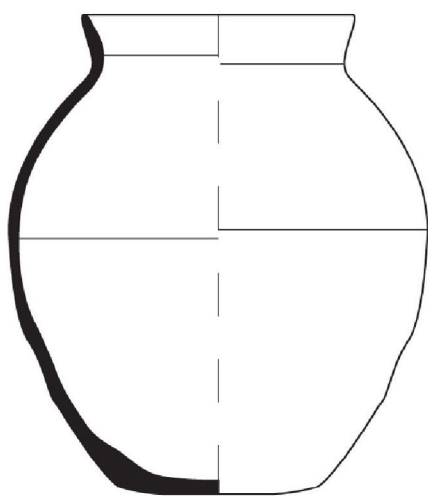
4

T

G. 491

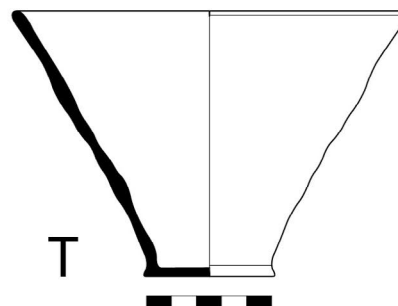


5



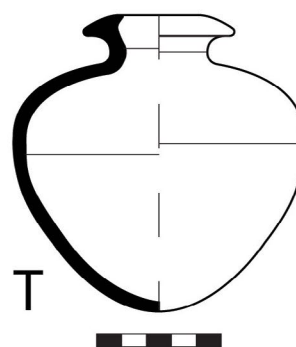
6

G. 500



7

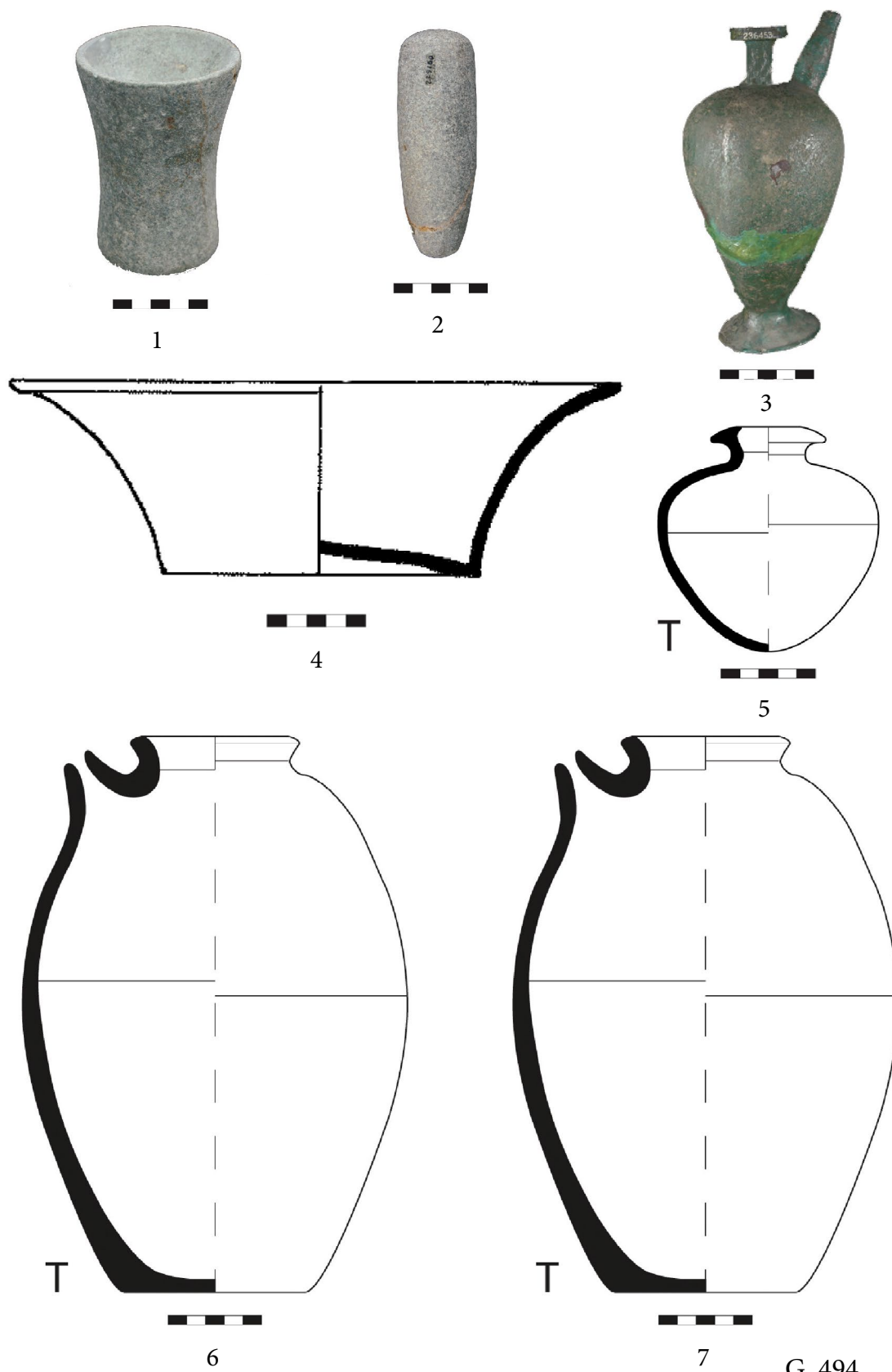
T



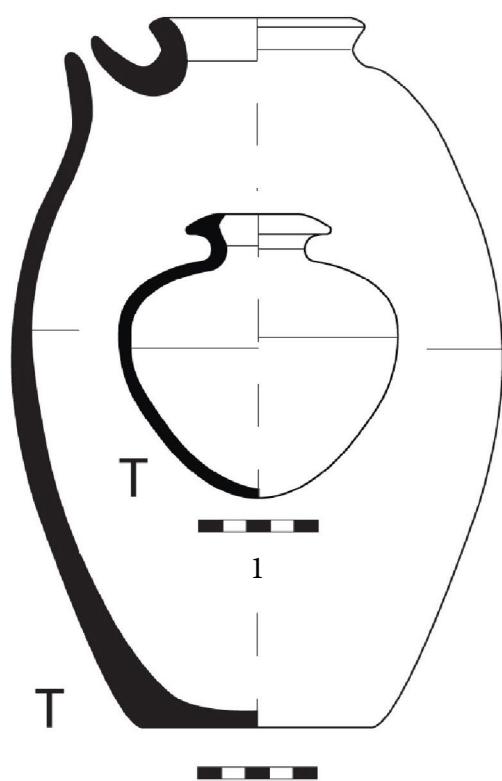
8

T

G. 381

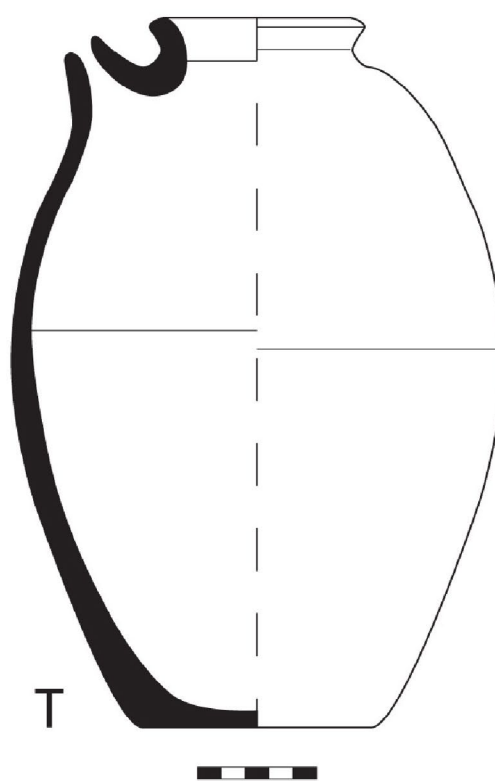


G. 494



G. 509

2



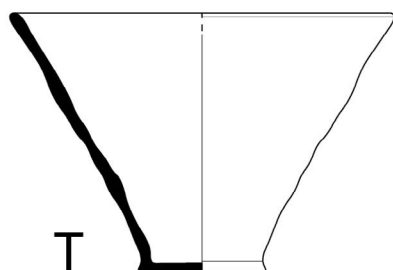
3



4

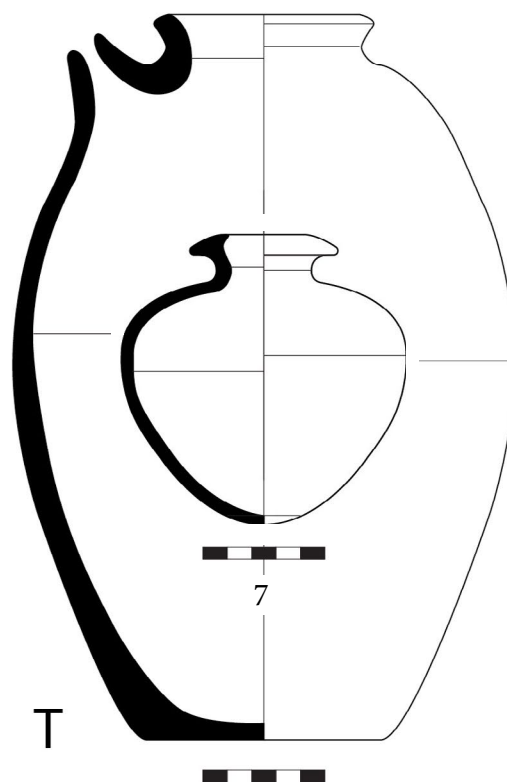


5



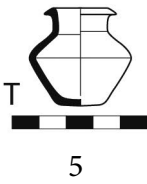
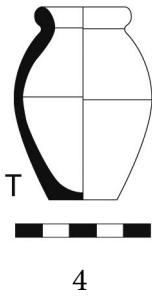
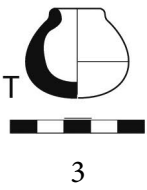
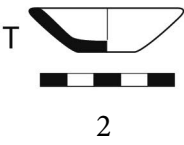
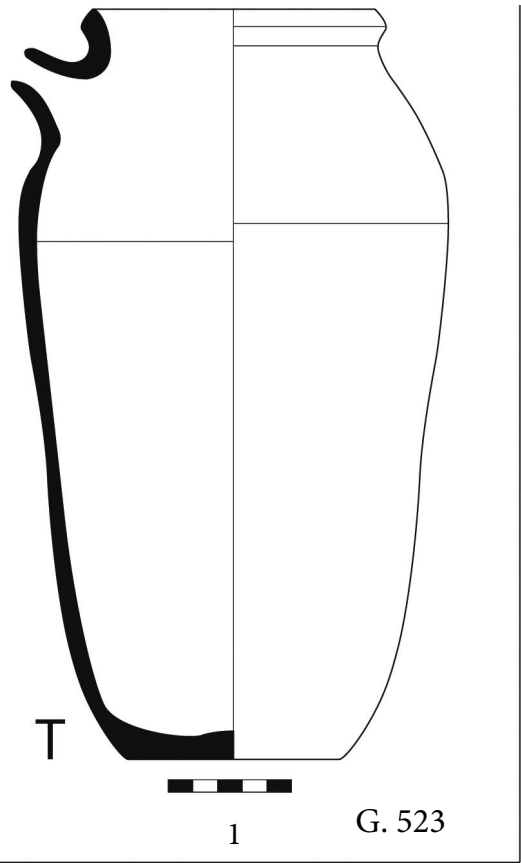
G. 510

6

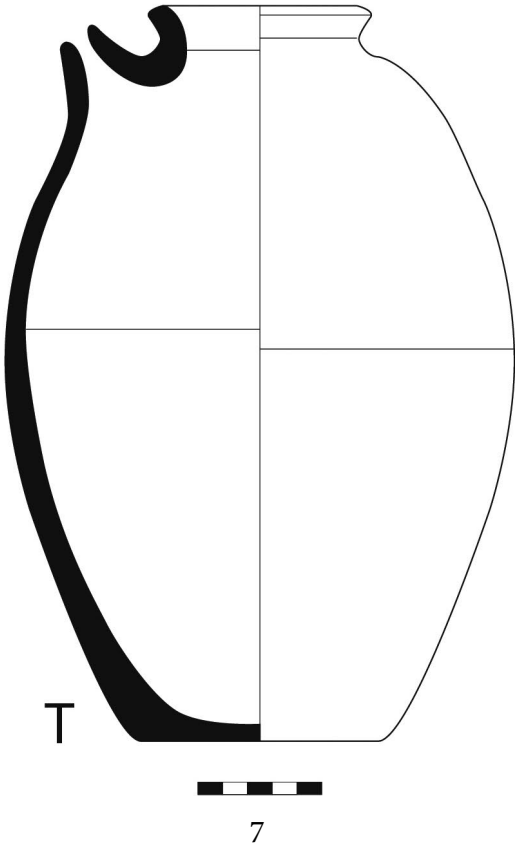
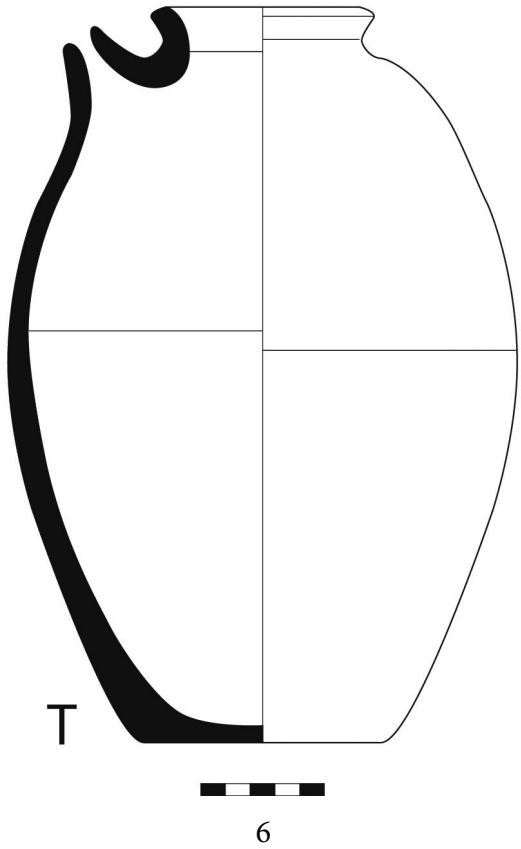


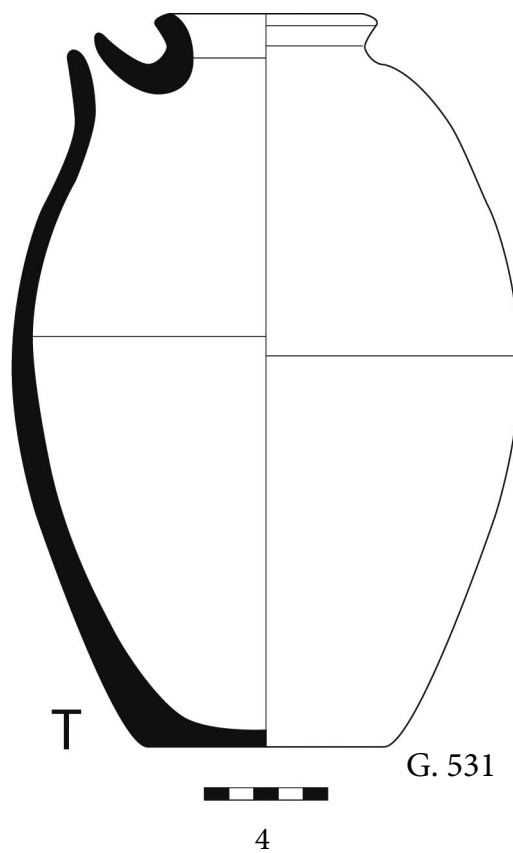
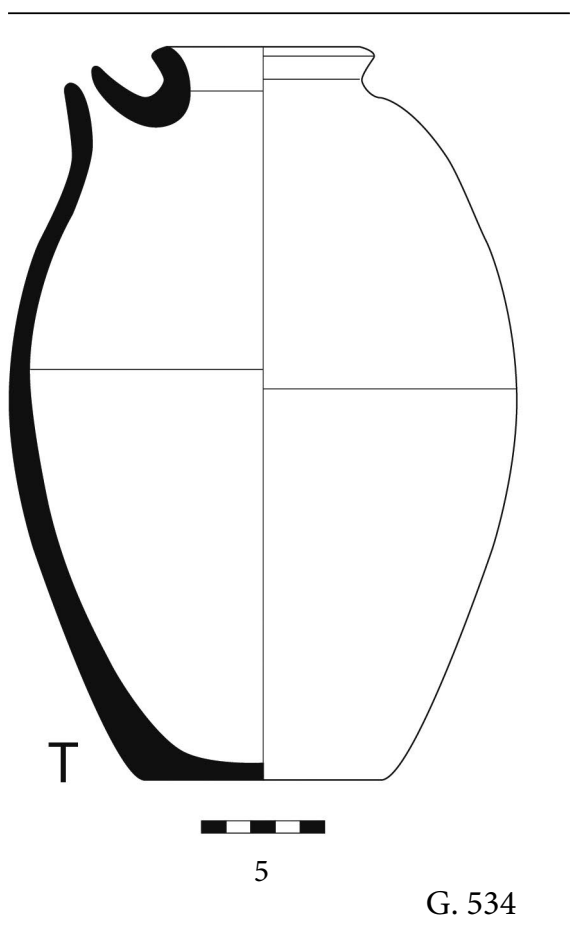
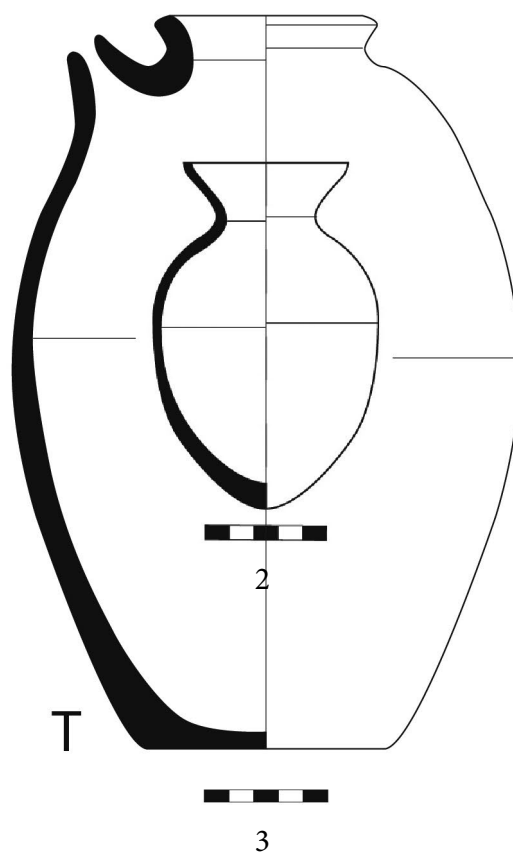
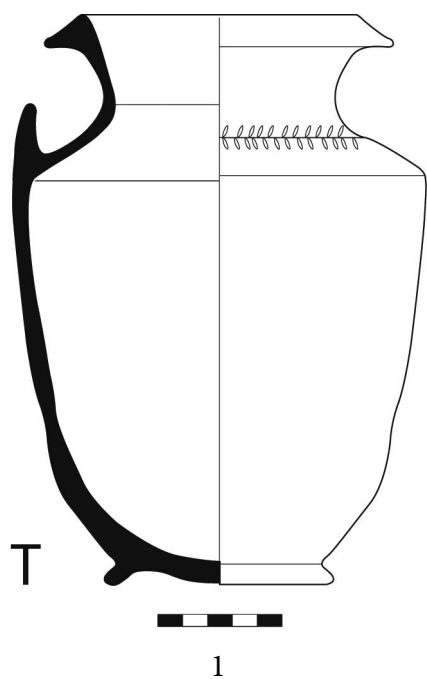
8

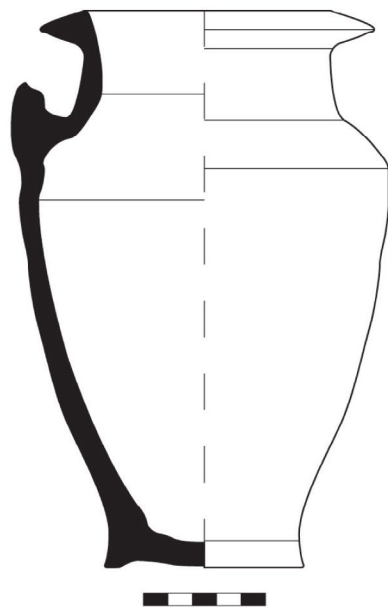
Y Sounding, Phase 4a



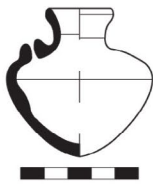
G. 527







1

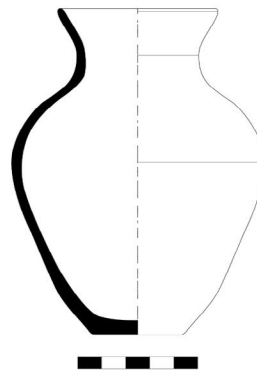


2



3

G. 535



4

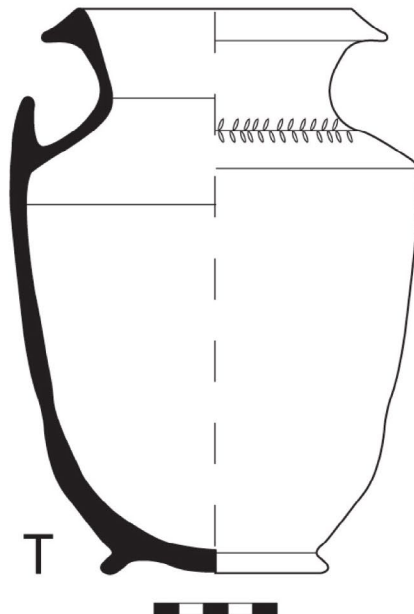


5

G. 623



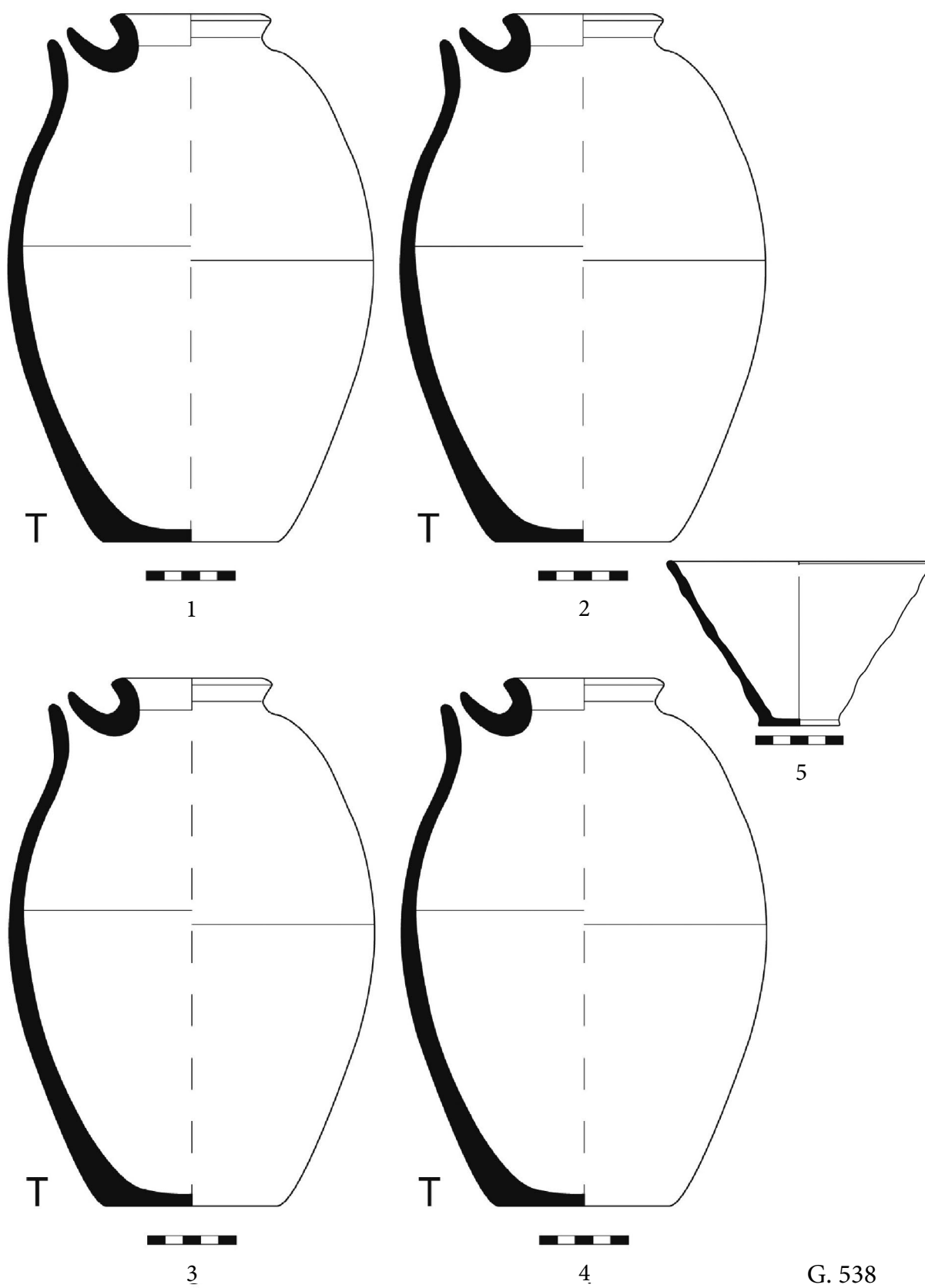
6



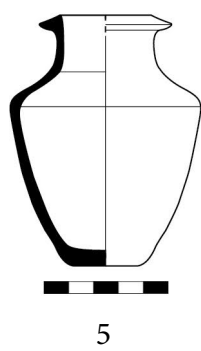
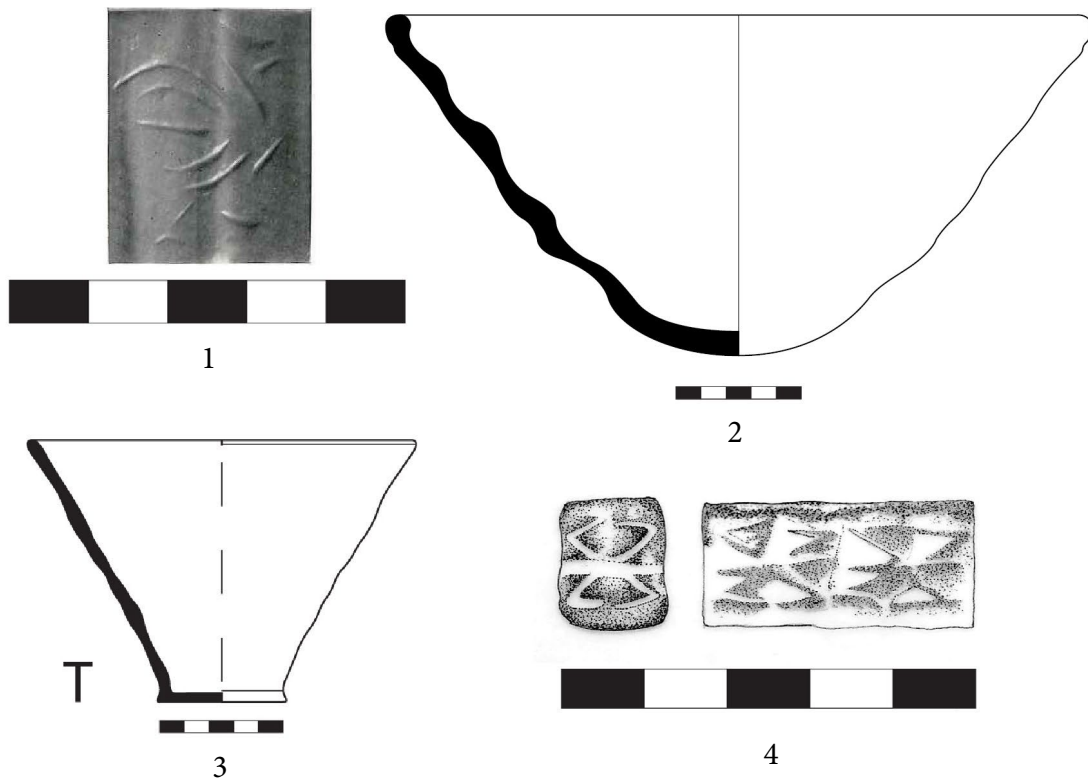
T

7

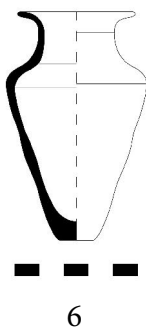
G. 690



G. 538

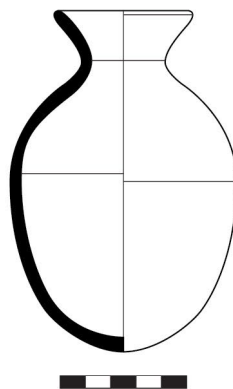


5

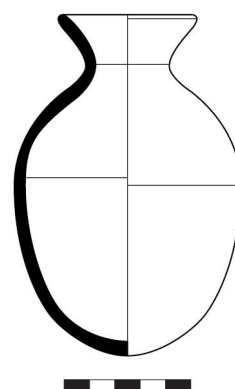


6

G. 360

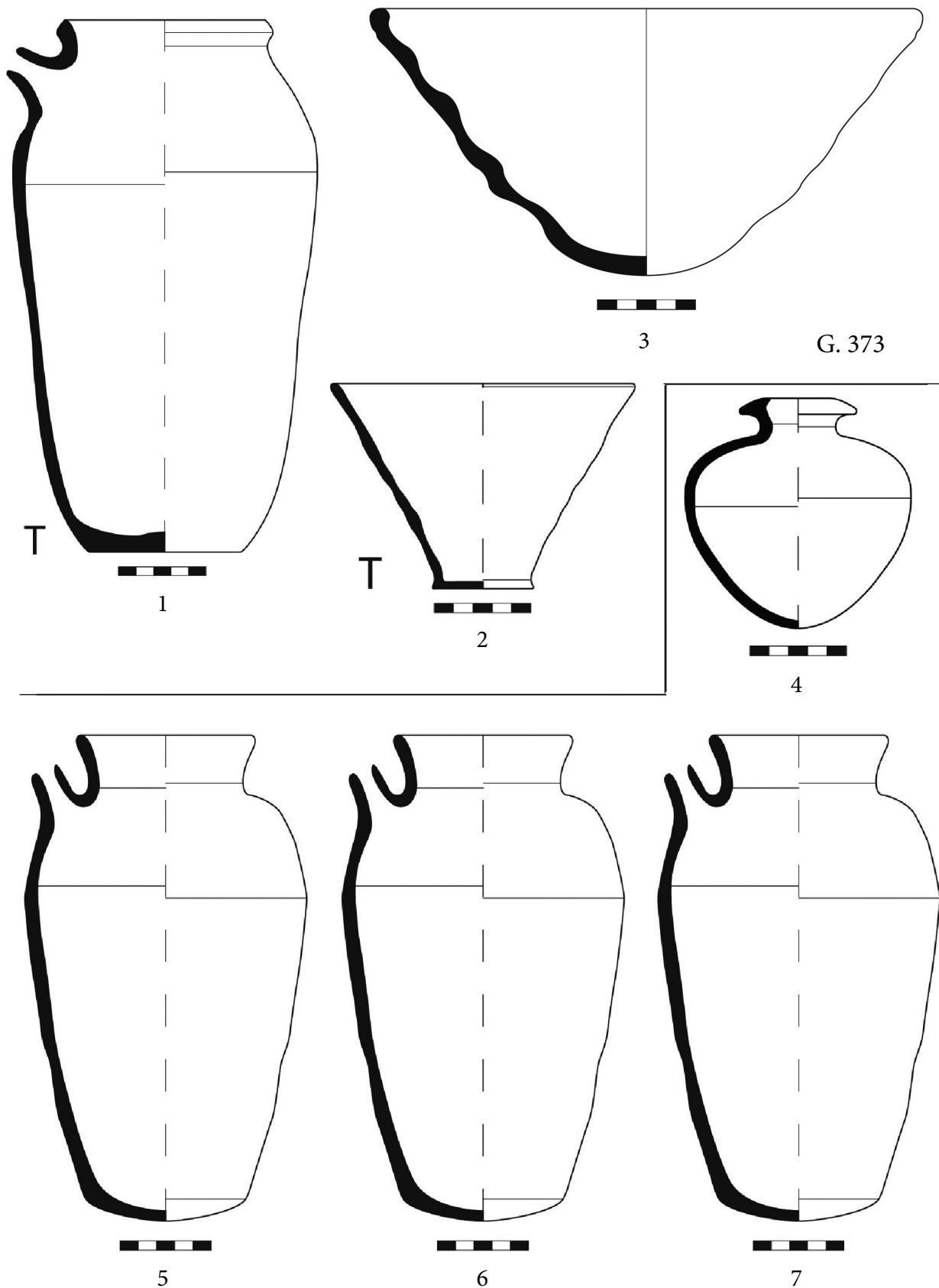


7



8

G. 421



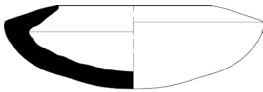
G. 373

Y Sounding, Phase 4c

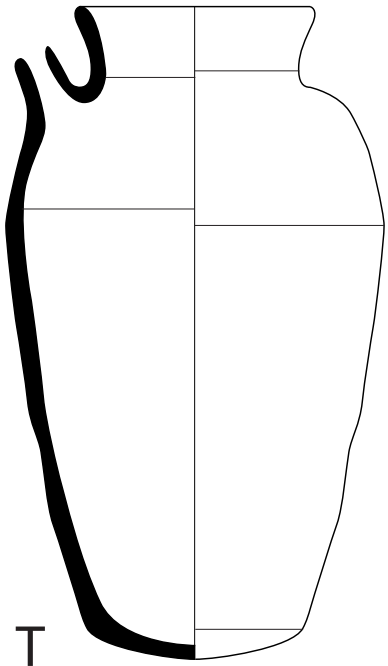
G. 417



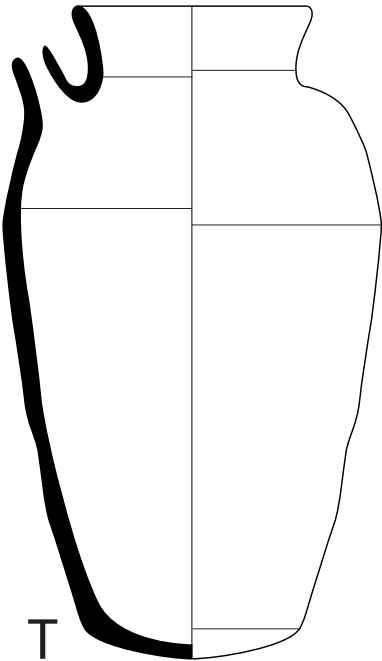
1



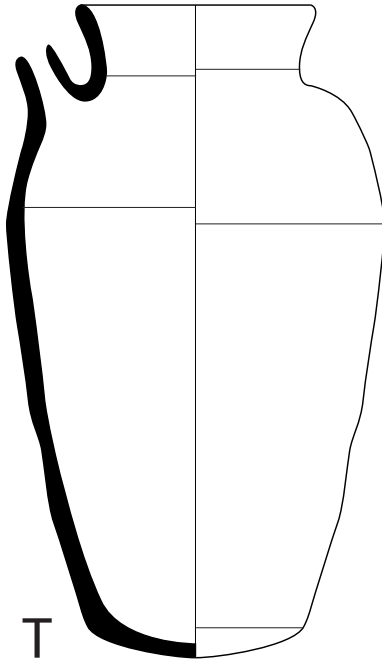
2



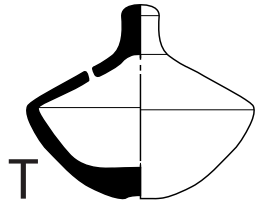
3



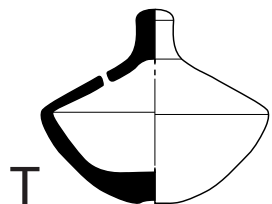
4



5

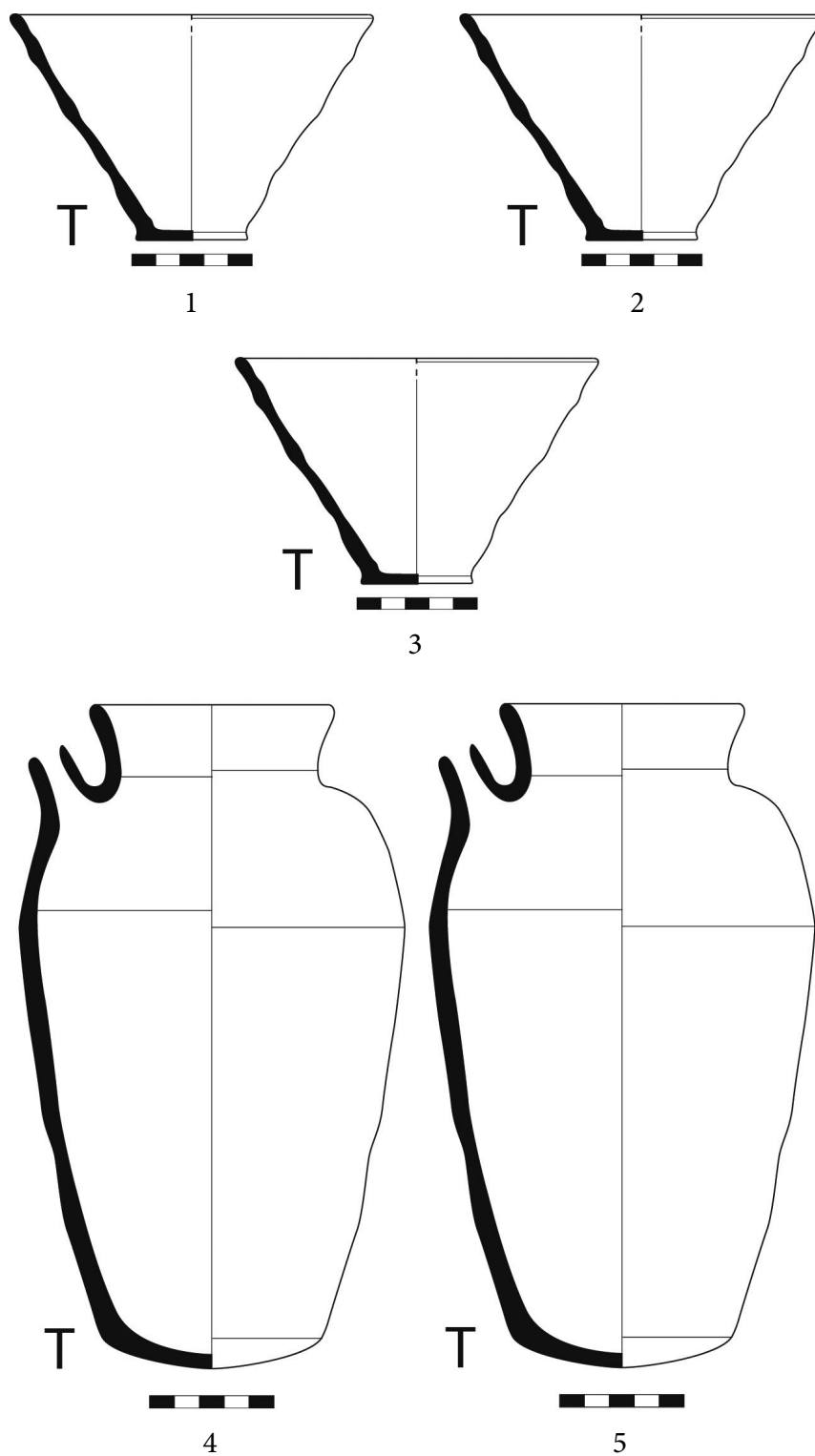


6

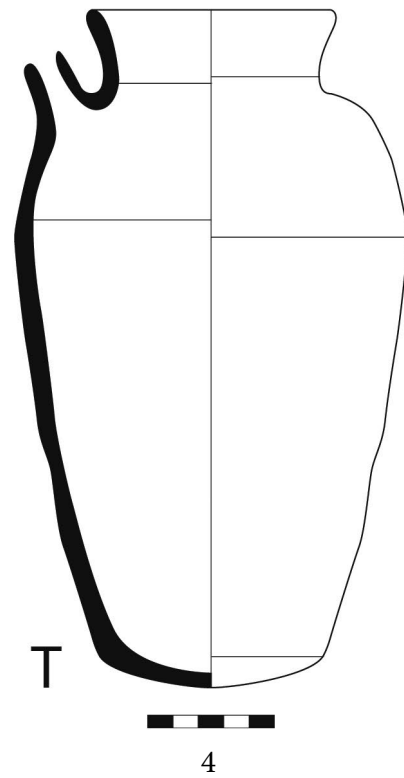
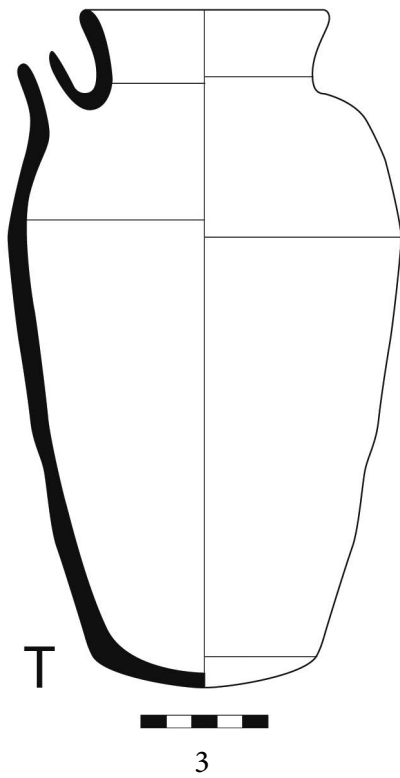
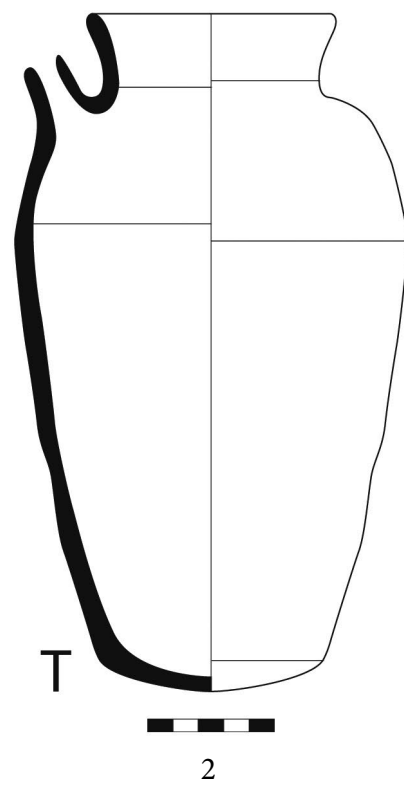
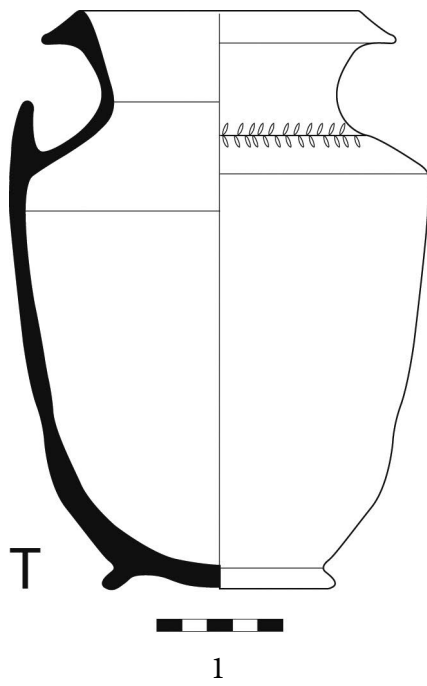


7

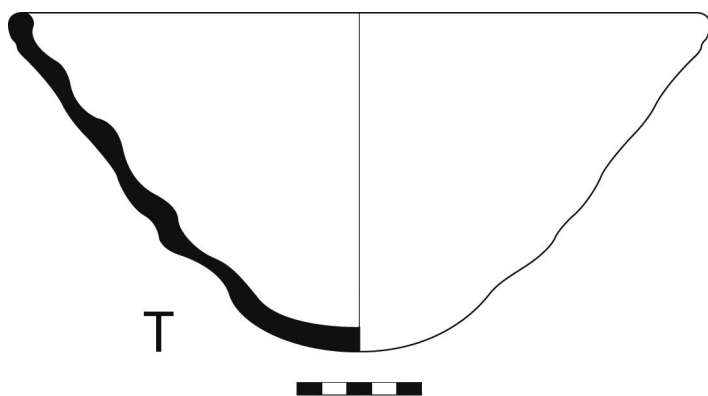
G. 455 phase I



G. 455 phase II

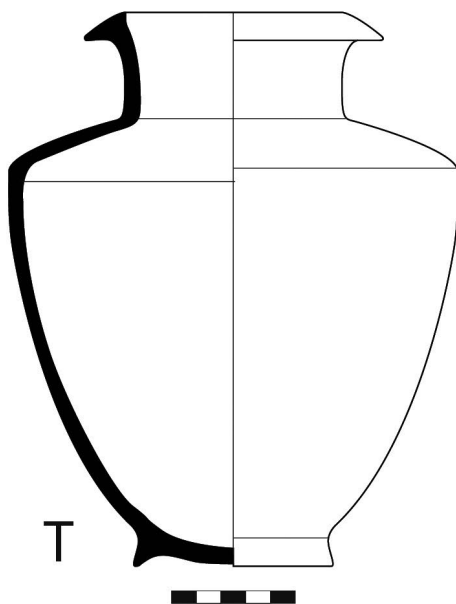


G. 455 phase III



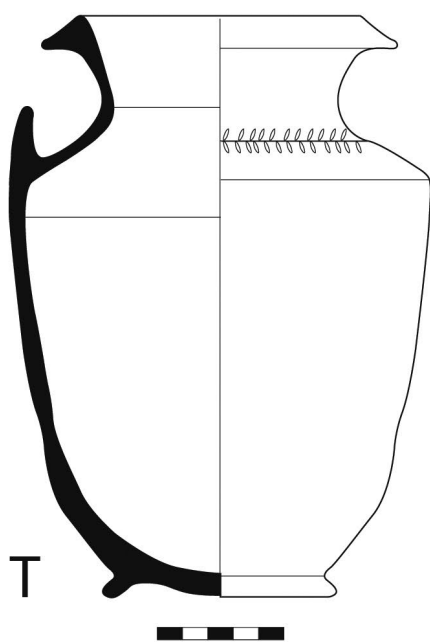
T

1



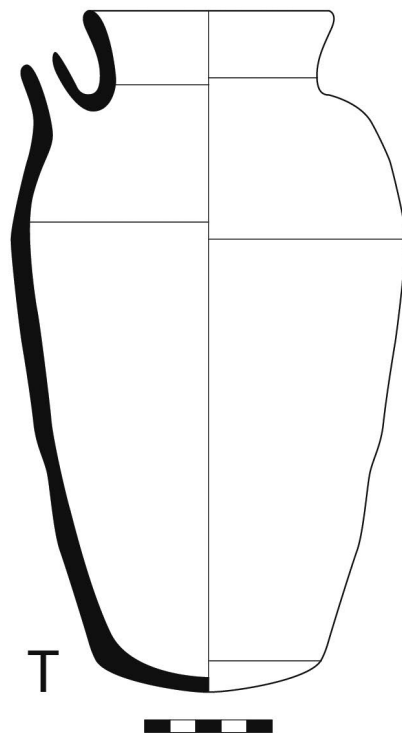
T

3



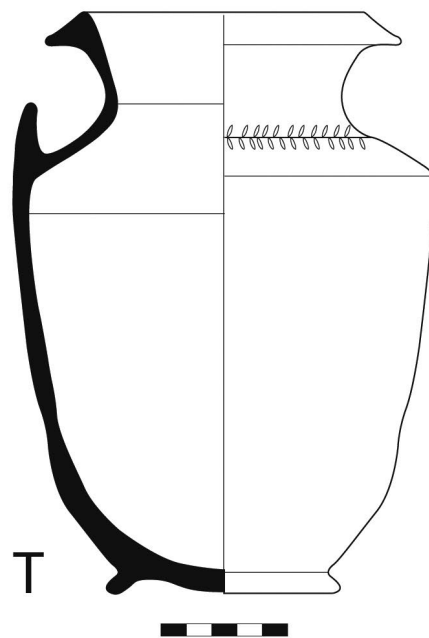
T

5



T

2

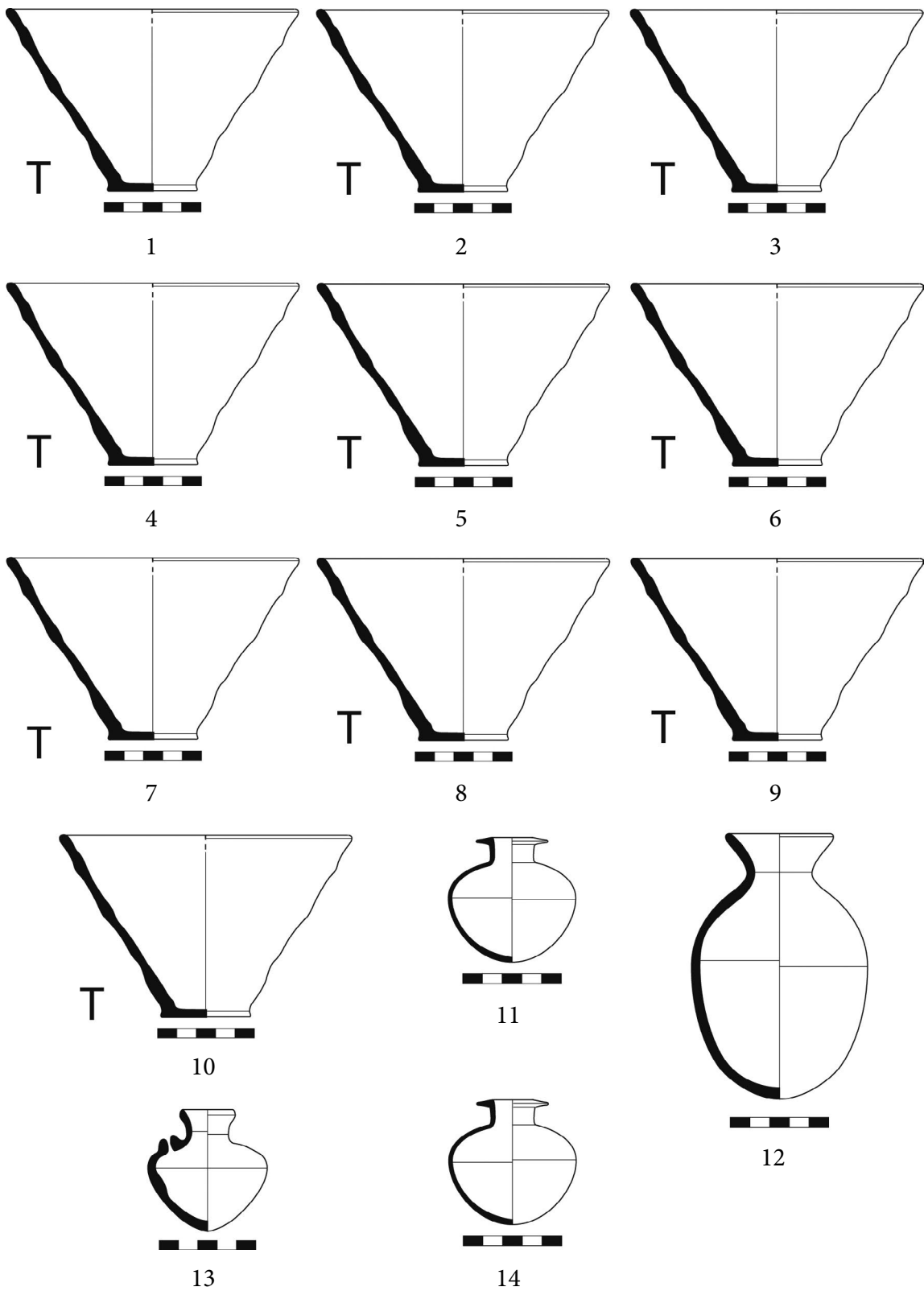


T

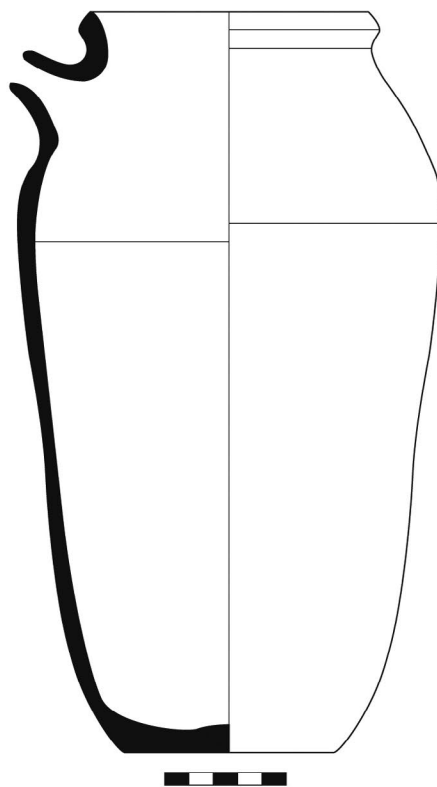
4

G. 463

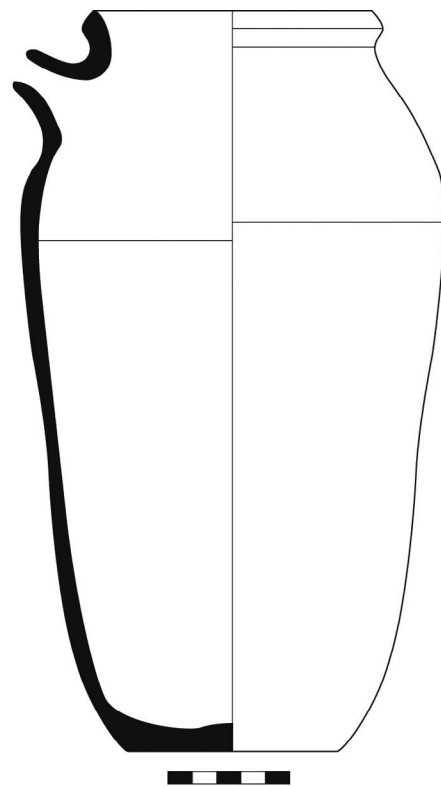
Y Sounding, Phase 4c



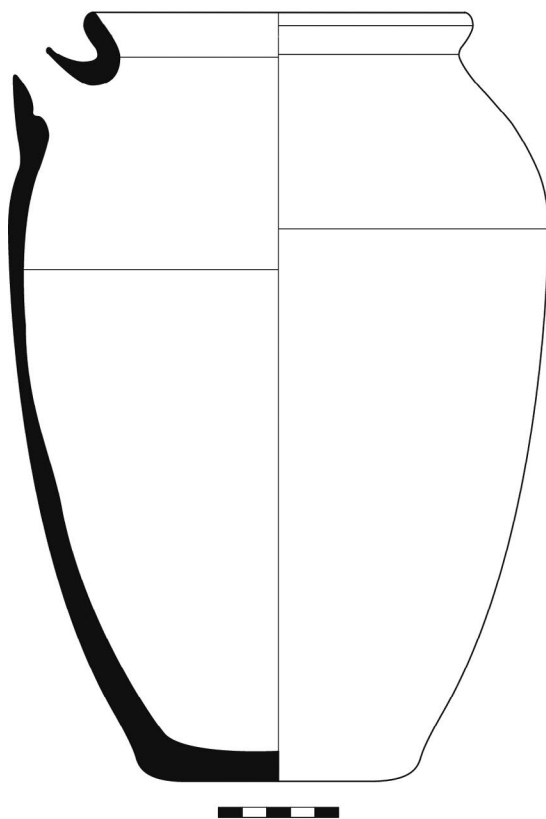
G. 479



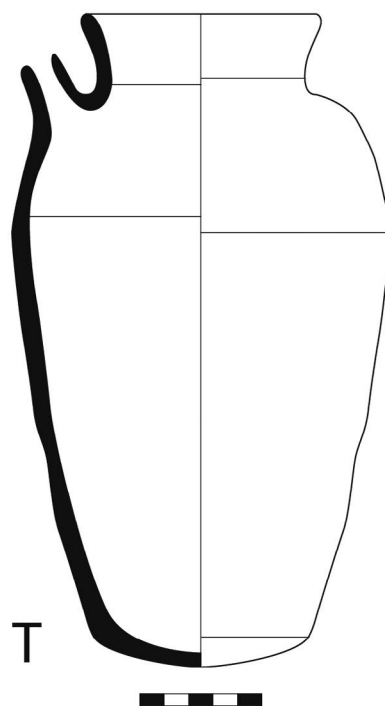
1



2

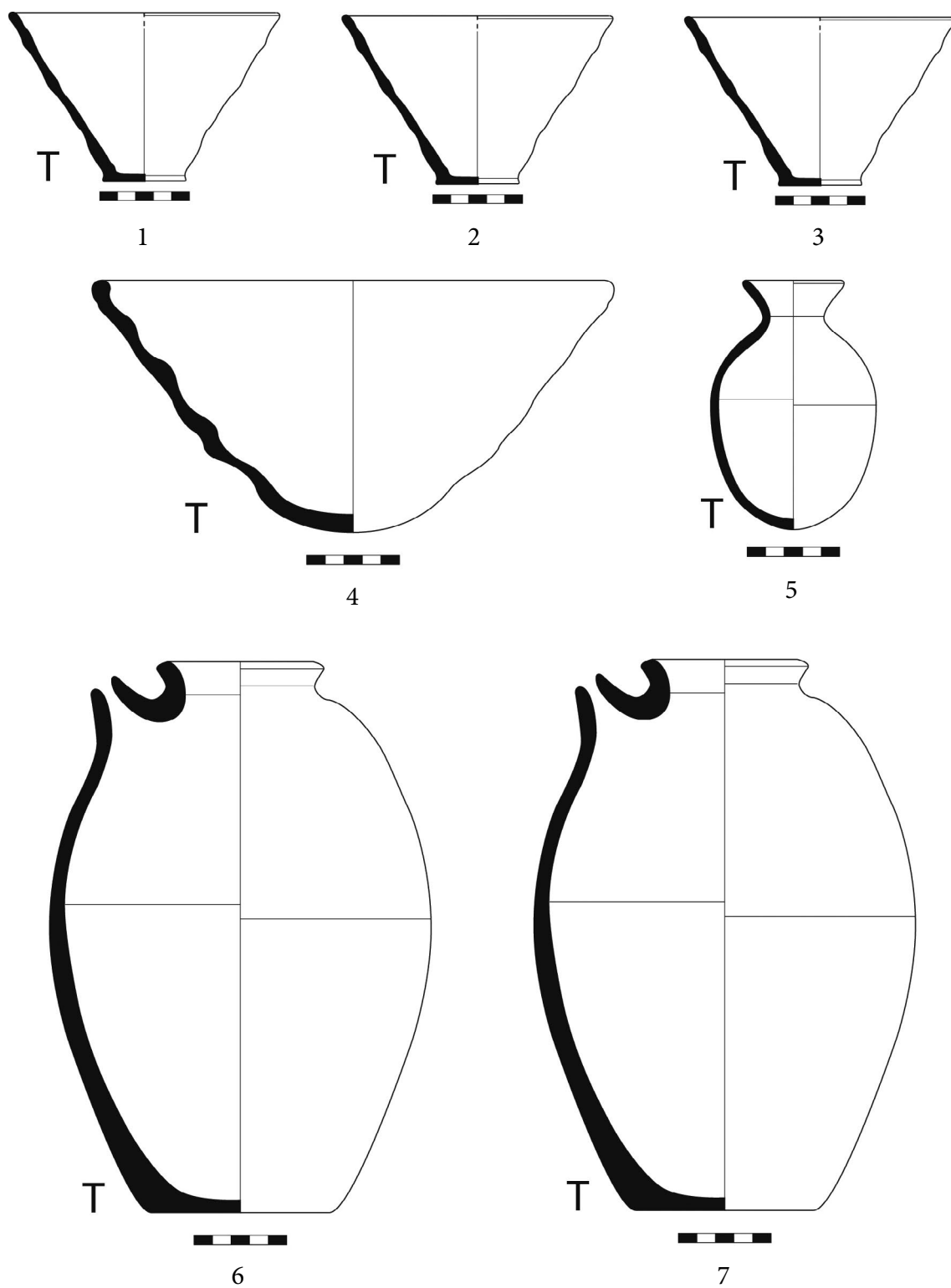


3



4

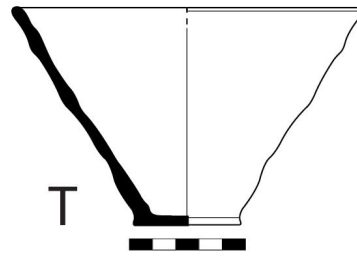
G. 479 (continue)



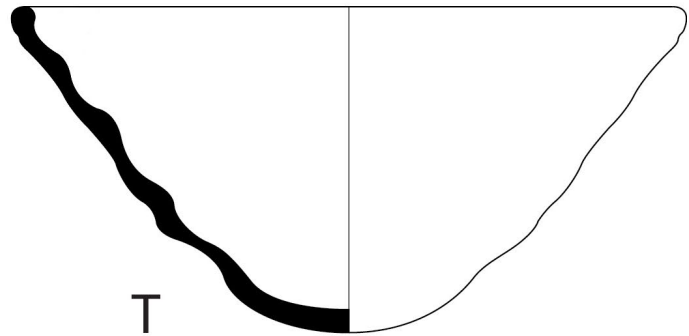
G. 480



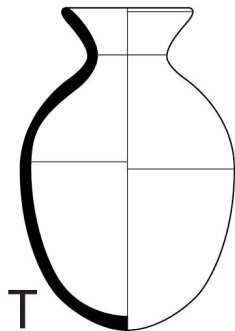
1



2

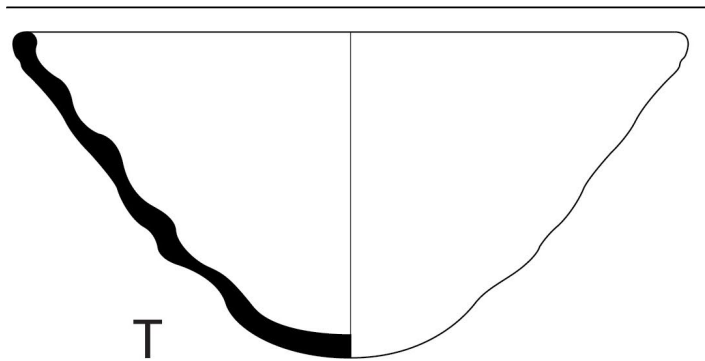


4

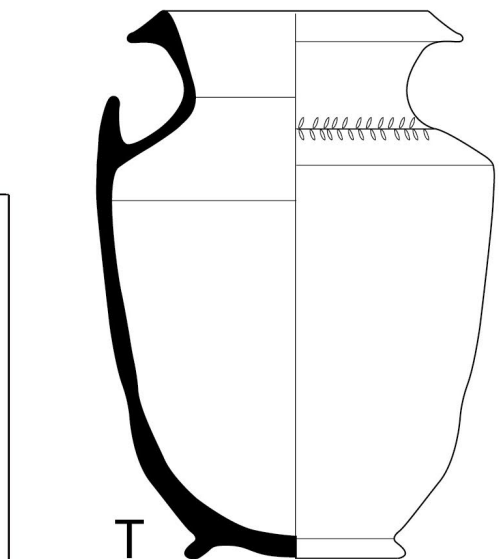


3

G. 489

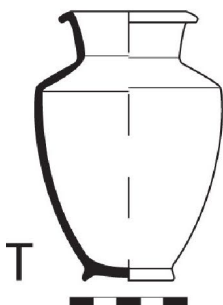


6

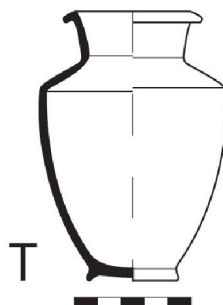


5

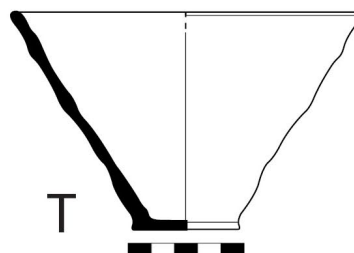
G. 499



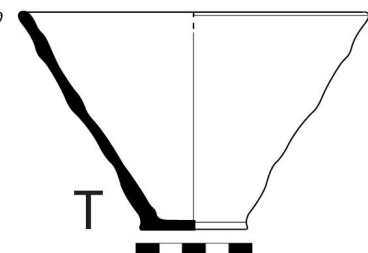
7



8



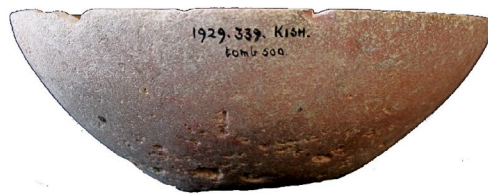
9



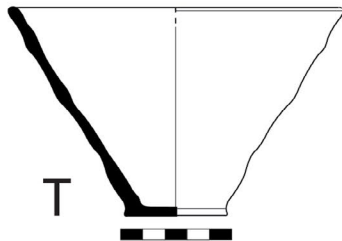
10



1



2

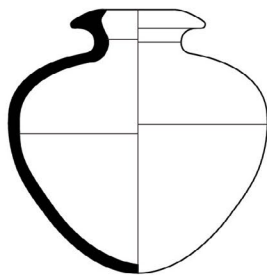


T

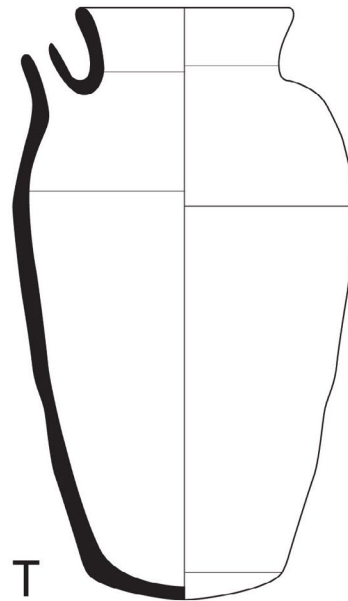


3

G. 513



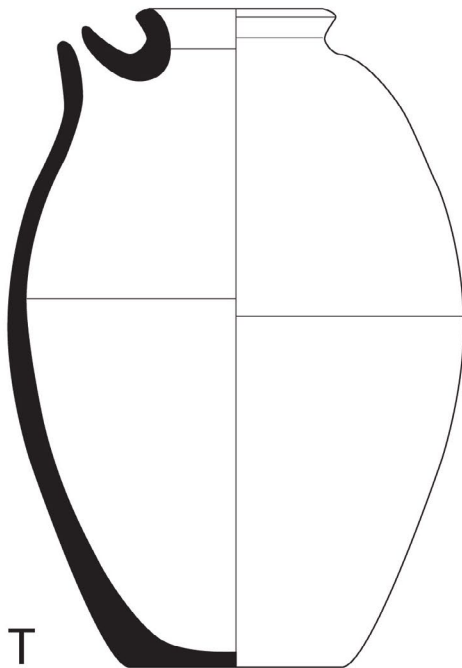
4



T



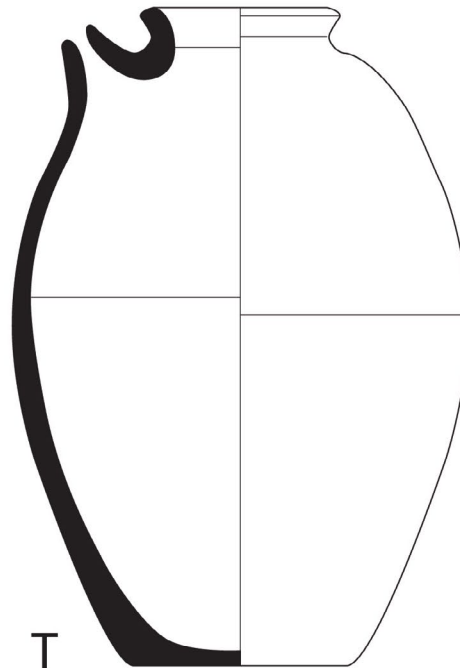
5



T



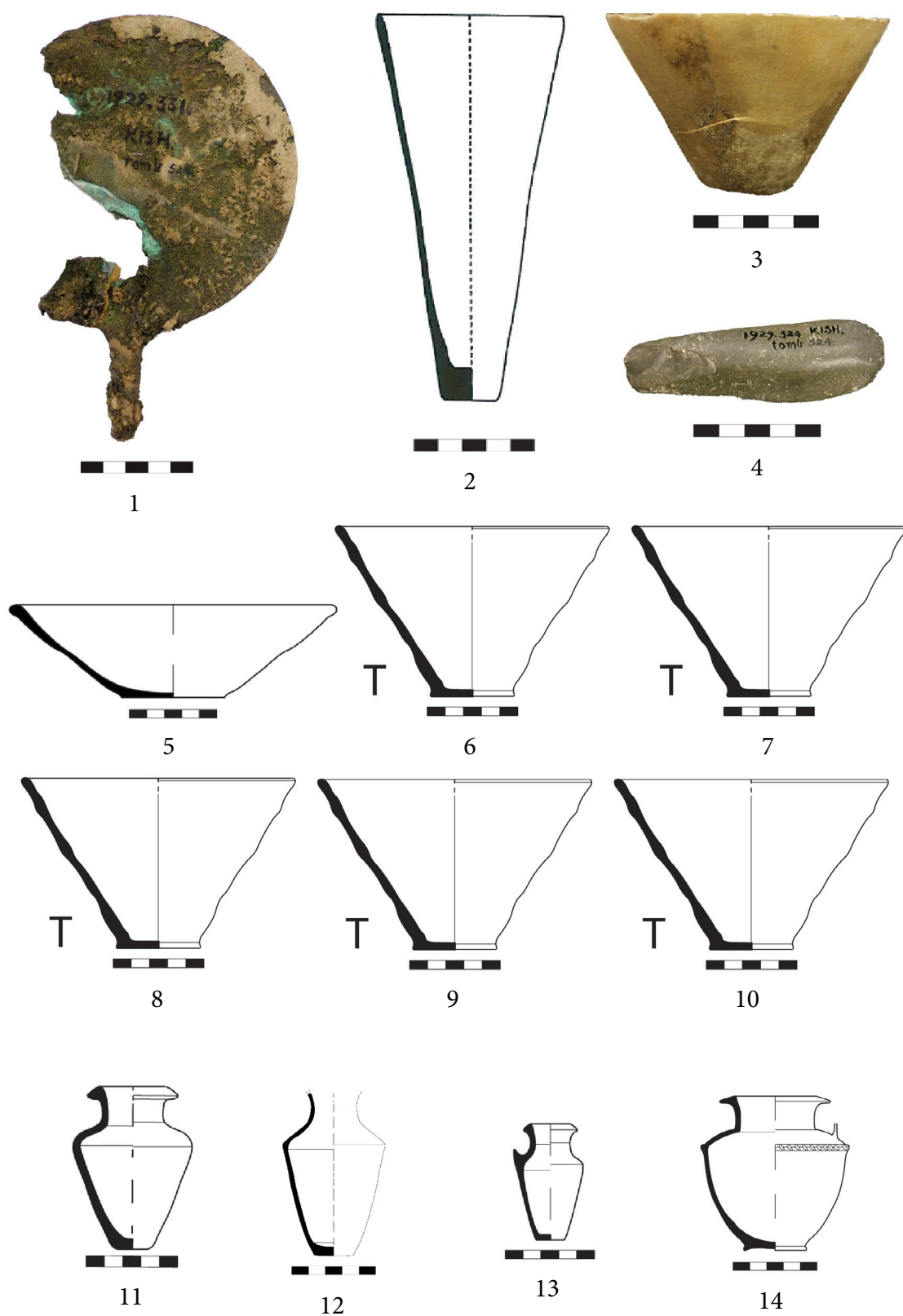
6



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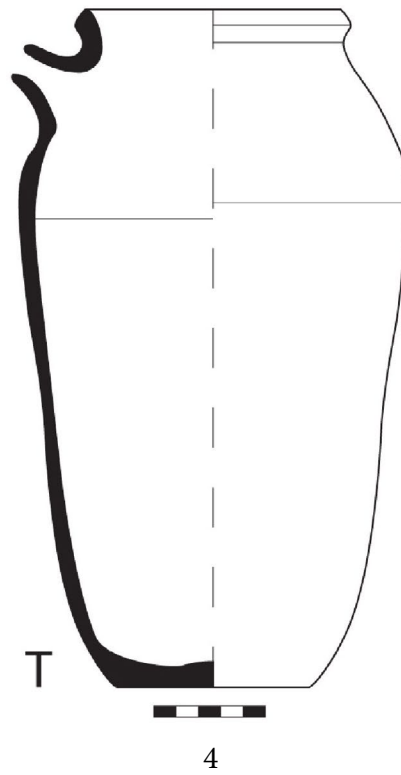
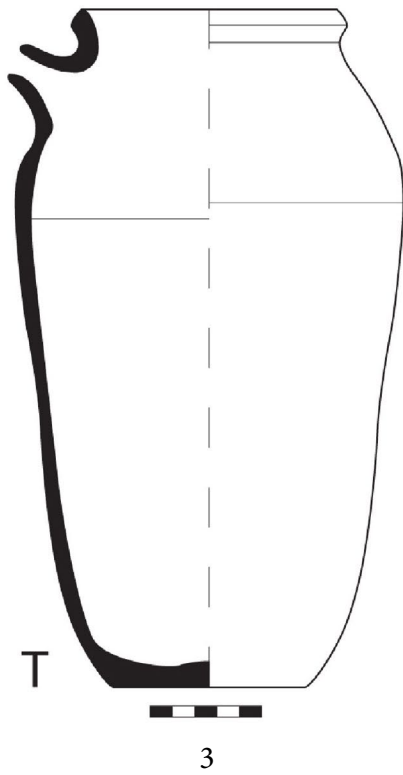
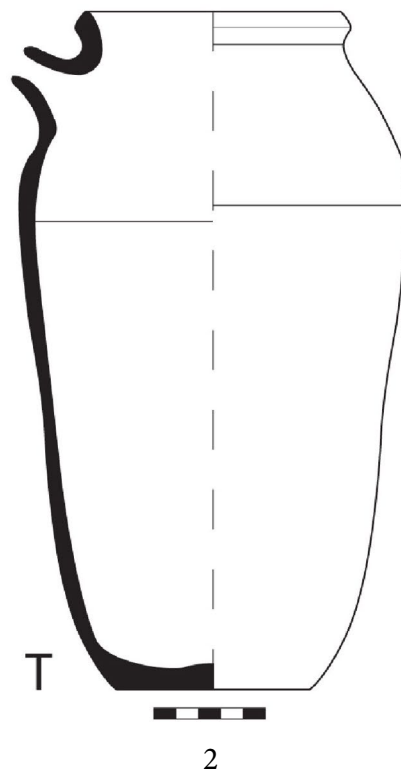
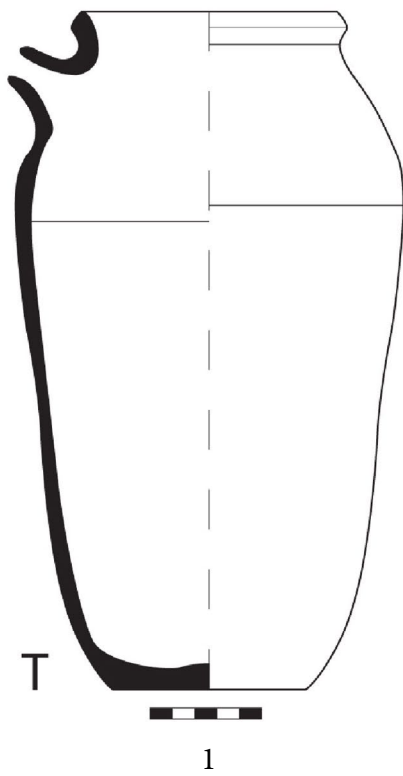


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G. 524

Y Sounding, Phase 4c



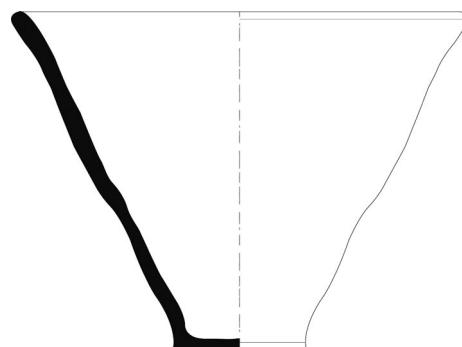
G. 524 (continue)



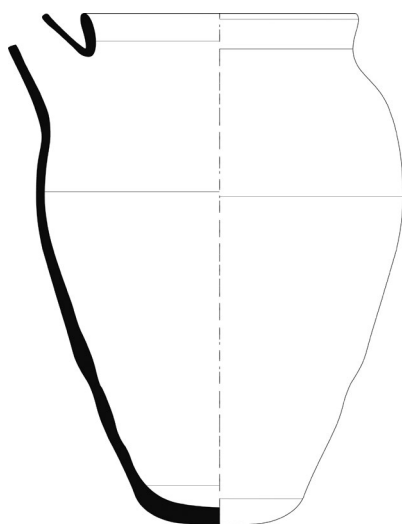
1



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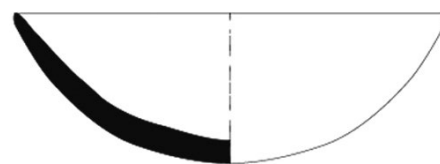


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G. 614

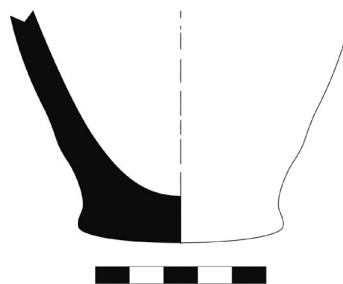


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G. 618

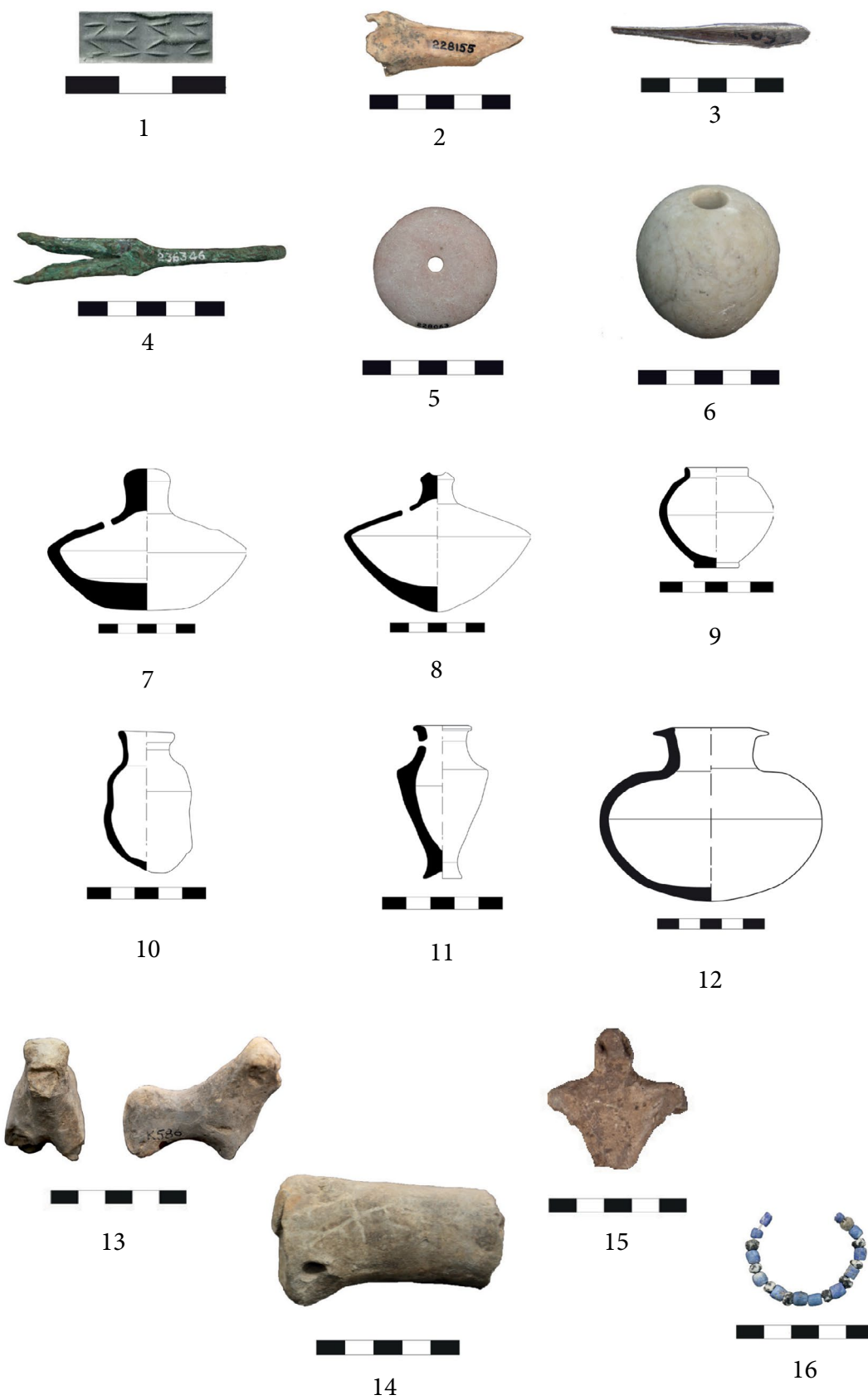


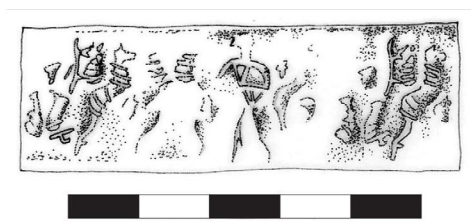
6



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G. 630





1



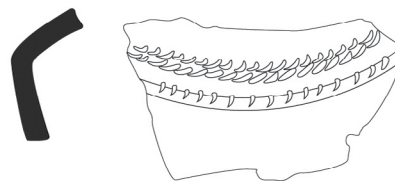
2



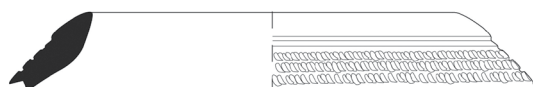
3



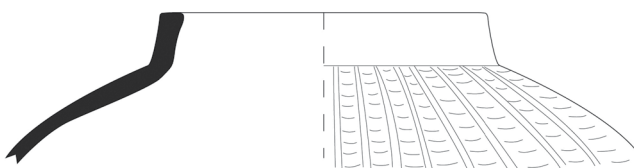
4



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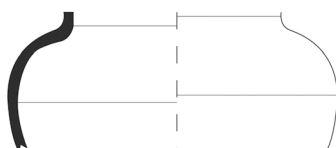
6



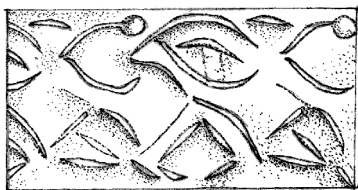
7



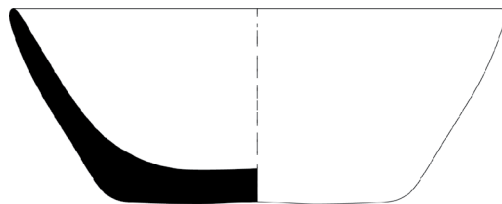
8



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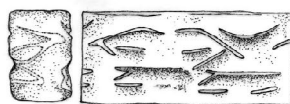
6



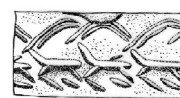
7



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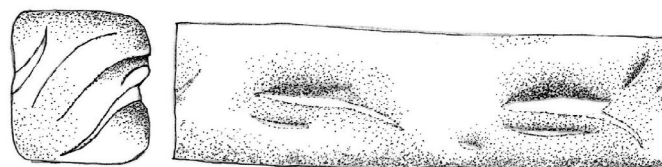
3



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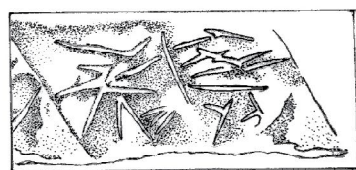
6



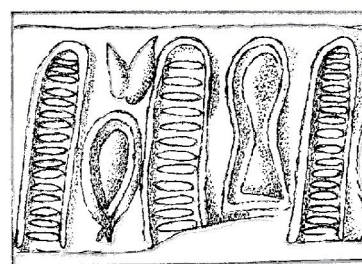
7



8

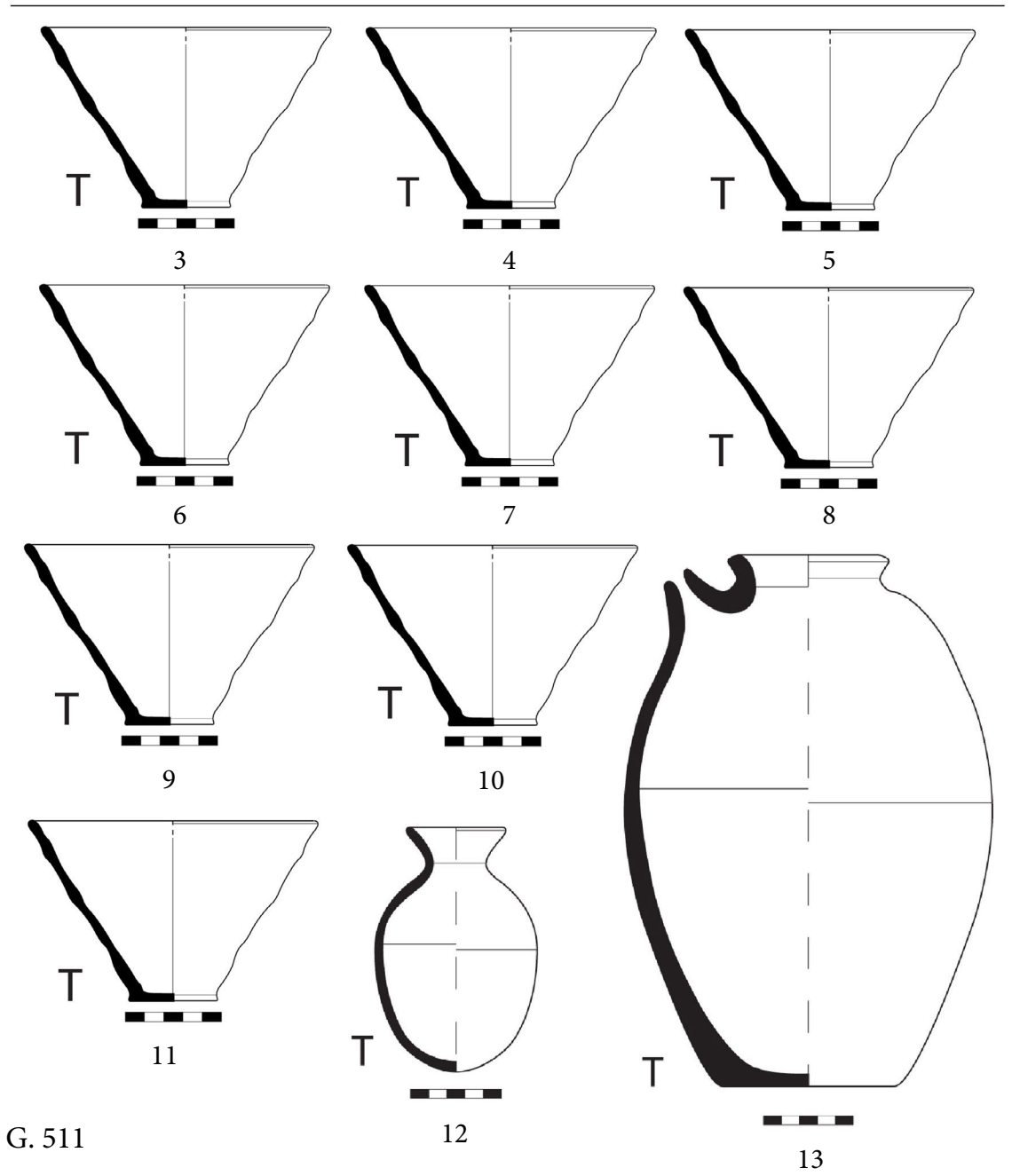
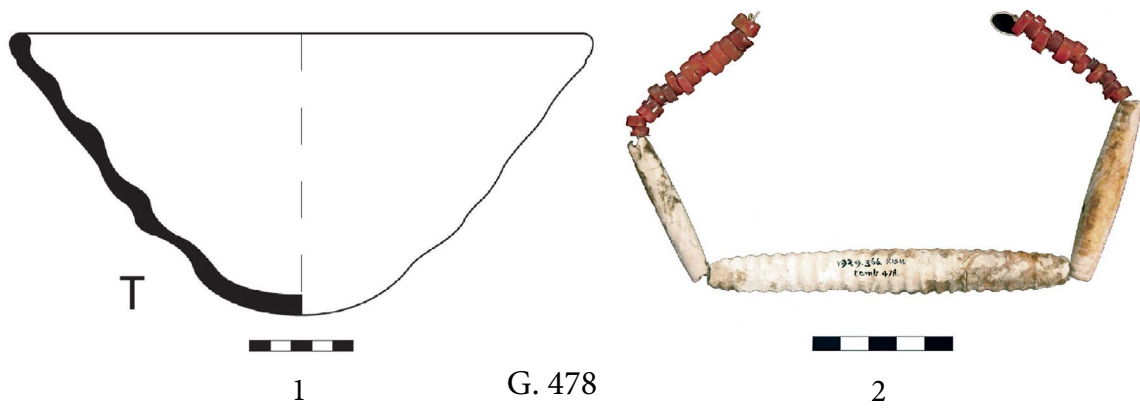


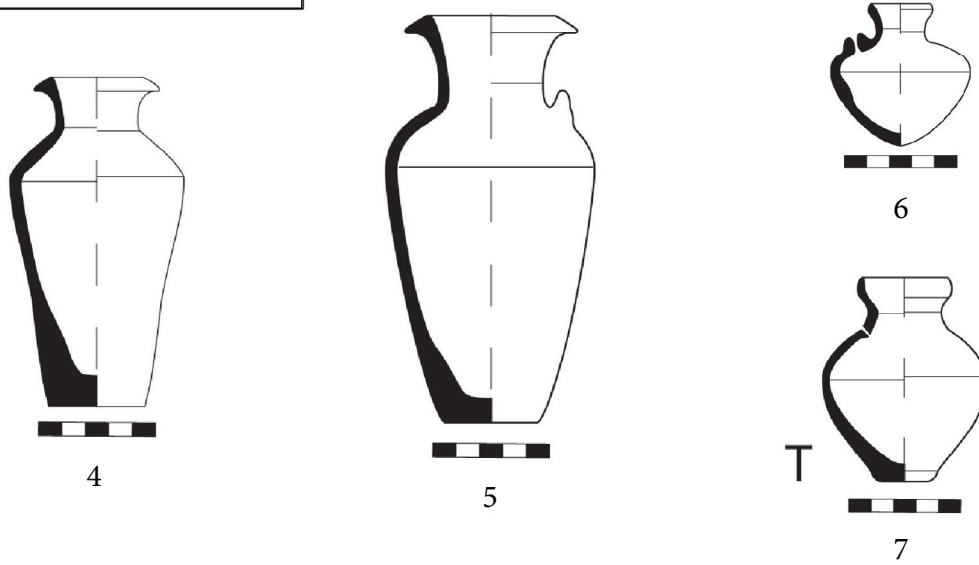
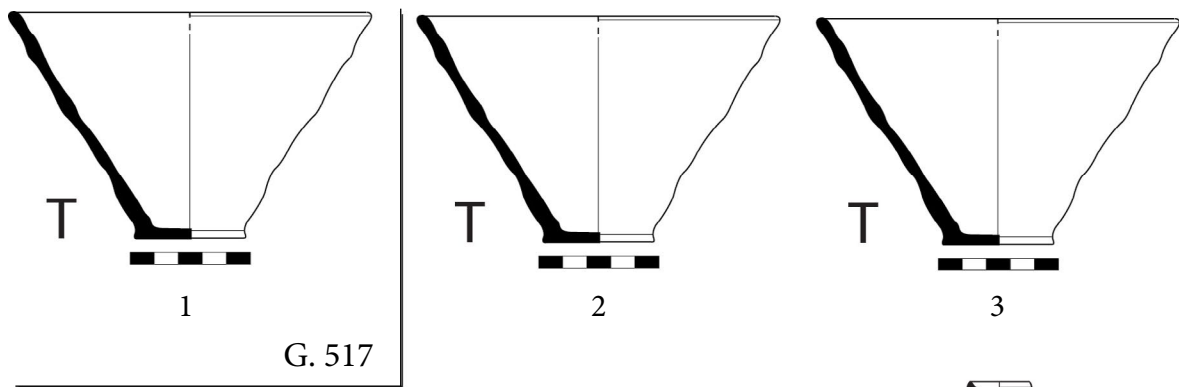
9



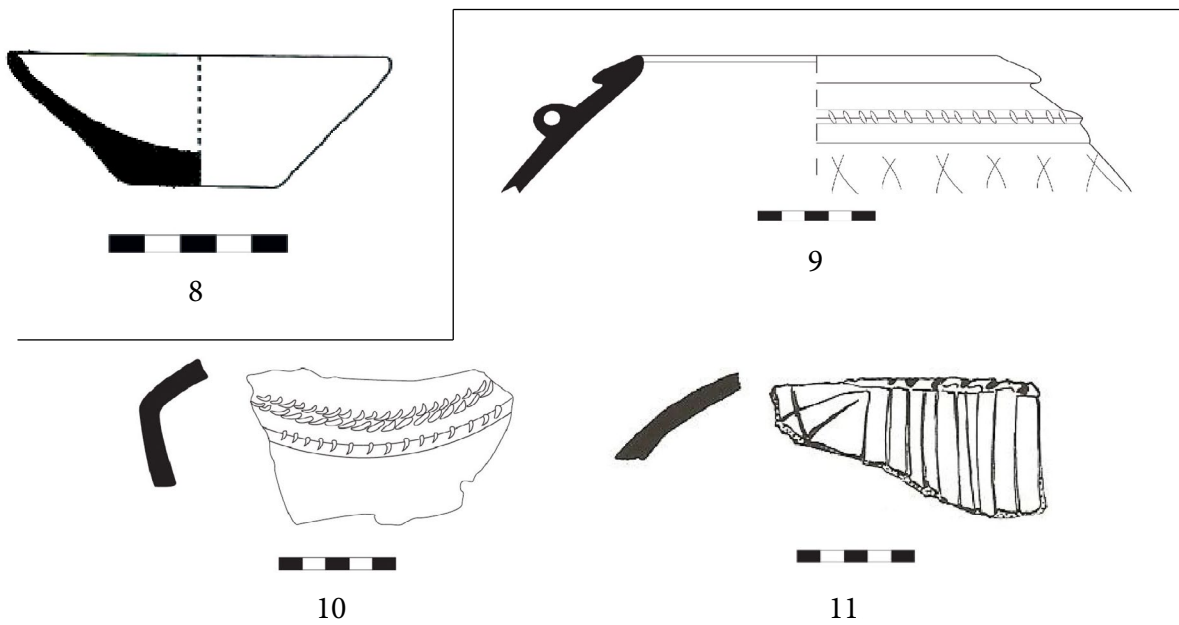
10

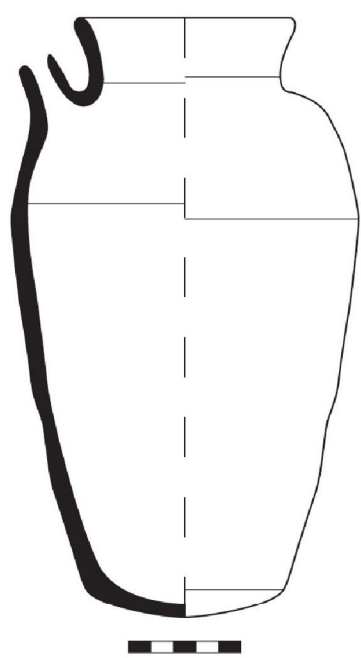






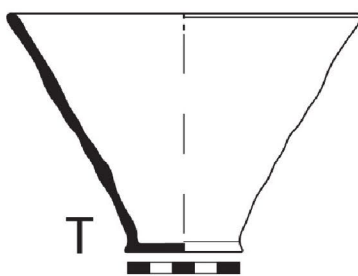
G. 539



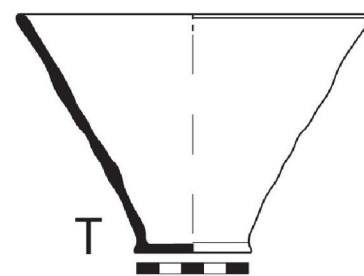


1

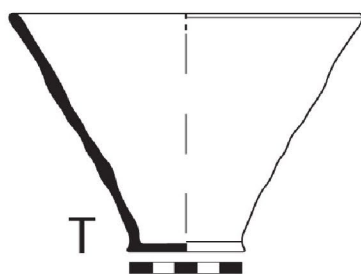
G. 422



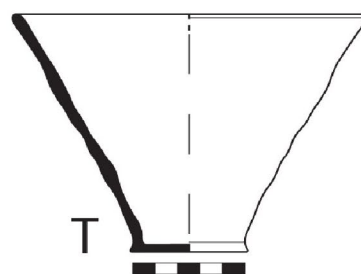
2



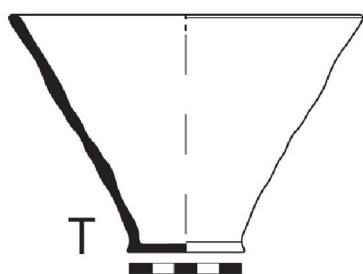
3



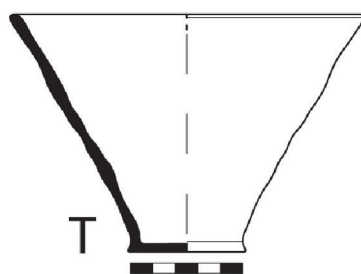
4



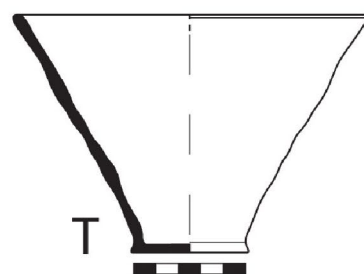
5



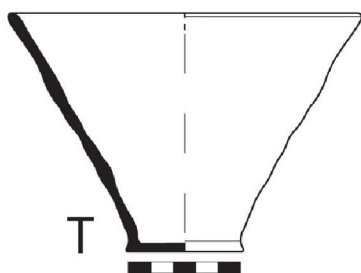
6



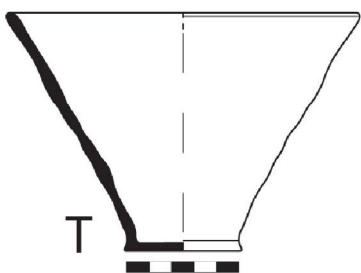
7



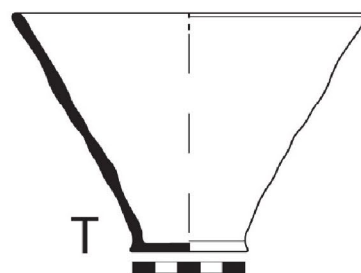
8



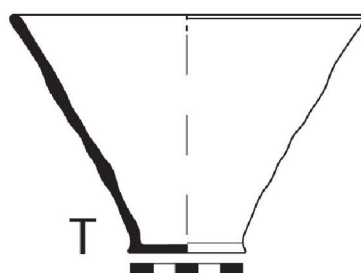
9



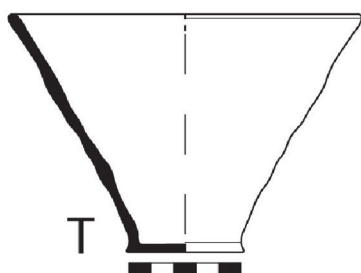
10



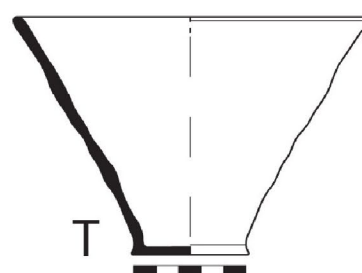
11



12

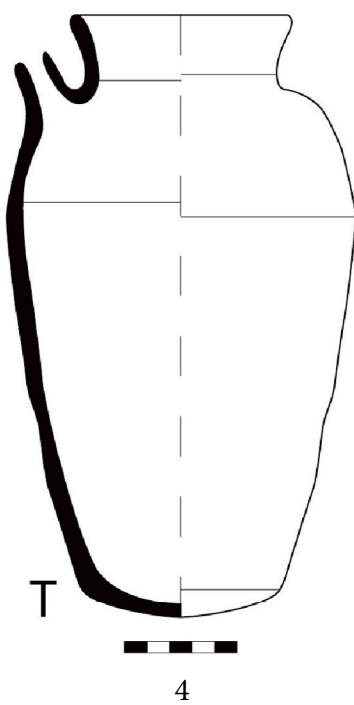
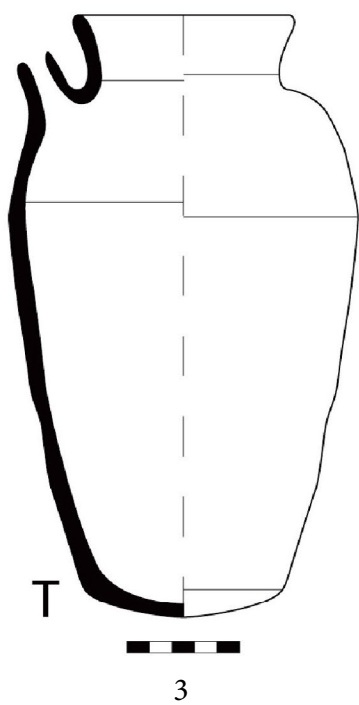
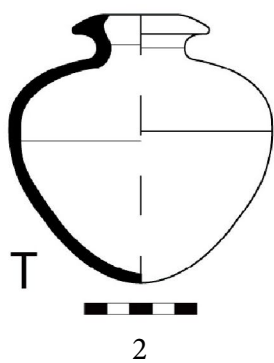
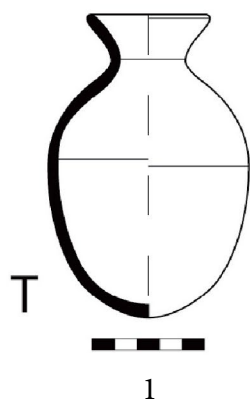


13

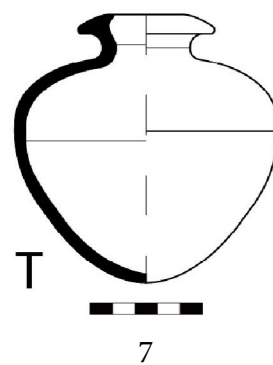
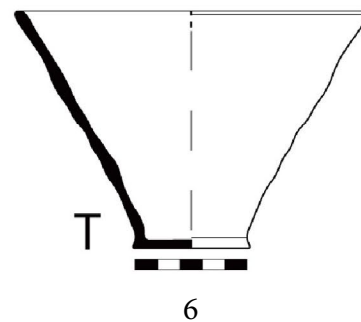


14

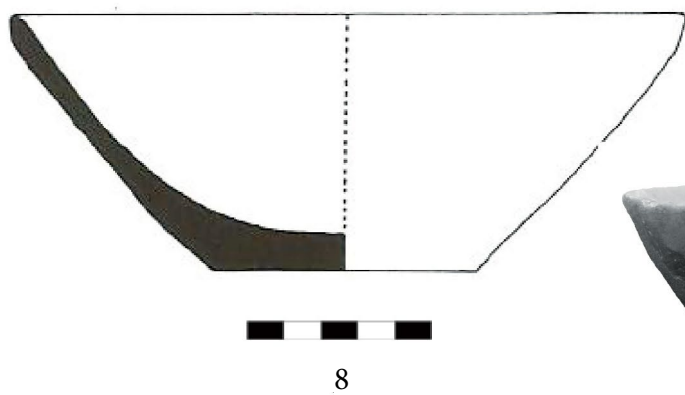
G. 460



G. 460 (continue)

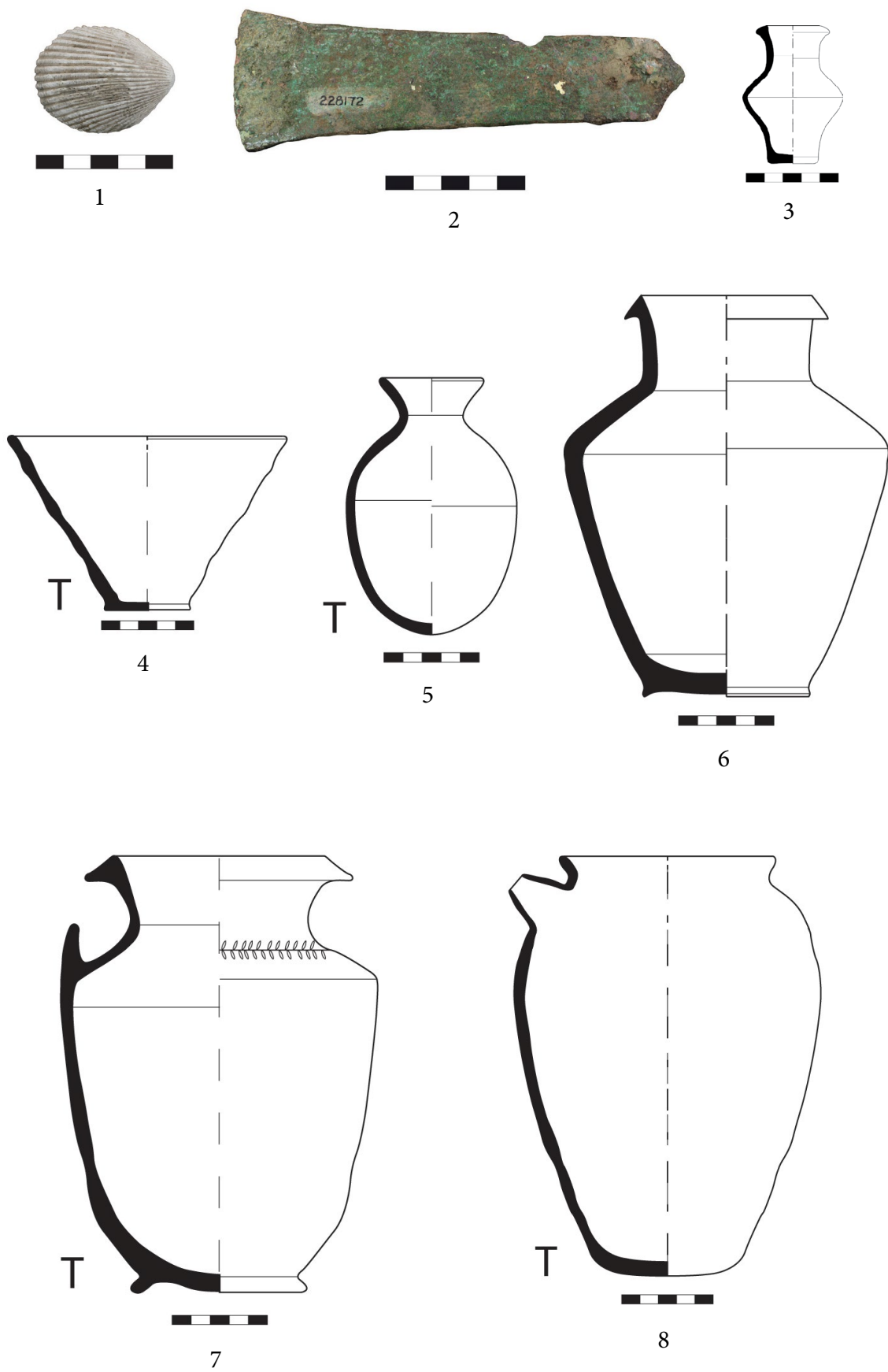


G. 464

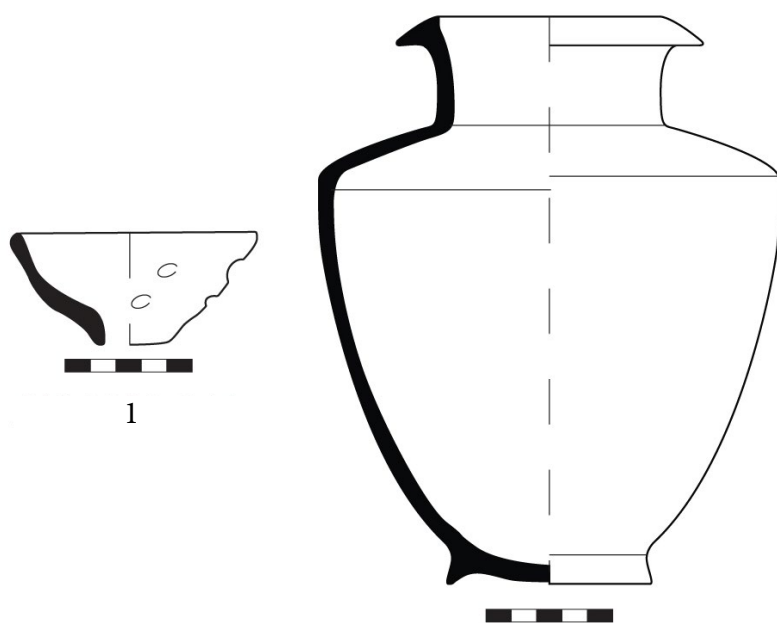


G. 469





G. 469 (continue)



G. 473

2

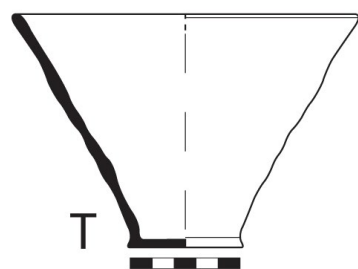


9

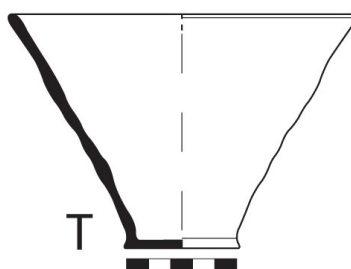


10

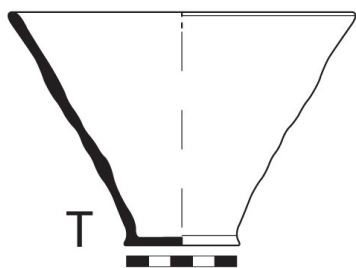
G. 506



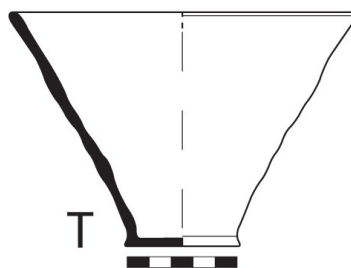
3



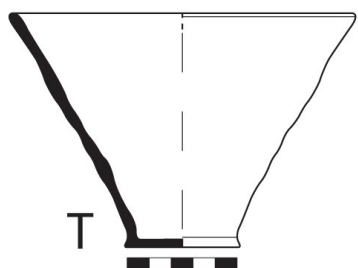
4



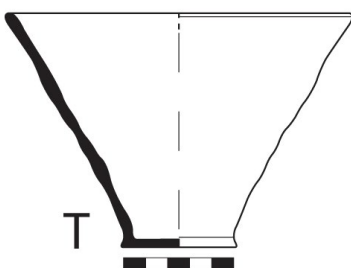
5



6



7

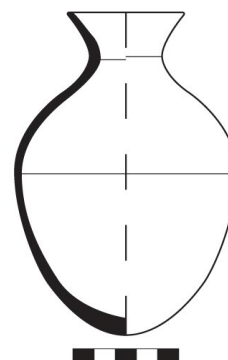


8

G. 503



11



12

G. 519

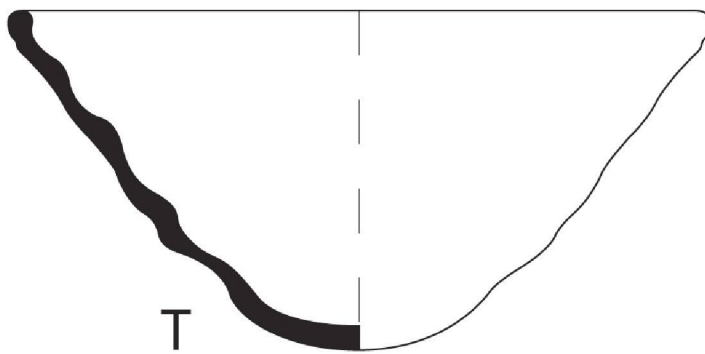
G. 521



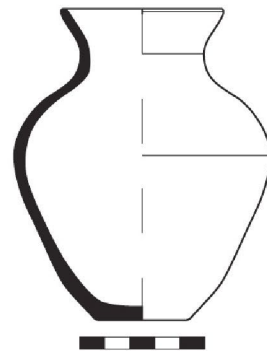
1



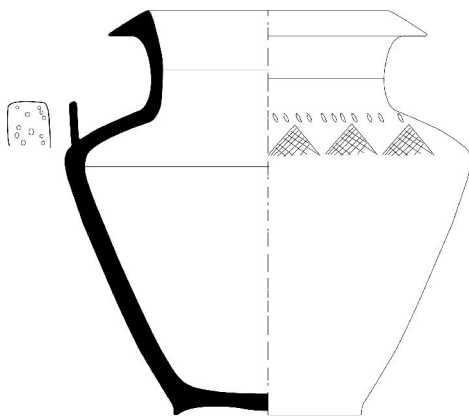
2



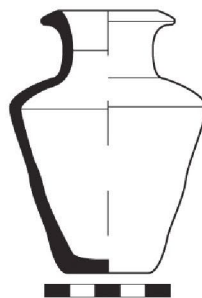
3



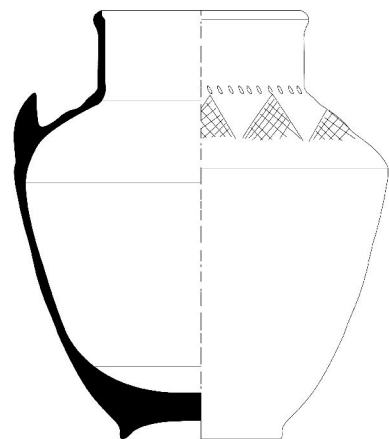
4



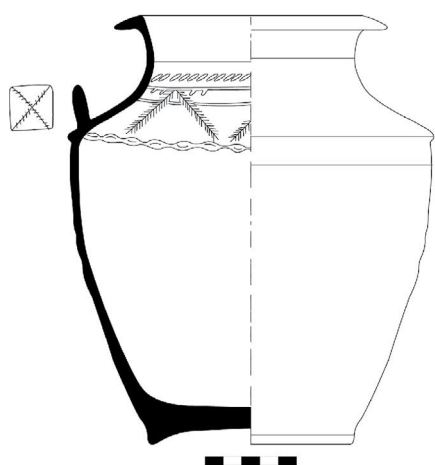
5



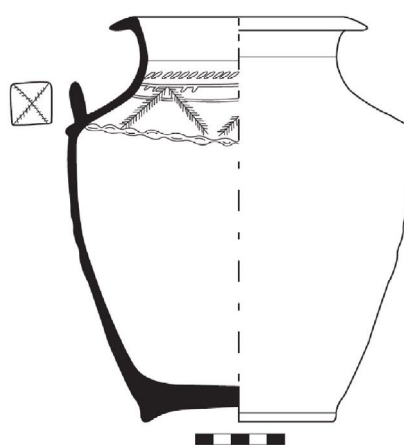
6



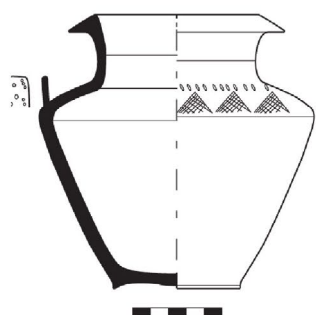
7



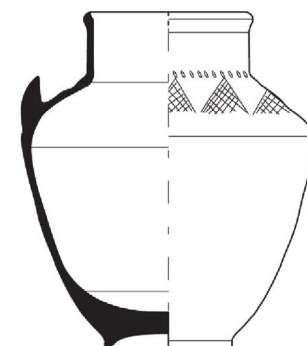
1



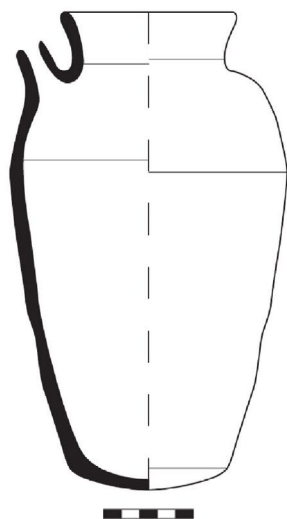
2



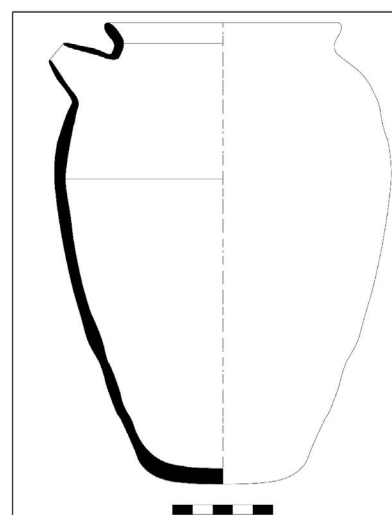
3



4



5



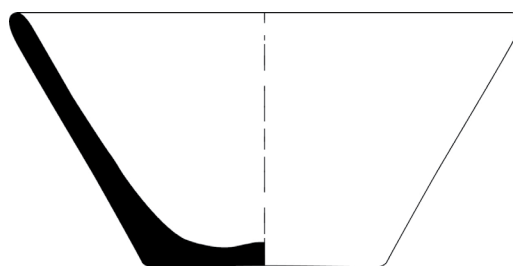
6

G. 611

G. 521 (continue)



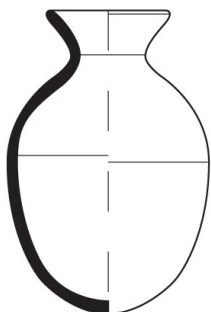
1



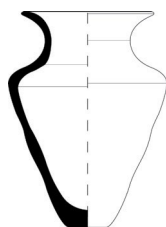
3



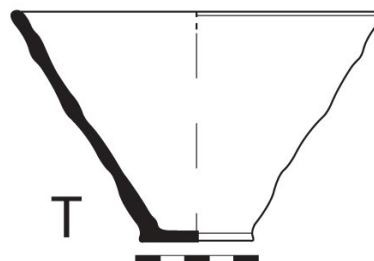
2



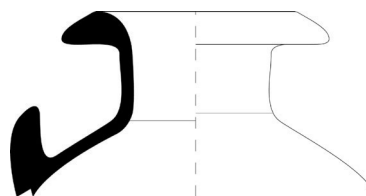
4



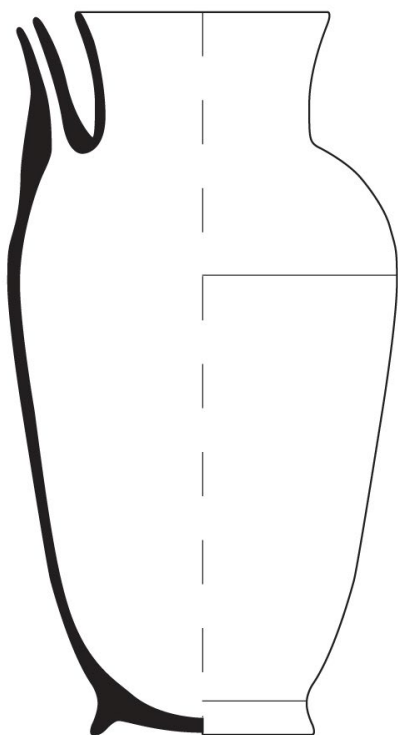
5



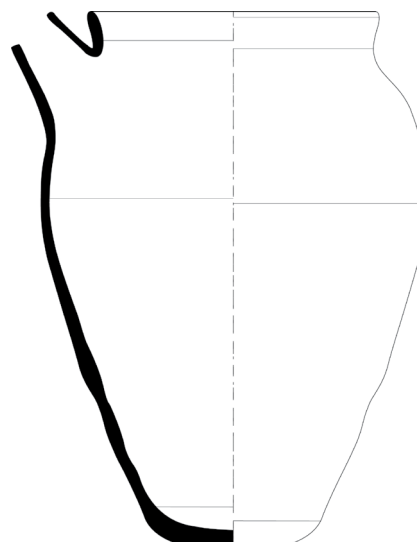
6



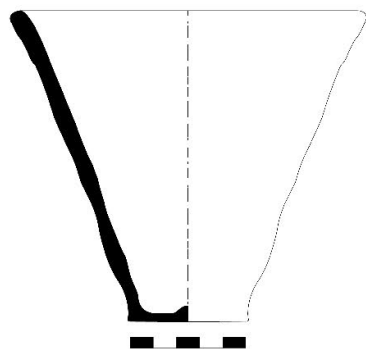
8



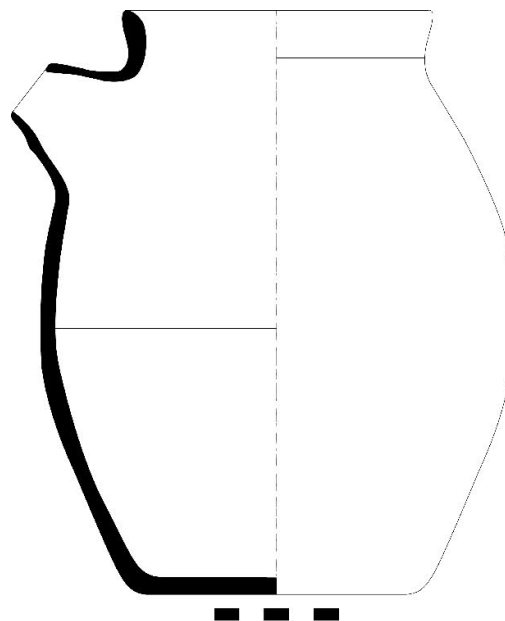
7



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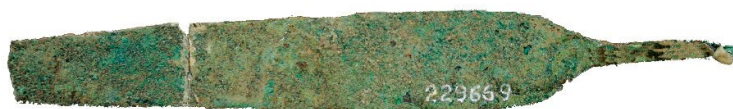
G. 613



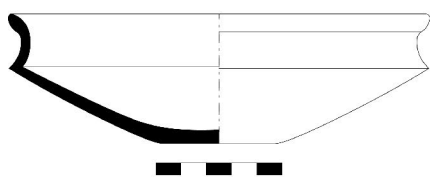
3



4



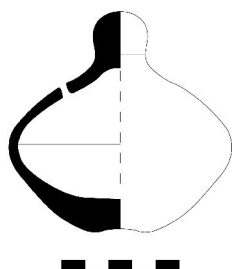
5



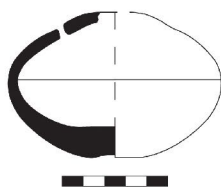
1



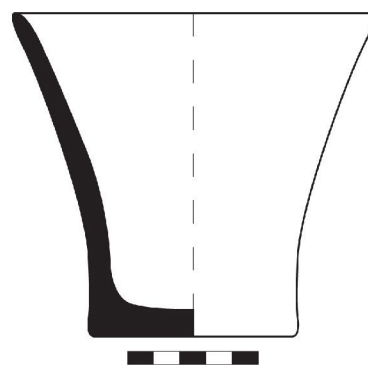
3



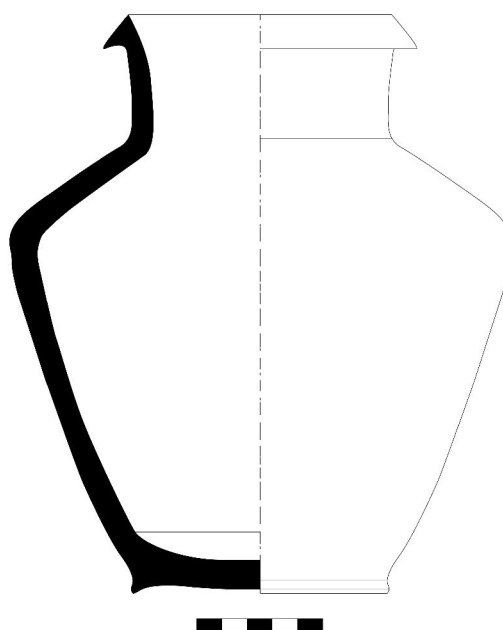
4



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2

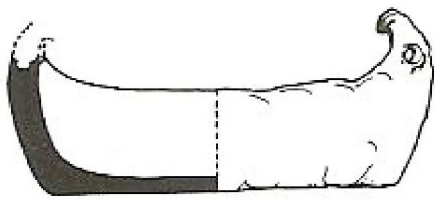


6

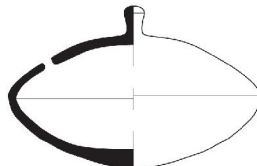




G. 361



1



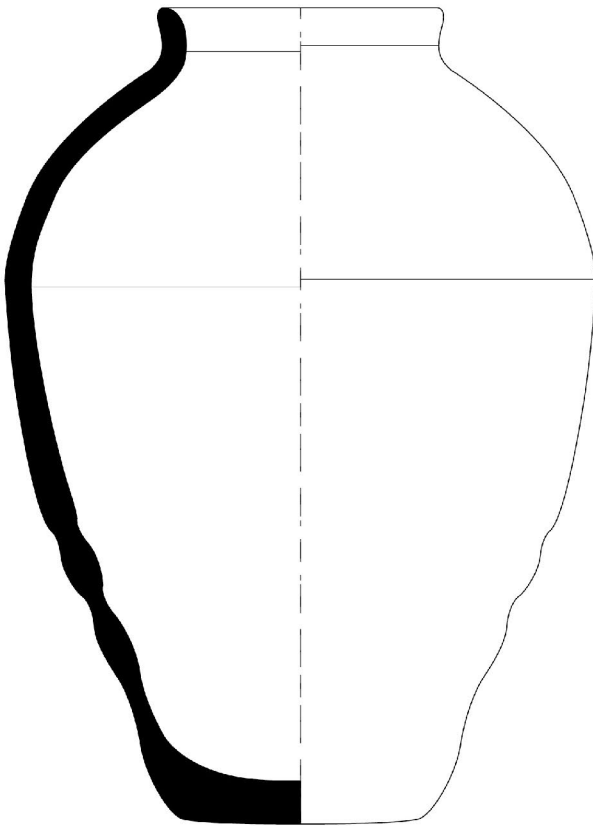
2



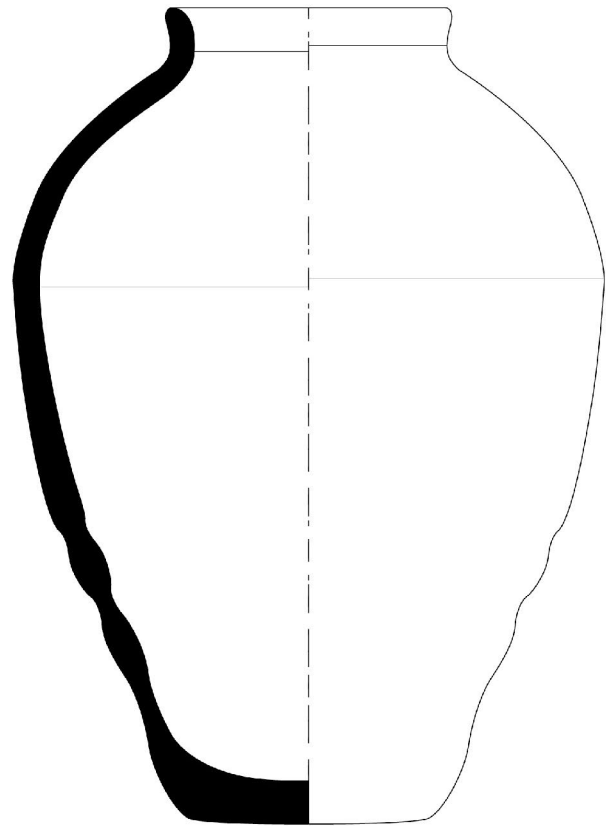
4



3



5

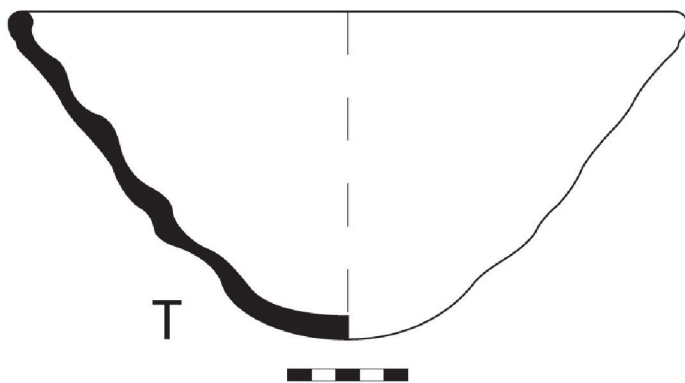


6

G. 362

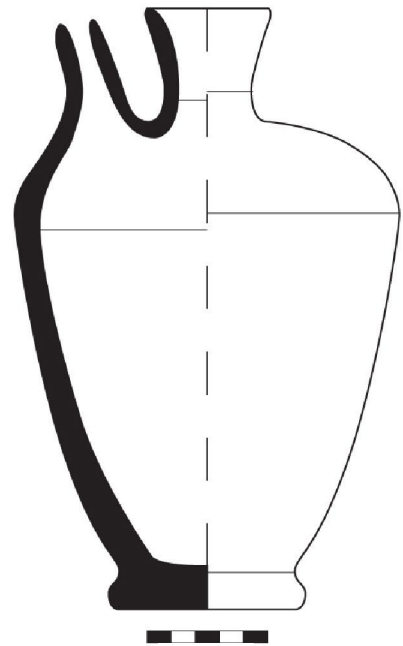


1



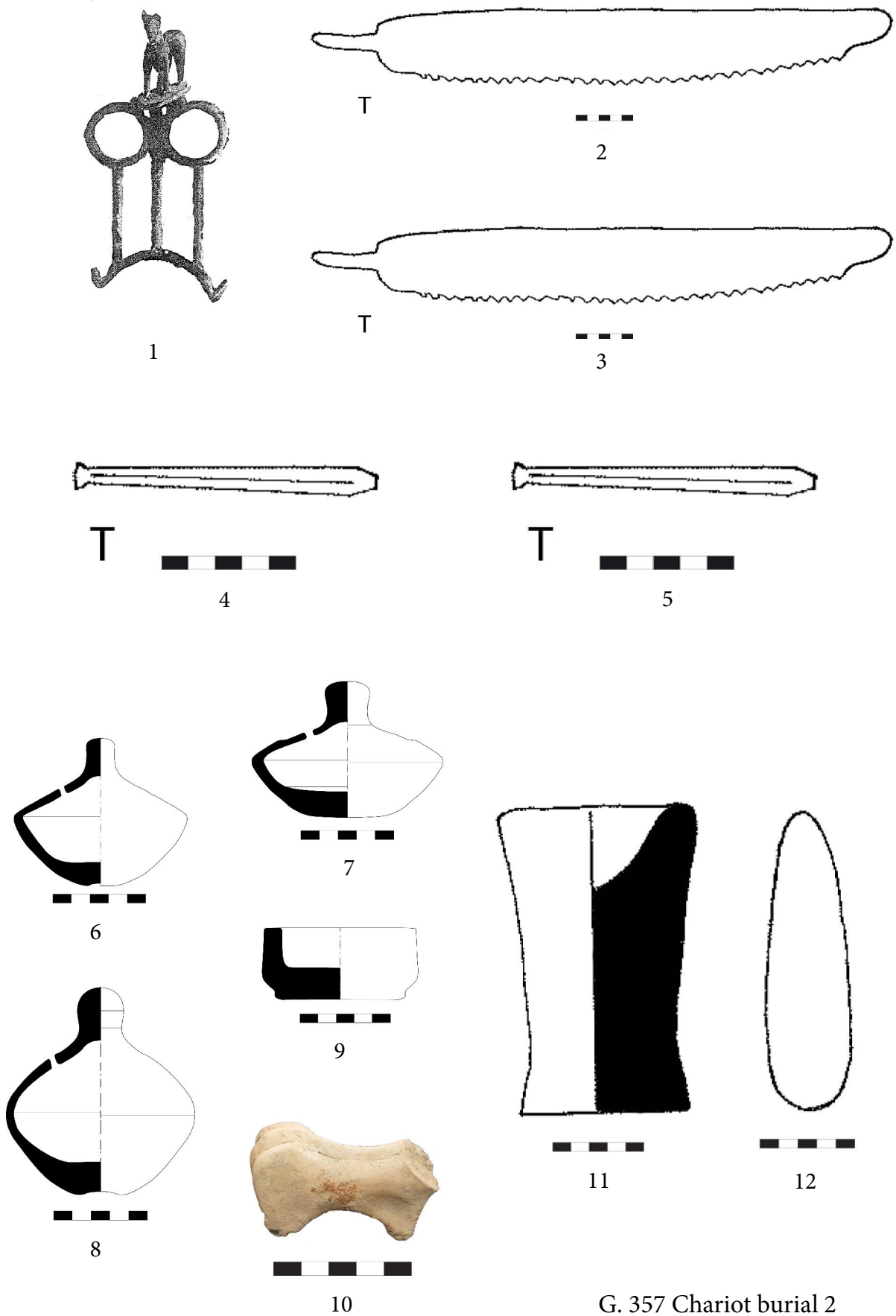
T

2



3

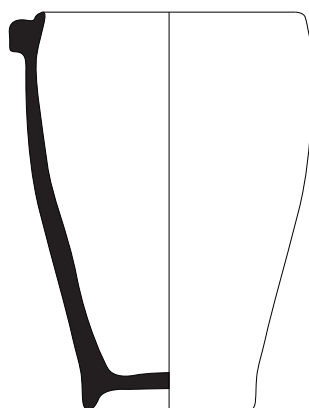
G. 322 Chariot burial 1



G. 357 Chariot burial 2

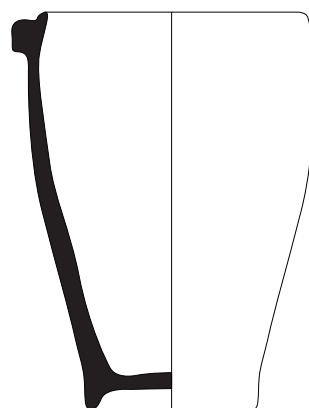


1



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T

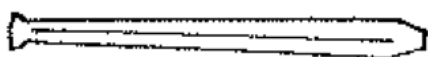
3



4

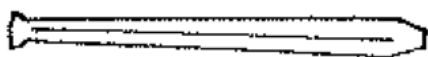


5



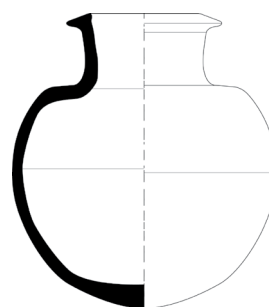
T

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G. 529 Chariot burial 3



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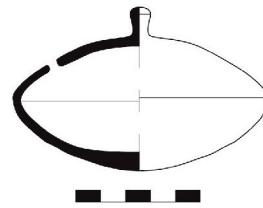
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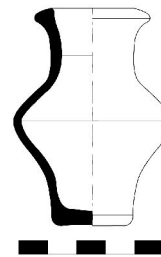
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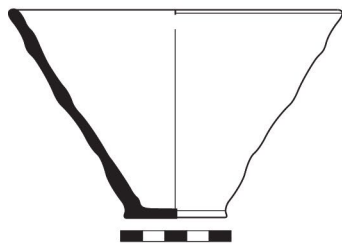


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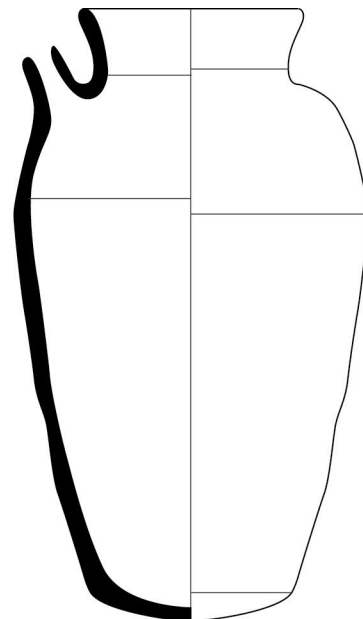


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G. 441

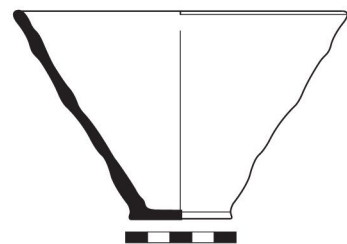


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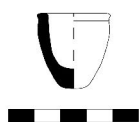


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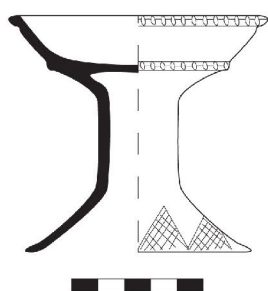
G. 442



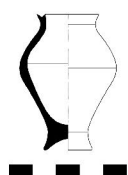
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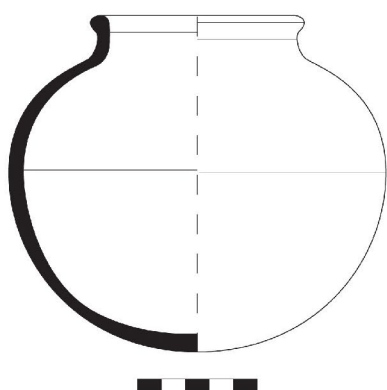
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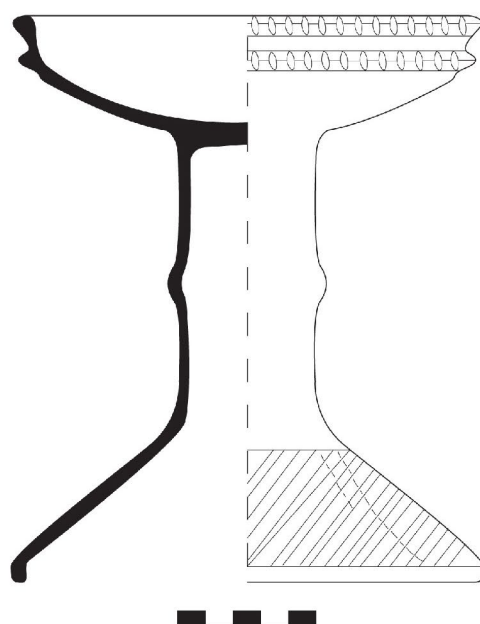
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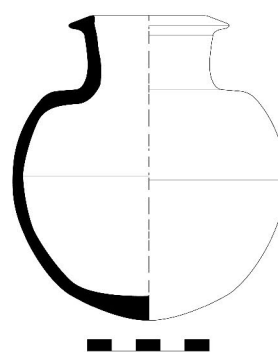
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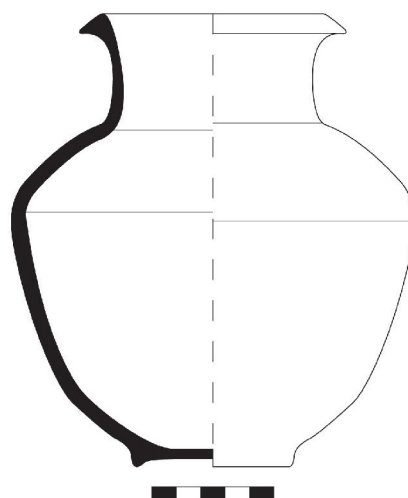
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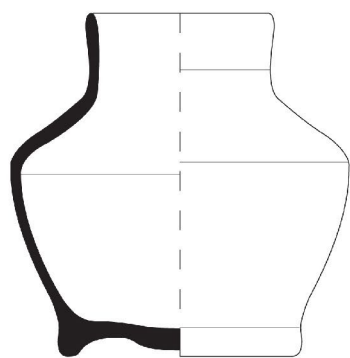
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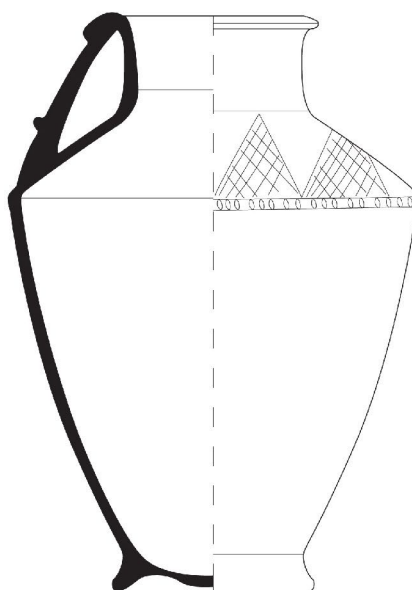
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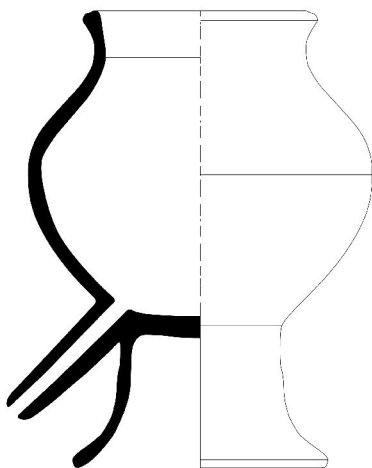
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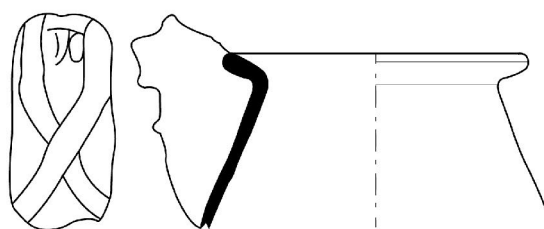
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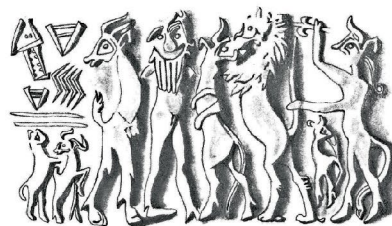
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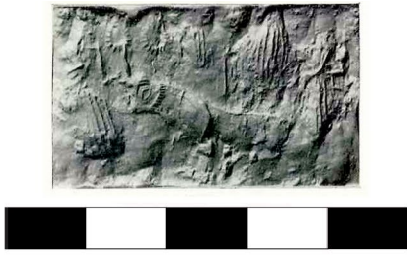
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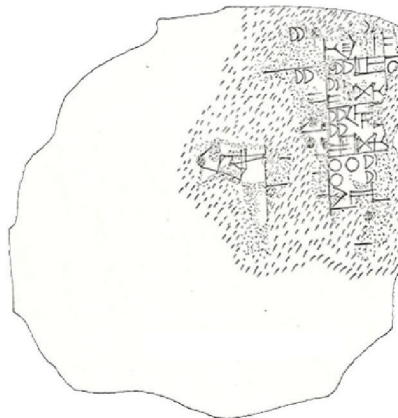
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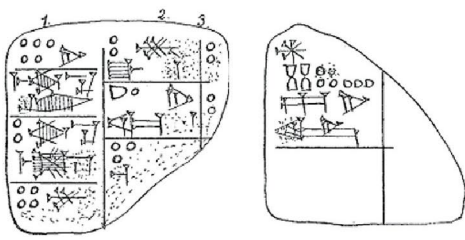
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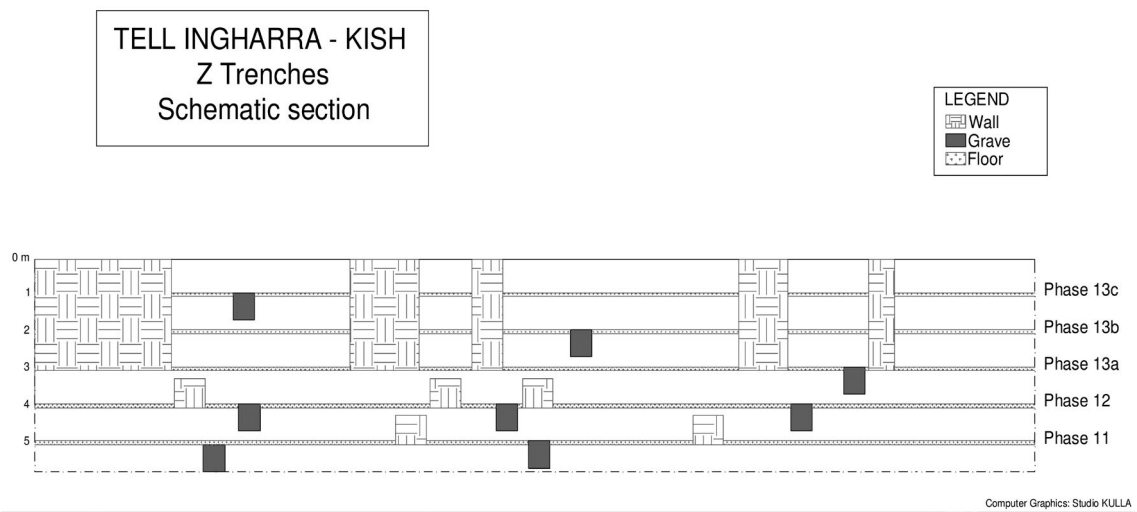
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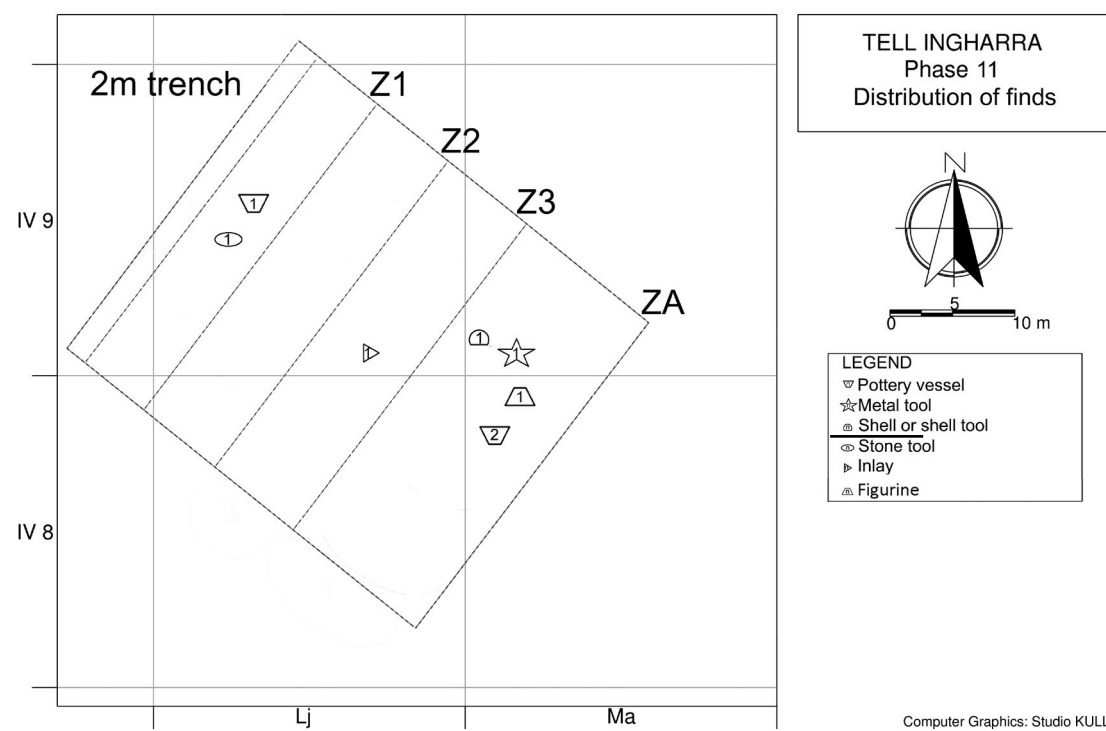
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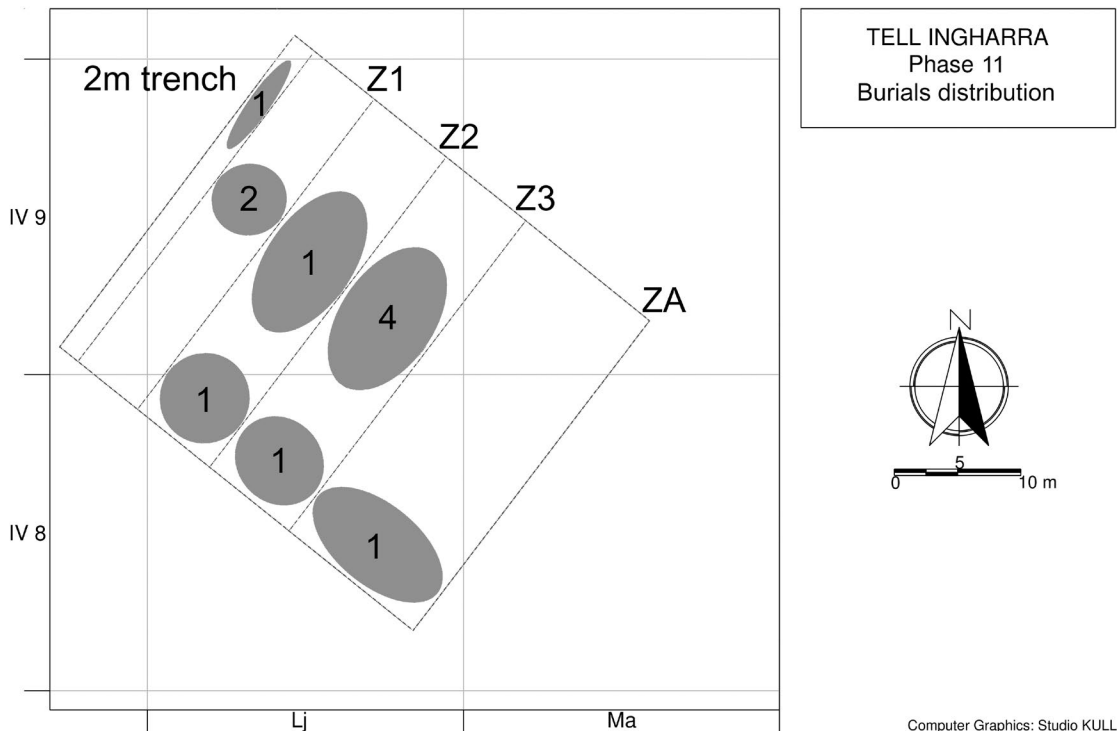
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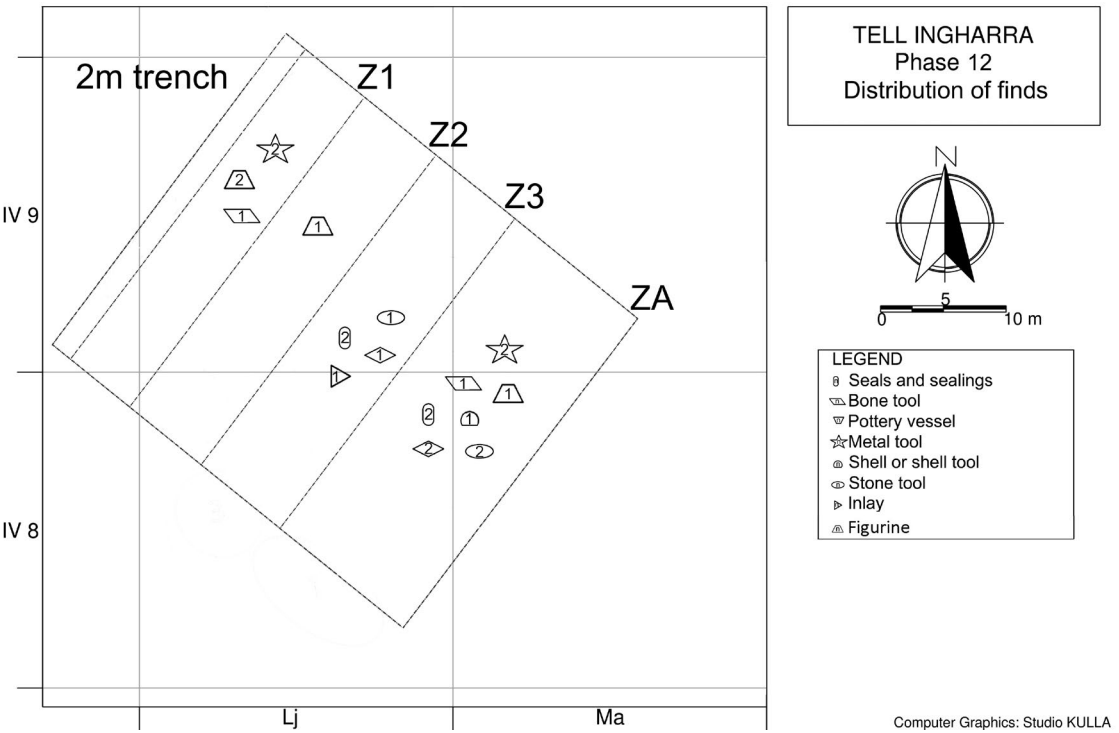
1 Schematic section of the Trenches Z and Monument Z (Phases 11-13c).



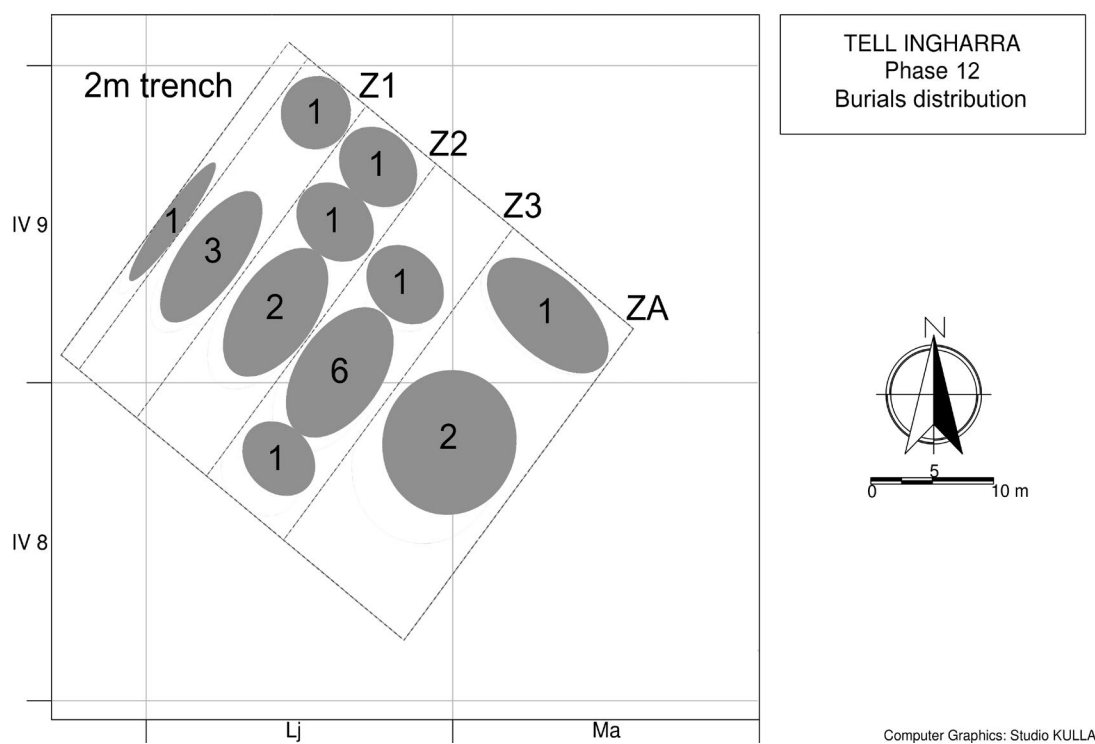
2. Distribution of finds from Phase 11.



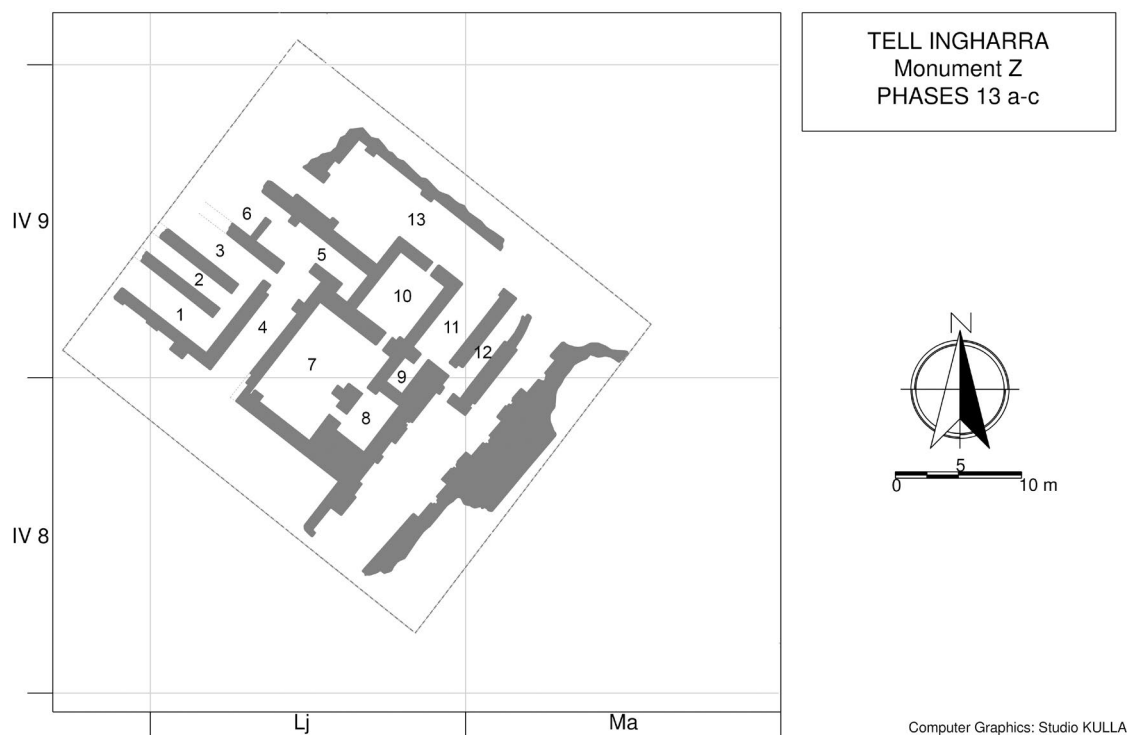
1. Distribution of burials from Phase 11.



2. Distribution of finds from Phase 12.



1. Distribution of burials from Phase 12.



2. Plan of Monument Z, Phase 13a-c.



1. Workmen removing Monument Z, Phase 13a-c.



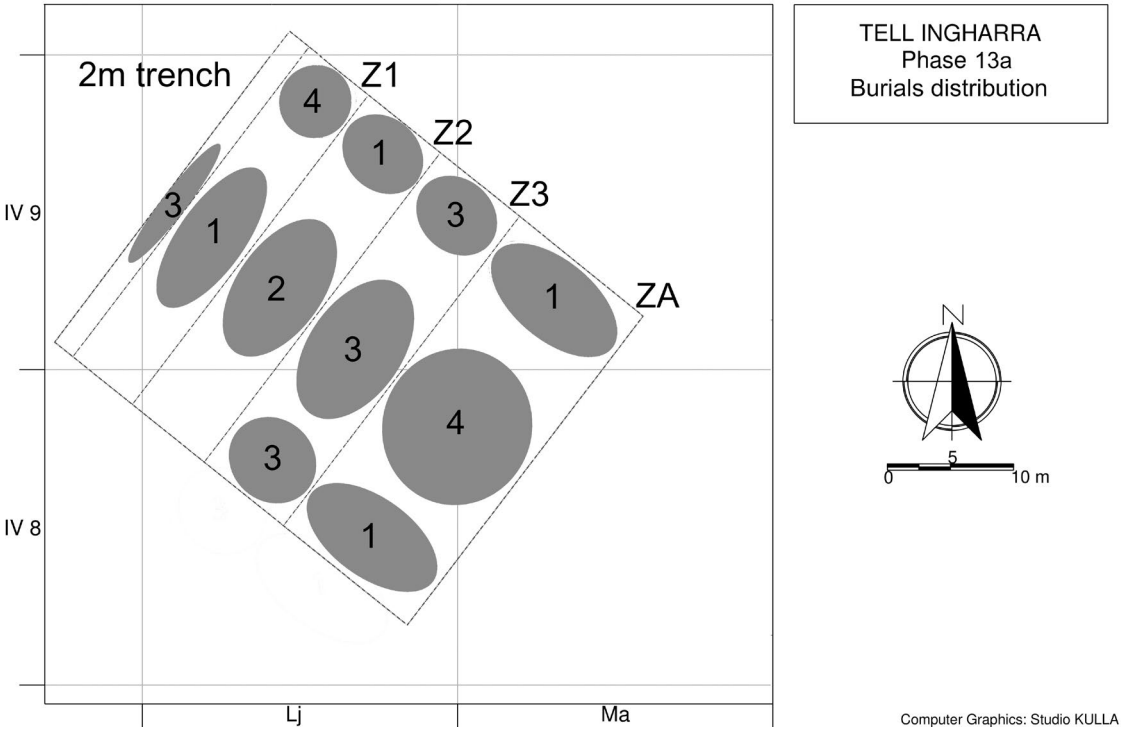
2. Workmen removing Monument Z, Phase 13a-c.



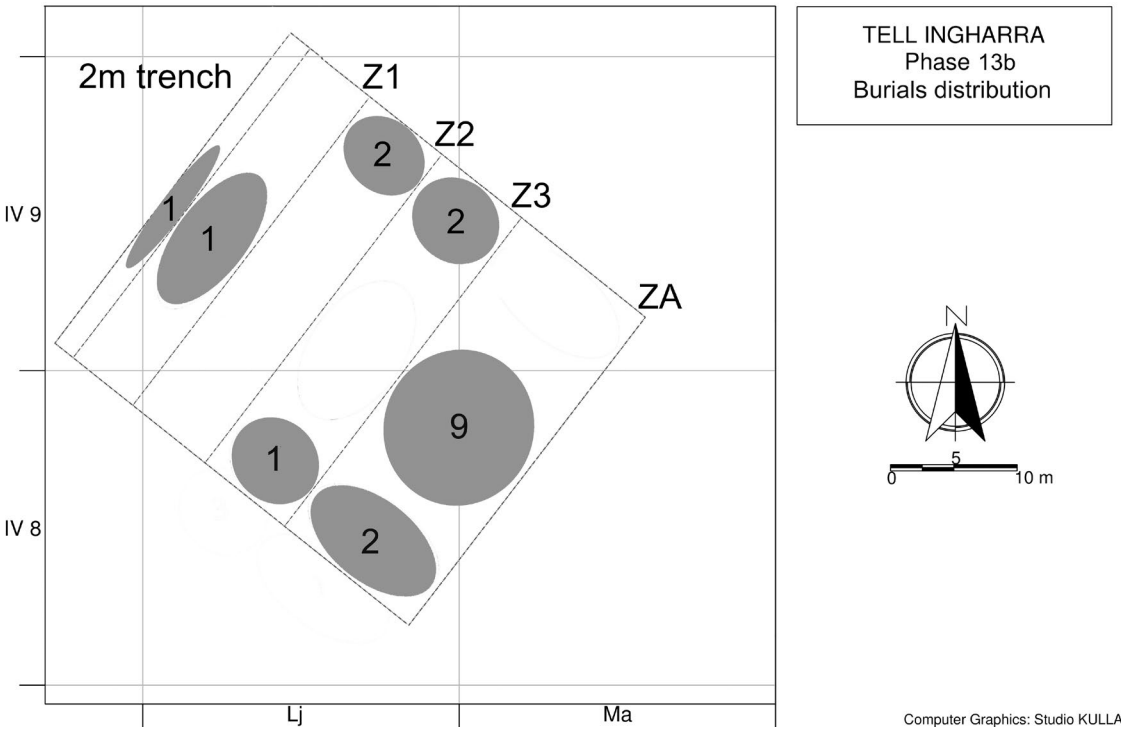
1. Monument Z, Phase 13a-c.



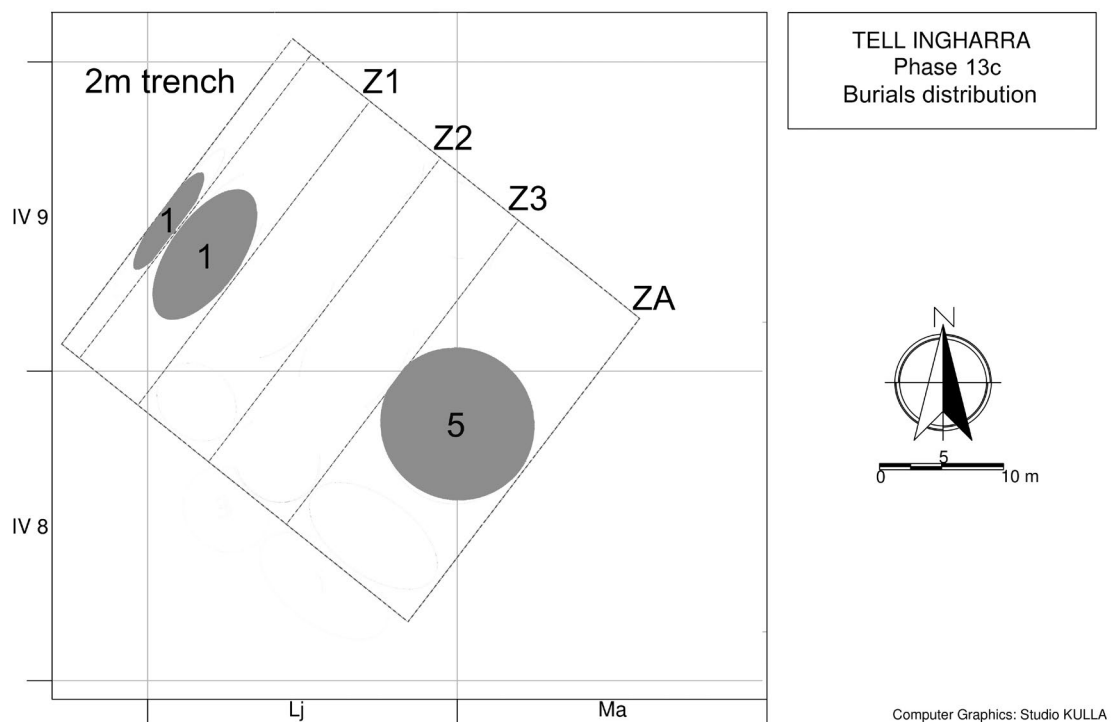
2. Monument Z, Phase 13a-c.



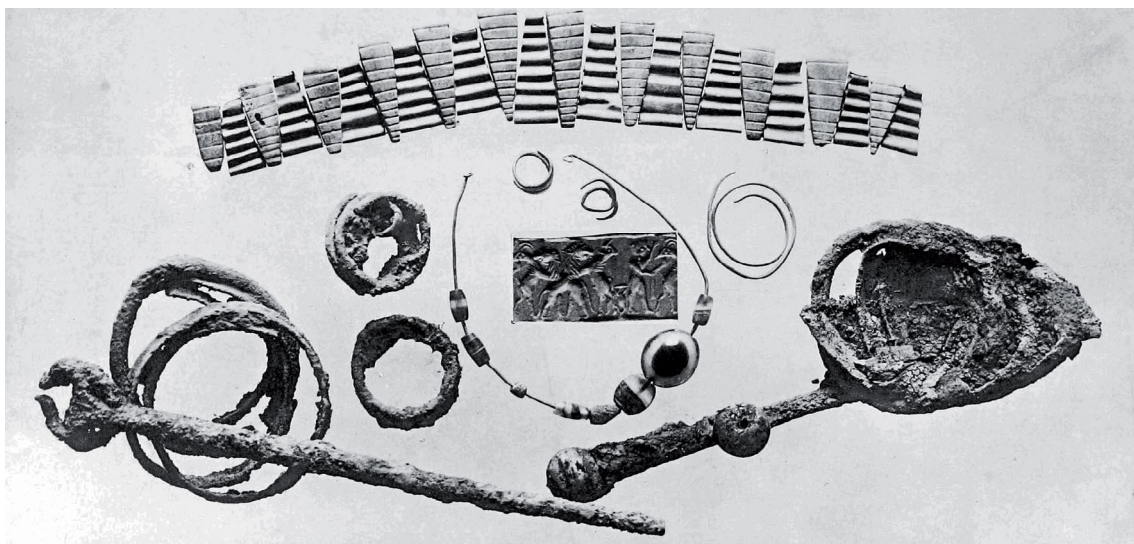
1. Burials distribution from Phase 13a.



2. Burials distribution from Phase 13b.



1. Burials distribution from Phase 13c.



2. Grave goods from burial G 344, Phase 11 (Watelin and Langdon 1934: pl. XXXV) .



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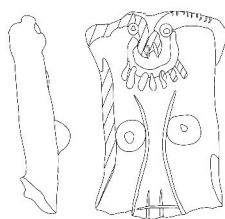
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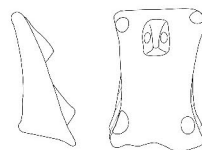
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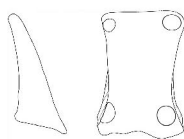
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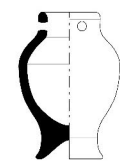
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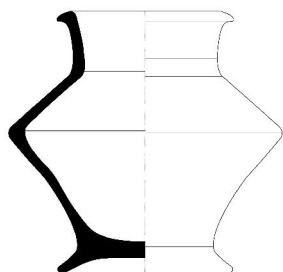
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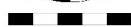
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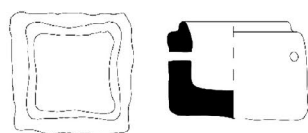
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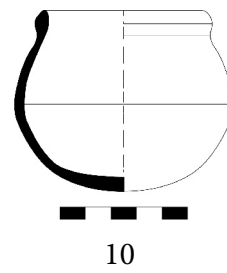
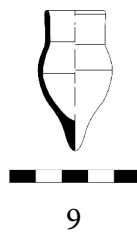
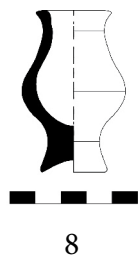
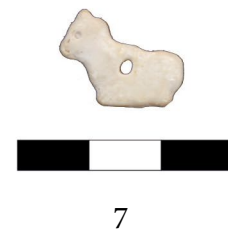
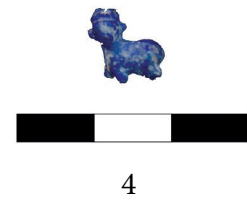
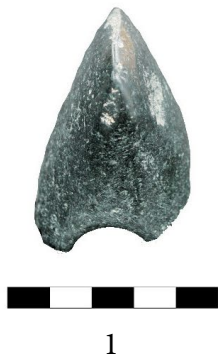
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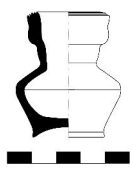


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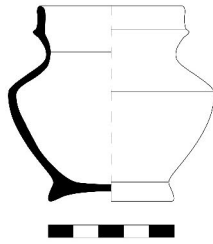


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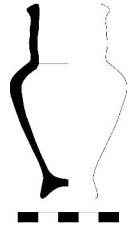
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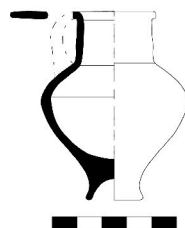
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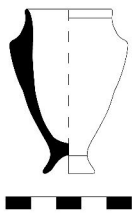
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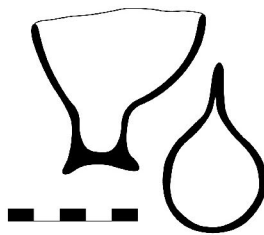
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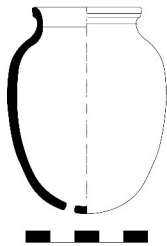
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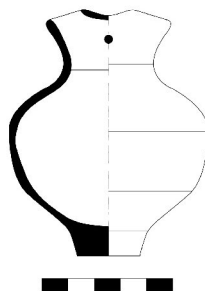
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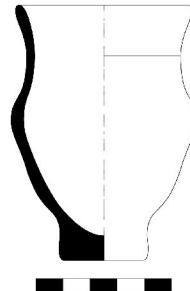
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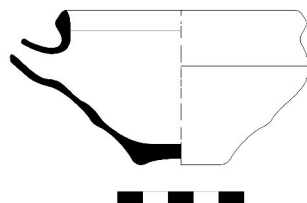
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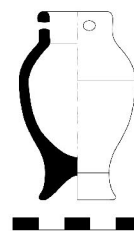
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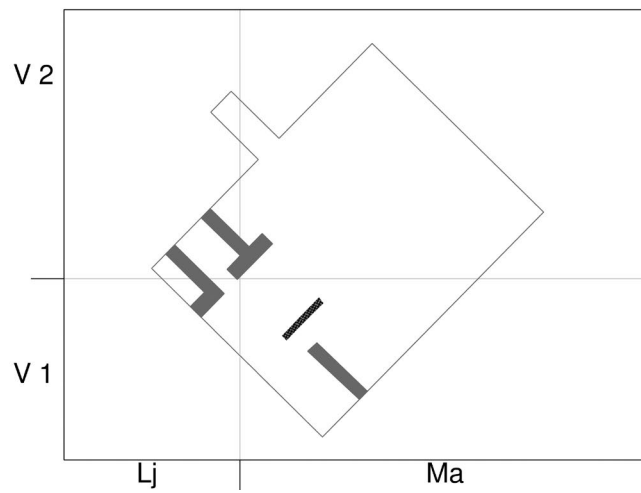




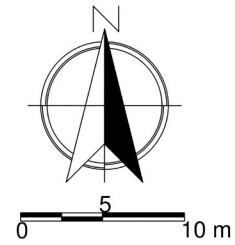
1. The YW sounding at the end of the 1929-1930 excavation season, from north (Ashmolean Museum, University of Oxford).



2. Photograph of G 001, Phase 2a-b.

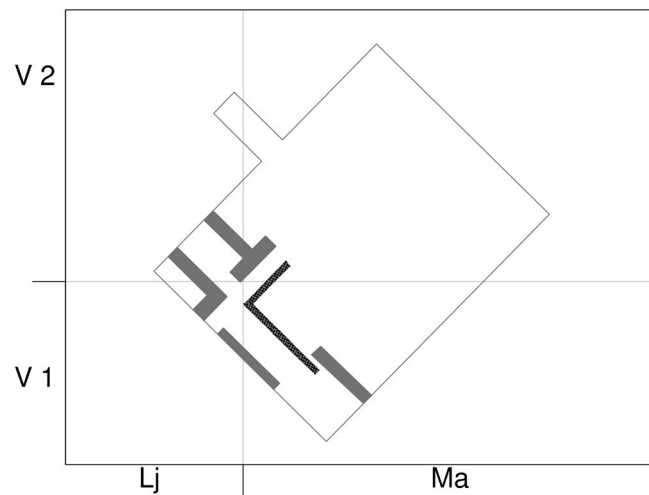


TELL INGHARRA - KISH
YW Sounding
PHASE 7

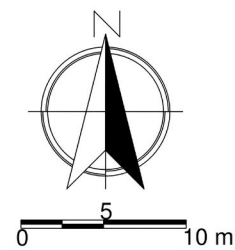


Computer Graphics: Studio KULLA

1. Reconstructed plan of Phase 7.



TELL INGHARRA - KISH
YW Sounding
PHASE 8

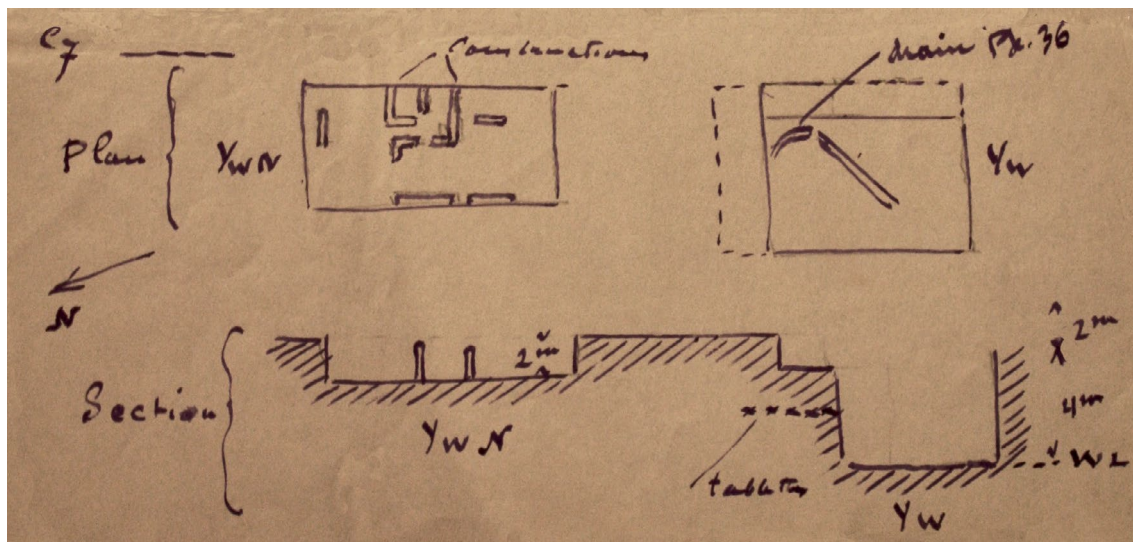


Computer Graphics: Studio KULLA

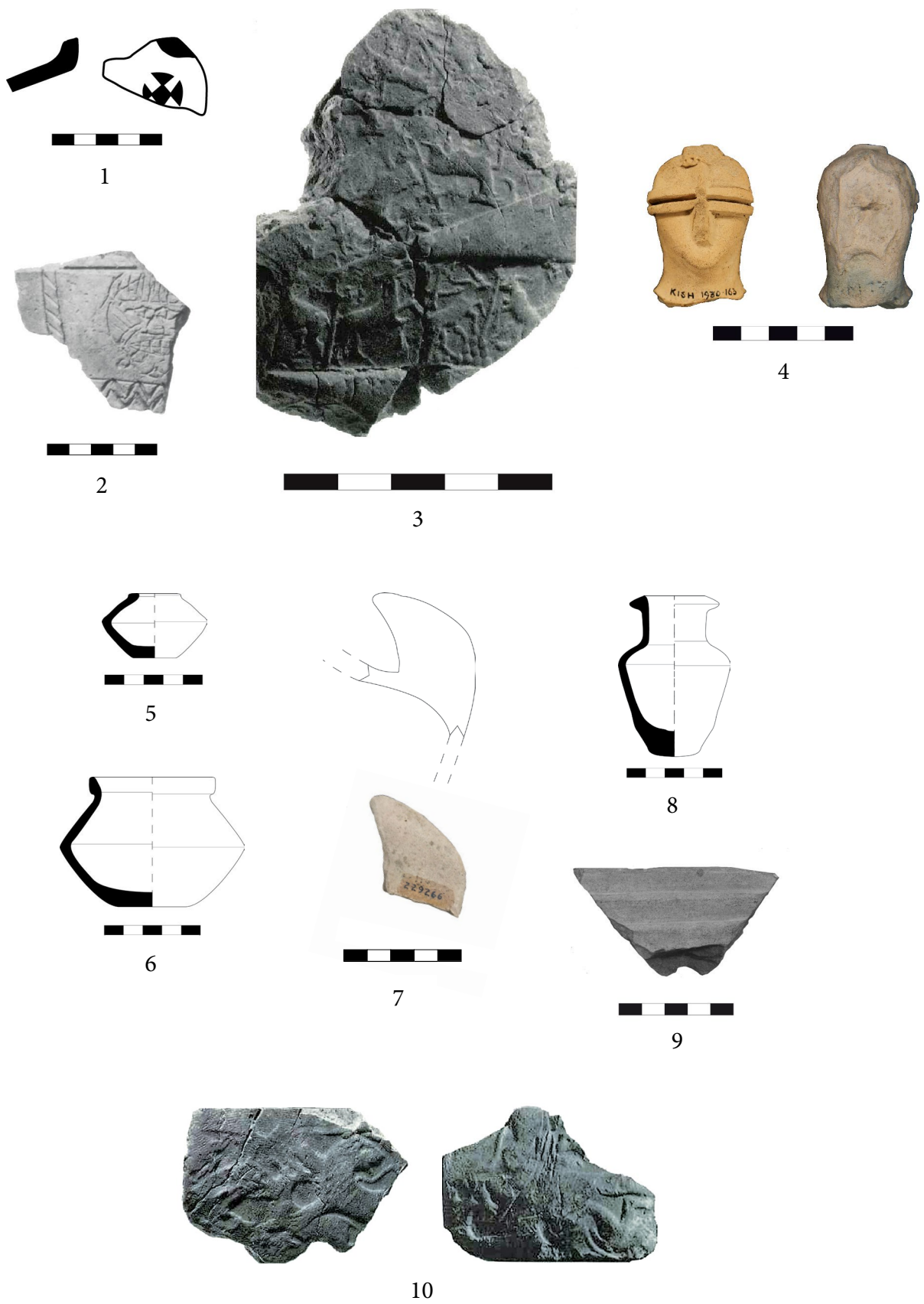
2. Reconstructed plan of Phase 8.

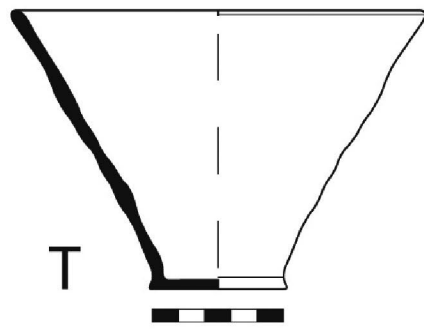


1. Drain pipes from Phase 8 cutting the layers and structures of Phase 7 (Ashmolean Museum, University of Oxford).

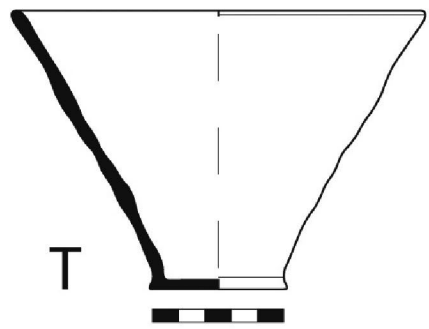


2. Unpublished sketches showing the sections and selected plans from the YW and YWN soundings (Ashmolean Museum, University of Oxford).

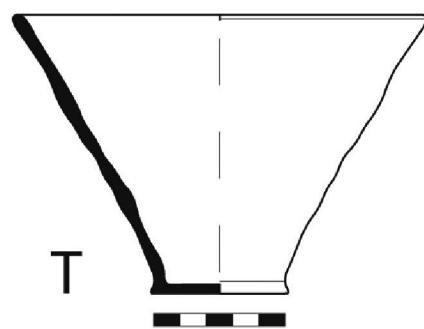




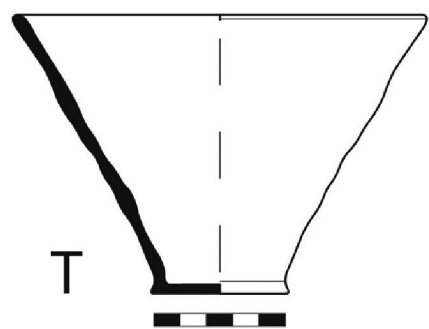
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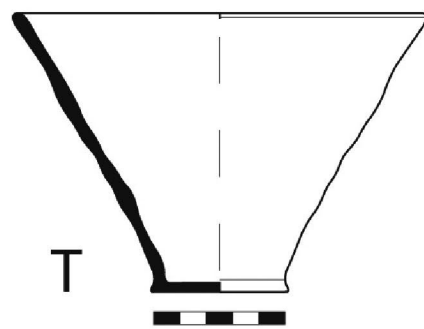
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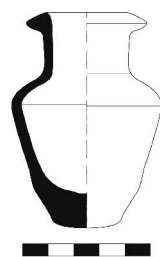
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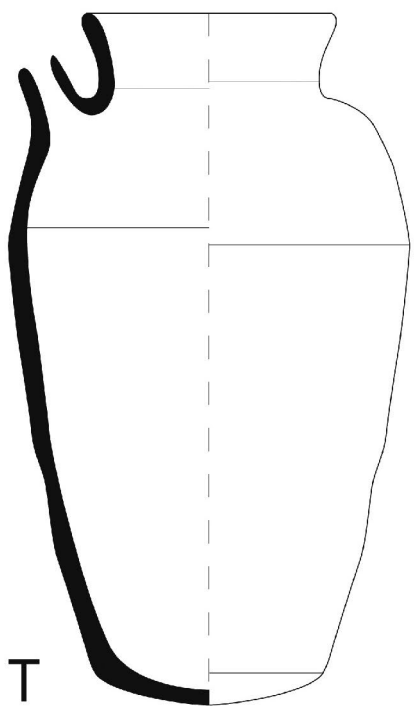
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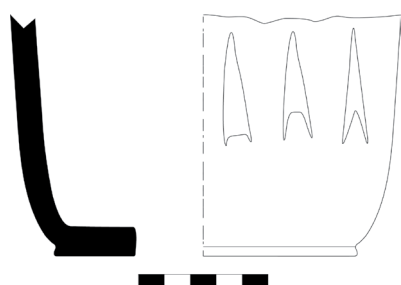
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G. 001

YW Sounding, Phase 2a



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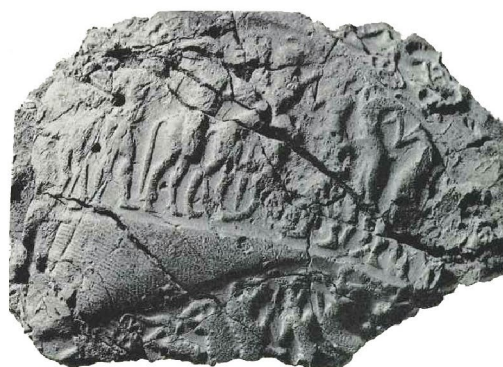
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4a



4b



4c



4d



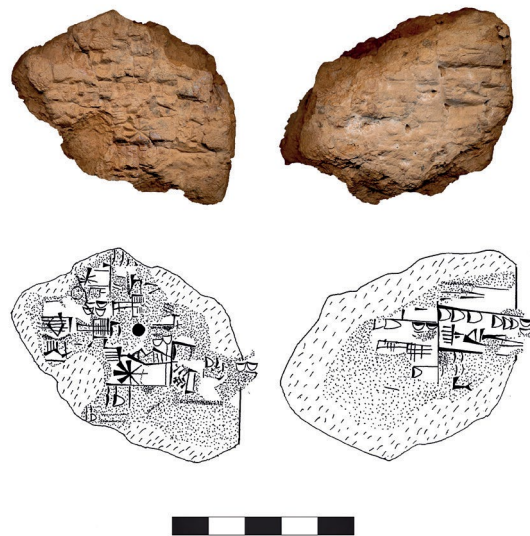
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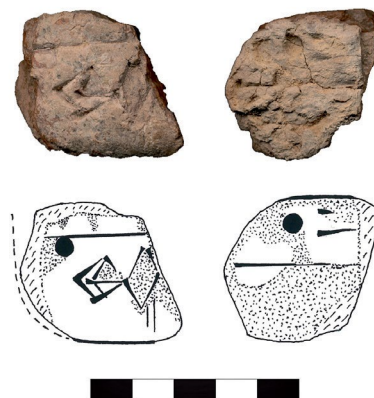
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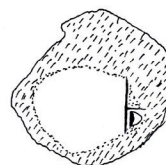
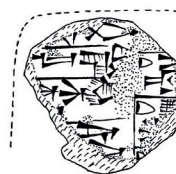
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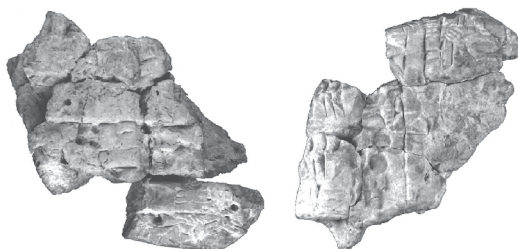
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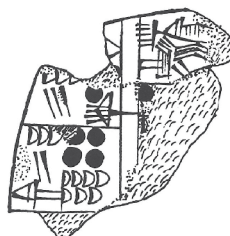
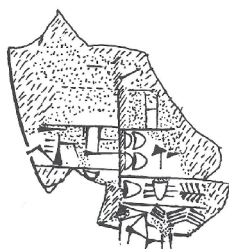
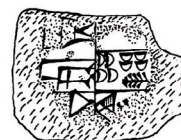
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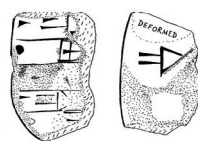
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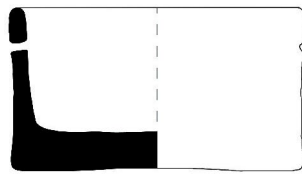


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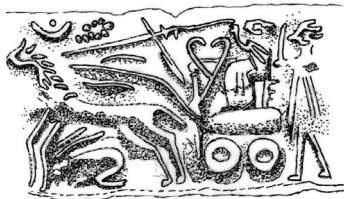
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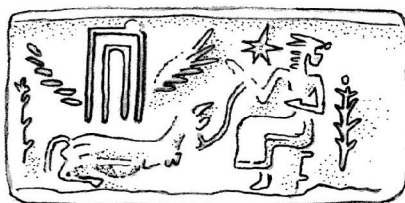
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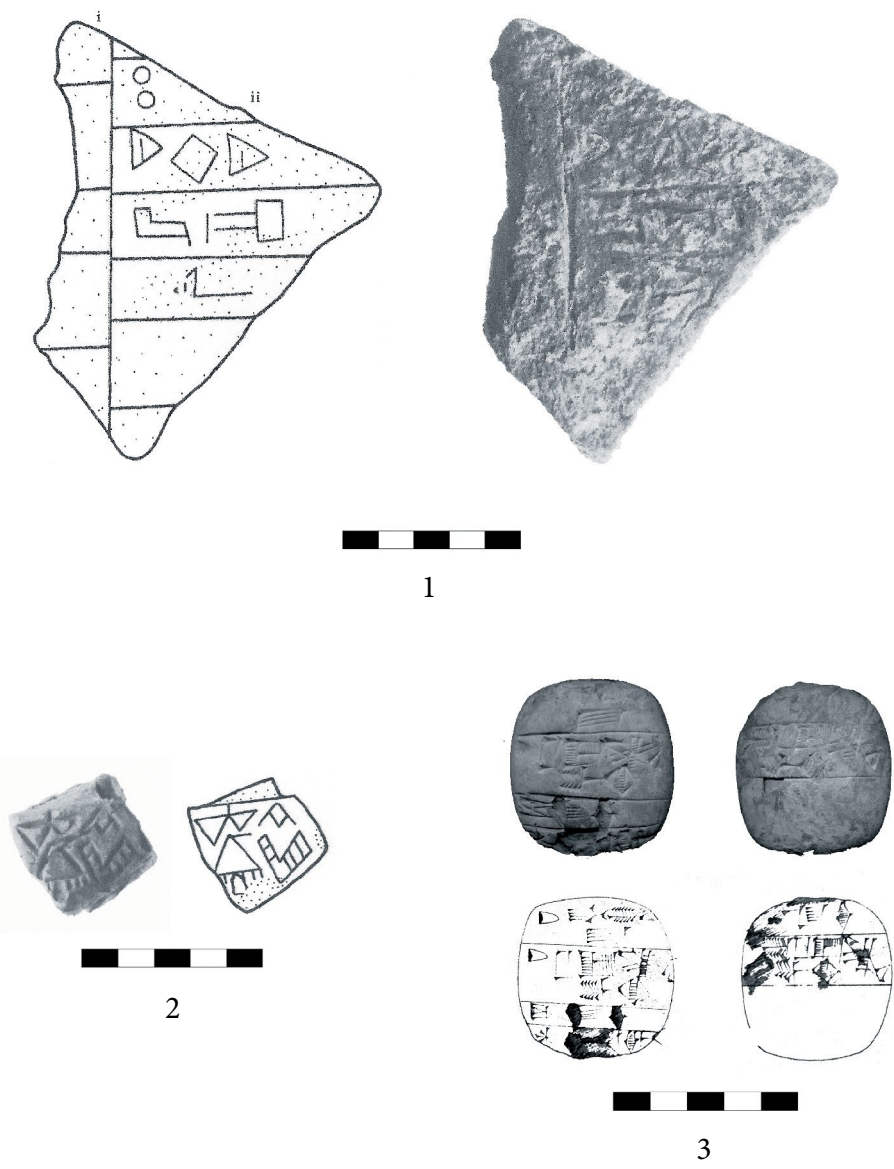
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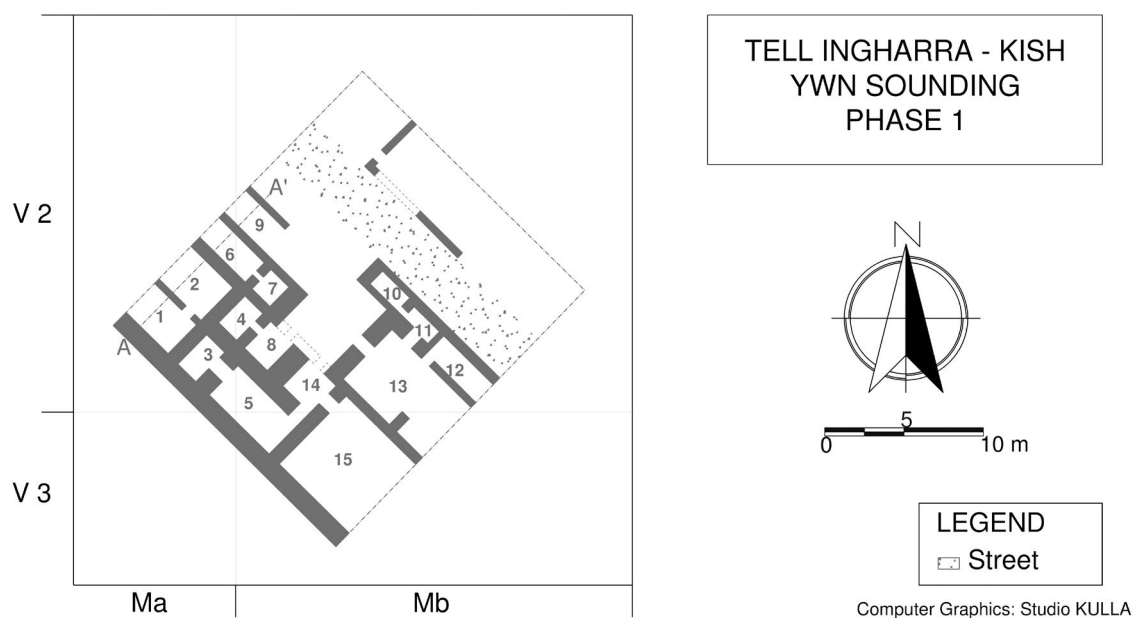
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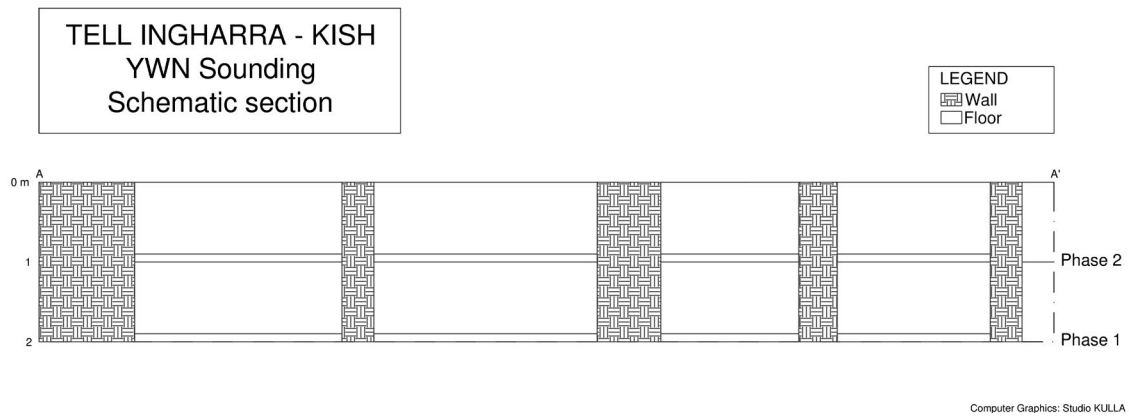
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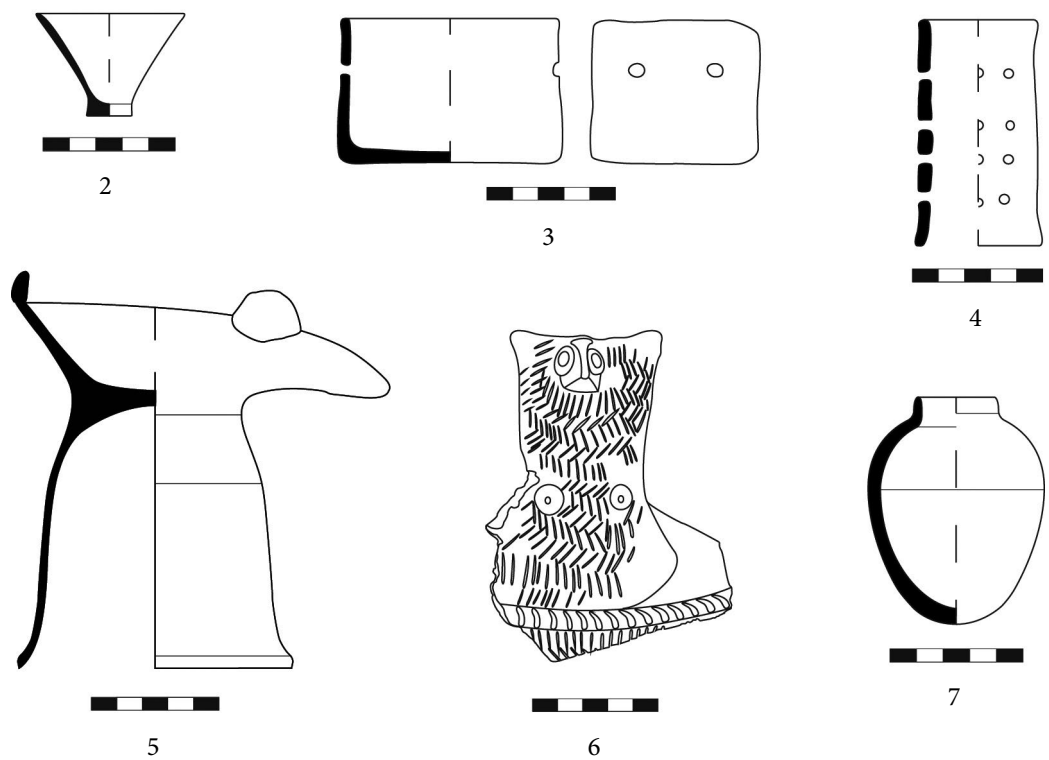
1. The remains of the southwestern building (Phases 1 and 2) from north (Ashmolean Museum, University of Oxford).



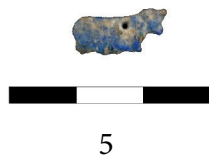
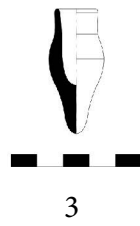
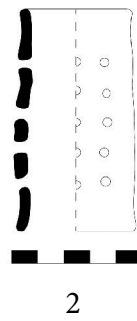
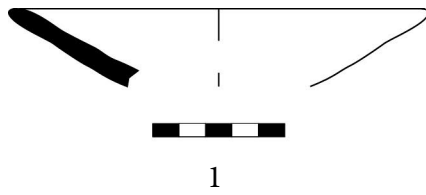
2. YWN Sounding. Schematic plan of Phase 1.

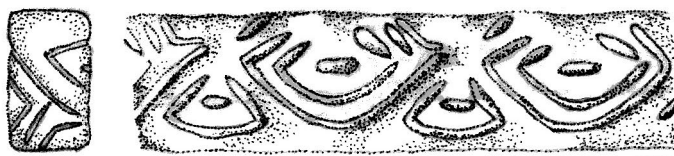


1. Schematic reconstruction of the stratigraphic and structural sequence excavated in the YWN sounding.



YWN Sounding, Phase 2

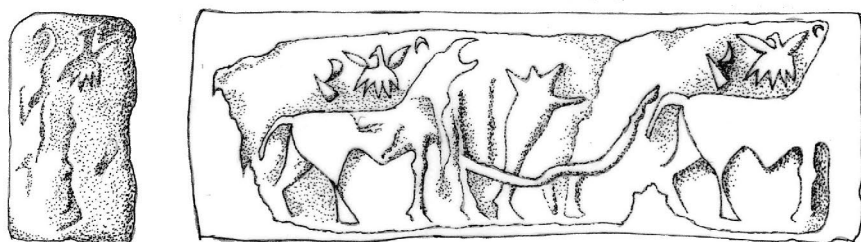




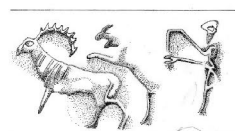
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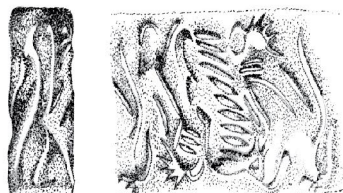
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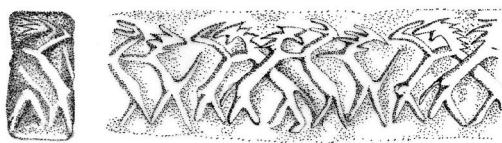
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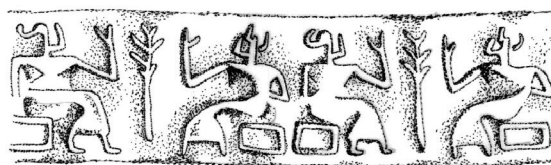
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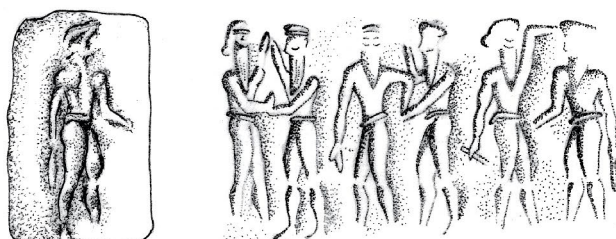
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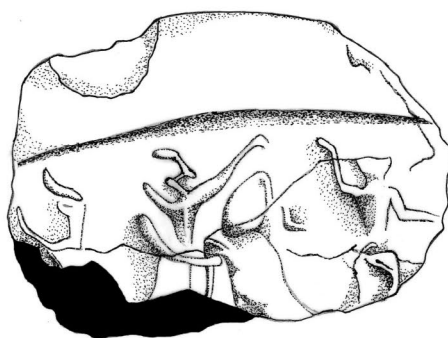
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4



5



6



1



2



3



4



5



1



2



3



4



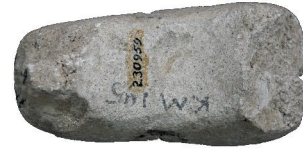
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5



1



6



2



7



3



8



4



5



9



1



4



2



3



5

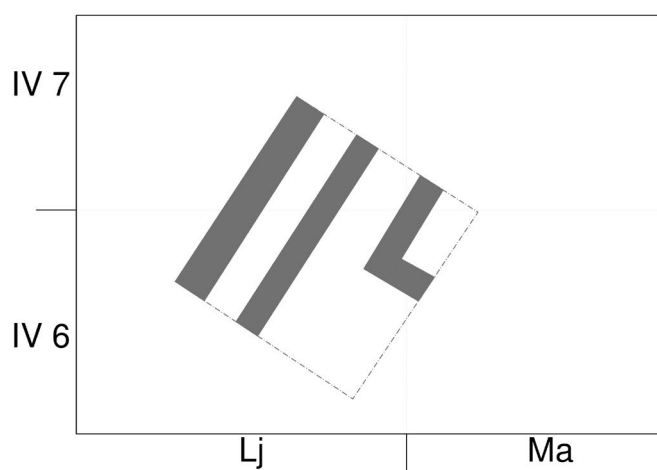


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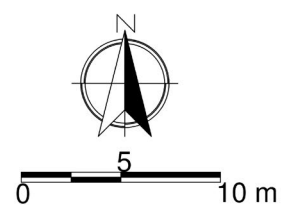


7

YWN Sounding, Phase 2



KISH
ZY SOUNDING



Computer Graphics: Studio KULLA

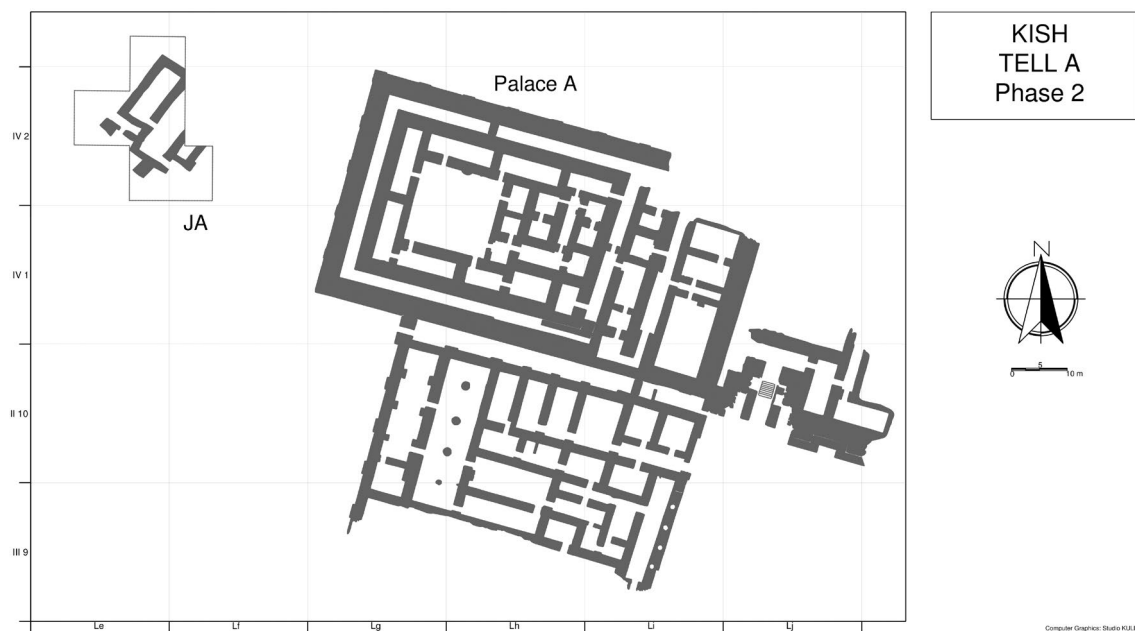
8. Reconstruction of the lowest structural phase documented in the ZY sounding (redrawn after unpublished sketch, Ashmolean Museum, University of Oxford).



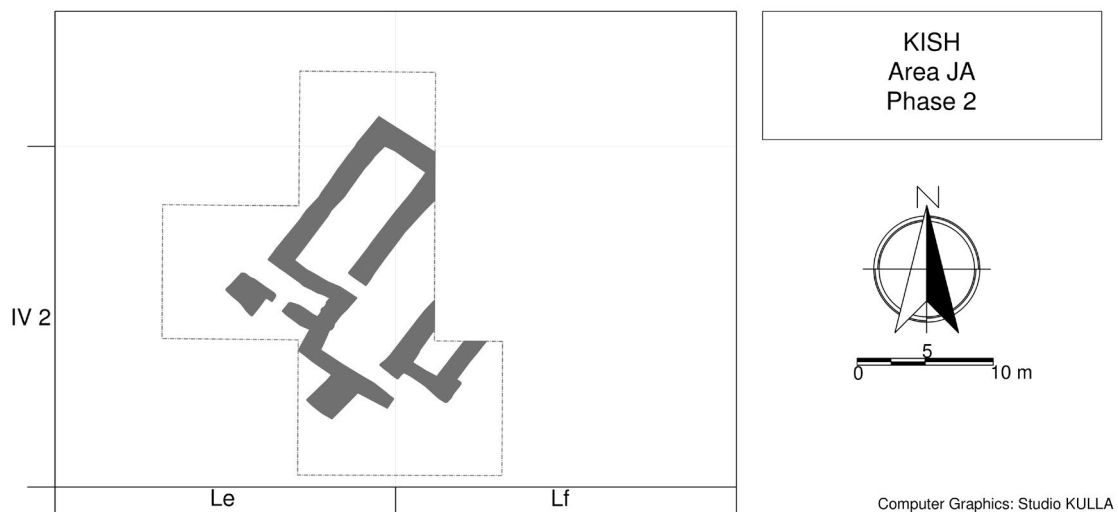
1. The plano-convex platform of the Ziggurat Z.1 from south (Ashmolean Museum, University of Oxford).



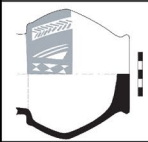
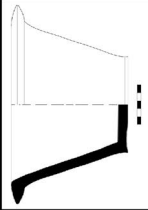


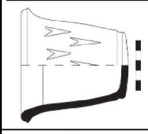
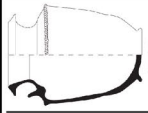
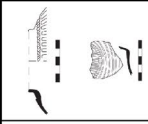
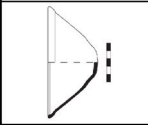
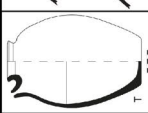
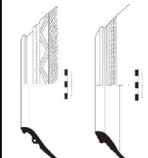
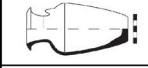
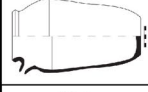
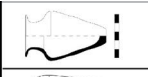
2. The plano-convex platform of the Ziggurat Z.1 from north (Ashmolean Museum, University of Oxford).



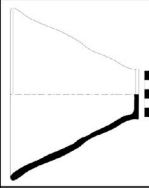
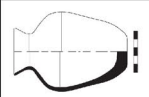
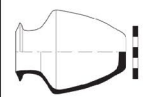


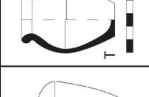
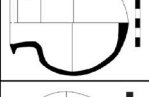
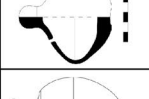
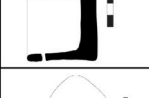
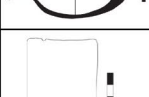

1. Tell Ingharra, Tell A. Composite plan of Palace A (Phases 2a-c, from Mackay 1925) and the small temple excavated in Area JA (from Matsumoto 1991).



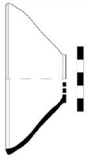

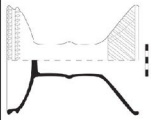
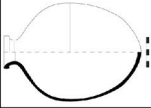
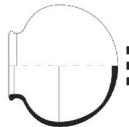
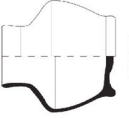
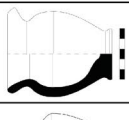
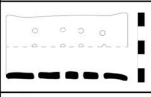
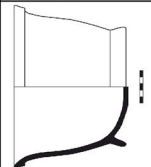


2. Tell Ingharra, Tell A. Detailed plan of the small temple in Area JA (from Matsumoto 1991).




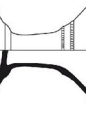



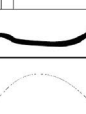





	Type 60											
	Type 16											
	T. 25											
	T. 48											
	Type 17											
	Type 52											
	Type 69											
	Type 12											
	Type 74											
	Type 68											
	T. 51											
	T. 75											
	T. 33											
		7	6	5	4c	4b	4a	3c	3b	3a	2	1

Chronostratiphic distribution of pottery groups 1 and 2.

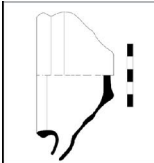
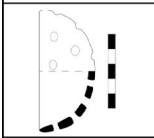
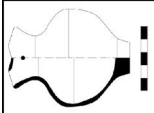
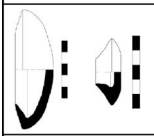
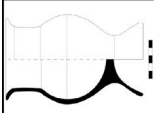
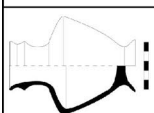
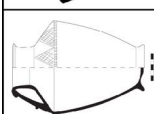
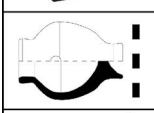
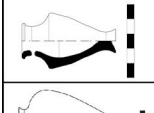
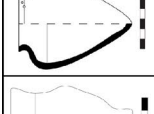

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		Type 37											
		Type 73											
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7													
6													
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4c													
4b													
4a													
3c													
3b													

Chronostratigraphic distribution of pottery group 3.

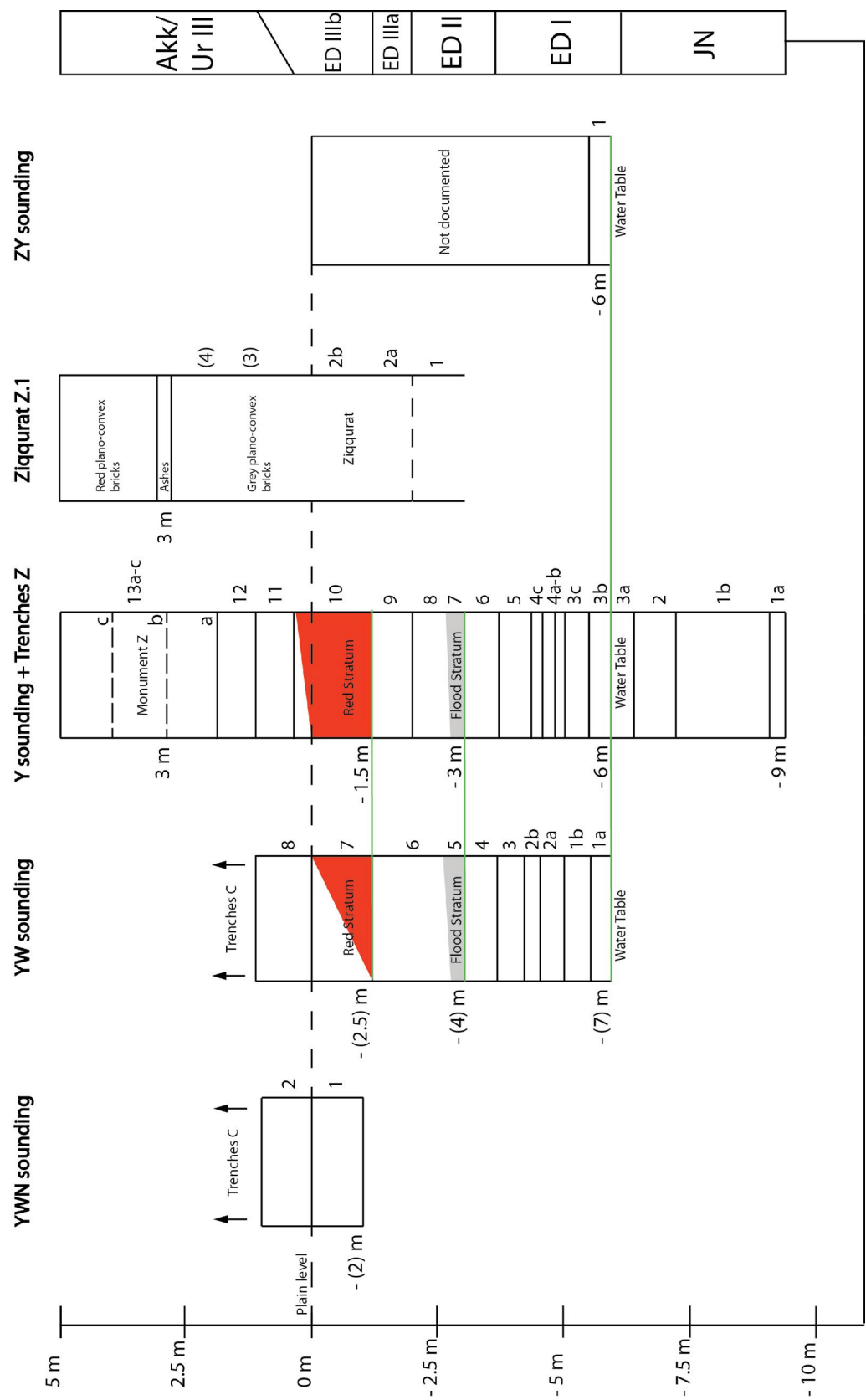
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	11																					
	10																					
	9																					
	8																					

	Type 3		Type 22		Type 26		Type 27		Type 30		Type 31		Type 34		Type 45		Type 57		Type 62		Type 63		Type 64		Type 67
11																									
10																									
9																									
8																									

Chronostratigraphic distribution of pottery group 4.

	Type 19									
	Type 9									
	Type 78									
	Type 81									
	Type 66									
	Type 55									
	Type 54									
	Type 41									
	Type 42									
	Type 38									
	Type 36									
	13c									
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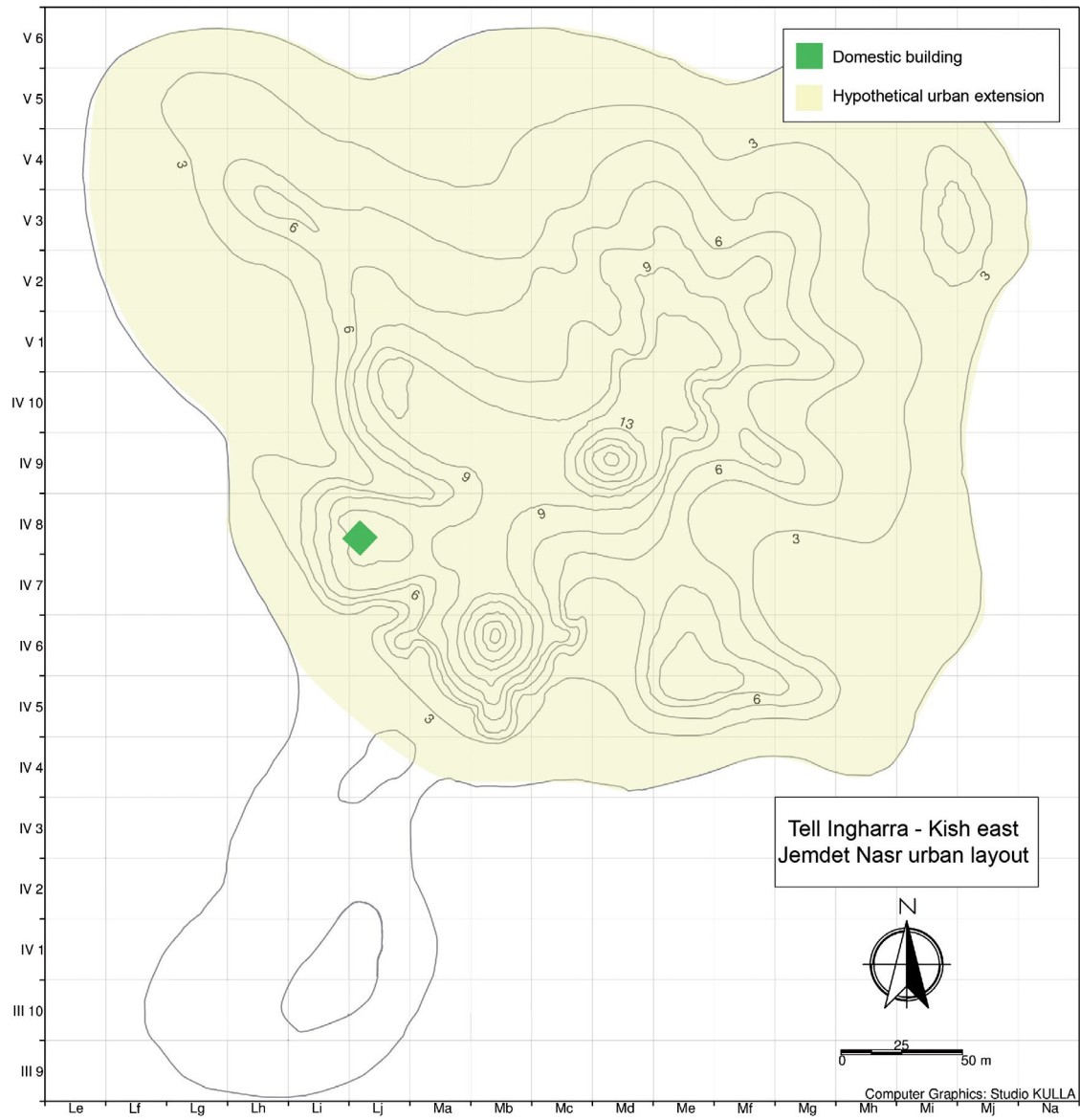
Chronostratiphic distribution of pottery group 5.



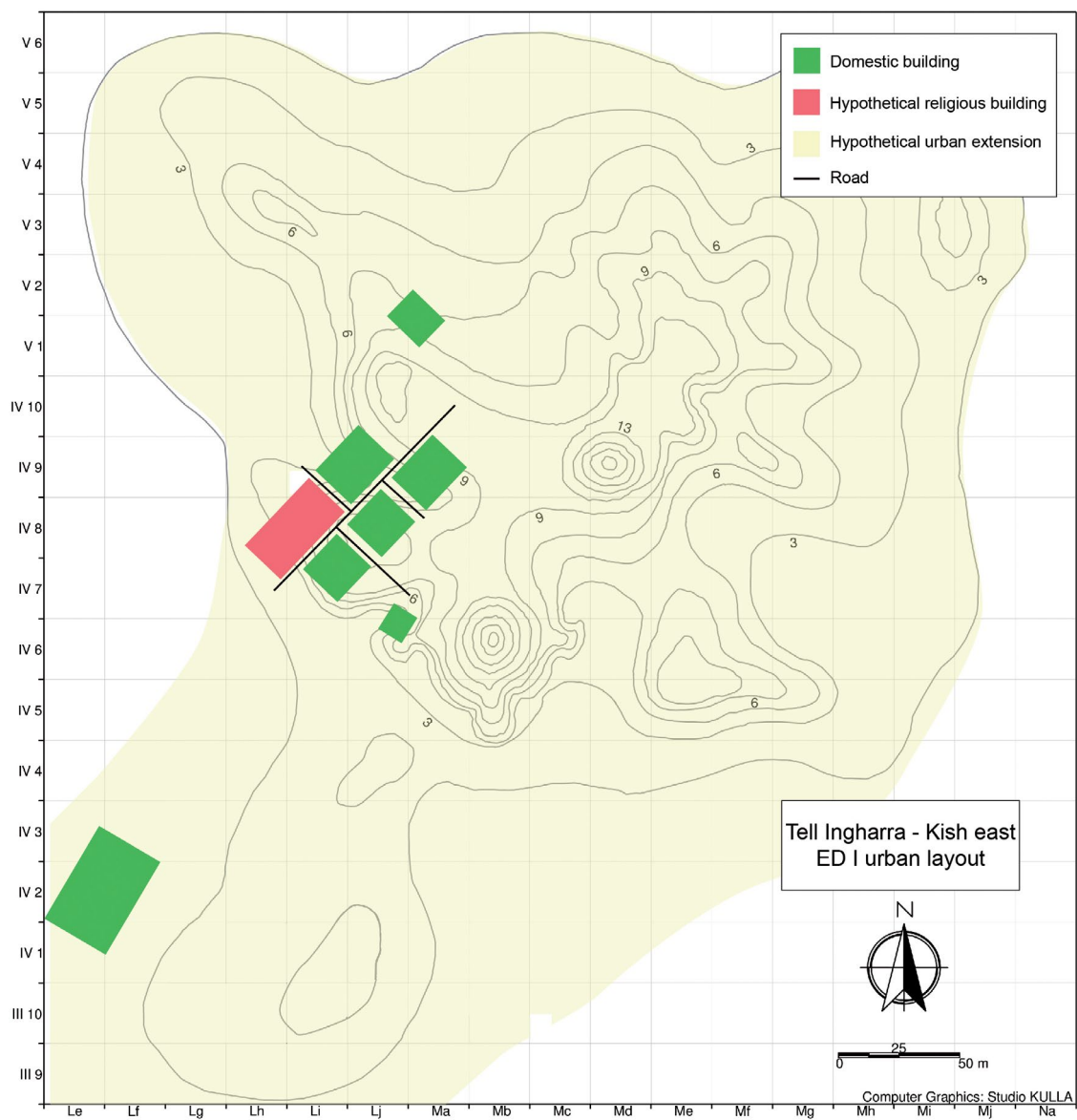
Stratigraphic correlation of the areas excavated on Tell Ingharra.

Area JP	Area P	Area JA	Area A	YWN sounding	YW sounding	Y sounding + Trenches Z	Ziqqurats	Rulers	Date
		Later occupations ↑	Later occupations ↑	Trenches C ↑	Trenches C ↑	13c ↑ 13b Monument Z 13a ↓	4 Re-use?	Enšakušuanak	Akk/ Ur III
2 Burials	3 Burials		3 Cemetery A	2	8	12	3		
1	2b Destruction Plano-convex building	2 Temple?	2b Destruction Palace A	1	7	10 Red Stratum	2b Destruction Ziqqurats	Lugal'utu?	ED IIIb
	2a Construction 1?	3	2a Construction 1?		6 5 4 3 2b 2a 1b 1a	9 8 7 6 5 4 3 2b 2a 1b 1a	2a Construction 1		ED IIIa
									ED II
									ED I
									JN

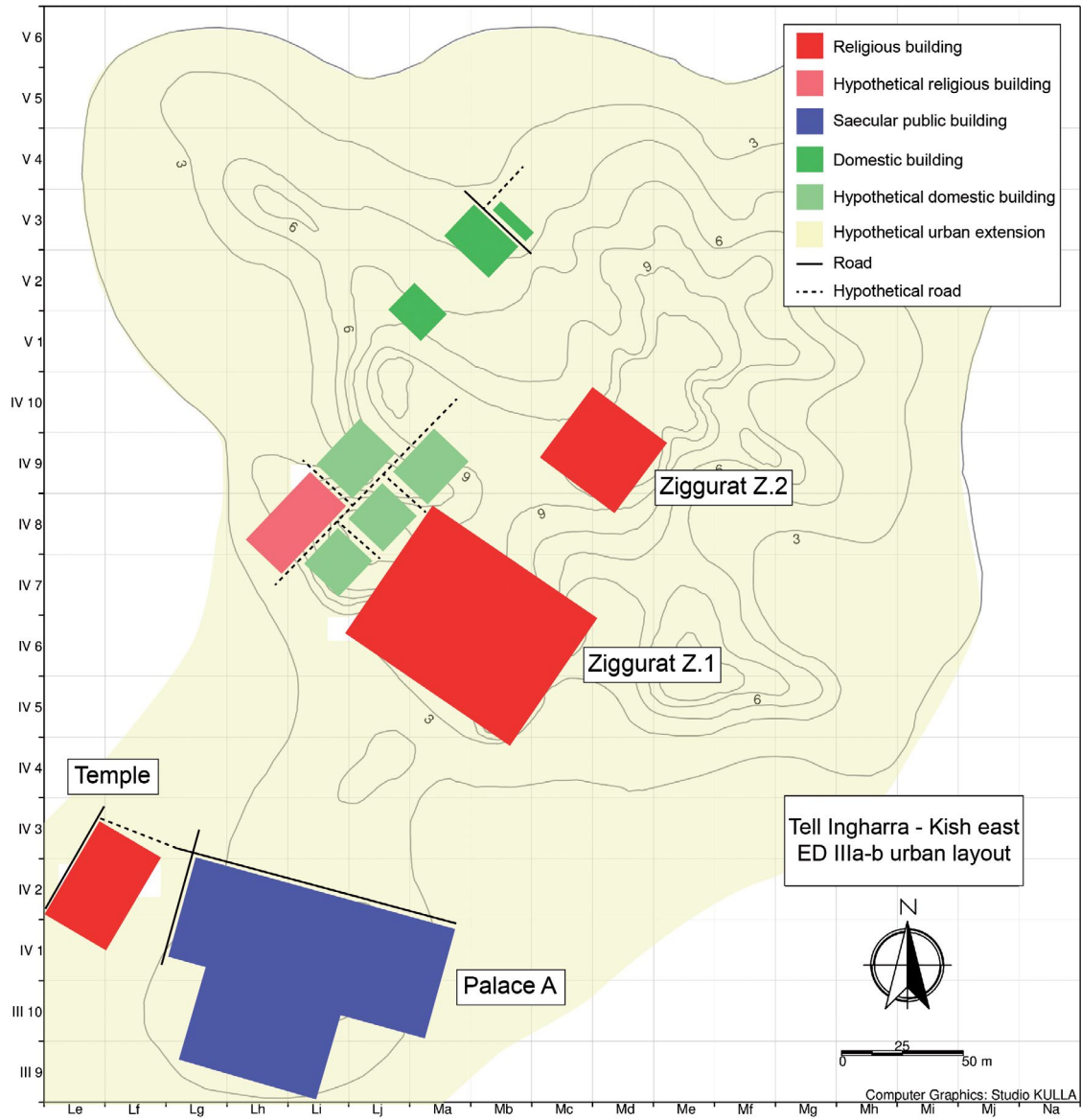
Compared chronostratiphy of East and North Kish.



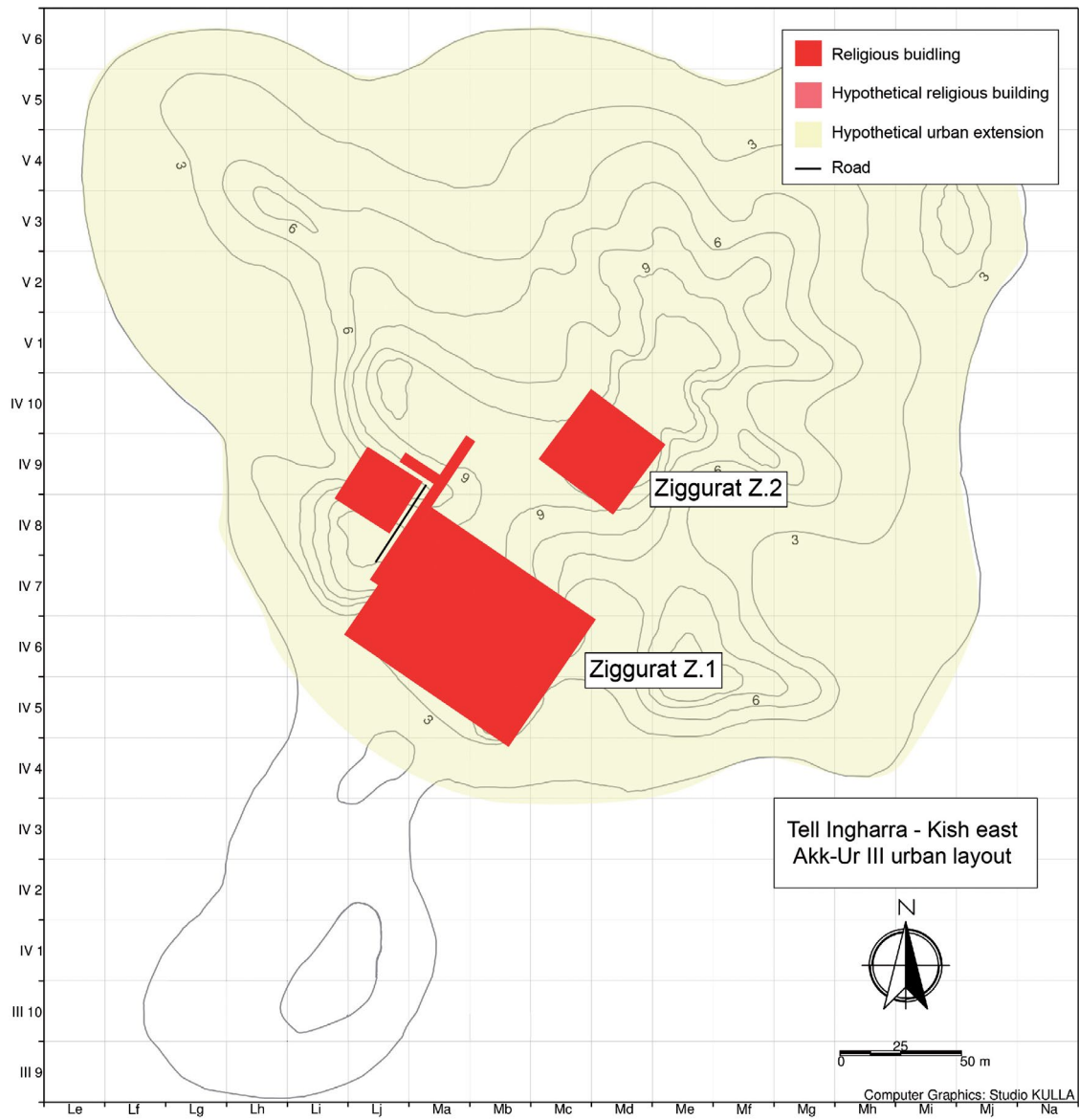
Hypothetical extension of the area of Tell Ingharra – East Kish during the Jemdet Nasr period.



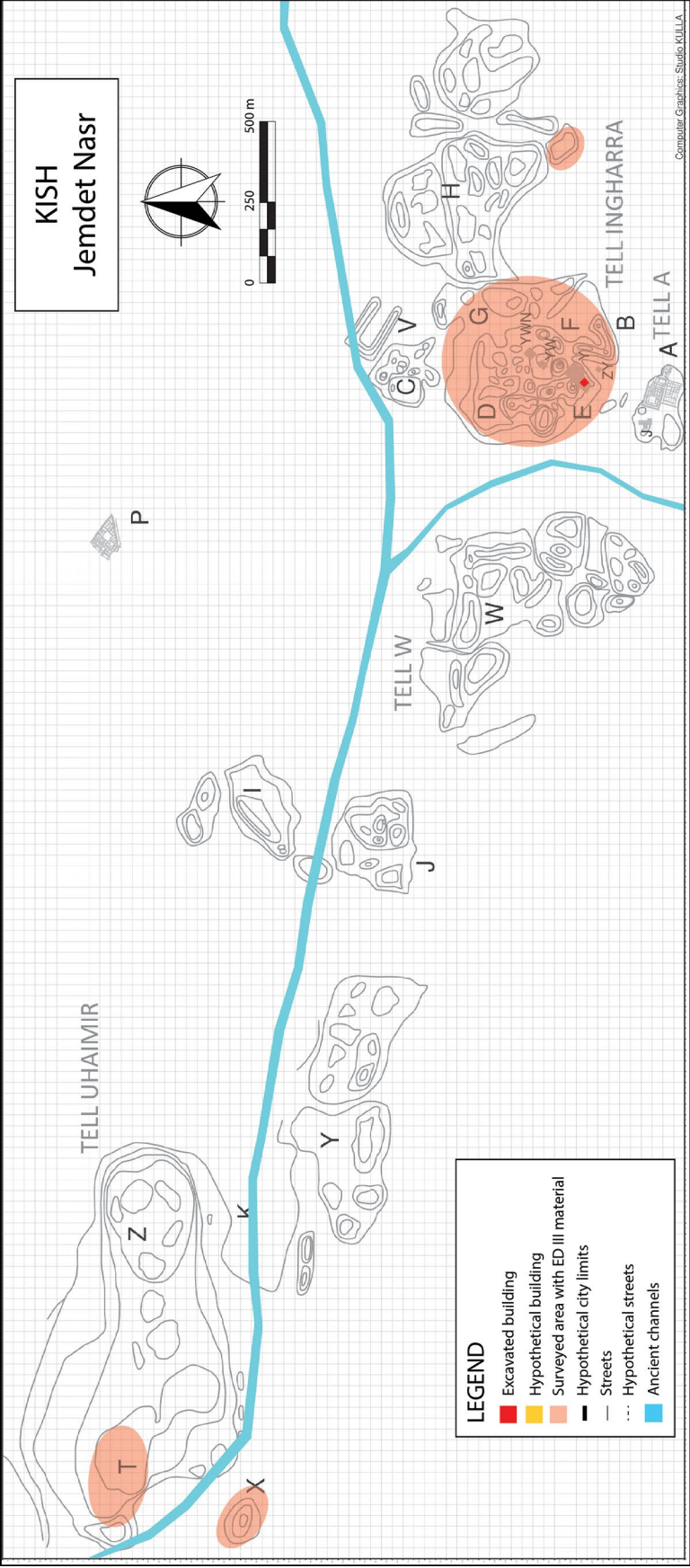
Hypothetical extension of the area of Tell Ingharra – East Kish during the ED I period.



Hypothetical extension of the area of Tell Ingharra – East Kish during the ED III period.



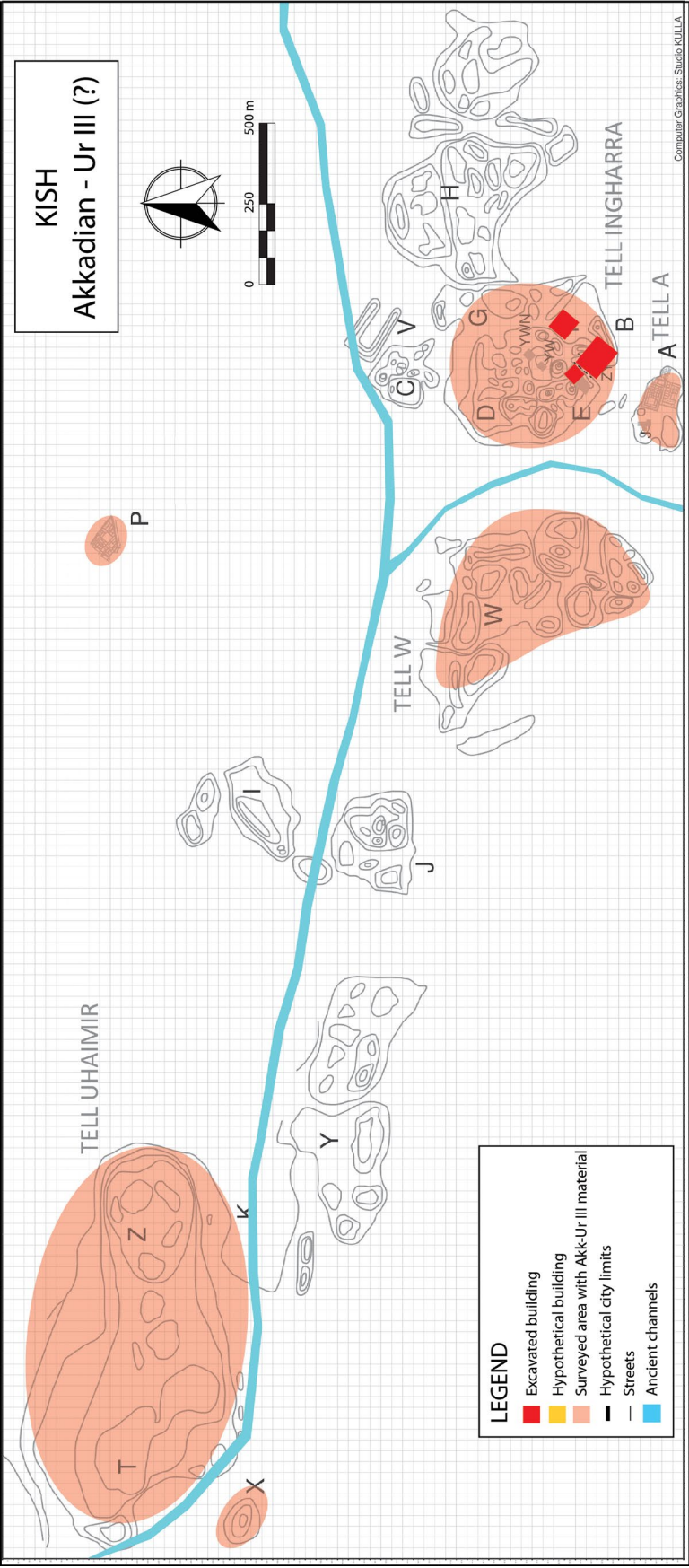
Hypothetical extension of the area of Tell Ingharra – East Kish during the Akkadian - Ur III periods.



Settlement pattern and urban layout of Kish during the Jemdet Nasr period.



Settlement pattern and urban layout of Kish during the Early Dynastic I period.



Settlement pattern and urban layout of Kish during the Akkadian and Ur III periods.



1. The Y sounding from north/northwest. On the upper right part of Neo-Babylonian temple and the Ziggurat Z.1. Photo taken by the Author March 8th 2019.



2. The Y sounding from southeast. On the upper right part of the YWN sounding. Photo taken by the Author March 8th 2019.



1. The Ziggurat Z.1 and the Y and ZY soundings from south. Photo taken by the Author March 8th 2019.



2. The washed remains of the wall of Palace A (probably the entrance) from south. In the background the Ziggurat Z.1. Photo taken by the Author March 8th 2019.