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**The administrative building at Tell Al Hiba, Lagash. (Volumes I
and II)**

Bahrani, Zainab, Ph.D.

New York University, 1989

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The Administrative Building
at Tell Al Hiba, Lagash

Volume I: Text

by

Zainab Bahrani

A dissertation in the Department of Fine Arts submitted
to the faculty of the Graduate School of Arts and
Science in partial fulfillment of the requirements for
the degree of Doctor of Philosophy at New York
University

Approved
Zainab Bahrani

October 1989

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ABBREVIATIONS

<u>AJA</u>	<u>American Journal of Archaeology.</u>
<u>AM I</u>	<u>E.Mackay, Report on The Excavations of The "A" Cemetery at Kish, Mesopotamia, (Field Museum of Natural History, Anthropology Memoires I/1), Chicago, 1925</u> <u>E. Mackay, A Sumerian Palace and The A Cemetery at Kish, Mesopotamia, (Field Museum of Natural History, Anthropology Memoires I/2), Chicago, 1929.</u>
<u>AOAT</u>	<u>Alter Orient und altes Testament Veröffentlichungen zur Kultur und Geschichte des alten Orients und alten Testaments, Kevelaer.</u>
<u>AS</u>	<u>Assyriological Studies, Chicago University, The Oriental Institute.</u>
<u>ASE II</u>	<u>J.N. Postgate, et.al., Abu Salabikh Excavations Vol.2: Graves 1-99, London, 1985.</u>
<u>ASE III</u>	<u>J. Moon, Abu Salabikh Excavations, Vol.3: Catalogue of Early Dynastic Pottery, London, 1987.</u>
<u>Bagh.Mitt.</u>	<u>Baghdader Mitteilungen.</u>
<u>CDAF</u>	<u>Cahiers de la Délégation archéologique française en Iran.</u>
<u>Chronologies</u>	<u>R.W. Ehrich ed., Chronologies in Old World Archaeology, in press</u>
<u>City and Area</u>	<u>Mc. Gibson, The City and Area of Kish (Field Research</u>

Projects) Miami, 1972.

- COWA R.W. Ehrich ed., Chronologies in Old World Archaeology, Chicago, 1965.
- Crafts M. Van De Mieroop, Crafts in The Early Isin Period: A study of the Isin Craft Archive from the reigns of Ishbi-Erra and Shu-ilishu, (Orientalia Lovaniensia Analecta 24), Departement Orientalistiek Leuven, 1987.
- Die Entwicklung R.M. Boehmer, Die Entwicklung der Glyptik während der Akkadzeit, Untersuchungen zur Assyriologie und vorderasiatischen Archäologie, Berlin, 1965.
- Fara H. Martin, An Archaeological Study of a Third Millennium City: Its Internal Development and External Relations Ph.D. dissertation, University of Chicago, 1972.
- Fara, 1988 H. Martin, Fara: A Reconstruction of the Ancient Mesopotamian City of Shurruk, Birmingham, 1988.
- Heartland R. McC. Adams, Heartland of Cities: Surveys of Ancient Settlement and Land Use on the Central Flood Plain of the Euphrates, Chicago, 1981.
- JAOS Journal of the American Oriental Society
- JCS Journal of Cuneiform Studies.
- JESHO Journal of the Economic and Social History of the Orient.
- JFA Journal of Field Archaeology.

- JNES Journal of Near Eastern Studies.
- Kish P.R.S. Moorey, Kish Excavations 1923-1933, Oxford, 1978.
- Königsfriedhofes H.J. Nissen, Zur Datierung des Königsfriedhofes von Ur (Beiträge zur Ur- und Frühgeschichtlichen Archäologie des Mittelmeer-Kulturräumes, 5) Bonn, 1966.
- Le temple et le culte Le temple et le culte: compte rendu de la vingtième Rencontre Assyriologique Internationale. Leiden 1972, Nederlands Instituut voor het Nabije Oosten Nederlands Historisch-Archeologisch Instituut te Istantbul, 1975.
- Material and Manufacture P.R.S. Moorey, Materials and Manufacture in Ancient Mesopotamia: The evidence of Archaeology and Art, BAR International Series 237, 1985.
- Mesopotamien und seine Nachbarn H.J. Nissen & J. Renger eds., Mesopotamien und seine Nachbarn: politische und kulturelle Wechselbeziehungen im alten Vorderasien vom 4. bis 1. Jahrtausend, Berlin, 1987.
- OIC Oriental Institute Communications, University of Chicago.
- OIP Oriental Institute Publications, University of Chicago.
- Plano-Convex P. Delougaz, "Plano-Convex Bricks and the Methods of their Employment", Studies in Ancient Oriental Civilization #7, Oriental Institute, University of Chicago, 1933.

- Pottery P. Delougaz, Pottery From The Diyala Region OIP 63, Chicago, 1952.
- Pre-Sargonið Temples P. Delougaz et.al., Pre-Sargonið Temples in The Diyala Region OIP 58, Chicago, 1942.
- Private Houses P. Delougaz et.al., Private Houses and Graves in the Diyala Region OIP 88, Chicago 1967.
- RLA Reallexikon der Assyriologie und vorderasiatischen Archäologie, Berlin & New York.
- SANE 2/1 J.S. Cooper, Reconstructing History from Ancient Inscriptions: the Lagash-Umma border conflict. (Sources from the Ancient Near East 2/1), Udena, Malibu, 1983.
- SARI I J.S. Cooper, Sumerian and Akkadian Royal Inscriptions, New Haven, 1986.
- Seal Impressions D.P. Hansen, "The Fantastic World of Sumerian Art: Seal Impressions from Ancient Lagash" in A.E. Farkas, P.O. Harper, and E.B. Harrison eds., Monsters and Demons in The Ancient and Medieval World Mainz, 1986, pp.53-64.
- Telloh A. Parrot, Telloh: vingt campagne de fouilles (1877-1933), Paris, 1948.
- UE I H.R. Hall & L. Woolley, Ur Excavations vol.I: Al 'Ubaid, Oxford University Press, 1927.
- UE II C.L. Woolley, Ur Excavations II: The Royal Cemetery, London & Philadelphia, 1934.

UE IV

C.L. Woolley, Ur Excavations
IV: The Early Periods, London
& Philadelphia, 1955.

Wirtschaft und Gesellschaft Harmatta & Komoroczy eds.,
Wirtschaft und Gesellschaft im
alten Vorderasien, Budapest,
1976.

ZA

Zeitschrift für Assyriologie,
Berlin & New York.

Introduction

The purpose of this study is to analyse the burnt building at Tell Al Hiba, area C and the material found within that building. After a survey of the history of Lagash and the excavations at the site of Tell Al Hiba, a discussion of E.D. IIIB, the archaeological time period which the area C building documents, follows (chapter I). The stratigraphy and architectural remains of the area C building will be considered in chapter II. In order to determine the nature of the building a detailed analysis of the material excavated there will be presented. A large part of this analysis will focus on the pottery which forms the most abundant artifactual remains (chapter III). Equal attention will be given, however, to sealings, texts, and small finds (chapter IV). After the analysis of different classes of material all the remains will be considered in their archaeological context. Therefore chapter V will be a study of room assemblages and room features from which will be derived a conclusion as to the function of the building. Finally, the placement of the building within the greater context of late Early Dynastic Sumer will be considered (chapter VI).

The methodology utilised for arriving at this

identification is a new approach to the functional analysis of architectural structures which has appeared in Ancient Near Eastern archaeology this past decade. It basically involves the study of artifactual distribution patterns within one building, or within a group of buildings in one community. The focus of this type of study has been on secular architecture a form which, especially in the Early Dynastic period, is still little understood.^{1/}

Non-religious architecture of the Early Dynastic period in the Near East has yielded several large archives and many works of art but very few finds of a utilitarian nature. In earlier excavations the publications of the small finds may have neglected such utilitarian implements as flint and bone tools, spindle whorls and loom weights, and especially non-artifactual remains such as bones, grain, and seeds. Although such remains bear no artistic merit, a study of the distribution of these finds, when correlated with structural features, ceramic material, and works of art, can aid to clarify the function of rooms, or

¹ Cf. R. Biscione, "The Burnt Building at Shahr-i Sokhta IV, an Attempt of Functional Analysis from the Distribution of Pottery Types", Iranica, Napoli, 1979, pp.291-306; Elizabeth F. Henrickson, "Non-Religious Settlement Patterning in the Late Early Dynastic of the Diyala Region", Mesopotamia XVI (1981), pp.43-140; "Functional Analysis of Elite Residences in the Late Early Dynastic of the Diyala Region", Mesopotamia XVII (1982), pp.5-34.

buildings. This is basically an anthropological approach which owes something of its methodology to regional settlement analysis.^{2/}

R. Biscione has adopted this approach of analysing distribution patterns in order to identify spatial dynamics and human activity within the "Burnt Building" at Shahr-i Sokhta in Iran.^{3/} However, Biscione focussed his study on one type of pottery, buff-red ware, and narrowed down this category to "...those shapes which we have considered particularly significant and those shapes which are both more frequent and show a more evident functional value". It is understandable that data must be limited for the sake of managability but the discarding of shapes without "...readily discernable functional associations.." can certainly distort the results.

Secular E.D. III buildings in the Diyala region of Mesopotamia have been analysed by E. Henrickson. Although limited to data available from the publications of the University of Chicago excavations,

² Cf. for example R. McC. Adams, "Patterns of Urbanization in Early Southern Mesopotamia" in Man Settlement and Urbanism ed. P.J. Ucko, R. Tringham, and G.W. Dimbleby, London Duckworth, 1972; K.C. Chang, "Settlement Patterns in Archaeology" Reading Mass., Addison Wesley Modular Publications, no.24; B. Trigger, "The Determinants of Settlement Patterns" in Settlement Archaeology, ed. K.C. Chang, Palo Alto National Press, 1968.

³ R. Biscione, op.cit.

Mrs. Henrickson's study was comprehensive in that it included all artifactual and non-artifactual material recorded. Although the methodology is sound, Mrs. Henrickson's classification of the objects seems at times too general. The categorisation of the Diyala pottery into functional classes of cooking vessels, eating vessels, serving vessels, and storage vessels etc.. is faulty. Among eating and drinking vessels such impracticable shapes as Delougaz's "household jars" with constricted necks are included,^{4/} and a certain type of conical cup with an inverted rim. Delougaz had already pointed out in his original publication of the pottery that such a rim precludes the possibility of its having been used for drinking,^{5/} and several of these, in fact, have holes in the bottom.^{6/} Any shape with a spout is taken to be a serving vessel, an invalid generalisation since the occurrence or lack of spouts in Mesopotamian Early Dynastic ceramics can be due to chronological differences in pottery shapes as opposed to function. A group of miniature vessels that includes all of Delougaz's A type pottery is categorised as containers for valuable commodities such as spices, cosmetics, and perfumes. This is a

4 Delougaz, Pottery, B225.540, Pl.98-99.

5 Delougaz, Pottery, p.95; eg. B024.210.

6 Delougaz, Pottery, B083.210; B085.210.

generalisation which does not take into account their relative quality. Many of these pots are carelessly hand made and left unbaked making them unlikely receptacles for valuable products.

Instrumental to this type of study is the thorough recording of any artifactual or non-artifactual material in the field, as well as such non-architectural room features as heat and water drainage facilities. The complete data made available to the present writer from the Tell Al Hiba excavations makes the area C building an advantageous subject for such an analysis. Rather than attributing various functions to the pottery shapes the traditional labels such as conical bowl, fruitstand etc., will be utilised in the room object tallies. Suggestions for shape-function correlations will be made separately.

To begin with, a pottery typology had to be established. This Al Hiba pottery typology is significant as up to the present time no published pottery of the E.D. IIIB period has been scientifically excavated in Sumer proper. Scholars have had to rely on a sequence established in the Diyala region, a peripheral area whose validity for southern Mesopotamia is highly questionable. Thus, this dissertation will have, as a central issue, a study of Early Dynastic IIIB pottery in Sumer.

Chapter I

Tell Al Hiba, Lagash

The Joint Expedition of the Metropolitan Museum of Art, New York City, and the Institute of Fine Arts of New York University began excavation in 1968 at the site of Tell Al Hiba in Southern Iraq. 1/ The site, located in the modern Iraqi province of Nasiriya, is one of the largest in Southern Mesopotamia measuring 3,600 m. in length and 1,900 m. at its widest point. During the first five seasons of excavations the

1 The excavations are reported in the following publications: Donald P. Hansen, "Al Hiba, 1968-1969, A Preliminary Report", Artibus Asiae XXXII:4 (1970), pp.243-250.; "Al Hiba 1970-1971, A Preliminary Report", Artibus Asiae XXXV:1/2 (1973), pp.62-70; "Al Hiba, A Summary of Four Seasons of Excavation 1968-1976", Sumer 34 (1978), pp.72-85; "Lagash" in Reallexikon der Assyriologie und Vorderasiatischen Archäologie Band 6, Berlin & New York, 1980-1983, pp.422-430; "The Fantastic World of Sumerian Art: Seal Impressions from Ancient Lagash" in Anne E. Farkas, Prudence O. Harper & Evelyn B. Harrison eds. Monsters and Demons in the Ancient and Medieval World, Mainz: Phillip Von Zabern, 1986, pp.53-64; Vaughn E. Crawford, "Excavations in the Swamps of Sumer", Expedition XIV (1972), pp.12-20; "Lagash", Iraq XXXVI (1974), pp.29-35; "Inscriptions from Lagash, Season Four", JCS 29 (1977), pp.189 ff.; Robert D. Biggs, "Pre-Sargonic Riddles from Lagash", JNES 32 (1973), pp.26 ff.; Inscriptions from al Hiba-Lagash. The First and Second seasons (BiMes. 3), Malibu, 1976; M. Civil, "An Early Dynastic School Exercise From Lagash", Bibliotheca Orientalis XL no.5/6 (1983), pp.559-566; S. Lloyd, The Archaeology of Mesopotamia, Thames and Hudson, 1978, pp.106 ff.; Paolo Matthiae, Scoperte di archeologia Orientale, Universale Laterza, Roma, 1986, pp.21-36.

expedition, under the directorship of Donald P. Hansen, excavated in four areas of the mound, mostly dating to the Early Dynastic period (ca.2700-2350 BC).^{2/} A sixth season of fieldwork in 1984 was devoted to a surface survey of the mound.^{3/}

This expedition, however, was not the first at Tell Al Hiba. The German archaeologist, Robert Koldewey, devoted one season of work to this site in the spring of 1887, and based on the discovery of several graves, concluded that the entire tell was a necropolis.^{4/} It was not until 1953 that the true significance of the site was revealed, when Thorkild Jacobsen, during a short excursion to the tell, discovered an inscribed brick which mentioned the Bagara of Ningirsu, a temple known to have been in the ancient city of Lagash. Up to then, the nearby mound of Telloh had been generally accepted as Lagash city after originally being identified as such by the French

² Henceforth E.D.= Early Dynastic. For the division of the period into E.D. I, E.D. II, E.D. IIIa and E.D. IIIb see pp. 22ff. below. The chronology for the Early Dynastic period accepted here (chart p.46) follows that presented by Cooper, SARI I, p.14. The remainder of the dates follow the middle chronology, cf. J. Brinkman in A.L. Oppenheim, Ancient Mesopotamia, Chicago-London, 1977, pp.335 ff.

³ Elizabeth Carter, forthcoming in Sumer

⁴ R. Koldewey, "Die altbabylonischen Gräber in Surghul und el Hibba", ZA 2 (1887), pp. 403-430.

excavations of Ernest de Sarzec beginning in 1878.^{5/} However, Jacobsen's re-identification of Tell Al Hiba as Lagash became indisputable when it was later confirmed by excavated inscriptional evidence.^{6/}

The historical prominence of the state of Lagash is well known from epigraphic sources. This state included the cities of Girsu (Telloh), Nina (Surghul), and Lagash (Al Hiba), as well as the smaller settlements of Uruk, Kinunira, Guabba, Kesa and URUxgánatēnū.^{7/} The main centres were connected to an ancient branch of the Euphrates known from Sumerian texts as the Idninadua canal.^{8/} Lagash city was the most important urban centre of Lagash state in the Early Dynastic period, and the accomplishments of its ruling dynasty are recorded on many texts uncovered at

5 For the Telloh excavations see A. Parrot, Tello: vingt campagnes de fouilles (1877-1933), Paris, 1948.

6 For the identification of Tell Al Hiba as Lagash see: Thorkild Jacobsen in American Schools of Oriental Research, Jerusalem and Baghdad, Archaeological Newsletter, no.6, 1953, p.194; "Early Political Development in Mesopotamia", ZA 52 (1957), pp.96-99; "The Waters of Ur", Iraq XXII (1960), pp.174-185; Vaughn E. Crawford, "Lagash", Iraq XXXVI (1974), pp.29ff.

7 A. Falkenstein, Die Inschriften Gudeas von Lagash (Analecta Orientalia 30), Roma, Pontificium Institutum Biblicum, 1966, pp.17 ff.

8 Thorkild Jacobsen, "The Waters of Ur", Iraq XXII (1960), pp.174-185.

Telloh and Al Hiba.^{9/}

The rulers of the Lagash dynasty bear the title ensi, a Sumerian word usually translated as "city-ruler". In the Old Akkadian and Neo-Sumerian periods ensi was used as a title for all provincial governors of the empire. In the Early Dynastic period, however, it was almost uniquely used by the rulers of Lagash to refer to themselves, and to refer to rulers of other Sumerian city-states who were called lugal "big man" in their own inscriptions, a title generally translated as "king".^{10/}

Urnanshe (ca.2480), a contemporary of the earliest kings buried in the Royal Cemetery at Ur, is generally accredited with being the founder of the Lagash Dynasty although the names of three or four of his predecessors are known.^{11/} Historical sources allow for the reconstruction of the sequence of rulers who succeeded

⁹ For the Presargonic inscriptions see Cooper, SARI I, pp.22-85; J.R. Kupper and E. Sollberger, Inscriptions royales sumériennes et akkadiennes, Paris, 1971, pp.44ff. For the Gudea dynasty see A. Falkenstein, Die Inschriften Gudeas von Lagash (Analecta Orientalia 30), Roma, 1966.

¹⁰ Cooper, SANE 2/1, p.9.

¹¹ The relative chronology and the synchronism between dynasties in the Early Dynastic period still remain a subject of controversy. For a thorough discussion of this complicated issue v. Donald P. Hansen in Chronologies, forthcoming.

him for the following 150 years.^{12/} Of these, the third, fourth, and fifth rulers namely, Eannatum, Enanatum I, and Enmetena, are important for the excavations at Tell Al Hiba. The placement of these three ensis as approximate contemporaries of the First Dynasty of Ur kings, Mesanepada and A'anepada, has been proposed by several scholars based on studies of the artifactual remains ^{13/} and the evidence derived from epigraphic sources.^{14/}

The distant international contacts of Lagash are recorded from the beginning of the Urnanshe Dynasty, ^{15/} and there is material evidence of foreign exchange with Dilmun (Bahrain) in the Arabian Gulf, Elam in modern Iran, and as far as the Indus valley to the east throughout the reigns of the following ensis.^{16/} These contacts were perhaps made possible by Lagash's ideal location near the Arabian Gulf, on the eastern edge of southern Sumer. Lagash was one of the numerous

12 Cooper, SARI I, p.14.

13 Nissen, Königsfriedhofes, pp.135-141; Boehmer, Die Entwicklung, pp.271-278.

14 Cooper, SANE 2/1, p.60.

15 See for example Cooper, SARI I, La 1.2, p.23.

16 Hansen, Artibus Asiae XXV: 1/2 (1973) pp.69 ff.; D. Potts, "The Zagros Frontier and the Problem of Relations between the Iranian Plateau and Southern Mesopotamia in the Third Millennium B.C." in H.J. Nissen and J. Renger eds., Mesopotamien und seine Nachbarn, pp.33-55.

competing city-states in the Early Dynastic period with various military successes and defeats in southern Mesopotamia itself and abroad. Most notable were the victories of Eannatum, grandson of Urnanshe, known from numerous texts:

For Ningirsu - Eannatum, ruler of Lagash, nominated by Enlil, granted strength by Ningirsu, chosen in her heart by Nanshe, nourished with special milk by Ninhursag...Eannatum defeated Elam, the wonderous mountain, and made burial mounds for it. He defeated the ruler of Urua...and made burial mounds for it. He defeated Umma, and made twenty burial mounds for it....He defeated Uruk, he defeated Ur, he defeated Kiutu. He sacked Uruaz and killed its ruler. He sacked Mishime and destroyed Arua. All the foreign lands trembled before Eannatum....To Eannatum, ruler of Lagash, Inana, because she loved him so, gave him the kingship of Kish...17/

Having subjugated the foreign lands of Elam, Mishime, Subartu, and Urua, as well as the Sumerian city-states of Umma, Uruk, Ur, and Kish, Eannatum assumed for himself the title "King of Kish", a title that carried imperial connotations.18/

At the end of the Early Dynastic period the Urnanshe Dynasty was discontinued when a sanga priest (temple administrator) of Girsu, Enentarzi, became king.19/ The change in rule may have caused a shift of

17 Cooper, SARI I, La 3.5, p.41.

18 V. P.R.S. Moorey, Kish Excavations 1923-1933, Oxford, 1978, pp.168 ff. for a discussion of this title.

19 Enannatum II is the last certain member of the Urnanshe dynasty but M. Lambert has suggested that Enentarzi was possibly related to this royal family v. M. Lambert, "L'expansion de Lagash au temps d'Entemena",

the centre of Lagash state from Lagash city (Al Hiba) to Girsu (Telloh). His successor, Lugalanda, was removed by Uru'inimgina who usurped the throne, instituted a group of economic reforms, and adopted the title of lugal as opposed to ensi. Meanwhile Lugalzagezi, king of Umma (ca.2350), had united most of southern Sumer, and in turn conquered Lagash during Uru'inimgina's eleventh year.²⁰ Lugalzagesi's success was short lived, however, as soon afterwards Sargon of Akkad brought under his dominion the entirety of Mesopotamia, and created the first imperial state (ca.2334).

During the Sargonic period the state of Lagash was ruled by a governor subject to the Akkadian king. The first such governor seems to have been the former Lagash ruler, Uru'inimgina who was perhaps succeeded by other officials of local descent.²¹ At the collapse of the Akkadian empire Lagash soon re-emerged as a centre of Sumerian culture under the famous Ur-Bau Dynasty. It is especially the sculptural and

Rivista degli studi orientali 47 (1972), pp.1 ff.

²⁰ Or possibly during Uru'inimgina's seventh year, see Cooper, SANE 2/1, p.36.

²¹ W.W. Hallo, The Ancient Near East: A History, New York, 1971, p.57; Th. Jacobsen, "Early Political Development in Mesopotamia", Toward the Image of Tammuz and Other Essays on Mesopotamian History and Culture, ed. Moran, p.395, n.107.

inscriptional evidence of this dynasty, discovered by the French at Telloh, that gave rise to the original identification of that site as Lagash. The achievements of the Ur-Bau dynasty, and especially of its most prominent member, Gudea, are more surprising when one considers the sorry state of the rest of Sumer under Gutian rule. The resilience of Lagash may have been due to its collaboration with the Akkadian rulers, who used it as an administrative centre for southern Sumer.^{22/} This collaboration may have led to the ostracism of Lagash by the other Sumerian city-states, and may explain the deliberate omission of the dynasty from the orthodox Sumerian King List.

Be that as it may, Lagash's strength enabled it to remain independent during the early stages of the formation of the Ur III state, although close to the new political centre of Sumer at Ur.^{23/} During the early reign of Shulgi Lagash, like the rest of Sumer, became part of the Ur III Empire, although remaining an

²² See B.R. Foster, Administration and use of Institutional Land in Sargonic Sumer (Mesopotamia 9), Copenhagen, 1982, pp.110-111; B.R. Foster, "The Sargonic Victory Stele from Telloh", Iraq XLVII (1985), pp.28-29.

²³ See Piotr Steinkeller, "The Date of Gudea and His Dynasty", JCS 40/1 (1988) pp.47-53.

important centre of administration.^{24/} After the collapse of that empire the epigraphic finds show a marked decrease in number.^{25/} References to Lagash can still be found in royal inscriptions of the Larsa dynasty when the king proclaims himself as provider of Lagash,^{26/} or as "city ruler of Ur, Larsa, Lagash and the land Kutalla"^{27/}. These indicate that Lagash was still considered an important city in the state. A clay cone with an inscription of king Rim-Sin found in Tello ^{28/} shows that some building activity took place there under this dynasty. The last reference to the cities of Lagash and Girsu are found under Hammurabi of Babylon (1792-1750) who claims in the prologue of his lawcode that he "alloted pasture and watering place to

24 See Tom B. Jones, "Sumerian Administrative Documents: An Essay", AS 20 (1976), pp.41-46 for a description of the Ur III documents from Lagash.

25 For Old Babylonian tablets from Lagash v. Biggs, Bi.Mes 3, no.36-41; Marten Stol, Bibliotheca Orientalis 28 (1971), pp.365-366.

26 Sin-idinnam, v. I. Kärki, Die sumerischen und akkadischen Königsinschriften der altbabylonischen Zeit I (Studia Orientalia 49), p. Sid 13 ll. 24-25; Warad-Sin, v. Kärki, op.cit., p.92 Ws 8 ll. 9-10, p.96 Ws 10 ll. 16-17, p.121 Ws 27 ll. 13-14; Rim-Sin, v. Kärki, op.cit., p.144 Rs 3 ll. 16-17, p.156 Rs 11 ll. 14-15, p.163 Rs 15 ll. 15-16, p.164 Rs 16 l.15, p.165 Rs 17 ll. 1'-3', p.172 Rs 26 l. 7.

27 Šilli-Adad, v. Kärki, op.cit., p.82 §a 1 ll. 5-10; Warad-Sin, v. Kärki, op.cit., p.102 Ws 14 ll. 7-10.

28 Kärki, op.cit., pp.163-165 Rs 16.

Lagash and Girsu," and "established large regular offerings for the Eninnu" the temple of the god Ningirsu.^{29/} The evidence on Lagash disappears after the revolt of the South against the Babylonian ruler Samsu-iluna around 1740. It is only in the third century BC that the site of Tello is resettled ^{30/}, while al-Hiba has no further traces of occupation in antiquity.

The archaeological significance of the modern Tell Al Hiba is as noteworthy as the historical significance of Lagash. The American excavations here have provided, for the first time in Sumerian archaeology, three buildings that can be linked to historical rulers of the Early Dynastic period. Furthermore these buildings have provided the only remains which document the first part of the Lagash Dynasty. The importance of the site is not, however, limited to that period as it yielded evidence dating from Early Dynastic I (ca.2750-2500) to the Isin-Larsa period (ca.2000-1763).

In the winter of 1984 a surface survey of the mound was conducted under the directorship of Elizabeth Carter.^{31/} Random material samples of 1% were taken

29 Codex Hammurabi col. III ll. 38-46.

30 A.L. Oppenheim, Ancient Mesopotamia, Chicago-London 1977, p. 408 s.v. Lagaš.

31 E. Carter, forthcoming in Sumer

from each 100 m. square section of the surface in order to determine the early settlement patterns on the tell. The southern sector [S.1400-S.800 on the map. pl. LXXVI] which comprises the Ibgal of Inanna, possibly included a residential quarter of late Early Dynastic date. The mounds arising at N00-S00 bore traces that indicated ceramic manufacture took place there. The south central sector of the tell [S.800-00] includes area G. This area also had a ceramic industrial zone but the difference in pottery finds suggests an Early Dynastic I-II date here. The north central sector [N00-1000] comprises the Bagara of Ningirsu in area B, where early second millennium finds were predominant, and the secular building in area C. This latter area yielded a large collection of finished copper items, and one piece of lapis lazuli with traces of work on the surface. To the east of area C remains of Islamic occupation were found at N100-E800.^{32/}

The first five seasons of excavation, under the directorship of Donald P. Hansen, concentrated on areas A, B, C, and G. These excavations revealed two major temple precincts already known from epigraphic sources (areas A and B), as well as a large civic building (area C).^{33/}

32 Idem.

33 Hansen, "Lagash", RLA 6, pp.422-430.

At the highest part of the mound, in area B [Pl.LXXVI], the most recent remains date to the Isin-Larsa period.^{34/} In the eastern part of this area an infant burial in a ceramic vessel was found in the foundations of a temple structure. The child was buried with an offering of three tablets in a bowl.^{35/} One of the tablets had a date formula for Siniddinam of Larsa (1849-1843) thus providing a date for the level beneath which it was buried.^{36/} On the western side of area B the eroded remains of a large mud-brick terrace were uncovered. This terrace, probably curved or oval in shape, was constructed of rectangular bricks laid in an unusual manner. Some bricks were laid flat in alternating courses of headers and stretchers, other bricks were laid in two or three courses of headers or stretchers, alternating with one or more courses laid flat.^{37/} At the highest part of the mound, rooms and wall foundations of both mud and baked brick, which were probably part of a temple, surmounted the large terrace. In dismantling the terrace the foundations below were found to be strewn with unworked pieces of gold foil, lapis lazuli, carnelian, turquoise, agate,

34 Hansen, "Lagash", RLA 6, p.426.

35 Idem.

36 Idem.

37 Hansen, "Lagash", RLA 6, p.427.

copper, gypsum, flint, mother of pearl, and shell. It is unclear whether this was a regular ritual practice at this time but foundation boxes of Urnammu (2112-2095) from the Ekur at Nippur contained similar objects, as well as a similar foundation deposit dating to the Akkadian period recently excavated at Tell Brak in northern Syria.^{38/} The sacred foundations and structures above it in area B were dated Isin-Larsa - Old Babylonian by the excavators on the basis of brick size and shape.^{39/} The level below was dated to the reign of Gudea by bricks inscribed with that ruler's name.^{40/} Unfortunately, most of this level had been destroyed in the re-building of the later period, and it is the lower levels of this area which had the most important remains.

It was here that the Bagara of Ningirsu was uncovered in the third and fourth seasons. Level II of one building in this precinct yielded a dagger bearing an inscription of Eannatum, ruler of Lagash, who dedicated it to the god Ningirsu thus providing an identification and chronological framework for the

³⁸ Joan Oates, lecture presented at the Metropolitan Museum of Art, New York, September 27, 1988.

³⁹ Hansen, "Lagash", RLA 6, p.428.

⁴⁰ Hansen, Sumer 34 (1978), p.82.

building.^{41/} This building had several ovens, kilns, and drains, and fish bones were found strewn on the floor of one room, but no identifiable cella existed. This led the excavators to suggest that it was a fore-runner of the "Kitchen Temple", a part of the temple complex which supplied the god's needs.^{42/}

Another building excavated in the Bagara precinct, immediately to the east of the "Kitchen Temple", also seems to have been dedicated to the god's needs. Here were found huge vats, ovens, and storage tanks. One oven was constructed like a large corbelled vault measuring ca.5 meters. An inscription of Eannatum on a votive grinding stone was found in the fill of the earliest excavated Early Dynastic level of this building.^{43/} Another inscription of Eannatum on a stone vase recovered from the courtyard of the same level, records the construction of the Ningirsu Temple by Eannatum thus dating the building to the reign of that king.^{44/} A tablet found here referred to the brewer and the brewery, "é-bappir"; on the basis of this tablet and the many vats and fireplaces the excavators

⁴¹ V. E. Crawford, "Lagash", Iraq XXXVI (1974), pp.32 ff.

⁴² Idem.

⁴³ Hansen, Sumer 34 (1978), p.82; Crawford, JCS 29 (1977), pp.189 ff.

⁴⁴ Idem.

concluded that this was probably the god's brewery that supplied his beer.^{45/} These were the earliest remains excavated in this area, although part of a stela of Urnanshe, grandfather of Eannatum, was recovered in the level dated to Eannatum and unexcavated remains, underlying this level may date back to this former king's reign.

In area A, on the south-west edge of the mound, another Lagash temple known from Sumerian literary sources was found, the Ibgal of Inanna in the Eanna. This temple was situated in a precinct defined by walls over 4 meters thick creating a Temple Oval. Temple Ovals are known also at Khafajeh and Al 'Ubaid, but the Al Hiba oval differs from these in that the temple is free standing.^{46/}

Level I comprised the foundation system of this Temple Oval, unusual in that it was constructed in two distinct parts. First, the earlier level II was cleared, its floors were removed and rooms filled with packed earth and clay. Upon this sub-foundation, and divided by a layer of sand, an upper level of mud-brick was laid. This upper foundation also had very small room-like areas which had been filled with mud and sand

⁴⁵ Hansen, Sumer 34 (1978), p.83; Crawford, JCS 29 (1977) pp.189 ff.

⁴⁶ Hansen, "Lagash", RLA 6, pp.424-425.

before being capped with bricks. These areas may possibly reflect the room distribution which had been above the foundation level.^{47/}

When removing Level I here, fourteen foundation deposits were found; ten of these consisted of copper figurines of the god Shulutula and inscribed stones, and four others contained only inscribed stones. All the copper figurines were placed facing east and had the stones placed behind their heads. The figurines bore identical inscriptions identifying the building as the Ibgal of Inanna, dedicated by Enannatum I of Lagash (ca.2425).^{48/}

The earliest levels of the oval, Levels II and III, were mostly destroyed by re-buildings but they appear to have been similar to Enannatum's oval, though smaller versions of it. A sounding was also made in this area that revealed Early Dynastic I remains in its lowest level, at the water table.^{49/}

Area G was briefly investigated during the third and fourth seasons. The pottery finds excavated here showed that the upper strata of the area date to the Early Dynastic I period. In fact, during the fourth season a sounding was made which revealed seven meters

47 Idem.

48 Ibid., p.425.

49 Hansen, Sumer 34 (1978), pp.73 ff.

of E.D. I remains before the water level was reached, showing that the Early Dynastic I period was relatively long at Al Hiba.^{50/}

An extensive building covering ca. 1000 m. square was excavated in the second season at the central part of Tell Al Hiba in area C [N00-200 E100-300]. This structure was dated to the E.D. III B period by epigraphic finds. The study of this building and the remains found within will be the subject of this dissertation. However, certain problems presented by the state of Early Dynastic scholarship must first be clarified.

Firstly, there is extreme confusion of terminology prevailing among various scholars and disciplines. The periodisation of the third millennium B.C. before 2350 was established by the Chicago School and is now utilised by English speaking archaeologists and art historians. It uses the term "Early Dynastic" to refer to the 650 years before Sargon of Akkad (2334-2279), a revolutionary figure in Ancient Near Eastern history, although his effects on the material culture may have been less immediate and clear cut. This era is assigned the terms E.D. I, E.D. II. and E.D. III A and B, and dated 2900-2750, 2750-2500, 2500-2350.

Although this periodisation has no historical or

⁵⁰ Hansen, "Lagash", RLA 6, p.426.

philological relevance, it is used sometimes by scholars of those disciplines. Art historical periodisations maintained by German and French scholars not only differ in terminology, but also use chronological sub-divisions different from those of the Chicago School. Moreover, the various disciplines make use of similar terms that do not always refer to the same time period. The last part of the Early Dynastic period is especially confusing as several terms have been fit into this final phase before Sargon of Akkad including: E.D. IIIB 51/, Proto-Imperial 52/, Pre-Sargonic 53/, Ur I Zeit 54/, and the French, La fin du temp présargonique. 55/

Secondly, the contemporary Mesopotamian sites available for comparison with Al Hiba were, for the most part, excavated at a time when insufficient techniques produced unreliable results which were afterwards badly published. Thus, pointing out E.D.

51 Frankfort, OIC XX (1936), pp.35-39.

52 Jacobsen, AS 11 (1939), table II.

53 Cf. Cooper, SARI I, Delougaz et.al., Pre-Sargonic Temples for example. The variation Sargonic/Sargonid is purely arbitrary.

54 A. Moortgat, Vorderasiatische Rollsiegel: Ein Beitrag zur Geschichte der Steinschneidekunst, Berlin, 1940.

55 P. Amiet, La Glyptique Mésopotamienne, Paris, 1961.

IIIB remains accurately at these sites is virtually impossible.

Thirdly, the validity of the Early Dynastic periodisation itself is dubious. From 1930-1938 the Iraq Expedition of the Oriental Institute of the University of Chicago excavated the Diyala region, and established the tri-partite division of the Early Dynastic period.^{56/} The validity of the periodisation, based on architectural changes, was questioned by the excavators themselves even for sites within the Diyala region proper, as it later became clear that changes in sculpture, glyptic, and pottery could not always be made to fit into these divisions.^{57/} Nonetheless, the pottery of this region, published in 1952, was presented chronologically, according to Frankfort's periodisation which by then was considered well established and was generally accepted.^{58/} This publication has the benefit of being, to this day, the most thoroughly published pottery sequence available, a fact which has led archaeologists to use it in

⁵⁶ Henri Frankfort, OIC XX, pp.35-39; P. Delougaz et.al., Pre-Sargonid Temples, pp.123-124;157-159.

⁵⁷ Henri Frankfort, More Sculpture from the Diyala Region OIP LX, Chicago, University of Chicago Press, 1943, p.5; Stratified Cylinder Seals from the Diyala Region OIP LXXI, Chicago, University of Chicago Press, 1955, p.4.

⁵⁸ P.Delougaz, Pottery, p.29, n.17.

establishing the dating of sequences at other sites. However, the disadvantages of using this pottery sequence, from a peripheral area of Sumer, as a paradigm for the rest of Mesopotamia has been pointed out by several scholars.^{59/}

A specific problem in the Early Dynastic sequence is that of the changes in the last E.D. period, E.D. III. Although the framework for the division of the Early Dynastic period originated in the Diyala, Delougaz does not divide the pottery into EDIIIA and EDIIIB in his discussions.^{60/} However, he does refer to certain features as distinctive of early and late EDIII, and includes a Proto-Imperial phase as a transition to the Akkadian period. The main focus of his discussion is on upright handled jars and stemmed dishes (fruitstands). In the first type ring bases and necks as well as handles become taller in proportion to bodies, and horizontal ledge rims become more common during the latter part of EDIII.^{61/} However, no

59 A. Perkins, review of P. Delougaz, Pottery, in JAOS 73 (1953), p.49.; P.R.S. Moorey, "A Reconsideration of the Excavations on Tell Ingharra (East Kish) 1923-33", Iraq XXVIII (1966), pp.39-41; M. Mallowan, review of Delougaz et.al., Private Houses in JNES 28 (1969), pp.201-202; Mc. Gibson, "The Archaeological Uses of Cuneiform Documents", Iraq XXXIV (1972), p.115, n.6; J.Moon, "Some New Early Dynastic Pottery From Abu Salabikh", Iraq XLIII (1981), p.47.

60 Delougaz, Pottery, p.87.

61 Idem.

significant difference occurs in the second type, stemmed dishes, between early and late E.D. III.^{62/} A second criterion used to distinguish between early and late E.D. III pottery is the introduction or disappearance of certain types. Furthermore, spouted jars become gradually less common and almost disappear at the end of the period.^{63/} A few examples of open braziers, ribbed ware and studded ware appear at the end of EDIII but are considered Proto-Imperial types.^{64/}

Delougaz's emphasis on upright handled jars and stemmed dishes as chronological indicators for the EDIII period has been taken up at other sites and primarily in the reassessment of the Kish material. The A cemetery produced a large portion of both these types and all studies of Kish pottery, or comparisons with Kish pottery, have centered on these. E. Whelan and later J. Moon have pointed out, however, that these types, which are often considered indicative of EDIII, could be regional phenomena, their frequency depending on geographic rather than chronological constraints.^{65/}

62 Delougaz, Pottery, pp.90-1.

63 Delougaz, Pottery, pp.80-1.

64 Delougaz, Pottery, pp.101-2.

65 Whelan, JFA 5 (1978) pp.79-96, Moon, Iraq XLIV (1982) pp.36-69.

Although Delougaz only distinguishes between early and late E.D. III pottery, never using the designations of E.D. IIIA or E.D. IIIB, later scholars referred to specific Diyala pot types by these terms. E.D. IIIB is generally taken to refer to a period of about 150 years preceding Sargon of Akkad, a time span beginning with Eannatum of Lagash. Although much epigraphical evidence is available for this period, archaeological remains are rare, and this has caused some skepticism about its validity as an archaeological sub-division.

The expedition of the Oriental Institute, University of Chicago to the Diyala region concentrated on three mounds that produced Early Dynastic remains, these were Tell Agrab, Tell Asmar, and Khafajeh. Of these three mounds only two temple levels at Khafajeh were designated E.D. IIIB, Temple Oval III and a small single shrine cella in S44. The latest building of the Shara temple at Tell Agrab, and the Single Shrine I at Tell Asmar were considered to span the entirety of the E.D. III without any notable change between E.D. IIIA and E.D. IIIB. At Khafajeh, houses level 1 and 2 were considered partly E.D. IIIB, but again no clear cut change could be seen between IIIA and IIIB. Thus it is only Temple Oval III and the cella in S44 at Khafajeh that are stratigraphically associated with this period. The small cella was dated on the basis of pottery

styles which appeared to be "of types somewhat later" than than other E.D. III pottery.^{66/} Only a few fragmentary remains at the eastern and western ends of the enclosure wall constituted Temple Oval III. ^{67/} These remains consisted of a portion of enclosure wall and a gateway entrance. No traces of the temple or platform remained.^{68/} Nevertheless, a small collection of finds is associated with Temple Oval III, including some pottery vessels. ^{69/} The E.D. IIIB dating of Temple Oval III is based on the fact that it was the last in a series of plano-convex brick structures. This dating is strengthened by the recovery of an inscribed mace head in this level, which was dated to Eannatum's reign by Thorkild Jacobsen for philological reasons.^{70/} Another reason for the E.D. IIIB dating of Temple Oval III is its similarity to another such structure uncovered at Al 'Ubaid, a small tell near Ur.^{71/}

Tell Al 'Ubaid was first investigated by H.R. Hall

66 Delougaz et.al., Pre-Sargonic Temples, p.113.

67 Delougaz et.al., Pre-Sargonic Temples, pp.96 ff.

68 Idem.

69 Delougaz et.al., Pre-Sargonic Temples, pp.162 ff.

70 Delougaz et.al., Pre-sargonic Temples, p.148.

71 H.R. Hall & C.L. Woolley, Ur Excavations I: Al 'Ubaid, Oxford University Press, 1927.

in 1919 and later in 1922-1923 under Sir Leonard Woolley, as a side excavation of the joint expedition of the British Museum and the Museum of the University of Pennsylvania to Ur. A platform with a baked brick revetment, approached by a flight of steps was excavated. Among the rich finds associated with this platform a marble foundation inscription was found which was considered to identify and date the structure. This inscription read, "A'anepada, King of Ur, son of Mesanepada King of Ur, has built this for his lady Ninkhursag".^{72/} A duplicate of this inscription was later found (after cleaning) on the flank of a copper bull, excavated in the earlier season, and taken to the British Museum.^{73/} The 'Ubaid platform was sealed by a series of terraces, perhaps of Ur III date, thus no remains of the actual temple structure were found. ^{74/} In 1937 further investigations were made by P. Delougaz at al 'Ubaid. Delougaz then confirmed that the 'Ubaid platform was

⁷² C.L. Woolley, Ur of The Chaldees revised by P.R.S. Moorey, London, 1982, p.106. Although found near the south corner of the ramp of the main stairs, "well above the floor level", Hall and Woolley, UE I, p.80, this inscription was generally thought to belong to the temple platform.

⁷³ C.L. Woolley, Ur of the Chaldees, revised by P.R.S. Moorey, London, 1982, p.106.

⁷⁴ Leonard Woolley, Ur of The Chaldees, 1982, p.109.

enclosed in an Oval perimeter wall much like the one at Khafajeh.^{75/} Ceramic remains associated with the 'Ubaid Temple of Ninkhursag are minimal. A total of six pottery vessels were published. ^{76/}

Non-religious architecture in the Diyala region shows even less of a break between E.D. IIIA and E.D. IIIB. At Khafajeh, houses 1 and part of houses 2 adjacent to the Temple Oval, were considered E.D. IIIB although no break divided E.D. IIIA and B stratigraphically.^{77/} At Tell Asmar, houses Vb and Vc, the Earlier Northern Palace and three houses associated with it all span the E.D. III period without a break between IIIA and IIIB. Thus, at the sites of the Diyala excavations E.D. IIIB as a date was only used for the small single shrine cella and Temple Oval III at Khafajeh. Tell Asmar's Early Northern Palace, houses 1, 2, and 3 at Khafajeh and houses Vb and Vc at Tell Asmar were given a general E.D. III date. Such a general date was also given to the latest Shara Temple at Tell Agrab and Abu Temple: single shrine I at Khafajeh. The Sin and Nintu temples at Khafajeh were abandoned sometime

⁷⁵ P. Delougaz, "A Short Investigation of The Temple at Al 'Ubaid", Iraq V (1938), pp.1 ff.

⁷⁶ H.R. Hall & C.L. Woolley, Ur Excavations I: Al 'Ubaid, Oxford 1927, pl.XII, pp.41 ff.

⁷⁷ Delougaz et.al, Private Houses, p.114; pl.14.

during the E.D. III period.^{78/}

Most recently an attempt has been made to revise the E.D. IIIB period by McGuire Gibson. Based on a stylistic reanalysis of the finds from the Diyala region, as well as indisputable epigraphical evidence, Gibson has concluded that much of what is dated E.D. IIIB (by the Diyala excavators) and all of the period following, termed Proto-Imperial in the Diyala sequence, must be early Akkadian.^{79/} He argued that this would better fit the picture presented by such sequences as those of the Inanna Temple in Nippur and of Tell Abu Salabikh, where E.D. IIIB material is scarce. While this is indeed the case, its absence at the Inanna Temple is due to later rebuildings destroying these levels, and at Abu Salabikh the levels from which the E.D. IIIB graves were dug, have been eroded.^{80/}

It is thus necessary to study material from the entire late Early Dynastic period, without limitation to E.D. IIIB, in the comparative study. Late Early Dynastic remains were produced by several sites which

⁷⁸ Delougaz et.al, Pre-Sargonid Temples, table at end.

⁷⁹ Mc. Gibson, AJA 86 (1982), p.538.

⁸⁰ Hansen, COWA 1965, p.209; Hansen, Chronologies, forthcoming; J.N. Postgate et.al., ASE II, p.9.

we shall consider, including Telloh, Fara, Kish, Ur, Nippur, Tell al Wilaya, and Abu Salabikh, as well as the Diyala sites and Tell Al 'Ubaid. The usefulness of the material is, however, of varying degree, and all the sites considered present unique problems.

Telloh, ancient Girsu, excavated by the French at the turn of the century, is in the state of Lagash itself, and would present an ideal assemblage to compare to Al Hiba. 81/ Like most sites excavated at that time, however, the excavation methods neglected stratigraphy. De Genouillac, the director of excavations, classified all Sargonic and Pre-Sargonic pottery together under a "Semitic grouping" and did not record findspots. 82/ This site is thus useless for comparison.

Fara, ancient Shurruk, a central Sumerian city on the Euphrates, was excavated by the Deutsche Orient Gesellschaft in 1902 and again by the University of Pennsylvania in 1931. The results of these excavations have been reanalysed by Harriet Martin, who concludes that occupation ceased, or was interrupted, in E.D.

81 De Genouillac, Telloh I; Telloh II.

82 De Genouillac, Telloh I, pp.72-76. A later attempt was made by Parrot to distinguish stylistically between the Pre-Sargonic and Sargonic pottery, cf. Parrot, Telloh, pp.121 ff.

IIIA.83/ However, here too stratification is lacking for the pottery finds. The Deutsche Orient Gesellschaft spent seven months at Fara where they dug a series of trenches. A total of 855 rectangular pits were dug into these trenches, each approximately 3x8 meters, and went down about two meters in depth .84/ Findspots were recorded according to depth within each pit. Some of the finds from this excavation were taken to the Staatliche Museen in Berlin where some pottery was lost after being stored in the basement in World War II. 85/ The remainder of the finds went to Istanbul and these are difficult to place in archaeological context as they have no field numbers. 86/

The University of Pennsylvania's expedition, under the directorship of of Erich Schmidt, excavated at four points of the mound, at plan co-ordinates DE, HI, FG, and FI 87/. A one hundred meter square grid was

83 Martin, Fara: An Archaeological Study of a Third Millennium City, Its Internal Development and External Relations, Oriental Institute, University of Chicago Ph.D. dissertation, 1972 recently published as Fara: A Reconstruction of The Ancient Mesopotamian City of Shurruk, Birmingham, 1988.

84 Martin, Fara, p.21, Fara, 1988, p.16.

85 Martin, Fara, p.36.

86 Ibid., p.37.

87 E. Schmidt, "Excavations at Fara, 1931" University of Pennsylvania Museum Journal XXII (1931), pp.193-245.

superimposed on the German excavations. In addition, two pits were dug, Pit I and Pit II 88/. Objects were recorded with measurements from below the surface, but it is uncertain if there was a fixed point used for these measurements.89/ Martin's attempt to elucidate the results of the early excavations is without doubt successful, but no reassessment can speculate as to what amount or type of pottery was discarded or lost and what was thought worth keeping or recording. Therefore the comparison made here with the Fara pottery cannot be considered exhaustive.

The site of Kish, farther to the north of Sumer, was first "excavated" by C.J. Rich in 1811, who was followed by several other early explorer-archaeologists.90/ The Oxford-Field Museum Expedition began its work in 1923 and excavated for eleven seasons until 1933.91/ These excavations uncovered the A Cemetery and the palace below it on mound A, and the Plano-Convex Building in area P all belonging to the late Early Dynastic period, and termed "Pre-Sargonid" by the excavators. The Plano-Convex Building in area P was excavated in 1923 by Lt. Col. W.H. Lane, but was

88 Martin, Fara, p.32, Fara, 1988, p.17.

89 Martin, Fara, p.33, Fara, 1988, p.18.

90 Moorey, Kish, p.1.

91 Ibid., p.15.

not fully published until a reassessment by P.R.S. Moorey in 1964.^{92/} The excavators believed the Plano-Convex Building to be earlier than the A palace on the basis of jars with pointed bases found beneath the pavements of the rooms of the Plano-Convex Building.^{93/} Other than this type of vessel there is little recorded of the finds.

The A palace on mound A at Kish and the cemetery overlying this palace were better excavated and published than the Plano-Convex Building but their dating remains problematic. The palace has been dated as early as E.D. II for the following reasons. The schist plaques with shell and limestone inlays that decorated the walls of the palace were dated E.D. II on stylistic grounds by Edith Porada.^{94/} A cylinder seal discovered above the footing of one of the palace chambers was of a type known as "Fara Style" and generally attributed to E.D. II. However, a cuneiform tablet of "Fara" type, dated E.D. IIIA for epigraphic reasons, was found built into a platform of palace A,

⁹² P.R.S. Moorey, "The Plano-Convex Building at Kish and Early Mesopotamian Palaces", Iraq XXVI (1964), pp.83-98; Kish, pp.34 ff.

⁹³ Moorey, Kish, p.41; cf. Mackay, AM I, pl.XXXVII 4-6 for these vessels.

⁹⁴ Porada, COWA, 1965, p.161.

in chamber 31. 95/

The cemetery consisted of 154 graves overlying the palace. 150 of these graves were dated to the Early Dynastic period on the basis of objects and pottery finds. 96/ A small group of graves in the nearby mound of Ingharra were considered contemporary with the A cemetery by the excavators. 97/ What little pottery came from the palace, as well as the pottery from the cemetery, was published, along with other selected finds from mound A, in two parts by the field director, Ernest Mackay, who classified the pottery in a generalised manner, placing a large variety of shapes into the same category.

Further research has attempted to rectify the dating of the A palace and cemetery. Hrouda and Kastens attempted to classify the pottery and finds from the A Cemetery, based on a seriation.98/ The sequence that they established was based on internal evidence, and from it they concluded that the cemetery began in early E.D. IIIA and the palace in E.D. II. The validity of

95 Moorey, Kish, p.57.

96 Ibid., p.64.

97 Mackay, AM I, p.140; Watelin, Kish Excavations IV, pp.49 ff.; Moorey, Kish, p.70.

98 B. Hrouda & K. Kastens, "Zur inneren Chronologie des Friedhofes A in Ingharra/ ChursagKalama bei Kish", ZA 24 (1967), pp.265-267.

their methodology and the conclusions it produced have been questioned by P.R.S. Moorey^{99/} and E. Whelan.^{100/} Whelan's^{101/} supported the early dating, but Jane Moon has refuted her methodology and supported Moorey's dating of the A Cemetery.^{102/} Moorey's opinion, based on a reanalysis of the Kish field records and objects, led him to conclude that the palace belonged to E.D. IIIA and the cemetery to E.D. IIIB, possibly lasting into the early Akkadian period.^{103/} His late dating seems to be the one most accepted by scholars currently, and McGuire Gibson has taken this one step further by identifying certain graves at Kish as Akkadian.^{103/}

The city of Ur lies to the southwest of Lagash and it was here that the Royal Cemetery was uncovered by Sir Leonard Woolley.^{104/} Although this site was rather better excavated and published than its contemporaries, Woolley's classification of the pottery was superficial. The published types were highly

99 Moorey, Kish, pp.66-75.

100 E. Whelan, "Dating the A Cemetery at Kish: A Reconsideration" JFA 5 (1978), pp.85-86.

101 Moon, Iraq XLIV (1982), p.45.

102 Moorey, Iraq XXVIII (1966), p.44; Kish, pp.61ff.

103 Gibson, City and Area, pp.79ff.

104 C.L. Woolley, Ur Excavations II: The Royal Cemetery, London and Philadelphia, 1934.

generalised and selective and thus cannot be relied on without actual examination of the remains in museums. Woolley's dating of the cemetery into three parts, pre-Dynastic, Second Dynasty and Sargonid, was based on sequences of graves that were superimposed and thus follow one after the other chronologically.^{105/} Among the finds of the royal graves are the seals of Meskalamdug and Akalamdug. These are considered stylistically earlier than the royal seals of Mesanepada and his wife Ninbanda recovered from the rubbish strata overlying the Royal Cemetery.^{106/} Mesanepada, who is known from the Sumerian King List to belong to the First Dynasty of Ur (E.D. IIIB in the Chicago school terminology) had a sealing style close to that of Eannatum of Lagash.^{107/}

Hans Nissen's reassessment of Woolley's chronology was also based on the stratigraphy of the graves and differed from Woolley's assessment basically in recognising a continuity in the pottery between the

¹⁰⁵ Ibid., pp.20-32.

¹⁰⁶ Porada, COWA 1965, pp.162-163; Boehmer, Die Entwicklung, pp.271 ff.

¹⁰⁷ Hansen, "The Fantastic World of Sumerian Art: Seal Impressions from Ancient Lagash" in Anne E. Farkas, Prudence O. Harper and Evelyn B. Harrison eds., Monsters and Demons in the Ancient and Medieval World, Papers Presented in Honor of Edith Porada, Mainz: Phillip Von Zabern, 1986, p.59

phases.^{108/} Most recently Susan Pollock has attempted a re-evaluation of the Royal Cemetery chronology based on a ceramic seriation using a statistical technique known as nonmetric multidimensional scaling. The result was a division of the cemetery into six parts which she dates E.D. IIIA to post-Akkadian.^{109/}

All three evaluations of the Ur pottery, Woolley's, Nissen's and Pollock's, are concerned with statistical distribution of selected pottery types. The comments about the actual pots have been very limited and selective. Woolley himself pointed out only types with characteristics which he thought unusual or worthy of comment.^{110/} Moon's publication of stemmed dishes from Ur, although limited to this type, is the first such complete typological discussion of any Ur pottery.^{111/} Her study gives some idea of the generalisation of types illustrated by Woolley [U.E. II, Pl. 266, 242, 243] when compared to the elaborately decorated forms that the Royal Cemetery produced.^{112/}

The next site which must be considered is that of Tell Abu Salabikh, somewhat southwest of Kish, in

108 Nissen, Königsfriedhofes, pp.69-76.

109 Pollock, Iraq XLVII (1985), p.139.

110 Woolley, U.E. II, pp.387-391.

111 Moon, Iraq XLIV (1982), p.57.

112 Ibid., p.56.

central Sumer. The first two seasons of fieldwork by the Oriental Institute of the University of Chicago in 1963 and 1965 uncovered a large administrative complex. This was soundly dated to E.D. IIIA on the basis of Fara type texts.^{113/} In 1975 work was resumed, this time by the British School of Archaeology in Iraq, and preliminary reports immediately followed.^{114/} Much of the pottery from the graves has been published, as well as some pottery from non-burial context.^{115/}

The Abu Salabikh publications are the most recent study of Early Dynastic Mesopotamian pottery. The majority of the pottery from Abu Salabikh comes from graves and dates to the E.D. IIIA period. A group of graves in room 39 of the area E building were associated stratigraphically with a cuneiform tablet of

113 Biggs, Inscriptions from Abu Salabikh (OIP XCIX), Chicago 1974, p. 26. The building: D.P. Hansen, "The Structural Remains."

114 R.J. Matthews, J.N. Postgate and E.J. Luby, "Excavations at Abu Salabikh, 1985-86", Iraq XLIX (1987), pp.91-120; J.N. Postgate, "Excavations at Abu Salabikh, 1976", Iraq XXXIX (1977), pp.269-299; "Excavations at Abu Salabikh, 1977", Iraq XL (1978), pp.77-86; "Excavations at Abu Salabikh, 1978-79", Iraq XLIII (1980), pp.87-104; "Excavations at Abu Salabikh, 1983", Iraq XLVI (1984), pp.95-113; J.N. Postgate and J.A. Moon, "Excavations at Abu Salabikh, 1981", Iraq XLIV (1982), pp.103-136; J.N. Postgate and P.R.S. Moorey, "Excavations at Abu Salabikh, 1975", Iraq, XXXVIII (1976), pp.133-169.

115 Postgate et.al., ASE II; Moon, ASE III.

Fara type, thus justifying the dating of the pottery.^{116/} In the first Abu Salabikh publication devoted to the material from the graves the pottery is presented by locus as opposed to type. Thus graves 1-99 are each presented as a collection of finds.^{117/} The most recent Abu Salabikh publication is a catalogue of the Early Dynastic pottery compiled by Jane Moon.^{118/} Here all whole or almost whole pots are presented by type. These types, grouped primarily on the basis of shape similarities, make up a total of twenty six categories. Information on sherd material is not considered, nor is the frequency of occurrence of specific shapes. Moon has tried to mention "every whole pot found up to the end of the 1983 season".^{119/} This however, does not apply to conical bowls because they were too numerous to be all published. A representative selection of this category (a total of 96 vessels) is given. However, as with the other pottery, the frequency in which a specific conical bowl shape occurs is not recorded.

The sorting of pottery into categories is always a subjective exercise, thus Moon's categorisations differ

116 Postgate et.al., ASE II, p.5.

117 Postgate et.al., ASE II.

118 Moon, ASE III.

119 Ibid., p.1.

somewhat from the Al Hiba typology presented here in chapter III. For example, Moon does not distinguish between conical bowls and conical cups as we have done here. However, she does categorise solid footed goblets separately, a type that we have included with conical cups

[pl.III]. 120/ Moon's category, "Large bowls" includes what we have divided into vats and basins. Moon divides most jars according to form of base, thus both our categories of long necked jars and globular pots would fit into Abu Salabikh's "round bases". Ring based jars at Al Hiba do not form a category as they do at Abu Salabikh. This is mainly due to their relative scarcity at the former site. Other categories of Abu Salabikh pottery are similar to the Al Hiba typology. For example, stemmed dishes (our fruitstands), stands, and bottles. A number of Abu Salabikh categories have no parallel at all in this Al Hiba typology. These types include jars with four rim tabs, spouted jars, single handled jars, moulded bowls, burnished bowls, and stone imitations. Some of the categories cannot be paralleled at Al Hiba because they are of an earlier date. Burnished bowls and jars with four rim tabs, for

120 The distinction between conical bowls and cups is made by Delougaz, Pottery.

instance, are E.D. I. 121/ Absence of other types however, may be due to regional variations.

Most of the terms used to describe the pottery shapes in this Al Hiba typology are similar to the terms utilised by Moon. Exceptions are:

Al Hiba 122/	Abu Salabikh
pedestal base	footed jar
conical cups	tall conical bowls
fruitstands	stemmed dishes
basins & vats	large bowls
plant temper	vegetable temper

Some of the pottery published by Jane Moon is dated to the E.D. III B period on the basis of findspot or for stylistic reasons.^{123/} However, there is not an assemblage which is specifically distinguished as E.D. III B.

Early Dynastic pottery was retrieved from the Innana Temple sequence at Nippur. However, little of this belongs to the later E.D. period as those levels seem to have been destroyed by later rebuildings of the temple.^{124/} A small amount of pottery belonging to the

121 Moon, ASE III, p.34; p.69.

122 The descriptive terms utilised in the Al Hiba study basically follow those of Delougaz, Pottery.

123 Moon, ASE III, p.1.

124 Hansen, COWA 1966, p.209

end of the Early Dynastic period comes from a secular building excavated at Tell al Wilaya and this will be taken into account although the amount is very limited.^{125/} The Al Hiba pottery can also, at times, be paralleled at contemporary Iranian sites such as Susa and Godin Tepe. Comparisons with these sites are made when appropriate.

Despite the fact that all of the sites which are compared here produced a certain amount of material dated to EDIII B, there is not any assemblage which represents EDIII B as a period. The Al Hiba pottery is securely dated to E.D. III B by the inscriptional evidence, and represents thus a chronologically unique assemblage. When comparing pottery from different sites several additional problems arise. The presence or absence of types may not be solely due to chronological factors, but also to regional preferences. Thus the upright handled jars and stemmed dishes used as indicators of E.D. III by Delougaz seem more regional than temporal phenomena, as Whelan and Moon have pointed out.^{126/} Furthermore, the function and the nature of the locus have to be taken into account. A preliminary analysis of pottery from other areas at Tell Al Hiba of contemporary date shows much similarity

¹²⁵ Madhloom, Sumer, 16 (1960), pp.62-92.

¹²⁶ Whelan, JFA 5 (1978); Moon, Iraq XLIV (1982).

to the area C material. However, the other areas also had conspicuous differences. Such differences cannot be regarded as temporal or regional and are thus probably due to the nature of the findspot. A large portion of the material from other sites used for comparison comes from burial contexts. It is not clear, at this point, to what degree burial context can dictate shapes of pottery, but one must bear in mind the possibility of such a handicap in this comparative study.

Chapter II

The Area C Building

Area C is a very flat zone in the east-central part of the mound located at grid coordinates N00-200 E100-300 [pl.LXXVII]. The expedition was first attracted to this area by walls of baked plano-convex bricks that were visible on the surface. Work in the area took place during the second season between October 7, 1970 and January 8, 1971. A 1000 square meter area was excavated in ten meter squares revealing an extensive building, measuring 45 x 60 meters in its preserved state [pl.LXXIX; pl.LXXX].¹ Certain rooms, or groups of rooms, appeared to be later additions to the main core of the ground plan; therefore, this building was not originally planned as a complete structure, but grew in time according to needs. This expansion is perhaps reflected by the occurrence in this building of as many unbonded as bonded walls.

Two levels were excavated, level IA and level IB and the agglutinative plan of the earlier level IB was copied in most parts of the later level IA building. This adherence to the earlier groundplan seems curious in light of the haphazard room arrangement of the

¹ A preliminary report on the area C building by D.P. Hansen appeared in Artibus Asiae 35 (1973) pp.67 ff. The information presented in this chapter is based primarily on the field notes, unless otherwise stated.

earlier level. No coherent organisation of areas can be perceived in the level IB building. The architects had not arranged rooms around courtyard areas, or along corridors in order to facilitate access to rooms. In fact, the circulation within the building was extremely impracticable as the only means of passage were through successions of rooms.

In addition to this haphazard arrangement of the rooms their small size, ranging between 1.60 x 2.20 meters and 4 x 8 meters, was unusual. Such an impracticable groundplan precludes the possibility of identifying the building as a group of independent residential units. There is no indication in the architectural plan or from the finds within, that this building can be associated with a temple, nor do such an irregular groundplan and small rooms resemble any known Mesopotamian palaces. In the preliminary report, a tentative suggestion was made by the excavators that the architectural remains in area C belonged to an administrative building.^{2/} This identification was primarily based on two groups of finds from within this building, a number of cuneiform texts and over 150 clay sealings, artifacts generally associated with administrative processes.

The dating of the two levels of the area C

² Hansen, Artibus Asiae 35 (1973), p.68.

building was based on the inscriptional evidence of the cuneiform documents.^{3/} Nine inscriptions bore royal names of members of the Lagash dynasty. A sealing of Eannatum was found in the level IB fill of room 89.^{4/} Enannatum I, his brother and successor, was represented by two tablets from the fill in level IB, one of which mentioned his son, Lummatur.^{5/} The second tablet, from the IB fill of room 4, records the battle between Enannatum I and Urlumma of Umma.^{6/} This inscription also bears the name of Enmetena, the son and successor of Enannatum I. A sherd from a burnished ware pot found in the IA fill of room 12 also bore a royal inscription of either Eannatum or Enannatum I. ^{7/} The entire name of the ruler cannot be reconstructed because the first sign of the name is missing. A cone of Enannatum's administrative official, Shuni-aldugud, came from the level IA fill just east of room 54.^{8/} A duplicate of

3 The inscriptions from area C were published by R.D. Biggs, Inscriptions from al Hiba-Lagash. The First and Second Seasons (Bi.Mes 3), Malibu, 1976.

4 Hansen, Artibus Asiae 35 (1973), fig.19. Biggs, Bi.Mes. 3, no.53, 2H 381.

5 Biggs, Bi.Mes. 3, no.10, 2H-T 12. This text also mentions the name of Enannatum I's official, Shuni-aldugud.

6 Ibid., no.3, 2H-T 21.

7 Ibid., no.52, 2H-T 63.

8 Ibid., no.56, 2H-T 14.

this inscription came from a cut in level IA, 9/ and two more duplicates were recovered from the surface finds of the area. 10/ A cone of Enmetena came from a cut in level IA in room 55.11/

On the basis of these inscripational finds the level IB building can be securely dated to the reigns of Eannatum, Enannatum I, and Enmetena. Although the royal inscriptions came from a fill context and not from the actual floor level they can still be relied on for dating criteria as the fill must be earlier than the level IA floor built above it. Therefore we can, with some certainty, attribute at least part of the level IB building to the reigns of the above mentioned rulers.

There does not seem to be a period of abandonment between the level IB building and the rebuilding of level IA. The second building appears to have followed the first almost immediately. This is reflected in the

9 Ibid., no.2, 2H-T 28.

10 Ibid., no.61, 2H-T 30 and no.55, 2H-T 13. The latter had Lummatu as the name of the donor. A duplicate of this text, although with the name of the donor missing, was found in area C during the surface survey of the mound in 1984. V. Jeremy A. Black, "Inscribed Objects from Lagash, Al-Hiba and Girsu" in E. Carter, "A Surface Survey of Lagash, Al-Hiba, 1984" forthcoming in Sumer. Four more inscriptions of this type were found in other areas of the mound's surface: Biggs, Bi.Mes. 3, no.4, 1H 88; no.5, 1H 3; no.43, 1H 49; no.54, 2H-T 11.

11 Biggs, Bi.Mes. 3, no.59, 2H-T 19.

architecture by the utilisation of the wall stubs of the level IB building in the construction of the level IA walls in many of the rooms. The IB wall stubs had, in most cases, a layer of reed matting placed upon them before the construction of the IA walls above. The proximity in time between the two levels is also suggested by the similarity of the small finds and the ceramic corpus in the two levels. Four examples of the re-use of the same seal in the two different levels is also an indication of continuity, as well as the occurrence of related texts in the two levels.^{12/} Both levels IA and IB can be assigned to the reigns of the Lagash rulers that belong to the archaeological period, Early Dynastic IIIB.

Construction Method

Both levels of the area C building were constructed of plano-convex, sun dried, mud bricks that were baked by the intense fire which destroyed the building. Rectangular bricks were used in both levels of the building for room furniture, such as benches, platforms, and basins, and were also used for some of the later wall repairs in level IA. All the pavings and wainscotting were made from baked, rectangular bricks. The wall surfaces were all white washed with a lime

¹² V. for example, Biggs, Bi.Mes. 3, no.28 from the IA floor of room 7/18 and no.27 from the IB fill of room 4, sealed above by the IA floor.

plaster.

Plano-convex bricks, made of alluvial mud placed in a mould, have been considered a diagnostic feature of Early Dynastic architecture. 13/ In his study of plano-convex bricks, Delougaz recorded the sizes of thousands of bricks from Early Dynastic sites. The measurements ranged between 18 x 22 x 2 cm. (at Khafajeh) and 33 x 23 x 4 cm. (at al 'Ubaid). 14/ The range of recorded measurements of plano-convex bricks at Al Hiba are 24 x 16 x 6 - 21 x 15 x 7 cm. Rectangular bricks from the area C building were somewhat larger, ranging between 45 x 25 x 7 to 27 x 19 x 5 cm.

Plano-convex bricks, both baked and unbaked, were generally used with clay mortar, but bitumen could also be used in cases where waterproofing was necessary.15/ Bricks could be laid flat, with the convex side upward, or set on edge, in a herringbone pattern. The latter was the most characteristic method of laying plano-convex bricks.16/ The bricks were placed on their

13 For the methods of brick making and brick laying see P. Delougaz, "Plano-convex Bricks and the Methods of their Employment", Studies in Ancient Oriental Civilization no.7, Oriental Institute, University of Chicago, 1933.

14 Ibid., pp.3-4.

15 Ibid., p.14.

16 Ibid., p.20.

longer edges, the shorter edges forming the face of the wall.¹⁷ Rows of bricks standing on edge could alternate with rows of bricks laid flat.¹⁸ This mixture of brick-laying methods is present in the brick-work of both levels of the area C building.

Some of the doorways in both levels of the building are arched. Arches are well known from Early Dynastic, Mesopotamian architecture from vaulted tombs and drains, as well as arched doorways.¹⁹ Early Dynastic vaulted tombs are known from Khafajeh.²⁰ A vaulted sewer was found at Tell Asmar, below street level, east of the Main Northern Palace.²¹ Vaulted tombs of the late Early Dynastic period are known also at Ur, some having corbelled vaults, (PG 789, 1236) ²² and others with barrel vaulting.²³ Arched doorways are

17 Idem

18 Ibid., p.21, fig.19.

19 For a short study of Early Dynastic vaulting see M. Eaton-Francis, "Mesopotamian Building Materials and Techniques of The Early Dynastic Period", Marsyas XVI (1972-1973), pp.116 ff.

20 Delougaz et.al., Private Houses, pp.8-14; 22; pl. 59; pl.60.

21 Ibid., p.188 ff., pl.76 d; pl.78. This building was published as Proto-Imperial in date.

22 Eaton-Francis, op.cit., p.17.

23 Woolley, UE II, p.63, pp.234 ff.

known from the Arch House at Tell Asmar, 24/ and Delougaz believed that there was also an arched entrance gateway to the Temple Oval I at Khafajeh.^{25/} Thus, it is not surprising to find arched doorways at Al Hiba, in a building which is also of late Early Dynastic date.

Level IB

At the east side of the building, at N20-30 E220-230, an entrance leads into corridor locus 74 from the exterior locus 70 [pl.LXXVII]. The corridor measures one meter in width and approximately eight meters in length. This corridor, which leads to the west, is flanked by a series of rooms, rooms 71, 72, 75 to the south and rooms 73 and 35 to the north. The corridor leads directly into locus 31. No entrances from the corridor into the flanking rooms could be established. Rooms 31, 71-73 were all constructed of plano-convex bricks, laid flat, and room 35 was constructed with plano-convex bricks, some laid in flat courses, and others on edge.

To the south of room 31, at N10-20 E200-220, are

24 Delougaz et.al., Private Houses, p.157-158, 160; pl.35; pl.69. This house belongs in the Tell Asmar houses level Vb, published as E.D. IIIB.

25 Delougaz, The Temple Oval at Khafajah, OIP 53, 1940, p.68. Temple Oval I was published as E.D. II.

rooms 10 and 12 [pl.LXXXVIII]. The bottoms of the walls in both these rooms rest on a layer of reed matting. A paving of flat, rectangular, baked bricks covers the south-west part of the floor in room 12. Accesses to both these rooms are uncertain. Directly to the south of rooms 10 and 12, at N10-20 E210-220, is room 4. 26/ The room is equipped with a hearth. No traces remained of the north wall on the western side, but reed matting appeared on the eastern part of the north wall beneath the level IB. The west wall cut into an earlier wall belonging to an unexcavated level. To the north of room 4, at N10-20 E210-220, lies room 19. The walls were constructed with a mixture of some brick courses laid on edge, and some laid flat. Traces of a doorway leading to the north appear to have belonged to an arched opening [see pl. LXXXIII for a similar arched doorway].

To the south of room 4, lie rooms 26, 27, and 28 at N10-20 E210-220. Room 26 is a very small room (2.10 x 2.60 m.) with no visible doorway. Room 27 appears to have been similar in size although the northern wall is missing. Room 28 is an L shaped room or corridor which leads southward. At this room's north-east corner stood

26 This number is assigned to two adjoining rooms as they are directly below the single locus 4 in level IA.

a tanur. 27/ Locus 28 leads south to room 3 [pl.LXXXI]. The south-west, south, and east walls of this room were cut extensively. In the eastern part of the room a drain pipe leads from a baked brick platform, made of flat rectangular bricks, to a drain. A sandy fill and some mud surrounded the the drain piping. Room 9 is to the north of room 3 at N10-20 E210-220 [pl.LXXXVI]. 28/ A small brick lined hearth stood in the centre of the room. A paved threshold marks the doorway between this room and room 12.

A portion of the building's exterior at the south-west side [N0-10 E200-210] is indicated as locus 25. A buttress which is not bonded to the south wall appeared on this exterior wall. It is unclear how one gained access to the rooms in this southern part of the building, but perhaps it was through room 37, or through room 20, [N00-10 E200-210] which had a doorway in the south-west corner that was later blocked [pl.XCV]. This doorway must have once given exterior access. In the south-east corner a pile of fallen, baked bricks may have been originally a wainscotting. Several reed mat impressions were visible on the floor

27 Tanur is the Arabic for bread oven, of a type still commonly in use in Iraq.

28 The corridor between rooms 3 and 9 is referred to as part of room 3 in Level IB as this corridor is encompassed in room 3 in the later level.

of this room. A north-eastern doorway leads from room 20 into room 17 [N00-10 E200-210] [pl.XCII:2]. This doorway is lined with a baked brick threshold. The room appears to have been paved with flat, baked bricks. The southern and eastern walls of the room have flat baked bricks at the bottom acting as a wainscotting. A sunken basin, also lined with baked bricks, has a drain pipe leading towards the north into locus 16, [pl.XCI:2; XCII:1] which appears to have been part of the same room in this level. In the north-west corner of locus 16 a thickly plastered doorway leads to locus 36, possibly an open area or court.

Room 18, directly to the east of room 20 in N00-10 E210-220, is a small square room [3 x 3 m.] with a central hearth and a baked brick bench against the northern wall. The flat, rectangular bricks of this bench measured 37 x 21 x 4 cm. each. A doorway which gives access to room 14 to the north appears to have been blocked off at some time during the occupation of this level. Another square room, locus 7, is directly to the east of room 18. This room also measures 3x3 m. and has a central hearth. The room is equipped with a drain in its north-east corner. This drain was covered with a large square brick as a capping. Both rooms 18 and 7 have walls constructed solely of bricks laid in flat courses. Access to these two rooms may have been

through the southern walls as in the later level IA, but this is uncertain.

Room 6 at N0-10 E210-220 is directly to the east of room 7 [pl.LXXXV:1]. The walls of this room were constructed of plano-convex bricks laid on edge and heavily plastered, and the floor has a downward slope from south to north. A doorway with a paved threshold in the northern wall of room 6 leads into room 1. This room measures 2.65 x 3 m. and had walls constructed of a mixture of rectangular and plano-convex bricks, with some courses laid flat and others on edge. The northern wall of the room, which is not bonded to the western wall, appears to be a later addition. Room 2 had a similar wall structure to room 1. 29/ A northern doorway leading from room 2 to room 27 was blocked off at the time of the addition of the northern wall. A doorjamb, bonded to the western wall of room 2, was a part of this earlier entrance. The western room 2 is a particularly small locus measuring 1.60 x 2.20 meters. A doorway led from this locus into room 14 [N00-10 E200-210]. This entrance, however, seems to have been blocked off at some point, just as the the southern exit of room 14 into room 18 was blocked. There was possibly also a doorway leading north to room 13 in

29 This number is assigned to two adjoining rooms as they are directly below the single locus 2 in Level IA.

N10-20 E200-210. The latter room's walls, constructed of a mixture of brick-work, were very heavily burnt.

At N10-20 E200-210 locus 15 possibly provides another point of access to the building from the ill defined exterior at the west [pl.XC; pl.XCI:1]. This was perhaps part of an entrance from the exterior as traces of niching are preserved at the south-western doorjamb. The eastern wall of locus 15 gives access through a narrow 45 cm. doorway into locus 11, [pl.XC:2; pl.LXXXVII] a room which has no other exits. Another doorway gives access from the northern side of locus 15 into room 23 which in turn gives access to room 22. The latter is a long hall measuring 8.50 m. in length and 2.90 m. in width. A north-western exit leads to locus 30, a small undistinguished area, and a southern exit leads to room 32, a small, badly preserved room measuring ca. 1.90 x 2.50 meters. The wall running north-south between rooms 32 and 23 does not bond with the east-west wall between 32 and 22, thus room 23 appears to be a later addition to the main core of the building [pl.XCVI].

To the north-east of room 32 lies locus 21. The exact measurements of this room are not known as the placement of the eastern wall is not certain. A northern exit gives access to room 24, a narrow magazine running north-south, measuring 1.35 meters in

width and 4.50 meters in length. Directly to the east of locus 24 is room 33 measuring 3.15 x 4.70 m, and to the east of that, room 34 [3.50 x 4.50 m.] . The latter room had a kiln in the south-east corner, dug into the IB floor and plastered. This kiln measures ca. 75 cm. in diameter. No evidence of doors between these two rooms existed, nor for the adjoining room to the east, locus 35.

At N00-20 E230-240 the south-eastern part of the exterior wall is preserved and this appears to have been buttressed in places. Room 69 seems to have been a later addition to the original structure as its western wall is buttressed at the south side [pl.CVI:2]. To the north of 69 at locus 68, a tanur stood in the north-west corner, and another tanur or fireplace stood in the centre [pl.CVI:1]. Locus 69 gives access to room 66 to the south [pl.CV:2]. The wall structure here is a mixture of brick shapes with some courses laid flat and others on edge. Directly to the west of this room lies locus 64, a small room with an entrance in the north-eastern side leading to room 61, which in turn leads to room 59 through a north-western entrance. These rooms were not well preserved. Directly to the north, room 58 was also poorly preserved [pl.CV:1]. The walls of a large terracotta jar were dug into the floor and against the northern face of the east-west wall,

forming a bin. This room has an eastern exit to locus 67, a very small room measuring 2.90 x 2 meters.

To the west of room 58 lies locus 54 [N10-20 E220-230] of which little remains belonging in level IB. Rooms 54, 55 [pl.CIV] and 56 have walls constructed of a mixture of bricks, some laid flat and others on edge. The wall structure in room 62 consists solely of bricks laid flat, [pl.CIV] and that in room 63, to the north of room 54, is again a mixture. All of these walls were re-used in level IA. Locus 65 to the east [N10-20 E220-230] is undefined as no real limits could be traced for this locus. To the north of 65 in the same square locus 53 and locus 60 have walls constructed purely of courses of bricks laid flat.

Another entrance into the building, from the eastern side at locus 80 [N40-50 E220-230] is through a corridor at locus 76 [N30-40 E 200-210]. This corridor leads to room 77 to the north. In this room the south wall was constructed with bricks laid on edge while all the other walls were constructed of courses of flat laid bricks. To the west of this room locus 81, which was only partially excavated, has a mixture of brickwork in the wall structure. The northern wall placement here is not known. To the north of room 81 lies room 88, a very poorly preserved room. To the east of this room lies room 82. The walls of room 82 were

constructed solely of flat laid courses of bricks. This room had a drain surrounded by large bricks in the south-east corner. Room 82 gives access to room 86 to the north. Here too the walls were constructed of all flat laid courses of bricks. Room 87, to the north of room 86 was not completely excavated. The room is possibly a vestibule at one of the main entrances from the street. Here the walls were constructed of a mixture of flat laid courses of bricks and bricks laid on edge. Room 87 gives access to room 90. The doorway to room 90 is directly aligned with the doorway in room 87 leading towards the east. The walls in room 90 were not completely cleaned.

To the west of room 81 lie rooms 84 and 85. Room 84 is a badly preserved room whose wall structure is uncertain. The room was equipped with a large tanur in the northern part. Room 85 was partially excavated, but a good floor of this level was present throughout the room. Directly to the south of room 85 is room 49. Here the walls were constructed of both flat laid bricks and bricks laid on edge.

To the south of the corridor locus 76 [N30-40 E200-210] lie rooms 52 and 79. Both rooms were poorly preserved but a high drain was found against the northern wall of room 52. The bricks in both rooms 52 and 79 were all laid on edge. To the south of these

rooms is a group of three rooms; 57, 91 and 92 [N30-40 E210-230] [pl.LXXVII]. In room 91 a drain basin measuring 83 x 53 cm. in diameter and one meter in height, was found against the face of the east wall. Along the south face of the south wall of room 92/73 a small hearth was found in the north-west corner, 93 cm. south of the north wall and 82 cm. east of the west wall. The hearth itself measured 38 x 28 cm.

The corridor locus 76 leads directly into locus 51 [N30-40 E200-210] which was a badly preserved room in level IB. To the south of this room at N30-40 E210-220 is room 50 where a small square hearth was found at 110 cm. east of the west wall. It measured 28 cm. in width and 31 cm. in length, and 17 cm. in height. A small area of a baked brick pavement was found in this locus.

Room 50 leads into room 45 to the west which in turn leads into room 44 [pl.XCVII]. This is a long narrow room measuring one meter in width and 3.50 m. in length. All the bricks in this room were laid flat. A south-western doorway leads into rooms 43 and 48, an L shaped area. Locus 43 appears to have acted as a corridor between room 48 to the north and rooms 44 and 45 to the east. Possibly another doorway at the west led to 42 [pl.XCVIII:1], 47 and 46. Rooms 42 and 47 are both long narrow rooms each measuring 1m. x 3m. as

preserved. A plastered doorway leads from room 42 into 46 where a brick bench stood against the east wall [pl.XCVIII:2]. This last grouping of rooms; 42, 47, 44, 45 along with the corridor locus 43, have the appearance of storage magazines.

Level IA

Access to the building from the south-west is through a doorway from the outside locus 25 which leads into room 7/18 [N00-10 E210-220] [pl.XCIII; XCIV]. Room 7/18 consisted of two rooms in the earlier level IB but no partition wall exists at this level between the two. A wainscotting on the lower part of the southern wall at locus 18 is of flat, baked bricks [pl.XCIV]. This wall appeared to have been repaired at several intervals, as three different matting impressions were observed along its middle part. The western wall of this room was heavily mud plastered. A hearth was found against the southern wall near the doorway to the exterior and a kiln stood near the doorway in the eastern door. This latter doorway provides access into rooms 6 and 1 [N0-10 E210-220] [pl.LXXXV:1]. These two rooms are divided by a small partition wall. A drain in the centre of room 1 measures 60 cm. in diameter, and next to it is a bench (not indicated on the plan). A doorway in the northern wall of room 1 leads into room 5, a relatively large room measuring 7.15 x 2.20

m. [pl.LXXXV:1]. This room has a small square hearth in the western part, and a brick bench against the northern wall which was plastered. The northern wall in this room is not bonded with the western wall and the west and east walls are not bonded to the southern wall. The walls were constructed of a mixture of plano-convex brick courses, some laid flat and others on edge. However, the northern wall was constructed of rectangular flat bricks. The southern side of room 5 gives access to room 2 [N0-10 E210-220]. This doorway was heavily plastered; 12 cm. of plaster created a doorjamb. The room measures 2.45 x 3.50 m. A small doorway, measuring 50 cm. in width as preserved, leads to the west to room 14, a small square room measuring 2.70 x 2.50 m. Access to room 14 could also be gained through room 18 to the south, and a third doorway in the northern wall leads to room 13 at N10-20 E 200-210 [pl.LXXXIX]. The same floor level was used for this room in both levels. Thus it is below the usual level of IA.

Room 5 gives access through a doorway in the northern wall to room 4 in the same excavation square. The walls of this room, made of a mixture of rectangular and plano-convex bricks laid both on edge and in flat courses, were heavily burned. In the south-east section of the room a deep hole with a

channel running south was found. Room 4 gives access to room 19 to the north. Both the doorway between rooms 4 and 19 and the doorway between rooms 19 and 21 to the north appear to have been arched [pl.LXXXIII]. The southern doorway into room 4 which was already used in the earlier level IB had been blocked off and turned into a niche. The capping of neither doorway arch was preserved.

Room 19, which has the two arched doorways, has a wall structure similar to that of room 4 and the entire room was heavily plastered to the bottom of the foundations. The northern arched doorway leads to room 21 [N20-30 E200-210]; a small square room (2.50 x 2.75 m.) which in turn leads to locus 24 in the same square. This room may have been a long magazine as in the earlier level IB. Although its eastern limits are uncertain it seems to have been 5 meters long as in the earlier level. The adjoining locus 33 to the east is very poorly preserved, as is locus 31 to the south of it. The latter probably consisted of more than one room. The southern wall in locus 51 is not bonded to the west wall.

It does not appear that there was any point of access between locus 31 and the rooms to the south of it, numbers 10 and 12 [N10-20 E200-220]. Room 10 is a long narrow room measuring 3.85 x 1.80 m. A broken

niche against the north wall was plastered. The west wall here is not bonded with the northern wall but bonded only with the south wall. The walls were constructed solely of flat laid bricks. A south-eastern door leads to room 12 [pl.LXXXVIII:1] which has a similar wall structure to room 10. Room 12 has a south-eastern doorway with a paved threshold leading into room 9 [pl.LXXXV:2]. The west wall of room 9 is not bonded to the east wall of room 4. The walls of this room are constructed of a mixture of flat laid bricks, and bricks laid on edge. A northern door leads from room 9 into a small room to the north, room 8 which measures ca. 2.45 x 3.90 meters. A southern door leads from room 9 into room 3 at N00-10 E210-220. The north wall of this room is not bonded to the west wall and all the brick courses are flat. Another doorway possibly existed in the centre of the east wall. Its reconstruction is unclear because that area was badly cut from above.

To the east of room 3 the group of three rooms in E220-230 N00-10, rooms 55, 56, and 62 all re-used the same walls of the level IB building. Rooms 64 and 59, two communicating rooms to the east, in the same square, were also unchanged from the level IB building. Room 64 gives access to room 61, also in the same square. The east wall, constructed of a mixture of

bricks laid on edge and in flat courses, cut the south wall of both levels IA and IB. Thus there seems to have been three phases to this room.

Room 58, to the north of room 59 in N10-20 E220-230 has east and west walls that are both unbonded to the south wall. The wall structure here consisted of both flat courses of bricks and bricks laid on edge. A doorway in the east wall of room 58 leads to room 67. The IA floor was only preserved in the doorway of this room. The walls were constructed solely of flat courses of bricks. Room 68, to the south of room 67, is a small artificial room which was sealed off when the south wall was added. The room was equipped with a tanur in the north-west corner.

Room 69, directly to the south of room 68, seems to have been the exterior in level IB. In this level a southern doorway provides access to the exterior. The walls structure consists of a mixture of brick courses, some on edge, and some flat. Room 69 gave access to 66 [E220-240 N00-10]. This room also retained the walls of level IB. Room 65 in E220-230 N10-20 was equipped with a sunken pavement of baked bricks at the eastern side. However, the remainder of the room was badly preserved.

Locus 70 is the exterior at the east side of the building. Opposite room 69, at locus 70 is a series of five courses of baked bricks, each set back a little

from the edge of the course below. These bricks are flat and rectangular in shape, and most measure 26 x 16 x 6 cm. Two of the bricks measure 32 x 16 x 6 cm.

An entrance into the building from the west side possibly existed at locus 15 [N10-20 E200-210] just as it did in the level IB below [pl.XC]. An eastern door that measures 45 cm. in width, leads into room 11, a locus which may have been some sort of a vestibule [pl.LXXXVII]. The room measures 3.50 x 2.20 meters and its east wall was not bonded to the south. A south-eastern doorway leads from room 15 into locus 16/17 to the south [N0-20 E200-210]. On the west side of room 16 an oval cut in the floor which measures 43 cm. in depth and 28 cm. in width, was plastered for use as a bin. A mixture of flat laid bricks and bricks laid on edge was found in the wall structure here. The walls of locus 17 have a baked brick wainscotting on the lower parts just as in the earlier level IB. A bench-like structure of flat, baked bricks stands against the eastern wall in this room. A doorway with a paved threshold leads from room 17 south to room 20, a relatively large room in this building [4.90 x 3.20 m.] [pl.XCV]. Perhaps another exit to the exterior existed in this locus. It is unclear if locus 38 to the south-west of room 20 is part of this building. Here rectangular bricks measuring 15 x 23 x 4 cm. were all laid flat.

To the north of locus 15 at [N20-30 E200-210] rooms 23 and 32 are badly preserved [pl.XCVI]. The southern wall of these two rooms does not bond with the western wall of rooms 19 and 21. A doorway leads from room 32 into locus 22, a mostly undefined area. At N30-40 E200-210 another grouping of rooms, mostly long and narrow in shape, occurs just as in the earlier level IB. The westernmost extent of room 46 is unknown but a south-eastern door leads into room 42 [1.30 x 3.45 m.] [pl.XCVIII]. The northern wall of this room is not bonded to the east, and is constructed of a mixture of bricks laid both on edge and flat in varying courses. Directly to the east are rooms 43/48, an L shaped locus as in the earlier level IB [pl.XCVII]. Room 43 is long and narrow, [1 m. x 3.50 m.] and has the appearance of a corridor, but access to the south into room 44, which occurred in in the IB building is blocked off in this level by an additional wall. Locus 43 leads to room 47 to the north-west and room 48 to the north-east. Room 47 is yet another long and narrow room. This room measures 3.50 x 1.25 m. and has a northern wall not bonded to the east and a southern wall not bonded to both east and west. All the walls were constructed of a mixture of courses of bricks, some laid flat and some on edge. The same mixture was found in the wall structure of room 48. Here too the north wall was not

bonded to the west and south wall not bonded with the east wall of room 43.

Room 48 has a north wall which is slightly curved as if part of an oval structure. Beyond this wall locus 49 seems to have been the exterior [pl.XCVIII:2]. Against the exterior of this curved wall stood as drain basin. This curved wall was also constructed of a mixture of bricks laid in varying courses. To the south of room 48 at N30-40 E200-210 rooms 44 and 45 were probably approached from the east as no access from the south-west exists. Room 44 has a north wall unbonded to the west. The wall structure is a mixture of bricks as in the curved wall of locus 49. Locus 51 [N30-40 E210-220] may have been the exterior of the building. Here a series of 20 baked bricks formed a paving. The bricks are flat and rectangular in shape measuring 30 x 21 x 4.5 cm. Some of the bricks had an X inscribed in the corner. A circular kiln with a diameter of 0.85-.92 stood next to this paving [pl.XCIX:1].

Owing to the erosion of the mound, the exterior extent of the building could only be delimited at the south and east sides of the building in both levels. There was some evidence of a possible earlier level II such as in rooms 10 and 12 of level IB where the walls rested on reed matting and earlier wall stubs, and in room 4 where the west wall of the room cut into an

earlier wall. Although no parallel for this ground plan exists in Mesopotamia and the surrounding areas, the building will be discussed in context of Mesopotamian architecture in chapter VI.

Chapter III

The Pottery

The most abundant artifactual remains which the area C building provided are the ceramics. The pottery corpus described below is made up of 3824 pieces which were found in situ on a floor. In this study pottery from fills has not been taken into account because its less reliable context may be misleading in attempting to describe the corpus, and in determining the function of the building. However, the pottery types retrieved from the IB fill are presented in appendix C, and compared to the material from floor levels (pp. 299-314). No great discrepancy can be discerned between the assemblages from the IB fill and floor.

Of the 3824 pieces studied 2618 were body sherds of unrecognisable shapes which were considered solely for ware and surface finish. 181 pieces in which the type could not be securely determined were not considered, leaving 1025 pieces which were either complete or in which the shape could be recognised on the basis of key elements. These 1025 pieces were divided into 14 categories on the basis of shape, and presumably function. Each category was subdivided into a varying number of types. The combination of factors that make up a type are those of shape, ware, and surface finish or decoration.

Sometimes a type within a category may be represented by only one or two examples. Although this may seem too subtle a distinction, a cursory examination of pottery from other areas of the tell shows that some of these types may be fairly numerous in the total Lagash corpus. Furthermore, such a distinction was thought best for the purposes of this study as small differences among types might shed further light on the function of vessels and, in turn, on the nature of the building.

The classification of wares follows the daily tabulations made by the excavators and recorded in the field notes. Three main groups make up the wares: Reddish-yellow (Munsell 5YR 6/3-5YR 6/6), buff (Munsell 2.5Y 7/2-10YR 5/3), and grey ware (Munsell 5Y 6/2) [pl.XX]. Of these, the first group makes up 59% of the total amount of pottery coming from floors, including body sherds, the second 34.9% and the third 5% (the remaining 1.1% is not identifiable). All three groups can be subdivided into coarse, utility or fine ware, with either grit or plant temper, although at times there is no visible temper. The reddish-yellow and buff wares can have light coloured true slip or self-slipped surfaces, or be finished by wet smoothing. In some shapes they are highly burnished or polished, having a pebble-smooth surface and high lustre [pl.XIX: 1]. This

polished ware makes up 3.3% of the pottery corpus. The remaining wares usually have a matte surface which is slightly rough and grainy. Often the pottery is fire blackened and in five cases the ware type could not be recognised due to accidental burning.

Surface decoration consists of incised designs made with a sharp instrument or finger impressed applied plastic bands and cables. Monochrome painted ware also occurs but is limited to examples that are clearly imported. Other than eleven pieces that are made by hand, all the pottery is wheel made and lightly to moderately fired.

The Al Hiba pottery was sorted in the field according to the Mendes-Al Hiba system of pottery classification established by Edward Ochsenschlager. 1/ At the close of the excavations all but the diagnostic sherds were discarded. Drawings and pot sheets were made for all whole or almost whole pots from area C. These pot sheets recorded findspot, shape, method of production, dimensions, colour of ware, density and inclusions. Rims and bases of recognisable forms, as well as body sherds, were counted systematically on daily sheets, according to locus. The typology

1 Cf. Edward L. Ochsenschlager, "The Mendes-Al-Hiba System of Pottery Classification" in Studien zur altägyptischen Keramik ed., D. Arnold, Phillip von Zabern, Mainz, 1981, pp.79-84.

presented here was established on the basis of those field records, my personal study of the pottery still available in the Iraq Museum in 1986-1987, and a small study collection at the Institute of Fine Arts, New York University. The following general categories were distinguished: 2/

- 1 Conical bowls
- 2 Conical cups
- 3 Bottles
- 4 Ribbed ware
- 5 Globular neckless pots
- 6 Long necked jars
- 7 Small "household" jars
- 8 Stemmed dishes, "fruitstands"
- 9 Stands
- 10 Vats
- 11 Basins
- 12 Varia
- 13 Miscellaneous bases
- 14 Miscellaneous rims

2 Other than "Long necked jars", all the categories presented here retain the traditional names of Delougaz, Pottery. The majority of terms used to describe the pottery also follow this publication.

CONICAL BOWLS AND CUPS [Pl.I & II]

All conical cups and bowls are wheel made and have a string cut and smeared base except for type 2HP1 [pl.I:3] which has a ring base made of the same clay as the body. By far the most abundant shape was the conical bowl which made up 71.5% of the total ceramic corpus. In contrast, conical cups made up 5.5% of the pottery. The conical bowls vary in shape from the rather shallow 2HP218 [pl.I:2] to the much deeper 2HP364 [pl.I:5]. The two most common types were 2H111 [pl.I:7] (218 examples) and 2H261 [pl.I:8] (321 examples). The most common type of conical cup was 2H270A [pl.II:3], the tall goblet type with direct rim (31 examples). The short versions 2H105 [pl.II:9] and 2H170 [pl.II:8] were relatively rare; each was represented by only one example. All types were wheel made utility ware, lightly to moderately fired, usually of a yellowish red fabric that sometimes included a grit temper.

Several examples of the cups have a solid foot [pl.II:2, 4, 5] but the most common types do not. All the cups have a plain, sometimes flared rim with a thinned and rounded lip, and would seem suitable for drinking. Representations of people drinking in Early Dynastic reliefs show that both conical cups and

conical bowls were used for such a purpose.^{3/}

BOTTLES [Pl.III]

This term has been used to refer to small, necked jars with constricted openings and rounded bases. A total of 7 such bottles were found [0.6%] ^{4/}, five of these were of similar types, pl.III:1, 2, 3 and two examples of 6. The first, 2H104 [pl.III:1] is a squat globular bottle with a bevelled rim and rounded base. 2HP384 [pl.III:6] is similar, although the rim is missing in both examples. It differs from 2H104 in that it has a sloping shoulder and a slightly more pointed base. 2H135 [pl.III:2] and 2H70 [pl.III:3] have a sharp juncture of the shoulder and body, and flattened bases giving them a more angular appearance. These bases are flattened by first being string cut and then scraped smooth. All four bottles are made of a plant tempered fine ware and are lightly to moderately fired.

2HP368 [pl.III:4], a slightly convex base, and 2H16 [pl.III:5], a small jar, are both wet smoothed reddish-brown ware. The monochrome painted exteriors

³ Cf. Johannes Boese, Altnesopotamische Weihplatten, Untersuchungen zur Assyriologie und vorderasiatischen Archäologie 6, Berlin, 1971 for numerous examples of banquet representations in which both conical cups and conical bowls are used for drinking, e.g. Taf. I, III, V, VI, VII, IX, XIII, XIV, XVI, XVII, XVIII, XX, XXIX.

⁴ Henceforth all percentages in brackets refer to the percentage of that shape within the total Al Hiba, area C pottery corpus.

are of dark red-brown paint bearing designs that make them immediately recognisable as imports.^{5/} Both are of a type known from Susa IVa and Tepe Godin III/6.6/^{6/} It is interesting to note that many more examples of this ware were found in the fills of both levels IA and IB, but these were the only two examples found in situ.

RIBBED WARE [Pl.III]

Only five examples of ribbed ware [0.4%] came from floor contexts, and not many more from the fills. All are open forms which can be classified as bowls or basins. The first three, 2HP141, 2H102, and 2HP87 [pl.III:7, 8, 9] have bevelled ledge rims. 2HP87 [pl.III:9] is made of moderately fired fine ware, and the remaining three are of utility ware. The largest type, 2HP110 [pl.III:10], has several horizontal ribs, a plain rim and very slightly elevated base. This large basin is represented by two examples.

GLOBULAR POTS [Pl.IV]

Globular neckless pots make up 1.4% of the ceramics. All examples have globular bodies, convex bases, flared rims, thinned and rounded lips. There is a variety in the sizes of the fifteen existing examples

5 Hansen, Artibus Asiae XXXV:1/2 (1973), p.69

6 Elizabeth Carter, "Excavations in the Ville Royale I at Susa: The Third Millennium B.C. Occupation", CDAF 11 (1980), p.11.; R. Henrickson, "The Godin III Chronology", Iranica Antiqua XXII (1987), pp.33-116.

ranging from a 14cm. rim diameter to a 7cm. rim diameter. These are generally of a reddish-buff utility ware, moderately fired, and several examples are wet smoothed. 2H58 [pl.IV:4] was recovered from an oven which may indicate that these were cooking pots.

LONG NECKED JARS [Pl.V & VI]

This category makes up 6.1% of the ceramics from area C. Pl.V, excluding type 2H11 [pl.V:6], represents all the ledge rimmed, convex based types. Each of these types is of the same distinctive reddish-yellow fine ware, lightly fired. The surface is sometimes slipped, but always highly burnished or polished. Of these ledge rimmed types 2H52 [pl.V:5] was the most abundant (13 examples). Also of this distinctive polished ware are two examples with plain, slightly flared rims and somewhat shorter necks: 2H177; 2H123 [pl.VI:7, 12]. No other pottery shape from the area C building has this polished surface, although numerous body sherds whose forms cannot be determined are of this polished fine ware. The remainder of the jar types on pl.VI, and 2H11 on pl.V are of a reddish-yellow fine ware, often plant tempered, but have no surface treatment.

SMALL "HOUSEHOLD JARS" [Pl.VIII]

The term "household jars" has been used to refer to small jars of irregular shape and careless manufacture. These make up 1.8% of the pottery from the

area C building. This category can be divided into two groups: the first eight examples [pl. VII: 1-8] are all wheel made and have bases that are string cut and smeared. The remainder of the types [pl.VII: 9-18] are always hand made and have pinched ring bases. These pots are often plant tempered, and lightly fired.

STEMMED DISHES "FRUITSTANDS" [Pl.VIII & IX]

Fruitstands make up 1.2% of the area C pottery, but no complete version was discovered from a floor level. Two of the examples are in miniature versions: 2H19 and 2HP319 [Pl.IX:1, 6]. Both of these are hand made and 2H19 has a series of parallel sharp incisions on the lip and outer edge of the base. The full scale examples had incised bases. The designs of diagonal and criss-crossing diagonal lines were made with a sharp pointed instrument. The plates have finger and stick impressed hanging ledge rims. Two examples [pl.VIII:2, 3] had incised wavy bands on the interior of the rim. All examples were of reddish-yellow utility ware, lightly fired.

STANDS [Pl.IX & X]

Hollow squat stands are represented by 2HP117 [pl.X:1] and 2HP298 [Pl.X:2]. 2HP94 [Pl.IX:2] is possibly also a short hollow stand although more elongated in shape. The most common type of stand was 2HP114 [pl.IX:3], nine examples of which were found.

This is a trumpet shaped stand with a flared bevelled rim base, and a "built in" conical bowl at the top. 2HP282 [pl.IX:4] is a trumpet shaped stand though its base is not hollow but string cut and smeared. 2HP41 and 2HP123 [Pl.IX:5, 7] and 2HP320 [Pl.X:3] may also have belonged to stands of the same elongated character. 2HP185 [Pl.X:4] may belong to a fruitstand base or even to a fruitstand rim, but the complete shape is difficult to reconstruct. 2HP111 [P.X:5], only represented by one example, has a slightly everted bevelled rim, and a pedestal base. This stand differs from pl.X:1 and 2 in that it is not hollow. The various types of ceramic stands, excluding fruitstands, make up 2.2% of the pottery corpus.

VATS [Pl.XI & XII]

This category makes up 0.7% of all the ceramics. Two of the largest types, 1HP119 [Pl.XI:2] and 2HP139 [Pl.XII:3], have horizontal ridges across the body that are decorated with finger and stick impressed designs. 1HP119 has a somewhat inverted rim, and a hanging ledge lip. 2HP139 [pl.XII:3] has a bevelled rim and a lip which is rounded and pointed outwards. A low ring base was added on.

2HP108 [Pl.XI:1] has a flared rim set off by two horizontal ridges underneath it. It is of wheel made buff utility ware, straw tempered and lightly fired.

The surface either has a true slip or is self slipped. 2HP172 [pl.XII:1] and 1HP181 [pl.XI:3] are the smallest versions. 2HP172 has a very thickened and rounded everted rim with a narrow and thin horizontal ridge below it. 1HP181 has a somewhat pointed bevelled rim, and an undecorated body.

BASINS [Pl.XIII]

Various types of basins make up 0.9% of the area C pottery. Two of the types have decorated horizontal bands. 2HP69 [pl.XIII:1] has an incised wavy band between the bevelled rim and a thin horizontal ridge at its mid-section. 2HP75 [pl.XIII:2] also has an incised wavy band with a notched ridge below. Similar to the first two but left undecorated is 1HP21 [pl.XIII:3]. The remaining four types, 2HP142; 2HP329; 2HP391; 1HP186 [pl.XIII:4, 5, 6, 7], are all open forms with rounded or thickened rims that are offset by a curve which creates a sinuous profile.

VARIA [Pl.XIV]

This category is made up of small neckless forms, each of which is represented by only one example, with the exception of 2H130 [pl.XIV:7]. This is a miniature cup, four examples of which were found together. All are hand made, plant tempered utility ware, moderately fired. They have direct rims and somewhat flattened bases. 2HP243 [pl.XIV:1] is a fine ware vase. It has a

sinuous profile and flared ledge rim with pointed lip. The base is a solid flat foot which is string cut. The vase is wheel made and lightly fired. Its surface, which is matte and smooth, has a decoration of two horizontal notched ridges directly above the foot. A crack in this vase was repaired with bitumen in antiquity.

2H93 [pl.XIV:2] is a unique miniature bottle or jar with an applied pellet handle at the neck, a flared rim and slightly rounded base. This example is hand made of plant tempered utility ware, and left unbaked.

2HP239 [pl.XIV:3] is a fine ware cup, globular in shape, with a string cut base and direct rim. 2HP310 [pl.XIV:4] is a small fine ware bowl with everted rim and a string cut and stamped base. 2H95 [pl.XIV:5] is an unusual cup with four pinched legs forming a stand beneath it, while the convex base is flattened. It is of moderately fired utility ware. 2H180 [pl.XIV:6], is a funnel with a direct rim and convex base which is pierced. A notched ridge above the base could aid in fitting the funnel atop another vessel and hold it in place. The last example, 2HP283 [pl.XIV:8] is a flat based oval coarse ware dish. This category of miscellaneous shapes makes up 0.9% of the pottery corpus.

MISCELLANEOUS BASES [Pl.XV]

This category is made up of nine bases from which the complete shape of the vessel could not be ascertained [0.8%]. Five examples that are here represented by types 2HP109, 2HP107, and 2HP89 [pl.XV:1, 2, 3] may have belonged to a storage jar of a shape similar to 2H11 [Pl.V:6]. 2HP122 [pl.XV:4] is a coarse base which may have been part of a vat. Three examples of 2HP299 [pl.XV:5] exist. This has a rounded body with a short added ring base. This last type is of pale brown utility ware, plant tempered, and has an interior lined with bitumen. All three examples were found with heaps of seeds around them.

MISCELLANEOUS RIMS [Pl.XVI; XVII; XVIII]

This is a category made up of 52 rims in which the original shape could not be ascertained because no complete example of such a vessel was found or because of the fragmentary condition. This miscellaneous category makes up 5.0% of the pottery from the area C building. Descriptions of each type are presented in the catalogue (pp. 256-270).

COMPARISONS

The pottery corpus thus far discussed was derived from both floor levels of the area C building. The evidence from inscriptions and sealings indicates that levels IA and IB are very close in time, and this

conclusion is confirmed by the fact that no distinction can be made between the pottery remains of the two levels. All fourteen ceramic categories were present in both levels. The inscriptional material dates these levels to the reigns of Eannatum, Enannatum I, and Enmetena, rulers that are considered to belong to an archaeological period designated as Early Dynastic IIIB. ⁷ Thus we have here, for the first time, a pottery assemblage securely belonging to that period.

In order to form a clearer picture of what characterises ED IIIB pottery assemblages, the features that are characteristic of the ceramic corpus from Al Hiba's area C building must be pointed out and the assemblage must be compared with E.D. IIIB pottery from other Mesopotamian sites. In addition to the use of all published material it was possible to study first hand the pottery from Ur at the British Museum, London, that from Kish at the Ashmolean, Oxford, and the pottery from the Diyala Region still in the Iraq Museum. The pottery will be considered in the order following that of the fourteen categories illustrated on Pl. I-XVIII. The reader is requested to consult the catalogue [pp. 206ff.] and appendix B [pp. 274ff.] for a detailed list of all references made in this chapter.

⁷ Cf. chapter II, pp. 48-51 for a full discussion of the dating of these levels.

CONICAL BOWLS

Although conical bowls make up the largest category of pottery in the Al Hiba corpus [71.5%], and occur in all sites with E.D. III material, not much information can be gleaned from this type, and it is unclear if chronological or regional distinction can be made in the shapes. P. Delougaz originally stated that conical bowls get shallower through time,^{8/} and this theory is still maintained by several scholars.^{9/}

The most common types at Al Hiba, 2H111 [pl.I:7] and 2H261 [pl.I:8], have parallels in Susa, Ur, Abu Salabikh, Kish, Tell Al Wilaya and the Diyala region. Although more than 70% of the pottery at Al Hiba can be paralleled at these sites one should bear in mind that the majority consists of conical bowls, a non-distinctive shape.

The two larger bevelled rim examples, 2HP275 [pl.I:1] and 2HP1 [pl.I:3], each have a parallel only at one site. 2HP1 in the Diyala and 2HP275 at Kish. 2HP218 [pl.I:2] is a very shallow version of the conical cup which is paralleled only in Akkadian levels in the Diyala. This type, however, is a unique example in situ in area C at Al Hiba although more were found

⁸ Delougaz, Pottery, p.105.

⁹ Martin, Iraq XLIV (1982), pp.153-56; Fara 1988, pp.51-52; Moon in Postgate et.al., ASE II, p.7.

in the fills. 2H115 [pl.I:4], 2HP364 [pl.I:5], and 2H21 [pl.I:6] have parallels at many sites. 2H21 and 2H115 are considered Proto-Imperial in the Diyala, but also have parallels from Nippur, Fara, Ur, and Abu Salabikh.

CONICAL CUPS

Conical cups, which make up 5.5% of the pottery seem to be more common in the south of Sumer. Parallels for both the solid footed goblet type 2H269 [pl.II:4], and the footed cup type 2H136 [pl.II:5] can be found at Fara. 2HP177 [pl.II:1] has parallels from Ur as does 2H114 [pl.II:6]. The flat based goblet 2H270A [pl.II:3], which is the most common type from area C (31 examples) is paralleled at Ur. In the Diyala this shape is dated in the Gutian period. Conical cups are very uncommon in E.D. III in the Diyala, according to Delougaz,^{10/} except for a type with an inverted rim (Diyala: B.024.210). The latter cannot be considered in the same cup category since the difference in rim shapes precludes a similar function. This inverted rim cup is a type which is considered distinctive of Akkadian levels in the Diyala by McGuire Gibson.^{11/} Type 2HP244 [pl.II:7] is paralleled by B256.200, which appears as a new shape in Proto-Imperial in the

¹⁰ Delougaz, Pottery, p.95; pl.149.

¹¹ Gibson, AJA 86 (1982), p.536.

Diyala.^{12/} In fact, other than at Ur and at Fara, the sites considered for comparison generally seem to lack conical goblets. At Kish there are only two examples of type S #41. ^{13/} Tell Abu Salabikh has a parallel for type 2H170 [pl.II:8], but for no other type. In fact, conical goblets are limited to E.D. I at Abu Salabikh.^{14/} Ur, on the other hand, has numerous parallels for most of the Al Hiba types. Such a discrepancy can lead to speculation as to possible regional variation in such a simple shape as the conical cup.

BOTTLES

All the types in this category have parallels at other sites. 2HP368 [pl.III:4] and 2H16 [pl.III:5] are imports of monochrome painted Susa ware equivalent to Godin II6 and Susa IVa (Susa D levels 12-9).^{15/} The small squat bottles [pl.III:1-3, 6] are of a category of shapes which Delougaz originally labelled E.D.II but are known to continue into the Larsa period.^{16/} The type with a carinated shoulder, 2H135 [pl.III:2], is considered Akkadian by McGuire

¹² Delougaz, Pottery, pl.106.

¹³ Mackay, AM I, pl.LIV (2221B).

¹⁴ Moon, ASE III, pp.3-20.

¹⁵ Supra, n.3.

¹⁶ Delougaz, Pottery, pl.144 e.g. A.653.540.

Gibson.17/ The first type, 2H104 [pl.III:1], is generally considered an earlier shape than 2H135 [pl.III:2], the carinated shoulder type but this is false as in the Diyala it is one of several bottle shapes that survive into the Larsa period. This type is also found at Fara where Martin considers it E.D.

II.18/ The squat bottles at Al Hiba make up .6% of the pottery.

RIBBED WARE

Ribbed ware is uncommon in the Royal Cemetery and the types that do exist do not parallel anything from Al Hiba. In fact, Woolley calls such a type a "freak pot", and states that it must be an imitation of a wooden, lathe turned version.^{19/} At Tell Abu Salabikh ribbed ware seems to be limited to a large basin which always occurs in graves in sets of four pots that include a cup, a stand, and a bowl.^{20/} A vessel similar to 2HP102 [pl.III:8] is from an Akkadian level of Tell Asmar. This differs from the Al Hiba bowl only in that it has a ledge rim. Gibson has pointed out that this shape, as well as 2HP110 [pl.III:10] parallels, occurs in levels which he would consider Akkadian in

17 Gibson, AJA 86 (1982), p.537, n.55.

18 Martin, Fara 1988, p.19, pl.183:84.

19 Woolley, U.E. II, pl.252:31; p.387.

20 Postgate et.al., ASE II, fig. 123:58-61.

the Diyala.^{21/} Ribbed ware in Kish, type P, includes a bowl similar to 2H102 [pl.III:8]. Ribbed ware sherds have been considered a diagnostic type of Akkadian-Ur III assemblages.^{22/}

GLOBULAR JARS

This shape seems to be rather commonly found in various sizes: at Kish as type L, in the Ur Royal Cemetery as types 77-80 and in the Diyala (eg.6544.510).^{23/} At Tell Abu Salabikh several examples were found in the graves, but at Fara the shape seems to be lacking.

LONG NECKED JARS

Long necked jars make up the largest ceramic category after plain conical bowls. A burnished ware sherd of the long necked jar type bore a royal inscription belonging either to Eannatum or Enannatum I the uncertainty due to the absence of the first sign of the name [pl.XIX:2].^{24/} The only example from the Diyala which can be associated with type 2HP258 [pl.V:1] is C.557.470, a ring based jar with an incised neck and horizontal shoulder. It is, however,

21 Gibson, AJA 86 (1982), p.537.

22 Cf. Adams, Heartland, p.310

23 Mackay, A.M. I, pl.XVI; Woolley, U.E. II, pl.255; Delougaz, Pottery, pl.187.

24 Biggs, BiMes.3, #52.

unburnished. This shape is not at home in the Diyala and Delougaz refers to it as having "an unusually long neck".²⁵ At Kish, type E, #9 has also a decorated neck and shoulder incised with concentric circles and squares. This pot was in very bad condition but the excavators seemed to think it originally polished.²⁶

The best parallel for type 2HP258 [pl.V:1] comes from a Pre-Dynastic grave in the Royal Cemetery. (RC 173, pl.262). Burnished examples from Ur were seen by this writer at the British Museum.²⁷ At Tell Abu Salabikh the cup based types (eg. grave 5 #3,4, fig.125) may be related to this shape. 2HP263 [pl.V:2] and 2H116 [pl.V:3] both have general parallels at Ur although the Ur examples are unpolished. 2H116 has a parallel from the Diyala at the Early Northern Palace, Tell Asmar which was dated to the Proto-Imperial period. This is also a shape considered mostly Akkadian by Mc. Gibson.²⁸ 2H22 [pl.V:4] and 2H52 [pl.V:5] have parallels at Ur, though unpolished, and there is a parallel for 2H52 from Fara dated by Martin to E.D.

25 Delougaz, Pottery, pl.185; p.96.

26 Mackay, AM I, pl.LII; p.208.

27 Cf. catalogue p. 285 for a complete list of the British Museum numbers.

28 Gibson, AJA 86 (1982), p.537.

III.29/ Ring based jars, like 2H11 [pl.V:6], occur at Ur but are usually narrower in body and base, and have a more sloping shoulder. At Tell Abu Salabikh ring based jars do occur but are not tall and narrow.^{30/}

2H13 [pl.VI:8] and 2H123 [pl.VI:12] may be related to Kish type L, (A.M. I, pl.LIII) although the Kish examples are not polished. 2HP269 [pl.VI:9], which has an untreated surface, is a closer type. The narrow bodied unpolished types, [pl.VI:10,11,13], are found at Fara where they are considered E.D. III/Akkad by Martin. Long necked flasks exist at Tell Abu Salabikh (eg. ASE II grave 1 #5 fig.122) which are similar to the narrow types that are unburnished. So far there is no evidence for burnished or polished jars, and burnished fragments are generally rare at Abu Salabikh.^{31/}

A jar which may be related to the Al Hiba burnished ware was published by Joan Oates. This is a squat, convex based, necked jar with a ledge rim, also highly burnished, from a late E.D. IIIB level at Tell Brak.^{32/} The long duration of this type is documented at Umm el Jir where three highly burnished ledge

29 Martin, Fara, p.651, Fara, 1988, pl.187:113.

30 Postgate et.al., ASE II, fig.125: grave 5, #9.

31 Jane Moon, personal communication, January 1988.

32 Joan Oates, Iraq XLIV (1982), fig. 4:58.

rimmed, necked jars with convex bases were recorded in an Ur III level.^{33/} 2H116 [pl.V:3] and 2H22 [pl.V:4] have good parallels in stone vessels at Ur. Perhaps the lustre of the burnished surfaces was meant as an imitation of stone vessels. At Ur "offering tables" are found in clay, metal and stone, showing that vessel shapes could be made in different materials.^{34/} Also similar in shape to the long necked jars is the famous silver vase from Telloh ^{35/} bearing the following inscription:

"For Ningirsu, Warrior of Enlil-Enmetena, ruler of Lagash, chosen in her heart by Nanshe, chief executive for Ningirsu, son of Enanatum ruler of Lagash, for his master who loves him, Ningirsu, made this vessel of refined silver, out of which Ningirsu consumes oil, and set it up before Ningirsu in Eninnu." ^{36/}

SMALL HOUSEHOLD JARS

Household jars are generally found at all sites with Early Dynastic occupation. Other than a basic distinction between the ring based type and the string cut based types, the category contains no regular

³³ Gibson, JNES 31 (1972), p.245;279.

³⁴ Woolley, U.E. II, pl.180; 239: U8245 type 243; U8217 type 101. P/G 179.

³⁵ Parrot, Telloh, pl.VIII.

³⁶ Cooper, SARI I, p.61: La 5.7.

shapes and exact parallels are difficult to point to, as these are crudely made pots with unique profiles. In the Diyala they are represented by Delougaz's pl.98 and pl.99. At Kish, type K is a general parallel for both types of bases 37/, and at Ur Royal Cemetery types 8 and 9 and types 109; 119; 120; 125 are generally similar to the Al Hiba examples, although the ring based types seem to be much more common at Ur than the flat based types.^{38/} At Fara these household jars come mostly from pit I and pit II where large amounts of miniature pottery were found dating to E.D. III/Akkad period.^{39/} At Abu Salabikh the flat based types seem rather common,^{40/} but the pinched ring bases do not occur other than in two miniature examples. ^{41/}

FRUITSTANDS

As no complete stand or profile of a stand was found on a floor level it is difficult to ascertain whether the Al Hiba fruitstand were tall or squat in proportions. Fruitstand dishes decorated with similar notched ridges come from Tell Asmar, houses III and

37 Mackay, AM I, pl.XV; LIII; Moorey, Kish, pl.3.

38 Woolley, U.E. II, pl.251; pl.258; pl.259.

39 Martin, Fara, pits I & II: miniatures.

40 Postgate et.al., ASE II, eg. grave 1 fig.122; grave 53 fig.133; Moon, ASE III, pp.95 ff.

41 Moon, ASE III, fig.801, 808.

Khafajeh Oval II in the Diyala region, both dated to E.D. III by Delougaz. Undulating incised lines on the interior of the rim are paralleled at Kish 42/ and also by an example from Khafajeh, houses 3, which is dated E.D. III to Proto-Imperial by Delougaz.

Bases similarly decorated are those from the Diyala (Tell Asmar houses III and Khafajeh Oval II), and Kish type B. Similar decoration and rim profiles are found at Abu Salabikh as, for example, in grave 1:6. This has undulating lines on the rim and a notched band below as does 2HP312 [pl.VIII:4]. Diagonal strokes of incisions are common in bases in Abu Salabikh. The plates of fruitstands tend to be shallow at Al Hiba, and there are none like Abu Salabikh's deep types.^{43/}

The most elaborately decorated stemmed dishes come from Ur.^{44/} No Al Hiba parallels for these highly decorated types come from floor context but a few examples were found in the fills. Bases with diagonal criss-cross designs and rims with notched ridges similar to Al Hiba examples are also known at Ur. The only parallel for Al Hiba's miniature fruitstands, 2H19 and 2HP319 [pl.IX:1,6], comes from a grave in Abu

⁴² Mackay, AM I, pl.XI.

⁴³ Postgate et.al, ASE II, e.g. grave 32:8 fig.128. Grave 35:2 fig.129 is a type generally like the Al Hiba fruitstands.

⁴⁴ Moon, Iraq 44 (1982), e.g. fig.12 #58.

Salabikh.45/

STANDS

2HP94 [pl.IX:2] is probably of a common type of hollow stand similar to Ur RC 245, a type also found at Tell Abu Salabikh. 2HP114 [pl.IX:3] is a distinctive shape with an exact parallel (although published upside down) from the Sin Temple level IX which was dated E.D. II-III. 2HP282 [pl.IX:4], a stand with flared rim and string cut base, is found in the Diyala beginning in levels of the early Akkadian period, and becomes more common later according to Delougaz.^{46/} 2HP41 [pl.IX:5] may have a relation in a Fara tubular stand with pedestal base.^{47/} Squat hollow stands such as 2HP117 [pl.X:1] and 2HP298 [pl.X:2] are not uncommon in the graves of Abu Salabikh, nor in the Ur graves. A more squat version is found at Fara.^{48/} 2HP111 [pl.X:5], an unusual shape, has its only parallel in the Diyala, Tell Asmar houses IVB. This is a type which is considered transitional between Early Dynastic and Akkadian by Gibson,^{49/} and Delougaz dated the level

45 Moon, ASE III, fig.217.

46 Delougaz, Pottery, C257.210.

47 Martin, Fara, 657:8.

48 Martin, Iraq 45 (1983), fig.2:10.

49 Gibson, AJA 86 (1982), p.538.

from where it came also to the early Akkadian period.^{50/}

VATS

Although vats made up only 0.7% of the pottery from the area C building they must be considered distinctive of this assemblage when compared to their general scarcity at other sites of this period. Both at the A Cemetery, Kish and in the Abu Salabikh graves, vats only occurred in the specific "sets of four".^{51/} 2HP139 [pl.XII:3] has a rim similar to Abu Salabikh gr.28/16, although it is about twice the size of the Salabikh example. 1HP119 [pl.XI:2] has a similar rim type to Abu Salabikh gr.45/5 although here too the Al Hiba example is much larger. At Fara vats seem to be limited to the later Akkadian-Ur III periods; although here the unreliability of the stratigraphy must be borne in mind. In the Diyala, vats occurred in the Early and Main Northern Palaces, but were uncommon elsewhere. Al Hiba type 2HP322 [pl.XII:2] is generally similar to Ur III types at other sites such as Kish and

50 Delougaz, Pottery, p.xx

51 Cf. Postgate et.al, ASE II, fig. 123. Moorey, Iraq XXVIII (1976), p.164, suggested they were used for making a beverage; Gibson, Uch Tepe I, pp.73-75; 96-97, suggests that this beverage was beer. Moon, ASE III, does not mention if vats occur other than in the "sets of four".

Fara.52/ 2HP172 [pl.XII:1] has a thickened beak rim similar to Akkadian-Ur III Fara types.^{53/} The conclusions that must be made from the occurrence of these vats at Al Hiba is that the shapes began during the late Early Dynastic period and can no longer be considered as indicative of Akkadian-Ur III settlement only.

BASINS

Many examples of deep bowls of the undecorated types occur in Abu Salabikh graves but none of the incised and notched versions were found there, as far as I am aware.^{54/} Large bowls with rims that are set off by a sinuous profile are not paralleled there either. 2HP391 [pl.XIII:6] and 2HP186 [pl.XIII:7] have a good parallel in Ur type 33 where Woolley calls it a characteristically late form continuing into the Third Dynasty.^{55/} A large basin with notched horizontal ridge and ledge rim is found at E.D. II at Fara.^{56/}

⁵² Gibson, City and Area, p.281 fig 34, McC.Adams, Heartland, pp.301 ff.; fig.8.; Martin, Iraq XLV (1983), fig.2:13; 2:11.

⁵³ Martin, Iraq XLV (1983), fig.2:11, Fara, 1988, pl.170:3.

⁵⁴ Other than Moon ASE III, fig.169, an E.D. I bowl.

⁵⁵ Woolley, U.E. II, pl.252; p.390.

⁵⁶ Martin, Fara, 657:5.

VARIA

2HP243 [pl.XIV:1] is a small sinuous sided jar which seems to be a precursor of a Larsa type; no Early Dynastic parallels were found for this vessel. The small cup, 2HP239 [pl.XIV:3], has parallels from Early Dynastic I to Ur III periods in the Diyala. 2HP310 [pl.XIV:4], the small cylindrical cup with flat base, thick walls and a pronounced rim is also found at the Diyala (Khafajeh houses I) but it is about twice the size of our example, a parallel for this cup also comes from Abu Salabikh. The small cup with pellet feet [pl.XIV:5] is also found at Khafajeh houses I and dated to E.D. IIIB by Delougaz. 2H180 [pl.XIV:6] is a funnel which has parallels in Ur and Abu Salabikh although both the Ur and Abu Salabikh versions are conical and have the ridge higher up. The use of this shape is illustrated very nicely on the limestone frieze from Tell al 'Ubaid in Baghdad.⁵⁷ A man with a long narrow jar is pouring a substance through such a funnel into a globular jar.

MISCELLANEOUS RIMS AND BASES

As the shapes in this category remain uncertain the reader is requested to refer to the catalogue pp. 256-270 for the detailed references.

57 Hall & Woolley, U.E. I, pl.31.

CONCLUSIONS

Although the collection of pottery comes from two levels of occupation within the burnt building there does not seem to be a chronological development or change between the two levels, as all the pottery categories are present in both level IA and IB. 58/ Thus the ceramics from both levels must be considered as belonging to the same historical period; E.D. IIIB according to the dating of the building by the texts.

Because this E.D. IIIB pottery differs from known E.D. IIIA and assumed Akkadian assemblages, one would perhaps arrive at the E.D. IIIB dating even without the epigraphical evidence. Certainly the vast majority of pottery has parallels with other E.D. III sites. This fact can be misleading, however, in that the larger part of the pottery is made up of conical bowls, a shape that has a long life span and cannot be used for dating criterion as no stylistic chronology can be made for it. In contrast, the conical goblets cannot be paralleled in the later Early Dynastic period other than at the southern sites of Fara and Ur. Here then is an E.D. III southern shape.

The long necked jars with convex bases, have few

58 The context for every occurrence of a specific shape is recorded in the catalogue pp. 206ff. with the exception of conical bowls and cups and long necked jars. These types are recorded in the distribution charts pp. 210 and 225 because they are so numerous.

parallels, and the shape seems to be most comfortable in the south, although rare examples can be pointed out elsewhere. The polished version of this shape seems to be the most distinctive of the Lagash corpus. It is noteworthy that the vessel inscribed with the name of a Lagash ruler is of this type [p.49 above]. Although long necked jars make up only 6.1% of the ceramic corpus, this is a large amount as it follows only conical bowls in frequency.

Large open forms of vats and basins, often decorated with notched or incised ridges, seem to be also distinctive of the Al Hiba area C building. These types are often assumed to belong in the Akkadian-Ur III periods and are particularly thought to denote occupation of those periods in surface surveys and settlement analyses. 59/ The occurrence of these vats in situ at Al Hiba, in a securely dated level, must lead to a reconsideration of their dating.

The carinated shoulder bottles seem to have parallels dated anywhere from E.D.II to Larsa period. No distinction can be made between small household jars of E.D. IIIA and E.D. IIIB. Ribbed ware is rare, as far as I am able to ascertain, both in E.D. IIIA and early Akkad as it is in the Lagash corpus. Globular jars are

59 Cf. Adams, Heartland, pp.301-319; Martin, Iraq XLV (1983), pp.24-31, Fara, 1988, pp.116 ff.

not uncommon in E.D. IIIA levels, but Akkad examples could not be located. Stemmed dishes made up only 1.2% of the pottery, a figure which supports the theory that this is a more northern shape.

Types conspicuously missing are upright handled jars, a chronological indicator for E.D. III at some sites, and spouted pots. The lack of the latter would seem to support Delougaz's statement that spouted pots become rare towards the end of the Early Dynastic period 60/, but the absence may also be taken as peculiar of E.D. IIIB assemblages in the south.

The comparison of the Al Hiba pottery assemblage to ceramics of other sites has shown that the Al Hiba burnt building is to be placed between the E.D. IIIA and Classical Akkadian period, a conclusion supported by the inscriptions. The Al Hiba assemblage is then a clear-cut assemblage of the E.D. IIIB period in the south, and cannot be absorbed into the earlier E.D. IIIA or the early Akkadian period. While the E.D. IIIB Al Hiba pottery reflects a continuum with both the preceding and later period showing that such delimitations of periods are clearly artificial it is a unique assemblage, distinctive of the region and time of its production.

Chapter IV
The Objects

An assortment of artifactual and non-artifactual material was found scattered throughout the burnt building at Tell Al Hiba, and both types of finds were recorded thoroughly for all loci. All of the non-ceramic artifactual remains are presented below as well as ceramic artifacts not discussed with the pottery. The analysis of non-artifactual material is beyond the scope of this study and those remains will only be considered as data with the general object distribution within the building discussed in chapter V. The texts were studied from the publication by R.D. Biggs. These will be considered in context in order to bring into focus the reconstruction of the building. The data on the small objects was taken from the field notes, day sheets, and a catalogue of the better preserved or more significant finds made up by the excavators at the site. The catalogued objects were studied in the Iraq Museum. They are here dealt with in three main groups: Sealings, texts, and small finds.

SEALINGS

Although seals and sealings have long played an important part in providing a source for the iconography and study of stylistic developments in

other artistic media the possible function of these objects has received little attention. While distinction was made between stamp seals and cylinder seals, all sealings were referred to as jar sealings and were assumed to be discards from the necks of ceramic vessels. The imprint on the sealing made by the sealed object on the reverse, or side without pictorial design, was not considered. The first study to appear which concerned itself with the function of sealings analysed the seal impressions of the palace at Phaestos in Crete. The author of this work, Enrica Fiandra of the University of Rome, first established the technique and methodology necessary for this type of investigation.^{1/} A number of similar studies followed, still largely the work of Fiandra, focussing on the site of Shahr-i Sokhta in Iran.^{2/} More recently Richard

1 E. Fiandra, "A che cosa servivano le cretule di Festos", in Pepragmena tou B' Diethnous Kritologikon synderiou 1, Athens, 1968, pp.383-97; E. Fiandra, "Ancora a proposito delle cretule di Festos: connessione tra i sistemi amministrativi centralizzati e l'uso delle cretule nell'età del bronzo", Bollettino d'Arte serie V,60 (1975), pp.1-25.

2 E. Fiandra and P. Ferioli "A proposal for a multi-stage approach to research on clay sealings in protohistorical administrative procedures" in South Asian Archaeology 1981, ed. B. Allchin, Cambridge, 1984, pp.29-43; Fiandra & Ferioli, "The administrative functions of clay sealings in proto-historical Iran", Iranica, 1979, pp.307-331; E. Fiandra, P. Ferioli & S.Tusa, "Stamp Seals and the Functional Analysis of their sealings at Shahr-i Sokhta II-III (2700-2200 B.C.)", South Asian Archaeology 1975, ed. J.E. Van Lohuizen-De Leeuw, Leiden, 1979, pp.12-26.

Zettler of the University of Pennsylvania has published some sealings from the Inanna Temple at Nippur 3/, and sealings from the seal impression strata 8-4 at Ur.4/

The importance of sealings in bureaucratic procedures has been reiterated by several scholars. Whether a seal was applied to a receptacle or to the door of a room, it assured the contents within; a guarantee provided by the seal owner. It has been pointed out by Zettler that in the Inanna Temple, during the Ur III period [2112-2004 B.C.], the majority of sealings could be associated with the chief temple administrator whose father had also been a temple administrator before him.5/ In a text of Urnanshe of Lagash the capture of the Kishib-gal from Ur is mentioned.6/ This title, translatable as "Seal-bearer"7/, is listed along with titles of several important officers, including the leader of Ur himself thus indicating the importance of the official in

3 Zettler, "Sealings as Artifacts of Institutional Administration in Ancient Mesopotamia", JCS 39/2 (1987), pp.197-240.

4 Zettler, "Pottery Profiles Reconstructed From Jar Sealings in the Lower Seal Impression Strata (SIS 8-4) at Ur: New Evidence for Dating" in Festschrift Helene J. Kantor forthcoming.

5 Zettler, JCS 39/2 (1987), p.222.

6 Cooper, SARI I, p.25: LA.1.6.

7 Ibid., n.5.

charge of sealing procedures. The information gleaned from Al Hiba on sealing practices, when considered with other artifactual data, may also help to partly reconstruct Lagash administrative practices.

In this study 151 sealings retrieved from the Al Hiba area C building are analysed. Impressions, or positives, of the backs of these sealings were cast in the Iraq Museum, Baghdad in 1986-87.⁸ The types of objects sealed were determined from these casts. Once this information was obtained the sealing types were considered within the context of their findspot. No stylistic or iconographic analysis has been made of the actual seal impressions, or obverse, but the sealing types were compared to the general theme presented on the impression in order to determine if there was any standard correlation between obverse design and type of object sealed.

Six main categories of sealed objects were determined from the positive casts of the sealings, the majority of which consisted of door locking devices in the form of pegs or knobs [pl.XLIV-XLV]. The knob or peg was used to fasten a rope attached to the door into the door jamb. The rope was twisted around the peg, knotted, and then the peg or knob was inserted into a

⁸ Due to the shortage of clay and photographic film, not all of these could be baked and photographed. Thus illustrations are limited to exemplary types.

wall plaque with a central hole in order to secure it.^{9/} The plaques could be of stone, rectangular in shape and carved with scenes, or be simply small terracotta discs with central holes. The central hole is usually circular in section although it could also be square.^{10/} The pegs, or pegs with knob finials may have been made from wood, terracotta, or metal but in every case the sealing bears the impression of a smooth surface. One example of a peg, however, is possibly made from the interior of a palm tree trunk as the thick, rib-like grain of the wood is visible [pl.XLVI:1]. Three examples of actual stone knobs were found in rooms 18, 20, and 55 [pl.LXVII:6]. Some simple terracotta discs were also found in conjunction with sealings [pl.LII:4-5]. Such methods for securing doors have been attested for the Bronze Age from Crete to Central Asia.^{11/} The Al Hiba sealings provide further

9 Zettler, in JCS 39/2 (1987) pp.212-213 figs. 3 and 4 reconstructs a method of fastening the door with a hook in place of the rope or cord. No such hook impression was seen by the present writer among the Al Hiba sealings.

10 Hansen, JNES XXII (1963), pp.147-153, Hansen first reconstructed the operation of fastening a door to a peg in the wall plaques by means of a rope. He also noted (p.152) the occurrence of a terracotta disc on a wall in a passageway at the palace of Mari, and associated it with door fastening; plaques with square holes are recorded here by Hansen p.148.

11 E. Fiandra, Pepraqmena tou B'Diethnous Kritologikon Synderiouu I Athens, 1968, pp.383-97; E. Fiandra, Bollettino d'Arte serie V,60 (1975), pp.1-

evidence that this method of sealing door locks was already in use in the E.D. III period in Mesopotamia.

The remainder of the sealings seem to have been removed from containers of various commodities. Twelve examples of knotted and tied bags were sealed, much in the same manner as modern day diplomatic pouches. The imprints left on the sealing backs suggested that these bags were made of leather in some cases [pl.XLIX:2], and in others woven cloth [pl.XLVIII]. Six bulla shaped sealings were recovered and in every case they had adhered to a form of matting [pl.XLVIII, XLIX:1]. The weave of the matting differed in each of the sealings but it was clear in all cases that it had been made of reeds or rushes. Each bulla also had traces of a rope which was pulled through the thickness of the clay. This rope must have been used to tie up the reed box or basket before sealing it. Jar sealings were represented by eight examples. [pl.XLVI:2]. In each example the imprint of what seems to be leather held in place by cord, or the weave of a gauze like material, were visible. These covers must have secured the contents of the vessel. Five sealings seem to have come off of a smooth surface with right angles, such as a wooden box.

25; Fiandra, Bollettino d'Arte 57 (1982), pp. 1-18; E. Fiandra & P. Ferioli, South Asian Archaeology 1981, 1984, pp.124 ff. provides a list of all the sites from which sealings were studied by these scholars. Sealings from some sites that were studied remain unpublished.

One example of a very large chunk of sealing clay would make the most sense coming from a doorsill or bolt, and another unique example seems to have been placed on a twig.

The following chart shows the percentages of types of objects sealed within the building:

Pegs	76	50.3%
Knobs	13	8.1%
Pouches	12	7.5%
Matting	9	5.6%
Jars	8	5.0%
Boxes	5	3.1%
Sill?	1	0.6%
Twig	1	0.6%
Uncertain	26	17.2%
-----	-----	-----
Total	151	100%

The subject matter of the seal impression represented on the obverse of the clay sealing was compared in every case with the impression left by the sealed object on the reverse. Although the results did not show any form of recurring pattern they are presented in the charts [pp. 417-422]. The use of sealings bearing various motifs in the same context is contrary to the theory recently posed by Mark Brandes who suggests that the theme on the seal reflects the nature of the administration.^{12/}

Seven seals seem to have been used repeatedly in this building and six of these were used in the same

¹² M. Brandes, Siegelabrollungen aus den archaischen Bauschichten in Uruk-Warka (Freiburger altorientalische Studien 3) Wiesbaden, 1979.

rooms, room numbers 20 and 35. Half of the total amount of sealings that were recovered came from these two particular rooms (33 in room 20 and 37 in room 35). In both rooms the majority of the sealings came from level IB. In room 20 one seal was re-used eight times and another seal re-used twice, both of these seals had been used to secure the door locking device.^{13/} In room 35 two seals were re-used eight times each, and another two seals were re-used three times each in both level IB and IA. Again, all the sealings had been broken off from either a peg or a knob. Another seal was re-used three times in the building but in each case the back was too chipped for the identification of sealed objects.^{14/}

It is clear from this evidence that at least two particular doors in this building, a door in room 20 and a door in room 35, were repeatedly locked and sealed by the same person, or at least under the authority of the same person who guaranteed the locking with his seal. Other doors in the building seem to have been sealed repeatedly this way but without repetition of the same seal. These rooms include numbers

13 V. Hansen, Seal Impressions, pl.XV, fig 21 for the impression of one of the seals re-used eight times in room 20.

14 V. Hansen, Seal Impressions, pl.XV, fig.28 for the impression of a seal re-used eight times in room 35.

22,24,45,46, and 89. In the three cases when the same seal is re-used eight times in the same locus the process of opening and re-sealing must have taken place over several days. Studies by Fiandra have revealed that a sealing took anywhere between 18-26 hours to dry therefore each sealing must have been in place at least one day before it was removed as none of them had the misshapen appearance indicative of being removed while still wet.^{15/}

That this sealing procedure took place indicates that the building had at least in part, administrative functions.^{16/} What may have been the commodities stored in these locked rooms and receptacles has still to be analysed in chapter V.

TEXTS

Another group of finds which provides evidence for administrative transactions taking place within this building is that of the texts. Thirty-two texts were recovered from various loci and published by R.D. Biggs.^{17/} Three of these, found in later cuts, are from the Sargonic and Gudea periods and thus will not

15 Fiandra et.al., South Asian Archaeology 1975,p.19.

16 The status of the authorising official is unclear but it is interesting to note that in this building the sealing of Eannatum, ensi of Lagash was not used on a door lock.

17 Biggs, Bi.Mes. 3.

concern us here. Of the remaining twenty-nine texts twelve were concerned with the receipt of commodities. The goods recorded include reeds, wool, copper, oil, ghee, bread, grain, onions, flour, and land. The other seventeen texts are either of a literary nature or are dedicatory inscriptions. Half of the texts making up the second category, a total of nine tablets, were recovered from one room, room 7/18. Seven of these were from the level IA floor, one was in a cut of IA. Room 4 produced two tablets from the fill, one of which [2H22] is related to a text recovered from the IA floor in room 7/18. The second tablet from room 4 is a dedicatory inscription of Enannatum I apparently commissioned by his son Enmetena. 18/ The remainder of the tablets were found in various loci and are not associated with one another.

A total of eight inscriptions mention royal names; among these are the impression of Eannatum's seal from room 89 and a sherd from a polished vessel (room 12) belonging to either Eannatum or Enannatum I as the first sign of the name is missing. A clay cone bearing Enmetena's name was found in room 55 in a IA cut. Enannatum I is mentioned in six tablets, and his official, Shuni-aldugud, is mentioned in four of these. These ensi inscriptions date the levels IA and IB both

18 Cooper, SARI I, p.47, La 4.2.

to the E.D. IIIB period. Level IB belongs to the period of Eannatum -Enannatum I and Enmetena, and level IA is to be dated to Enmetena and possibly his successors.

The collection of such a variety of subjects in a group of tablets is not unusual, since a similar mixture of administrative and literary texts occurs in the Fara archive from the "tablet house" at Fara and in the Tell Abu Salabikh texts from the area E administrative building.^{19/} A mixture of literary and economic texts was also recorded in the archive recovered from palace G at Ebla. Although from Syria, this archive shows a scribal tradition similar to the one in Mesopotamia proper, and connexions with the Abu Salabikh texts are especially strong. However, these three archives differ from Al Hiba's texts in that the Fara archive was made up of 300 texts, the Abu Salabikh of over 500, and that from Ebla of about 2000. ^{20/} The relatively small amount of texts recovered at the Al Hiba burnt building would seem to preclude the idea of an archive. In fact, only seven texts from room 7/18

¹⁹ For the Fara texts see: Anton Deimel, Die Inschriften von Fara; Raymond J. Jestin, Tablettes Sumériennes de Šuruppak; Martin, in Le temple et le culte. For the Abu Salabikh texts see R.D. Biggs, OIP XCIX.

²⁰ For the Ebla texts see G. Pettinato, "I testi cuneiformi della biblioteca reale di Tell Mardikh. Notizia preliminare sulla scuola di Ebla", Rendiconti della Pontificia Accademia Romana di Archeologia 48 (1976) pp.46-68; P. Matthiae, Ebla, An Empire Rediscovered, pp. 150 ff.

can possibly be thought of as a collection. The remainder of the texts, which include ten of the twelve inscriptions regarding the receipt or allotment of commodities, were found individually. Such a dispersement of the administrative texts, along with the fact of their relatively small number, would seem to indicate that the inscriptions were mostly the records of daily transactions. Their small number may indicate that such records were only kept for a short period of time, or were perhaps sent to an archive in another location.

The seven tablets from the IA floor of room 7/18 include one riddle, one spelling, three literary, and two administrative texts. It is conceivable that such an assortment of subjects was collected in a schoolroom, and may have been used to teach novice administrative officials or apprentice scribes to write. Literary, administrative, and dedicatory inscriptions were used for instruction in the Old Babylonian period. It is uncertain, however, whether the practices of the early second millennium can be relied on to reconstruct Early Dynastic customs. Nevertheless, the existence of at least one brick bench in room 7/18 strengthens this conjecture.^{21/}

21 V. chapter II, pp. 57ff. above.

SMALL FINDS [Pl.L- LXXV]

The last group of finds to be considered is that of the small objects. These are divided according to material into terracotta, stone, bone, and metal artifacts, and are presented as a detailed catalogue (appendix E). A total of 375 pieces were considered from the area C building: Eighty-nine pieces of clay and terracotta, twenty-three pieces of metal, fourteen pieces of bone, and 251 stone pieces. The last figure includes 227 carnelian beads of varying sizes that may belong to one necklace [pl.LXVII:2 and pl.LXXII:2].^{22/} The largest bead had an etched design done by a method known to be imported from the Indus.^{23/} All the carnelian beads were found in a small undecorated jar, wrapped in reed matting as if placed for storage, in the fill of level IA. Etched carnelian beads appear in Mesopotamia during Early Dynastic IIIA and are found, most often, in archaeological levels belonging between E.D. IIIA and Akkad. By the early second millennium manufacture or import of these beads seems to have stopped.^{24/} The etched bead from Tell Al Hiba has a white design on the red carnelian stone. This is the commonest type known. Other types known in the third

22 Hansen, Artibus Asiae (1973), p.69, fig.16.

23 E. Porada, COWA, 1956, p.164.

24 Moorey, Materials and Manufacture, p.141.

millennium include beads with black designs on white (whitened carnelian) and beads with black designs on red.^{25/} Carnelian beads are found at numerous Early Dynastic III Mesopotamian sites and are, in fact, more commonly found there than elsewhere.^{26/}

Other stone objects from the area C building include weights, pendants [pl.LXXIII; LXXIV], "doorknobs" [pl.LVII:5-6], and alabaster and marble vessels. The latter include two conical bowls and a cylindrical vase with a square base [pl.LVII:2 and LXXII:1]. Both shapes are known from other late Early Dynastic sites. ^{27/} While stone vessels may have been manufactured in Sumer the stone for the vessels had to be imported. The alabaster for example, was possibly from an eastern source such as the Sistan area of Iran ^{28/}.

Terracottas are comprised mostly of loom weights, net sinkers or spindle whorls [pl.L:1-3 and pl.LX], and

²⁵ J. Reade, "Early Etched Beads and the Indus-Mesopotamia Trade", British Museum Occasional Paper no.2, 1979, p.5.

²⁶ Julian Reade, op.cit., has put together a catalogue of all reported early etched carnelian beads.

²⁷ Woolley, UE II, pl.; 241:3; pl.242:15a; Mackay, AM I, pl.LIV:6, 9, 15.

²⁸ Cf. R. Ciarla, "A Preliminary Analysis of the Manufacture of Alabaster Vessels at Shahr-i Sokhta and Mundigak in the 3rd. Millennium B.C." in South Asian Archaeology 1979, Berlin, 1981, pp.45 ff.

a number of chariot and boat models, human and animal figurines that were probably children's toys [pl.L:10-18; pl.LI:1,3,5-9; pl.LXII-LXVI] 29/. Corethia Qualls has collected and catalogued Mesopotamian boat models belonging to the period before 2000 B.C. 30/. She discusses the chronological range of shapes but provides no interpretation of the significance of boat models in ancient Mesopotamia.

Chariot models, human and animal figurines occur at several Early Dynastic Mesopotamian sites. At Kish a number of chariot models and figurines were found just below the surface of mound A. 31/ Mackay, in his original publication of the material from this mound interpreted these as children's toys and pointed out that these are always carelessly hand made, and never produced by a mould.32/ Some examples from Kish (e.g. Mackay, AM I, pl.XLVII no.11, an equid figurine) were considered to belong to the period of the graves. At Ur, human and animal figurines are listed among the contents of some graves (e.g. predynastic grave 172,

29 Cf. E. Ochsenschlager, Archaeology 27/3 (1974) pp.162-172 for modern Al Hiba parallels for these ancient toys.

30 C. Qualls, Boats of Mesopotamia Before 2000 B.C., Columbia University Ph.D. dissertation, 1981.

31 Mackay, AM I, pl.XLVI-XLVII.

32 Ibid., pp.209 ff.

second dynasty grave 184). These examples however, are not numerous. Human and animal figurines, boat and chariot models from Fara were catalogued by Harriet Martin.^{33/} Martin also suggests that these terracottas were playthings.^{34/} Terracotta figurines, boat and chariot models were listed in the catalogue of the finds from the private houses and graves in the Diyala region.^{35/} At Abu Salabikh, small terracotta figurines of indifferent workmanship were among the finds recovered from the ashtip in area E 36/.

Two standards, one of a bird [pl.LII:2; pl.LIX:2]] and the other of an abstract form [pl.LII:1; pl.LIX:1] are also of terracotta. Standards are known from the Early Dynastic period in Mesopotamia from representations such as that on the Stele of Eannatum 37/ which is similar to the bird shaped standard [pl.LIX:2]. An actual copper standard was excavated at Telloh but this is in the form of a "ring bundle" or

33 Martin, Fara, pp.396 ff.; see also Heinrich, Fara, pp. 54-72 for terracotta figurines and models from that site.

34 Martin, Fara, p.88.

35 Delougaz et.al., Private Houses, pp.210 ff. from various contexts.

36 Postgate, Iraq XLIII (1980), pl.X:d.

37 Parrot, Telloh, pl.VI.

"gate post" motif.³⁸/ Standard bearers occur on the "Stele of Gudea" from Telloh.³⁹/ Two of the male figures appear to be carrying bird shaped standards, and one of these birds is actually a lion-headed eagle with outstretched wings. In the Akkadian period standards were represented on the victory Stele of Naramsin.⁴⁰/ Two (or perhaps more) standard bearers stand below Naramsin. The first man is carrying a standard of the "gate post" motif with a winged creature on top of it.⁴¹/ Similar standards are carried by two figures flanking the water god Ea (Enki) on an Akkadian seal.⁴²/ These standards also appear to be topped by birds or winged creatures.

Also included in the terracotta group are a number of sling pellets, scattered mostly through level IA [pl.LXVII:2]. Two terracotta discs with central holes are probably door locking devices like those found at Mari [pl.LXVII:5,6].⁴³/ A single clay gaming die was

38 Parrot, Tello, fig.15 no.17, p.62.

39 G. Cros et.al., Nouvelles fouilles de Tello III, Mission Française de Chaldée, Paris, 1914, p.291, fig 6, pl.X.2.

40 P. Amiet, L'art d'Agadé au Musée du Louvre, Paris, 1976, p.93, fig.27a.

41 Ibid., fig.27c.

42 Ibid., p.114, no.79.

43 Cf. Malamat, Doorbells, pp.160-167, fig.5,7 for parallels.

found in an oven of room 68, level IA. [pl.L:6 and pl.LXI:1]. In shape and number formation this is a precursor of modern dice although the dots on the opposing sides are arranged differently. 44/ Most ancient dice do not have the same arrangement of numbers as modern dice on which the opposite sides always add up to seven.45/ Several examples of dice are known from other third millennium sites but, as pointed out by G.Dales,46/ dice are characteristic of the Indus Valley. They were found in great quantity at Mohenjo-daro and Harappa and were also imported into Altyn Tepe in southern Turkmenia.47/ In Mesopotamia a terracotta die from Tepe Gawra level VI was dated to the Akkadian period.48/ At Tell Asmar, a clay die was found in a hoard buried in a vessel underneath an Akkadian house

44 Hansen, Artibus Asiae (1973), p.69.

45 G. Dales, "Of Dice and Men", JAOS 88 (1968) pp.14 ff.; n.23.

46 Ibid., p.18.

47 Ibid., pp.14-23 Dales lists the following sources: Sir John Marshall, Mohenjo-daro and the Indus Civilization, 1931, pl.CLIII 7-10, pp.551-552; E. Mackay, Further Excavations at Mohenjo-daro, New Delhi, 1938, pl. CXL:63 for examples of agate and limestone dice; pl.CXLII:85-86 examples of grey stone dice, pp. 559-560; M.S. Vats, Excavations at Harappa, 1940, pl. CXX:46-48 and 51-54, here was an example of a faience die.; For Altyn Tepe see V.M. Masson and V.I. Sarianidi, Central Asia. Turkmenia Before the Achaemenids, London, 1972, p.117, fig.29.

48 E.A. Speiser, Excavations at Tepe Gawra Vol.I, 1935, p. 82; pl. XXXVII fig. A.

floor.49/ At Ur an example of a bone die with incised dots was dated to the First Dynasty of Ur, and another example of clay was found loose in a pit in the Royal Cemetery.50/ Also from Ur, pyramidal shaped gaming dice were found in the grave of queen Pu-Abi in the Royal Cemetery.51/ At Shahr-i Sokhta gaming dice were found in grave IU 731 (2400-2300), along with pawns, in a basket close to the body of the deceased. The dice were not cubical but rectangular in shape and bore the numbers 1-4 only.52/

The metals category includes various tools and weapons, one ring [pl.LIV and pl.LXXI], and an eighteen piece hoard of metal vessels [pl.LIII and pl.LXVIII,LXIX,LXX]. The copper hoard had been wrapped in reed matting, or had been placed in a basket and then buried beneath the IA floor in room 5, just east of the doorway connecting to room 4. A convex based bucket held an axe, six bowls or "sauce boats" that nestled together [pl.LXVIII:2], three small vessels,

49 H. Frankfort, "Tell Asmar, Khafaje and Khorsabad: Second Preliminary Report of The Iraq Expedition", OIC XVI (1933) p.48.

50 Woolley, UE IV, p.44 and figs 7a and 7b.

51 Woolley, UE II, p.278, pl.158.

52 M. Piperno, "Evidence of Western Cultural Connections from a Phase 3 Group of graves at Shahr-i Sokhta", Mesopotamien und seine Nachbarn, 1987, pp.79-85, Taf.XXII.

and two strainers. The bucket was sealed by two balance pans acting as lids, and covered with a large inverted vessel [pl.LIII:a; pl.LXIX:1]. Adhering to the exterior were an axe [pl.LXIX:2] and two adzes [pl.LXX].^{53/} Such a hoard was recovered from the Early Northern Palace at Tell Asmar in the Diyala region where seventy-six copper vessels and six copper implements were hidden in a ceramic pot and concealed in a wall.^{54/} Another similar hoard is known as the "cachette" of Susa Dâ.^{55/} This was a large painted jar, covered by a bowl, containing metal vessels and utensils, alabaster vases, seals, a lapis lazuli frog and gold beads.

The vessel with flared rim [pl.LIII:1] has a parallel from Ur, PG/3 56/. No exact parallel for the bucket [pl.LIII:2] is known although metal buckets were found at Ur.^{57/} The axe [pl.LIII:3] has parallels from mound A, Kish 58/, and from the Ur graves 59/. The

53 Hansen, Artibus Asiae (1973), fig.12-13.

54 Delongaz et.al., Private Houses, pp.184-185; Frankfort, OIC XVII, pp.37-39; figs.32-35.

55 Le Breton, Iraq XIX, (1957), p.118, fig.40.

56 Woolley, UE II metal type 23 pl. 195.

57 Ibid, pl.184 type 50; pl.237 no.76 but this has a flatter base.

58 Mackay, AM I, pl.XXXIX no.2342.

59 Woolley, UE II, pl.223 type A.

adze, [pl.LIII:4] has parallel types from Ur 60/ and from the Susa cachette, 61/ as well as from Kish.62/ The balance pans [pl.LIII:7-8] have their only parallel in the Susa cachette number 23. This pan is also perforated in four places just as the Al Hiba examples.63/ The sauce boats [pl.LIII:9] also have parallels in the Susa cachette.64/ Similar nestling bowls were found at Ur 65/ and at Tell Asmar in the copper hoard of the Early Northern Palace.66/ The deep cup [pl.LIII:10] has no exact parallel. The strainers [pl.LIII:5-6] have general parallels from Ur and from Kish, although lacking the flared rim.67/ More similar strainers were found in the Tell Asmar hoard 68/ and the Susa cachette.69/ The jar type [pl.LIII:12] has a

60 Ibid, pl. 229 type 1.

61 Le Breton, Iraq XIX, (1957), p.118 fig.40 no.27.

62 Mackay, AM I, pl.XXXIX:2.

63 Le Breton, Iraq XIX (1957), p.118 fig 40 no.23.

64 Ibid no.31;34.

65 Woolley, UE II, pl.190, fig.5.

66 Delougaz et.al., Private Houses, pl.74.

67 Woolley, UE II, pl.238:96; Mackay, AM I, pl.XX:10.

68 Delougaz, Private Houses, pl.74 E-right.

69 Le Breton, Iraq XIX (1957), p.118 fig.40: number 40.

parallel from the Susa cachette.^{70/} The only parallel for jar type 11 came from Ur.^{71/}

The bone category is made up of tools made of worked animal horn and one set of nine shell rings similar to ones said to have been girdles in graves at Ur [pL.LV].^{72/} In comparison to the prodigious amount of pottery found in the area C building the remainder of the artifactual material, other than the sealings, seems meagre. The collection of texts cannot be considered an archive, and the small finds, although including a few examples of valuables such as the carnelian beads and the metal hoard, are sparse. It is interesting to note here that both of the most valuable finds can be considered as having been hidden. The context of these concealed finds and the distribution of all the material already discussed will further be dealt with in chapter V.

⁷⁰ Le Breton, Iraq XIX, (1957), p.118, fig.40, no.33.

⁷¹ Woolley, UE II, pl.236:68.

⁷² Woolley, U.E. II, p.71.

Chapter V
Room Assemblages

The aim of this chapter is to present the assemblages of artifacts from each locus of the area C building, and to attempt an identification of possible room functions based on the artifactual and non-artifactual material. Owing to the limited amount of small finds available for interpretation, a precise identification of room use is impossible. Thus, the specific functions assigned to each sector of the building are tentative suggestions made to provide a basis for further discussion.

As the artifactual material has already been discussed in detail elsewhere, the objects will here be placed into general categories. In the charts on pp. 416 ff. the finds of ceramics, objects, non-artifactual material, and room features have been listed for each locus. For the sake of comprehensibility the pottery vessels have been categorised according to their traditional names on these charts. In the discussion, their functions have been assigned on the assumption that both the shape and the quality of the form and finish reflect use ^{1/}. The following functions are

¹ For studies of ceramic form and function cf. E.F. Henrickson and M.M.A. McDonald, "Ceramic Form and Function: An Ethnographic Search and an Archeological

suggested:

Pl.I&II	conical cups and bowls	eating/drinking
Pl.III	bottles	
Pl.III	ribbed ware bowls	
pl. IV	globular pots	cooking
Pl.V	long necked jars	liquid (oil/ghee) ² /
Pl.VI	long necked jars	liquid containers
Pl.VII	household jars	food containers
Pl.VIII	stemmed dishes	
pl.IX	stands	pot stands
Pl.X	stands	pot stands
Pl.XI	vats	industrial: dying,
Pl.XII	vats	soaking etc.
Pl.XIII	basins	"
Pl.XIV	varia	

The sealing category is not subdivided here according to the object sealed as the sealings charts [pp. 315ff.] can be consulted for further detail. The text category is subdivided according to subject matter, into administrative, literary, dedicatory inscriptions, and school texts.

The small finds which have been presented according to material are here categorised by function. Spindle whorls and loom weights make up the category of "spinning & weaving". Weights are made up solely of stone pendants of various sizes, one of which, 2H240, was inscribed with the marks 71111 possibly reflecting

2 V. chapter III above, pp. 91-94.

the amount [pl.LXXIII:1]. Worked bone, metal tools and flint knives are all placed under the general category of "tools". The category labelled "toys" includes terracotta model chariots and boats, and miniature human and animal figurines of indifferent workmanship. Miniature pottery shapes, which might also be considered toys, are not included in this category but only in the category "miniatures" among the pottery vessel tallies. The "valuables" category includes such objects as semi-precious stone beads, metal vessels, and other objects of value. A category named "other" has been added to accomodate objects whose function or value is unclear. The category of "door locking devices" includes stone knobs, and a certain type of terracotta disk with a central hole of a diameter large enough to accomodate a peg [e.g. pl.LII:4,5].

The category "room features" is a grouping of such non-architectural features as heating and drainage facilities as well as architectural features such as paving and wainscotting. The final category, "non-artifactual material", includes all non-artifactual material recorded in the field notes and day books including: unworked bone, shell, metal, stone, clean clay, bitumen and traces of matting or basketry.

The rooms will not be discussed in numerical order but in groups associated by access. In cases where door

location is uncertain, e.g. because of later cuts or deterioration of the wall, the rooms are grouped with immediately adjoining loci. [plans pp. 400ff.] Through this method of association the building has been divided into sectors.

SECTOR I [PL.CVI-CVII]

Room 5 [E210-220 N10-20] is a relatively large [7.15 x 2.20 m.] central room, with two exits to the south and one to the north. Against the northern wall in level IA stood a baked brick bench made of large rectangular bricks [pl.LXXXIV:2]. To the west of this bench, stood a hearth lined with bricks. No pottery vessels were recovered from floor level IA. In the earlier level IB, the locus was divided into three rooms, the westernmost room had a baked brick pavement [pl.LXXXIV:1] on which was found a cluster of pottery vessels consisting of fifteen eating/drinking vessels, one cooking pot, one large storage jar, and one fine ware jar. This room contained a hearth, as in the upper level. A copper hoard of eighteen objects wrapped in reed matting was found in the IB fill near the north wall [pl.LXIII-pl.LXX]. This hoard was presumably dug in from level IA.

The northern door in room 5 gave access to room 4, which was severely burnt. Several metal objects were found on the IA floor. Lumps of copper were strewn

around and one of them was discovered inside a stone bowl. Moreover, a bronze spearhead or knife was found baked into the floor. Also located on the IA floor were a stone knob, one cylinder seal, and one sealing. The sealing was a bulla with a cord running through it which had been placed on a reed basket. The basket possibly contained some commodity which was delivered to room 4 and utilised there. This level IA room was equipped with a hearth. In level IB ceiling beam remains were found in this room showing that it had been roofed. In the south-east section of the room was a deep hole with a channel running south, and at the western side stood a hearth [pl.LXXXII]. A stone knob, a terracotta disk with large central hole, and two cylinder seals were found here. Lumps of copper were found on this floor just as in the later level IA. A literary and a dedicatory text were found in the IB fill; the former was closely related in content to another such text found on the IA floor of room 7/18, located some ten meters to the south.³ Large amounts of pottery were found in both levels of this room: thirty-two vessels in IA, and fifty-one in IB. This pottery consisted primarily of conical cups and bowls, and storage jars. The vast amount of pottery vessels

³ Biggs, Bi.Mes. 3, no.27 and 28. 2H-T22 and 2H-T5.

recovered from both levels of room 4 would seem to suggest that these ceramics were being kept in storage here. The occurrence in this room of a tablet bearing a dedicatory text, and the deep hole with a drain channel may shed some light on the function of this area. The text, written on an unbaked clay tablet, commemorates a series of architectural and valorous accomplishments of Enannatum I, and states explicitly toward the end that it was to be copied onto a copper standard.⁴ Deep holes with channels are described at Uruk in what has been interpreted as a metal workshop of the late Uruk period [3400-3100].⁵ Apparently the smelted metal flowed through the channel, and was ladeled into terracotta moulds in the holes. The absence of other identifiable smithing tools need not necessarily invalidate the suggestion that this was a smithy. At Tell adh Dhiba'i, where a coppersmith's workshop of the early second millennium was found, all metal tools had disappeared and only clay objects remained. ⁶ Because of their value metal tools were more likely to be saved or stolen before the destruction of the building. Although the

4 Cooper, SARI I, La 4.2, pp.47-48.

5 Nissen, Bagh. Mitt. 5 (1970), pp.114-116; Wirtschaft und Gesellschaft, pp.8-10.

6 al Gailani, Sumer, 21 (1965), p.37.

identification of the deep hole and drain channel in this room as being related to metal-work is very tentative, it seems possible that room 4 was also a metal-working shop, with only small lumps of copper surviving in both levels. This room may have been a secondary workshop for the finishing of objects and copying inscriptions onto metal. As Early Dynastic inscriptions on metal were incised or chased and not moulded, no furnace or slag need have been present in such a workshop. The lumps of copper found throughout the room, and the text to be copied onto a copper standard support this theory.

Room 4 communicated with room 19, a small square room with heavily plastered walls located to the north. Nothing was found on the IA floor here and the IB floor yielded only a pottery stand and bovine horns. Both entrances into room 19, one from room 4 and another from room 21, were utilised during level IB and the early occupation of level IA. Surprisingly, they were both blocked off during the later occupation of level IA.

Room 5 had two doorways to the south. The easternmost door led to a suite of two rooms, numbered 1 and 6 [E210-20 N0-10]. In level IA room 1 yielded seventeen conical cups and bowls, one storage jar, a fine ware jar, and a cooking pot. A drain was found in

the south-east section of the room, and near it a piece of a model chariot. Room 6 had five vessels and one cylinder seal on the IA floor. In level IB rooms 1 and 6 were joined. On the paved floor some unworked diorite and a piece of unworked coral were found, as well as one administrative text concerning a land sale. These rooms may have functioned as a stone working area.

A baked administrative tablet dealing with grain was recovered from the other room adjoining room 5, room 2 (level IA). In that room there were six conical bowls, one fine ware jar, and one storage jar in level IA. In IB only a stone weight, an unworked piece of diorite, some clean chunks of clay, and a small amount of bones were found.

Directly south of room 2, but not connected to it by a doorway, stood room 7/18. This room had only one southern exit in level IA, and had both a hearth, and an oven in the south-east section. All the walls seem to have been wainscotted. Eight cuneiform tablets concerning various subjects were found here, 7/ and twenty-four ceramic vessels. This pottery consists of one storage jar, one vat, three stands, nine fine ware jars, and ten conical cups and bowls. Pieces of clean tablet clay, flint, and copper bits were also found on the IA floor. It has earlier been suggested, in chapter

7 V. chapter II above, pp. 48-50.

IV, that this room may have been used as a schoolroom and scribes' work place. The pieces of clean clay of good quality, of the type used for tablets, would seem to support this hypothesis, as does the presence of benches in both levels IA and IB of this room. The oven may have been used to dry some of the tablets. It is difficult to know why such a large amount of pottery would be needed here, but a certain amount of ceramic containers must have been necessary. Tablet clay, for example, was probably kept wet in large basins that were covered with towels and the vat here may have performed this function. The schoolrooms in the Old Babylonian palace of Mari (ca. 1800-1760 B.C.) contained many benches, and oval ceramic dishes that were identified by the excavator as containers for wet clay.⁸ No tools were found in room 7/18 that could have been used as a stylus, but it is possible that these were carried around by the scribes or that they disintegrated.⁹ The position of the room, with its doorway leading to the exterior of the building is also advantageous for a scribal workshop as some work must have been done outside in order to have the necessary light.

⁸ A. Parrot, Mission Archéologique de Mari II: Le Palais, Paris, 1958, pp.190 ff.

⁹ No writing implements were identified in the Mari schoolrooms either.

The groundplan of room 7/18 is different in level IB. It was partitioned in the centre at that time, and an additional doorway, later blocked off, gave access to room 14. The eastern part of 7/18 was equipped with a hearth, a drain, and a baked brick bench. A sunken basin, or another hearth, was found near the exit to room 14. One cylinder seal and one sealing were recovered from the western part of the room. Unfortunately the sealing was too chipped to allow the identification of the sealed object. A large amount of ceramic material was strewn throughout this floor level including a spindle whorl and eighty-seven vessels. It is unclear what the function of this suite may have been, and there is no real indication that it was a scribal room as in the later level.

In conclusion, sector I of the building possibly included a metal working area in room 4, and a stone working area possibly existed in rooms 1 and 6. Room 7/18 was perhaps a scribal room which may also have acted as a schoolroom. The metalworkshop, and the stone cutting area may have provided the facilities for scribes to create inscriptions on stone or metal such as are well known from excavated examples. The stone cutting area which had remains of unworked coral as well as diorite, may have also been used for cutting seals, some of which had to be inscribed. The use of

both these materials for seals is well attested. The proximity of a scribal workshop to a metalsmith's and a stonecarver's shops is not incongruous if these two crafts had been dedicated to the production of inscriptions on metal and stone.

SECTOR II [PL.CVIII-CIX]

Room 14 was directly north of room 7/18 and reached by it in level IB. Later, in level IA the doorway was intentionally blocked. Traces of roof beams were found in level IB, as well as twenty-three conical bowls, three long necked jars, and two storage vessels. Nothing was found on the IA floor other than some carbonised seeds and grain. Room 13, directly to the north, also bore traces of roof beams. Other than some traces of unworked shell, copper and flint found in IA, nothing was recovered from this locus.

Room 13 had a western exit to room 16 which was also roofed and traces of matting were found on both floor levels. Level IA had ten conical bowls and one storage vessel as well as nine shell rings. Level IB had only three conical bowls, two terracotta toy chariot wheels, a cone shaped object [2H144 Pl.LII:3], and a sling pellet. Room 16 led to room 36 [N10-20 E190-200], where no level IA floor was recognised, but level IB yielded some animal bones, two peg sealings, eighty-two conical bowls, two long necked jars, two

stands, two large bowls, and two storage jars. The large amount of conical bowls in this sector could indicate that it functioned as a food storage and distribution area.

SECTOR III [PL.CX-CXI]

Room 3 [N10-20 E210-220] was a long room to the east of rooms 1 and 6 but had no entrance into either of those rooms. Two exits provided access to locus 62, on the east and to room 9 to the north. A cooking oven or tanur stood in the north-eastern part of room 3 in IA. Twelve conical cups and bowls, three large bowls, two long necked jars, two storage vessels, one stand, and one vat were also on this floor level. Three sealings were found here, one of which could be identified as a jar sealing, while the other two were too chipped for identification. Two fragments of model boats were also found in this level. Level IB of room 3 was equipped with an oven, and a paved floor in the eastern side with a drain pipe leading from the paving to a cistern. Pieces of shell, charcoal, and bones were found on this floor, and one conical bowl. Locus 62 to the east was a corridor and yielded nothing other than a terracotta toy in level IB.

To the north of room 3 was room 9 [N10-20 E210-220]. A peg sealing was found below the IA floor here and a drain ran through the IA floor. Six ceramic

vessels remained. The level IB floor also had a drain pipe, and a central hearth, but no ceramic vessels or sealings were recovered here. A loom weight, a standard top [Pl.LIX:1], a terracotta disk with central hole, some copper lumps, and bitumen lumps with reed impressions were found on the IB floor. Room 9 had two northern exits, the easternmost one leading to room 8, and the western exit to room 12. Room 8, a small room, was empty except for one bowl on the IB floor. Very little was found on the room 12 floors but the threshold between rooms 9 and 12 was paved in level IB. It was in the fill of room 12 that the burnished ware sherd inscribed with the royal name Eannatum or Enannatum was found. Room 12 provides the only entrance to room 10 to its west. Level IA here yielded eight conical cups and bowls, and two long necked jars, a metal forked object, and a terracotta figurine. The level IB floor had two conical bowls, and one long necked jar. A hammerstone and a sling pellet were found in the fill.

It is difficult to determine the function of this series of rooms, [3, 9, 8, 12, and 10]. It is possible that the two larger rooms, 3 and 9, had been workrooms and the smaller rooms, 8, 12, and 10, which were mostly empty, storage rooms. This theory would be supported by the door locking device found in room 9 which may have

secured the door to room 12 or 8.

SECTOR IV [PL.CXII-CXIII]

The room which produced the second largest amount of sealings was room 20 [N0-10 E200-210]. Although most of these were door sealings, and often used the same seal, it is difficult to ascertain which adjoining room was being locked as the number of doorways are uncertain. It is clear that there was no entrance to room 7/18 to the east in either level, and that in both level IA and IB an entrance led to room 17 [N10-20 E200-210] located to the north. This doorway was lined with baked bricks in level IA. Only two cylinder seals and five sealings were found in level IA of room 20. In level IB nine conical cups and bowls, one vat, and one tray, were found on the floor. Twenty-five sealings came from this level, as well as two terracotta toys, and a miniature bowl or bottle cap. A rope shaped piece of clean clay, which may have been used for sealings, was also found on the floor. The IB floor bore traces of reed matting throughout the room. The adjoining room 17 yielded nothing from the floor levels of either IA or IB. The room seems to have been wainscotted and paved in both levels, and had a drain in the south-east corner in IB. This drain led from a baked brick basin, and continued through room 16, and northward to the outside of the building's west face.

Although it is unclear whether room 20 gave access to rooms other than room 17, and whether room 17 had any other entrance, it seems most likely that the sealings in room 20 were secured to the room 17 door. In both levels sealings were found close to this door, and in IA a cylinder seal of black stone was also found in the proximity of this doorway. The lack of artifactual and non-artifactual material in room 17 is conspicuous, but considered in conjunction with the room features it may lead to a possible identification of the function of this room. The wainscotting and paving, as well as the sunken basin of baked brick with the drainage pipe probably indicate some industrial function which required the use of a lot of water, most likely for soaking. That the room was repeatedly locked with the same seal indicates a closely regulated process. Perhaps the commodity was of some value, or the amounts of material had to be accounted for to a central authority. Several possibilities exist as to the type of craft this room was used for. In the Ancient Near East leather, textiles, and reed working all required a certain amount of soaking, either in dyes or in water.^{10/}

¹⁰ For ancient Mesopotamian leather working v. V.E. Crawford, Terminology of the leather Industry in Late Sumerian Times. Ph.D. dissertation, Yale University, 1948. P. Delougaz identified the Main Northern Palace at Tell Asmar as a workshop containing

Room 20 does not seem to have had an exit into locus 25, but may possibly have had a another exit to square E190-200 N0-10 through room 37. Only one sealing of uncertain type, and one sling pellet were found on the IB floor in room 37; no IA floor existed, and it is unclear if the rooms 38 and 40 in this square belong to the same building.

Room 36 and room 39 [N10-20 E190-200] had only IB floor levels. Both rooms yielded large amounts of ceramic vessels but nothing else. Room 39 had a hoard of fourteen miniature vessels in the south east corner. These were mostly hand made and left unbaked, and retained no traces of contents.

As room 15 [N10-20 E200-210] had a niched doorway it may have provided one of the main entrances into the building. This room yielded a large amount of pottery vessels in both levels, and some carbonised seeds, but no other remains. An eastern door led to room 11 in the

a tannery in Delougaz et.al., Private Houses, p.198. Cf. also Henrickson's identification of the Northern Palace as a group of workshops including a textile industry: Henrickson, Mesopotamia XVII (1982), pp.29 ff. Cf. also chapter VI below for a discussion of the function of the Northern Palace. A Neo-Babylonian tablet in the British Museum provides recipes for the dyeing of textiles which indicate that soaking and boiling were required. V. E.V. Leichty, "A Collection of Recipes for Dyeing", AOAT Band 203: Studies in Honor of Tom B. Jones, ed. M.A. Powell Jr. & Ronald H. Sack, 1979, pp.15-20. For a description of modern reed working in southern Mesopotamia v. Ahmed Jabbar Mohammed, "Al Seiba" in Turath al Sha'bi 11/12 (1984), pp.77-96 (in Arabic).

same square. Here a lot of carbonised seeds and grain, as well as bones and charcoal, were found on both floor levels. Level IB had twenty-nine conical cups and bowls, and one medium jar. Level IA had only one conical bowl and one storage jar. Two sling pellets, and a large bead were found in the IA fill. Perhaps room 11 was a storage room for sacks of seed and grain. This seed and grain may have been distributed to the exterior through room 15.

SECTOR V [PL.CXIV-CXV]

The group of rooms to the north of those already discussed is more difficult to interpret in plan as they were badly preserved. Room 21 and room 32 [N20-30 E200-210] were mostly empty. Other than some bitumen, no remains were recovered to aid in deciphering the function of these rooms. In the next square [E210-220 N20-30] rooms 31-35 were also mostly empty, but in room 35, thirty-seven sealings, the majority of which were from doors, came from the IB fill and floor. On the IB floor two layers of large bricks of fine clay, of a type probably used for tablets or sealings, were found against one of the walls. Room 34 to the west of 35 had a kiln in the southeast corner of IB. Perhaps the existence of this fine clay in close proximity of the kiln in the adjoining room reflects some activity but as the doorways in this area are difficult to

reconstruct one cannot conclude that the door sealings here secured the entrance between rooms 34 and 35.

In the next square [N20-30 E220-230] rooms 72-75 also were mostly empty and had no distinctive room features. A few tools, however, were found in locus 72 and the traces of a reed basket in locus 73.

SECTOR VI [PL.CXVI-CXVII]

The south-eastern wing of the building [E220-240 N0-20] contained fifteen rooms including rooms 53-56, 59, 60-70, 91. The most striking difference in the finds between the south-eastern wing and the south-western wing [sectors I-V] is the relative lack of pottery vessels from the south-eastern wing. The total amount recovered in these fifteen rooms is not more than the number of vessels found in rooms 15 or 18 in the south-western wing. Like the western wing, this sector had sunken basins, pavements and drains, as well as hearths and ovens in both levels. However, none of the rooms here had wainscotted walls.

It is clear from the small finds in both level IA and level IB that a different type of activity occurred in this area. Flint, bone and metal tools were found throughout this sector, as were grinding stones, metal lumps, stone weights, and much unworked shell. Several of the rooms produced sealings. Seven of these seem to have been on pegs of very small diameter, perhaps used

to secure the closing of sacks. It appears that a peg was sometimes inserted into the top of the sack, and then secured in place by a cord which was wound around the sack opening and then knotted.^{11/} Thirteen of the sealings in this area were broken off receptacles such as bags, jars, sacks, baskets, or boxes. Also apparently from a bag is 2H-T20, a small bulla pierced with string running through its width, found in locus 70 12/. On this was an inscription: for nam-dumu, the Sumerian term used for a prince. It was also in this area of the building that a pot full of carnelian beads was discovered in the fill in room 66 and a die in room 68.

It is difficult to surmise the function of this sector of rooms, but the small finds suggest that it was a work area. The sealings seem to indicate that some materials were received in this area, and perhaps they were worked here. The texts we have from this sector are only slightly helpful. The bulla labelled "for nam-dumu" does not indicate the contents of the bag. Another text from this area, came from the fill and concerns the construction of the kib by Shuni-

¹¹ I am indebted to Dr. Enrica Fiandra for this identification. See chapter IV above for full descriptions of sealings.

¹² Biggs, Bi.Mes. 3, #20.

aldugud, the administrative official of Enannatum I 13/. It is only a third text, 2HT-32, which records a delivery of oil, bread, onions, copper, and cloth that may shed some light on the area's function. 14/ Perhaps this was the part of the building in which deliveries were received and distributed from here to the other sectors. This interpretation would be in agreement with the sealings. While sectors I-IV produced many door sealings, all of the sealings from sector VI seem to have been removed from portable containers.

SECTOR VII [PL.CXVIII-CXIX]

The northern sector of the building [E200-230 N40-60] may belong only to the level IB building and is relatively empty. Rooms 87 and 90 [E210-220 N50-60] have doorways that are directly aligned, and may have been a main entrance vestibule. Room 88 in the same square yielded a sealing from the IB fill. This appears to have sealed a sack, whose content was recorded on the bulla as flour.^{15/} A drain leading to the exterior also ran through this room, and this is the only water related feature in this area. Directly south of this group of rooms, in room 82, two ovens were found, and near them was a row of baked bricks, rectangular in

13 Ibid, #2.

14 Ibid., #15.

15 Ibid., #21; [2H-T33].

shape, standing on edge.

Terracotta figurines, and boat and chariot models were scattered throughout, but the most interesting find from this sector was the royal sealing of Eannatum from room 89. It was recovered along with two other sealings, one of which was from a jar, the other a thin peg. Eannatum's sealing, however, appears to have been attached to a large, flat surface but nothing more is known about the sealed object.

SECTOR VIII [PL.CXX-CXXI]

A central group of rooms, mainly in [E200-220 N30-40] but slightly overlapping with [E190-200 and E220-230], must finally be considered. The majority of these rooms had no level IA floors. Several of the rooms had pavements and drains, hearths or ovens, but again differed from the south-west wing in the relative lack of pottery remains. Room 44, however, produced seventy-six vessels from the IB floor, most of which were conical bowls. Three large basins were found here whose function may be explained by the text 2H-T18. 16/ This text, also from the IB floor, records the delivery of reeds. It is necessary to leave reeds soaking in basins prior to use in basketry or forms of matting, thus it is likely that such reed working took place here.

Another text from the IB floor in this area was

16 Ibid., #13.

recovered from room 42 recording the delivery of ordinary quality white wool. 17/ The room in which it was found was equipped with a hearth, and had its northern door heavily plastered. Pieces of copper, a stone weight, and twenty-eight ceramic vessels were also found on the floor. The plastered doorway led to room 46. Room 46 produced five sealings that were from pegs, and one from a sill or cornice shaped object. A stone disk with central hole (11.8cm in diameter, 3.1cm hole diameter) also came from the level IB here. The room was equipped with a brick structure resembling a bench, on the east side. Rooms 47, 48, and 49 a group of small, narrow rooms to the east, yielded only a small amount of miniature vessels in level IB. These rooms, 42, 46-49, seem to have been connected in function and may have acted in part as storage magazines. Rooms 49, 50 and 91 had basins with drains, but contained few small finds. Rooms 50, 57, 42, 83, and 92 had either hearths or ovens. Room 92 produced an interesting bird shaped standard [Pl.LIX:2].

It is suggested by the texts which record the delivery of material that reed working took place in the area of rooms 44-45. This is supported by the existence of large basins here, in which reeds could be left to soak prior to use in crafts. The other group of

17 Ibid., #22; [2H-T23].

rooms, 42, 46-49, and perhaps also 50 and 91, may have been dedicated to the manufacture of one or more wool products. Wool could be spun, woven and dyed for garments, blankets or rugs. It could also be felted for use in footwear, hats, jackets, containers, mattresses, or ropes.^{18/} The text from room 42 recording the delivery of wool specifies "ordinary quality white wool", a type which could have been used for any of those products. The plastered doorway between rooms 46 and 42 may have been locked and sealed at times as the sealings of pegs as well as a stone knob were discovered here. The bench in room 46 may have been used as a surface on which to place the wool in order to keep it dry. Rooms 47, 48 and 49, which yielded only a few miniature vessels may also have been related in function as dyes may have been kept in the miniature containers for use in wool production. However, no actual traces of the contents of these jars remain and these small rooms may have been storage magazines.

CONCLUSIONS

Although the area C building is unplanned and it is difficult to read sectors of associated rooms architecturally, the small finds and non-artifactual remains, as well as the texts and sealings, indicate a difference of function for various areas. Each area

¹⁸ Van De Mieroop, Crafts, pp.35 ff.

discussed may have been dedicated to a different occupation although the entire complex seems to have been interdependent, and probably dedicated to craftwork. This theory is supported by the administrative texts because they primarily record the delivery of raw products, not of finished products. Nor is it difficult to reconcile all the dedicatory inscriptions found here with a workshop complex. The inscription of Enannatum I's official, Shuni-aldugud, of which five examples were found in various contexts throughout area C, records the construction of kib, dedicatory inscribed nails to be placed in the Eanna:

Enannatum, ruler of Lagash, nominated by Inanna, built the Ibgal. He (Enannatum) having made the Eana surpass (the temples) in all other lands for her, then his servant Shunialdugud, chief barber, to whom was given in addition an inspectorship of the "inner chamber" had (these) clay nails made and ordered them for her (Inanna) in the Eana. 19/

It seems possible that these commemorative nails were made and inscribed in this building. Another dedicatory text, which commemorates a series of accomplishments of Enannatum I on unbaked clay, was to be copied onto a metal standard 20/. Its discovery in

19 Cooper, SARI I, La 4.18, p.53. Several similar inscriptions concerning the construction of dedicatory clay nails ordered by Shuni-aldugud, and other donors were on the surface of area C, and in the vicinity. V. chapter II, p. 50 n. 10.

20 Al Hiba 2H-T21: Biggs, Bi.Mes 3, #3; Biggs, in Kramer Anniversary Volume., pp.33-40; Cooper, SARI I, La 4.2, pp.47-48.

a room which may be a metalsmith's shop, near the scribal rooms, is therefore not incongruous with the function of the building. The literary texts came from room 7/18, a room which we suggest was a scribe's room, perhaps serving a double function as a schoolroom. The remainder of the texts, scattered throughout the building, are records of daily transactions; these are also in keeping with the idea of a workshop because there is no indication that a crafts' complex could not have administrative aspects in that receipt of commodities are recorded.

Although several Early Dynastic Mesopotamian sites have produced administrative texts, the area C building at Tell Al Hiba is unique in that the texts discovered there, scattered throughout the building, appear to have been records of transactions that took place within the area C building itself. At Fara, three buildings produced archives containing administrative texts. However, only about 20% of the published tablets from that site can be matched with their findspots.^{21/} The Fara type texts from Tell Abu Salabikh, although all produced by one area, had been buried in cuts made in antiquity.^{22/} At Nippur, Fara

21 Martin, Le temple et le culte, p.178.

22 R.Biggs, Inscriptions From Tell Abu Salabikh, OIPXCIX, 1974, pp.13-17, 22.

type texts were found in the street level connected stratigraphically with the Inanna Temple level VII.23/ Therefore, the original context of these texts is not known. Palace G at Ebla produced what appears to have been a working archive as there is evidence that the texts had been consulted regularly.^{24/} However, the texts stored in this archive might originally have come from several different administrations. It is thus, unusual that the texts from area C provided evidence for the identification of the building as a complex containing workshops.

The faunal record from the area C building also seems to support the identification as a workshop complex. In her analysis of the faunal remains Karen Mudar suggested that most mammals were not utilised for food consumption as butchering marks were rare.^{25/} Also, the relatively large proportion of gazelle horn-cores that were retrieved led Mudar to suggest that they were being used as "handles for tools" ^{26/} Also interesting to note is the presence of phoenicopterus,

23 Hansen, Chronologies, forthcoming.

24 P. Matthiae, Ebla, An Empire Rediscovered, London, 1980, pp.151 ff.

25 Karen Mudar, "Early Dynastic III Animal Utilization in Lagash: A Report on The Fauna of Tell al-Hiba", JNES 41 no.1 (1982), pp.23-34.

26 Ibid., p.28.

the flamingo whose brilliant scarlet, pink, and black plumage may have been utilised for the manufacture of some product within the area C building.

Chapter VI

Historical Conclusions

In this study we have proposed that the area C burnt building functioned as a workshop complex dedicated to various crafts. The place of such a structure in Ancient Near Eastern architectural history should be clarified however; it may be useful to re-define, at first, the traditional labels of "temple", "palace", and "administrative building" utilised in this field. These names suggest that the building had a particular function of, for instance, a cult-place or a royal residence, whereas in reality early Mesopotamian architecture is more often than not multifunctional. This is apparent from plans of religious and secular architecture as well as from textual evidence.^{1/}

In religious architecture areas of the sanctuary precinct functioned in various ways. The cella or centre of religious focus, was only a component part of a sanctuary. In addition there were service areas used for the production of various commodities necessary for the daily regimen of the god. Thus, depending on the importance of the god or sanctuary, holy precincts

¹ V. H. Crawford, Architecture in Iraq in the Third Millennium B.C., Copenhagen, 1977, pp.20 ff. for a discussion of combined functions in third millennium architecture.

included music rooms, kitchens and breweries, granaries and storage magazines, slaughter-houses, gardens, vineyards and stables.^{2/} All of these seem to have been accommodated there, as well as various types of craft shops, and dependent priests' houses. Such mixtures of religious, residential, and industrial units make up many temple structures and temple estates. An Early Dynastic religious precinct of this type is known from area B at Tell Al Hiba where the Bagara of Ningirsu contained a "Kitchen Temple" and a brewery.^{3/} Several other Early Dynastic temples including the Archaic Temple at Tell Asmar, the Shara Temple at Tell Agrab, and the Temple Oval at Khafajeh, appear to be multi-purpose complexes. At Khafajeh, the Temple Oval included the dependent residence of a priest (house D) which in a later period seems to have outgrown the oval and to have become part of the adjacent "Walled Quarter", containing residences and service areas or shops.^{4/} The Temple Oval consisted of two concentric

2 As can be seen from Gudea's description of Eninnu, the temple of Ningirsu. Gudea Cylinder A: col.XXVIII-XXIX. For a translation see Th. Jacobsen, The Harps That Once... Sumerian Poetry in Translation, New Haven, 1987, pp.423-424.

3 Hansen, "Lagash", RLA 6, pp.427-428; see chapter I above, pp. 19.

4 E.F. Henrickson, "Functional Analysis of Elite Residences in the Late Early Dynastic of the Diyala Region", Mesopotamia XVII (1982), pp.11-19.

enclosure walls. At the centre of this oval precinct a shrine was located upon a platform. Administrative and service areas surrounding the platform were contained by the inner enclosure wall. The priest's residence, House D, was located in between the inner and outer enclosure walls. Thus the entire complex included the cult area, administrative and service areas, and a residential unit.

At Tell Agrab the Shara Temple also included a residential unit within its precinct. The excavation of the main level of this temple was limited to the western part of a presumably large square building. Two cellae were found in the north-western part. The main sanctuary, containing an altar and offering tables, and flanked by subsidiary rooms, was located in the central area below two smaller shrines in the north. The "southern rooms" were interpreted as a residential unit by the excavator, Delougaz, who compared the plan of this unit with House D at Khafajeh.^{5/} Delougaz concluded on the basis of this resemblance of plan, that the inclusion of work or residential areas in temples was a generally accepted architectural scheme in the ancient Near East.^{6/}

The picture that secular architecture presents for

5 Delougaz *et.al.*, Pre-Sargonid Temples, p.261.

6 Ibid., p.262.

the Early Dynastic period is much the same. The term "palace" has been applied to several buildings, all of which have certain fortified aspects. The most distinctive feature of these palaces is a thick fortified perimeter wall which often enclosed a passageway surrounding the interior units. The interior is usually made up of several separate units around courts, thus forming a complex.^{7/}

At Kish, two such buildings were uncovered in Early Dynastic levels, the "A" Palace and the "Plano-convex Building". The latter contained many bitumen lined basins and wainscotted rooms with drainage devices indicating workshops, a residential quarter, and magazines.^{8/} The "A" Palace, was equipped with audience halls, residential units, and a monumental entrance suggesting that it was a royal or elite residence. This building, however, also contained workshop areas as indicated by the presence of three large bitumen coated vats in room 31 and a bitumen coated pavement in the adjacent room 30. ^{9/} Unfortunately, the small finds from this building were

⁷ Mesopotamian palaces have been analysed and discussed by J. Margueron, Recherches sur les palais mésopotamiens de l'âge du bronze, Paris, 1982; and E. Heinrich, Die Paläste im alten Mesopotamien, Berlin, 1984.

⁸ Moorey, Kish, pp.34-47.

⁹ Moorey, Kish, p.57.

few and do not shed further light on room functions. At Eridu, and at Tell al Wilaya buildings were excavated that were labelled "palaces", but, the remains from both these sites are too few to allow interpretation of these structures' functions.^{10/} However, none of the rooms in these two buildings had architectural features or furniture that could be interpreted as serving a function in a workshop.

Structures that have been classified as "administrative buildings" also seem to have contained areas with diverse functions. In area E of Tell Abu Salabikh, a large architectural complex which yielded some 500 Fara type texts was tentatively called an "administrative building".^{11/} The building contained large vessels sunk in the floor, ablution rooms, a kitchen area, and fireplaces. A southern unit had an entrance vestibule, and a long corridor leading to a courtyard. Similar corridors are known from house D of Khafajeh, the Shara Temple at Tell Agrab, and house XIIIIf at Fara. ^{12/} Hansen originally suggested that the Abu Salabikh building was an administrative or

¹⁰ Safar et.al., Eridu, p.273ff; Madhloom, Sumer 16 (1960), pp.68-70 (Arabic section).

¹¹ Hansen, OIP XCIX, 1974, pp.5-19.

¹² Ibid., p.17.

residential dependency of a temple.^{13/} After more recent excavations, Postgate has taken this identification one step further by concluding, on the basis of an administrative tablet mentioning allotments to "the lady", that this was a goddess' administrative centre. He pointed out, however, that this is the only inscriptional evidence that could associate area E with a temple complex, and that no temple has yet been found at the site which makes his suggestion very tentative.^{14/}

At Fara another building was identified as an administrative centre, house XIIIIf. ^{15/} Ninety-six tablets were recovered recording livestock, rations, and issues of metal to various people. The plan of this "administrative building" has in common with area E of Abu Salabikh a long corridor leading from the exterior to a courtyard. However, the excavations were too ill recorded for further comparison.

Another type of civic structure is represented by the so called "Main Northern Palace" at Tell Asmar. This building was first identified as a palace by the excavator, Seton Lloyd, because of its imposing size

¹³ Ibid., p.18.

¹⁴ Postgate, Iraq, XXXVIII (1976), p.160.

¹⁵ Martin, Le temple et le culte, pp.180-182; Heinrich, Fara, abb.12.

and fortified aspect.^{16/} Many toilets, ablution places, and elaborate drainage devices found in the building were considered further proof of this identification. Lloyd believed this building to be the residence of the city ruler, with servants quarters or soldiers' barracks in the northern sector of the building, a main residential unit in the central section, and women's quarters in the southern rooms. The latter identification was based on the discovery of cosmetic tools and alabaster containers in that unit.^{17/}

The Early Northern Palace, which excavations revealed to be beneath the Main Northern Palace, was also identified as a palace by Lloyd although smaller and less well planned than its successor.^{18/} A hoard of metal vessels and utensils hidden in a ceramic container was discovered in a wall of the building.^{19/} One of the bowls from this hoard was inscribed with a dedication to the god Abu, therefore the entire collection was thought to belong to the nearby Single Shrine I, which thus came to be called the Abu Temple.^{20/}

16 Delougaz et.al., Private Houses, p.196.

17 Delougaz et.al., Private Houses, p.193.

18 Ibid., pp.183-184.

19 Ibid., p.184, pl.74.

20 Ibid., p.184.

In the same publication, Pinhas Delougaz questioned Lloyd's identification of the Northern Palace as a royal residence and proposed another function for both the Main Northern Palace and the Early Northern Palace.^{21/} He suggested that the toilets and ablution places were used in the manufacture of one or more products, and that the different architectural areas defined by Lloyd were devoted to particular crafts.^{22/} Finally, he suggested that the most likely industry to be associated with this building was leather-work because that craft required numerous drainage and sewage systems to allow the use and disposal of considerable amounts of water required for the successive operations, from soaking fresh hides to tanning.^{23/} Lumps of iron in the central court area, found near hearths, suggested to Delougaz that a "small scale iron-works" existed alongside the tannery, and perhaps also a jewellery working area in the central sector because of the discovery of a hoard of jewellery below the floor of a central room.^{24/} Delougaz then suggested that the Early Northern Palace had a similar function, and that the hoard of metal vessels was the

21 Ibid., pp.196-198.

22 Ibid., p.197.

23 Ibid., p.198.

24 Ibid., p.198.

product of a metal working establishment that existed in the earlier building. Metal lumps found within the earlier building were considered further proof of this identification.²⁵ Thus, Delougaz identified both the Early Northern Palace and the Main Northern Palace as "industrial centers". Texts of the Akkadian period mentioning a women's textile establishment were found in a cut in the Main Northern Palace. Delougaz believed that these texts belonged to a later industrial complex in the same locus, thus strengthening the identification that he proposed for the Northern Palaces.²⁶

The dating of the Main Northern Palace has been a subject of confusion ever since its initial publication. The original report on the building in OIC 16 (1933) was included among "Akkadian buildings at Tell Asmar", and in the following report in OIC 17 (1934) it is called the "Akkadian Palace" although it is dated to the end of the Early Dynastic or Proto-Imperial period, "contemporary with Entemena of Lagash" because both plano-convex and flat bricks were used in the building.²⁷ The Early Northern Palace, constructed purely out of plano-convex bricks, was considered to

25 Ibid., p.198; n.54.

26 Ibid., p.198.

27 H. Frankfort, OIC 16 (1933), p.35.

belong in Early Dynastic III. 28/

McGuire Gibson's recent re-evaluation of the chronology of the Diyala argues for an Akkadian dating for both the Early Northern Palace and the Main Northern Palace.^{29/} Gibson's dating is based on the fact that two seals in the Akkadian style came from the Main Northern Palace. The houses adjoining this palace and connected to it stratigraphically yielded a tablet which had a post-Sargonic writing of the SU sign. Therefore Gibson concludes that the Main Northern Palace was at least later than Sargon and not Proto-Imperial.^{30/} He further points out that the Early Northern Palace, published as E.D. IIIB, yielded an unpublished sealing, Akkadian in style and iconography, therefore both Northern Palaces should be dated to the Akkadian period.^{31/}

Elizabeth Henrickson's recent analysis of non-religious architecture in the Diyala region includes a reassessment of both the Early Northern Palace and the Main Northern Palace at Tell Asmar.^{32/} In the first

28 Frankfort, OIC 17 (1934), p.

29 Gibson, AJA 86 (1982), pp.533 ff.

30 Ibid., p.534.

31 Ibid., p.535.

32 Henrickson, Mesopotamia XVII (1982), pp.20-32. Henrickson accepts the Early Dynastic III - Proto-Imperial dating proposed by the excavators (p.20).

part of this study the catalogue of the finds from the Diyala publications was re-organised, and the objects were grouped according to findspot and type on tally sheets.^{33/} Based on her interpretation of the finds Henrickson concludes that the Early Northern Palace was an elite residence compound, "clearly divided into two private residence units".^{34/} This identification, she feels, is strengthened by the existence of the hoard of copper vessels and elaborate water facilities which are not present in ordinary houses.^{35/} She suggests that the Early Northern Palace was a religious residence for the Abu priest and his family, thus having a similar function to House D at Khafajeh.^{36/}

Henrickson agrees with Delougaz's identification of the Main Northern Palace as a workshop complex, but her conclusions, based on the study of room furniture and assemblages within the building, are that the compound contained a stone-cutting area, potter's shop, food processing area, as well as a textile dyeing and manufacturing industry.

The identification of a stone-working and inlaying area in the southern suite's east rooms is based on the

33 Henrickson, Mesopotamia XVI (1981), pp.43-140.

34 Henrickson, Mesopotamia XVII (1982), p.21.

35 Ibid., p.23.

36 Idem.

small finds which included a copper dagger blade, stone pendant, rubbing stones, an ivory comb, and an alabaster bowl with mother of pearl inlaid lid. Many fragments of triangular inlay and the shells from which these were cut, were also found there.^{37/} This is the area originally identified as a women's quarter by Lloyd. The description by Lloyd records that the southernmost room had a high table and adjoining pot-rack for holding convex based pots of which one was still in position.^{38/} Henrickson reconstructs a wooden potter's wheel nearby, although she points out that there is no evidence that such a wheel existed in this building.^{39/} Other rooms in the western part of the southern suite are identified as a food storage and processing area by Henrickson, based on the remains of pottery, animal bones, as well as hearths and some tools.^{40/}

On the basis of the existense of elaborate pavings, drainage devices, and large pottery vats the east-central rooms of the building are identified as a

³⁷ Ibid., p.26; Delougaz et.al., Private Houses, p.192.

³⁸ Delougaz et.al., Private Houses, p.192. This rack has not survived, nor have any photographs of it.

³⁹ Henrickson, Mesopotamia, XVII (1982), p.28.

⁴⁰ Ibid., p.27.

textile manufacturing area.^{41/} Henrickson argues against Delougaz's identification of the area as a tannery because she believes that the noxious fumes emitted by hide processing and tanning would not be possible in an area where other workshops are present, and would make uninhabitable the southwest-central area of the Main Northern Palace which she considers a residential unit.^{42/} The study of the archive of a later leather tannery has shown, however, that these ill smelling stages of the process were not undertaken inside the workshop, but in the open air where the animals were skinned.^{43/}

The southwest-central unit of the Northern Palace was identified as a residence on the basis of its situation within the building, accessible only through one doorway and thus isolated from other sectors.^{44/} Lloyd had also identified this area as the main residential suite of the building.^{45/} Henrickson believes this area to have been possibly the residence of the patron/financier or representative/foreman of the workshop compound, or perhaps even the civic ruler

41 Ibid., p.25.

42 Ibid., p.30.

43 Van De Mieroop, Crafts, pp.27-33.

44 Ibid., p.26.

45 Delougaz et.al., Private Houses, pp.186-189.

himself.^{46/} The presence of a jewellery hoard in this area, she believes, lends support to her interpretation. It was on the basis of this same jewellery hoard that Delougaz believed a jewellery-making area existed in the building.^{47/}

The northern suite, identified as soldiers' barracks or servants' quarters by Lloyd was provided with no interpretation by Henrickson as the area was denuded and yielded few finds.^{48/}

Although the identification of specific craftshops remains uncertain, the general interpretation of the Main Northern Palace as a workshop complex need not be considered inaccurate. The Early Northern Palace, equipped with a kiln, hearths, "toilets", paved and bitumened floors may have served a function similar to the Main Northern Palace, although at a smaller scale, as Delougaz originally suggested.^{49/}

The existence of different crafts' workshops in one complex is also known from later inscriptional evidence, provided by two workshop archives from ancient Mesopotamia. The earlier of the archives, consisting of over 2000 tablets, was excavated at Ur,

46 Henrickson, Mesopotamia XVII (1982), pp.31-32.

47 Delougaz et.al., Private houses, p.198.

48 Henrickson, Mesopotamia XVII (1982), p.31.

49 Delougaz et.al., Private Houses, p.198.

and dates to the Ur III period [2100-2000]. Several tablets provide records of transactions with wool and textiles in various institutions, at Ur and in the surrounding villages. Another collection contains the accounts of materials utilised by various craftsmen in a large workshop. This workshop was divided into eight departments including: the houses of the metal workers, goldsmiths, stone cutters, carpenters, blacksmiths, leatherworkers, felters, and reedworkers, all of which were under the supervision of a single overseer. 50/

The second workshop archive, comes from Isin, and dates to the reigns of Ishbi-Erra and Shu-ilishu [2017-1975]. 51/ This workshop received materials from various sources, and two officials here were in charge of the receipt and the certification of all deliveries of raw materials, which they later distributed to workmen. This shop employed four groups of craftsmen: carpenters, leatherworkers, reedworkers, and felters, the majority being reedworkers.52/ The texts from this archive provide sufficient evidence to distinguish the materials and techniques used by each of the four groups of craftsmen. Several products, such as

50 Van De Mieroop, Crafts, pp.XII-XIII.

51 Van De Mieroop, Crafts, 1987.

52 Ibid., p.81.

furniture, musical instruments, and cult objects required the expertise of a number of craftsmen which explains their working in the same complex. These two archives clearly indicate that several types of craftsmen worked in the same building complex. This evidence is supported, for the third millennium, by the archaeological evidence of the "Northern Palace" at Tell Asmar. There, different types of craft shops seem to have been located in one building. Thus, the later textual evidence from workshop archives seen in conjunction with the evidence of the Northern Palace, helps to reinforce our identification of the area C building as a complex containing workshops.

The Tell Al Hiba area C building is distinguished architecturally by a haphazard, agglutinative groundplan, lacking a coherent design. This seemingly impracticable plan, which originates in the lower level IB, is rebuilt in level IA immediately above the IB wall stubs. Characteristic of the interior fittings in both these levels are numerous hearths, ovens, kilns, sunken basins, with attached drainage devices, and paved and wainscotted rooms. A study of the artifactual remains revealed that administrative transactions took place regularly within this building. Administrative officials inspected areas and sealed certain doors repeatedly. Scribal officials recorded the receipt of

commodities, at least some of which arrived in sealed receptacles from which the clay sealings survived. The small finds are relatively few in number and consist primarily of utilitarian implements. A large amount of ceramic vessels came from within this building. These were concentrated, for the most part, in a few specific rooms where their number precludes the possibility of their having been used for normal dining purposes. A similar amount of ceramic vessels found in only a few rooms also appeared at the Northern Palace, a building identified as containing workshops.^{53/}

The surface survey of Tell Al Hiba made by Elizabeth Carter indicated that the north central area of the mound, which includes area C, had the appearance of an industrial zone. Collections from area C included many pieces of finished copper items, as well as a piece of worked lapis-lazuli.^{54/}

Although the Al Hiba building consists of two levels of occupation, IA and IB, it is clear, for several reasons, that we are dealing with a very short time period of less than 100 years. Between the level IB and the later rebuilding there is no time span perceivable when the building might have been

⁵³ Henrickson, Mesopotamia XVII (1982), pp.25 ff.; Delougaz et.al., Private Houses, pp.197-198.

⁵⁴ Carter, "A surface Survey of Lagash, Al-Hiba, 1984" forthcoming in Sumer.

abandoned. Indeed, the upper level seems to be a hurried rebuilding as it utilised the same impracticable, haphazard groundplan of the level below. Furthermore, three sealings, rolled with the same seal, appear in both levels of the building, a fact which could indicate the existence of the same inspecting official.

The names of three rulers of the Lagash Dynasty occur, Eannatum, Enannatum I, and Enmetena, all in connexion with level IB. The last ruler, Enmetena, is mentioned on a text recording, among the accomplishments of his father, Enannatum I, the incessant fight between Lagash and the state of Umma.⁵⁵ The text, which reads somewhat like an obituary for Enannatum I, names him as the ensi of Lagash, but towards the end of the inscription Enmetena, his son, is given this title. This change suggests that the inscription is posthumous, perhaps following the death of Enannatum I in battle with Urukumma of Umma.⁵⁶ It appears that the latest level, IA, must then be dated at least in part, after the reign of Enmetena, and that Enannatum I's death probably occurred some time during the occupation of

⁵⁵ Biggs, Bi.Mes 3, #3; AOAT 25, 33 ff.; Cooper, SARI I, La 4.2.

⁵⁶ Cooper, SARI I, p.48, n.10.; SANE 2/1, p.30.

level IB. The commemorative inscription may have been dedicated in Enannatum's memory by his son Enmetena during that ensi's early reign. Also interesting for our purposes is the fact that this unbaked clay text bore a notation at the end that it was to be copied onto a copper standard. This text was recovered from a room which we believe to be a metalsmith's shop. The copying of texts onto metal and stone for commemorative and votive inscriptions seems to have been part of the function of the scribal quarter, and the copper standard specified in Enmetena's text was perhaps to be made there. Other shops in the complex may include those for reedworking, wool processing, and a scribal quarter. Other crafts such as palm working, may have occurred, but are difficult to reconstruct because of the perishable nature of the materials.^{57/}

The function of the area C building was not limited to the production of crafts. A school room seems to have existed at least in level IA, and administrative processes such as record keeping took place in both levels IA and IB. Texts from Girsu of a period slightly later than that of the area C building (ca.2350-2300), show clearly how many differing

57 See chapter V above.

functions were assigned to one administration.^{58/} The texts derive from the archive of the "Household of the goddess Bau" which took care of the needs of the queen. Similar households existed for the king himself and for his children. They were self contained administrations that dealt with all aspects of economic life such as agriculture, food processing, and crafts. Thus the Bau household employed teams of millers, brewers, and weaving women. It owned agricultural land, which was worked by farmers in its employ.^{59/} Most of these texts were from illicit digs and no recorded archaeological findspots are available for those excavated by the French at Telloh. Therefore the archaeological context of these tablets is unknown but it is quite possible that they all came from the same building as they have an archival coherence. If the texts are from one building then this building would have had a large variety of functions and may have been similar to the one excavated at Al Hiba, area C.

Whereas the household of the goddess Bau was

⁵⁸ These texts were studied by Anton Deimel in a series of articles in Orientalia SP 21-43 (1924-1929) and in Analecta Orientalia 2 (1931). For a complete list of the texts see J. Bauer, Altsumerische Wirtschaftstexte aus Lagash, Studia Pohl 9, Roma, 1972, pp.40 ff.

⁵⁹ Cf. Van De Mieroop, in Women's Earliest Records from Ancient Egypt and Western Asia, ed. B.S. Lesko, Scholars Press, 1989, pp. 54-56.

portrayed as a religious administration the Al Hiba area C building has no evidence of religious connexions. However, the distinction between secular and religious administrations may be artificial. The concept of the early Mesopotamian temple economy, established in the years following the first world war by A. Deimel based on the Girsu archive of the household of the goddess Bau, has been contested by more recent scholarship. 60/ The first critic of Deimel's model was I.M. Diakonoff, who disputed the idea that all land was divine property, and asserted the existense of private land ownership. I.J. Gelb agreed with Diakonoff on the concept of private property but without rejecting the theory of temple economy. He also suggested that Lagash was a unique case of an economy dominated by the temple and clergy. However, Gelb has raised the question why such a unique case applied to Lagash and not to Nippur, the sacred Sumerian city.61/ The most recent scholarship has taken the criticism of the temple economy theory further. Maekawa and Foster have proved that the so called "household of the goddess Bau" was originally an

60 For a survey of the discussion see Foster, JESHO 24 (1981), pp.225-241.

61 Gelb, "Household and Family in Early Mesopotamia" in State and Temple Economy in the Ancient Near East I, ed. E.Lipinski, Leuven, 1979, p.12.

entirely civic institution. Only later was it dedicated to the goddess by the reforms of Uruinimgina. This change may have been an administrative fiction used by the usurper, Uruinimgina, to consolidate his power by placating the priesthood.^{62/} Or it may have been the culmination of the concept of rule granted by divine favour ^{63/}. Be that as it may, with Uruinimgina the administrative institutions controlled by the ruler and his family members were nominally given to the gods.

...the ruler's estate and ruler's field, the estate of the woman's organisation and fields of the woman's organization, and the children's estate and children's field, all abutted one another. The bureaucracy was operating from the boundary of Ningirsu to the sea...These were the conventions of former times...When Ningirsu, warrior of Enlil, granted the kingship of Lagash to Uru'inimgina, selecting him from the myriad of people, he replaced the customs...He installed Ningirsu as proprietor over the ruler's estate and the ruler's fields; he installed Ba'u as proprietor of the estate of the woman's organisation and the fields of the woman's organisation; and he installed Shulshagana as proprietor of the children's estate...^{64/}

The conclusion that the area C building at Tell Al Hiba was a workshop complex can also partly explain its destruction. Although the end may have been brought about by hostile means, as a collection of sling pellets strewn throughout the level IA would seem to

62 Foster, JESHO 24 (1981), p.241.

63 Maekawa, Mesopotamia 8/9 (1973/4), p.137.

64 Cooper, SARI I, La 9.1, p.70.

indicate, the final conflagration was the most destructive force. The building had been cleared of valuables, at least of imperishable kind, with the exception of two hoards which have the appearance of being hidden. If indeed a workshop, as we propose, then the various materials utilised there, such as large quantities of dry reeds and rushes, textiles, and other flammable materials, could serve as fuel enough to burn both levels of the area C building.^{65/}

65 The name of a certain building, or part of a building, may be associated with our workshop complex. Several Lagashite inscriptions mention a structure called the E-Shag, a term translated as "inner chamber". V. Cooper, SARI I, p.53; La 4.17; La 4.18; La 5.15; La 5.27; La 9.14d. Von Soden has suggested that this is a treasury room where valuables are kept, v. CRRRA 20, p.138. Two officials are mentioned in association with the E-Shag; a scribe of Enannatum I, Idlusikil: "his scribe of the E-Shag", and the chief barber of Enannatum I, Shuni-aldugud, "to whom was given in addition the inspectorship of the E-Shag". V. Cooper, SARI I, La 4.17 and 4.18. The inscription of Idlusikil is of unknown provenance but the inscription of Shuni-aldugud appeared five times in area C although never in good stratigraphical context. Inscriptions of Enmetena mentioning an E-Shag seem to indicate that the E-Shag was a separate edifice for which Enmetena had a garden constructed and a well dug. V. Cooper. SARI I, La.5.15; La 5.27. Finally, an inscription of Uru'inimgina refers to an orchard of the E-Shag. V. Cooper SARI I La 9.14. Cooper comments that these last references could not have been the same "inner chamber" as they appear to have been referring to independent structures. V. SARI I, p.53, n.1. Although the evidence is far from conclusive, it is possible that the E-Shag was part of our building complex as the name of Shuni-aldugud, the inspector of the E-Shag, appeared five times in the building. However, as all the inscriptions mentioning the E-Shag that were found in area C are concerned with having dedicatory inscribed nails made, it is possible that their presence can be accounted for as products of the scribal workshop that we propose

After the reign of Enmetena, the last ensi attested in the area C building, a change seems to have occurred in the political status of Lagash. Tell Al Hiba appears to have been abandoned for a period of time. 66/ The names of the ensis that followed Enmetena, Enannatum II, Enentarzi, Lugalanda, and Uru'inimgina, are thus far only attested at Girsu. The second successor of Enmetena, Enentarzi who was not of the Urnanshe Dynasty, was in fact a temple administrator at Girsu before taking the throne of Lagash. Whether Enentarzi took the ensiship by force or succeeded Enannatum II without violence is not known. However, it seems that with the succession of Enentarzi the political centre of Lagash state was transferred from Lagash city to Girsu, where Enentarzi may have had a stronger base or power, thereby ending Lagash city's role as the Sumerian capital of the Lagash Dynasty.

During Enentarzi's term as sanga at Girsu he received a letter from Lu'ena, the sanga at Ninmarki. This letter reported the interception of a band of Elamites that had just come from raiding Lagash. The text is dated in the fifth year of the reign of Enannatum II, who is thought to have been killed by _____ existed in the area C building.

66 For the history of Lagash see C.A.H. I part 2, pp.114-120. See also chapter I above for a survey of the history of Lagash.

this raiding party.^{67/} If the level IB of the area C building is dated to the reigns of Eannatum - Enmetena, then level IA must belong, at least in part, to the reign of Enannatum II, Enmetena's successor, and the destruction of the area C building could be attributed to the Elamite attack recorded in Lu'ena's letter to Enentarzi.

The ensis of Lagash whose names are recorded in the area C building, and the four rulers that follow Enmetena, the last ensi associated with this building, belong in the Early Dynastic IIIB period. The only archaeological remains that can be attributed to the reigns of Enannatum II, Enentarzi, Lugalanda and Uruinimgina, the last four rulers of the Lagash dynasty consist of the texts from Telloh 68/ and some inscribed sealings.^{69/} Therefore, the placement of the latter part of Early Dynastic IIIB within Mesopotamian chronology presents another problematic issue.

The traditional picture introduced to us in the Sumerian King List published fifty years ago suggests

⁶⁷ Cooper, SANE 2/1, p.33; J.P. Grégoire, La province méridionale de l'état de Lagash, p.11.

⁶⁸ V. Bauer, op.cit., p. 669 for a list of the texts from Telloh bearing the names of rulers.

⁶⁹ These are the seal impressions of Lugalanda: Amiet, Glyptique, 214:1098 A; 215:1102 B, the seal impression of Lugalanda's wife, Baranamtara: Amiet, Glyptique, 215:1102 B, and the seal impression of Uruinimgina: Amiet, Glyptique, 214:1098.

that Lugalzagesi, king of Uruk, was replaced by Sargon, founder of the Akkadian dynasty.^{70/} This Lugalzagesi is known to have conquered Lagash from Uruinimgina, the last ruler of the Lagash dynasty.^{71/} The historical sources from Lagash allow us to reconstruct the sequence of Lagash dynasty rulers as follows:^{72/}

Urnanshe

Akurgal

Eannatum

Enannatum I

Enmetena

Enannatum II

Enentarzi

Lugalanda

Uruinimgina

The time period spanning between the beginning of the reign of Urnanshe and the conquest of the south by Sargon has generally been assigned approximately 150 years. The combined reigns of the rulers between Enmetena, the last attested ensi in area C, and the arrival of Sargon at Lagash are generally assigned more than fifty years.^{73/} If the Lagash dynasty was ended by

70 C.A.H. I part 2, p.421.

71 Ibid., p.114.

72 Ibid., pp.116-120.

73 Cooper, SARI 1, p.14, SANE 2/1, pp.19 ff.

Lugalzagezi who was then defeated by Sargon one could reconstruct a long period of time in between the destruction of the area C building during the reign of Enannatum II and the conquest of the south by Sargon. Traditionally, the start of the Akkadian period in the south is placed around the accession date of Sargon (c.2334 B.C.) 74/. There are, however, clear indications that Sargon defeated Lugalzagesi and conquered the south only in the last years of his fifty-six year long reign. 75/ The evidence suggests Sargon first conquered the territories encircling Mesopotamia proper. The historical tradition claims that the ancient city-states revolted against him late in his life (five years before his death), and it was only then that Lugalzagesi was defeated along with his fifty governors.76/ If the conquest of the south is to be placed at the end of Sargon's reign several of the kings of the Lagash dynasty must then have been contemporary with Sargon's rule in the north.

When we add the number of regnal years available for the Lagash rulers following Enmetena we only obtain

74 E.g. J. Bauer, Altsumerische Wirtschaftstexte aus Lagash, Studia Pohl 9, Rome, Biblical Institute, 1972, p.30.

75 W.W. Hallo, The Ancient Near East: A History, New York, 1971, p.56. Unfortunately, Hallo does not substantiate this statement.

76 Idem.

a total of approximately twenty-nine years. The years recorded for the rulers are as follows: 77/

Enannatum II	5
Enentarzi	6
Lugalanda	7
Uruinimgina	<u>7 (or 11)</u>
total	25 (or 29)

There are strong indications that several of the rulers of the south were in office during Sargon's reign and even later. In the reign of Rimush (2278-2270), the son and successor of Sargon, Meskigal the former ruler of Adab and contemporary of Lugalzagesi was still alive.^{78/} During the reign of Manishtushu (2269-2255), the brother and successor of Rimush, both Lugalzagesi and Uruinimgina were governors under the Akkadian king.^{79/} These men could not have been alive during the reign of Manishtushu if Sargon had conquered the south in his first years as ruler of Akkad. Lugalzagesi, for example, is known to have ruled for twenty-five years as a lugal (king) and another thirty

77 Cf., J. Bauer, op.cit., p.30 for length of reigns.

78 B.R. Foster, Umma in the Sargonic Period, Memoires of the Connecticut Academy of Arts and Sciences vol.XX, Hamden, 1982, p.156; Hallo, op.cit., p.56.

79 Hallo, op.cit., p.55; Foster, op.cit., p.154.

years as ensi (governor).^{80/} Assuming that he was only fifteen years old when he began his rule as lugal, he would then have been forty when defeated by Sargon, ninety-six at the end of Sargon's reign, and one hundred and six at the beginning of the reign of Manishtushu. If however, we reconstruct Sargon's conquest of Lagash as taking place five years before his death, then Lugalzagesi's age would have been a much more reasonable fifty at the beginning of the reign of Manishtushu.

The chronology proposed here (see chart p. 189) thus places the latter part of the Early Dynastic period contemporary with the greater part of Sargon's reign. To ascertain the validity of such an historical reconstruction it is necessary to examine the material remains of both the late Early Dynastic Sumerian south and the early Akkadian north.

The appearance of an Akkadian style in Mesopotamia is associated with the advent of Sargon. This style has traditionally been placed subsequent to the Early Dynastic period by art historical scholarship.^{81/} However, a reassessment of early Akkadian art in light

⁸⁰ Foster, op.cit., p.156.

⁸¹ E.g. H. Frankfort, The Art and Architecture of the Ancient Orient, Baltimore, 1969 (fourth revised edition), pp.41 ff.; A. Moortgat, Die Kunst des alten Mesopotamien, Die klassische Kunst Vorderasiens, Köln, 1967, pp.45 ff.

of the chronological evidence presented here shows no reason why Akkadian art produced during the reign of Sargon could not be contemporary with the reigns of the later Early Dynastic rulers of the Sumerian city-states.

The only datable sculpture from the reign of Sargon is a diorite stele excavated at Susa at the turn of the century. This relief bears an inscription identifying one of the figures represented on it as "Sargon the king" thereby securely dating the monument.^{82/} It has been pointed out that the treatment of the figure of Sargon is in the Early Dynastic tradition as can be seen from a comparison with the Early Dynastic statues of Lamgi-Mari and Ebih-il of Mari.^{83/}

There are no seals or sealings securely dated to the reign of Sargon but Akkadian glyptic has been studied and categorised by R.M. Boehmer, who provided a chronological framework based primarily on the development of style and motifs.^{84/} Three main chronological categories were established and assigned

⁸² P. Amiet, L'art d'Agadé au Musée du Louvre, Paris, 1976, p.8, fig.1-5, pl.1a-d.

⁸³ Ibid., pp.9-10.

⁸⁴ R.M. Boehmer, Die Entwicklung der Glyptik während der Akkad-Zeit, (Untersuchungen zur Assyriologie und Vorderasiatischen Archäologie Band 4) Berlin, Walter de Gruyter & Co., 1965.

the labels Akkadisch I-III. Akkadisch I was dated to the reign of Sargon, Akkadisch II to the reigns of Rimush-Manishtushu and Akkadisch III to Naramsin and his successors.^{85/} The category which concerns us here, Akkadisch I, was again sub-divided into three parts: Ia, Ib, and Ic. These subdivisions are also chronological although they all fit within the reign of Sargon. Akkadisch Ia was categorised into further sub-groupings that are geographical. These are the Akkadische Gruppe, Sumerische Gruppe, Sumero-Akkadische Gruppe, and Tigris Gruppe.^{86/} The groups were determined on the basis of common stylistic features and motifs. Thus, the Sumerische Gruppe consists of seals in the Early Dynastic tradition that were dated post Urukagina (now read Uruinimgina) because Akkadian stone cutting techniques were considered noticeable upon them. The Akkadische Gruppe consists of seals that contained purely Akkadian elements that were to survive throughout Akkadian art. The Sumero-Akkadische Gruppe includes seals that were derived out of the late Early Dynastic Lugalanda-Urukagina Stufe but also contained pictorial elements present in the first two groups of Akkadian seals. The Tigris Gruppe consists of a number of seals that Boehmer thought to originate in the area

85 Ibid., p.136.

86 Ibid., p.7 ff.

of the Tigris or even farther east, in Elam.^{87/} This group contains seals with certain iconographic elements in common. Marsa Laird, who has added a number of seals to the Tigris Gruppe, suggested that this group had its origins in the Diyala region of Mesopotamia.^{88/} Thus, Boehmer distinguishes four regional styles that existed contemporaneously during the first years of Sargon's reign.

The chronological framework which Boehmer created for seals in the Akkadian style is based on the assumption that year one of Sargon post-dated the conquest of Lagash.^{89/} He believed that there were about twenty years between Uruinimgina's defeat by Lugalzagesi and Sargon's first year. Boehmer established a Lugalanda-Urukagina Stufe to accommodate the late Early Dynastic seals dating to the period of the reigns of these rulers. However, the seals placed into the Lugalanda-Urukagina stufe, based on similarities to royal sealings of the last rulers of the Lagash dynasty, could be in fact contemporary with the glyptic that Boehmer classified as Akkadisch Ia. All four regional styles of Akkadisch Ia contain

⁸⁷ Ibid., pp.80-81.

⁸⁸ M. Laird, Linear Style Cylinder Seals of the Akkadian to Post-Akkadian Periods, New York University, Institute of Fine Arts Dissertation, 1984, p.24.

⁸⁹ Boehmer, op.cit., p.1

pictorial elements from the Early Dynastic Sumerian tradition. The group of seals making up the Lugalanda-Urukagina Stufe may have also been a regional style limited to southern Sumer, dating to the period before the conquest of the south by Sargon, and contemporary with the first part of the reign of Sargon in Akkad. From the Akkadische Ib Stufe onward a continuous tradition of stone cutting, culminating in the classical Akkadian art of the reigns of Naramsin and Sharkalishari is visible. This style may have originally evolved in the north, in the heartland of the state of Akkad, under the patronage of Sargon while the independent south maintained its Early Dynastic Sumerian traditions until Lugalzagesi's defeat.

McGuire Gibson has long believed that most levels dated to the Akkadian period in the publications of Mesopotamian excavations were characteristic only of the late part, or classical Akkadian post-dating Naramsin, and that the period of the reigns of Sargon, Rimush, and Manishtushu was not recognised.^{90/} A re-examination of the original field records of the Oriental Institute expedition led Gibson to propose a revision of the Akkadian period in the Diyala region. Published catalogues for the Diyala region listed many seals and sealings that were not illustrated due to

⁹⁰ Gibson, *AJA* 86 (1982), p.531.

fragmentary or worn condition.^{91/} These seals were re-examined by Gibson who discovered that seals Akkadian in style and iconography had come out of levels at Tell Asmar dated to the Proto-Imperial and even to the Early Dynastic IIIB period. The dating of these levels was based mainly on use of plano-convex bricks.^{92/} Among the buildings erroneously dated to the pre-Sargonic period were the Early and Main Northern Palaces at Tell Asmar.^{93/} At Khafajeh, a reassessment of the dating was more difficult because the remains that were attributed to the Akkadian period were on the surface.^{94/}

Based on this proposed re-dating of levels, Gibson re-assigned an assemblage of pottery from the Diyala to the early Akkadian period.^{95/} A comparison of the Al Hiba area C pottery with the assemblage considered early Akkadian by Gibson showed that eight of his twenty-six categories were also found at Al Hiba, area C. ^{96/} Vat and basin shapes considered characteristic of the Akkadian-Ur III periods in

91 Ibid., p.532.

92 Ibid., p.533.

93 Ibid., pp.533-535.

94 Ibid., p.536.

95 The identification of certain types as early Akkadian was also based on comparisons with pottery from more recent excavations in the Hamrin and Nippur.

96 See chapter III, pp.73 ff.

surface surveys also appeared in area C. 97/

Gibson would leave only the Abu Temple Single Shrine I, and houses Vc, both at Tell Asmar, in E.D. IIIB.98/ The pottery remains from these two contexts recorded in the catalogue are few but, of the fourteen pottery types retrieved from these two findspots eight were also present at Al Hiba, area C. 99/

Since some disparity occurs between the Al Hiba, area C pottery and both early Akkadian pottery and the pottery assemblage which would still be considered E.D. IIIB in Gibson's revision one must conclude that these differences are just as likely due to regional variation as chronological reasons.100/ Therefore, the Al Hiba pottery assemblage could be contemporary, at least in part, with the early Akkadian assemblage established by Gibson, as well as with the pottery from contexts which he considers still to be E.D. IIIB.

Analysis of the Diyala material has shown that E.D. IIIA pottery is almost immediately succeeded by

97 Chapter III, pp. 101ff.

98 Gibson, AJA 86 (1982), pp.533; 535.

99 The types considered Early Dynastic IIIB by the excavators of the Diyala can not be assessed because the distinction between E.D. IIIA and E.D. IIIB was not made in the discussion of E.D. III pottery in Delougaz, Pottery. V. chapter III above.

100 V. chapter III pp. 73ff. for a complete discussion of these shapes.

assemblages considered Akkadian. 101/ However, in the south the Early Dynastic IIIA tradition has a continuation in the form of Early Dynastic IIIB. This dichotomy in ceramic development can be explained as a result of the political situation in southern Mesopotamia. When Sargon established his state in northern Babylonia and conquered the adjacent Diyala region a new material culture developed. Meanwhile, the independent south maintained indigenous traditions that evolved into what is known as E.D. IIIB. A complete assemblage of this period is at present only found in Al Hiba and can be dated to the reigns of Eannatum, Enannatum, and Enmetena. Historical, stylistic, and archaeological evidence suggests that E.D. IIIB in the south was contemporaneous with early Akkadian in the north. Only with the conquest of the south by Sargon did Akkadian influence begin to appear in the art and only then did the classical Akkadian civilization become a general Mesopotamian phenomenon.

101 Gibson, AJA 86 (1982), p.538.

Absolute chronology tentative	Area C	Lagash	Other Sumerian centres	Akkad
	Level IA	Eannatum		
2330 -		Eannatum I		- 2330 Sargon early reign
2320 -	Level IB	Enmetena		
2310 -		Destruction		
2300 -		Enannatum II Ishmentarzi Lugalanda		
2290 -		Urulimqina Lugalzagesi	Lugalzagesi king/Uruk Meskigal king/Adab	Sargon late reign
2280 -			Meskiqal gov.	Rimush
2270 -		Urulimqina governor	Lugalzagesi gov.	Manishtushu

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The Administrative Building
at Tell Al Hiba, Lagash

Volume II: Plates

by

Zainab Bahrani

A dissertation in the Department of Fine Arts submitted
to the faculty of the Graduate School of Arts and
Science in partial fulfillment of the requirements for
the degree of Doctor of Philosophy at New York
University

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Appendix A

Catalogue of pottery from floor levels

TOTAL AMOUNTS OF POTTERY SHAPES

<u>TYPE</u>	<u>AMOUNT</u>	<u>Percentage</u>
Conical Bowls	733	71.5%
Long Necked Jars	63	6.1%
Conical Cups	57	5.5%
Stands	23	2.2%
Household Jars	19	1.8%
Globular Jars	15	1.4%
Fruitstands	13	1.2%
Basins	10	0.9%
Varia	10	0.9%
Vats	8	0.7%
Bottles	7	0.6%
Ribbed Ware	5	0.4%
Miscellaneous Rims	52	5.0%
Miscellaneous Bases	9	0.8%
Total:	<u>1025</u>	<u>100%</u>

PLATE I CONICAL BOWLS

1. 2HP275
conical bowl
bevelled rim
string cut and smeared base
wheel made, lightly fired
utility ware, fairly well made
5YR 4/6 yellowish-red to 5YR 6/4
light reddish brown
matte surface, slightly rough and grainy
2. 2HP2i8
conical bowl
string cut base
wheel made, lightly fired utility ware
2.5YR 6/4 yellowish brown to 10 YR 7/3
very pale brown
matte surface, slightly rough and grainy
3. 2HP1
conical bowl
added ring base.
wheel made, lightly fired
5YR 6/6 reddish yellow
matte surface, rough and grainy
4. 2H115
conical bowl
string cut base
wheel made, lightly fired utility ware
5YR 6/6 reddish yellow to 5Y 7/3 pale yellow
plant temper
matte surface, slightly rough and grainy
5. 2HP364
conical bowl
string cut and smeared base
wheel made lightly fired utility ware
5YR 4/6 yellowish-red to 5YR 6/4
light reddish-brown
matte surface
6. 2H21
conical bowl
height:0.052; rim diam.:0.148; base:0.05
string cut and smeared base
wheel made, lightly fired utility ware
5YR 6/4 light reddish brown to 10 YR 8/3
very pale brown
matte surface, slightly rough and grainy

PLATE I CONICAL BOWLS

7. 2H111
conical bowl
height:0.062; rim diam.:0.148; base:0.038
string cut base
wheel made, lightly fired fine ware
5YR 4/6- 5/6 yellowish-red
matte, grainy surface

8. 2H261
conical bowl
height:0.066; rim diam.:0.18; base:0.054
string cut and smeared base
wheel made, moderately fired utility ware
5Y 7/3 pale yellow to 5YR 6/6 reddish yellow
matte surface, rough and grainy

PLATE I CONICAL BOWLS

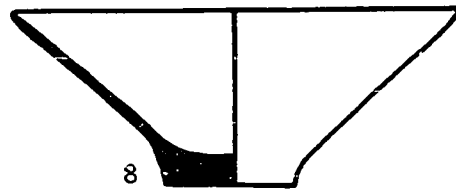
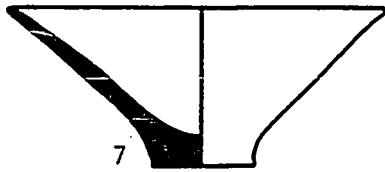
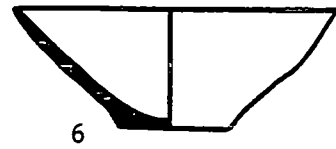
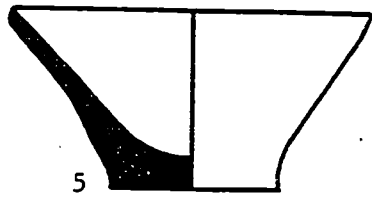
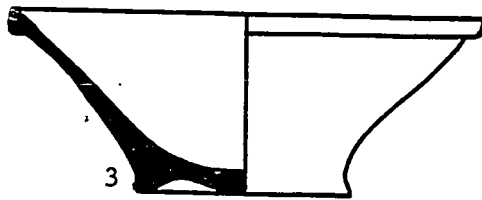
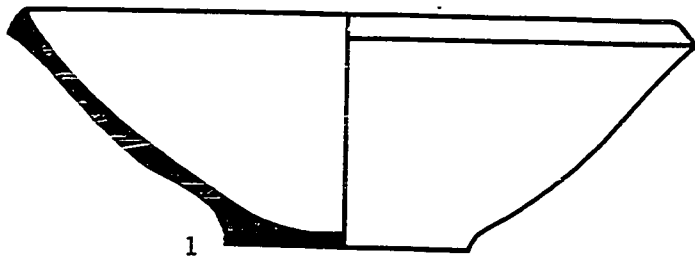
<u>Figure</u>	<u>Reference</u>
1	Mackay, <u>AM I</u> , pl.LII: type F.
2	Delougaz, <u>pottery</u> , pl.168: C001.200b (Agade-Larsa) Postgate <u>et.al.</u> , <u>ASE II</u> , gr.49/7-8, fig.132.
3	Delougaz, <u>Pottery</u> , pl.96: C082.310
4	Delougaz, <u>Pottery</u> , pl.148: B001.200a (Proto-Imp.) Ur, B.M., 1928 10.10 639 Postgate <u>et.al.</u> , <u>ASE II</u> , gr.26/11 fig.126; gr.32/15 fig 129
5	Delougaz, <u>Pottery</u> , pl.146: B002.200a Martin, <u>Fara</u> , 644:2 Mackay, <u>AM I</u> , pl. LIV, #18:type O;2706c (1925.218). Ur, B.M., 1928 10.10 645; 1928 10.10 646
6	Delougaz, <u>Pottery</u> , pl.168: C001.200a (Proto-Imp.) Martin, <u>Fara</u> , 644:1 Martin, <u>Iraq</u> 44 (1982), p.171:36
7	Ur, B.M., 1928 10.10 647 Postgate <u>et.al.</u> , <u>ASE II</u> , fig 129:15, gr.75/5 fig.135 Wilaya, Madhloom, <u>Sumer</u> 16 (1960) pl.3:17
8	Fara type 21, 33 [Martin, <u>Iraq</u> 44 (1982)] Susa, IVB [Carter, <u>CDAF</u> 11 (1980) fig.33,#4] Delougaz, <u>Pottery</u> , pl.146: B001.200 (shallower)

Conical Bowls Types								Conical goblets Types								locus	
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	
			3				4	6		1							1 IA
							5										2 IA
							11	2		1							3 IA
			4				1										3 IB
			5				5	2	4	1							4 IA
		1	14				15	8		5							4 IB
				2			5	5	1								5 IA
			1					2									5 IB
							1										6 IA
			3				5		1								7*IA
			11		1	10	46	2		3							7 IB
							2	3									9 IA
			3		1	1	1		1								10 IA
								2									10 IB
					1												11 IA
			6				15	7		1							11 IB
							23										14 IB
				2				32	1	2							15 IA
		5	7				30	24		8				1			15 IB
							10										16 IA
								3									16 IB
	10																19 IB
1																	20 IA
							5	2		1							20 IB
			5	1			12	1									31 IB
			25		1	28	26			2							36 IA
			3	1			21										39 IB
			10				19			1							40 IA
			2				4										42 IA
			2			14				1	1	1				1	42 IB
																	1 43 IB
		1	17	4	1	22	17	1	1								44 IB
			1														48 IB
							36		1				1				51 IA
			6		1	5	4										53 IA
															1		57 IB
				1													59 IB
			5				11			2							65 IA
			20				5	17	3	1							70 IA
							1										87 IB
			7	1			1	8		1							** IA

Distribution of conical bowls and goblets
The numbers record the total amount of the pottery type
in each locus.

* Locus 7 indicates room 7/18

** Locus N10-20 E190-200



1:3

PLATE II CONICAL CUPS

1. 2HP177
conical goblet
string cut base
wheel made, lightly fired utility ware
2.5Y 6/2 ligh brownish-grey to 5YR 6/4
ligh reddish-brown
matte surface, slightly rough and grainy
2. 2H54
conical cup
height:0.093; rim diam.:0.07; base:0.036
string cut and smeared base
wheel made, lightly fired utility ware
10 YR 8/3 very pale brown to 2.5 YR 7/2 light grey
rough and grainy surface
3. 2H270A
conical goblet
height:0.155; rim diam.:0.095; base:0.045
string cut base
wheel made, moderately fired utility ware
2.5Y 6/2-6/4 light brownish-grey to light
yellowish-brown
matte surface, rough and grainy
4. 2H269
conical goblet
string cut and smeared base
wheel made utility ware, heavily fired
2.5Y 5/4 light olive brown
rough and grainy surface
5. 2H136
conical cup
string cut and smeared base
wheel made, lightly fired utility ware
5YR 6/3 light reddish-brown
matte surface, slightly rough and grainy
6. 2H114
conical goblet
height:0.133; rim diam:0.088; base:0.047
string cut and stamped base
wheel made, lightly fired utility ware
5YR 5/6 yellowish-red
matte surface, rough and grainy

PLATE II CONICAL CUPS

7. 2HP244
conical goblet
string cut base
lightly fired utility ware
5YR 5/6 yellowish red
rough and grainy surface
8. 2H170
conical cup
string cut and smeared base
wheel made, moderately fired utility ware
fine plant temper
5YR 6/4 light reddish brown
matte surface, slightly rough and grasiny
9. 2H105
conical cup
string cut and stamped base
wheel made, lightly fired utility ware
5YR 6/3 light reddish brown
matte surface, slightly rough and grainy

PLATE II CONICAL CUPS

<u>Figure</u>	<u>Reference</u>
1	
2	Delougaz, <u>Pottery</u> , pl.147:B033.700b Woolley, <u>U.E. II</u> , pl.251:7a
3	Delougaz, <u>pottery</u> , pl.140:A026.200 (Guti) Woolley, <u>U.E. II</u> , pl.251:7c
4	Martin, <u>Fara</u> , 644:10
5	Ur, B.M. 1928.10 10 654 Martin, <u>Fara</u> , 644:7
6	Ur, B.M. 1924 9.20.305 (117042); 1928 10.10 651 (121954)
7	Delougaz, <u>Pottery</u> , pl.153:B256.200 Ur, B.M. 1928 10.10 869 (128540) Woolley, <u>U.E. II</u> , pl.251:16
8	Ur, B.M. 1924 9.20 306; 1928 10.10 653 Woolley, <u>U.E. II</u> , pl.251:7a Postgate <u>et.al.</u> , <u>ASE II</u> , gr.27/22, fig.127 Moon, <u>ASE III</u> , #84 Martin, <u>Iraq</u> 44 (1982), p.171:32
9	Delougaz, <u>Pottery</u> , p.146:B002.200b Kish, Ashmolean 1925.402

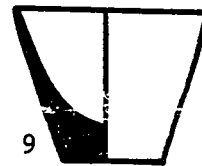
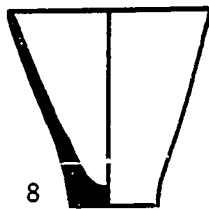
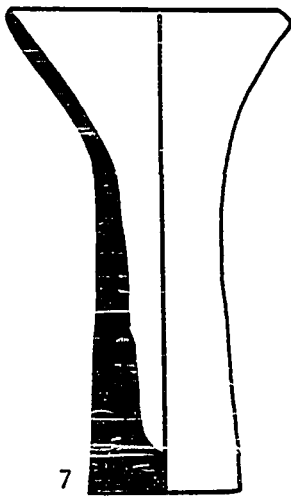
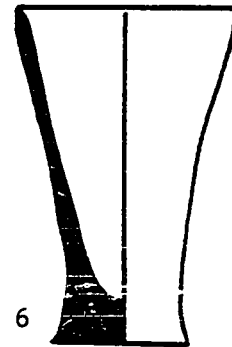
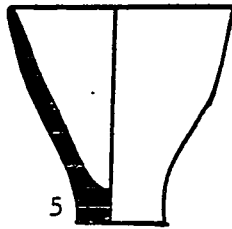
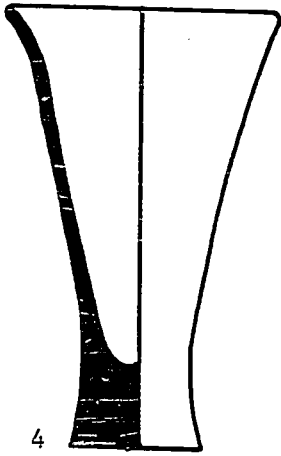
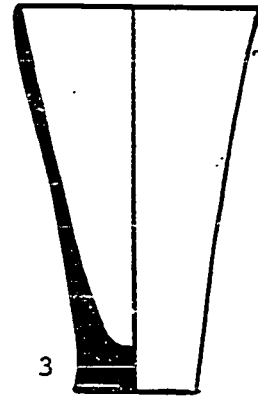
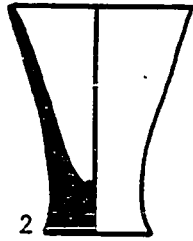
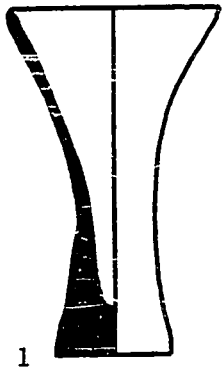


PLATE III BOTTLES

1. 2H104
bottle
height:0.076; rim diam.:0.029; body:0.11
wheel made, moderately fired utility ware
plant temper
5YR 6/6 reddish-yellow
locus: room 8 IA; N23.5 E220 IA
2. 2H135
bottle
height:0.092; rim diam:0.032; body 0.126
wheel made, lightly fired utility ware
5YR 5/6 yellowish-red
matte, grainy surface
locus: room 46 IA
3. 2H70
bottle
string cut and scraped smooth base
wheel made lightly fired fine ware
plant temper
5YR 6/4 light reddish-brown
locus: room 4 IB
4. 2HP368
bottle
wheel made, moderately fired fine ware
10 YR 4/3 brown
locus: room 31 IB
5. 2H16
bottle
height:0.088; neck diam.:0.038; body:0.09
wheel made, lightly fired fine ware
10 YR 4/3 brown
wet smoothed or self slipped
painted exterior: 10 YR 3/4 dark brown
locus: N23.5 E220 IA
6. 2HP384
bottle
height:0.058; body diam.:0.126
wheel made, lightly fired utility ware
5YR 5/6 yellowish red
locus: room 46 IA

PLATE III RIBBED WARE

7. 2HP141
ribbed bowl
wheel made, moderately fired
2.5Y 7/6 yellow to 7.5 YR 5/8 brown
matte surface, slightly rough and grainy
locus: room 18 IB
8. 2H102
ribbed bowl
string cut base
lightly fired utility ware
5YR 5/6 yellowish red
locus: N30 balk E200-210 IB
9. 2HP87
ribbed bowl
wheel made moderately fired fine ware
5Y 7/3 pale yellow
matte, smooth surface
locus: room 87 IB; room 3 IB
10. 2HP110
ribbed basin
hand made coarse ware
5Y 7/2 light grey
plant temper
matte surface, rough and grainy
locus: room 42 IA

PLATE III BOTTLES

<u>Figure</u>	<u>Reference</u>
1	Delougaz, <u>Pottery</u> , pl.102:B663.540b Woolley, <u>U.E.II</u> , pl.253:51a, 52a Ur, B.M. 1919. 10 11 .389 Mackay, <u>AM I</u> , pl.XVI: 26 Martin, <u>Fara</u> , 651:9 Heinrich, <u>Fara</u> , p.46:F2802 Wilaya, Madhloom, <u>Sumer</u> 16 (1960) pl.3:11
2	Delougaz, <u>Pottery</u> , pl.162:B.634.570b (early Agade) Mackay, <u>AM I</u> , pl.XVI, 28-30 Heinrich, <u>Fara</u> , p.46:F2797 Martin, <u>Iraq</u> 44 (1982), p.171:14 Wilaya, Madhloom, <u>Sumer</u> 16 (1960) pl.3:10
3	Delougaz, <u>Pottery</u> , pl.154:B494.570 (E.D. II) Mackay, <u>AM I</u> , pl.LIV: 7 Heinrich, <u>Fara</u> , p.46:F2799
4	Carter, <u>CDAF</u> 11 (1980), fig.28, 29.
5	Godin III/6 Henrickson, <u>Iranica Antiqua</u> XXII (1987), fig. 4, 5, 6, 7, 12.
6	Delougaz, <u>Pottery</u> , pl.164:B664.540a (E.D.II-Agade) Wooley, <u>U.E. II</u> , type 53

PLATE III RIBBED WARE

7	
8	Delougaz, <u>Pottery</u> , pl.147:B043.210b (Agade); pl.171:C213.210 Mackay, <u>AM I</u> , pl.LIV:26 type P Wilaya, Madhloom, <u>Sumer</u> 16 (1960) pl.3:32
9	
10	Delougaz, <u>Pottery</u> , pl.189:C803.200 (E.D. III)

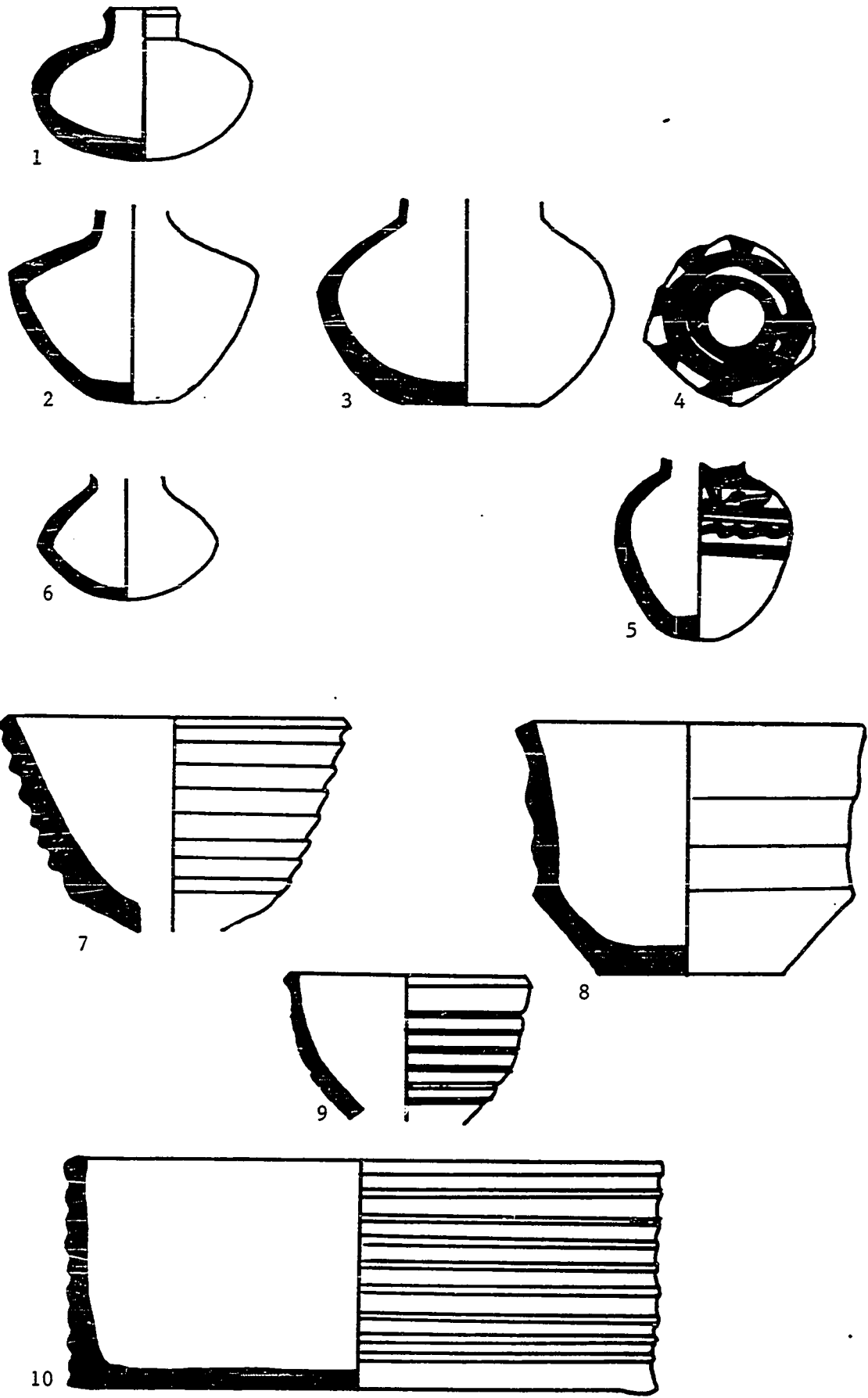


PLATE IV GLOBULAR POTS

1. 2H118
globular pot
height:0.165; rim diam.:0.105
wheel made, moderately fired utility ware
10 YR 6/3 pale brown - 2.5 YR 6/4 light yellowish
brown
matte surface, rough and grainy
locus: 1 in room 15 IA; 2 in room 15 IB;
room 4 IA; room 4 IB; room 5 IA, room 42 IB
2. 2HP389
globular pot
moderately fired fine ware
5YR 5/6 yellowish-red
matte surface, grainy
locus: room 1 IA; room 11 IB; room 87 IB;
room 65 IA; room 4 IB
3. 2H85
globular pot
wheel made, moderately fired utility ware
2.5Y 7/4 pale yellow
locus: room 39 IB
4. 2H58
globular pot
wheel made, moderately fired utility ware
2.5 YR 6/4 light yellowish-brown
matte surface, slightly rough and grainy
locus: room 87 IB in oven

PLATE IV GLOBULAR JARS

<u>Figure</u>	<u>Reference</u>
1	Delougaz, <u>Pottery</u> , pl.187:C654.510 (E.D. II) Woolley, <u>U.E. II</u> , pl.255:78 Postgate <u>et.al.</u> , <u>ASE II</u> , gr.51/8 fig.132
2	Mackay, <u>AM I</u> , pl.XVI:L
3	Woolley, <u>U.E. II</u> , pl.255:77 Postgate <u>et.al.</u> , <u>ASE II</u> , gr.1/1 fig.122
4	Woolley, <u>U.E. II</u> , pl.255:80

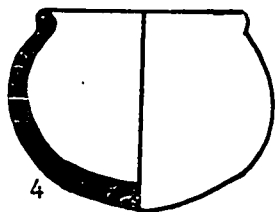
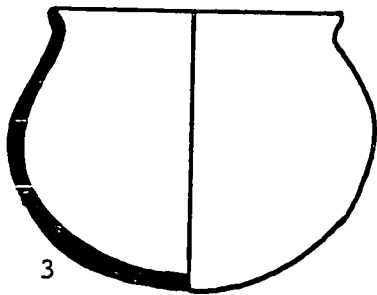
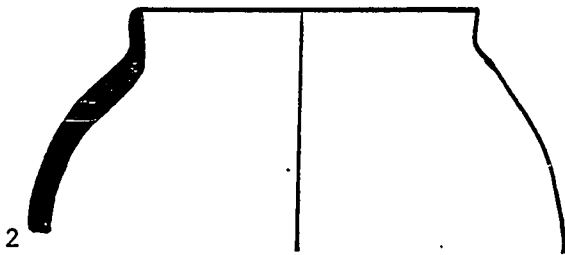
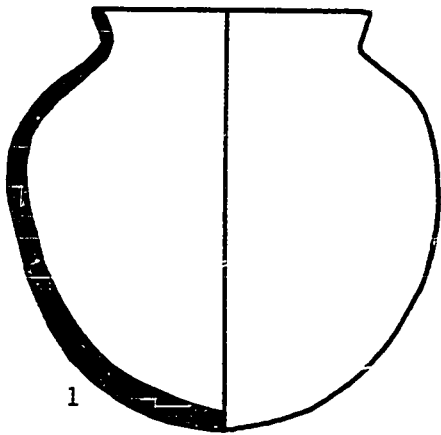


PLATE V LONG NECKED JARS

1. 2HP258
long necked jar
wheel made, lightly fired fine ware
5YR 6/4 light brown -10 YR 7/4 pale brown
surface highly burnished
2. 2HP263
long necked jar
wheel made, lightly fired fine ware
5 YR 6/4 light reddish-brown
smooth burnished surface
3. 2H116
long necked jar
wheel made, lightly fired fine ware
5YR 5/6 yellowish red
smooth burnished surface
4. 2H22
long necked jar
wheel made, lightly fired fine ware
5 YR 6/6 reddish-yellow
smooth, self slipped or true slip,
burnished surface
5. 2H52
long necked jar
height:0.214; rim diam.:0.082; body:0.12
wheel made, lightly fired fine ware
5YR 6/6 reddish-yellow
smooth burnished surface
6. 2H11
long necked jar
height:0.327; rim diam.:0.104; base:0.10
added ring base
wheel made, lightly fired fine ware
5YR 6/6 reddish-yellow
matte surface, slightly rough and grainy

PLATE V LONG NECKED JARS

<u>Figure</u>	<u>Reference*</u>
1	Delougaz, <u>Pottery</u> , pl.185:C557.470 (E.D. III) Ur, B.M. 1929.10.17 695 burnished Woolley, <u>U.E. II</u> , pl.262:173 Mackay, <u>AM I</u> , pl.LII, 9 burnished?
2	Delougaz, <u>Pottery</u> , pl.159:B546.640c (E.D. III) may be related to Postgate <u>et.al.</u> , <u>ASE II</u> , gr.32/5 fig.128; gr.73/3-6 fig.134 Woolley, <u>U.E. II</u> , pl.260:147 Ur, B.M. 1928.10.10.615
3	Delougaz, <u>Pottery</u> , pl.183:C546.640 (Proto-Imp.) Woolley, <u>U.E. II</u> , pl.258:112; stone type pl.248:77 Martin, <u>Iraq</u> 44 (1982), p.171:35 Martin, <u>Fara</u> , 651:11
4	Woolley, <u>U.E. II</u> , pl.254:62; pl.177:92 stone type
5	Woolley, <u>U.E. II</u> , pl.253:46; pl.254:60 Martin, <u>Fara</u> , 651:11 Moon, <u>ASE III</u> , 436
6	Woolley, <u>U.E. II</u> , pl.260:145; pl.262:174 Postgate <u>et.al.</u> , <u>ASE II</u> , gr.5/9 fig.125

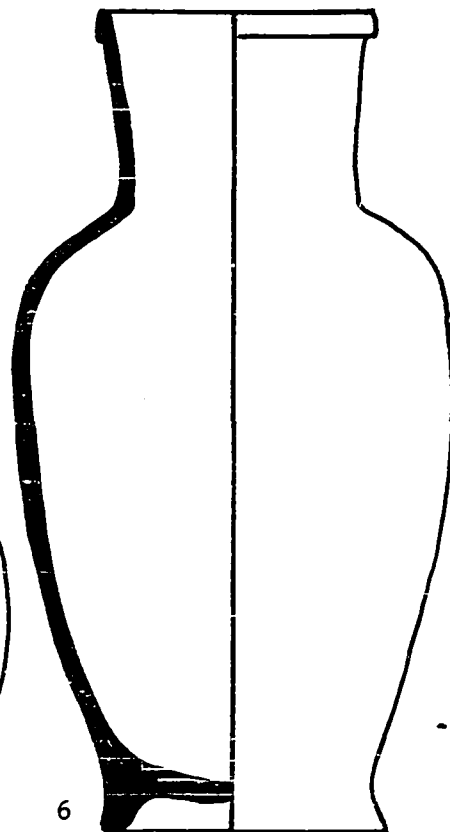
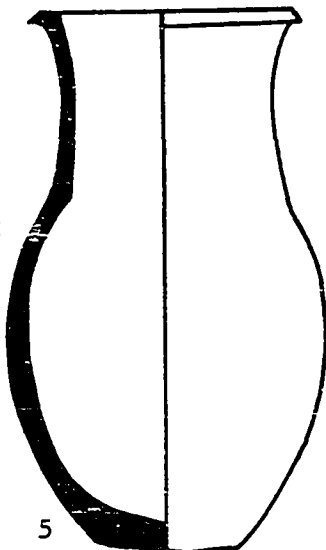
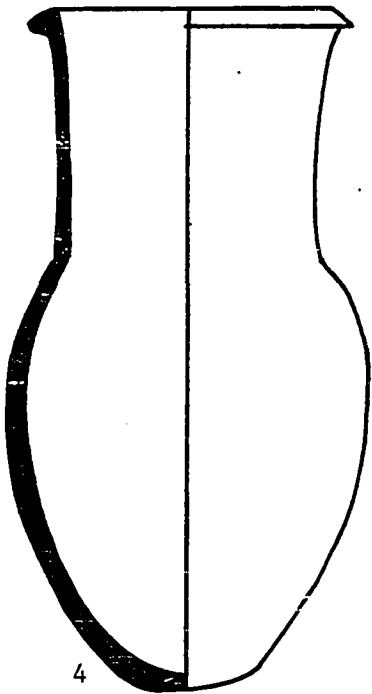
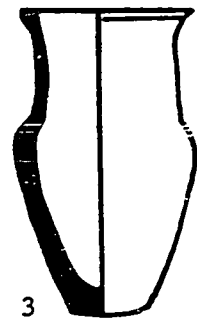
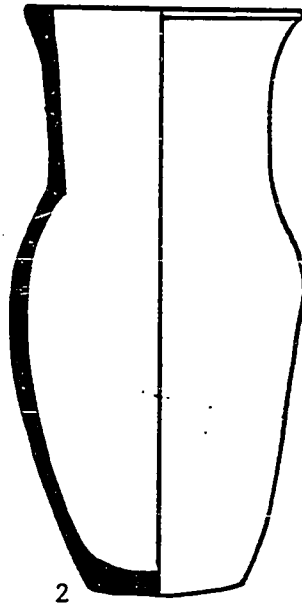
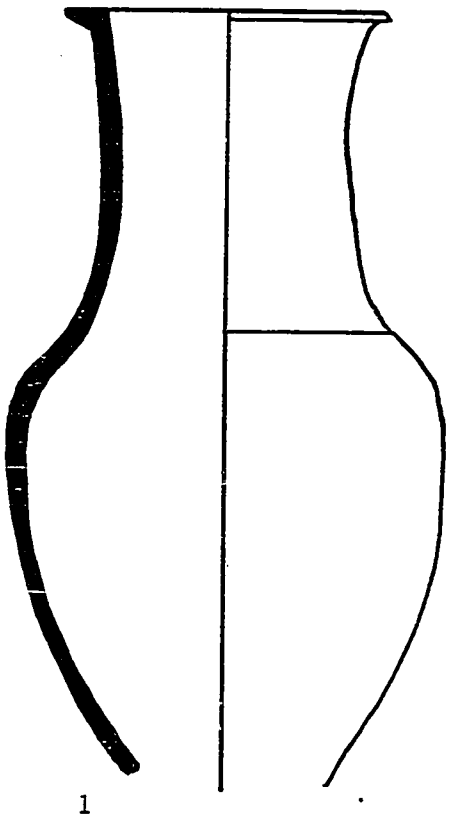
* All parallels for long necked jars are unburnished unless stated otherwise.

Long Necked Jar Types													Locus
1	2	3	4	5	6	7	8	9	10	11	12	13	
			1		1		1						1 IA
					2								2 IA
				5	1	2							3 IA
1	1	2			1	4					1	2	4 IA
			1										4 IB
						1							5 IA
	1												6 IA
				7	1								7*IA
			1		1			1					7 IB
			1									2	9 IA
	1						1						10 IA
									1				10 IB
					1								11 IA
1	1									1			14 IB
	1		2	2									15 IA
		1									1		15 IB
								1					17 IB
										1			24 IA
			1										29 IB
1													31 IB
							1				1		36 IA
					1								39 IB
					1								42 IB
							1					4	44 IB
	1									1			47 IA
		1					1						48 IB
					1								49 IA
										1			53 IA
					1								65 IA
									1				69 IA
					1	1							83 IB
1													87 IB

Distribution of long necked jars

The numbers record the total amount of pottery type in each locus.

* Locus 7 indicates room 7/18



1:3

PLATE VI LONG NECKED JARS

7. 2H177
long necked jar
height:0.235; rim diam.:0.095; body:0.135
wheel made, lightly fired fine ware
5YR 6/6 reddish-yellow-10 YR 8/3 very pale brown
fine plant temper
smooth burnished surface
8. 2H13
long necked jar
height:0.219; rim diam.:0.09; body:0.128
string cut and scraped base
wheel made, lightly fired fine ware
5YR 6/6 reddish-yellow- 10YR 8/3 very pale brown
matte surface, slightly grainy
9. 2HP269
long necked jar
wheel made, lightly fired fine ware
5YR 6/6 reddish-yellow-10YR 8/3 very pale brown
matte surface, rough and grainy
10. 2HP284
long necked jar
wheel made, lightly fired utility ware
5 YR 6/6 reddish yellow-2.5YR 6/4
light yellowish brown
matte surface, slightly rough and grainy
11. 2h271
long necked jar
height:0.268; rim diam.:0.078; base: 0.055
wheel made moderately fired fine ware
5YR 6/3 pale olive- 2.5Y 5/4 light olive brown
fine plant temper
matte, rough surface
12. 2H123
long necked jar
height:0.19; rim diam.:0.078; body:0.14
wheel made, lightly fired fine ware
5YR 5/4 reddish brown- 5YR 6/6reddish yellow
burnished surface
13. 2HP355
long necked jar
wheel made, moderately fired utility ware
5YR 6/4 light reddish-brown
matte surface, rough and grainy

PLATE VI LONG NECKED JARS

<u>Figure</u>	<u>Reference</u>
7	Martin, <u>Iraq 44</u> (1982), p.171:23 Heinrich, <u>Fara</u> , Abb.33
8	Woolley, <u>U.E. II</u> , pl.258:110a Postgate <u>et.al.</u> , <u>ASE II</u> , gr.32/10 fig.129
9	Woolley, <u>U.E. II</u> , pl.259:141 Ur, B.M. 1924.20.297
10	Heinrich, <u>Fara</u> , p.45:F2796
11	Martin, <u>Iraq 44</u> (1982), p.171:24 Heinrich, <u>Fara</u> , Abb.33: F2776
12	Heinrich, <u>Fara</u> , p.39:F2773,4 Martin, <u>Fara</u> , 661:7
13	Postgate <u>et.al.</u> , <u>ASE II</u> , gr.32/16 fig.129 Wilaya, Madhloom, <u>Sumer</u> 16 (1960), pl.3:2

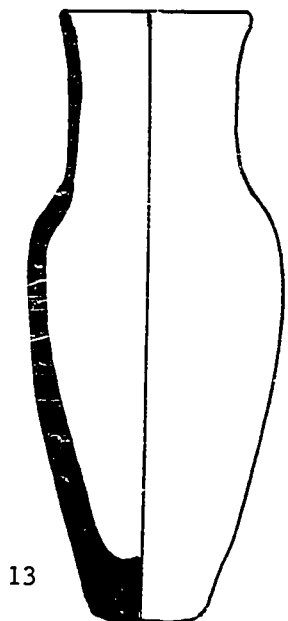
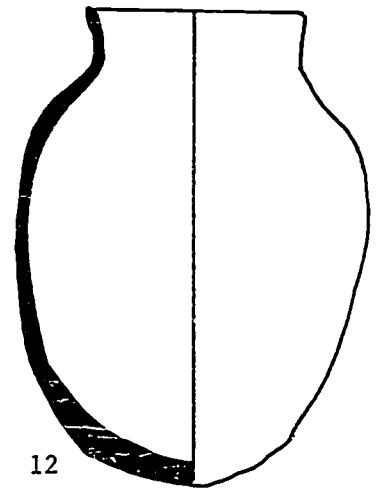
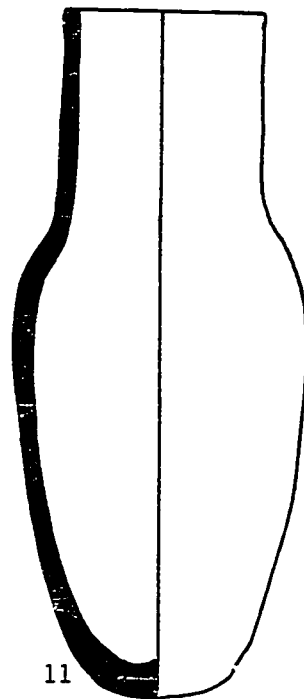
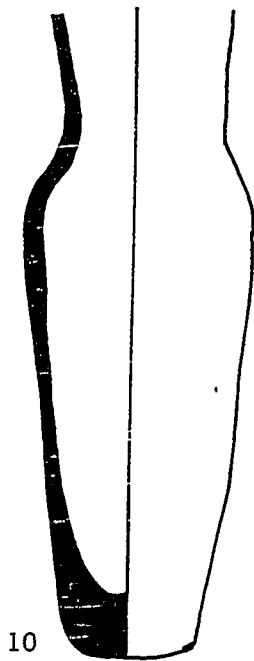
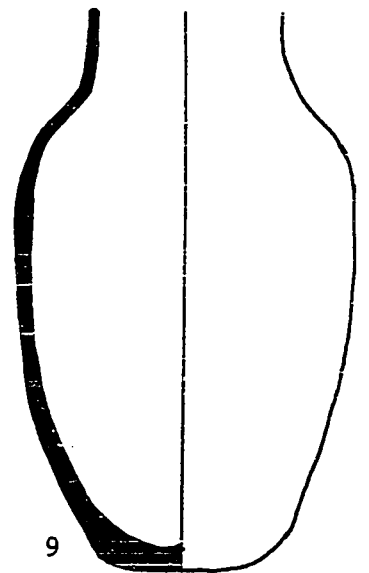
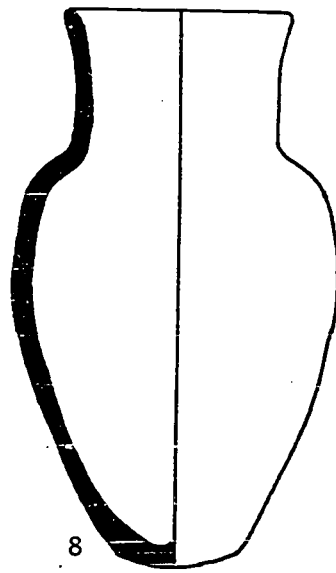
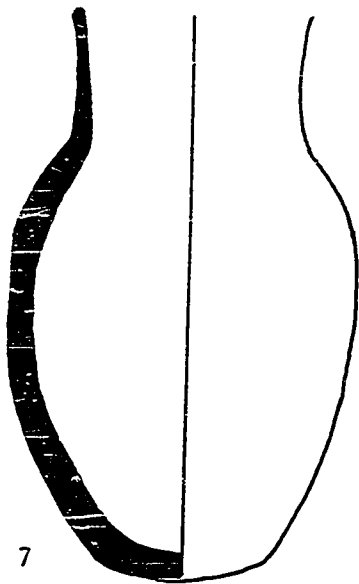


PLATE VII HOUSEHOLD JARS

1. 2H18
jar
height:0.133; rim diam.:0.037; body:0.066
string cut and smeared base
wheel made, lightly fired fine ware
5YR 5/6 yellowish-red
grit temper?
matte, rough surface
locus: N23.5 E220 IA
2. 2H268
jar
string cut and smeared base
moderately fired utility ware
5Y 6/3 pale olive
matte surface, slightly rough and grainy
locus: room 42 IB
3. 2H87
jar
string cut base
wheel made, lightly fired utility ware
5YR 6/6 reddish-yellow
matte surface, slightly rough and grainy
locus: room 39 IB
4. 2H132
jar
height:0.09; rim diam.:0.025; body:0.051
string cut and smeared
wheel made, lightly fired utility ware
5YR 6/6 reddish-yellow
matte surface, rough and grainy
locus:room 58 IA
5. 2H167
jar
height:0.125; rim diam.:0.034; base:0.035
string cut and smeared
wheel made, lightly fired utility ware
5YR 6/6 reddish yellow
locus: room 65 IA
6. 2H129
jar
string cut and stamped base
wheel made, lightly fired utility ware
5YR 6/6 reddish-yellow
plant temper
matte surface slightly rough and grainy
locus: room 42 IB

PLATE VII HOUSEHOLD JARS

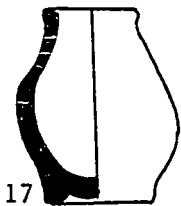
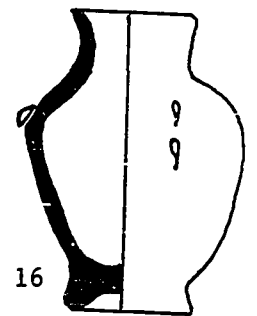
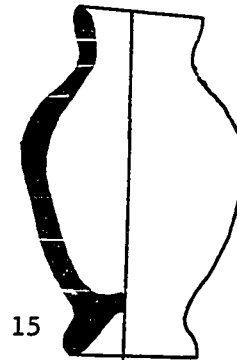
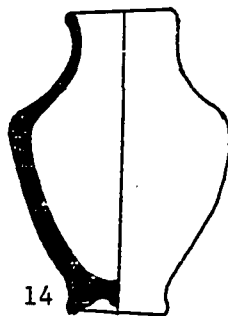
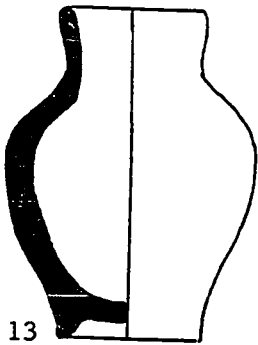
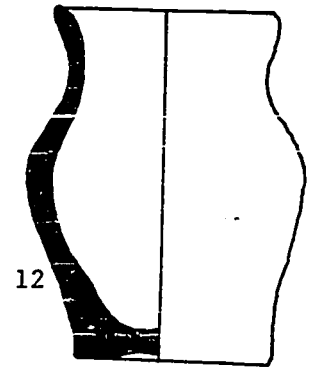
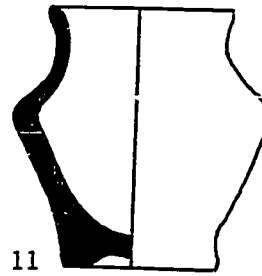
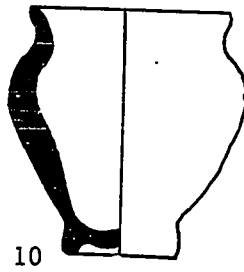
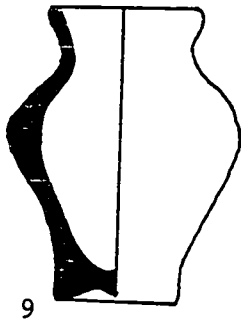
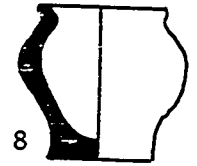
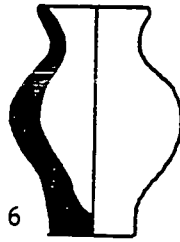
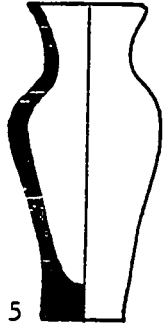
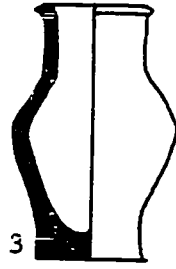
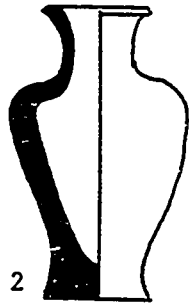
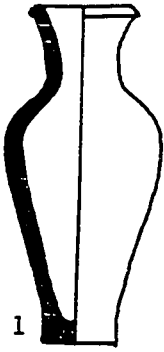
7. 2H108
jar
string cut and stamped base
wheel made, lightly fired utility ware
5YR 6/6 reddish-yellow
plant temper
matte surface, slightly rough and grainy
locus: room 43 IB
8. 2H107
jar
string cut base
wheel made lightly fired
5YR 6/4 light reddish-brown
course plant temper
matte surface, slightly rough and grainy
locus: room 43 IB
9. 2H106
jar
pinched ring base
hand made, lightly fired utility ware
5YR 6/4 light reddish-brown
plant temper
matte surface, slightly rough and grainy
locus: room 43 IB
10. 2H83
jar
pinched ring base
hand made, lightly fired utility ware
5YR 6/6 reddish-yellow
matte surface, slightly rough and grainy
locus: room 30 IB
11. 2H86
jar
pinched ring base
hand made, moderately fired
5YR 5/6 yellowish-red
plant temper
matte surface, slightly rough and grainy
locus: room 39 IB
12. 2HP241
jar
added ring base
hand made? lightly fired utility ware
5YR 6/6 reddish-yellow
matte, rough surface
locus: room 39 IB

PLATE VII HOUSEHOLD JARS

13. 2H84
jar
pinched ring base
hand made, lightly fired utility ware
5YR 6/6 reddish-yellow
matte surface, slightly rough and grainy
locus: room 39 IB
14. 2H85
jar
pinched ring base
hand made, lightly fired utility ware
5YR 6/6 reddish-yellow
fine plant temper
matte surface slightly rough
locus: room 39 IB
15. 2H94
pinched hollow pedestal base
hand made, moderately fired utility ware
10YR 7/3 very pale brown
matte surface, slightly rough and grainy
locus: room 39 IB
16. 2HP240
jar
pinched ring base
vertically pierced shoulder lugs
hand made, lightly fired
5YR 6/6 reddish-yellow
fine plant temper
matte surface, slightly rough and grainy
locus: room 39 IB
17. 2H20
jar
height:0.055; rim diam.:0.026; base:0.03
pinched ring base
hand made, lightly fired utility ware
grit temper?
5YR 4/6 yellowish-red
matte surface, rough and grainy
locus: N23.5 E220 IA
18. 2H91
jar
pinched ring base
hand made lightly fired
5YR 6/6 reddish-yellow
plant temper
locus: room 39 IB

PLATE VII HOUSEHOLD JARS

<u>Figure</u>	<u>Reference</u>
1	Postgate <u>et.al.</u> , <u>ASE II</u> , gr.53/2 fig.133
2	Delougaz, <u>Pottery</u> , pl.157:B536.240b (Guti) Woolley, <u>U.E. II</u> , pl.259:129 Moon, <u>ASE III</u> , 503
3	
4	Woolley, <u>U.E. II</u> , pl.258:109
5	Moon, <u>ASE III</u> , 502
6	Martin, <u>Fara</u> , 651:2 (E.D. II) Heinrich, <u>Fara</u> , p.44:F2788 Martin, <u>Iraq 44</u> (1982), p.171:9
7	Delougaz, <u>Pottery</u> , pl.156:B525.220 (E.D. II-III) Martin, <u>Fara</u> , 648:10 (E.D. I-Akkad) Heinrich, <u>Fara</u> , p.44:F2792
8	Delougaz, <u>Pottery</u> , pl.161:B573.220 (E.D. II) Woolley, <u>U.E. II</u> , pl.258:109a Martin, <u>Fara</u> , 637:2 (E.D. III-Akkad) Martin, <u>Iraq 44</u> (1982), p.171:22 Moon, <u>ASE III</u> , 497
9	Delougaz, <u>Pottery</u> , pl.151:B184.220c (E.D. III-Proto-Imp.) Martin, <u>Fara</u> , 638:7 (E.D. III)
10	Woolley, <u>U.E. II</u> , pl.262:177
11	
12	
13	Delougaz, <u>Pottery</u> , pl.143:A556.320 (E.D. III)
14	
15	Wilaya, Madhloom, <u>Sumer</u> , 16 (1960) pl.3:7
16	
17	
18	



1:3
17 & 18 1:2

PLATE VIII Fruitstands

1. 2HP129
fruitstand dish
wheel made, lightly fired utility ware
7.5YR 6/4 light brown
matte rough and grainy surface
locus: N0-10 E200-10 IB
2. 2HP238
fruitstand dish
wheel made lightly fired utility ware
incised design on interior of rim,
stick impressed ridge on exterior
locus: room 58 IA
3. 2HP270
fruitstand dish
wheel made, lightly fired utility ware
finger and stick impressed design on
rim exterior, incised wavy band on inner edge
5YR 6/4 light reddish brown
matte rough and grainy surface
locus: room 58 IA
4. 2HP312
fruitstand dish
moderately fired utility ware
notched ridge and incised wavy band on rim
7.5YR 5/4
grit temper
matte surface
locus: room 12 IA
5. 2HP383
fruitstand base
wheel made, lightly fired fine ware
incised decoration
5YR 6/6 reddish-yellow-5YR 6/4 reddish-brown
matte surface
locus: 2 in room 4 IA; 2 in room 7/18 IB
6. 2HP382
fruitstand base
wheel made, moderately fired fine ware
incised decoration
5YR 6/6 reddish-yellow
matte surface
locus: room 51 IA

PLATE VIII FRUITSTANDS

Figure	Reference
1	Delougaz, <u>Pottery</u> , pl.174:C365.810d (E.D. III)
2	Mackay, <u>AM I</u> , pl.XI:10
3	Delougaz, <u>Pottery</u> , pl.174:C365.810b (E.D. III-Proto-Imp.) Mackay, <u>AM I</u> , pl.XI:10
4	Delougaz, <u>Pottery</u> , pl.174:C365.810c (E.D. III) Mackay, <u>AM I</u> , pl.XI:2, 3, 4 Moon, <u>Iraq</u> 44 (1982) 10:53 Postgate <u>et.al.</u> , <u>ASE II</u> , gr.1/6
5	
6	Delougaz, <u>Pottery</u> , pl.174:C365.810d (E.D. III) Mackay, <u>AM I</u> , pl.XI:9, 10; pl.XII:13, 19 Martin, <u>Fara</u> , 657:7 (E.D. III) [generally like 2HP312 also]

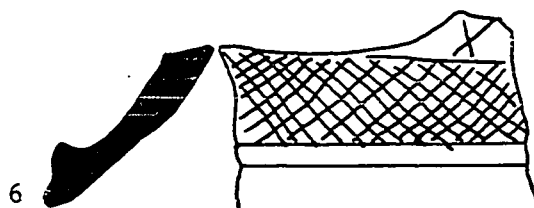
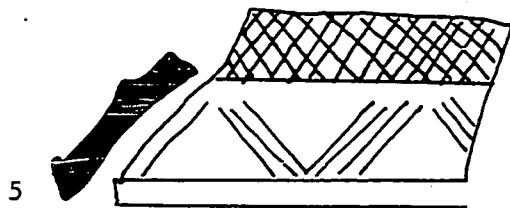
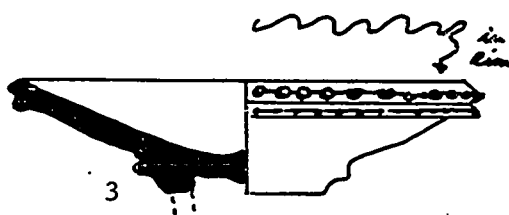
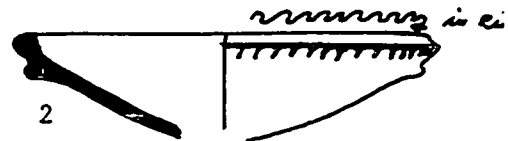


PLATE IX STANDS

1. 2H19
miniature stand
height:0.057; rim diam.:0.05; base:0.05
hand made, lightly fired utility ware
series of parallel incisions on lip and base
5YR 4/8 yellowish-red
grit temper
rough and grainy surface
locus: N23.5 E220 IA
2. 2HP94
stand
wheel made, lightly fired utility ware
5YR 5/8 yellowish-red
matte, rough and grainy surface
locus: room 4 IA
3. 2HP114
stand
wheel made moderately fired utility ware
10YR 7/2 light grey
matte, rough and grainy surface
locus: room 44 IB
4. 2HP282
stand
wheel made, lightly fired utility ware
5YR 5/6 yellowish-red
matte surface slightly rough and grainy
locus: 3 in room 7/18 IA
5. 2HP41
stand
wheel made, lightly fired utility ware
incised horizontal bands
locus: room 15 IA; room 15 IB; room 7/18 IB;
room 4 IA
6. 2HP319
miniature stand
wheel made moderately fired
10YR 6/6 brownish-yellow
matte surface, slightly rough and grainy
locus: room 22 IA
7. 2HP123
stand
wheel made, lightly fired utility ware
5YR 6/6 reddish-yellow
matte surface, rough and grainy
locus: room 3 IA; room 15 IB; room 16 IA

PLATE IX STANDS

<u>FIGURE</u>	<u>Reference</u>
1	
2	Woolley, <u>U.E. II</u> , pl.266:245
3	Delougaz, <u>Pottery</u> , pl.168:C026.410 (E.D. II-III) Postgate <u>et.al.</u> , <u>ASE II</u> , gr.49/5 fig 132
4	Delougaz, <u>Pottery</u> , pl.171:C257.210
5	Martin, <u>Fara</u> , 657:8 (E.D. III)
6	mini. of Woolley, <u>U.E. II</u> , pl.266:242 Moon, <u>ASE III</u> , 217
7	

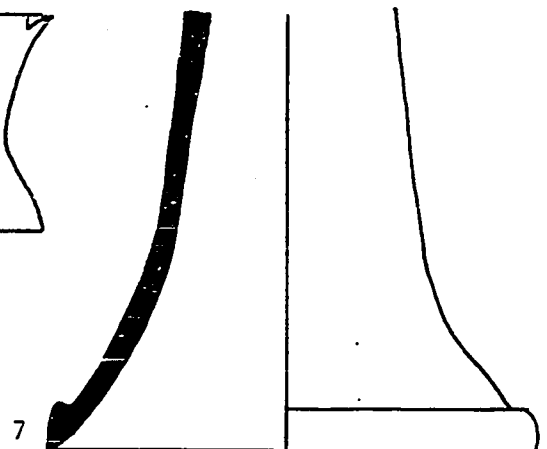
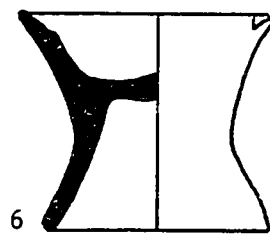
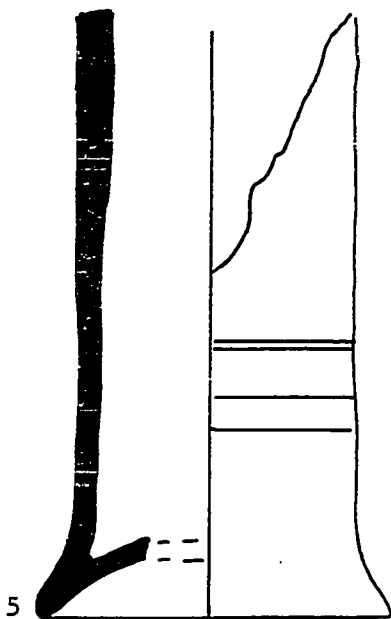
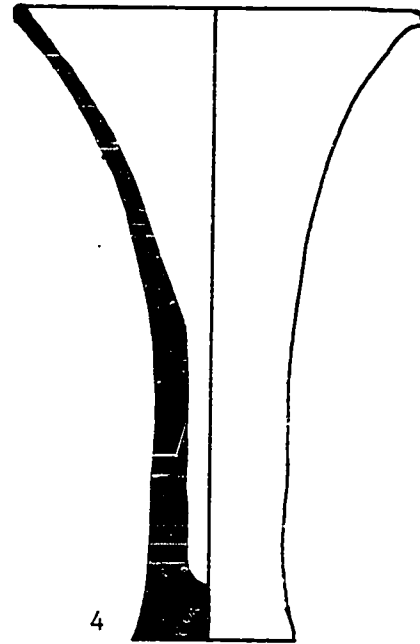
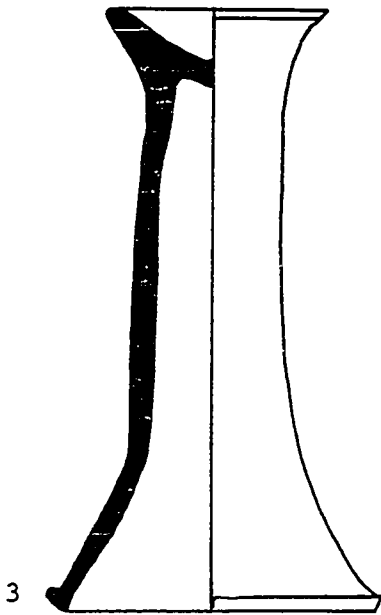
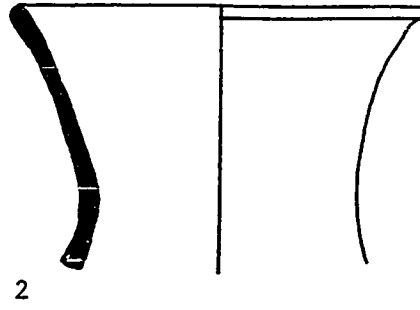
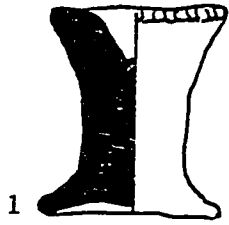


PLATE X STANDS

1. 2HP117
stand
wheel made moderately fired utility ware
2.5Y 7/2 light grey
grit temper
matte surface, slightly rough and grainy
locus: door between room 10 and 12 I
room 6 IA
2. 2HP298
stand
wheel made, lightly fired fine ware
10YR 7/3 very pale brown
rough and grainy surface
locus: room 45 IB
3. 2HP320
stand base
wheel made, moderately fired fine ware
10YR 6/6
matte surface, slightly rough and grainy
locus: room 4 IB
4. 2HP185
stand base
wheel made moderately fired utility ware
2.5Y 7/2 light grey
matte surface, slightly rough and grainy
locus: room 15 IB
5. 2HP111
stand
tall pedestal base
colour not recorded
locus: room 18 IB

PLATE X STANDS

<u>Figure</u>	<u>Reference</u>
1	Woolley, <u>U.E. II</u> , pl.267:245
2	Delougaz, <u>Pottery</u> , pl.172:C352.000 (E.D. III) Woolley, <u>U.E. II</u> , pl.266:244 Postgate <u>et.al.</u> , <u>ASE II</u> , gr.31/13 fig.128
3	
4	Moon, <u>ASE III</u> , 213
5	Delougaz, <u>Pottery</u> , pl.190:D022.410; pl.171:C233.100

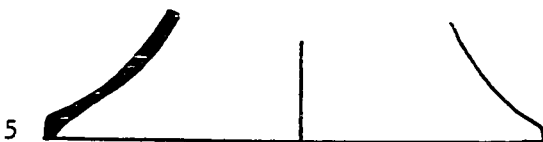
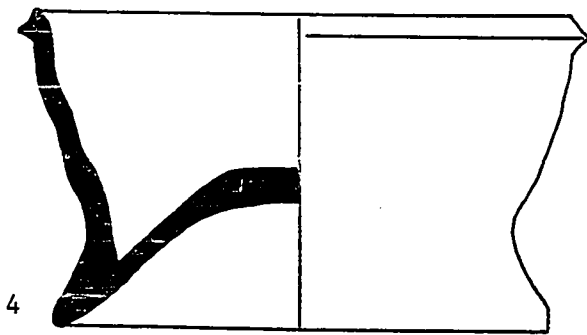
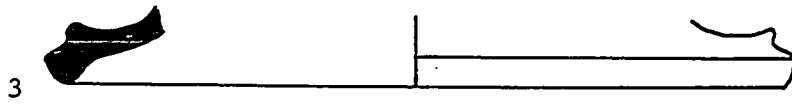
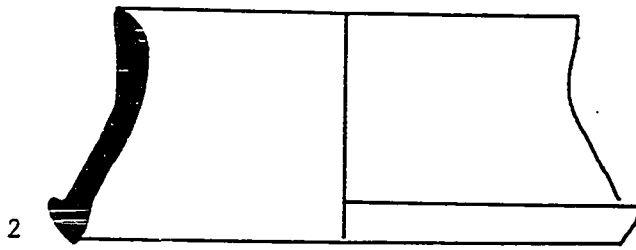
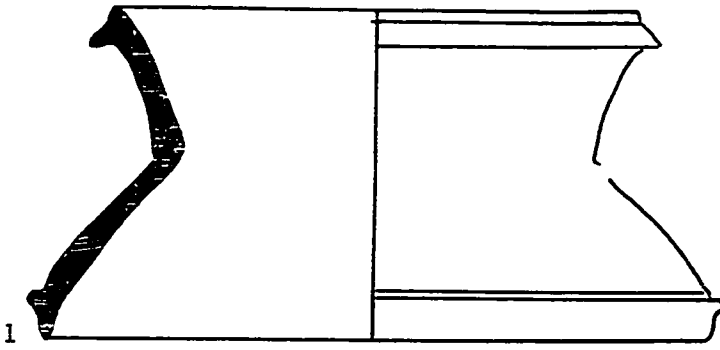


PLATE XI VATS

1. 2HP108
vat
course ware
straw temper
10 YR 7/3 very pale brown
true slip on surface
locus: room 42 IA; room 20 IB
2. 1HP119
vat
10 YR 7/3 very pale brown
straw temper
true slip on surface
impressed decorative horizontal ridge
locus: room 15 IA
3. 1HP181
vat
wheel made
colour not recorded
locus: room 3 IA

PLATE XII VATS

1. 2HP172
vat
wheel made, moderately fired utility ware
2.5Y 7/2 light grey
plant temper
matte surface, slightly rough and grainy
locus: room 31 IB
2. 2HP322
vat
wheel made, lightly fired fine ware
10 YR 7/4- 10YR 7/3 very pale brown
straw temper
rough and grainy surface with true slip
locus: room 7/18 IA;
3. 2HP139
vat
added ring base
wheel made, lightly fired utility ware
colour not recorded
straw temper
decorative notched horizontal ridge
locus: room 42 IB;

PLATE XI VATS

<u>Figure</u>	<u>Reference</u>
1	
2	Postgate <u>et.al.</u> , <u>ASE II</u> , gr.45/5 fig 131
3	
general	Moon, <u>ASE III</u> , 162,169

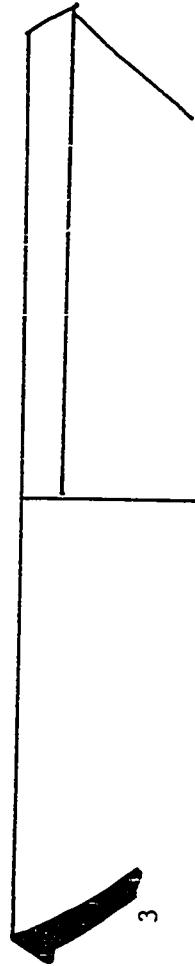
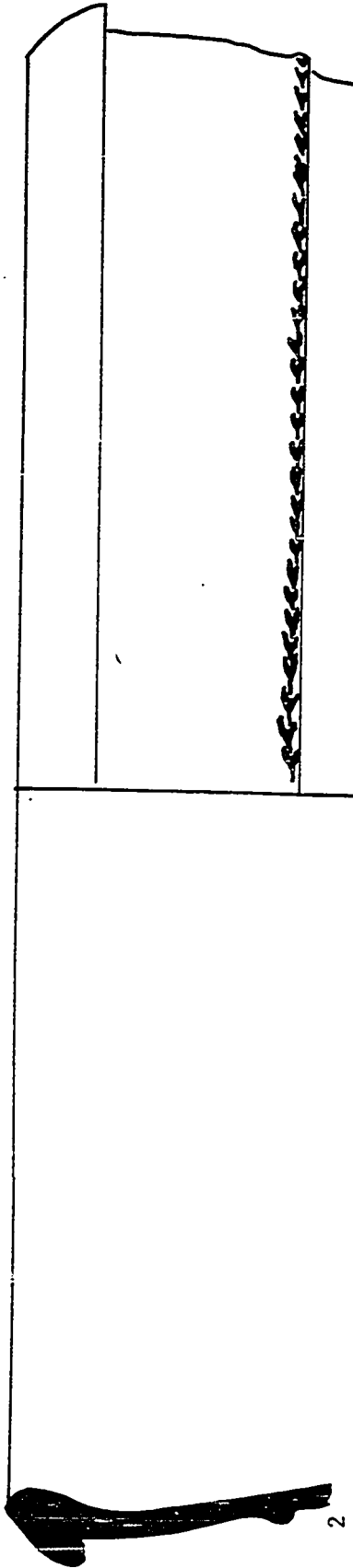
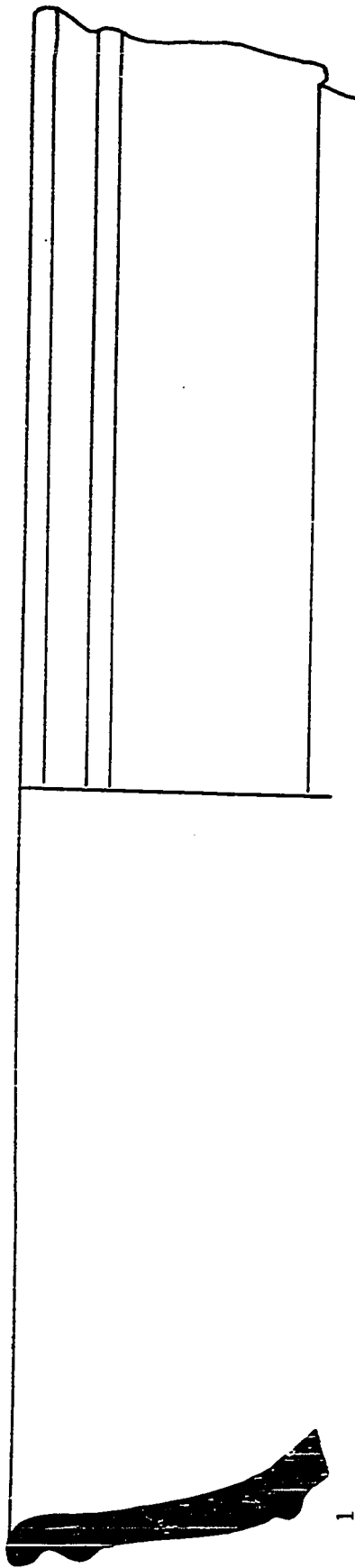
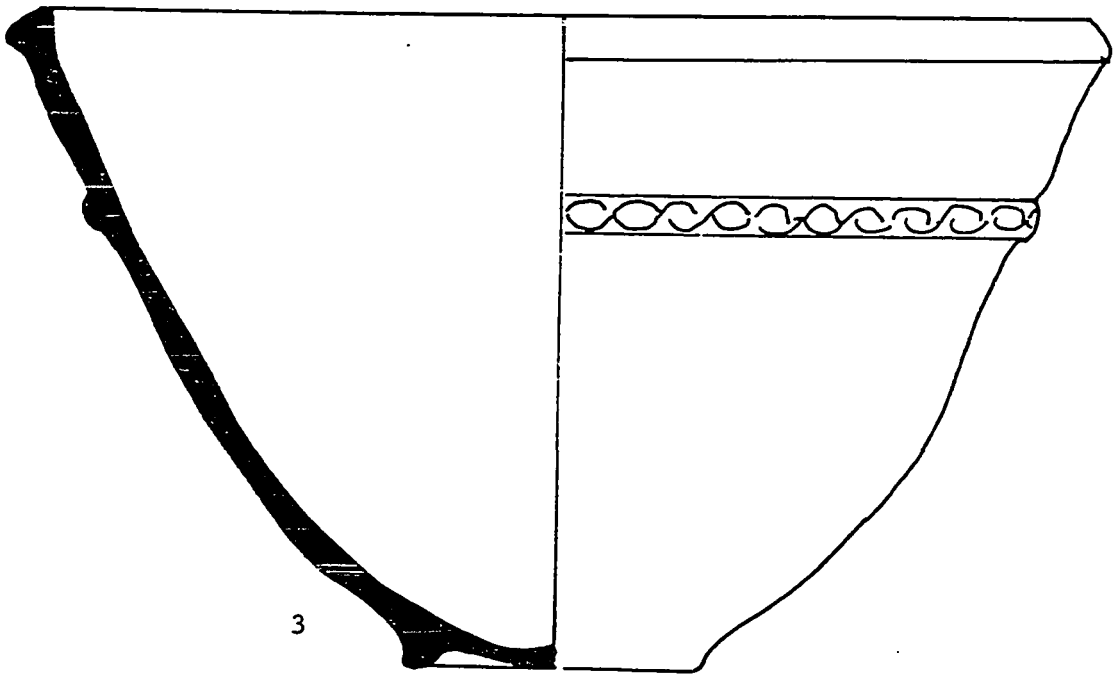
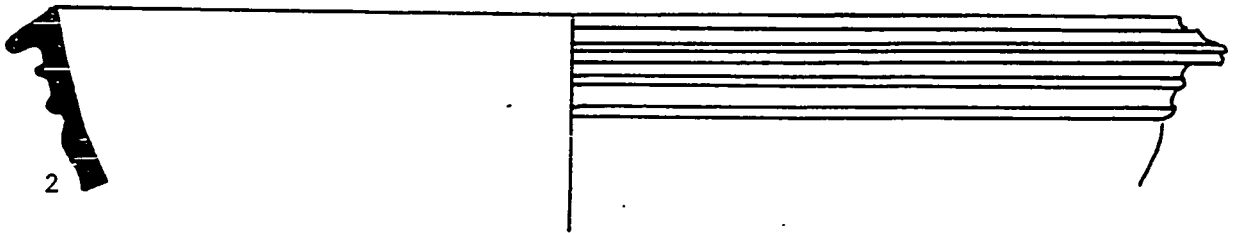
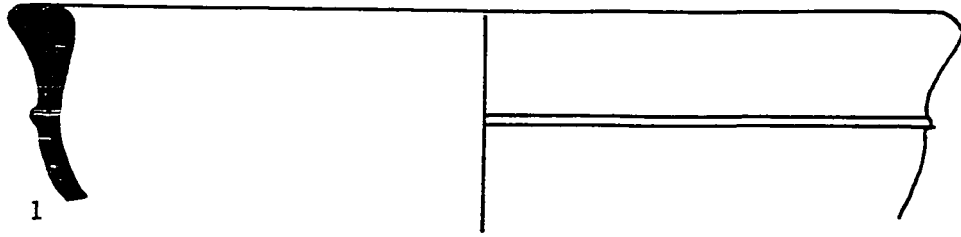


PLATE XII VATS

<u>Figure</u>	<u>Reference</u>
1	Martin, <u>Iraq</u> (1983), 2:11 (Akkad-Ur III)
2	Martin, <u>Iraq</u> (1983), 2:13 (Akkad-Ur III) Delougaz, <u>Pottery</u> , pl.170: C111.310b
3	Postgate <u>et.al.</u> , <u>ASE II</u> , gr.28/16 fig.127 (



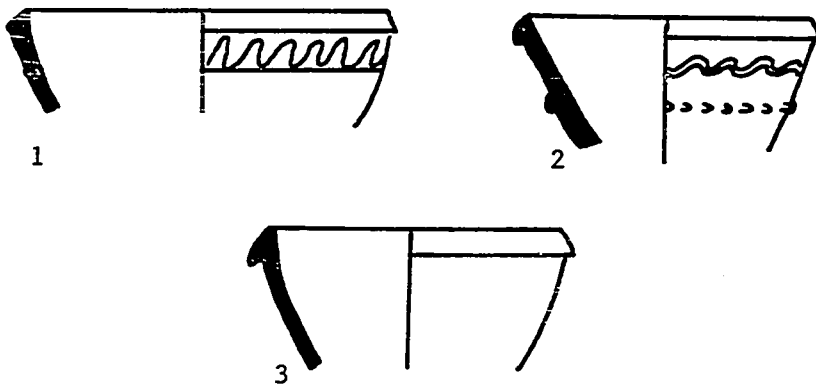
1:3
3 1:4

PLATE XIII BASINS

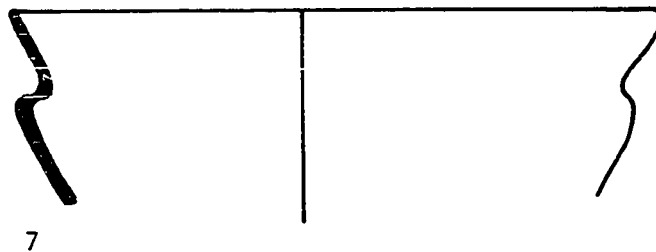
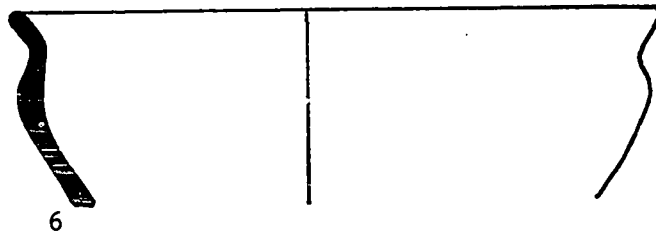
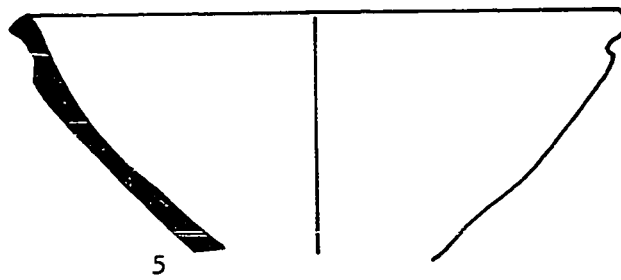
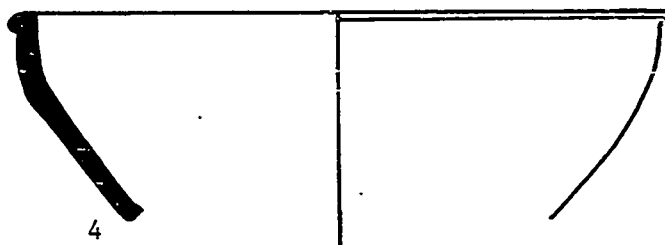
1. 2HP69
basin
wheel made, moderately fired fine ware
undulating line incised on horizontal band
locus: room 42 IB
2. 2HP75
basin
description not available
locus: room 36 IA
3. 1HP21
basin
wheel made
no surface decoration
locus: room 4 IA; room 15 IA; room 15 IB
4. 2HP142
basin
wheel made, moderately fired utility ware
10 YR 5/8 yellowish-brown
rough and grainy surface
locus: room 12 IA
5. 2HP329
basin
wheel made, lightly fired
5YR 6/6 reddish-yellow
plant temper
matte surface, slightly rough and grainy
locus: room 31 IB
6. 2HP391
basin
wheel made, moderately fired fine ware
2.5 YR 6/4 light yellowish-brown
matte surface, slightly rough and grainy
locus: room 3 IA
7. 1HP186
basin
wheel made, lightly fired fine ware
locus: room 7/18 IB; room 9 IA

PLATE XIII BASINS

<u>Figure</u>	<u>Reference</u>
1	
2	
3	Postgate <u>et.al.</u> , <u>ASE II</u> , gr.14/2 fig.125; gr.22/2 fig.126; gr.26/35 fig.127
4	Postgate <u>et.al.</u> , <u>ASE II</u> , gr.95/9; gr.96/3; gr.97/5 fig.140
5	
6	Woolley, <u>U.E. II</u> , pl.252:33 (late form going into Ur III) Carter, <u>CDAF</u> 11 (1980), p.52
7	Woolley, <u>U.E. II</u> , pl.252:33



1:4



1:3

PLATE XIV VARIA

1. 2HP243
jar
string cut, smeared base
wheel made, lightly fired fine ware
5YR 6/4 light reddish-brown
slightly rough surface
two notched ridges close to base
locus: room 36 IA near E200 balk

2. 2H93
miniature jar
height:0.056; rim diam.:0.03; body:0.042
hand made, moderately fired fine ware
2.5Y 7/2 light grey
plant temper
blob of clay handle
locus: room 39 IB floor

3. 2HP239
cup
string cut base
wheel made moderately fired utility ware
5YR 6/4 light reddish-brown
matte surface, slightly rough and grainy
locus: room 39 IB

4. 2HP310
cup
flat base
hand made, lightly fired
7.5YR 6/4 light brown
fine plant temper
locus: room 45 IB

5. 2H95
cup
flattened base with pinched legs at corners
moderately fired
2.5 YR 6/4 light yellowish-brown
matte surface, slightly rough and grainy
locus: room 39 IB

6. 2H180
funnel
convex pierced base
hand made, lightly fired fine ware
5YR 4/6 yellowish-red
fine plant temper
matte surface, rough and grainy
sharp impressions on plastic band around body
locus: room 4 IB

PLATE XIV VARIA

7. 2H130
cup
convex base
hand made, lightly fired utility ware
5Y 7/3 pale yellow-2.5YR 7/2 light grey
fine plant temper
matte surface, slightly rough and grainy
locus: room 49 IB; 3 three in room 39 IB
8. 2HP283
oval dish
hand made course ware lightly fired
5YR 6/4 light reddish-brown
matte surface, slightly rough and grainy
locus: room 7/18 IA

PLATE XIV VARIA

<u>Figure</u>	<u>Reference</u>
1	Delougaz, <u>Pottery</u> , pl.153: (Larsa type)
2	
3	Delougaz, <u>Pottery</u> , pl.147:B043.200a (E.D.I-Ur III)
4	Delougaz, <u>Pottery</u> , pl.168:C013.210 (E.D. III) Moon, <u>ASE III</u> , 190
5	Delougaz, <u>Pottery</u> , pl.141:A243.900a (E.D. III)
6	Woolley, <u>U.E. II</u> , pl.252:17 Moon, <u>ASE III</u> , 115
7	
8	Martin, <u>Fara</u> , 661:12 Moon, <u>ASE III</u> , 195

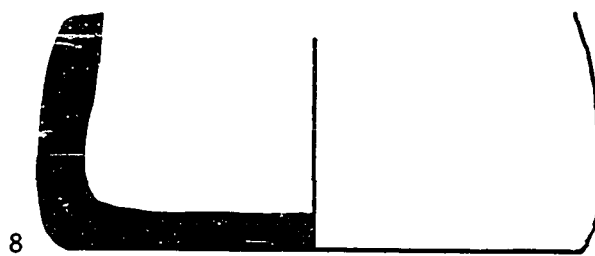
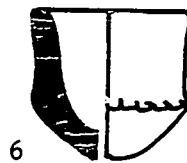
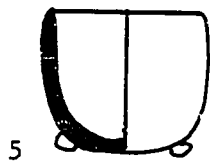
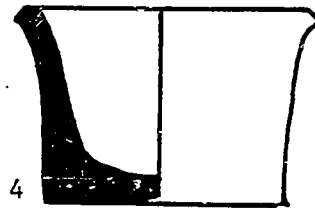
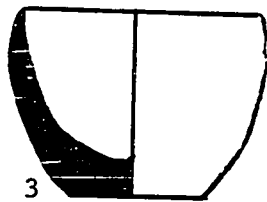
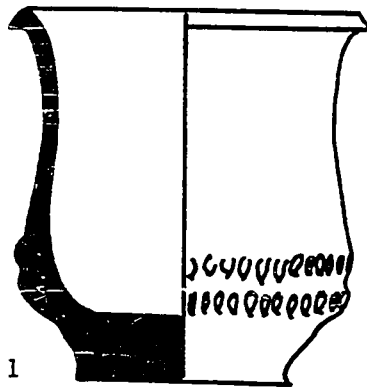


PLATE XV MISCELLANEOUS BASES

1. 2HP109
added ring base
moderately fired utility ware
5YR 6/6 reddish-yellow
plant temper
matte surface, slightly rough and grainy
locus: room 36 IA
2. 2HP107
added ring base
wheel made vessel, lightly fired utility ware
5YR 5/6 yellowish red
matte surface, slightly rough and grainy
locus: room 44 IB; N10-20 E190-200 IA
3. 2HP89
added ring base
wheel made, moderately fired utility ware
5YR 6/6 reddish-yellow
plant temper
matte surface, slightly rough and grainy
locus: two in room 4 IA
4. 2HP122
base
course ware
5Y 5/4 olive
matte rough and grainy surface
locus: room 16 IA
5. 2HP299
added ring base
wheel made, lightly fired utility ware
bitumen lined interior
7.5YR 4/4 dark brown-7.5YR 5/4 brown
plant temper
matte rough and grainy surface
locus: three in N23.5 E220

PLATE XV BASES

Figure	Reference
1	
2	
3	
4	
5	Delougaz, <u>Pottery</u> , pl.195:D566.370 (E.D. II)

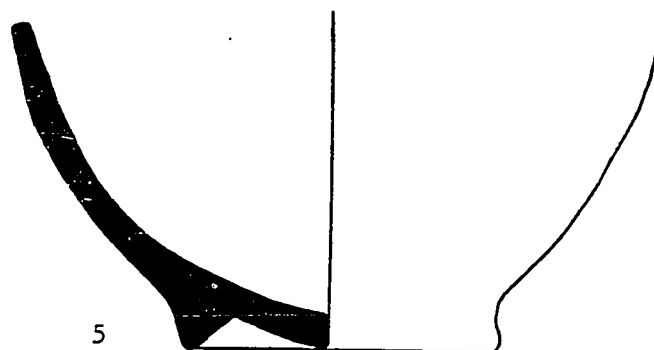
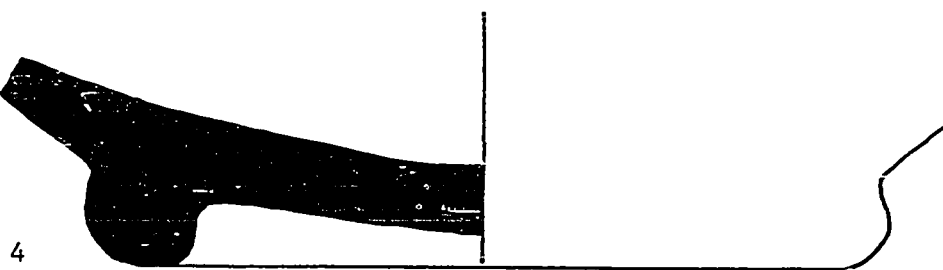
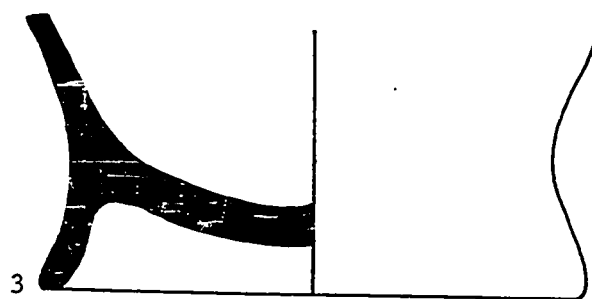
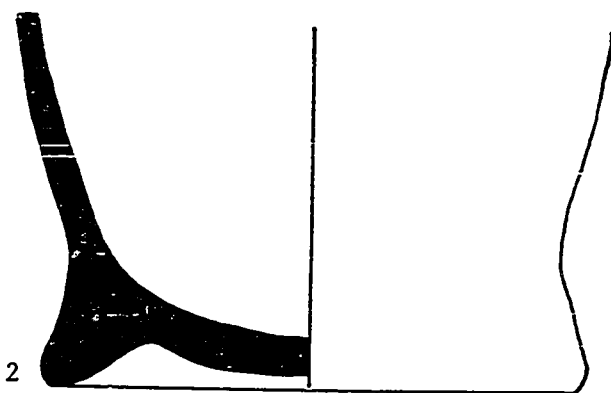


PLATE XVI MISCELLANEOUS RIMS

1. 2HP132
ledge rimmed jar
wheel made lightly fired utility ware
7.5YR 6/6 reddish yellow
matte smooth surface, wet smoothed, burnished?
locus: room 12 IB
2. 2HP57
ledge rimmed jar
wheel made, lightly fired fine ware
7.5YR 5/6 strong brown
low luster smooth surface
locus: room 9 IA
3. 2HP106
ledge rimmed jar
wheel made moderately fired utility ware
10 YR 5/3 brown
grit temper
matte surface, rough and grainy
locus: N10-20 E190-200 IA
4. 2HP45
band rimmed jar
wheel made, moderately fired fine ware
10 YR 7/4 very pale brown
rough and grainy surface
locus: room 15 IB
5. 2HP55
everted rim jar
wheel made lightly fired utility ware
10YR 5/4 yellowish-brown
grit temper
matte surface, slightly rough and grainy
locus: room 14 IB; room 42 IB
6. 2HP86
slightly hanging ledge rim
wheel made, lightly fired utility ware
5YR 6/6 reddish-yellow
grit temper
matte surface, slightly rough and grainy
locus: room 6 IA
7. 2HP131
wheel made, moderately fired utility ware
10YR 7/4 very pale brown
grit temper
matte surface, slightly rough and grainy
locus: room 44 IB

PLATE XVI MISCELLANEOUS RIMS

8. 2HP394
hanging ledge rim
wheel made, moderately fired utility ware
2.5Y 7/4 pale yellow
matte rough and grainy surface
locus: room 48 IB

9. 2HP104
wheel made lightly fired fine ware
5YR 6/6 reddish-yellow
matte surface
locus: two in room 14 IB

10. 1HP24
wheel made, moderately fired
2.5Y 7/4 pale yellow
locus: room 4 IA; two in room 7/18 IA;
one in room 7/18 IB; two in room 15 IA

PLATE XVI RIMS

<u>Figure</u>	<u>Reference</u>
1	Delougaz, <u>Pottery</u> , pl.189:C777.340 (Late Agade)
2	Delougaz, <u>Pottery</u> , pl.160:B556.540 (Late Agade) Woolley, <u>U.E. II</u> , pl.253:44b Genouillac, <u>Telloh II</u> , pl.XXX: 3769
3	
4	
5	
6	
7	Delougaz, <u>Pottery</u> , pl.178:C515.370a (E.D. II-III) Mackay, <u>AM I</u> , pl.LI:6 Moon, <u>ASE III</u> , 54-7
8	Delougaz, <u>Pottery</u> , pl.180:C525.370 a&b (E.D. I-Proto-Imperial)
9	
10	Delougaz, <u>Pottery</u> , pl.167:B806.570 (E.D. II) Genouillac, <u>Telloh I</u> , pl.XIII: 1176

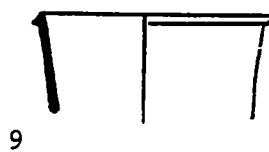
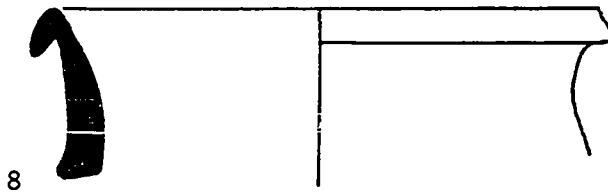
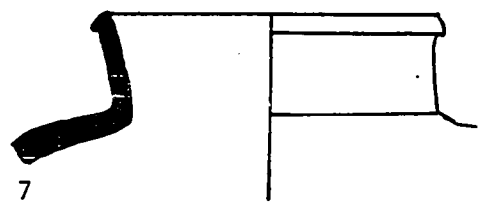
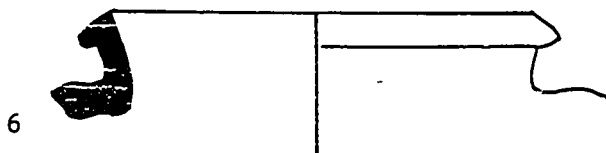
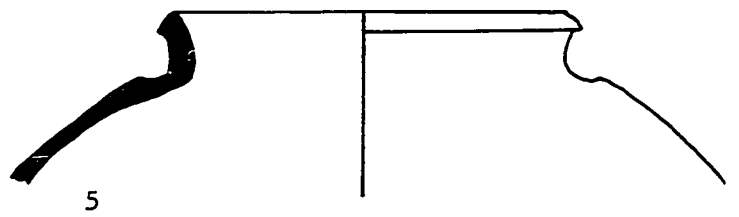
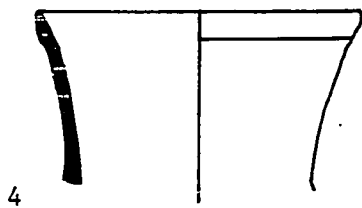
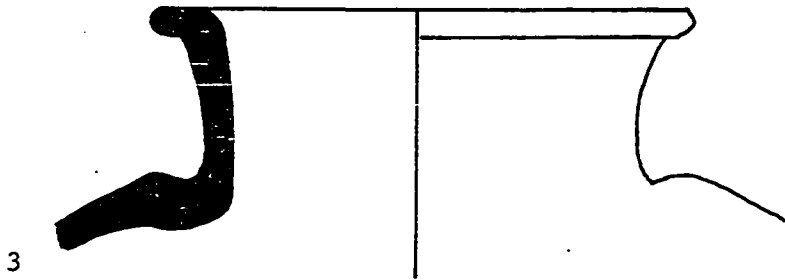
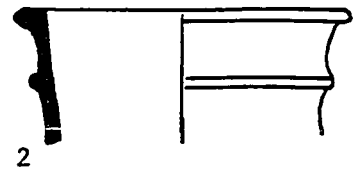
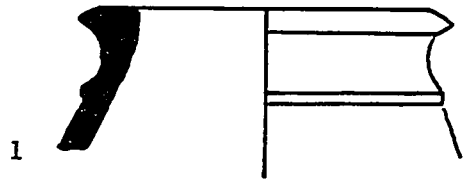


PLATE XVII MISCELLANEOUS RIMS

1. 2HP429
flared rim
wheel made moderately fired utility ware
5Y 7/3 pale yellow
locus: room 15 IB; room 42 IB
2. 2HP427
slightly everted rim
wheel made, moderately fired utility ware
5YR 6/6 reddish yellow
locus: room 4 IA; room 5 IA; two in room 14 IB;
room 15 IA; room 31 IB
3. 2HP18
plain rim
5YR 6/6 reddish yellow
wheel made, moderately fired utility ware
locus: room 31 IB
4. 2HP386
flared rim
wheel made, moderately fired utility ware
10YR 7/3 very pale brown
rough and grainy surface
locus: room 20 IB
5. 2HP20
5YR 6/6 reddish yellow
locus: room 70 IA

PLATE XVII RIMS

Figure	Reference
1	Moon, <u>ASE III</u> , 586
2	
3	
4	
5	

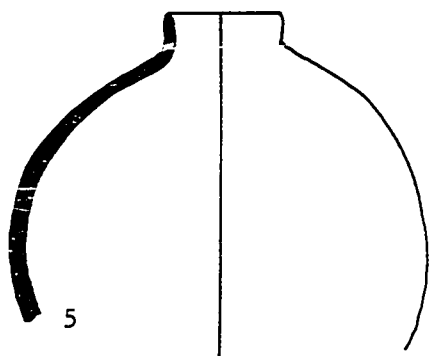
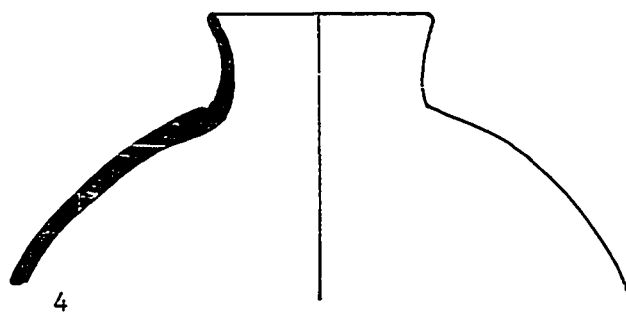
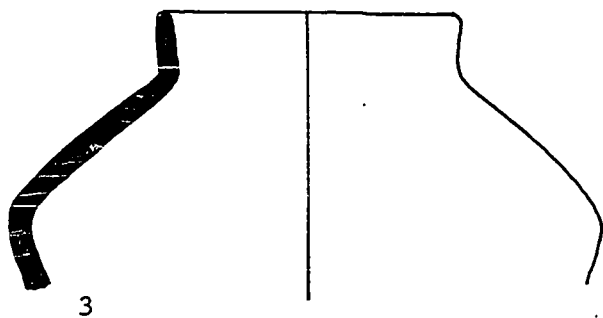
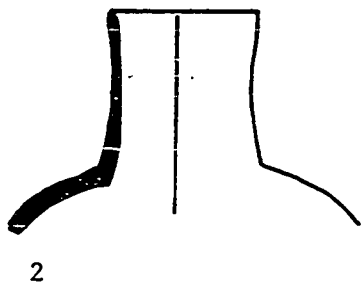
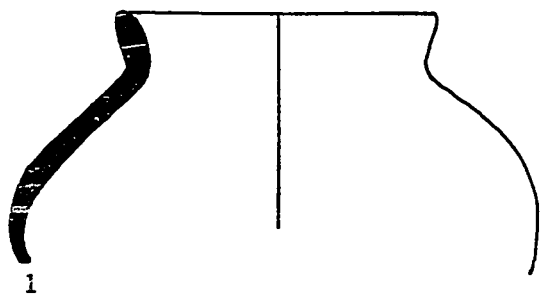


PLATE XVIII MISCELLANEOUS RIMS

1. 2HP52
flared rim
wheel made, moderately fired utility ware
2.5Y 4/4 olive brown
grit tempered
matte surface, slightly rough and grainy
locus: room 51 I ; room 87 I ; N10-20 E190-200 IA
2. 2HP338
flared rim
wheel made, lightly fired fine ware
5YR 6/6 reddish-yellow
matte surface
incised horizontal lines at neck
locus:
3. 2HP300
flared rim
wheel made, moderately fired utility ware
10YR 7/3 very pale brown
matte, wet smoothed surface
locus: room 3 IA; rroom 14 IB; room 15 IA;
room 31 IB
4. 2HP64
flared rim
5YR 4/1 dark grey
wet smoothed surface
locus: room 51 I
5. 2HP119
overturnd bevelled rim
wheel made, moderately fired fine ware
5Y 6/1 grey
wet smoothed
deep, narrow, slightly diagonal incisions at neck,
raised band on shoulder with irregular triangular
incisions
locus: room 53 IA
6. 2HP88
grooved rim
wheel made, lightly fired fine ware
5YR 6/6 reddish-yellow
smooth, burnished surface
locus: room 7/18 IA

PLATE XVIII MISCELLANEOUS RIMS

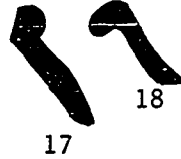
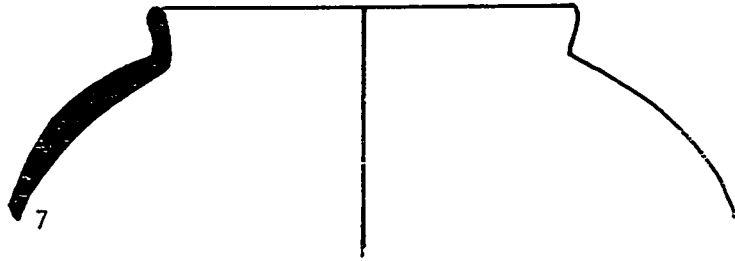
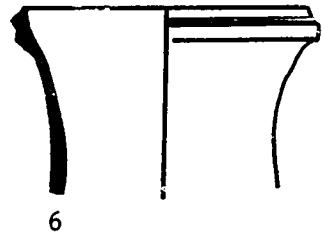
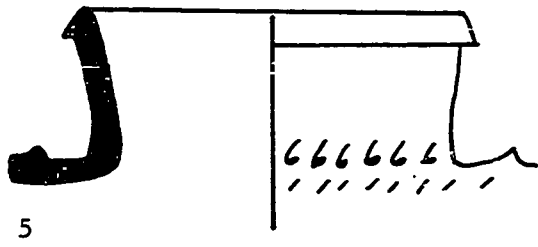
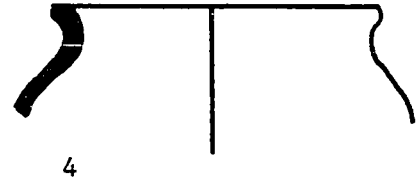
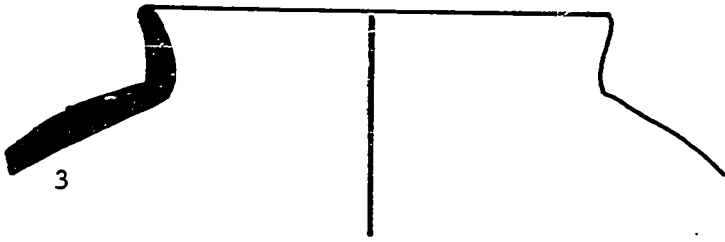
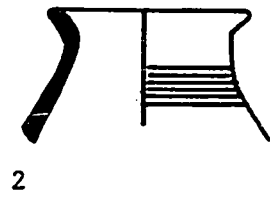
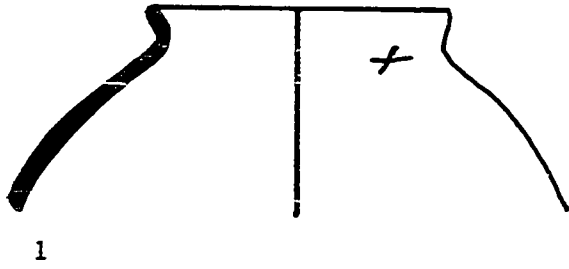
7. 2HP63
slightly flared rim
wheel made, moderately fired utility ware
7.5YR 7/4
rough and grainy surface
locus: N10-20 E200-10 IA
8. 2HP76
wheel made lightly fired utility ware
notched horizontal ridge; incised undulating lines
locus: room 40 IB; room 44 IB
9. 2HP336
slight ledge rim
wheel made, moderately fired utility ware
2.5Y 7/2
matte surface slightly rough and grainy
locus: room 7/18 IB
10. 2HP308
ledge rim
wheel made, lightly fired fine ware
5YR 6/6 reddish-yellow
matte surface
locus: room 39 IB
11. 2HP127
plain rim
wheel made, lightly fired utility ware
7.5YR 6/4 light brown
matte surface, slightly rough and grainy
12. 2HP164
thickened rim
hand made, lightly fired utility ware
10YR 6/3 pale brown
plant temper
matte surface, slightly rough and grainy
locus: room 1 IA
13. 2HP162
ledge rim
hand made lightly fired utility ware
5YR 5/6 yellowish-red
plant temper
matte surface, slightly rough and grainy
horizontal notched ridge, undulating incised line
locus:

PLATE XVIII MISCELLANEOUS RIMS

14. 2HP358
slight ledge rim
wheel made moderately fired fine ware
2.5YR 6/4 light yellowish-brown
locus: room 22 IA
15. 2HP381
tray rim
hand made, unbaked
locus: room 20 IB
16. 1HP33
tray rim
hand made, unbaked
locus:
17. 1HP166
slightly thickened rim
locus: N10-20 E190-200 IA
18. 1HP179
hanging ledge rim
locus: room 4 IA

PLATE XVIII RIMS

Figure	Reference
1	Oates, <u>Iraq</u> 44 (1982) fig.5:81 (Tell Brak) Mackay, <u>AM I</u> , pl.LIII:31 L Moon, <u>ASE III</u> , 443
2	Mackay <u>AM I</u> , pl.LIII:53 L Delougaz, <u>Pottery</u> , pl.164:B666.540b Woolley, <u>U.E. II</u> , pl.262:166 Postgate <u>et.al.</u> , <u>ASE II</u> , gr.73/7 fig134
3	Mackay <u>AM I</u> , pl.LIII:L Delougaz, <u>Pottery</u> , pl.195 (general types)
4	
5	Heinrich, <u>Fara</u> , p.40: F2780 Postgate <u>et.al.</u> , <u>ASE II</u> , gr.73/2 fig.134
6	Woolley, <u>U.E. II</u> , pl.265:224 (late form going into Ur III)
7	Delougaz. <u>Pottery</u> , pl.187:C654.510 E.D. II



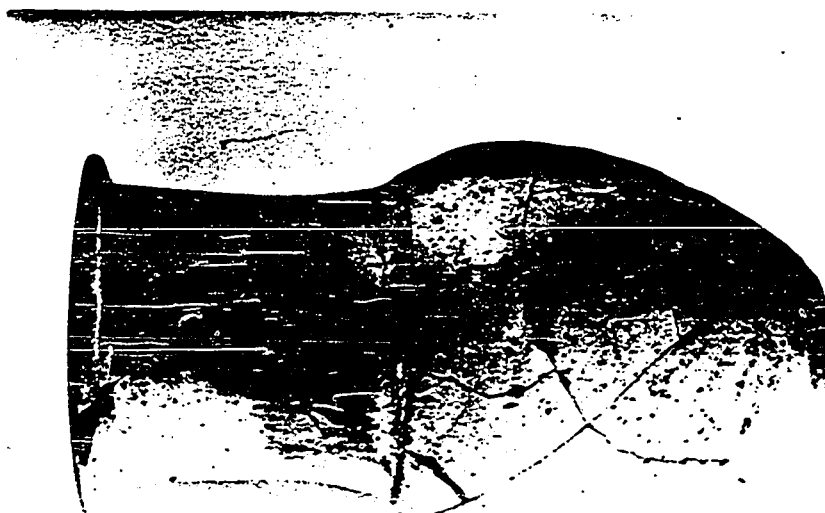
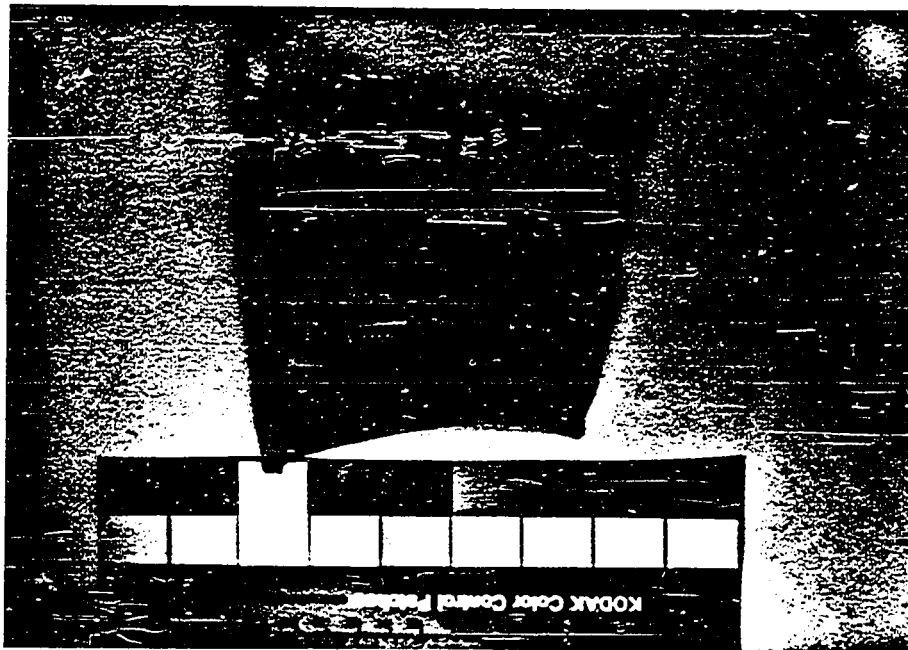
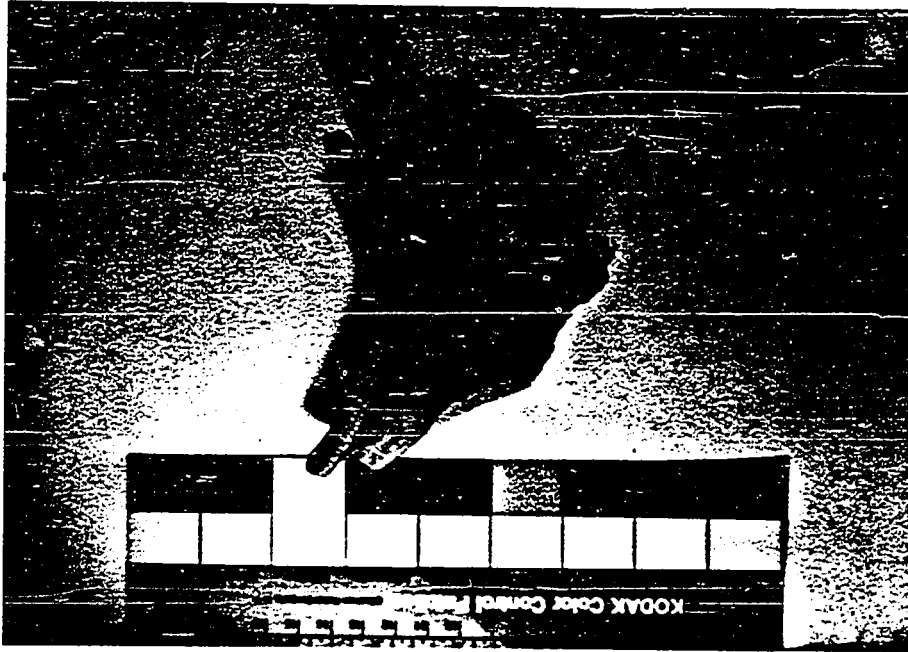
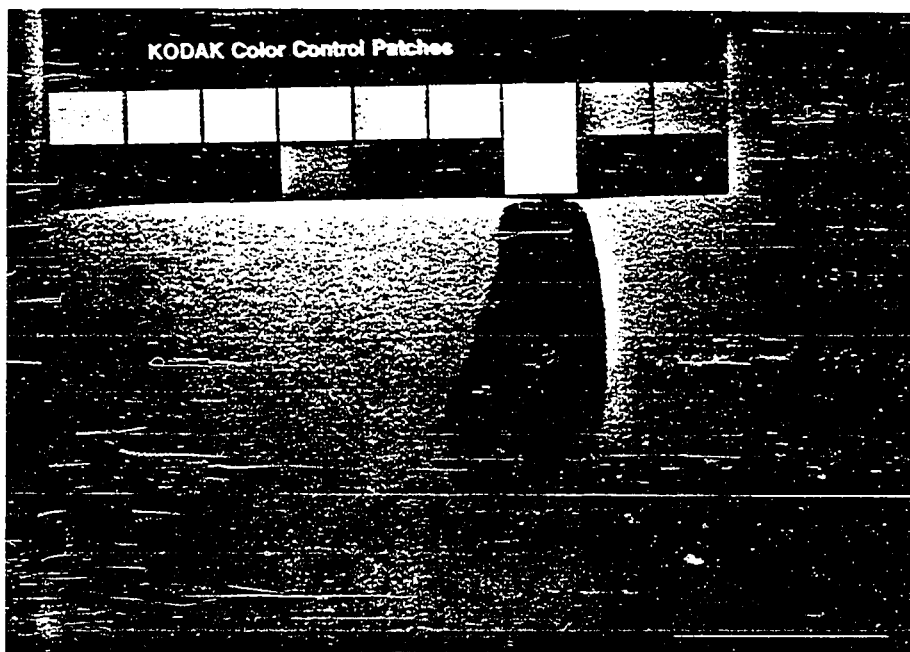


fig.1



fig.2

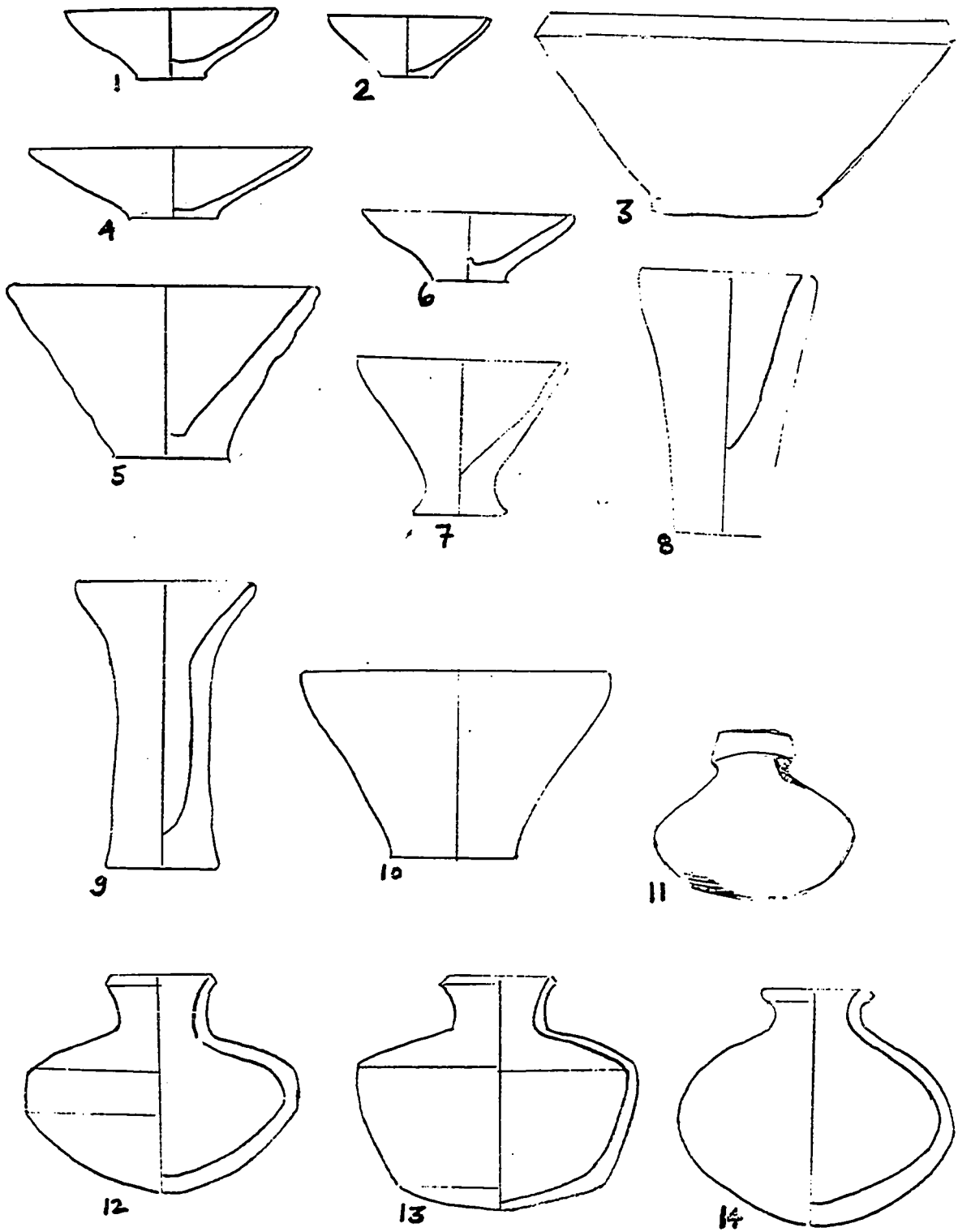


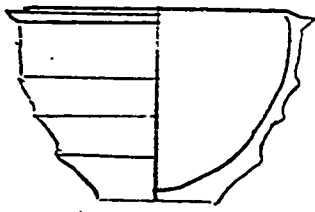


Appendix B
Illustrations of the comparative pottery

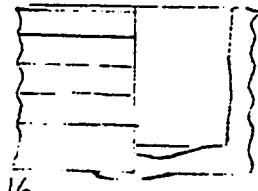
Diyala: Delougaz, Pottery

Figure	Source
1	pl.146: B001.200a
2	pl.168: C001.200a
3	pl.96: C082.310
4	pl.168: C001.200b
5	pl.146: B002.200a
6	pl.146: B001.200a
7	pl.147: B033.700b
8	pl.140: A026.200
9	pl.153: B256.200
10	pl.146: B002.200b
11	pl.102: B663.540b
12	pl.162: B634.570b
13	pl.154: B494.570
14	pl.164: B664.540a
15	pl.147: B043.210b
16	pl.171: C213.210
17	pl.189: C803.200
18	pl.187: C654.510
19	pl.185: C557.470
20	pl.159: B546.640c
21	pl.183: C546.640
22	pl.157: B536.240b
23	pl.156: B525.220
24	pl.161: B573.226
25	pl.151: B184.220c
26	pl.143: A556.320
27/30	pl.174: C365.810d
28	pl.174: C365.810b
29	pl.174: C365.810c
31	pl.168: C026.410
32	pl.171: C257.210
33	pl.172: C352.000
34	pl.190: D022.410
35	pl.170: C111.310b
36A	pl.171: C246.310
36B	pl.170: C206.410
37	pl.147: B043.200a
38	pl.168: C013.210
39	pl.141: A243.900a
40	pl.195: D566.370
41	pl.189: C777.340
42	pl.160: B556.540
43	pl.178: C515.370a
44a	pl.180: C525.370a
44b	pl.180: C525.370b
45	pl.167: B806.570
46	pl.164: B666.540b

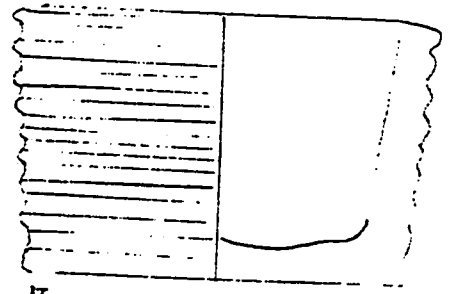




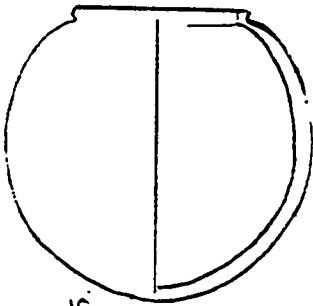
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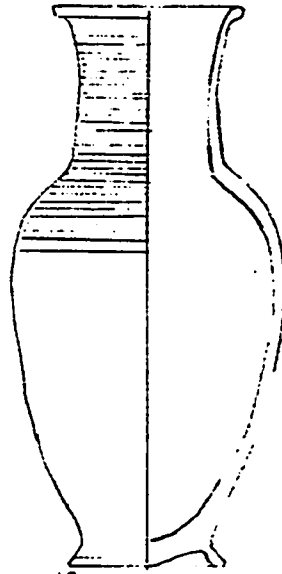
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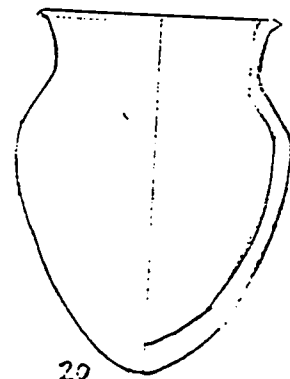
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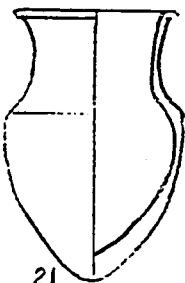
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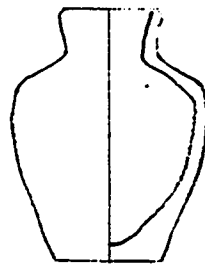
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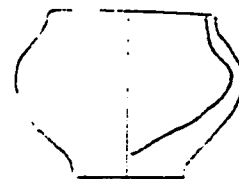
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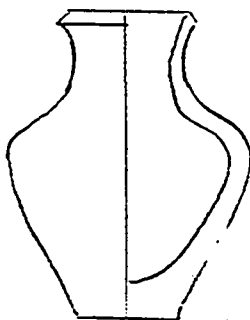
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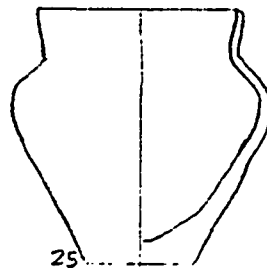
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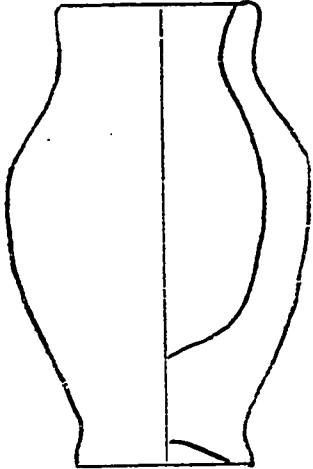
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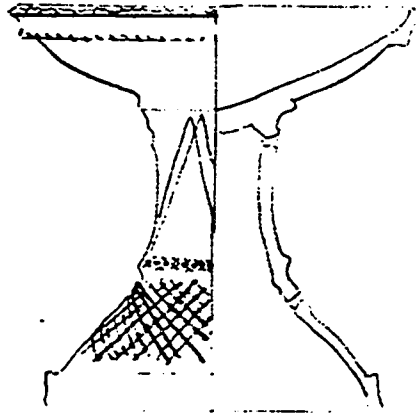
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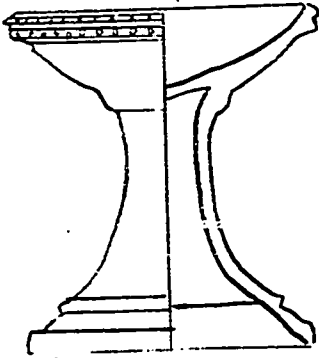
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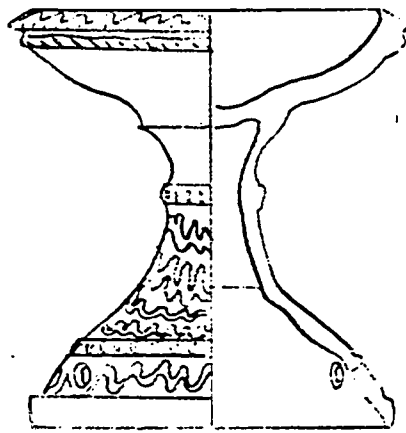
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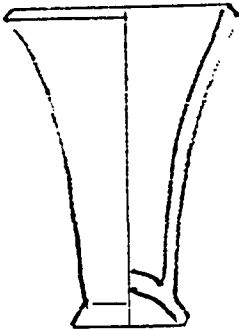
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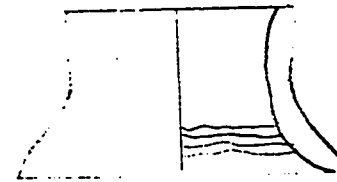
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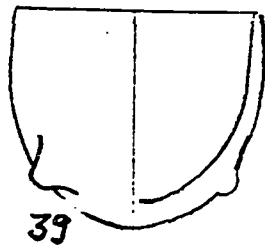
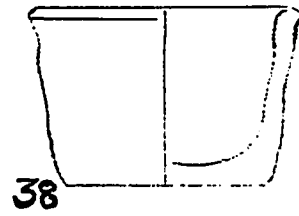
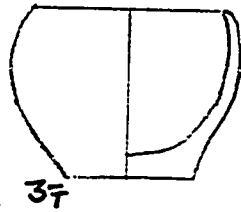
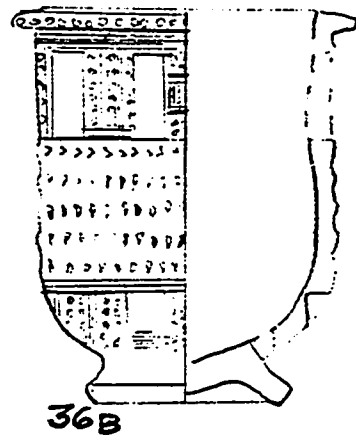
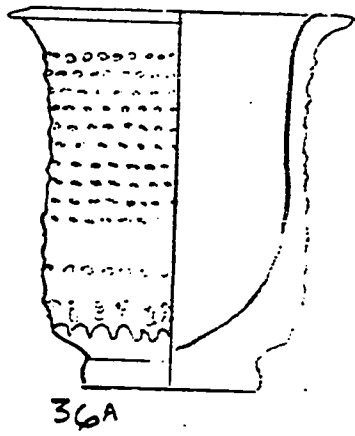
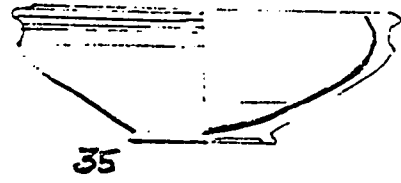
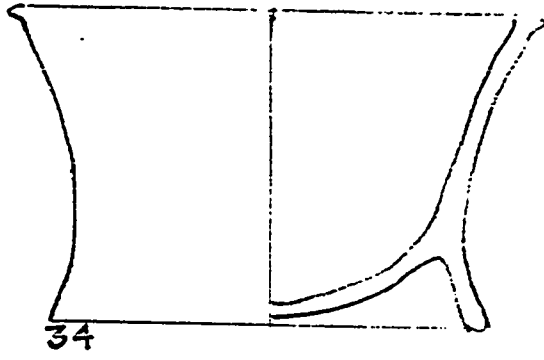
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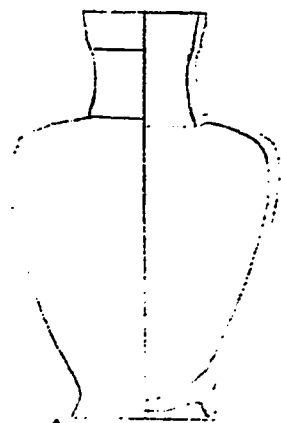


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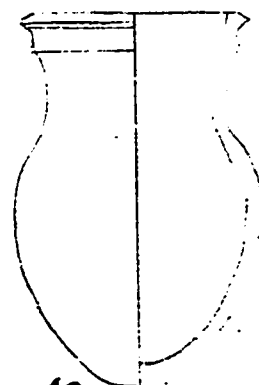




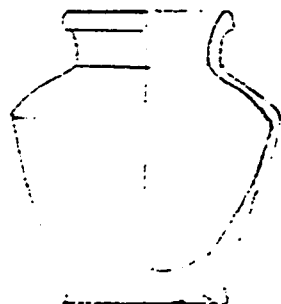
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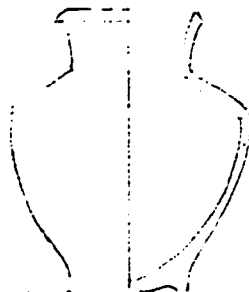
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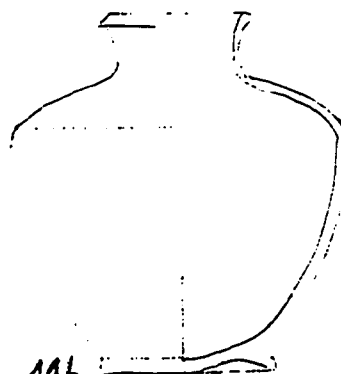
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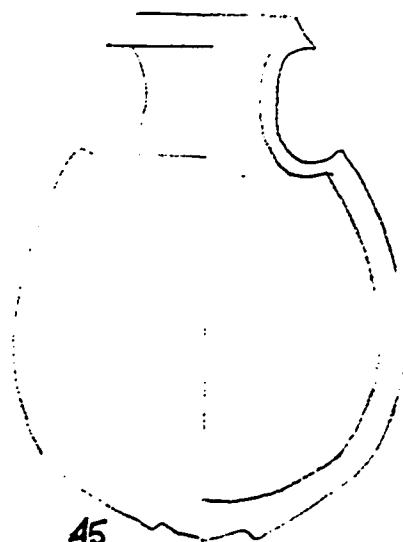
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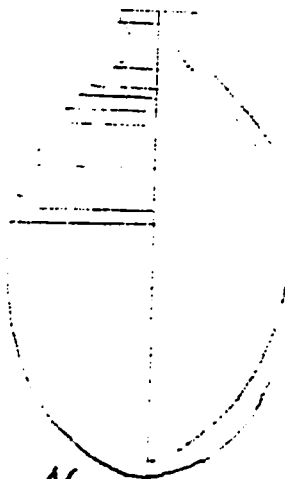
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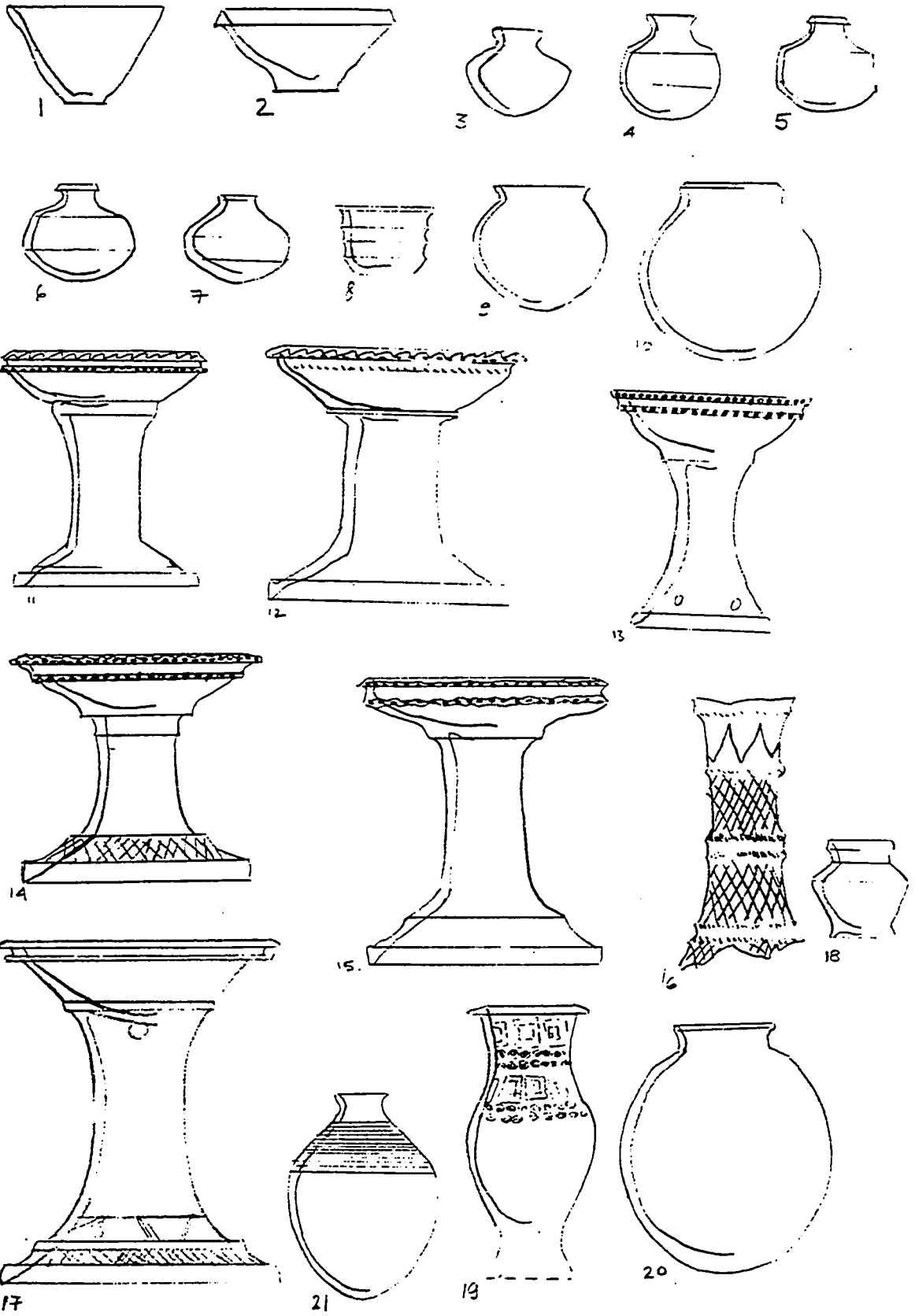
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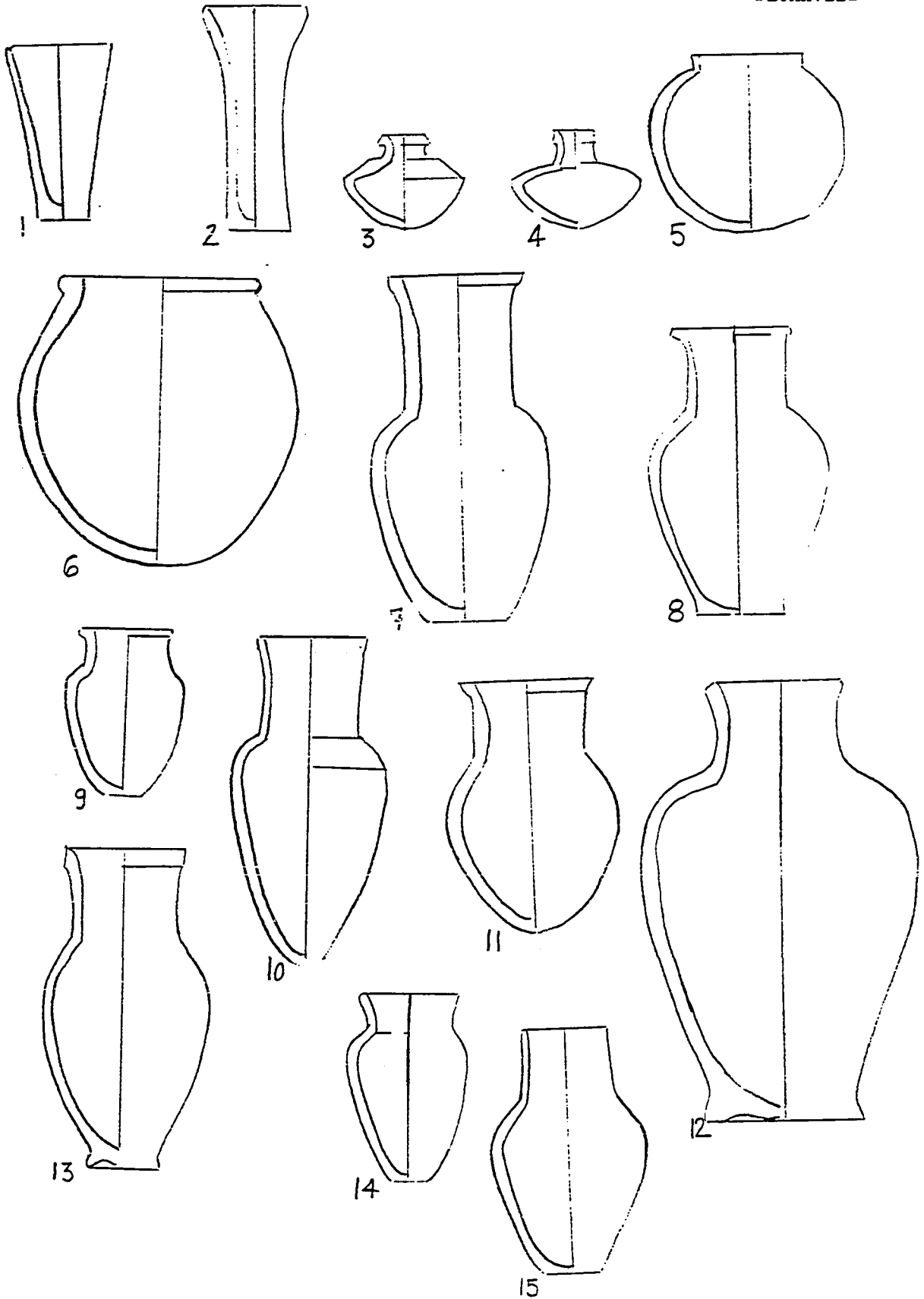
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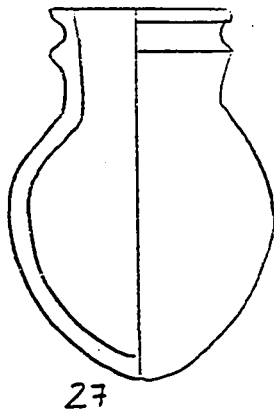
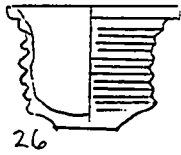
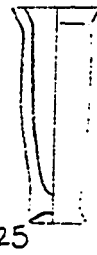
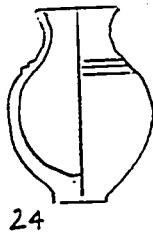
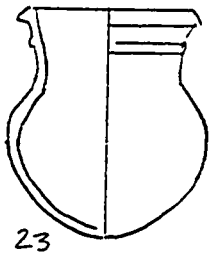
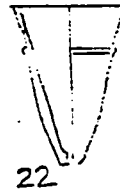
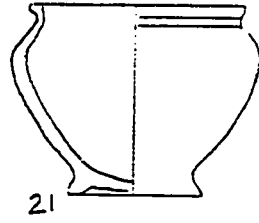
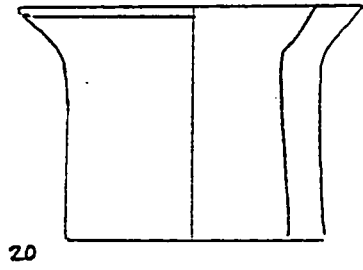
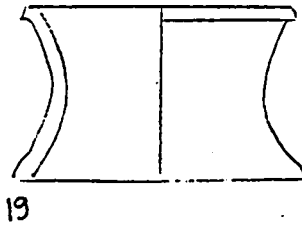
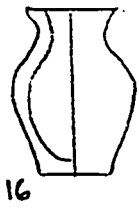
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10	pl.XVI type L
11	pl.XI #2
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13	pl.XI #4
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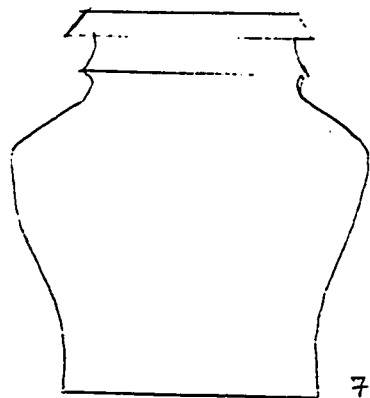
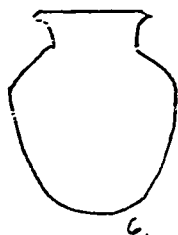
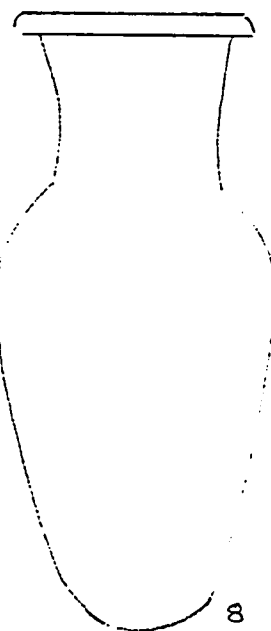
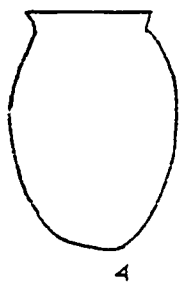
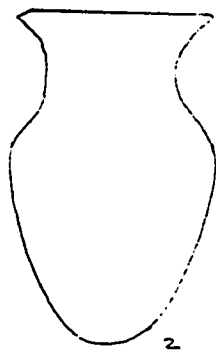
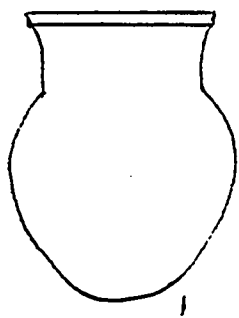
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13	pl.262:174
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17	pl.258:109
18	pl.262:177
19	pl.267:245
20	pl.266:244
21	pl.252:33
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23	pl.253:44b
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25	pl.251:15
26	pl.252:31
27	pl.253:44c





Ur British Museum numbers

<u>Figure</u>	<u>British Museum Number</u>
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2	117033 (1924.9220 296; 121918 (1928.1010 615)
3	117034 (1924.20 297)
4	121841 (1928.101057); 121837 (1928.10.10 567); 121835 (1928.10.10 565);121839 (1928.10.10 569)
5	1929.10.17 698
6	1929.10.17 717
7	1929.10.17702
8	1929.10.17 695



Fara: Martin, FaraFigure Source = Martin, Fara, 1988

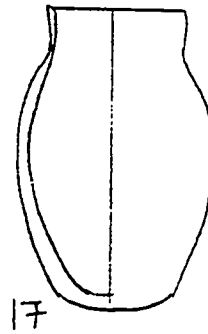
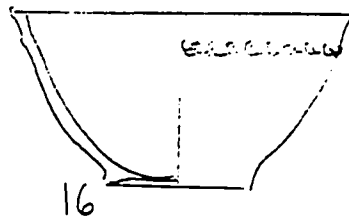
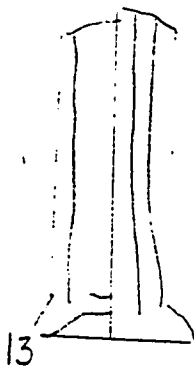
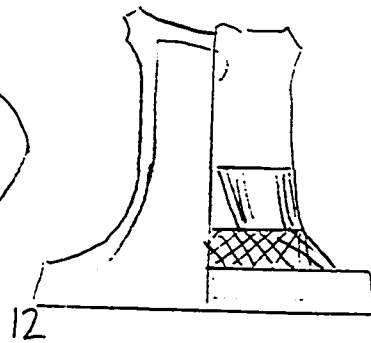
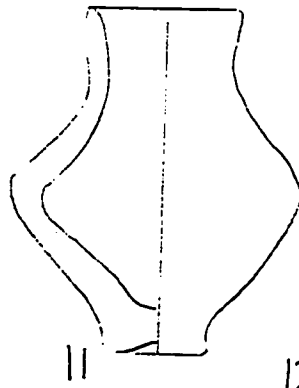
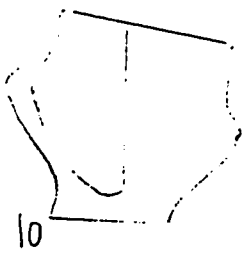
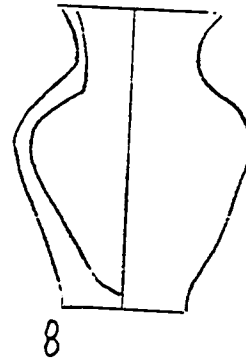
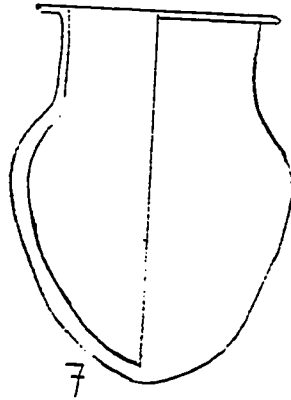
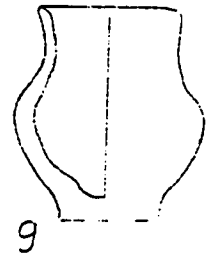
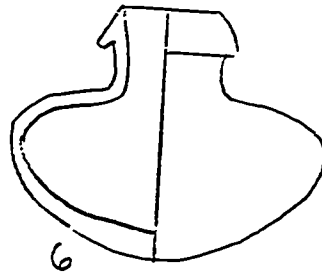
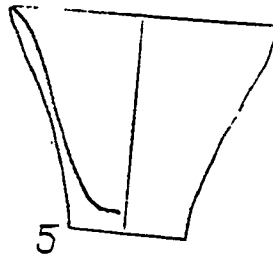
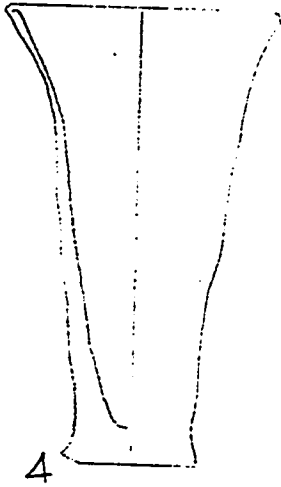
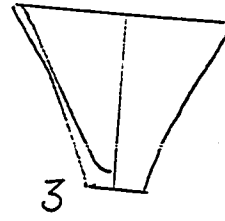
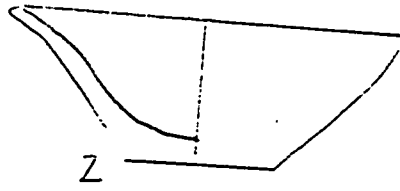
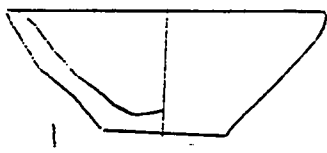
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4	p.644:10	pl.177:	37
5	p.644:7	pl.177:	42
6	p.651:9	pl.183:	84
7	p.651:11	pl.187:	113
8	p.651:2	pl.181:	67
9	p.648:10		
10	p.638:2		
11	p.638:7	pl.187:	105
12	p.657:7	pl.185:	100
13	p.657:8	pl.185:	99
14	p.654:4	pl.187:	119
15	p.654:2	pl.185:	92
16	p.657:5	pl.181:	53
17	p.661:7	pl.177:	50
18	p.661:12	pl.183:	76

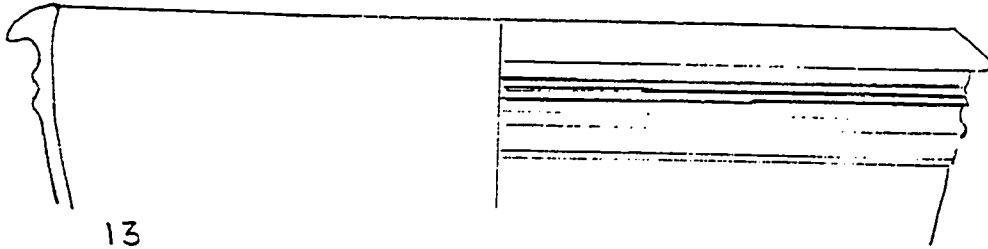
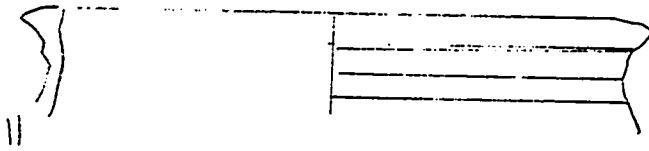
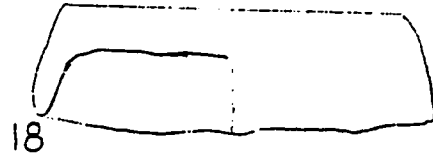
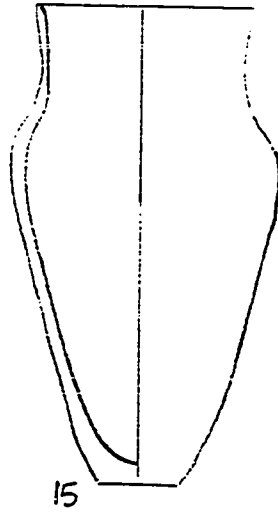
Fara: Martin, Iraq 45 (1983)Figure Source

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13	pl.2:13

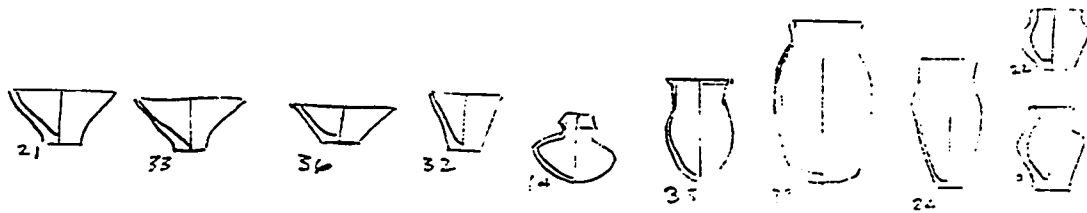
Fara: Martin, Iraq 44 (1982), p.171Figure Source

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9	type 22
10	type 9

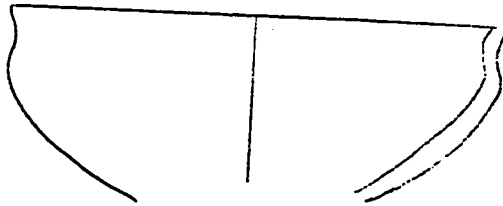




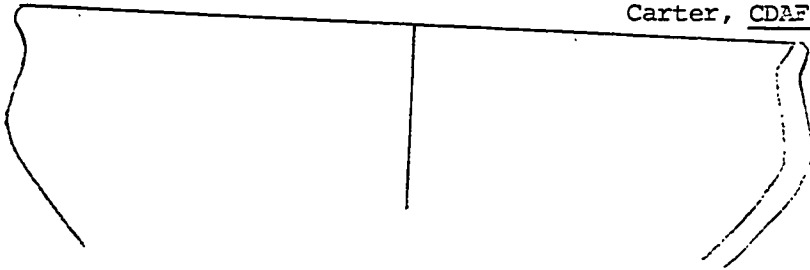
Martin, Iraq, XLIV (1982)



Martin, Iraq XLIV (1982)



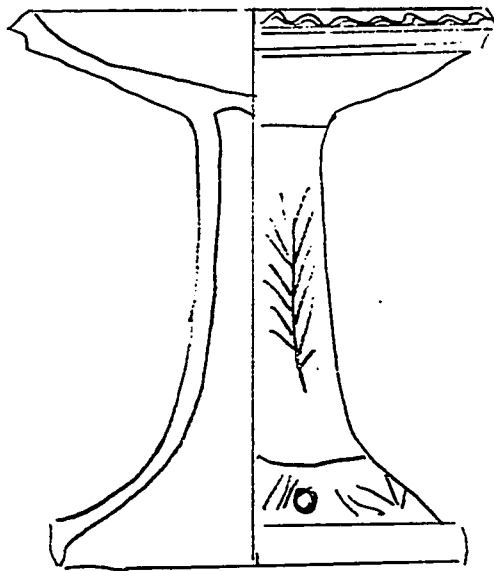
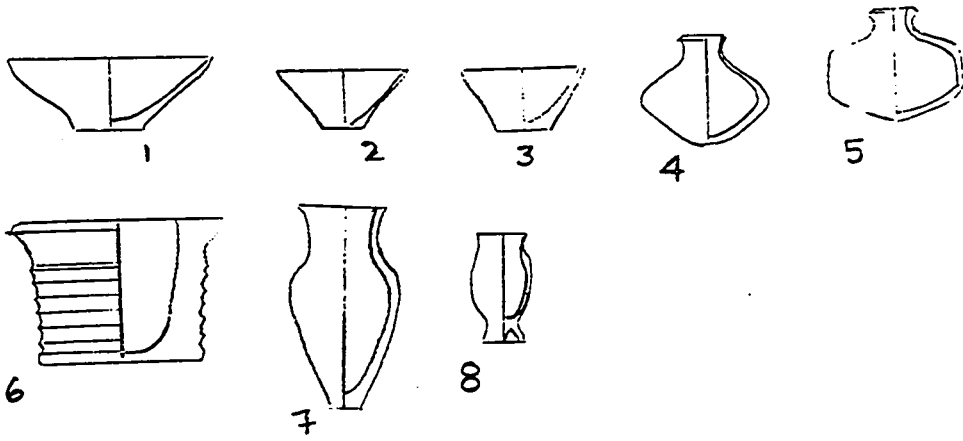
Carter, CDAF 11 (1980), p.52:1



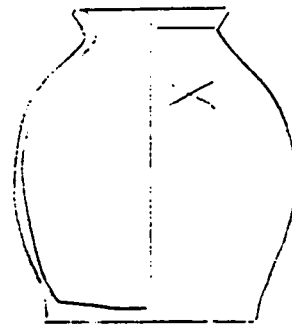
Carter, CDAF 11 (1980), p.52:2

Tell Al Wilaya, Madhloom, Sumer 16 (1960)

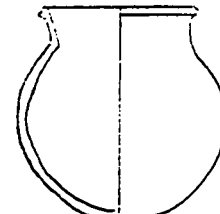
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3	pl.3:18
4	pl.3:11
5	pl.3:10
6	pl.3:32
7	pl.3:2
8	pl.3:7



Moon, Iraq XLIV (1982), 10:52



Oates, Iraq XLIV (1982), 5:81



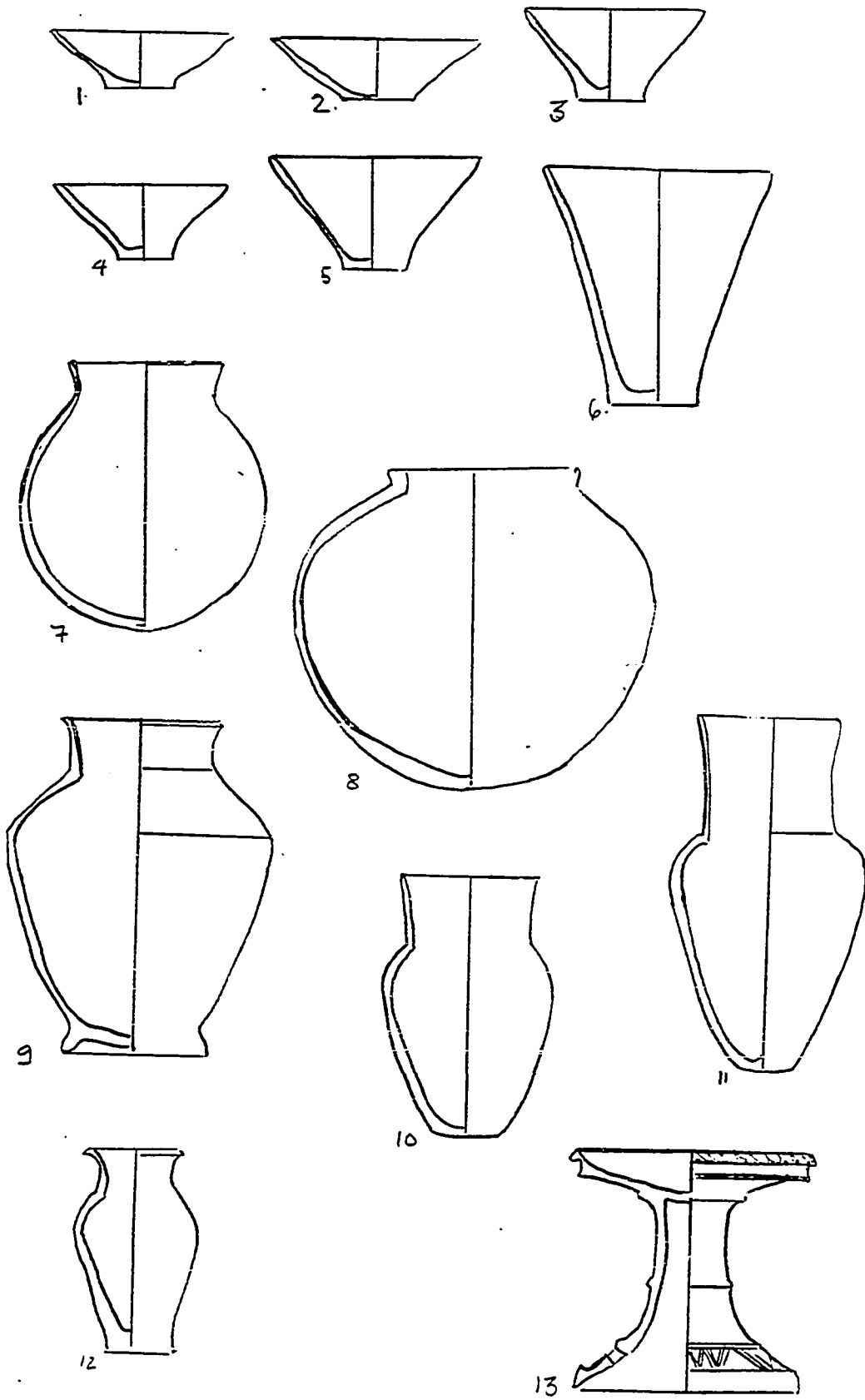
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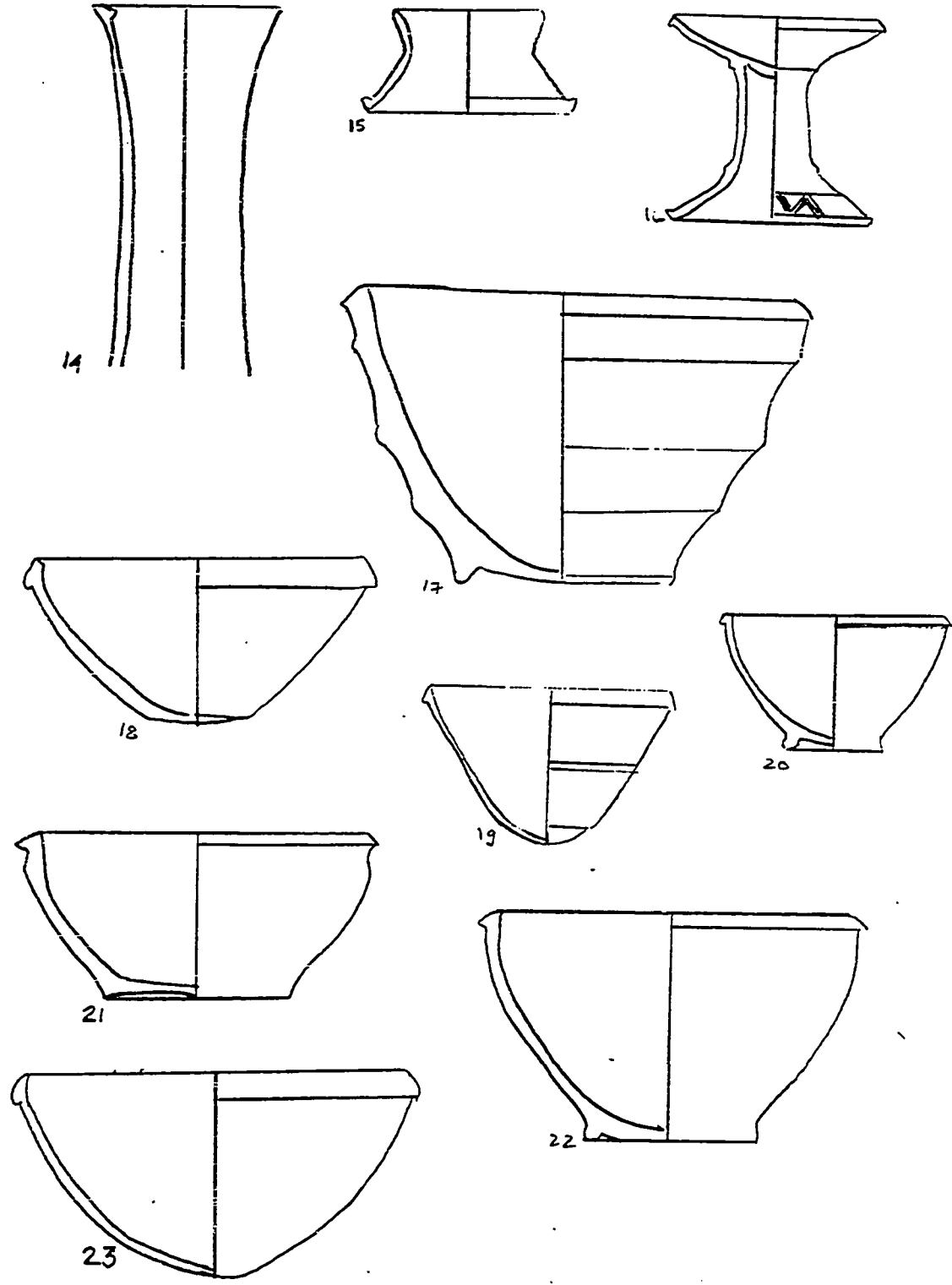
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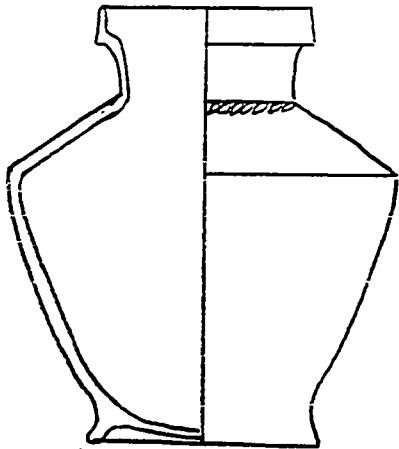
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3	126		26/11
4	129		32/15
5	135		75/5
6	127		27/22
7	132		51/8
8	122		1/1
9	125		5/9
10	129		32/10
11	129		32/16
12	133		53/2
13	122		1/6
14	132		49/5
15	128		31/13
16	131		45/5
17	127		28/16
18	125		14/2
19	126		22/2
20	127		26/35
21	140		95/9
22	140		96/3
23	140		97/5
24	134		73/2
25	135		73/7

Tell Abu Salabikh: Moon, ASE III

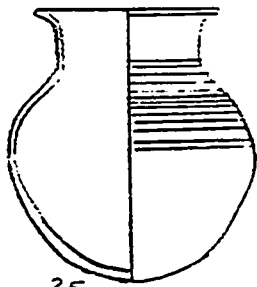
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6	343				
7	436				
8	417				
9	463				
10	573				
11	497				
12	502				
13	503				
14	217				
15	287				
16	213				
17	162				
18	169				
19	115				
20	190				





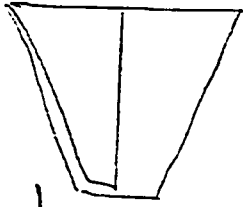


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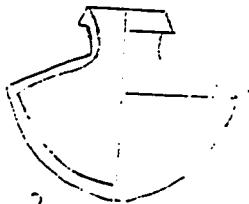


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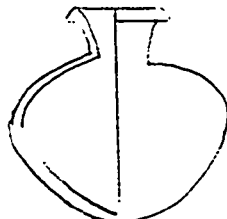
Postgate, et.al., ASE II



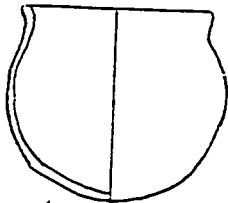
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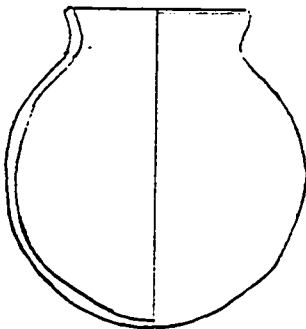
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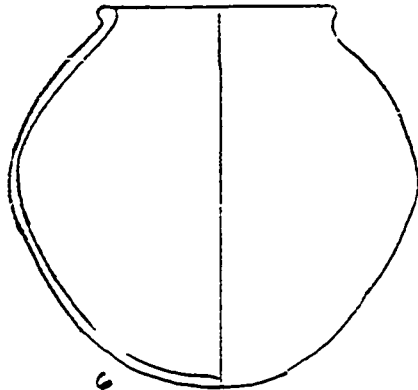
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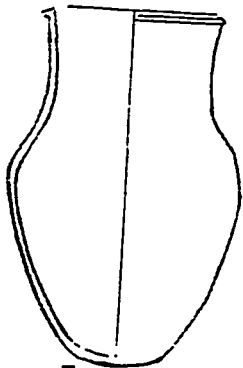
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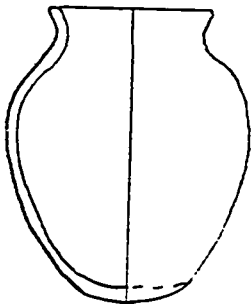
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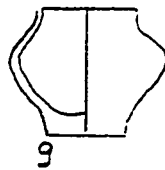
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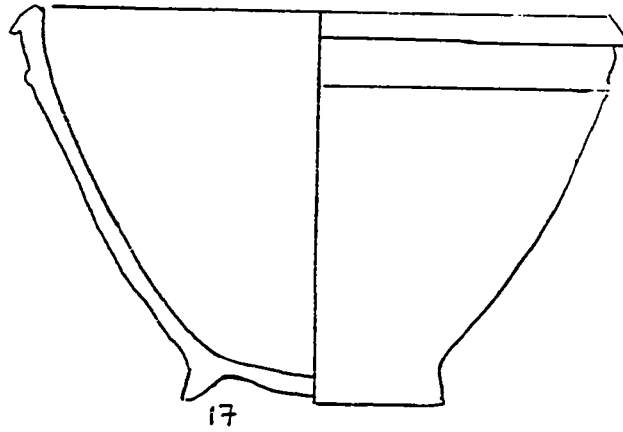
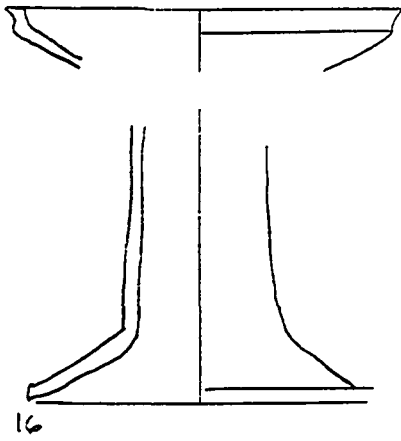
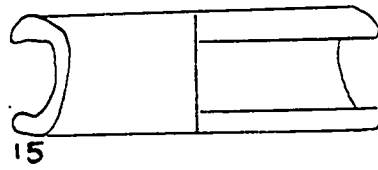
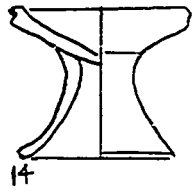
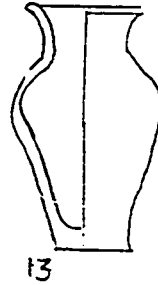
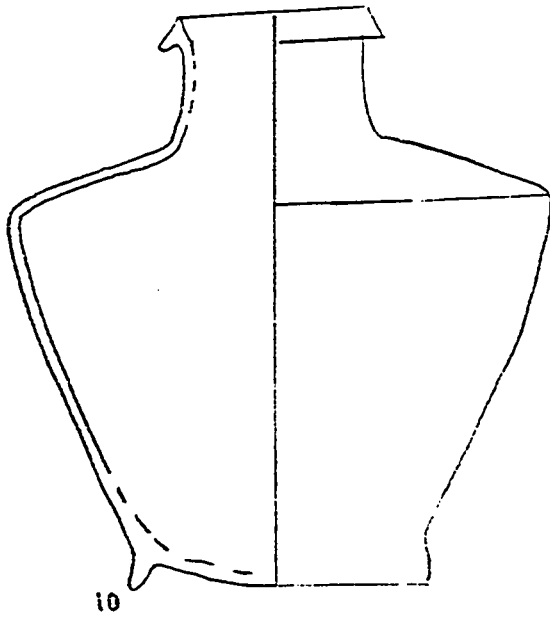
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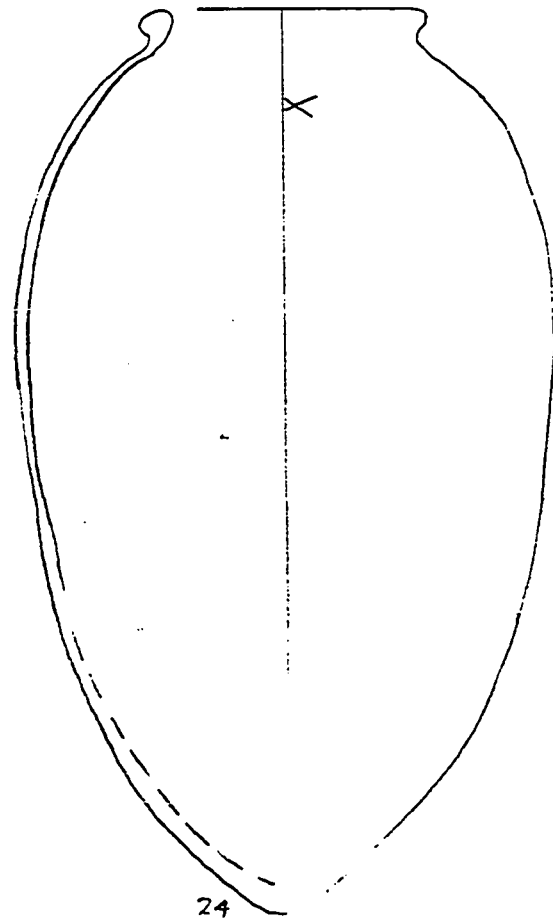
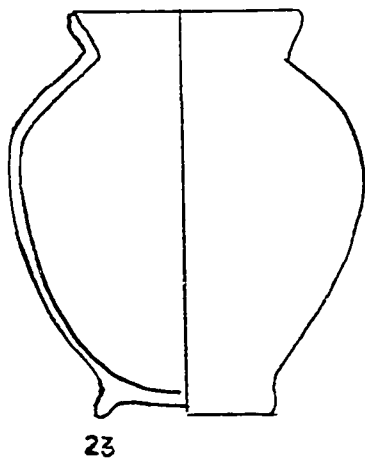
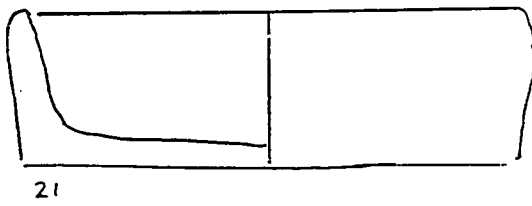
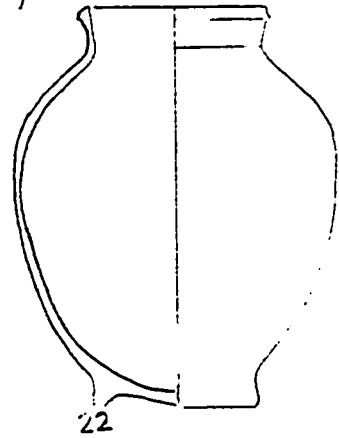
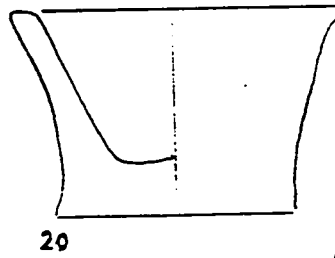
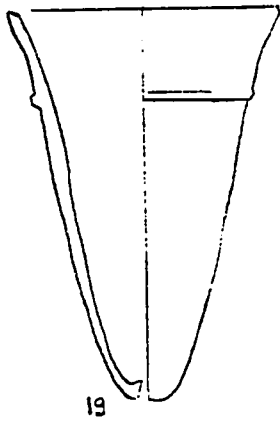
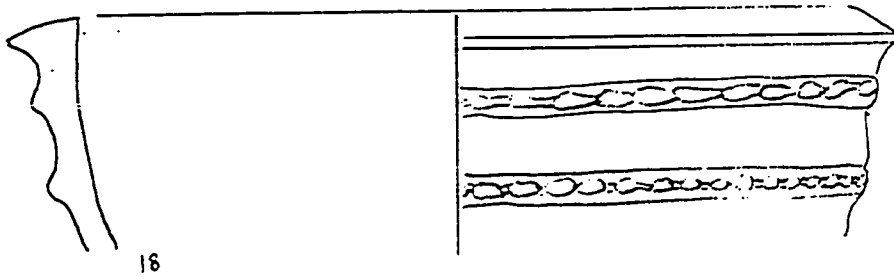


8



9





Appendix C

Pottery From the Level IB Fill

A study was made of the catalogued ceramic types from the level IB fill. No sherdage counts were made in this study. A total of seventy three shapes were analysed with the following results:

1. Fifty of the seventy three shapes from the IB fill have floor type parallels.
2. Twenty three of the seventy three shapes from the IB fill have no floor type parallels.
3. Thirteen of the fourteen categories that make up the assemblage from the floors are represented in the IB fill. The category not represented is that of miscellaneous ring bases.
4. Thirty nine vessel shapes from the floor assemblages have exact parallels in the IB fill.

pottery from the IB fill with floor type parallels:

<u>Fill Type</u>	<u>Floor Type</u>	<u>Plate and figure number</u>
2HP111	2H11	I:7
2H110	2H115	I:4
2H263	2H11	I:7
2H139	2H261	I:8
2H112	2H261	I:8
2H262	2H261	I:8
2HP34	2HP275	I:1
2H60	2H115	I:4
2HP114	2H114	II:6
2HP318	2H114	II:6
2H125	2H114	II:6
2H71	2H136	II:5

<u>Fill Type</u>	<u>Floor Type</u>	<u>Plate and figure number</u>
2H17	2H105	II:9
2H134	2H54	II:2
2H120	2H135	III:2
2HP398	2HP141	III:7
2HP102	2H102	III:8
2HP260	2H118	IV:1
2HP328	2HP258	V:1
2HP309	2H11	V:6
2HP271	2H271	VI:11
2HP123	2H123	VI:12
2HP316	2H177	VI:7
2H390	2HP240	VII:16
2HP231	2H129	VII:6
2HP287	2H84	VII:13
2HP132	2H132	VII:4
2H256	2HP240	VII:16
2H124	2H108	VII:7
2H119	2H167	VII:5
2HP397	2HP238	VIII:2
2HP410	2HP114	IX:3
2HP436	2HP94	IX:2
2H288	2HP288	X:2
2HP405	2HP117	X:1
2HP202	2HP172	XII:1
2HP399	2HP142	XIII:4
2H310	2HP310	XIV:3
2HP403	2HP283	XIV:8
2H132	2HP132	XVI:1
2H131	2HP131	XVI:7
2HP173	2HP131	XVI:7
2H429	2HP429	XVII:1
2HP438	2HP429	XVII:1
2HP428	2HP20	XVII:5
2HP378	2HP383	XVIII:5
2HP359	2HP358	XVIII:14
2HP162	2HP358	XVIII:14
2HP361	2HP300	XVIII:3
2HP341	1HP33	XVIII:16

PLATE XL: Pottery from the IB fill with no floor type parallels.

1. 2HP426
necked jar
ledge rim
wheel made, moderately fired fine ware
5YR 5/6 yellowish-red
plant temper
2. 2H131
neckless jar
ledge rim
hand made, lightly fired utility ware,
finger moulded and shaped legs
5YR 6/4 light yellowish-brown
fine plant temper
matte, rough and grainy surface
3. 2HP409
basin
wheel made utility ware
7.5YR 5/2 brown
plastic band liberally plant tempered and added
4. 2HP435
basin
wheel made fine ware, moderately fired
5Y 7/3 pale yellow
deep horizontal incisions
5. 2HP274
spouted jar with four rim tabs
wheel made, moderately fired fine ware
2.5Y 7/2 light grey
matte surface, slightly rough and grainy

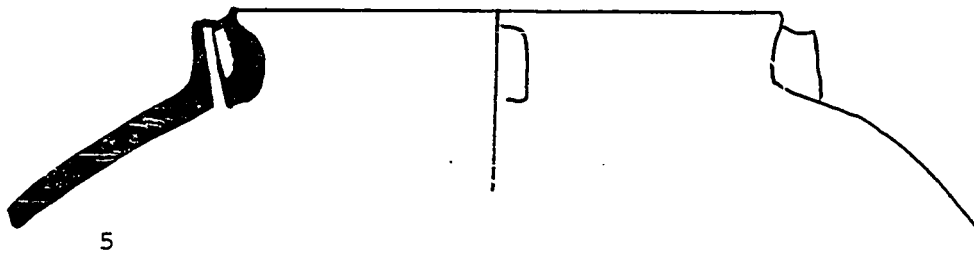
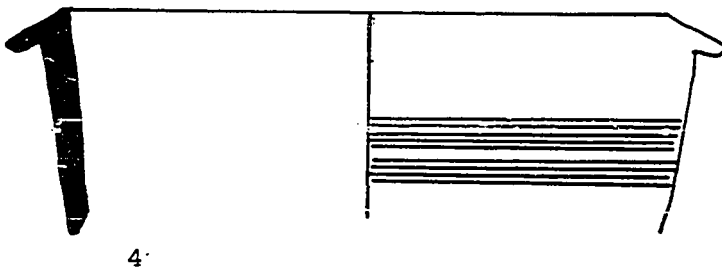
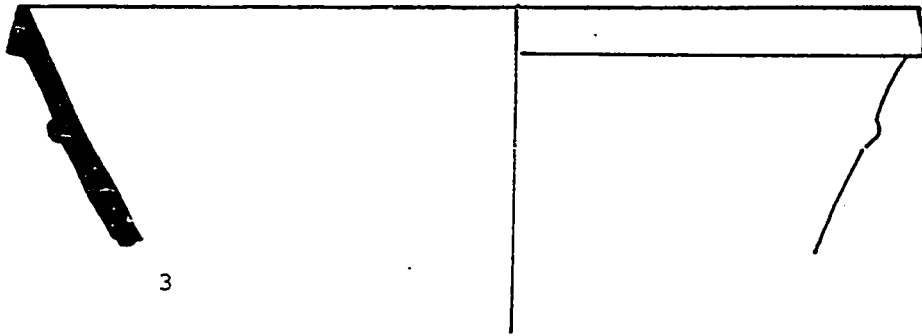
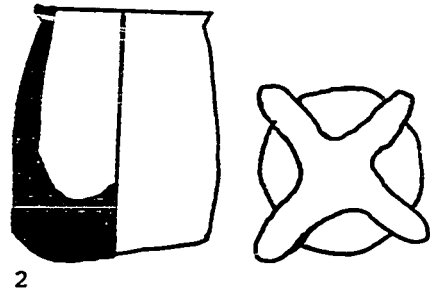
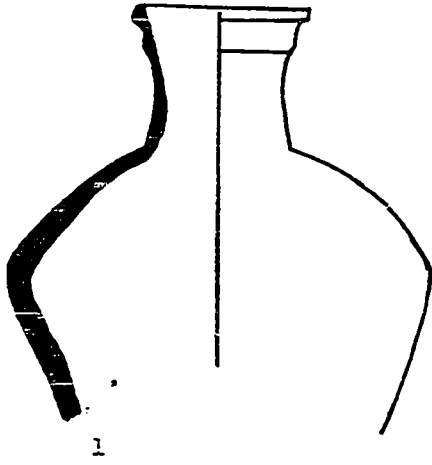
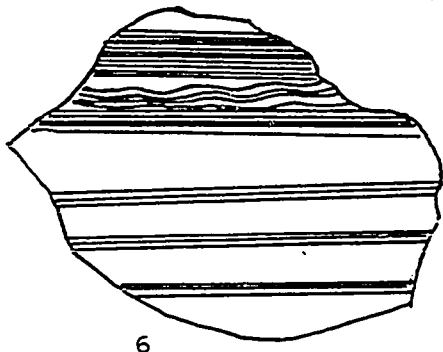


PLATE XLI: pottery from IB fill with no floor type parallels

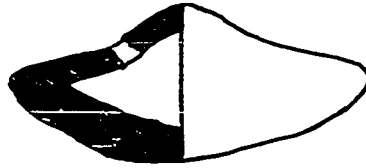
6. 2HP369
shoulder fragment
wheel made, moderately fired fine ware
5Y 7/3 pale yellow
matte surface with combed designs
7. 2HP307
pottery lid
wheel made, lightly fired fine ware
7.5YR 5/4 brown
matte surface, slightly rough and grainy
8. 2HP367
monochrome painted sherd
lightly fired fine ware
5YR 5/6 yellowish-red
matte surface, slightly rough and grainy
paint is 10 YR 3/4 dark brown
9. 2HP371
monochrome painted shoulder
lightly fired fine ware
5YR 6/6 reddish-yellow
matte surface, slightly rough and grainy
paint is 10YR 3/4 dark brown
10. 2HP311
enigmatic fragment
hand made, lightly fired
5YR 6/4 light reddish-brown
grit temper
11. 2HP327
handle?
hand made, lightly fired
5YR 5/6 yellowish-red
fine plant temper
12. 2HP302
open form
hand made, lightly fired
5YR 6/4 light reddish-brown
plant temper
matte surface, slightly rough and grainy

PLATE XLI: pottery from IB fill with no floor type parallels

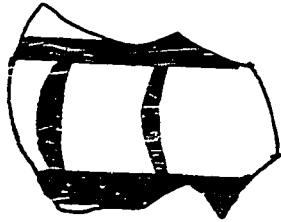
13. 2HP321
short necked jar
wheel made, lightly fired fine ware
5YR 6/6 reddish-yellow
incisions at neck
matte, grainy surface
14. 2HP133
necked jar
ledge rim
lightly fired fine ware
5YR 6/6 reddish yellow
matte, smooth srface
15. 2HP439
stand
wheel made fine ware, moderately fired
7.5YR 6/4 light brown
matte surface



6



7



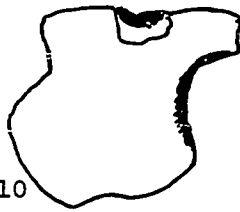
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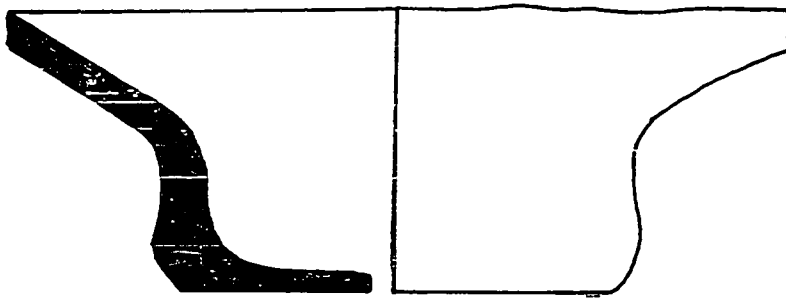
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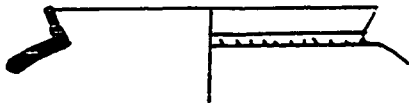
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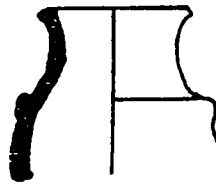
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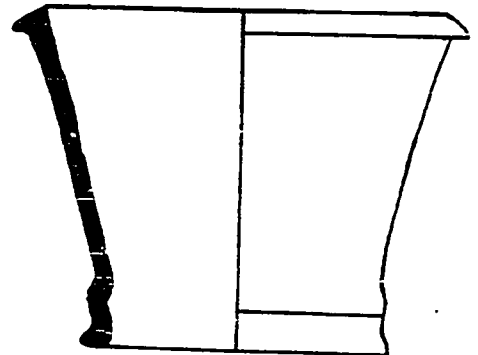
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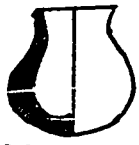
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PLATE XLIII: pottery from IB fill with no floor type parallels

16. 2H258
miniature necked pot
flared rim
convex base
hand made, moderately fired
2.5Y 8/4 pale yellow
fine plant temper
matte, rough and grainy surface
17. 2H181
miniature pot
collar rim
convex base
hand made, lightly fired
5YR 5/6 yellowish-red
fine plant temper
matte, rough and grainy surface
18. 2HP135
shallow stand dish
wheel made lightly fired utility ware
10YR 7/4 pale brown
matte surface, slightly rough and grainy
19. 2HP159
rim
hand made, moderately fired utility ware
10YR 6/4 light yellow brown
plant temper
matte surface, slightly rough and grainy
20. 2HP160
flat base
hand made, lightly fired utility ware
5YR 5/8 yellowish-red
plant temper
matte surface, slightly rough and grainy
21. 2HP151
rim
hand made, lightly fired utility ware
2.5YR 6/8 light red
plant temper
matte surface, slightly rough and grainy

PLATE XLII: pottery from IB fill with no floor type
parallels

22. 2HP215
rim
wheel made, moderately fired utility ware
5Y 6/3 pale olive
plant temper
matte surface, slightly rough and grainy
23. 2HP375
pierced sherd
hand made, lightly fired
5YR 5/6
matte surface



16



17



18



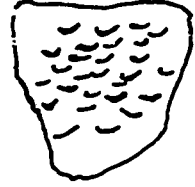
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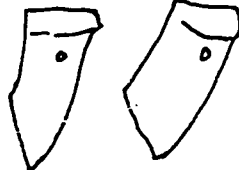
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23

Comparisons

2HP426 [pl.XL:1] is a necked jar or bottle with a constricted opening and ledge rim with a horizontal ridge below. Jars with ledge rims and constricted openings occurred at Abu Salabikh under the category, "bottles".1/ Ring based, wide shouldered jars with constricted openings were found both at Abu Salabikh and at Ur but these generally have band or collar rims.2/ No exact parallel for the ledge rim with horizontal ridge below was found.

2HP131 [pl.XL:2] is a carelessly hand made neckless jar with added legs. No parallels exist for this shape. 2HP409 [pl.XL:3] is a basin or vat with a band rim and horizontal ridge below the rim. This shape is not unlike types known from floor context (e.g. pl.XI:3). Vats with horizontal ridges below the rim are known from Tell Abu Salabikh.3/ 2HP435 [pl.XL:4] is a fine ware basin with horizontal incised lines and a hanging ledge rim. No parallels exist for this vessel.

2HP274 [pl.XL:5] is a spouted jar with four rim tabs. This type has E.D. I parallels and does not seem

1 Moon, ASE III, no.324 from grave 162 which has a pointed base.

2 Moon, ASE III, ring based jars pp.118-119; Woolley, UE II, pl.261:154.

3 Moon, ASE III, p.31 from grave 182, E.D. IIIA, late.

to belong to this late Early Dynastic period.^{4/}
 2HP369 [pl.XLI:6] is a shoulder fragment with combed
 linear designs. This type of ware is considered
 diagnostic of the Akkadian period in surface surveys.^{5/}

2HP307 is a pottery lid with parallels from
 various sites dating from Early Dynastic I to Early
 Dynastic III.^{6/} 2HP367 and 2HP371 [pl.XLI:8,9] are
 fragments of monochrome painted ware of the kind known
 from floor context (pl.III:4,5) and identified as
 imports from Iran (chapter III, p. 79 above). 2HP311
 and 2HP327 [pl.XLI:10,11] are two hand made fragments
 of which the entire shape of the vessel or object is
 not reconstructable. 2HP302 [pl.XLI:12] is a hand made
 open form with a hole in the flat base and a large
 flared rim. A vessel with a similar flared rim was
 found in Tell Asmar Houses Va, dated to the Proto-
 Imperial period.^{7/}

2HP321 [pl.XLI:13] is a collar rimmed jar wi
 vertical strokes incised at the neck. No exact parallel
 for this jar could be located. 2HP133 [pl.XLI:14] is a

⁴ Hansen, COWA, 1966, Inanna Temple level XII:
 fig.36; Moon, ASE III, pp.69-70.

⁵ Cf. Adams, Heartland, p.311 no.7 for an exact
 parallel.

⁶ Martin, Fara, p.654:7-9, E.D. I-III; Moon, ASE
 III, p.28 no.151, E.D.I; Delougaz, Pottery, pl.164
 B.664.520b, E.D.I.

⁷ Delougaz, Pottery, pl.169: C.072.200.

necked jar with a ridge at the shoulder. Jars with such ridges at the shoulder were found at Ur but these have much shorter necks than our example.⁸ A jar with a shoulder ridge occurred at Fara but this does not have the constricted opening of the Al Hiba type.⁹ 2HP439 [pl.XLI:15] is a fine ware pottery stand for which no exact parallel was found. 2H258 and 2H181 [pl.XLII:16,17] are hand made miniature pots. Miniature pots are known from floor levels of the area C building, although not of these particular shapes (see pl.VII:17-18; pl.XIV:2,7). Miniature pots similar to the IB fill types were found at Abu Salabikh.¹⁰ The remainder of the IB fill shapes [pl.XLII:18-23] are rims and bases too fragmentary to allow reconstruction of the shape or comparison with pottery from other sites.

In conclusion, the twenty three ceramic types from the IB fill not known from floor context five are similar to Al Hiba floor types [pl.XL:3, pl.XLI:8,9, pl.XLII:16,17]. Nine are too fragmentary to allow reconstruction of a specific shape [pl.XLI:10,11, pl.XLII:18-23]. One shape seems out of place in this assemblage [pl.XL:5]. The remaining types have general

8 Cf. Woolley, UE II, pl.256:88a, pl.265:218.

9 Martin, Fara, p.651:10.

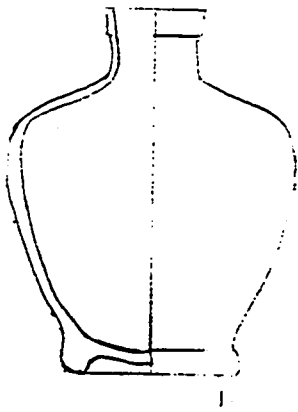
10 Moon, ASE III, p.171 no.804, 805, 807.

late Early Dynastic parallels, with the exception of the incised sherd [pl.XLI:6] which is considered distinctive of Akkadian assemblages.

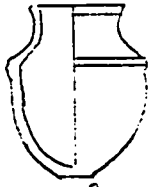
References

<u>Figure</u>	<u>Source</u>
1.	Woolley, <u>UE II</u> , pl.261 no.154
2.	Woolley, <u>UE II</u> , pl.256 no. 88a
3.	Woolley, <u>UE II</u> , pl.265 no.218
4.	Martin, <u>Fara</u> , p.654 no.7
5.	Martin, <u>Fara</u> , p.651 no.10
6.	Moon, <u>ASE III</u> , p.171 no.805
7.	Moon, <u>ASE III</u> , p.171 no.807
8.	Delougaz, <u>Pottery</u> , pl.164 B.664.520b
9.	Moon, <u>ASE III</u> , p.67 no.324
10.	Delougaz, <u>Pottery</u> , pl.169 C.072.200
11.	Moon, <u>ASE III</u> , p.31 no.163

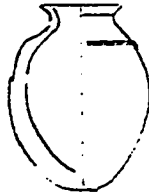
PL. XLIII



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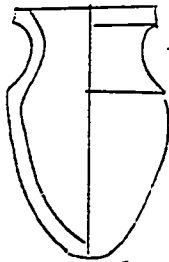
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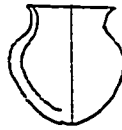
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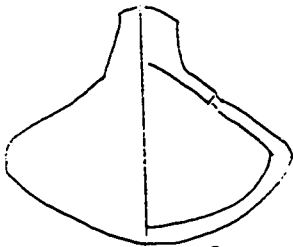
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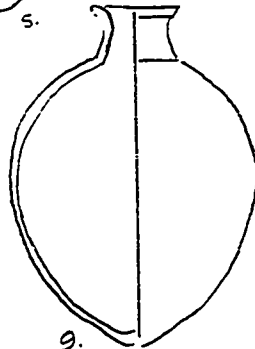
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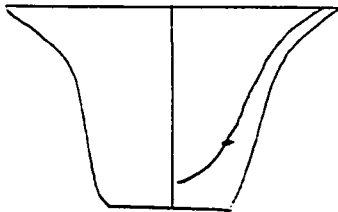
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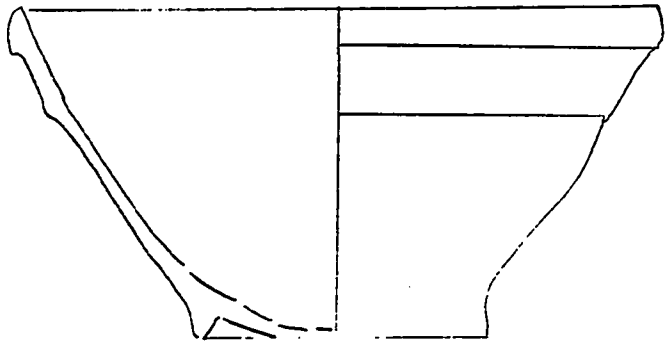
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Appendix D: Sealings

TABLE OF SEALING TYPES 1/

<u>NUMBER</u>	<u>LOCUS</u>	<u>SITUATION</u>	<u>REVERSE</u>	<u>OBVERSE</u>
2H379	R.3	below IA fl.	chipped	hero/rampant animals
2H126	R.3	cut in IA	n.r.	female/fillers
2H196	R.3	IA east	jar/cord/ leather	animal file/stars
2H031	R.4	IA floor	n.r	scorpion/animal combat
2H030	R.6	IA floor	Cylinder seal	
2H199	R.9	below IA fl.	peg & cord	animal combat
2H221	R.7/18	IB floor	n.r.	animal combat
2H039	R.7/18	IB floor	Cylinder seal	animal combat
2H361	R.20	IA	n.r.	hero/animal combat
2H342*	R.20	IB floor	right angle from wall plaque?	animal combat
2H343*	R.20	IB floor	peg	animal combat
2H341-	R.20	IB fill	chipped	animal combat
2H336	R.20	IB fill	right angle	animal on all fours
2H323	R.20	IB fill	peg	quadrupeds
2H322	R.20	IB fill	chipped	traces of legs
2H321*	R.20	IB floor	peg	animal combat
2H300	R.20	IB floor	knot/peg	animal combat

1 The characters have been appended to numbers of sealings that bear imprints of the same seal on the obverse. Similar characters indicate rollings from the same seal cylinder.

NUMBER	LOCUS	SITUATION	REVERSE	OBVERSE
2H299	R20	IB floor	peg	quadrupeds
2H298	R.20	IB floor	knotted cord	animal combat
2H297	R.20	IB floor	small peg with cord criss-cross	geometric
2H296	R.20	IB fill	cord wound 6 times around peg	animal combat
2H295-	R.20	IB fill	peg	animal combat
2H253*	R.20	IB	cord wound four times around knob	animal combat
2H254	R.20	IB fill	knob	unclear
2H248@	R.20	IB fill	knob	birds/animals
2H220*	R.20	IB	peg	hero/animal combat
2H213	R.20	IA floor	peg	animal combat
2H205	R.20	IA fill	peg	animal combat
2H206@	R.20	IA fill	peg	animals/birds
2H207	R.20	IB floor	knob	animal combat
2H208	R.20	IB floor	peg	hero/animal combat
2H197	R.20	IB floor	peg	animal combat
2H198*	R.20	IB floor	knob/cord wound 3 times around	animal combat
2H163*	R.20	IB floor	knob	animal combat
2H162	R.20	IB floor	peg/cord	animal file
2H161*	R.20	IB floor	knob	animal combat
2H138	R.20	IB floor	cord wound 3 times around peg	unclear

<u>NUMBER</u>	<u>LOCUS</u>	<u>SITUATION</u>	<u>REVERSE</u>	<u>OBVERSE</u>
2H137	R.20	IB floor	peg/cord	hero/animal combat
2H219[]	R.22	IB fill	chipped	building/ figures/ animals
2H212	R.22	IB fill	cord wound 4 times around peg	animal combat
2H215	R.24	IA fill	cord wound 3 times around peg	animal combat
2H273+	R.35	IB fill	peg	animal combat
2H274+	R.35	IB fill	peg	animal combat
2H275+	R.35	IB fill	peg	animal combat
2H276x	R.35	IB fill	twigs?	animal combat
2H278	R.35	IB fill	peg/cord	figures in a building
2H279++	R.35	IB fill	chipped	quadrupeds
2H280++	R.35	IB fill	peg	quadrupeds
2H281x	R.35	IB fill	cord	animal combat
2H282	R.35	IB fill	peg/cord	scorpion/ animal combat
2H283+	R.35	IB fill	peg	animal combat
2H284+	R.35	IB fill	cord pulled through thickness of clay	animal combat
2H285{}	R.35	IB fill	knob/cord	boat/figures
2H286{}	R.35	IB fill	knob/clay also pierced from obverse	boat/figures
2H287	R.35	IB fill	peg	hero/animal combat

<u>NUMBER</u>	<u>LOCUS</u>	<u>SITUATION</u>	<u>REVERSE</u>	<u>OBVERSE</u>
2H288{}	R.35	IB fill	knob/cord	boat/figures
2H289{}	R.35	IB fill	knob/cord	boat/figures
2H290{}	R.35	IB fill	knob/cord	boat/figures
2H291	R.35	IB fill	peg	geometric
2H307	R.35	IB fill	?	scorpion/ crab/snake
2H308	R.35	IB fill	peg/knot	figure/ building
2H309	R.35	IB fill	peg	animal combat
2H310	R.35	IB fill	bulla on reed cord pulled through clay	animal combat
2H311+	R.35	IB fill	peg	animal combat
2H312	R.35	IB fill	peg	unclear
2H313+	R.35	IB fill	peg/cord	animal combat
2H314{}	R.35	IB fill	peg/cord	boat/figures
2H315{}	R.35	IB fill	peg	boat/figures
2H316	R.35	IB fill	cord	animal combat
2H317	R.35	IB fill	peg/cord	unclear
2H318{}	R.35	IB fill	knob	boat/figures
2H319	R.35	IB fill	chipped	animal combat
2H344++	R.35	IB fill	peg/cord	animals/filler
2H345x	R.35	IB fill	cord pulled through thickness of clay/peg	animal combat
2H346++	R.35	IB fill	?	animals/fillers
2H347	R.35	IB fill	basketry	wheat/figures
2H372	R.35	IA fill	chipped	building/figures

NUMBER	LOCUS	SITUATION	REVERSE	OBVERSE
2H373	R.35	IA fill	?	building
2H362	R.36		?	hero/animals
2H249	R.36		?	seated figures
2H354	R.37		?	Imdugud bird
2H383/	R.45	IB fill	peg/cord	Imdugud bird
2H357	R.46	IB fill	wedged into angle	heroes
2H378	R.46	IB fill	cord wound 4 times around peg	animal combat
2H382	R.46	IB fill	doorsill or bolt?	animal combat
2H356	R.46	IA fill	?	snake/animals
2H334	R.46	IA fill	cord	hero/animal combat
2H325	R.46	IB floor	peg/knot	hero/star
2H324	R.46	IB floor	peg/cord	hero/animal combat
2H251/	R.50	IA fill	peg	Imdugud bird
2H250	R.50	IA fill	?	quadrupeds
2H292	R.53	IA	cloth sack/cord	quadrupeds
2H293	R.53	IA fill	small peg	building/figs.
2H294	R.53	IA fill	box	scorpion/star
2H320	R.53	IA fill	cord wound 3 times around small peg	skirted figures
2H338	R.55	IA fill	?	standing figures
2H364	R.58	IB fill	jar	quadrupeds
2H363	R.58	IB fill	cord/matting	animal combat

<u>NUMBER</u>	<u>LOCUS</u>	<u>SITUATION</u>	<u>REVERSE</u>	<u>OBVERSE</u>
2H358	R.58	IB fill	leather pouch	animal combat
2H359	R.58	IB fill	basketry	geometric
2H349	R.59	IA cut	chipped	skirted figures/Imdugud
2H375	R.60	IA fill	peg in sack	scorpion/snakes
2H374	R.60	IA fill	jar/cloth/cord	hero/animal combat
2H329	R.66	IA fill	jar/cord	grazing animals
2H303	R.66	IA fill	peg in sack	animal combat
2H304	R.66	IA fill	peg/cord	quadrupeds/crab
2H339	R.67	IA fill	?	crossed lions
2H384	R.67	IA fill	peg	hero/animal combat
2H366	R.68	IA oven	matting	unclear
2H367	R.69	IA fill	cord wound 8 times around jar rim	animal combat
2H331	R.69	IA fill	jar?	animal combat
2H332+	R.69	IA fill	peg?	animal combat
2H333	R.69	IA fill	leather bag	crossed animals
2H348	R.69	IA fill	peg	seated figure animals
2H368	R.70	IA fill	cloth	animal combat
2H353	R.70	IA fill	box? tied with cord	insects
2H352	R.70	IA fill	?	figures/building
2H351	R.70	IA fill	cloth	animal combat

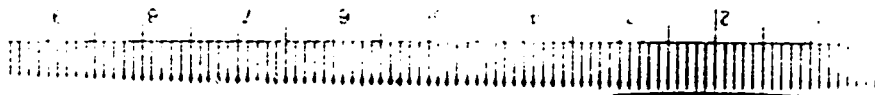
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2H350	R.70	IA fill	peg	hero/animal combat
2H328	R.70	IA fill	?	scorpion/fish
2H327{}	R.70	IA fill	peg	boat/figures
2H326	R.70	IA fill	chipped	lions
2H302	R.70	IA fill	?	animal file/ scorpion
2H301	R.70	IA fill	?	seated skirted figure
2H214	R.73	IB	?	quadrupeds
2H380	R.79	IB	?	geometric
2H365	R.83	IB floor	peg	animals
2H369	R.86	IB fill	?	people in work-shop?
2H381	R.89	IB fill	flat surface	Eannatum's seal hero/ animal combat
2H370	R.89	IB	peg	quadrupeds
2H371	R.89	IB	jar/cloth	unclear
2H164	N10-20 E190-200	IA fill	sack/cord	date palm/ figures
2H252	N10-20 E190-200	IB fill	peg/knot	scorpion/ snake
2H218[]	N10-20 E190-200	IB fill	chipped	building/figs.
2H217[]	N10-20 E190-200	IB fill	chipped	building/figs.
2H204	N10-20 E190-200	IA fill	peg	Imdugud bird
2H200	N10-20 E190-200	surface	cloth bag	unclear

<u>NUMBER</u>	<u>LOCUS</u>	<u>SITUATION</u>	<u>REVERSE</u>	<u>OBVERSE</u>
2H355	N10-20 E190-200	cut	leather pouch	animal combat
2H330	N10-20 E190-200	cut	sack/cord	animals
2H360	N30-40 E190-200	IA fill	peg	animal combat
2H376	N30-40 E190-200	IA	matting	hero/animal combat
2H337	N30-40 E190-200	surface	matting	animal combat/ snake
2H386	N30-40 E190-200	IA balk N.	?	unclear
2H335	N30-40 E210-220	IB fill	knob	unclear
2H195	N40 E190-200	balk	?	hero/animal combat
2H305	?		cloth bag	animal file
2H306	?	?	peg	quadrupeds

2.

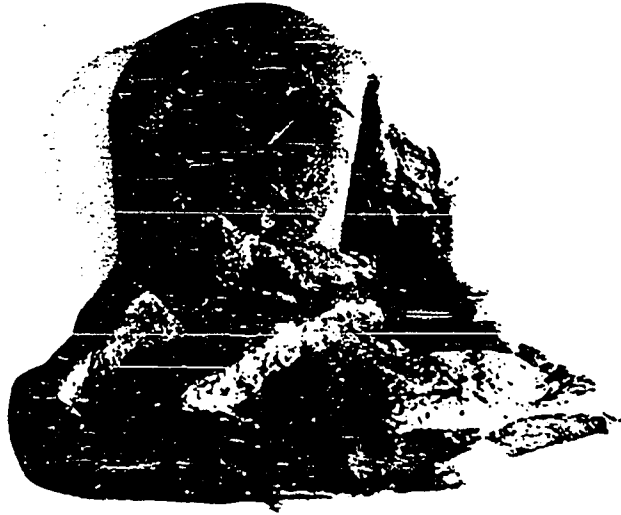


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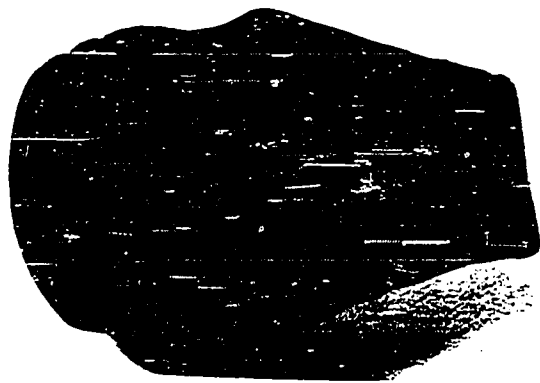


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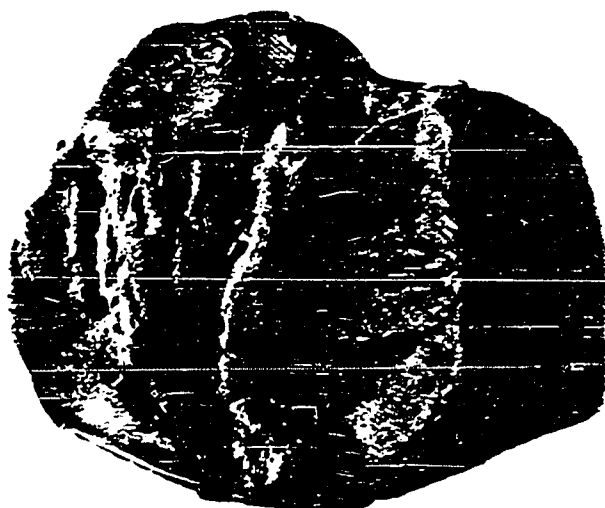


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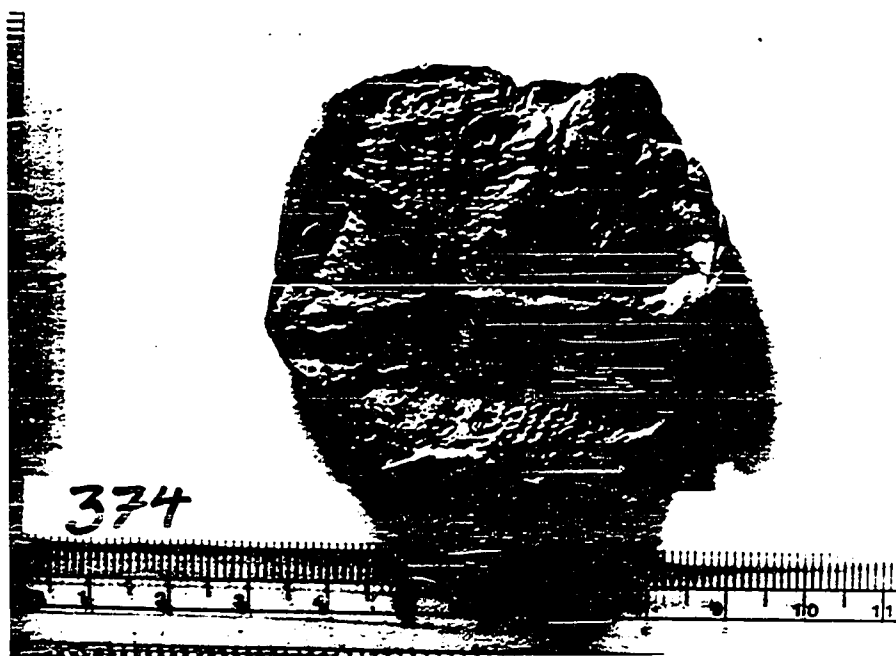


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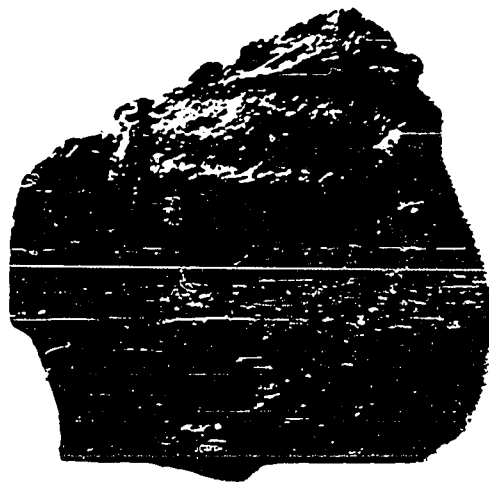
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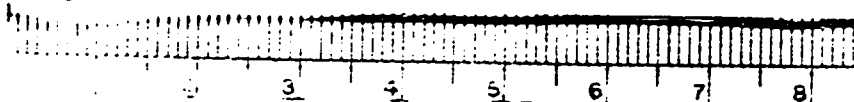
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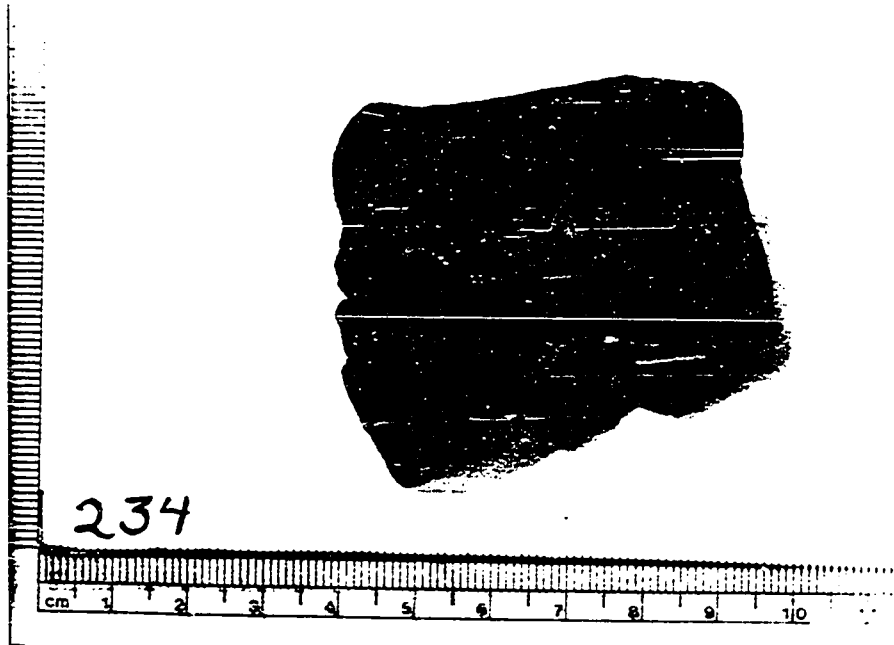
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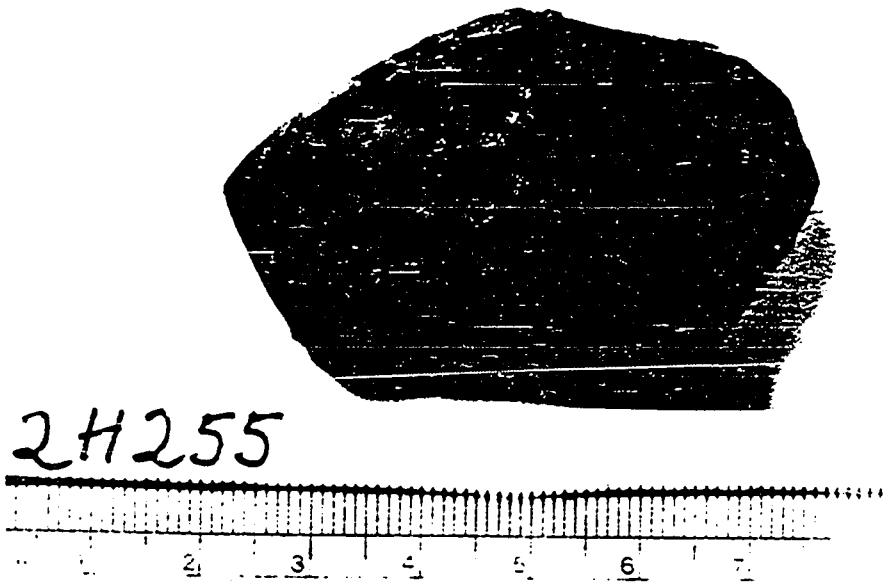
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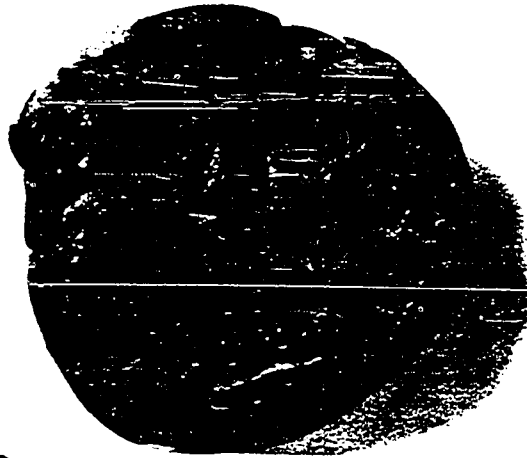
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Appendix E
Catalogue of Objects

PLATE L

1. 2H44
Terracotta disk shaped object with central hole. Perhaps a loom or fishnet weight. Fabric is yellowish-brown with lighter buff surface. Diam.:0.091; m.th.:0.019; diam. of centre hole:0.012.
Locus: room 18, IB floor.
2. 2H186
Wheel made terracotta spindle whorl, circular in shape with one convex surface and another concave with a central hole.
Locus: room 72, IA fill.
3. 2H46
Terracotta disk with central hole, having one slightly concave surface and one slightly convex. Perhaps a loom or fish net weight. yellowish-brown fabric. Circumference is irregular owing to chipping.
Diam. varies:0.050-.052; th.:0.007; diam. of central hole:0.006.
Locus: room 12, IA.
4. 2H32
Terracotta sling pellet of slightly overfired light greenish fabric. Roughly fashioned oval shape with a flattened bottom surface and a finger smudge impression on top. ends are pointed.
Length:0.048; m.height:0.03.
Locus: N10-20 E200-210, IA.
5. 2H45
Terracotta object of reddish brown fabric, crudely fashioned.
Height:0.016; diam.:0.032-.035; diam. of rounded top: ca. 0.018.
Locus: room 20, IB fill.
6. 2H185
Terracotta gaming die. Side one opposite side three. The three dots of side three form a triangle. Side two opposite four, side five opposite six.
Photo.: pl.LXI:1.
Locus: room 68, inside oven of IA.

PLATE L

7. 2H156
Terracotta ring, perhaps a fishnet or loom weight.
Fabric is yellowish brown.
Photo.:pl.LX:2 left.
Locus: room 50, IA fill.
8. 2H388
Enigmatic terracotta object with two eyelets,
possibly an "eye idol".
Locus: IA fill.
9. 2H389
Enigmatic terracotta object with holes pierced in
one end and three grooves on surface.
Locus: room 72, IA fill.
10. 2H191
Terracotta animal figurine of greyish brown
fabric, hindquarters and tail preserved.
Photo.: pl.LXIII:1 bottom.
Locus: room 69, IA fill.
11. 2H157
Terracotta figurine of reddish fabric with brown
surface.
P.h.:0.027; p.w.:(across arms) 0.019; th. (at
chest):0.008; base diam.:0.014.
Photo.: pl.LXIV:2 right.
Locus: room 51, IB floor.
12. 2H187
Terracotta figurine of an equid, crudely made
but carefully detailed, mane, flaring nostrils,
brisket, genitals, as well as ears legs and tail,
reddish-brown fabric.
Locus: room 72, IA fill.
13. 2H188
Terracotta anthropoid figurine, columnar figure
with oval concave base, outstretched, slightly
upraised arm, reddish-brown fabric.
Locus: N0-10 E230-240, IA fill.
14. 2H190
Fragment of terracotta equid figurine,
slender mane falls from neck across withers.
Photo.: pl.LXIII:1 middle.
Locus: room 69, IA fill.

PLATE L

15. 2H387
Terracotta animal figurine of reddish-brown fabric.
Locus: room 20, IB floor.
16. 2H36
Terracotta figurine of a member of the equidae family, yellowish-buff fabric.
M.p.l.:0.074; m.p.h.:0.052; m.w.:0.024.
Locus:room 82, foundation fill of IB.
17. 2H139
Terracotta figurine of a boar with long snout, nostrils and mouth clearly defined by incision, yellowish-brown fabric blackened by fire.
M.p.h.:0.024; m.p.l.:0.042; w.:0.011.
Photo.: pl.LXII:1.
Locus: room 24, from top of IA west wall.
18. 2H140
Terracotta equid figurine, yellowish-buff fabric.
Photo.: pl.LXI:2.
Locus:room 45, IB fill.

PL.L

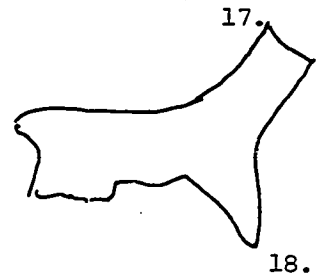
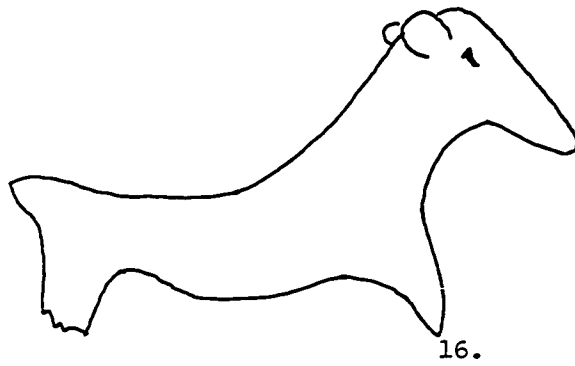
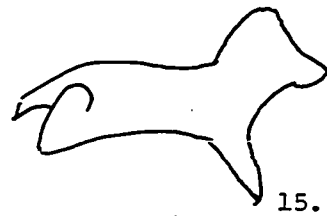
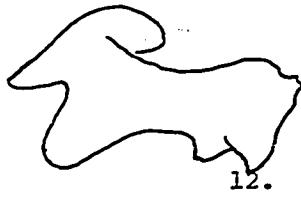
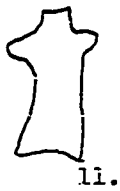
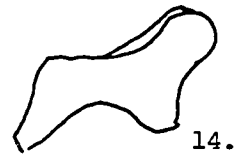
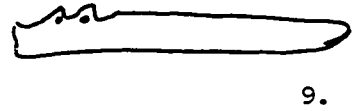
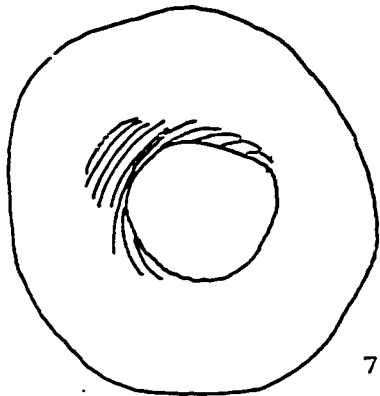
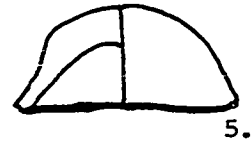
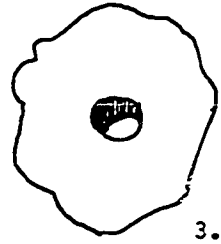
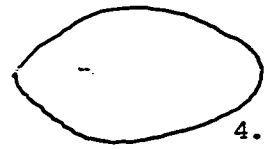
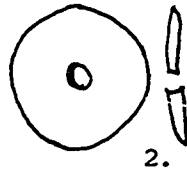
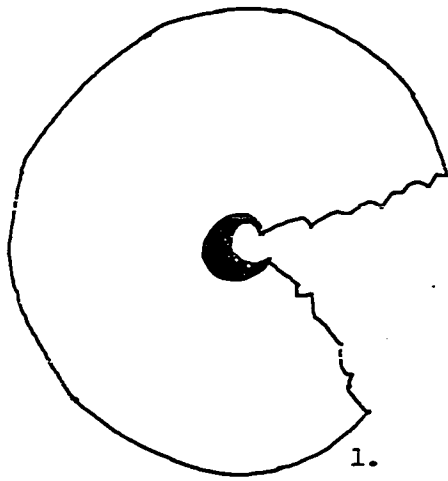


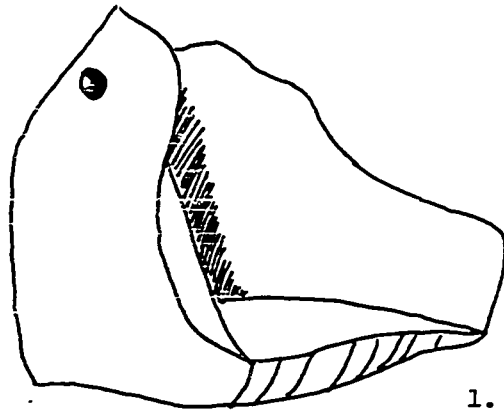
PLATE LI

1. 2H29
Terracotta boat model of reddish-brown fabric, preserved is the bow and part of the hull. The prow has two holes impressed on either side (for towline?).
M.p.l.:0.074; m.p.w.:0.05; th.:0.005-.007.
Locus: room 3, IA fill.
2. Uncatalogued
Terracotta ring shaped object. Reddish-brown fabric.
Outside diam.:0.052-.055; inside diam.:0.016-0.019; diam. of ring section:0.016.
Locus: IB fill.
3. 2H35
Terracotta boat model of reddish-brown fabric, the bow and part of the hull are preserved, the boat was flat bottomed, the has a small hole pierced through from one side to the other (for towline?) and a tongue like projection on the prow.
M.p.l.:0.07; m.p.h.:0.072 at bow.
Photo.: pl.LXV:2.
Locus: room 3, IB fill.
4. 2H78 a-d
Four terracotta disks with central holes, three are of buff fabric (a-c) one of reddish fabric(d).
Locus: room 31, IB fill.
5. 2H66
Terracotta boat model with bird incised on part of the side of the bow, reddish-brown fabric.
M.p.l.:0.095; m.p.w.:0.078; m.p.h.:0.094;
th.:0.013 tapering to 0.002 towards the gunwhales.
Photo.: pl.LXV:1.
Locus: N20-30 E200-210, IA fill.
6. 2H234
Terracotta wheel for model chariot, greyish-brown fabric.
Locus: room 77, IB fill; room 16 IB fill.
7. 2H238
Terracotta wheel for model chariot, reddish brown fabric.
Locus: room 80, IA fill.

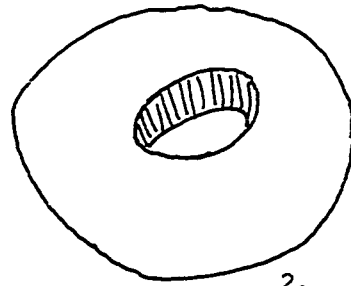
PLATE LI

8. 2H246
Terracotta boat model with flat bottom and high bow and stern, reddish-brown fabric with white slip.
Locus: room 92, IB fill.

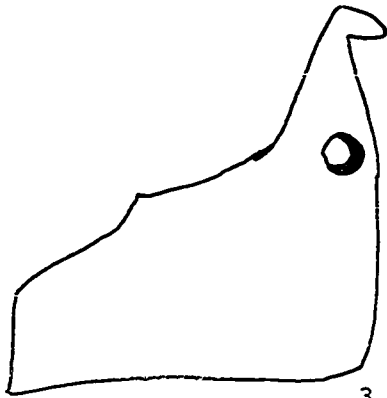
9. 2H37
Terracotta model chariot chassis with irregular opening pierced in front end and one axle preserved in front, riding platform is oblique.
Locus: room 80, IA fill.



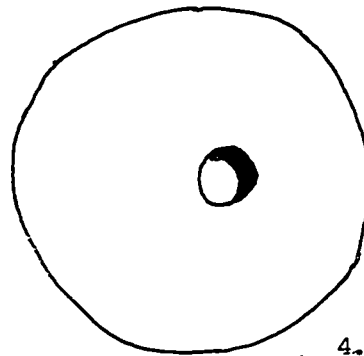
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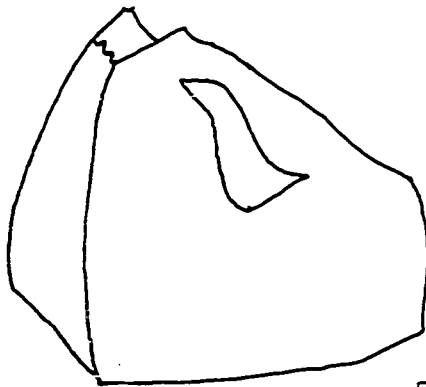
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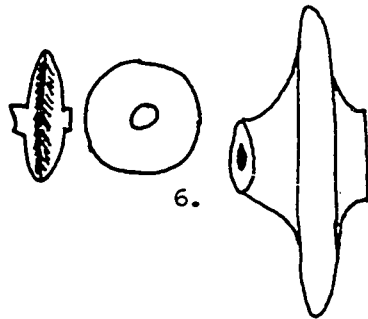
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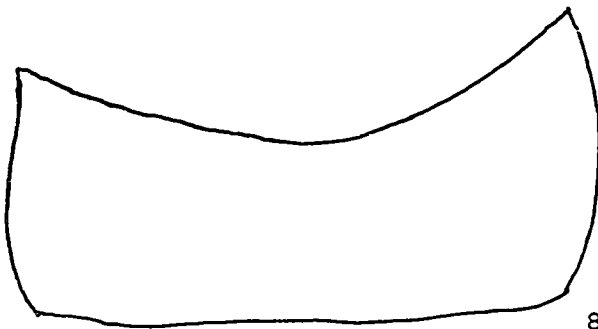


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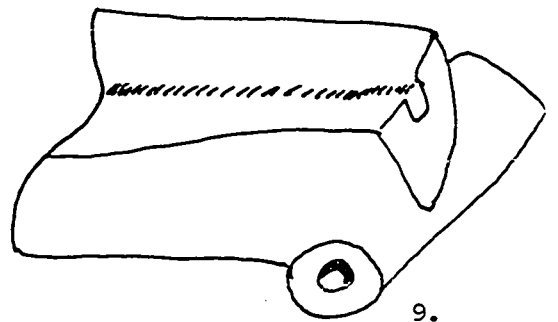


6.

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9.

PLATE LII

1. 2H67
Terracotta standard of pinkish-brown fabric, base has hole 0.005 wide and 0.021 deep for inset.
P.h.:0.07; p.w.:0.068; th.:0.01 at top broken edge widening to 0.025 at bottom.
Photo.: pl.LIX:1.
Locus: room 9, IB fill.
2. 2H247
Terracotta standard of a bird with wings outstretched, roughly rectangular base has hole 0.019 deep for inset, below the wings are small projections, fabric is reddish-brown.
Width across wings:0.065 at top; width across base:0.021; m.th.: at breast:0.018.
Photo.: pl.LIX:2
Locus: room 92, IB fill.
3. 2H144
Terracotta cone shaped object or part of object, hand made, bevelled end is decorated with row of flattened pellets, four in number, perhaps phallic in nature.
Length: 0.084; m.w.:0.03; m.th.:0.02.
Photo.: pl.LXI:2.
Locus: room 16, IB fill.
4. Uncatalogued
Terracotta disk with projection on one side possibly for insertion into wall surface.
Outer diam.:5.3 cm.; inner diam.:2.1 cm.
Locus: room 9, IB floor.
5. Uncatalogued
Terracotta disk with projection on one side, possibly for insertion into wall surface.
Locus: room 4, IB.
6. 2H68
Terracotta cone shaped object, circular end has rounded depression, pointed end is slightly pinched together, may be a container.
Height:0.035; diam. of circular end:0.015 tapering to a point at end, depression in circular end is 0.006 deep.
Photo.: pl.LVII:1.
Locus: room 22, IA fill.

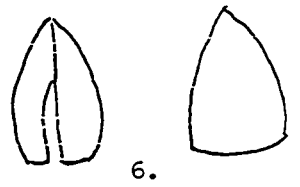
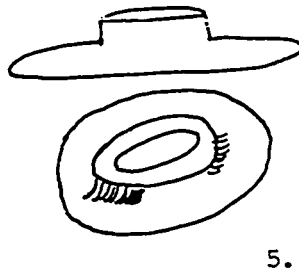
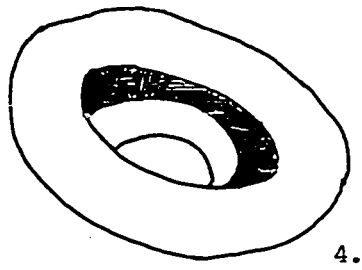
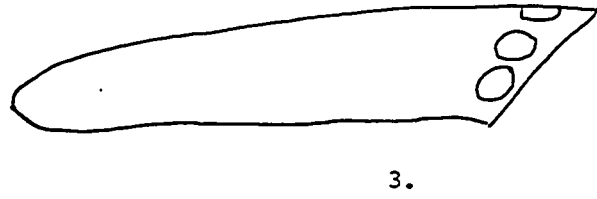
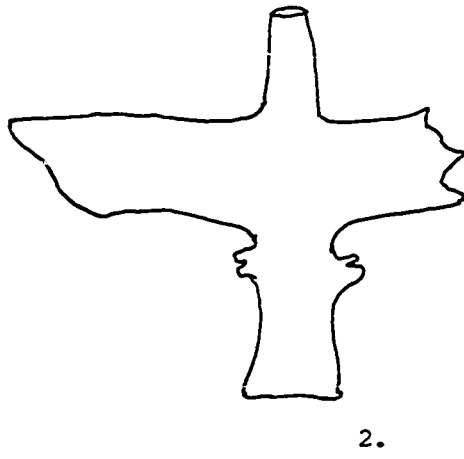
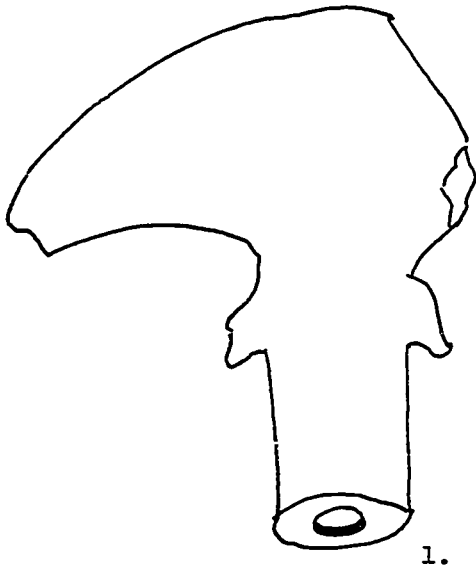
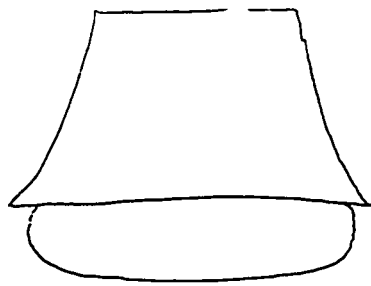


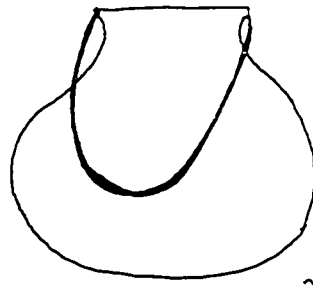
PLATE LIII

1-12. 2H76

Group of copper objects including two large vessels (1-2), two adzes (4) an axe (3), two double layered balance pans each having four pierced holes through both layers (7-8), six sauceboats (9) one cup (10), two strainers with wide rims and long handles (5-6), a medium necked jar (11) and a low necked jar (12). Objects 5-6, 9-10 were found nesting inside 1 and 2, one of which (1) was placed rim down over the other (2). Outside vessels 1 and 2 were found objects 3-4, 7-8.
Photo.: pl.LXVII-LXX.
Locus: room 5, IB fill.



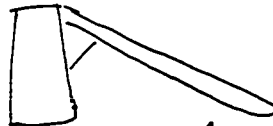
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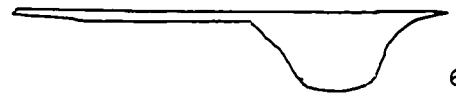
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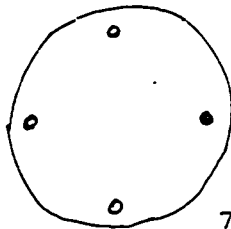
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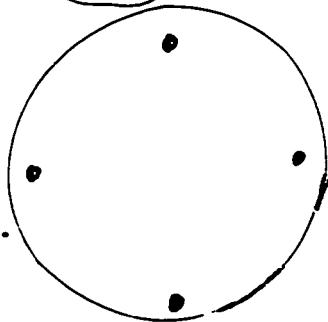
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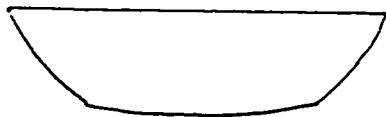
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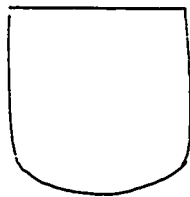
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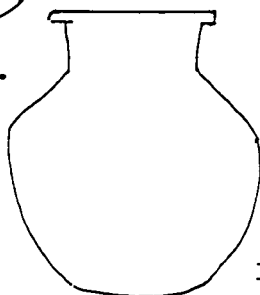
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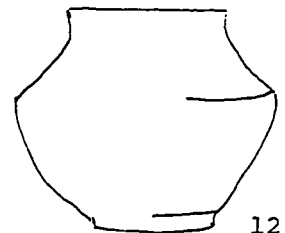
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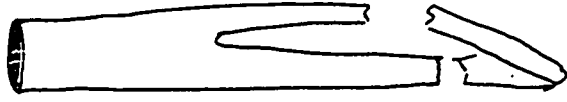
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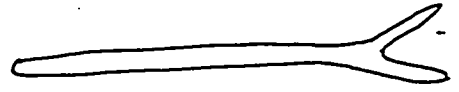
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PLATE LIV

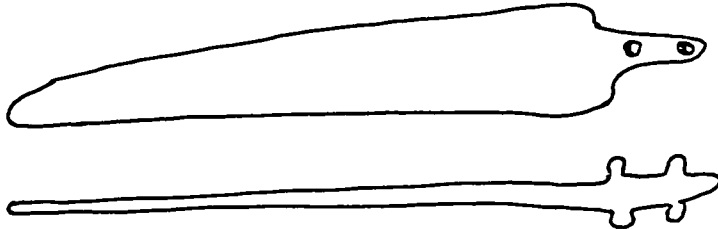
1. 2H51
Copper or bronze forked object with two tines which appear to have been pointed originally, other end widens and is hollowed for an inset of which traces of charcoal remain, perhaps a finial or part of a weapon, heavy patina, bent tines are corroded together at pointed ends, tines are broken in half.
P.l.:0.084; diam. at hollow end:0.015-.018; approximate diam. of tines at base:0.008-.010.
Photo.: pl.LXXI:3.
Locus: room 10, IA floor.
2. 2H145
Metal forked object.
Length:0.06; diam. below tines:0.006; length of forked section:0.015; width of forked end:0.005.
Photo.: pl.LXXI:2.
Locus: N0-10 E190-200, IB fill.
3. 2H149
Bronze spear or dagger blade.
Length:0.17; m.w.:0.028; th.:0.002; at tip:0.004 elsewhere including patina length of blade:0.145; length of prong for inset into handle:0.015.
Photo.: pl.LXXI:1.
Locus: room 58, IA fill.
4. 2H148
Copper or bronze ring with overlapping ends, heavy patina.
Outer diam.:0.024-.026; inner diam.:0.01-.013.
Locus: room 67, IA fill.
5. 2H391 a-b
(a) copper or bronze sword blade (b) tip of same, non-joining fragment.
Locus: room 72, IA fill.



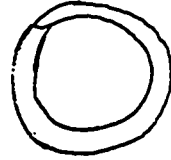
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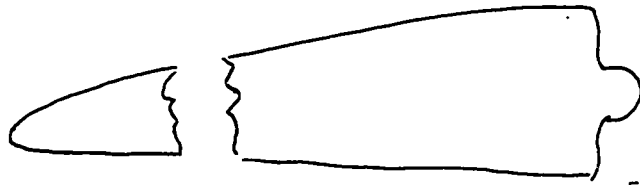
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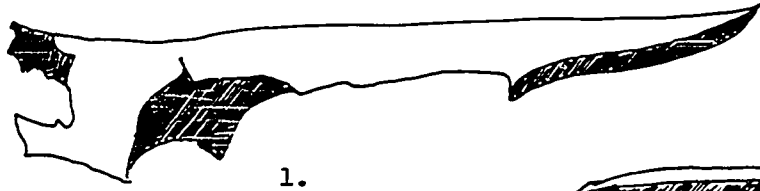
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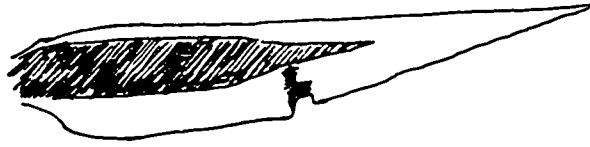
5.

PLATE LV

1. 2H77
Bone tool carved into a long pointed blade with scraping edge, highly polished.
M.p.l.:0.11; m.p.w.:0.027; m.th.:0.018.
Locus: room 22, IB fill.
2. 2H183
Bone tool, hollow bone smoothed and polished at upper end, tapered to a point at lower end, suitable as instrument for drawing or incising on fresh clay.
Locus: room 55, IB fill.
3. 2H243
Bone tool worked to a sharp point.
Locus: room 78. IB fill.
4. 2H154
Fragment of an antler that has been used as a tool.
P.l.:0.079; m.diam.:0.010-.013 tapering to a point
Locus: N20-30 E220-230, IA fill.
5. 2H155
Antler that has been used as a tool, pointed end shows signs of wear, wider end was sawed through.
Length:0.055; m.diam.:0.017-.02 tapering to a point.
Locus: room 70, IA fill.
6. 2H42 a-i
Nine shell rings, possibly belonging to a girdle.
Outer diams.:0.022-0.029; inner diams.:0.007-0.016; th.:0.004-0.006.
Locus: room 16, IA under fallen wall.



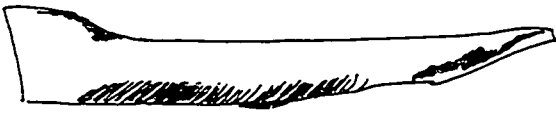
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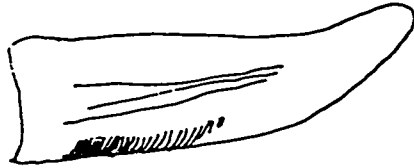
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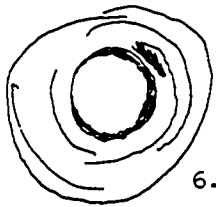
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6.

PLATE LVI

1. 2H146
Fragment of dark grey stone object, crecent shaped end is hollowed for inset, perhaps a blade, two holes on each side probably served for inlay since they do not go all the way through, one end broken.
M.p.l.:0.02; m.w.:0.031; m.th.:0.013.
Locus: No-10 E190-200, IB floor.
2. 2H230
Palette of grey stone, hole pierced at one end of the longer finished edge, shorter finished edge has projecting ledge, one surface is slightly convex, the opposite alternates concave/convex.
Locus: room 46, IA fill.
3. 2H82
Stone weight with hole bored through one end, just below the hole which is 0.002 from the end, are hollows on either side which fit the thumb and index finger, stone is light brown flecked with white.
Length:0.113; m.w.:0.082; m.th.:0.061; diam. of hole:0.005.
Locus: room 31, IA fill.
4. 2H143
Stone weight with hole pierced in top, weight stands on a flat base.
Height:0.129; m.w.:0.081; m.th.:0.058; diam of hole:0.006.
Locus: room 42, IB floor.
5. 2H49
Stone pendant weight with hole bored through the upper end, on either side of the hole are hollowed impressions carved to accomodate the thumb and index finger, stone is oblong in shape, slightly wider at lower end than at upper end.
Length:0.115; m.w.:0.058 tapering slightly at both ends; m.th.:0.035 narrowing towards end; diam. of hole:0.005.
Photo.: pl.LXXIV:1.
Locus: room 2, IB floor fill.

PLATE LVI

6. 2H150
Stone weight or pendant, hole pierces narrower end, stone is striated alabaster.
Length:0.037; m..w.:0.032; m.th.:0.022; diam. of hole:0.005.
Locus: room 65, IA floor.

7. 2H153
Club shaped black stone object with lower end providing a comfortable grip.
M.p.l.:0.114; width:0.047.
Locus: room 61, IA fill.

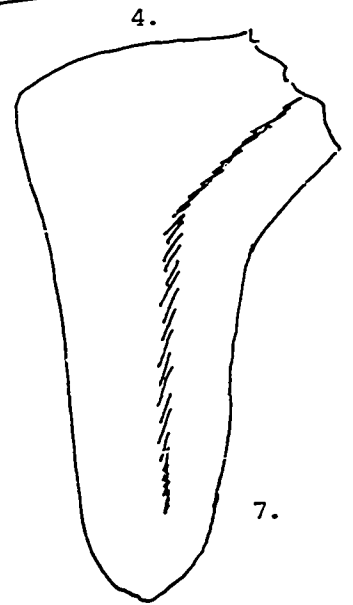
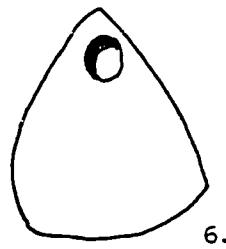
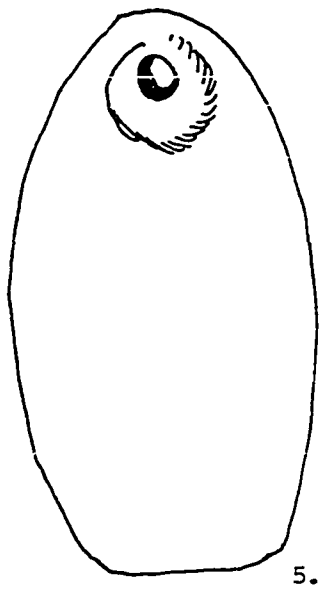
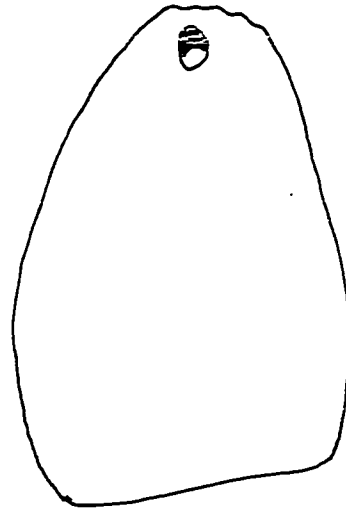
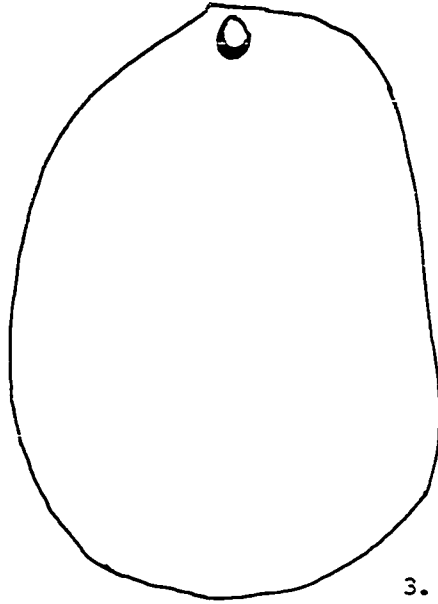
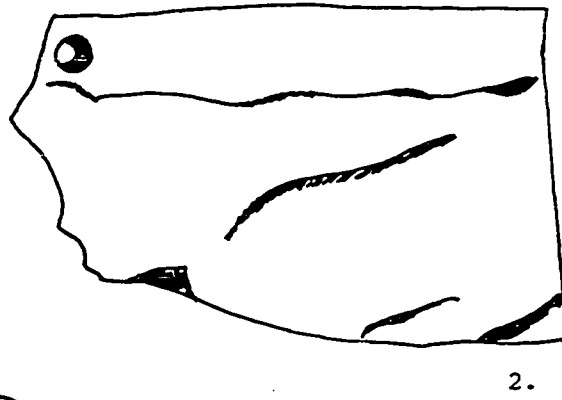
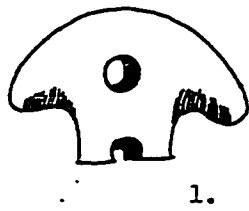


PLATE LVII

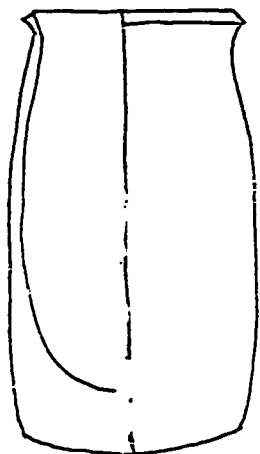
1. 2H40
Steatite bead or pendant pierced breadthwise (0.011-.016 from tapered end) by a hole 0.005 in diam. bead is broken at widest preserved point, bead has eight longitudinal facets and is therefore octagonal in section.
P.l.:0.045; hole diam.:0.003; octagonal section: 0.0115, 0.127, 0.123, 0.013, (in m.w. starting with pierced facet.
Locus: room 4, IB fill.
2. 2H165 b
Carnelian beads found in wheel made jar with convex base (2H165 a), three sizes of beads: 121 small, diam.:0.004; th.:0.002, 105 medium, diam.:0.008; th.:0.003, one large with etched design, diam.:0.009; th.:0.01.
Photo.: pl.LXXII:2.
Locus: room 66, IA fill.
3. 2H41
Marble vase with yellowish and grey striations, from a circular bevelled rim the vessel widens to a squarish base with curved sides, partially mended from numerous fragments, bits of copper adhere to inside of vessel.
Height varies:0.22-.24 squarish base:0.095 x 0.10 at the corners but widens to ca. 0.110-.115 across the central vertical and horizontal axes, rim diam.:0.008-.010.
Photo.: pl.LXXII:1.
Locus: room 4, IB floor.
4. 2H48
Hammerstone made of pecking rock of greyish-brown colour flecked with white.
Length:0.016, oval head:0.06 x0.075, oval protuberance of head:0.057-.064 tapers to a rounded end.
Photo.: pl.LXXV:2.
Locus: room 10, foundation of IB.
5. Uncatalogued
Reconstruction of knob from impression on reverse of sealing 2H163.
Locus: room 20, IB floor.
6. Uncatalogued
Stone knob
Height:2.5 cm., diam.:3.0 cm.
Locus: room 20, IB fill.



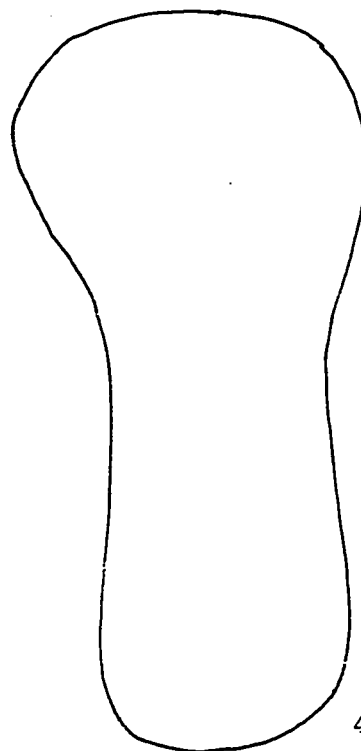
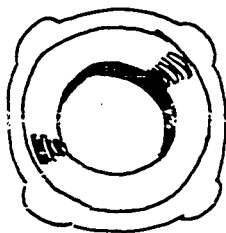
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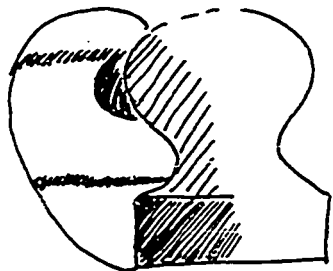
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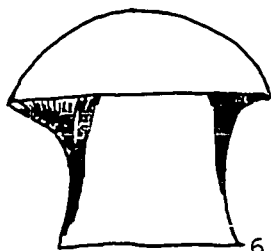
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4.



5.



6.

Description of Plates LVIII-LXIX

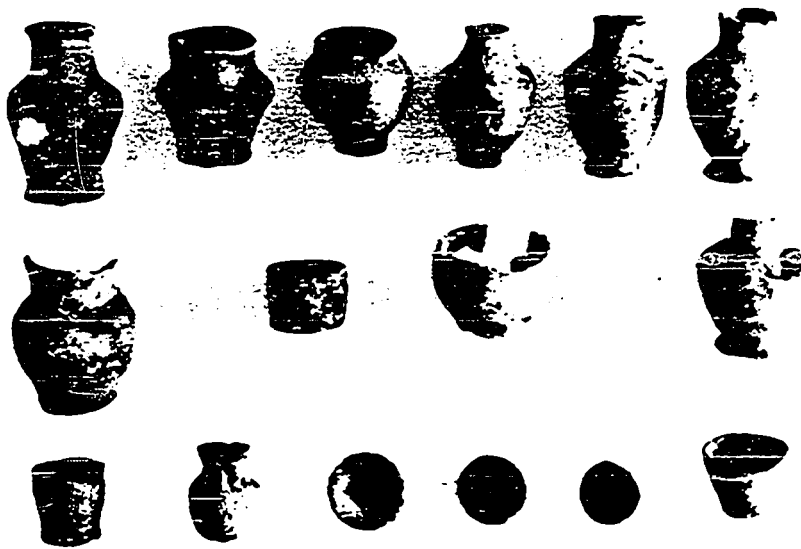
<u>Plate/figure</u>	<u>object</u>	<u>catalogue</u>
LVIII:1	ceramic miniature	pl.LII:6
LVIII:2	miniature vessels	
LIX:1	terracotta standard	pl.LII:1
LIX:2	terracotta standard	pl.LII:2
LX:1,2	terracotta rings	pl.L:7
LXI:1	gaming die	pl.L:6
LXI:2	enigmatic object	pl.LII:3
LXII:1	animal figurine	pl.L:17
LXII:2	animal figurine	pl.L:18
LXIII:1	animal figurines	pl.L:14,10
LXIII:2	animal figurine	pl.L:12
LXIV:1	figurine	
LXIV:2	figurines	pl.L:11
LXV:1	boat model	pl.LI:5
LXV:2	boat model	pl.LI:3
LXVI:1	animal figurines	
LXVI:2	model chariot parts	pl.LI:6,7
LXVII:1	model boat parts	
LXVII:2	sling pellets	pl.L:4
LXVIII:1	metal hoard	pl.LIII
LXVIII:2	sauce boats	pl.LIII
LXIX:1	balance pans	pl.LIII
LXIX:2	axe	pl.LIII

Description of Plates LXX-LXXV

<u>Plate/figure</u>	<u>object</u>	<u>catalogue</u>
LXX:1	adze	pl.LIII
LXX:2	adze	pl.LIII
LXXI:1	blade	pl.LIV:3
LXXI:2	pin	pl.LIV:2
LXXI:3	metal tool	pl.LIV:1
LXXII:1	stone vase	pl.LVII:3
LXXII:2	carneian in jar	pl.LVII:2
LXXIII:1	pendant weights	pl.LVI:4
LXXIII:2	pendant weights	pl.LVI:6
LXXIV:1	pendant weight	pl.LVI:5
LXXIV:2	pendant weights	
LXXV:1	hammerstone	pl.LVI:7
LXXV:2	hammerstone	pl.LVII:4



1.



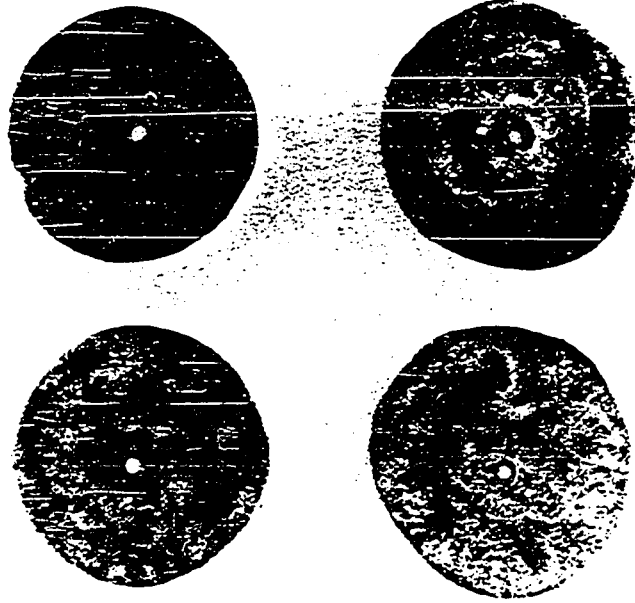
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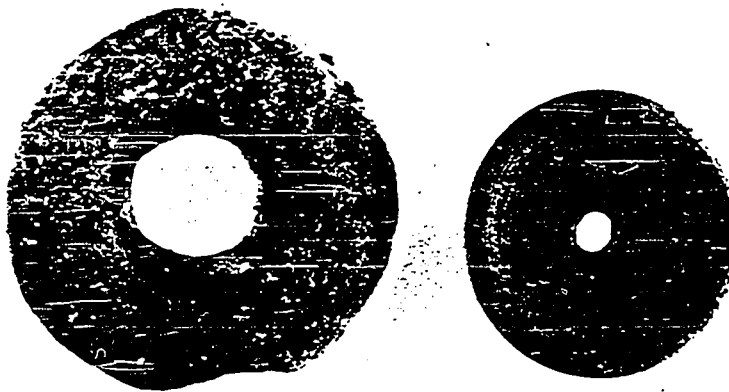
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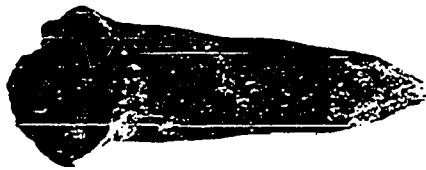
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2.



1.



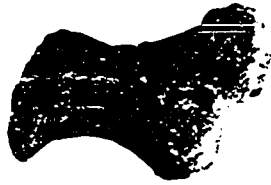
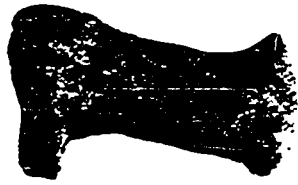
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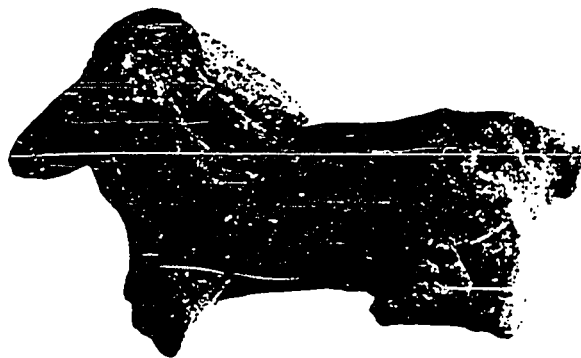
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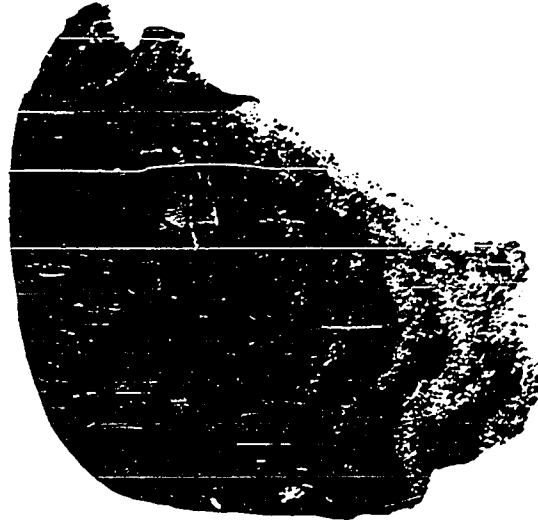
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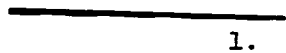
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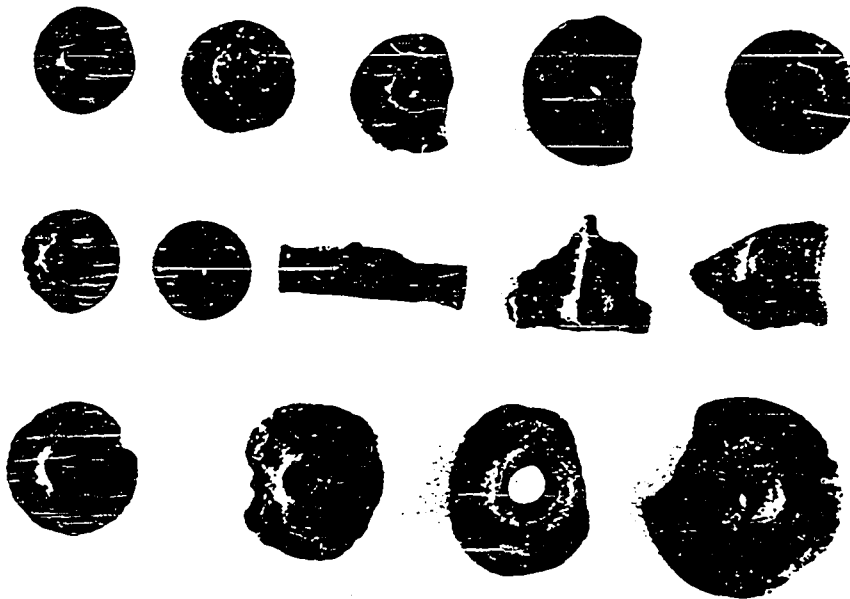
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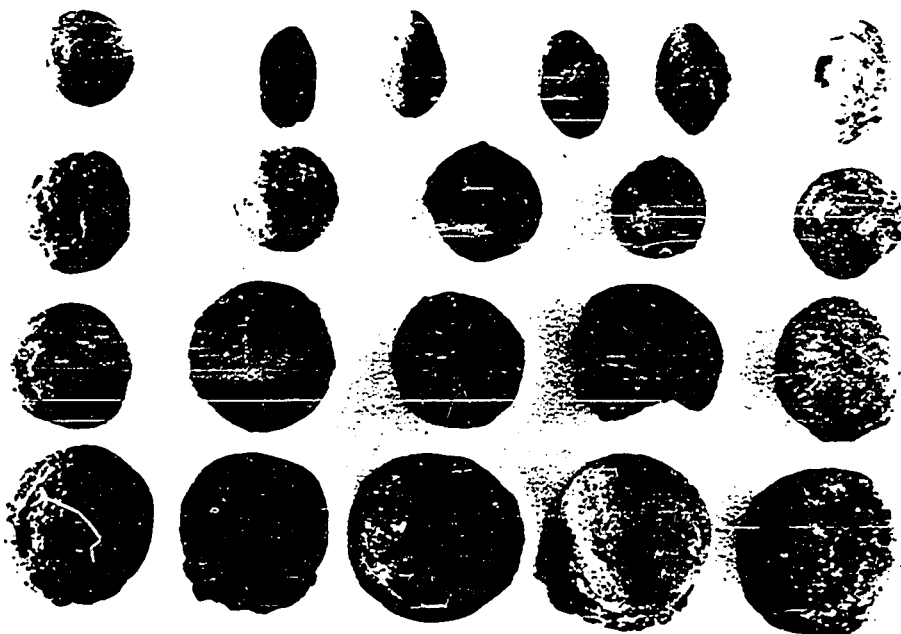
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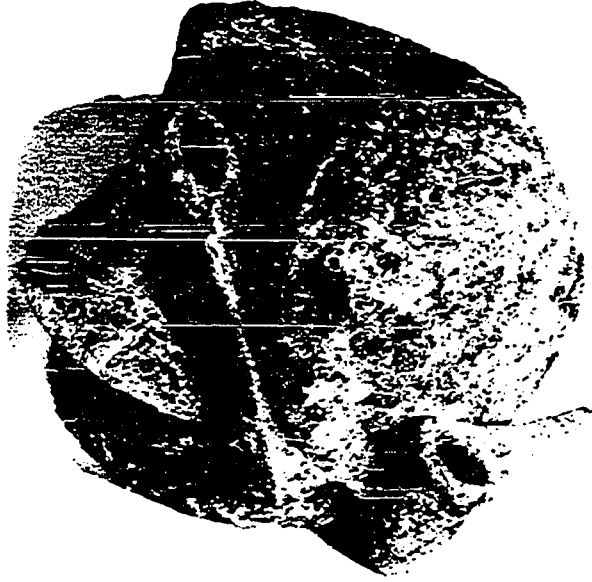
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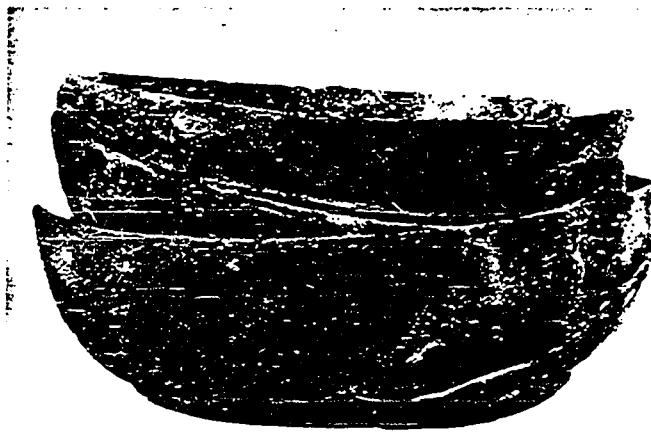
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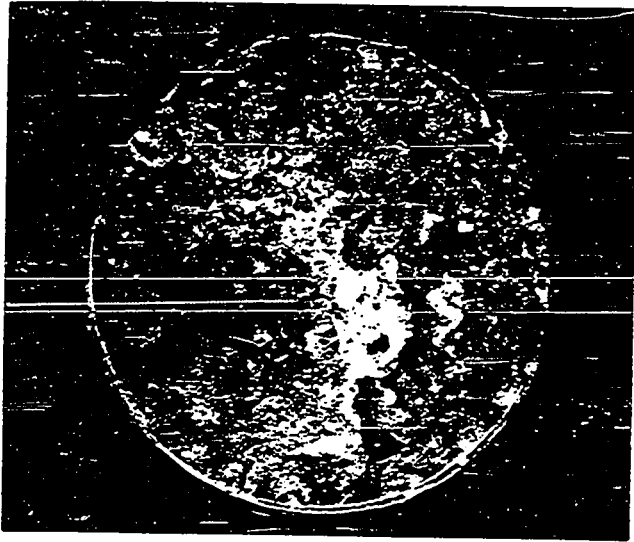
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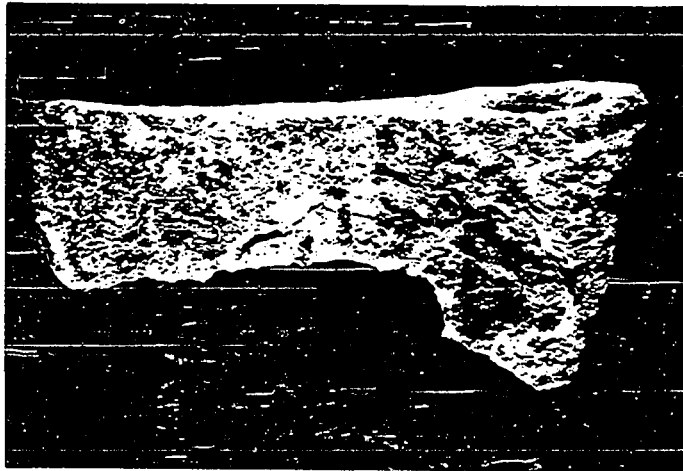
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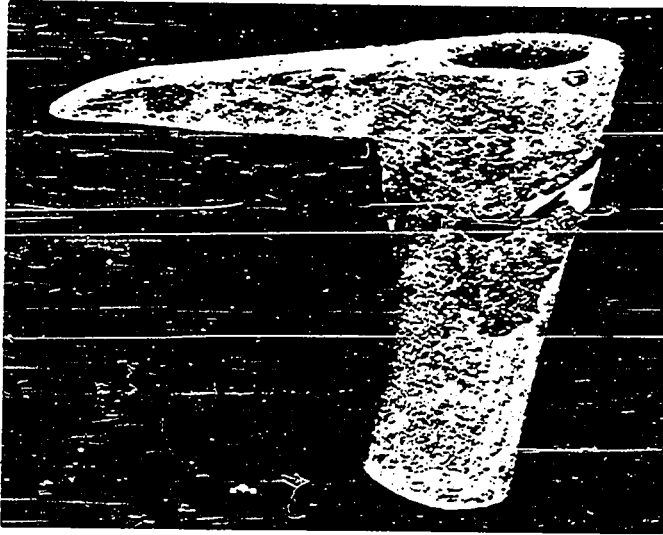
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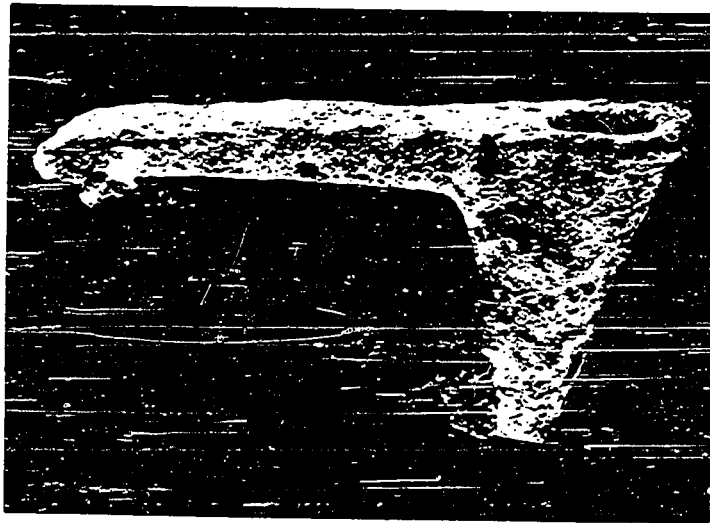
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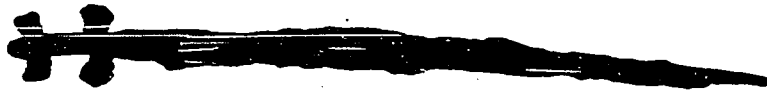
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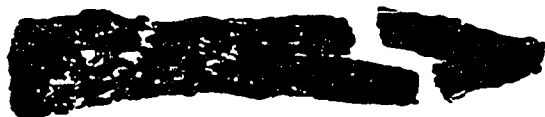
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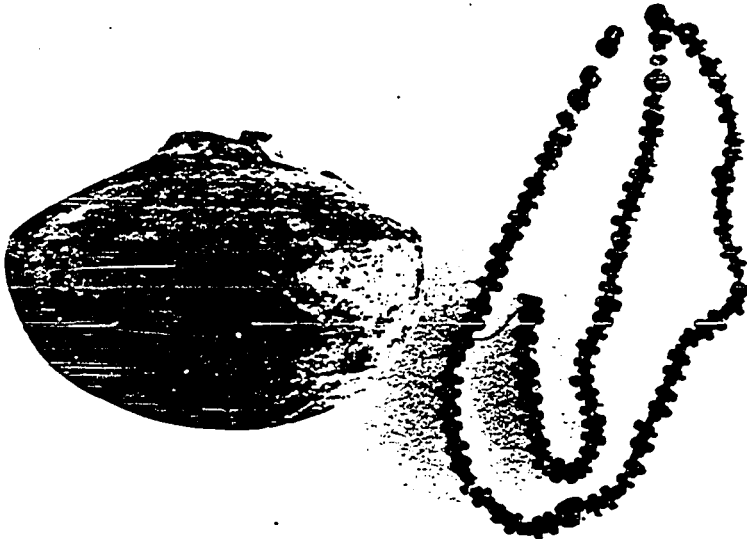
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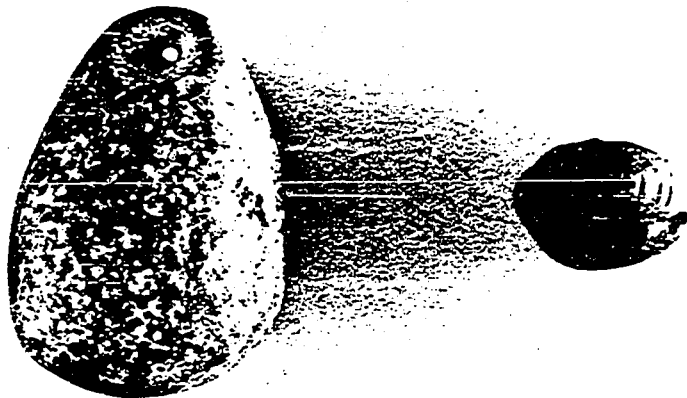
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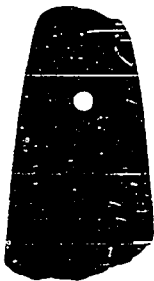
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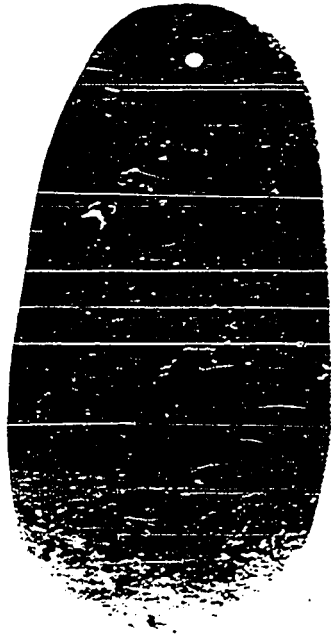
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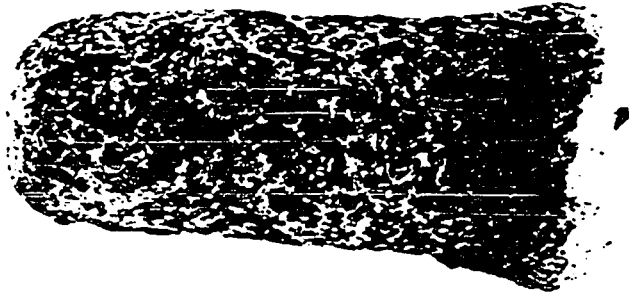
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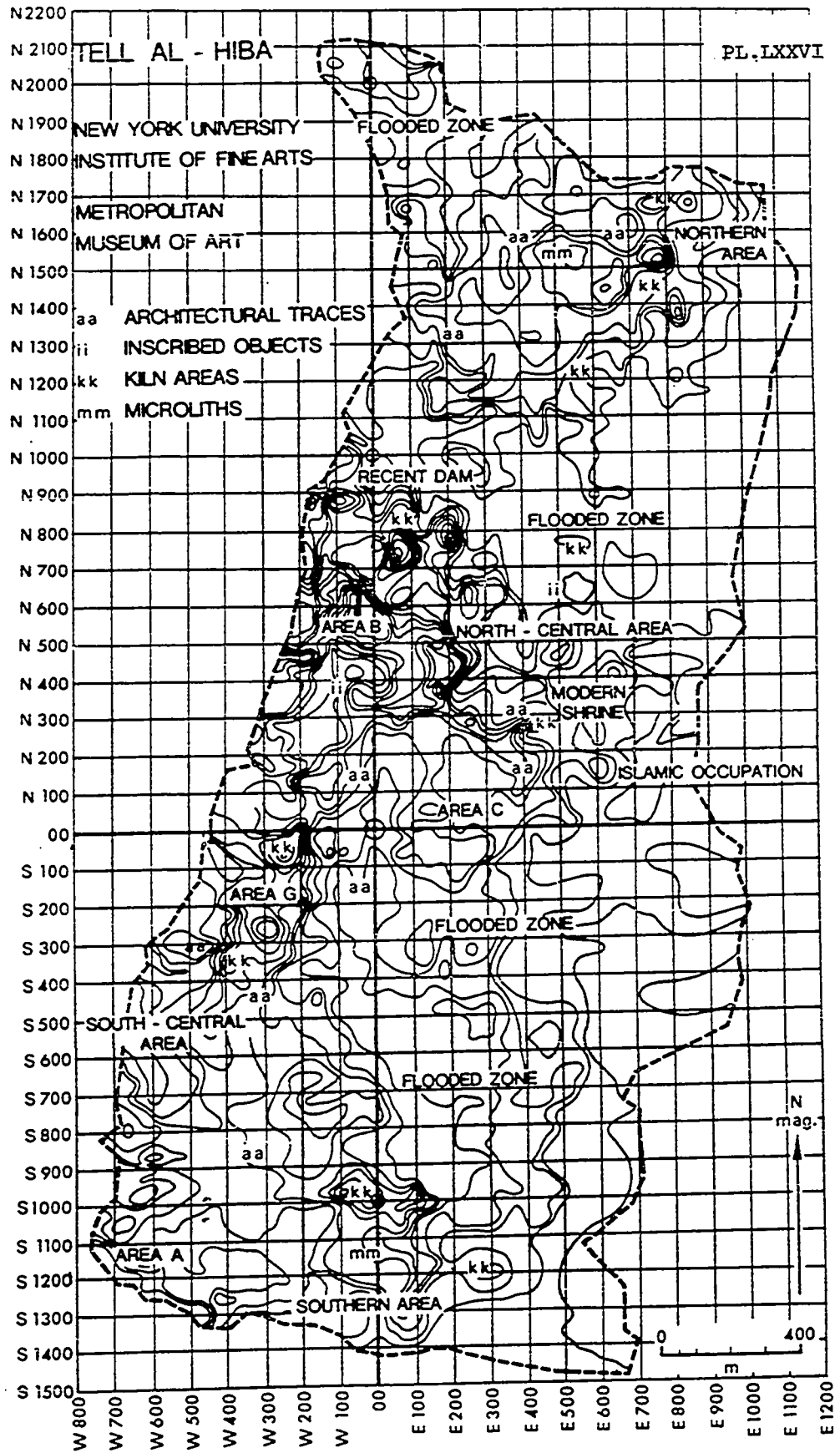
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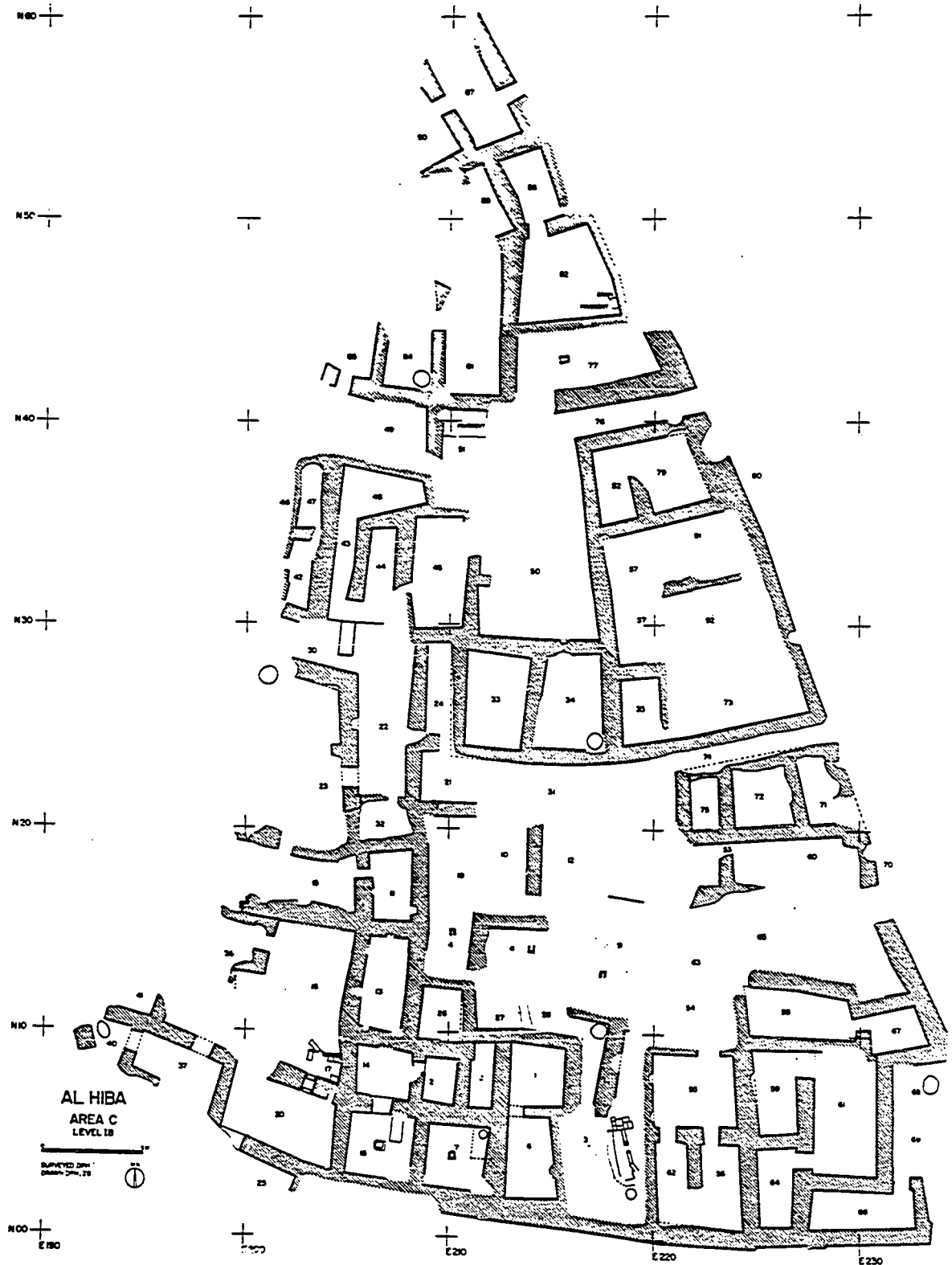


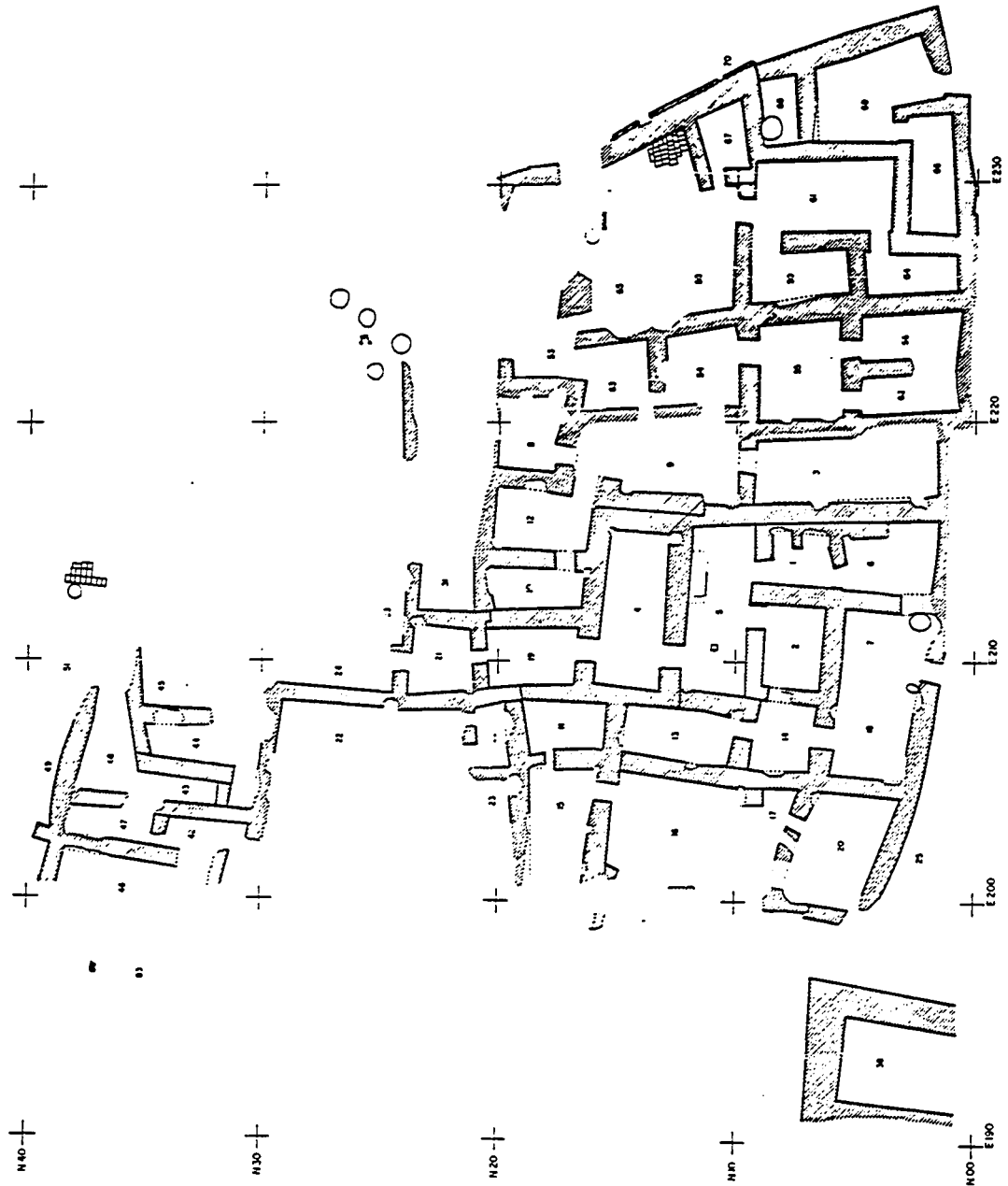
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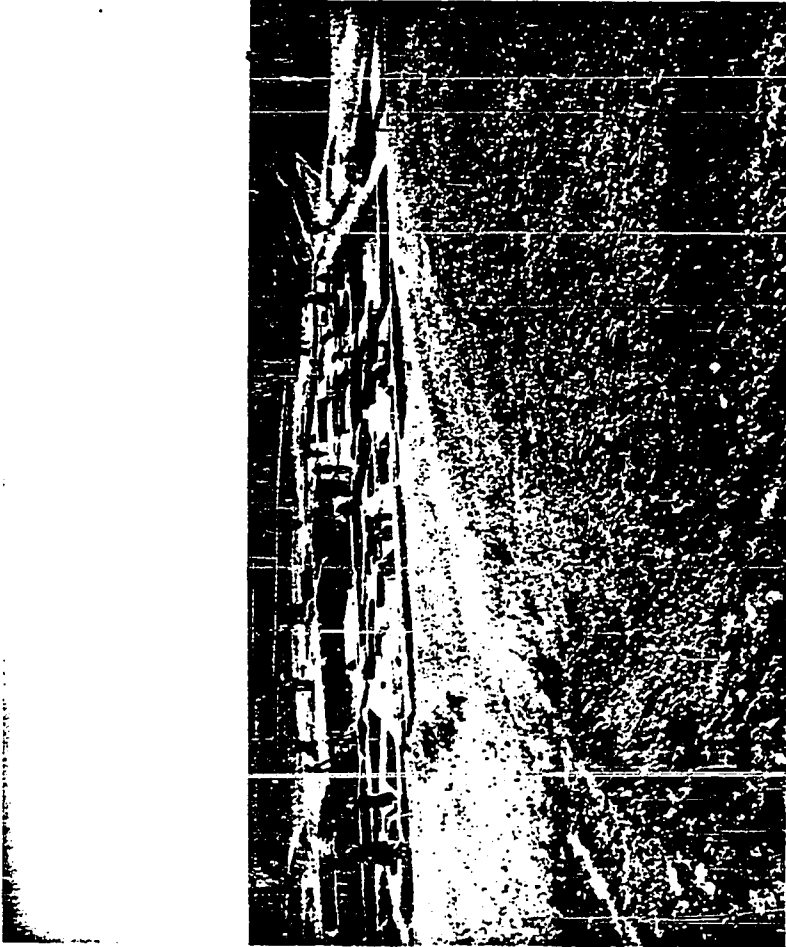




AL HIBA
AREA C
LEVEL II
SCALE 1:50
DATE 1978



General view of area C from south.



Area C from east.



Room 3 from south.



Room 3 from north.



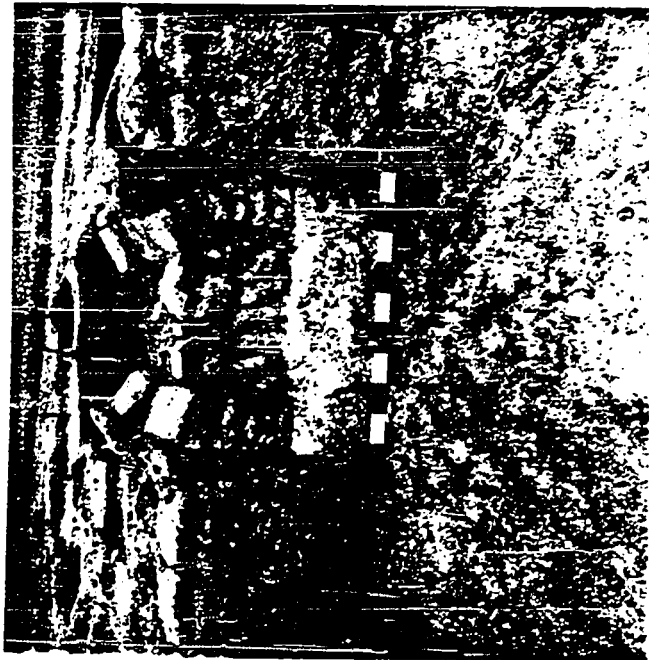
Room 4 from west.



Room 4 from east.



Blocked doorway, room 19.



Blocked doorway, room 4.



Room 5, bench.



Room 5, wall detail and paving.



Room 9 from north.



Room 6 from south.



Room 9 from south.



Room 9 from north.



Room 11, east wall from south-west.



Room 11 from south.



Room 12 from north.



Room 12.



Room 13 from room 16.



Room 13 from south.

PL.XC



Room 15 from room 11.



Room 15 from north.



North wall of room 16.



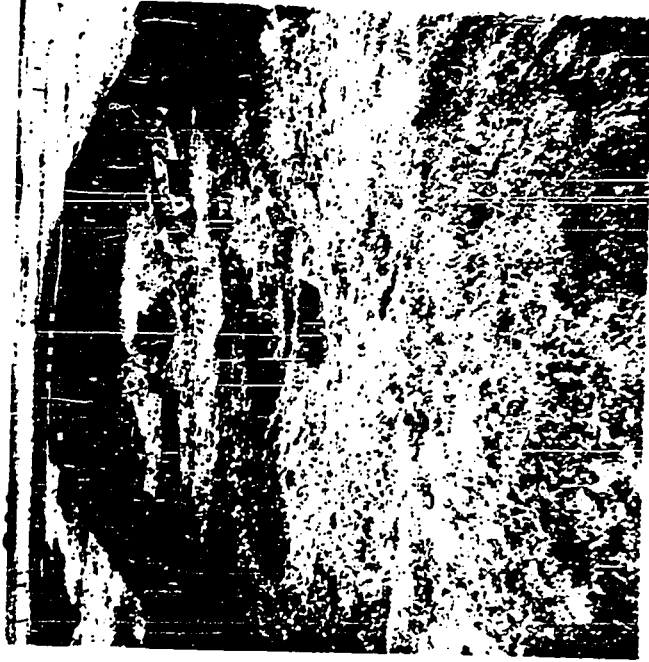
Room 15 from north.



Room 17 from west.



Room 16 from north-west.



Room 7/18 from north-west.



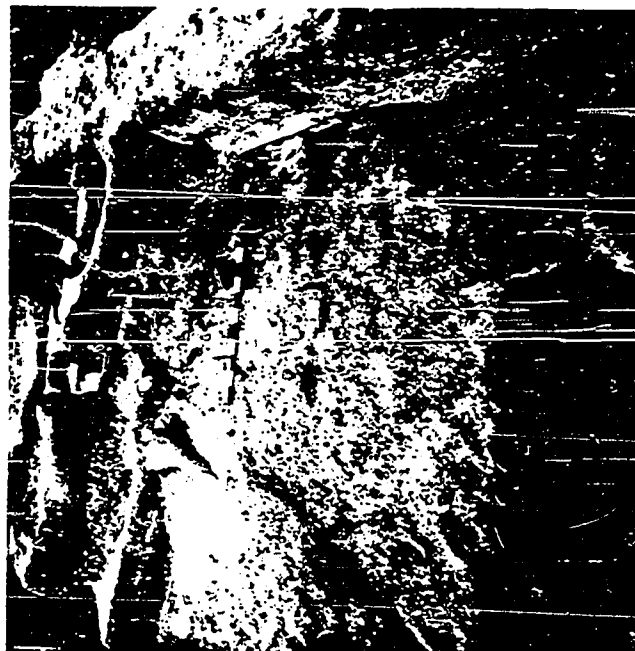
Room 7/18 from east.



Paving at south side of room 7/18.



North-east corner, room 7/18.



Room 20 from south.



Room 20 from north-west.



Room 23 and 32 from north-west.



Room 23 and 32 from south.



Rooms 43, 44, 47 and 48.



Rooms 43, 44 and 48.



Curved wall at room 49 and room 46.



Room 42 from south.



Tanur in room 40.



Pavement in room 51.

PL.C



Room 62 from south.



Room 62 from north.



Room 63 and 54 from north.



Room 63 and 54 from south.



Room 55 from south.



Room 55 from north.



Room 55 and 62 from south.



Room 55 and 62 from north.



Room 66 from west.



Room 58 from north.



Room 69 from south.



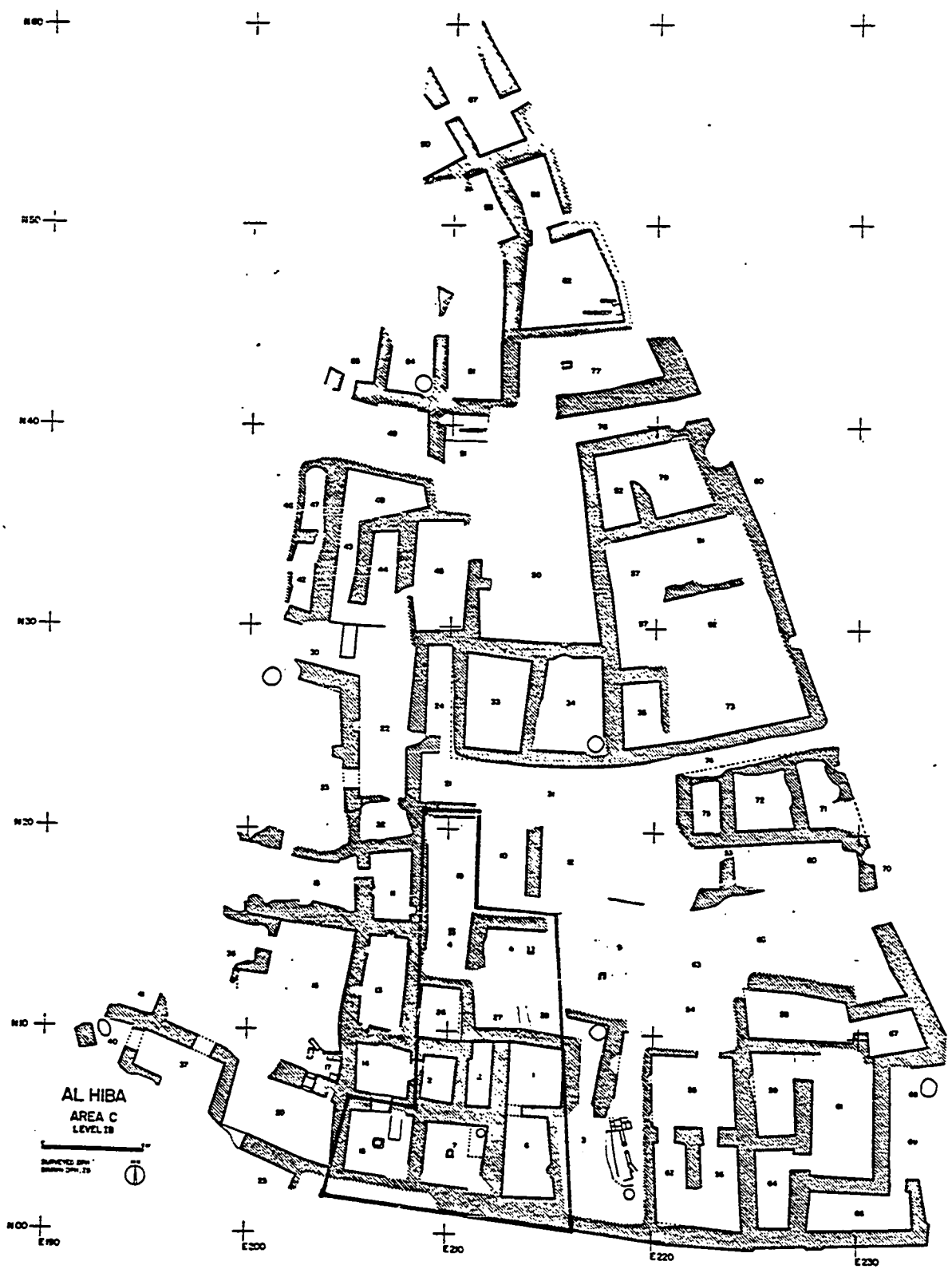
Room 68 from east showing tanur.



Room 92.

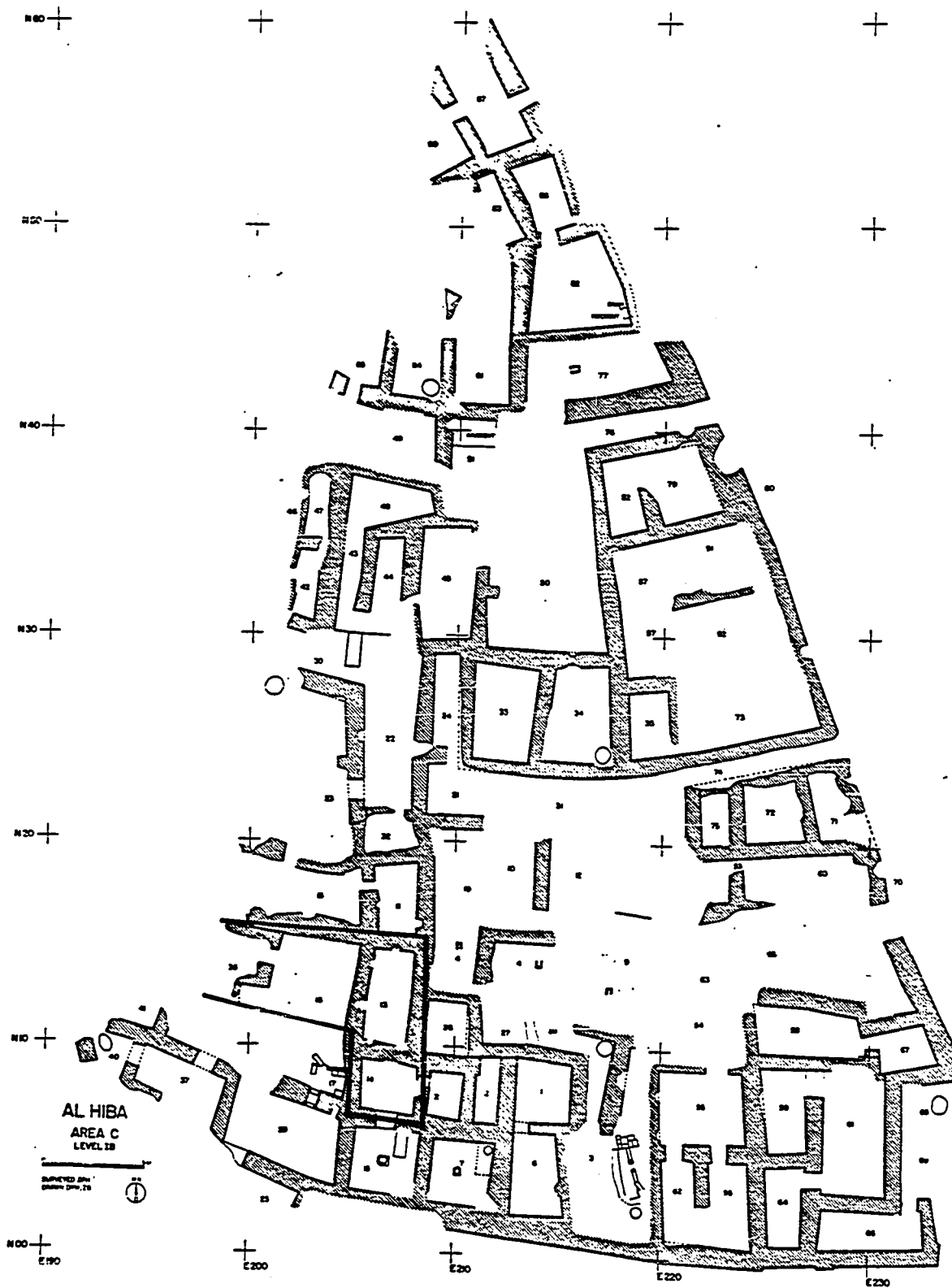


Brick wall facing, room 70.



Sector I.

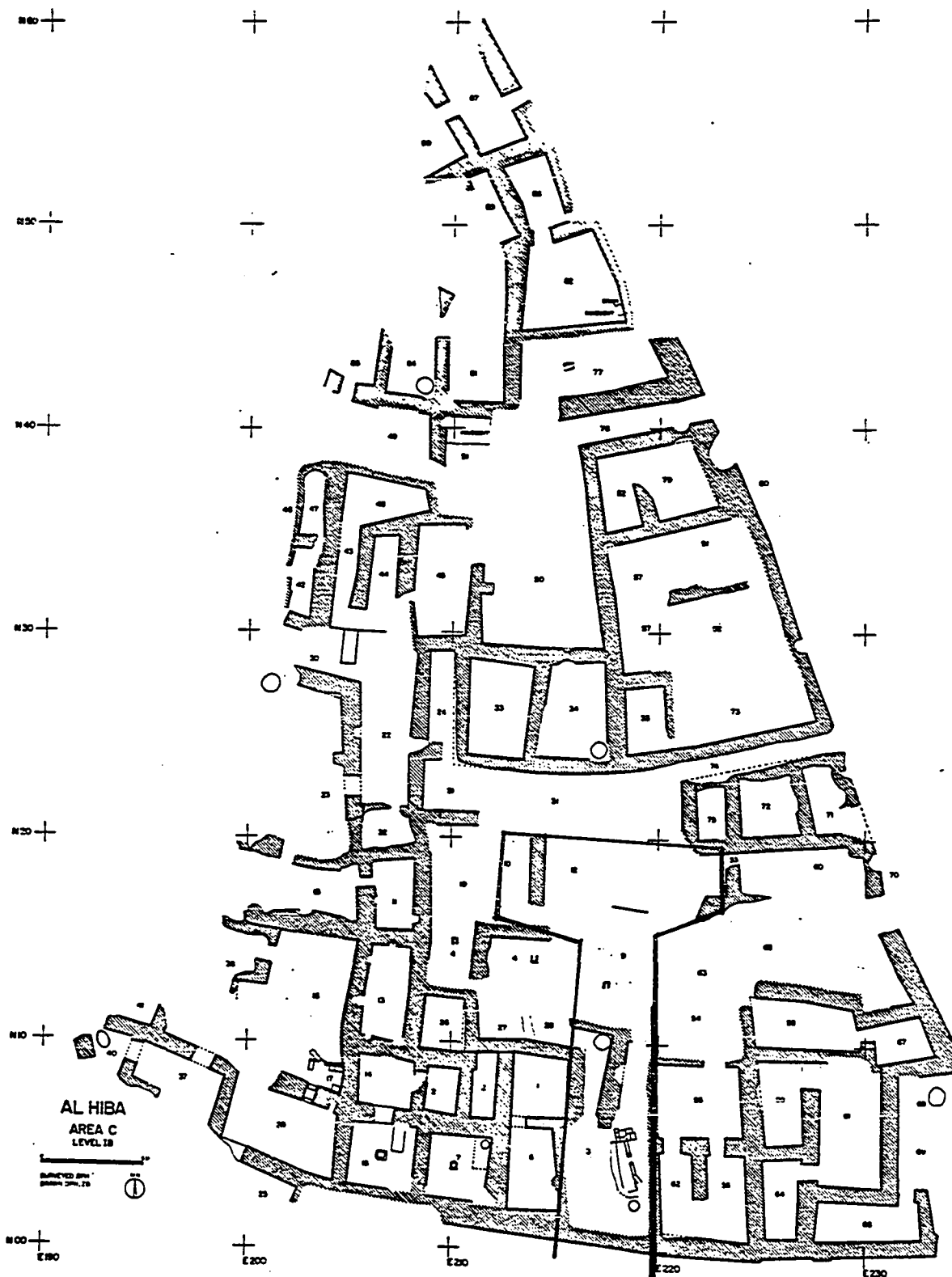




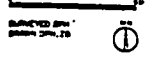
Sector II



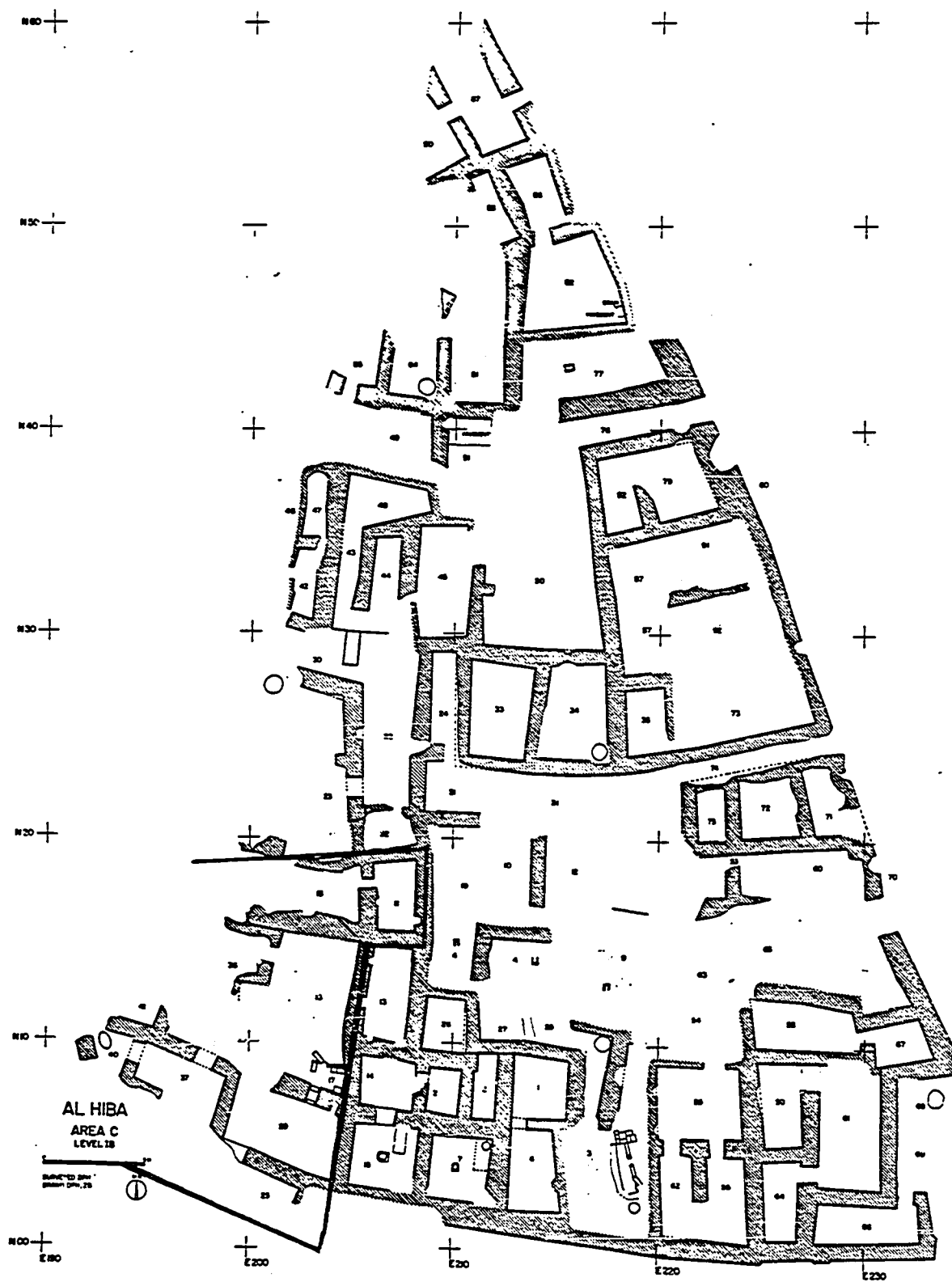
Sector II



AL HIBA
AREA C
LEVEL 1B



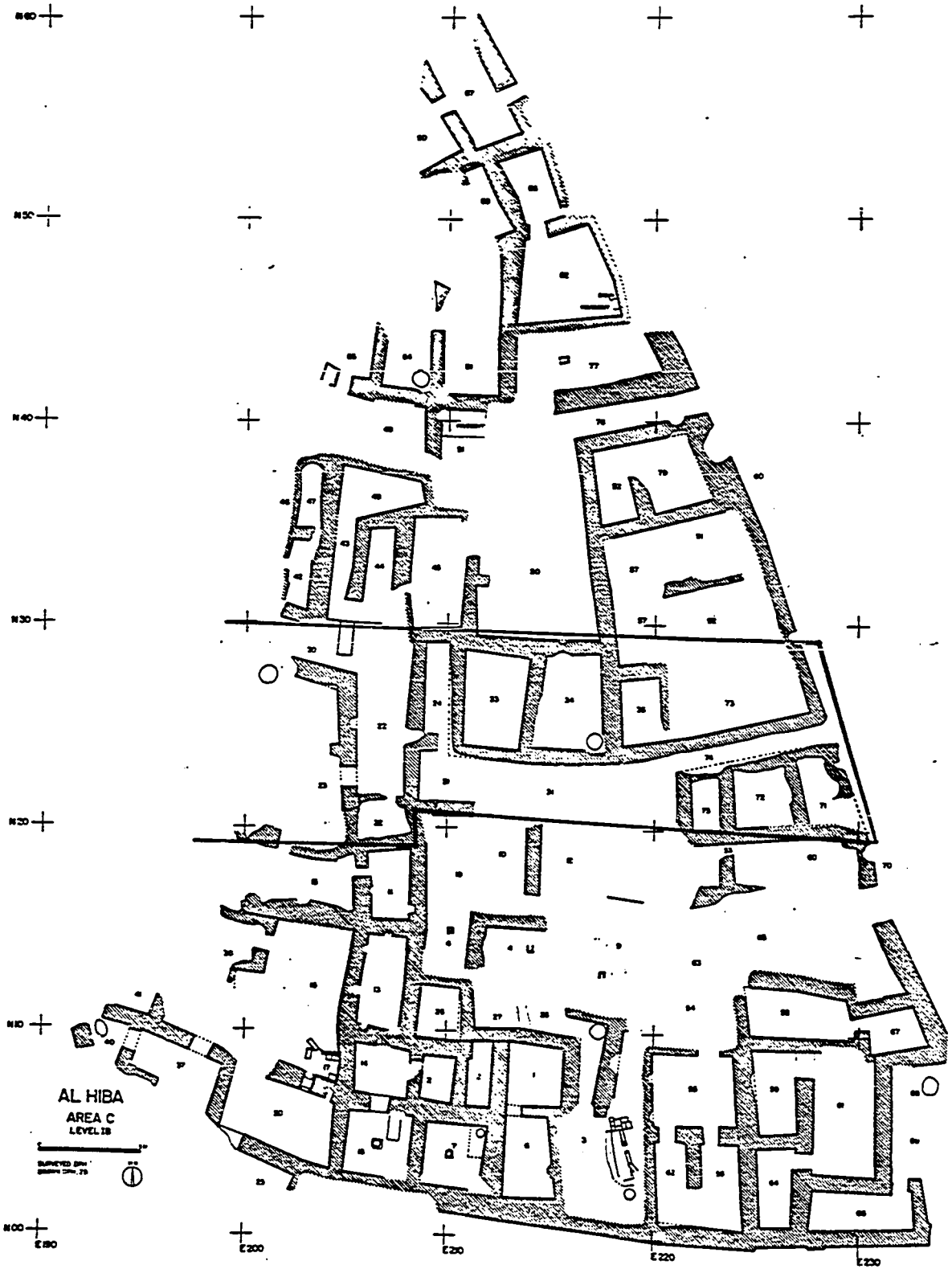
Sector III



Sector IV



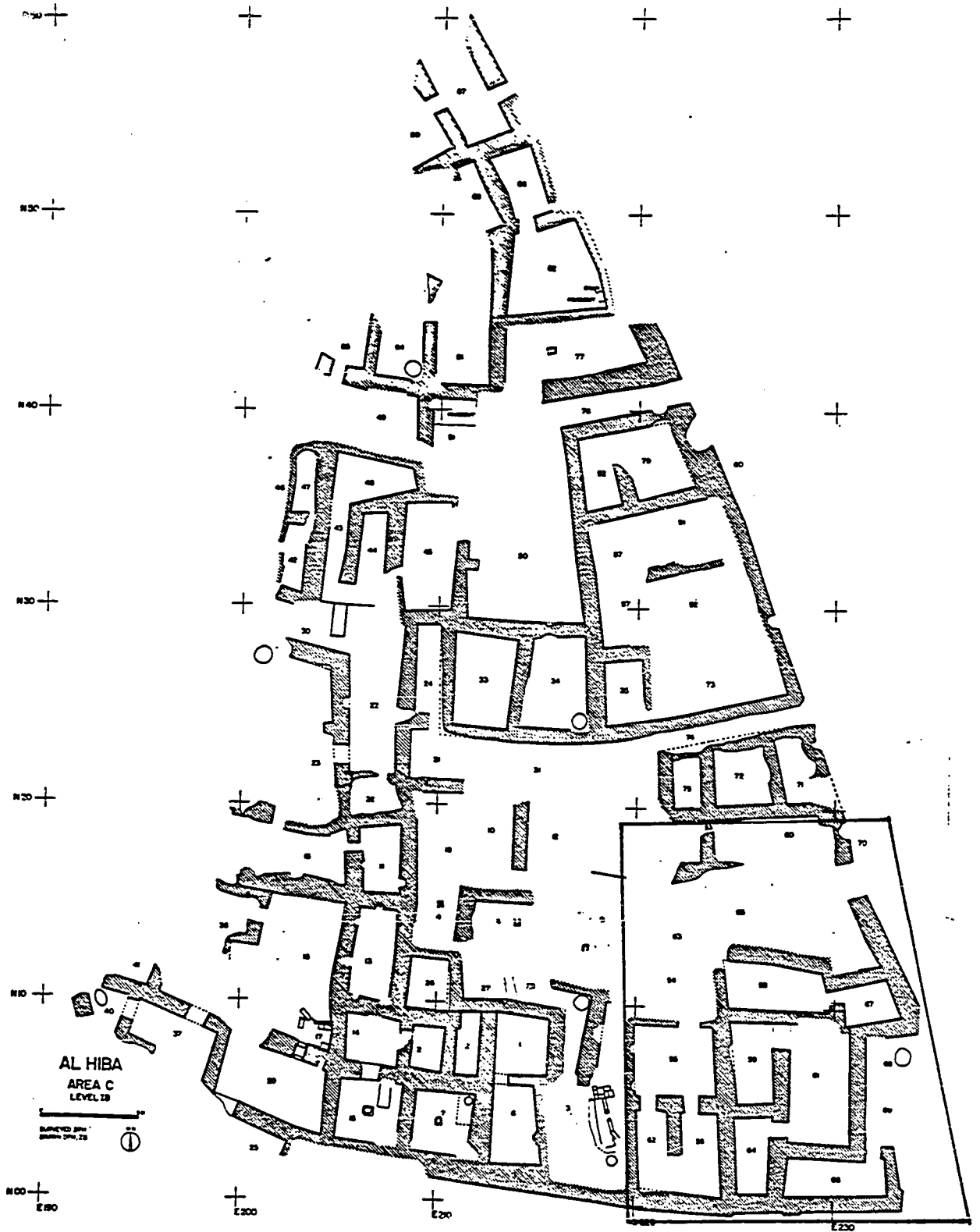
Sector IV



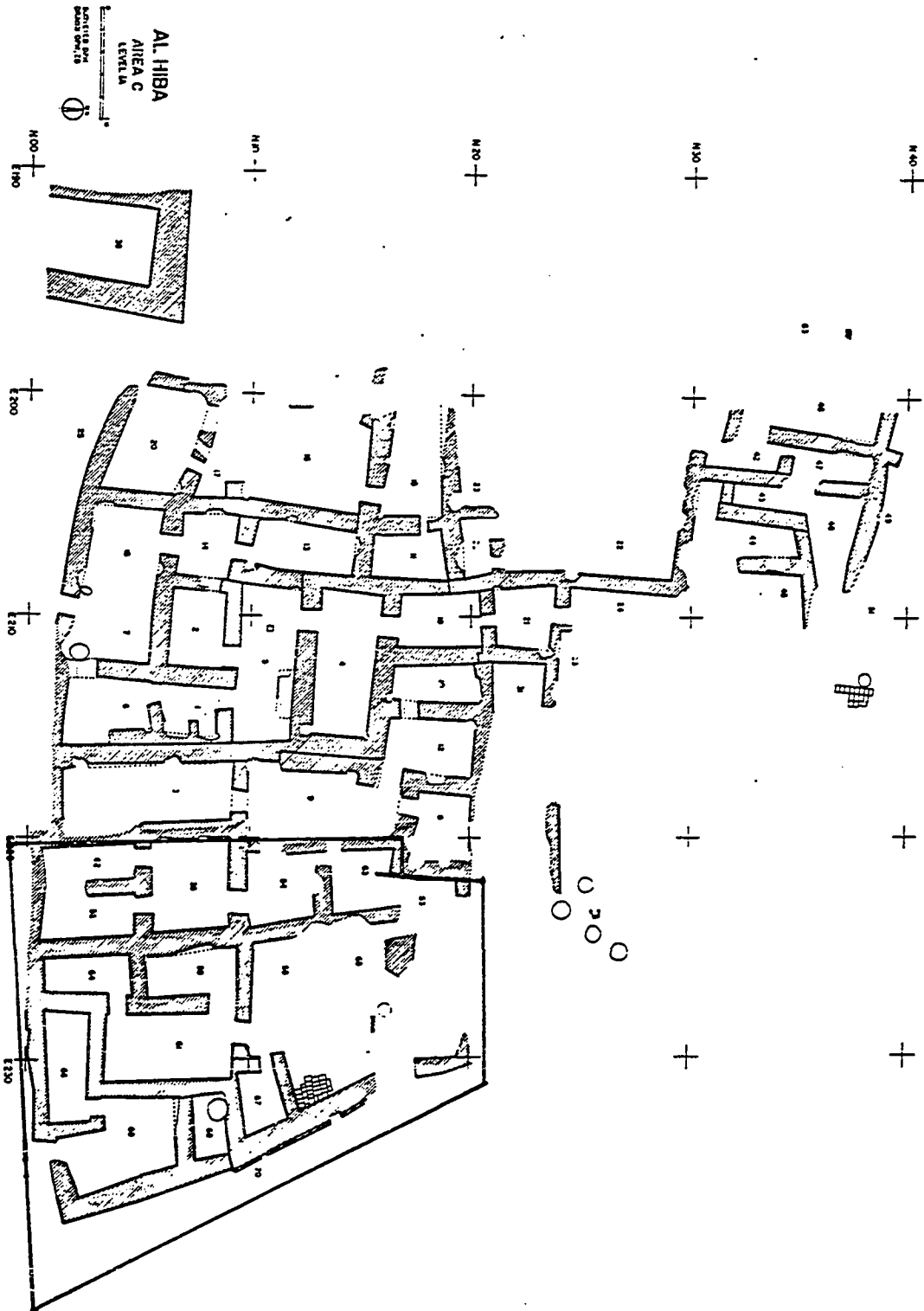
Sector V



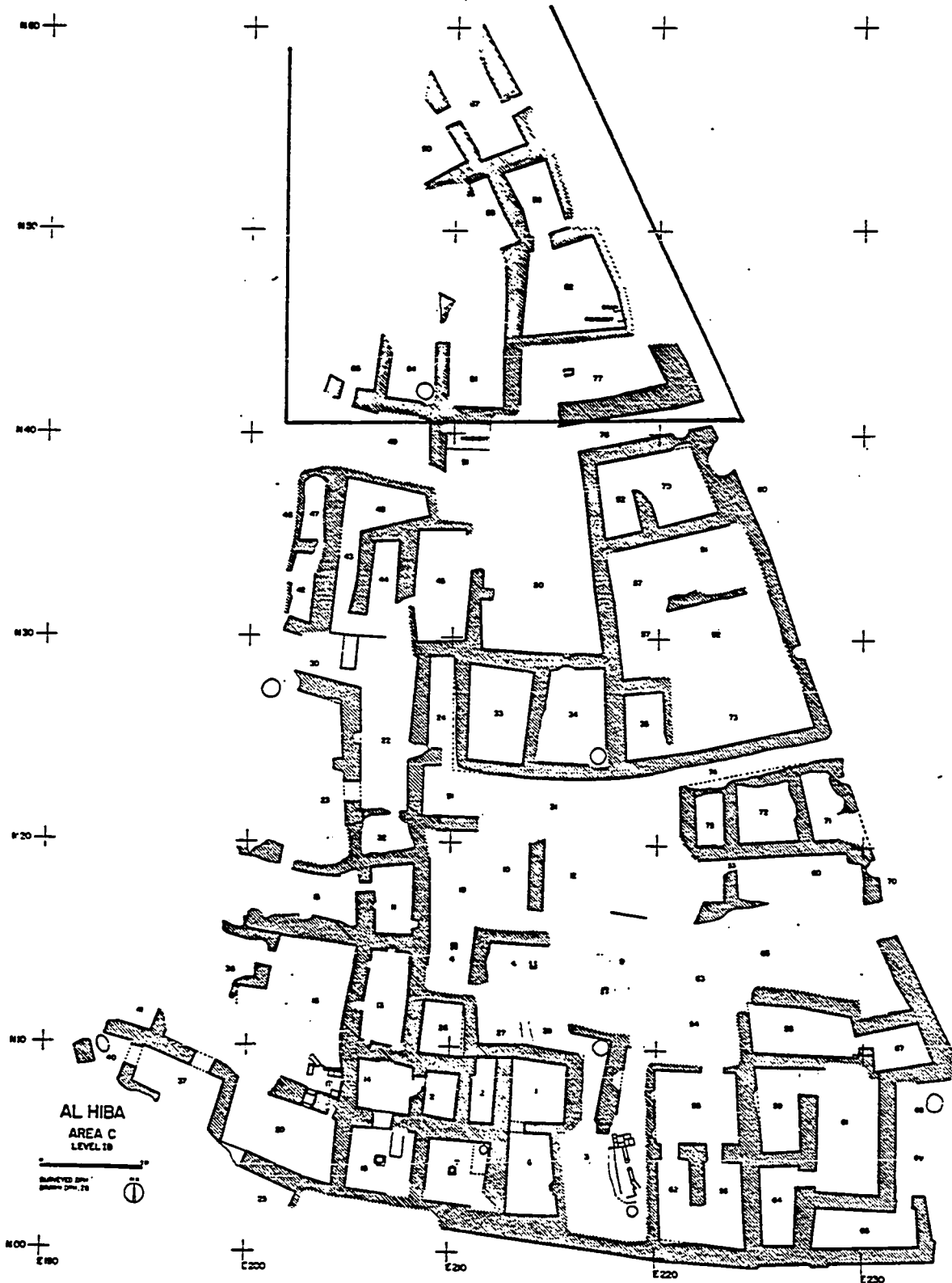
Sector V



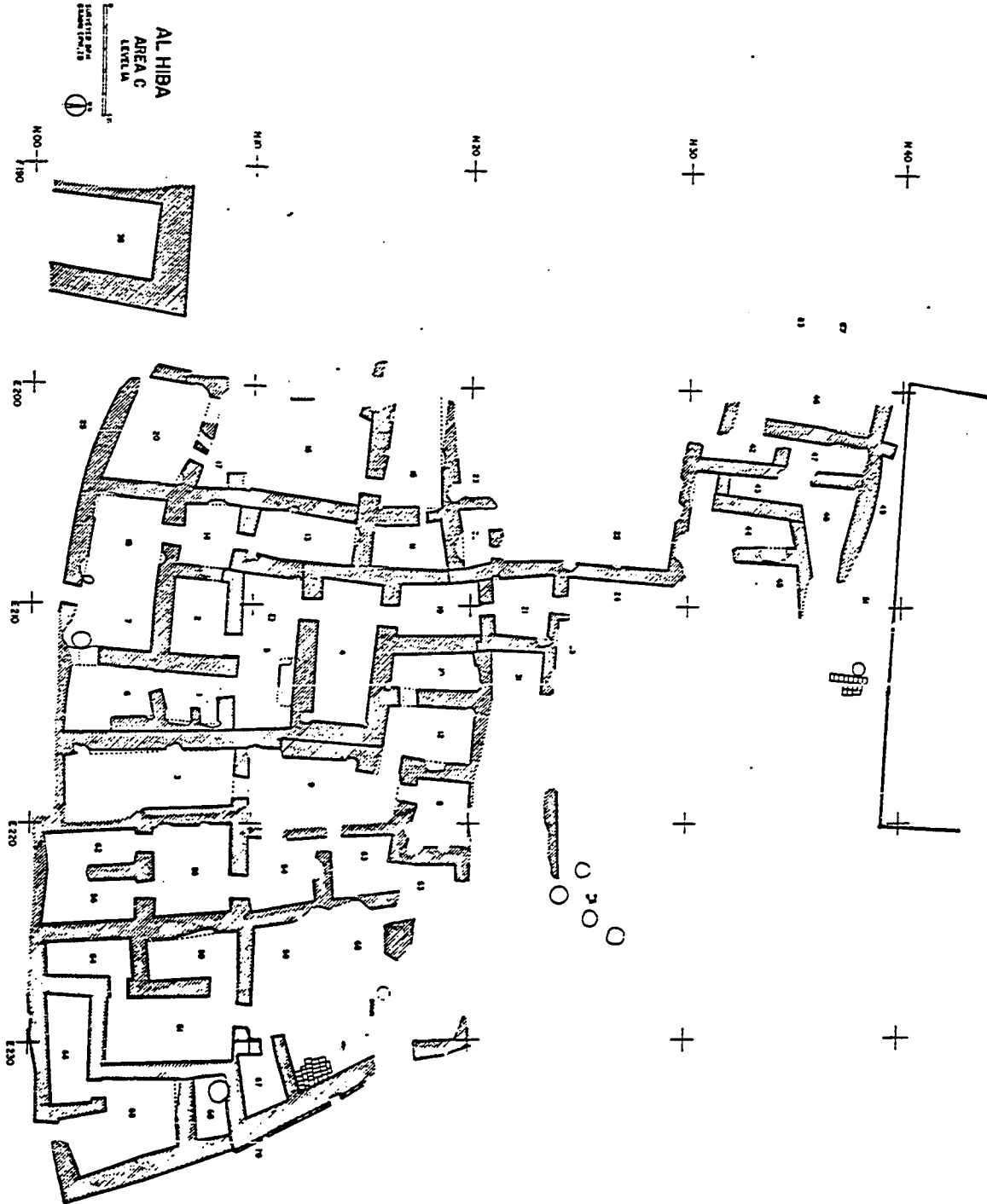
Sector VI



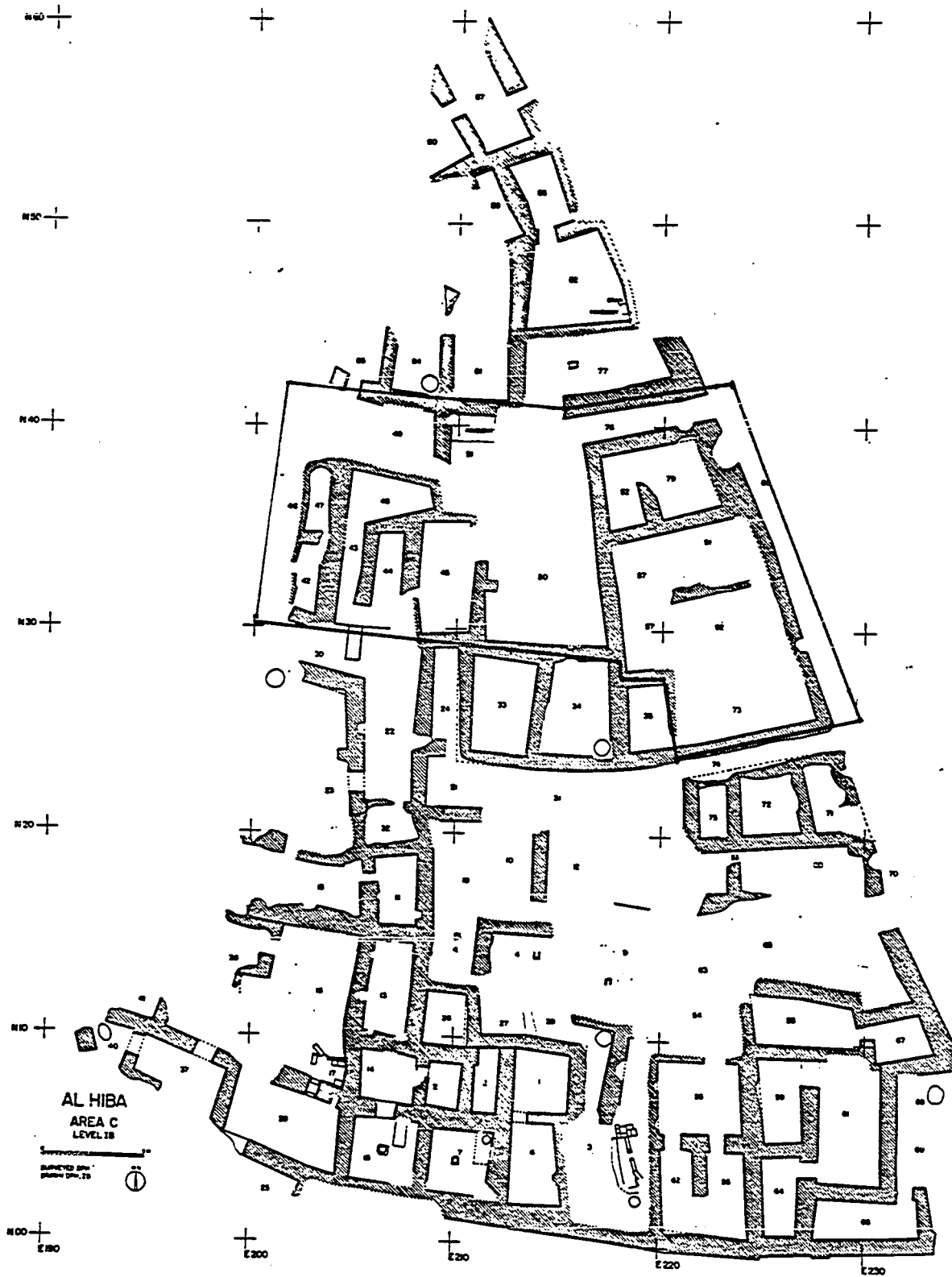
Sector VI



Sector VII



Sector VII (No level IA)



Sector VIII



Sector VIII

ROOM	CONICAL BOWLS	CONICAL CUPS	RIBBED BOTTLES	GLOBAL	CERAMIC	FIVE WAYS	HOUSEHOLD	AMULETS	VATS	STANDS	FRUIT STANDS	STORAGE	VASIA	MINIATURES	SEALINGS	SEALS	ADMIN. LITER.	TEXTS	SCHOL.	SPIN/WEAVE	WEIGHTS	TOOLS	TOYS	VALUES	OTHER	DOOR LOCKS
1[1A]	16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2[1A]	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
2[1B]																										
3[1A]	11	1	1	2	5	2	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	2	1	1	1	1
3[1B]	5																									
4[1A]	12	1	1	2	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4[1B]	39	5	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5[1A]	15																									
5[1B]	1																									
6[1A]	1																									
6[1B]																										
8[1A]																										
8[1B]																										
9[1A]	5																									
9[1B]																										
10[1A]	7	1																								
10[1B]	2																									
11[1A]	1																									
11[1B]	28	1																								
12[1A]																										
12[1B]																										
13[1A]																										
13[1B]																										
14[1A]																										
14[1B]	23																									
15[1A]	47	4																								
15[1B]	66	8																								

NON-ARTIFACTUAL MATERIAL

ROOM FEATURES

Diorite, clean clay
 Bones, clean clay
 Shell, charcoal, bones
 Copper lumps
 Copper lumps
 Bones, seeds
 Coral & diorite
 Bitumen with red impressions
 Seeds, bone, charcoal
 Seeds, grain
 Shell, flint, Copper
 Grain, carbonised seed
 Seeds

Drain
 Tiler
 pavement, drain, cistern, oven
 Hearths
 Hearths, drain channel
 Bench, hearth
 Hearths, pavement
 Paving
 Drain
 Hearths, drain
 Copper
 mudbrick threshold to 9
 Roof beams
 Roof beams

ROOM	CONICAL BOWLS	CONICAL CUPS	BOTTLES	RIBBED	CERAMICS	GLASSWARE	HOUSEHOLD	STANDS	VATS	BASINS	STORAGE	VARIA	MINIATURES	SEALINGS	SEALS	ADMIN. LITER.	DEDIC. SCHOOL	SPIN/WEAVE	WEIGHTS	TOOLS	TOYS	VARIABLES	OTHER	DOOR LOCKS
16[1A]	10																				2	19		1
16[1B]	3																					2		
17[1A]																								
17[1B]																								
18[1A]	8	2				9	3	1								2	4							
18[1B]	6	5				3	2	3																
19[1A]																								
19[1B]																								
20[1A]																								
20[1B]																								
21[1A]																								
21[1B]																								
22[1A]																								
22[1B]																								
23[1A]																								
23[1B]																								
24[1A]																								
24[1B]																								
25[1A]																								
25[1B]																								
26[1A]																								
26[1B]																								
27[1A]																								
27[1B]																								
28[1A]																								
28[1B]																								
29[1A]																								
29[1B]																								

NON-ARTIFACTUAL MATERIAL

Melting & basket traces
Red impressions, Copper
Drain
Drain
Tablet clay, bone, Copper, bench
Bone, Charcoal, pierced terracotta disk

ROOM FEATURES

Roof beams
plastered hair, drain
planning & wainscot
planning & wainscot
Hearth, wainscot, kin,
Bench, hearth, drain
Heavily plastered
wainscot? red mats

NON-ARTIFACTUAL MATERIAL

Bovine forms
Copper lumps
Rope-like clay; Seeds, Reed
Bitumen
Bones

Hearth

ROOM	CONICAL BOWLS	CONICAL CUPS	BOTTLES	RIBBED	GLOBULAR	CERAMIC	THE WARE	HOUSEHOLD	FRUIT STAND	STANDS	VATS	BASINS	STORAGE	VARIA	MINIATURES	SEALINGS	SEALS	ADMIN.	LITER.	DEDIC.	SCHOOL	SIN/WEAVE	WEIGHTS	TOOLS	TOYS	VALUES	OTHER	DOOR LOCKS	ROOM FEATURES	NON-ARTIFACTUAL MATERIAL						
30[A]																																				
30[B]																																				
31[A]																																				
31[B]	20		1				1	1				1	2	1																						
32[A]																																				
32[B]																																				
33[A]																																				
33[B]																																				
34[A]																																				
34[B]																																				
35[A]																																				
35[B]																																				
36[A]	30						2		2	2	2	2	2			37																				
36[B]																2																				
37[A]																																				
37[B]																																				
38[A]																																				
38[B]																																				
39[A]																																				
39[B]	26						8	1	2	1	2	1	2	1																						
40[A]	29																																			
40[B]																																				
41[A]																																				
41[B]																																				
42[A]	6																																			
42[B]	16																																			
43[A]																																				
43[B]																																				

Clay

Two layers bricks, fine clay
Bones

Bones
Copper Cumps

Copper Cumps, Charcoal

Kiln

bench or platform

Kiln

Hearth

Hearth, heavily plastered floor

ROOM	CONICAL BOWLS	CENTRAL CUPS	BOTTLES	RIBBED	GLOBULAR	CERAMIC	GLASS	FRUIT STAND	HOUSEHOLD	STANDS	VATS	BASINS	STORAGE	VARIA	MINIATURES	SEALINGS	SEALS	ADMN. LITER.	TEXTS	SCHOL.	SPIN/WEAVE	WEIGHTS	TOOLS	TOYS	VALUABLES	OTHER	BOOKS	ROOM FEATURES	NON-ARTIFACTUAL MATERIAL
44 [A]																													
44 [B]	622					4				1		3	4																
45 [A]																													
45 [B]																													
46 [A]																													
46 [B]																													
47 [A]																													
47 [B]																													
48 [A]																													
48 [B]																													
49 [A]																													
49 [B]																													
50 [A]																													
50 [B]																													
51 [A]	401																												
51 [B]																													
52 [A]																													
52 [B]																													
53 [A]	16																												
53 [B]																													
54 [A]																													
54 [B]																													
55 [A]																													
55 [B]																													

Charcoal, bitumen, with red impression
Shell, Copper, flints

Bones

Copper pin, copper lump

bench or platform

drain basin

pavement, drain
Hearth

Vertical drain

ROOM	CONICAL BOWLS	CERAMIC	SEALINGS	SEALS	ADMN. LITER.	DEDIC. SCHOOL	SPIN/WEAVE	WEIGHTS	TOOLS	TOYS	VALUABLES	OTHER	DOOR LOCKS	ROOM FEATURES	NON-ARTIFACTUAL MATERIAL
56[2]															flint
57[2]														Hearth	Copper lumps Shells
58[2]														Bin in floor	shell rings, no terra cotta rings
59[2]														Hearth	Grinding stone, metal
60[2]															
61[2]															
62[2]															
63[2]															
64[2]															
65[2]															
66[2]															
67[2]															
68[2]															

2

ROOM	CONICAL BOWLS	CONICAL CUPS	BOTTLES	GLASS	GLASSWARE	HOUSEHOLD	HOUSEHOLD	STANDS	VATS	BASINS	STORAGE	VARIA	MINIATURES	SEALINGS	SEALS	ADMN. LITER.	SCHOOL	SPIN/WEAVE	WEIGHTS	TOOLS	TOYS	VARIABLES	OTHER	DOORLOCKS
68IA																								
68IB														1										
69IA														5					1	1	2	1		
69IB														10										
70IA								1																
70IB																								
71IA																								
71IB																								
72IA																								
72IB																								
73IA																								
73IB																								
74IA																								
74IB																								
75IA																								
75IB																								
76IA																								
76IB																								
77IA																								
77IB																								
78IA																								
78IB																								
79IA																								
79IB																								

ROOM FEATURES
over, tander

NON-ARTIFACTUAL MATERIAL
Copper in oven
Copper
one inscribed bulla

Red basket remains

ROOM

ROOM	CONCRETE BOWLS	CERAMIC	FRUIT STANDS	STANDS	BASINS	STORAGE	VARIOUS MINATURES	SEALINGS	SEALS	ADMIN. LITER.	DEDIC. SCHOOL	SPIN/WEAVERS	WEIGHTS	TOOLS	TOYS	VALUES	OTHER BOOKS	ROOM FEATURES	NON-ARTIFACTUAL MATERIAL
801A																			
801B																			
811A																			
811B																			
821A																			
821B																			
831A																			
831B																			
841A																			
841B																			
851A																			
851B																			
861A																			
861B																			
871A																			
871B																			
881A																			
881B																			
891A																			
891B																			
901A																			
901B																			
911A																			
911B																			
921A																			
921B																			

Hearth

2 Tanurs

oven

Drain

Drain basin, hearth
Hearth

pile of bricks laid on edge, pin