

STUDIES IN ANCIENT ORIENTAL CIVILIZATION • No. 47

THE ORIENTAL INSTITUTE OF THE UNIVERSITY OF CHICAGO

THOMAS A. HOLLAND, Editor

With the Assistance of THOMAS G. URBAN



Helene J. Kantor, March, 1989 (Photograph by Diana O. Rasche)

Internet publication of this work was made possible with the
generous support of Misty and Lewis Gruber

ESSAYS
IN
ANCIENT CIVILIZATION
PRESENTED TO HELENE J. KANTOR

Edited by

ALBERT LEONARD, JR.

and

BRUCE BEYER WILLIAMS



THE ORIENTAL INSTITUTE OF THE UNIVERSITY OF CHICAGO

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CHICAGO • ILLINOIS

Library of Congress Catalog Card Number: 89-60852

ISBN: 0-918986-57-5
ISSN: 0081-7554

The Oriental Institute, Chicago

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Published 1989. Printed in the United States of America

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FOREWORD

Helene J. Kantor, one of the finest interpreters of ancient Near Eastern art, has imbued generations of students with a deep appreciation of the beauty and importance of materials from the ancient, pre-classical world. She is a painter, herself, with an exceptional eye for detail, style, and harmony. She grew up in an academic environment, as her father taught psychology at the University of Indiana in Bloomington, from which she herself received her B.A. in 1938, at the age of nineteen. She studied at the University of Chicago during the early 1940s, and completed her Ph.D. and became a Research Assistant at the Oriental Institute in 1945. She quickly demonstrated the depth and range of her scholarly abilities as she published her major volume, *The Aegean and the Orient in the Second Millennium B.C.*, in 1947 and began publishing a series of "Oriental Institute Museum Notes" on important pieces in the Museum, a series which would continue through the 1950s and into the 1960s. Her beautiful drawings of various objects which she studied and published portray not only the quality of the original piece but also her love of such materials. She soon came to know the collections in the Oriental Institute Museum in great depth and she has been a source of important information and inspiration for a whole series of Museum Curators. She became an instructor in the Department of Oriental languages and Literatures (as the Department of Near Eastern Languages and Civilizations was then called) in 1948 and began a teaching career which has influenced virtually every student of antiquity who has studied at the University of Chicago. She was appointed Professor of Near Eastern Art and Archaeology in 1963. Her work on "The Relative Chronology of Egypt . . ." in all three editions of Ehrich's *Chronologies in Old World Archaeology* remain basic reference tools both for Egyptologists and for all who study Egypt's worldly connections before the Late Bronze Age.

Although she had a chance to make one extensive trip through Egypt, during which she visited all the ancient sites which she came to know from the literature, she was never able to do extensive field work there. Rather, she participated in the archaeological excavations at Khirbet Kerak in modern Israel, and then, with P. P. Delougaz, she turned her attention to the excavation of the exceedingly important prehistoric site of Chogha Mish in Iran. Her range of knowledge and interest beyond her specific academic interests is also wide, and sometimes unexpected. For instance, many a student, or colleague, has been surprised at her love of and knowledge about entomology.

With limitless patience and an unswerving devotion to humane learning, she has contributed works that will remain examples of the best scholarship can achieve. Surely the astonishing erudition and profound insight of her work would be an adequate accomplishment, but whole generations of scholars also have been enriched by her teaching.

We, her colleagues, friends, and students, are pleased to present this volume to Helene Kantor on her seventieth birthday as a small token of our respect, admiration, and gratitude. Many as the present contributors are, they represent only a small proportion of those who have benefitted by her presence. It is my

privilege to thank the editors of this volume for their many efforts; special thanks go to Dr. Thomas A. Holland, the Oriental Institute Publications Coordinator, and Thomas G. Urban, his assistant, for their extensive research and editorial skills. We also thank David Baird who used his computer expertise to complete the typesetting of this volume within the production schedule. We all join in expressing our gratitude for the friendship and support we have received from Miss Kantor and we look forward to many more years of the same.

May 9, 1989

Janet H. Johnson
Director
The Oriental Institute

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LIST OF BIBLIOGRAPHIC ABBREVIATIONS

AAAS	<i>Annales Archéologiques Arabes Syriennes</i>
AASOR	Annual of the American Schools of Oriental Research
AAT	Astrological-Astronomical Texts
ADAJ	<i>Annual of the Department of Antiquities of Jordan</i>
AfO	<i>Archiv für Orientforschung</i>
AfO Beih.	Arhiv für Orientforschung, Beiheft
AJA	<i>American Journal of Archaeology</i>
AJSLL	<i>American Journal of Semitic Languages and Literature</i>
ANET	<i>Ancient Near Eastern Texts Relating to the Old Testament</i> , 2nd ed., edited by James B. Pritchard (Princeton, 1950)
Anz. f. schw. Alt.	Anzeiger für schweizerische Altertumswissenschaft
AnSt	<i>Anatolian Studies</i>
AOAT	Alter Orient und Altes Testament
APAW	<i>Abhandlungen der Preussischen Akademie der Wissenschaften</i> , Berlin
ArOr	<i>Archiv Orientální</i>
ASAE	<i>Annales du Service des Antiquité de l'Égypte</i>
Bagh, Mitt.	<i>Baghdader Mitteilungen</i>
BAR	British Archaeological Reports
BASOR	<i>Bulletin of the American Schools of Oriental Research</i>
Belegst.	<i>Wörterbuch der aegyptischen Sprache: Die Belegstellen</i> (Berlin and Leipzig)
Belleten	<i>Türk Tarih Kurumu, Belleten</i>
BES	Bulletin of the Egyptological Seminar
Bibl. Aeg.	<i>Bibliotheca Aegyptiaca</i>
BiAr	<i>Biblical Archaeologist</i>
BIFAO	<i>Bulletin de l'Institut Français d'Archéologie Orientale</i>
BSAE and ERA	British School of Archaeology in Egypt and Egyptian Research Account
BSEA	British School of Egyptian Archaeology
CAD	Chicago Assyrian Dictionary
CAH	<i>Cambridge Ancient History</i>
Cahiers de la DAFI	<i>Cahiers de la Délégation Archéologique Française en Iran</i>
CdE	<i>Chronique d'Égypte</i>
COWA	<i>Chronologies of Old World Archaeology</i>
CT	Cuneiform Texts from Babylonian Tablets in The British Museum
DFIFAO	Documents de Fouilles de l'Institut Français d'Archéologie Orientale du Caire
EEF	Egypt Exploration Fund
EES	Egypt Exploration Society
EI	<i>Eretz Israel</i>

ERA	Egyptian Research Account
FIFAO	<i>Fouilles de l'Institut Français d'Archéologie Orientale du Caire</i>
<i>Fs. für Erica Reiner</i>	<i>Language, Literature, and History: Philological and Historical Studies Presented to Erica Reiner</i> , edited by Francesca Rochberg-Halton, American Oriental Series, Volume 67 (New Haven, Connecticut, 1987)
FuB	<i>Forschungen und Berichte</i>
HO	<i>Hieratic Ostraca</i> , Vol. 1, J. Černý and A. H. Gardiner (Oxford, 1957)
IEJ	<i>Israel Exploration Journal</i>
IFAO	Institut Français d'Archéologie Orientale au Caire
JAOS	<i>Journal of the American Oriental Society</i>
JBL	<i>Journal of Biblical Literature</i>
JCS	<i>Journal of Cuneiform Studies</i>
JEA	<i>Journal of Egyptian Archaeology</i>
JEOL	<i>Jaarbericht van het Vooraziatisch-Egyptisch Genootschap (Gezelschap "Ex Oriente Lux")</i>
JFA	<i>Journal of Field Archaeology</i>
JNES	<i>Journal of Near Eastern Studies</i>
JPOS	<i>Journal of the Palestine Oriental Society</i>
JSS	<i>Journal of Semitic Studies</i>
JSSEA	<i>Journal of the Society for the Study of Egyptian Antiquities</i>
KBo	<i>Keilschrifttexte aus Boğazköi</i>
KUB	<i>Keilschrifturkunden aus Boğazköi</i>
LÄ	<i>Lexikon der Ägyptologie</i>
LD	C. R. Lepsius, <i>Denkmäler aus Aegypten und Aethiopien</i> (Berlin, 1849/58)
LIMC	<i>Lexicon Iconographicum Mythologiae Classicae</i>
MAOG	<i>Mitteilungen der Altorientalischen Gesellschaft</i>
MÄS	Münchener Ägyptologische Studien
MDAIK	<i>Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo</i>
MDOG	<i>Mitteilungen der Deutschen Orient-Gesellschaft</i>
MIFAO	<i>Mémoires publiés par les Membres de l'Institut Français d'Archéologie Orientale du Caire</i>
MIO	<i>Mitteilungen des Instituts für Orientforschung</i>
MJ	<i>The Museum Journal</i>
MonAnt.	Monumenti Antichi
MTJ	Mémoires et Travaux du Centre de Recherches Préhistoriques Français de Jérusalem
MVÄG	<i>Mitteilungen der Vorderasiatische-Ägyptischen Gesellschaft</i>
NBC	Tablets in the Babylonian Collection, Yale University
OIC	Oriental Institute Communications
OINE	Oriental Institute Nubian Expedition
OIP	Oriental Institute Publications
OLZ	<i>Orientalische Literaturzeitung</i>
Or.	<i>Orientalia, Nova Series</i>
PEQ	<i>Palestine Exploration Quarterly, Palestine Exploration Fund's Quarterly Statement</i>
PWN	Editions scientifiques de Pologne

<i>RA</i>	<i>Revue d'Assyriologie et d'Archéologie Orientale</i>
<i>RB</i>	<i>Revue Biblique</i>
<i>RevEg</i>	<i>Revue Égyptologique</i>
<i>RHA</i>	<i>Revue Hittite et Asiatique</i>
<i>RIA</i>	<i>Reallexicon der Assyriologie</i>
<i>SAK</i>	Studien zur Altägyptischen Kultur
<i>SAOC</i>	Studies in Ancient Oriental Civilization
<i>SJESN</i>	Scandinavian Joint Expedition to Sudanese Nubia
<i>SpTU</i>	<i>Studien zu den Boğazköy-Texten</i>
<i>SSEA</i>	<i>Society for the Study of Egyptian Antiquities</i>
<i>StBoT</i>	Studien zu den Boğazköy-Texten
<i>TTKY</i>	Türk Tarih Kurumu Yayınları
<i>UE</i>	Ur Excavations
<i>UF</i>	<i>Ugarit Forschungen</i>
<i>VDI</i>	<i>Vestnik Drevnei Istorii</i>
<i>VT</i>	<i>Vetus Testamentum</i>
<i>Wb.</i>	<i>Wörterbuch der ägyptischen Sprache</i> , 2nd ed., edited by Adolph Erman and Hermann Grapow (Berlin and Leipzig)
<i>WVDOG</i>	Wissenschaftliche Veröffentlichung der Deutschen Orientgesellschaft
<i>WZKM</i>	<i>Wiener Zeitschrift für die Kunde des Morgenlandes</i>
<i>YBC</i>	Yale Babylonian Collection
<i>ZA</i>	<i>Zeitschrift für Assyriologie</i>
<i>ZÄS</i>	<i>Zeitschrift für Ägyptische Sprache und Altertumskunde</i>
<i>ZDPV</i>	<i>Zeitschrift des Deutschen Palästina-Vereins</i> , Leipzig

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Helene J. Kantor
(through June 15, 1988)

Compiled by
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Chapter 1

TEPE CHENCHI AN IMPORTANT SETTLEMENT NEAR KHORSABAD¹

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INTRODUCTION

After the end of excavations at Tell Asmar and Khafājah in March 1933, the members of The Oriental Institute's Diyala expedition moved north. Thorkild Jacobsen and Seton Lloyd started excavations at Jerwan, eventually uncovering Sennacherib's remarkable aqueduct. H. Darby and Count A. zu Elts joined G. Loud, who at the time conducted excavations at Khorsabad. A third team composed of P. Delougaz, H. Hill, and C. McEwan started excavations at Tepe Chenchi, a relatively small (slightly less than 2 hectares), but high (ca. 19 meters from plain level) mound, located barely 800 meters from the southern enclosure wall of Khorsabad (fig. 1). Excavations were conducted from March 15 to April 21.

Although further seasons of excavations were planned at Chenchi, none were conducted and save for a brief mention of the principal results in a preliminary report, the discoveries of what proved to be the first and only season were never fully published.² However, some of the original Tepe Chenchi field records were kept in the archives of The Oriental Institute of the University of Chicago and this makes it possible to provide further details on the expedition and its finds. The extant records include the original contour plan of the site (fig. 2), the plan of an important structure excavated on the plateau on top of the mound (fig. 3), the field register of objects (App.), and a small number of field photographs. To these records may be added a limited number of objects from the site now at The Oriental Institute Museum (numbers prefixed by a capital A in figure captions). Although the original excavation notes were not found, these various sources allow us to present a tentative reconstruction of the excavations at Chenchi and to clarify both the sequence of settlement at the site and the nature of the already mentioned structure.

1. This essay is presented to Miss Kantor with my admiration and respect. Earlier versions of this paper were read by Ms. Elise Auerbach, Professors H. J. Kantor and McG. Gibson and by Dr. T. Jacobsen. I have benefitted greatly from their corrections, criticism, and encouragement.
2. H. Frankfort, *Iraq Excavations of the Oriental Institute 1932–33. Third Preliminary Report of the Iraq Expedition*, OIC 17 (Chicago, 1934), p. 89.

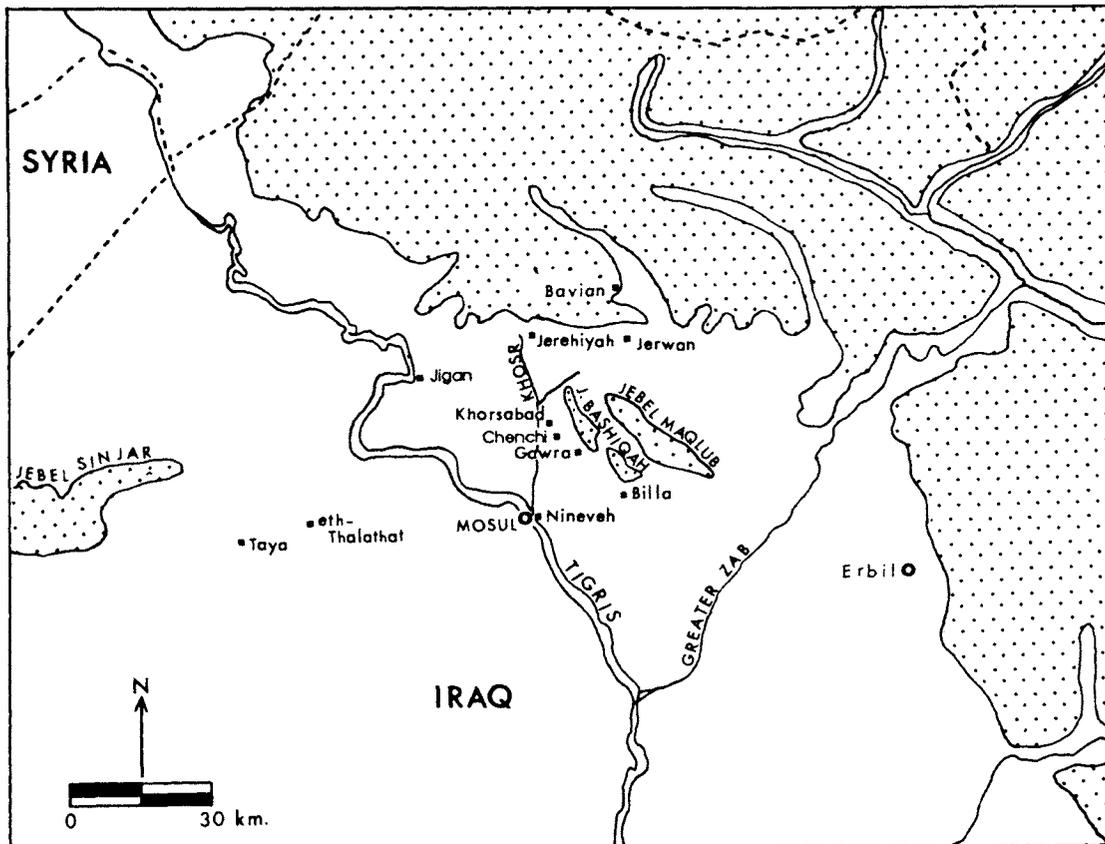


Fig. 1. Map of the Upper Tigris River Basin in Northern Iraq Showing the Location of Some of the Sites and Geographical Features Discussed in the Text.

EXCAVATION AREAS

It seems clear on the basis of field photographs that a number of separate excavation areas were opened at Chenchi. Unfortunately, it is difficult to ascertain both the exact location and extent of some of those areas since detailed plans are lacking for all but one of the exposures. Nevertheless, it is possible to draw inferences as to their location and extent on the basis of what plans are available, excavation photographs, and the provenance record of the registered finds.³

The two principal operations appear to have been a fairly extensive horizontal exposure on the plateau on top of the mound, which will be discussed in greater detail below, and an apparently shallow step trench of unknown width dug against the southeast (and highest) slope of the mound. Neither the outline of the step trench nor a plan of the structures exposed in it are extant. However, the trench is visible in an excavation photograph, illustrated here as plate 1a, a view of Tepe Chenchi taken from the plain south of the mound. The location of the step trench may be inferred by plotting the provenances of objects in the field

3. The locus system used at Chenchi was identical to that used in the Diyala sites. This is fortunate in that the first part of the locus actually designates the square. The hypothetical locus Y10:1, for example, refers to the first locus excavated in the 10 × 10 meter square Y10. Thus, it is possible to locate the various excavation areas in general terms on the basis of the photographs, and in more precise terms by tracing the provenances of various groups of objects from each of those areas. In so doing, we may actually locate those areas in reference to specific squares or groups of squares of the site grid.

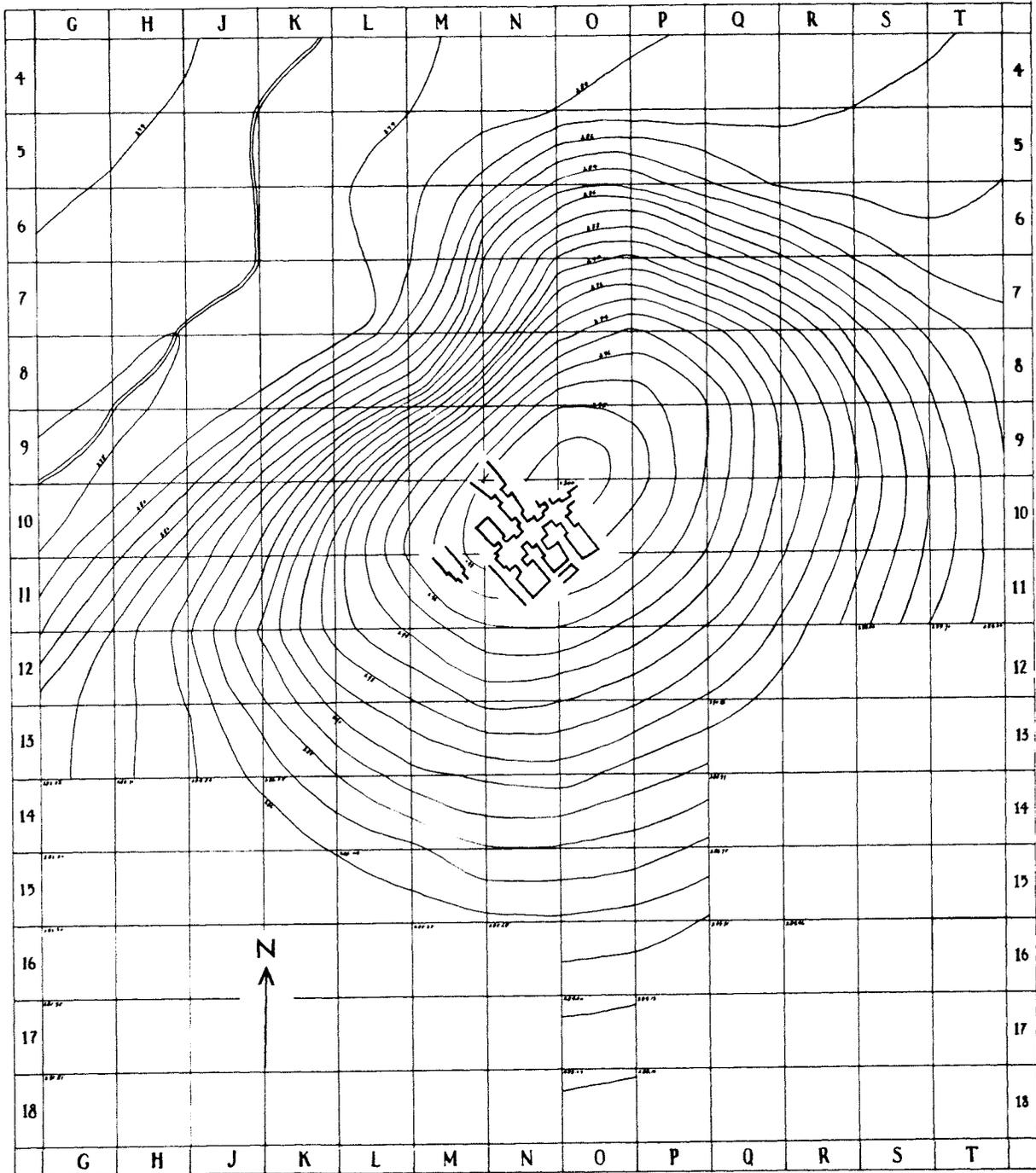


Fig. 2. Tepe Chenchi: Contour Plan Showing the Location of Structure on Top of the Mound (Scale: Each Square Equals 10 x 10 Meters).

register. Clusters of finds from Squares O12, O13, O15, P12, and P15 indicate that the trench overlapped square rows O and P (fig. 2). It may have been laid perpendicular to the exposure on top of the mound, in which case it would have crosscut the squares just mentioned in a diagonal (northwest to southeast) orientation. Its length may be inferred, once again, by plotting the provenance information of finds. Isolated finds from loci in Squares O16 and P16 suggest the step trench may have extended as far downslope as those squares, at least partially. Thus, the step trench would have been some 50 or more meters long (pl. 1a).

In addition to the two main exposures outlined above, at least three smaller probes appear to have been dug on the bottom slopes of opposite sides of the mound. None of the probes appears in the plan but evidence is provided by excavation photographs. Plate 1a shows that a small probe into the southeast slope of the mound was opened directly west of the step trench. Isolated finds from Squares M16 and N16 help to pinpoint the location of that probe to those squares. Two other small soundings were dug on the northwest slope of the mound, also towards the bottom (pl. 1b). The location of one of them can be pinpointed to Square L8, once again on the basis of the evidence provided by the finds (App.: TS 42–44).

THE STRUCTURE ON TOP OF THE MOUND

By far the most important find at Tepe Chenchi was a partially preserved structure excavated on top of the mound, which in the preliminary excavation report was variously termed a “fortified building” or a “house.”⁴ Its plan, reproduced here as figure 3, suggests that the former was more likely the case, since massive walls ranging from about 1 to 1.6 meters in width appear to be the norm. As preserved, the structure occupied all of Square N10 and parts of Squares M09, M10, M11, N11, and O10, an area of approximately 250 square meters. It is likely, however, that its original extent was substantially larger since its northwest, southwest, and southeast sides appear to have been cut by the edge of erosion (fig. 2). In addition, as indicated by the truncated remains of at least one courtyard, the structure may also have extended towards the northwest along the plateau of the mound. However, if indeed so, that extension appears to have been totally destroyed by a cemetery of Islamic date known to have existed in the area.⁵

The plan of the structure is unusual and finds no obvious parallels elsewhere (fig. 3). Rows of squarish (3 by 3 meters) or rectangular rooms (2 by 3 and 3.5 by 2.5 meters) were aligned at opposite sides of a string of three (preserved) central courtyards, in size not much larger than the rooms. In at least one case, it can be shown clearly that the extant rows of parallel rooms at opposite sides of courtyards led to still other rooms of apparently similar dimensions (fig. 3, Square M9), thus forming an unusual honeycomb-like arrangement.

Access from the courtyards into the rooms was possible through a series of passageways and doorways. At least two of them appear to have been slightly less than a meter wide and roofed by means of corbeled vaults. These were built by extending each succeeding course of mudbrick slightly until the two opposing passageway walls met at the top, a construction technique reminiscent of corbeled vaults found in a

4. Frankfort, *Third Preliminary Report*, p. 89.

5. T. Jacobsen, pers. comm., November 1986. See also M. Chubb, *City in the Sand* (New York, 1957), p. 172.

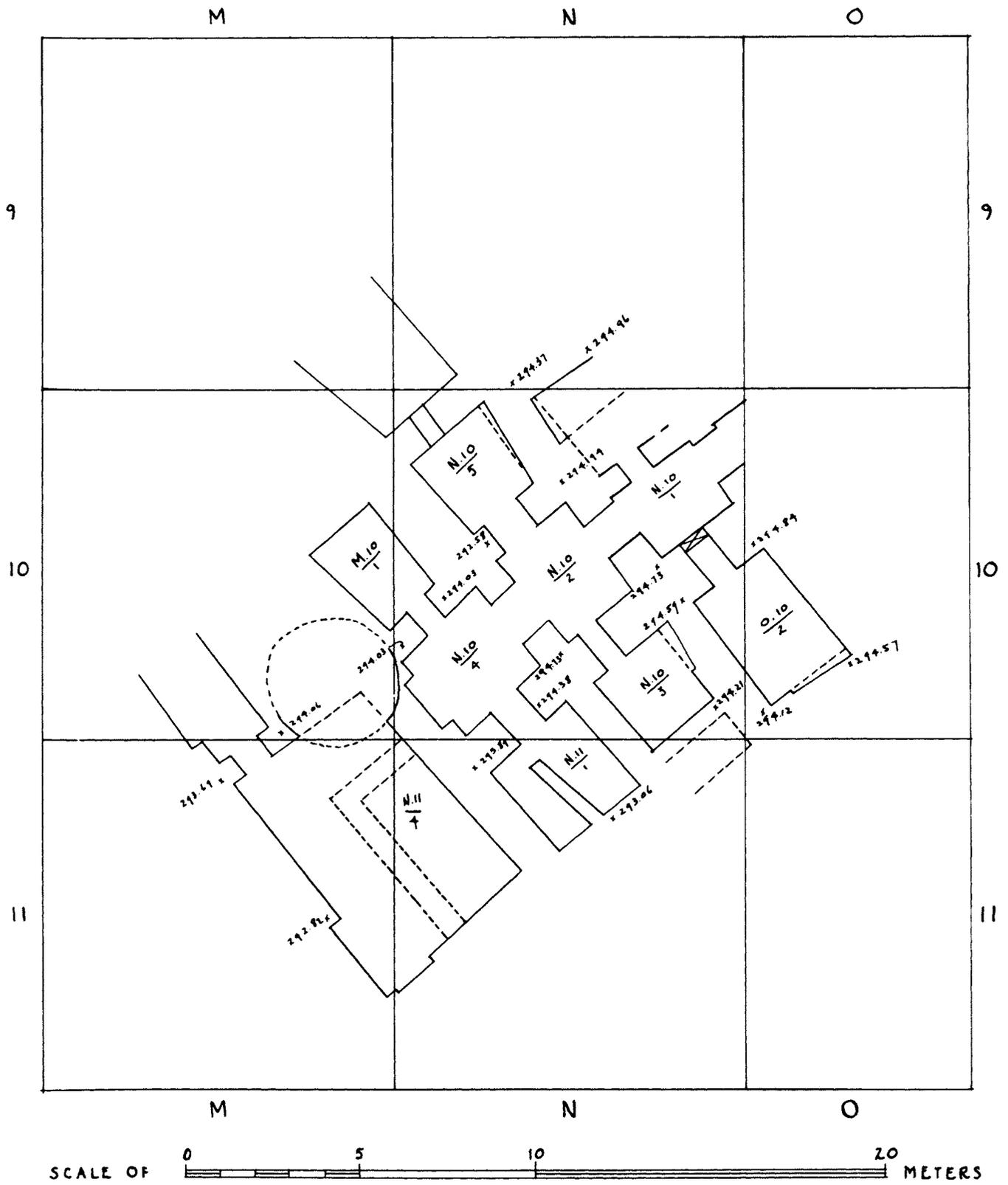


Fig. 3. Tepe Chenchi: Plan of Middle/Late Third Millennium Structure with Corbeled Doorways.

number of round structures of Late Protoliterate and Early Dynastic I date recently excavated in the Jebel Hamrin area.⁶ One of the vaulted passageways, preserved to a height of some two meters above the floor of the structure, led from Courtyard N10:2 into Room N10:3 (pl. 1c), while the second led from Courtyard N10:1 into Room O10:2 (marked with an elongated X on figure 3). However, whether or not all of the passageways between the rooms and the courtyards were similarly corbeled is unknown. Also unknown is the manner in which the rooms themselves may have been roofed although, on account of their squarish plan, it may be presumed that rooms were roofed in a traditional manner by means of wood beams.

The function of the Chenchi structure is problematic. One thing appears certain however: its substantial size and massive walls identify the structure as a building of public rather than private nature. Its unusual plan, based on rows of symmetrical rooms of relatively standardized size, suggests some sort of a storehouse. However, if indeed so, then it must have been cleaned out prior to being abandoned, since most of the registered finds found inside represent pottery vessels or other objects of apparently domestic use.⁷ Not found were large storage-sized vessels or other artifactual paraphernalia (seals, sealings, etc.) that would support the storehouse hypothesis.

Equally problematic is the date of the Chenchi structure. In the brief published report, Frankfort suggested a date in the middle third millennium B.C., although he did not explain the basis for this dating.⁸ However, he offered a slightly more detailed defense of his opinion in an unpublished letter from the field addressed to the director of The Oriental Institute, Dr. J. H. Breasted. In it, Frankfort ventured that the Chenchi structure was to be dated in the Sargonic period. This opinion was based on comparisons (unfortunately left unstated) between the artifactual assemblage associated with the structure and materials from the nearby site of Tepe Gawra, then under excavation by an expedition from the University of Pennsylvania and directed by E. A. Speiser.⁹

What evidence is now extant bearing on the date of the structure appears on the whole to substantiate Dr. Frankfort's dating, although not conclusively and not without some contradictions. Of the limited range of artifacts recovered (or at least registered) inside the structure itself, only the ceramics provide clues as to its date. A single piece of evidence suggests an early second millennium B.C. date: a footed goblet from Room

6. See, for example, McG. Gibson, et al., *Tell Razuk I* (Copenhagen, 1981), pl. 19 and H. Fujii, et al., "Preliminary Report of Excavations at Gubba and Songor," *Al Rafidan 2* (1981): pls. 9:1, 2; 10:1.

7. Registered finds recovered inside the structure include the following:

Room M10:1: one medium sized buff ware bowl of unassigned type (TS 100) and a stone celt (TS 94).

Room N10:5: one medium sized cooking pot ware jar and matching "bird headed" lid (TS 76: pl. 2f, one terracotta jar stopper (TS 87), one medium sized shallow buff ware bowl of unassigned type (TS 89), and one egg-shaped black stone pendant (TS 77: pl. 3j).

Room N11:1: one fine buff ware cup (TS 82: possibly plate 2e or similar).

Room N10:3: one medium sized buff ware strainer (TS 73) and two medium sized, shallow, buff ware bowls (TS 74-75: same type as TS 78 from Courtyard N10:2 and TS 89 from Room N10:5).

Room O10:2: one medium sized shallow bowl (TS 65) and one open mouthed jar with two painted bands near the rim of unassigned type (possibly Habur ware).

Courtyard N10:1: one fine buff ware cup (TS 93: possibly plate 2e or similar).

Courtyard N10:2: one medium sized, shallow, buff ware bowl (TS 78: by the north door, same type as TS 74-75 from Room N10:3 and TS 89 from Room N10:5).

Courtyard N10:4 Medium sized, buff ware, shallow bowl of unassigned type (TS 79).

8. Frankfort, *Third Preliminary Report*, p. 89.

9. "... [Tepe Chenchi] contains remains which on the strength of the scanty material found at Tepe Gawra we must date to the time of the Dynasty of Akkad." Letter from H. Frankfort to J. H. Breasted, March 20, 1933.

O10:2 with a wide mouth, a slightly everted neck, and several painted horizontal bands on its shoulder (App.: TS 66). Both in its form and decoration, this goblet recalls Habur ware vessels found at a number of other sites across northern Mesopotamia and northern Syria.¹⁰ A third millennium B.C. date, however, is suggested by a number of other vessels also recovered inside the building. Of those that were registered, only one can be identified with certainty: the cooking pot ware jar and matching lid found inside Room N10:5, which are reproduced here as plate 2f.¹¹ Fortunately, the distinctive lid with its concave (presumably hollow) body and solid animal headed handle (bird?), is susceptible to close dating. Lids identical to the Chenchi example are known from middle/late third millennium levels at Tell Chuera in northern Syria and at Khirbet Kerak in northern Palestine (EB III).¹² Moreover, the Chenchi lid represents a type well attested in both grit-tempered buff and Karaz or Khirbet Kerak ware versions at a variety of other sites in northern Mesopotamia, northern Syria, and Anatolia dating to the second half of the third millennium B.C.¹³

On the strength of parallels with other sites, at least two other pottery types recovered inside the structure, for which we have only crude sketches in the field record, may be identified. Like the lid just discussed, they too suggest a date in the third millennium B.C. for the Chenchi building. The cylindrical cups TS 82 and 93 (found inside Room N11:1 and Courtyard N10:1, respectively), for example, are presumably similar to (and one could possibly be identical with) the cylindrical cup illustrated in pl. 2e.¹⁴ Similar cups

10. TS 66: Appendix, compare Tell Chagar Bazar, Level 1 (M. E. L. Mallowan "The Excavations at Tall Chagar Bazar and an Archaeological Survey of the Habur Region, 1934–35," *Iraq* 3 [1936]: fig. 17: 4–5); Tell Leilan, Period I (H. Weiss, "Tell Leilan on the Habur Plains of Syria," *BiAr* 48 [1985]: 13, fig. at top left, center); and Tell Billa, Level 3 (E. A. Speiser "The Pottery of Tell Billa," *The Museum Journal, University of Pennsylvania* 23 [1933]: pl. LX: 2, 4); Assur, Gruft 9 (B. Hrouda, *Die bemalte Keramik des zweiten Jahrtausends in Nordmesopotamien und Nordsyrien*, [Berlin: 1957], pl. 7:6).
11. The cylindrical cup illustrated on plate 2e, might conceivably be one of two presumably similar cups recovered inside the structure, TS 82 and 93 (see above note 7 and below App.). However, as the cup in question was not identified in the field photograph, it also could be either one of two other (also presumably similar) cups that were registered from the site (App.: TS 57 and 104). In any case, there is no doubt that the cylindrical cup shown on plate 2e is a third millennium type, since similar cups are found at Tell Billa in Ninevite V levels (Billa 6: Speiser, "The Pottery of Tell Billa," pl. LII:12) and at Tepe Gawra in Sargonic levels (Gawra VI: E. A. Speiser, *Excavations at Tepe Gawra, Volume I*, [Philadelphia, 1935], pl. LXVII: 104–105). Butressing the suggestion that the cups found inside the building are indeed of third millennium date is a notation recorded by Dr. Frankfort in the remark column opposite TS 82 (Appendix) identifying the vessel as "Ninevite V."
12. H. Kühne, *Die Keramik vom [von] Tell Chuera* (Berlin: 1976), pl. 39:9 (Khirbet Kerak ware), and pl. 22:6 (plain simple ware); R. Amiran, *Ancient Pottery from the Holy Land* (Somerville, New Jersey, 1970), p. 68, photo 66. At Chuera, the closest parallel to the Chenchi lid is the Khirbet Kherak ware example, which was recovered in the Kleiner Antetempel (Schicht 4). The date of that and of the related buildings at the site has been a subject of considerable debate, which need not be reviewed here in any detail. Suffice it to say that recent reviews of the evidence suggest that the Early Dynastic period dating proposed by Kühne, mostly on the basis of the presumably associated sealings and statues, is much too early. A persuasive argument for a date in the Akkadian period for the Chuera materials has been made by Zettler who draws attention to epigraphic evidence from Tell Brak not considered by Kühne (R. Zettler, "Review of *Die Keramik vom Tell Chuera*," *JNES* 37 (1978): 345–50).
13. See, for example, similar lids, also with concave bodies and solid handles but not animal-headed, from: Tepe Gawra, Level VI (Speiser, *Excavations at Tepe Gawra*, pl. LXXV: 208); Amuq sites, "Second Mixed Range" (R. J. Braidwood and L. S. Braidwood, *Excavations In the Plain of Antioch I*, OIP 61 [Chicago, 1960], p. 461, fig. 358:6–8); Tarsus "EB III" (H. Goldman, *Excavations at Gözlu Kule, Tarsus II* [Princeton, 1956], fig. 271:641). For a general summary of the distribution of similarly-shaped lids in Anatolian sites see now J.-L. Huot, *Les Céramiques lissées en Anatolie à l'époque du Bronze Ancien* (Paris, 1982), maps 57–58.
14. However, as the cup in question was not identified in the field photograph, it also could be either one of two other (also presumably similar) cups that were registered from the site (App.: TS 57 and 104).

were found at Tell Billa in Ninevite V and immediately succeeding levels and in Level VI at Tepe Gawra,¹⁵ a level convincingly shown by Porada to be contemporary with the Akkadian dynasty in the south.¹⁶ Also paralleled in Sargonic levels at Gawra and at approximately contemporary levels elsewhere is the strainer (App.: TS 73) found inside Room N10:3.¹⁷

In the absence of detailed excavation notes, two suggestions may be advanced to try to reconcile the apparently contradictory dating evidence just summarized. The first is that it is possible that the structure is of middle/late third millennium (Akkadian) date as suggested by Frankfort and that portions of it may have been recleaned and reoccupied early in the second millennium B.C.¹⁸ Another alternative is that the early second millennium materials are in fact intrusive, perhaps coming from unrecognized graves or pits cutting into the earlier structure. Neither possibility can be conclusively proven or disproven at this time.

THE SEQUENCE OF SETTLEMENT AT THE SITE

FIRST AND SECOND MILLENNIUM B.C.

Whether or not portions of Tepe Chenchi were reoccupied briefly in the early second millennium B.C. or whether the mound was used at that time only as a burial ground for a nearby site can no longer be ascertained. However, at least two other objects elsewhere from Chenchi suggest the possibility of even later occupations or usages, possibly of an equally ephemeral nature.¹⁹ The first is a footed goblet, apparently unpainted, of "Nuzi" type (App.: TS 73). On the basis of parallels to other sites, it is datable to about the middle of the second millennium B.C.²⁰ The second is a carelessly made cylinder seal found unstratified on the

15. Plate 2e, compare Billa 6 and 5 (Speiser, "The Pottery of Tell Billa," pl. LII:12, and LIV: 1-3, respectively); and Gawra VI (Speiser, *Excavations at Tepe Gawra*, pl. LXVII: 104-105).

Buttressing the suggestion that the cups found inside the building are indeed of third millennium date is a notation by Dr. Frankfort in the remark column opposite TS 82 (App.) identifying the vessel as "Ninevite V."

16. E. Porada, "The Relative Chronology of Mesopotamia. Part I," in R. W. Ehrich, ed., *Chronologies in Old World Archaeology* (Chicago, 1965), pp. 165 ff.

17. TS 73, App., compare Tepe Gawra, Level VI (Speiser, *Excavations at Tepe Gawra*, pl. LXVII: 97, 100); Amuq, Phase J (Braidwood and Braidwood, *Antioch I*, p. 436, fig. 336:25; Hama, Levels J2 and J4 (E. Fugmann, Hama, *Fouilles et recherches 1931-1938. II i: L'Architecture des périodes préhellénistiques*, [Copenhagen, 1958], p. 69, fig. 85:3G466, and p. 77, fig. 98:3E40); Tell Sweyhat, Area IV (T. Holland, "Preliminary Report on Excavations at Tell Sweyhat, Syria 1973-4," *Levant* 8 [1976]: 52, fig. 9:26, 29).

18. In addition to TS 66, already discussed, at least one other pot from a locus in Square O10 may be of early second millennium date (App.: TS 62).

19. Pertinent in this context is a remark made by E. A. Speiser in the final report of the excavations at Tepe Gawra. According to Speiser: "... [Tepe Chenchi] was not rebuilt after its desertion early [sic] in the third millennium, to judge from the evidence of the surface finds" (Speiser, *Excavations at Tepe Gawra*, p. 2). In spite of the confusion about the third millennium sequence at Chenchi, Speiser's remark buttresses the suggestion advanced here that whatever occupations or usages existed or took place at the site after its floruit in the third millennium were of relatively minor importance.

20. App.: TS 38, compare, for example, Tell Brak, Site HH, Level I (M. E. L. Mallowan, "Excavations at Brak and Chagar Bazar," *Iraq* 9 [1947]: pl. LXXIX:1-3), where goblets identical to the Chenchi example appear in association with similarly-shaped, but painted, Nuzi Goblets. It should perhaps be noted that the footed goblet TS 38 need not necessarily represent a chronological period at the site distinct from that represented by the Habur ware jar TS 66,

surface of the mound. Carved in the distinctive Neo-Assyrian linear style, it depicts a kneeling goat and a human-headed bird face to face (pl. 4b, TS 41).²¹ On account of both its iconography and style, this seal is datable to the time range between the ninth and seventh centuries B.C.²² It represents our only recorded evidence for an occupation or usage of Tepe Chenchi in the Neo-Assyrian period.

MIDDLE/LATE THIRD MILLENNIUM B.C.: AKKADIAN PERIOD

In contrast with the apparently ephemeral nature of the occupation or usage of Tepe Chenchi in the first and second millennia B.C., it would appear that in the middle/late third millennium, the full two or so hectares of the site may have been settled, possibly by means of terracing. This is shown by the fact that, in addition to the already discussed massive structure of the period on top of the mound, contemporary remains were excavated in the relatively shallow step trench dug against the south slope of the mound. Since no plans of remains uncovered in the step trench have been found, nothing can be said concerning the specific context of the artifacts that were registered, although it is clear from notations in the register that structures and associated floors must have existed.²³ Nevertheless, the registered finds from the step trench do appear to form a reasonably coherent corpus that finds close parallels at nearby sites with contemporary deposits. Insofar as they expand considerably the corpus of middle/late third millennium artifacts known from the structure itself, they allow for a precise determination of the chronological position of what surely was the most extensive period of occupation at the site.

Most significant are clusters of finds from loci in Squares O13, O15, P12, and P15. A cluster of objects from Locus O13:1, for example, included the bronze needle illustrated on plate 3h and the terracotta "bobbin" or "toggle weight" shown on plate 4g, as well as a number of pottery vessels that find close parallels in better known sequences at nearby sites.²⁴ Particularly distinctive is the fine buff ware globular jar with herringbone-shaped incisions illustrated on plate 2g, which is closely matched in northern Iraqi sites of middle/late third millennium (Akkadian) date both immediately west and east of the Tigris.²⁵ From the same locus and of the same date is a painted potsherd that finds close parallels in Level G of the Ishtar temple at

already discussed. This possibility is suggested by the implications of H. Kantor's study of the pottery from Tell Fakhariyah, where, on the basis of evidence from Mallowan's excavations at Site HH at Tell Brak, she was able to demonstrate the existence of a transitional Habur/Nuzi ware horizon where both wares are found in association (H. J. Kantor, "The Pottery," in C. McEwan, et al., *Soundings at Tell Fakhariyah*, OIP 79 [Chicago, 1958], p. 24).

21. Compare A. Moortgat, *Vorderasiatische Rollsiegel* (Berlin, 1966), pp. 77, 144, pl. 77: 650 (from Assur, no context), and B. Teissier, *Ancient Near Eastern Seals From the Marcopoli Collection* (Berkeley, 1984), p. 157, no. 187 (provenance unknown).
22. E. Porada, *Corpus of Ancient Near Eastern Seals in North American Collections: The Collection of the Pierpont Morgan Library* (Washington, 1948), p. 73.
23. See, for example, the notation in the "provenance" column of the finds register (App.) opposite TS 54.
24. Finds from Locus O13:1 include the following: TS 10–23, and 37 (App.).
25. West of the Tigris, this type is found at Tell Taya (Citadel) Level VIII (J. Reade, "Tell Taya [1967]: Summary Report," *Iraq* 30 [1968]: pl. LXXXIV:12–13), and in nearby sites in the Sinjar region (S. Lloyd, "Some Ancient Sites in The Sinjar District," *Iraq* 5 (1938): p. 131, fig. 6, Group VIII:2). East of the Tigris, it is reported at Tell Jiqan, Area B, Kiln 3 (H. II and M. Kawamata, "The Excavations at Tell Jiqan by the Japanese Archaeological Expedition: A Preliminary Report of The First Season of Work," *Al Rafidan* 5–6 [1984/85]: pl. 29:137, 138, and 141); at Tepe Gawra, Level VI, (Speiser, *Excavations at Tepe Gawra*, pl. LXVIII: 106); at Tell Billa, Level 5 (Speiser, "The Pottery of Tell Billa," pl. LIV:8).

Ashur (App.: TS 11),²⁶ and a carinated bowl similar to examples from Gawra VI (App.: TS 17).²⁷ Also paralleled in the same level at Tepe Gawra is a small, squat double-angled pot with a narrow neck, part of a cluster of objects from Locus O15:1. This particular type is well represented in Late Early Dynastic and Akkadian period contexts in southern Mesopotamia.²⁸

The chronological correlations suggested by the evidence just discussed from Squares O13 and O15 are buttressed by find-clusters from Squares P12 and P15. Two objects from P12:3 deserve notice in that, like the artifacts from Squares O13 and O15, they find close parallels in middle/late third millennium B.C. period levels of nearby northern Mesopotamian sites. One, a carinated bowl of the same type as the example discussed above from Locus O13:1, can be correlated with finds from Level VI at Tepe Gawra (App.: TS 47),²⁹ while the other, a distinctive stylized stone figurine or idol with outstretched arms and a rounded or pointed base (App.: TS 45), is a type known from Levels VI–V also at Gawra.³⁰ The last significant cluster, and also the largest, is that from Locus P15:1 near the bottom step of the step trench.³¹ Among the finds registered from that locus were a variety of metal tools, most with close parallels in Level VI at Gawra. Included in this cluster are two sickles (pl. 3c, d), two double-sided fishhooks (pl. 3e, f), one large saw blade (pl. 3b), one bracelet (pl. 3i), and one long metal tool or weapon of unknown function (pl. 3a).³² Other finds from the same provenance included one bone stamp seal (pl. 4a), a few beads, one terracotta object with a vague resemblance to the well-known “hut symbols” of the Late Chalcolithic period (pl. 4e),³³ and several pots with distinctive incised decoration

26. W. Andrae, *Die archaischen Ishtar-Tempel in Assur* (Leipzig, 1922), pls. 23: A–E, 25 A.

27. Compare Speiser, *Excavations at Tepe Gawra*, pl. LXVII:96.

28. App.: TS 8., compare Tepe Gawra, Level VI (Speiser, *Excavations at Tepe Gawra*, pl. LXIX: 126) and Diyala sites, Types B.633.5709a–b, B.634.570a–b (P. Delougaz, *Pottery from The Diyala Region*, OIP 63 [Chicago, 1952], pl. 162). Note that many (but not all) of the Diyala ED III examples come from levels now reassigned to the Early Akkadian period in Gibson’s recent reappraisal of the stratigraphy of the Diyala sites (McG. Gibson, “A Re-evaluation of the Akkad Period in the Diyala Region on the Basis of Recent Excavations at Nippur and in the Hamrin,” *AJA* 86 [1982]). See also, Kish, Cemetery A (E. Mackay, *Report on the Excavation of the “A” Cemetery at Kish*, Mesopotamia [Chicago, 1925], pl. XVI:28–30).

29. See above note 27.

30. Compare Speiser, *Excavations at Tepe Gawra*, pls. LIIIb: 3, and LIVa. Note, however, that similar stone figurines are known from the Square Temple (Shrine I) at Tell Asmar in earlier (Early Dynastic II) levels (H. Frankfort, *Iraq Excavations of the Oriental Institute 1933/34. Fourth Preliminary Report of the Iraq Expedition*, OIC 19 [Chicago, 1935], p. 24, fig. 24, top center [=AS 33–686], and p. 27, fig. 28 [= AS 33–292]).

31. Finds from P15:1 include: TS 1–3, 27–36, 48, and 55–57. Although nothing conclusive can now be said on the nature of Locus P15:1, it should be noted that in a brief unpublished report to the director of The Oriental Institute Dr. Frankfort talks about “. . . some private houses of the period of Sargon of Akkad which contain some nice bronzes, tools and seals . . .” (Letter from H. Frankfort to H. J. Breasted, March 28, 1933). Since most of the metal artifacts and (stamp) seals recovered at the site were found in P15:1, it may be possible that the “private houses” to which Frankfort alludes refer specifically to the context in which the P15:1 finds were recovered.

32. Sickles TS 28–29 (pl. 3c, d), compare examples from Tepe Gawra, Level VI (Speiser, *Excavations at Tepe Gawra*, p. 107, pl. XLVIII:1–2), and Ashur, Ishtar Temple G (Andrae, *Die archaischen Ishtar-Tempel*, p. 83, fig. 63). Bracelet TS 32 (pl. 3i), compare Tepe Gawra, Level VI (Speiser, *Excavations at Tepe Gawra*, pp. 110–111; pls. XLIX:4, L:12–13).

33. Compare Tell Brak (Mallowan, “Excavations at Brak and Chagar Bazar,” pl. XXV:10–11), Tepe Gawra (A. J. Tobler, *Excavations at Tepe Gawra, Volume II* [Philadelphia, 1950], pl. LXXXVIa), and Qalinj Agha (B. Abu Al-Soof, “Excavations at Tell Qalinj Agha [Erbil],” *Sumer* 25 [1969]: 7, pl. XI:1–3).

which, once again, can be correlated with finds from middle/late third millennium levels of nearby sites (App.: TS 26 and 55).³⁴

The evidence of the step trench find-clusters just summarized leaves little doubt that the bulk of occupation at Tepe Chenchi dates to the second half of the third millennium B.C., more specifically, to the period contemporary with the Akkadian dynasty in alluvial Mesopotamia, a dating which corresponds exactly to that suggested originally by Frankfort for the structure on top of the mound. However, even if Chenchi achieved its maximum extent in the third quarter of the third millennium, it appears certain that a portion of its considerable height must be due to still earlier occupations.

EARLY/MIDDLE THIRD MILLENNIUM B.C.: NINEVITE V PERIOD

That the site was also occupied in the immediately preceding Ninevite V period may be inferred from a variety of circumstantial, though nevertheless persuasive, evidence. One clue is provided by a comment made by S. Lloyd in connection with his survey of the Jebel Sinjar region conducted on behalf of the Iraqi Department of Antiquities only a few years after the end of excavations at Chenchi. In a brief note in the published survey report, he noted that pottery similar to his typological Group VIII (which includes both incised Ninevite V and Taya IX–VIII pottery) had been found at Chenchi.³⁵ Another clue is the fact that in the official records of the Iraqi Department of Antiquities, Tepe Chenchi is listed as having “Early Dynastic” period remains, a dating which, it may be presumed, can only mean Ninevite V in this geographical context.³⁶ However, the most important indication as to the presence of Ninevite V remains at Chenchi is provided by the excavation itself. In what appears to have been a deep sounding below the level of the foundations of the building on top of the mound, the partial remains of a room with walls much thinner than those characteristic for the overlying structure were uncovered (fig. 3: N11:4). On the floor of this room was found a group of vessels which was registered (App.: TS 102–107). The majority appear to have been either bowls or cups presumably similar (and possibly identical with) the deep bowl and cylindrical cup illustrated on plate 2 d, e. The cup, it will be remembered, represents a type equally common in Ninevite V and immediately succeeding (middle/late third millennium) levels at sites elsewhere.³⁷ Also attested in both of those periods is the bowl, which finds closer and more numerous parallels in the earlier period.³⁸ However, one vessel from the N11:4 room group, a small carinated jar with herringbone-shaped incisions on its shoulder, a fairly wide mouth and

34. TS 26 (App.): compare Tell Taya IX (J. Reade, “Tell Taya,” in J. Curtis, ed., *Fifty Years of Mesopotamian Discovery* [London, 1982], pl. 5), Gawra V (Speiser, *Excavations at Tepe Gawra*, pl. LXXI: 161), Tell Billa, Level V (Speiser, “The Pottery of Tell Billa,” pl. LV:4); App.: TS 55, compare Tell Taya, Citadel, Level VII (Reade, “Tell Taya [1967],” pl. LXXXV:20 [said to be a type common to Levels IX–VI, *ibid.* p. 263]).

35. Lloyd, “Ancient Sites in The Sinjar District,” p. 133.

36. A. R. Al Haik, *Key List of Archaeological Excavations in Iraq: 1942–1965* (Coconut Grove, 1968), p. 57.

37. See above, notes 14–15.

38. Ninevite V period: compare Tell Billa, Levels 6 and 7 (Speiser, “The Pottery of Tell Billa,” pls. XLIX:1, and LII:4; Telul eth Thalathat, Tell V (S. Fukai, et al., *Telul eth Thalathat, Volume III: Excavation of Tell V* [Tokyo, 1974], pls. XXV:6, and XLVII:23–32); Nineveh, Deep Sounding (M. E. L. Mallowan, “The Prehistoric Sondage of Nineveh,” *AAA* 20 (1933): pl. LIII: 1, 3, 5); Tell Leilan, Period III (G. Schwartz, “From Prehistory to History In the Habur Plains: The Operation 1 Ceramic Periodization From Tell Leilan,” Ph. D. Dissertation [Department of Near Eastern Languages and Literatures, Yale University, 1982], fig. 30:10). Akkadian Period: Tell Jiqan, Area A Moat (II and Kawamata, “The Excavations at Tell Jiqan,” p. 168, fig. 10:156–157).

everted neck, and four vertical lugs (App.: TS 107), is of a characteristic type which is paralleled only in Ninevite V period contexts elsewhere. This distinctive jar, therefore, can be used to date the occupation immediately preceding the structure on top of the mound to that period.³⁹

The extent of the Ninevite V period occupation at Chenchi cannot, of course, be ascertained with any degree of precision. However, if one may judge on the basis of Ninevite V pottery from step trench loci, the extent of the mound in the Ninevite V period may have been significantly smaller than that of the succeeding middle/late third millennium occupation when, as we have seen, most if not all of the mound was settled. Pertinent evidence is provided by two pottery groups from step trench loci which appear to be of Ninevite V date. One group from Locus O12:2 is composed of two vessels, a small globular jar with restricted mouth and everted neck (App.: TS 58), which finds parallels in a Ninevite V level at Tell Billa, and a deep bowl of the type already discussed in connection with the N11:4 pottery group, which finds parallels at sites elsewhere in both Ninevite V and Akkadian period contexts, although the deep bowl is more common in the former.⁴⁰ The second group is that from Locus P12:2. In addition to the small jar with restricted neck illustrated on plate 2b, it included at least one fragment of what appears to be a typically corrugated stand base of a large Ninevite V jar (App.:TS 53).⁴¹ The fact that both of the groups in question come from loci in Squares O12 and P12, on the upper slopes of the mound and not far from its core, may perhaps indicate that the extent of Ninevite V occupation at Chenchi was indeed relatively restricted, particularly since no obvious Ninevite V material was registered from step trench loci further downslope. However, the absence of Ninevite V materials further down on the slopes of the mound could also be explained by presuming that excavations there were shallower and failed to uncover earlier strata.

FIFTH MILLENNIUM B.C.: HALAF PERIOD

The earliest occupation uncovered by the excavations at Chenchi dates to the Halaf period.⁴² Of the registered finds, only two small drop-shaped stone pendants, with characteristically crosshatched incisions, are unmistakably Halaf in style (App.: TS 42, and pl. 3 I: TS 43).⁴³ However, as diagnostic as these pendants may be for the period as a whole, they cannot be closely dated in terms of the various internal subdivisions of the relatively long Halaf period. Both were found in one of the smaller probes on the northwest slope of the mound, in Square L8.

39. TS 107 (App.): compare Telul eth Thalathat, Tell V (Fukai, et al. *Telul eth Thalathat*, pls. XXIII: 6, and XXIV:1–4 [particularly XXIV:3]); Nineveh, Deep Sounding (Mallowan, "The Prehistoric Sondage," pl. LII:3–6), and Ishtar Temple Area (R. Campbell Thompson and R.W. Hamilton, "The British Museum Excavations on the Temple of Ishtar at Nineveh, 1930–31," *AAA* 19 [1932]: pl. LVIII: 17–19).

40. TS 58 (App.): compare Tell Billa, Level 6 (Speiser, "The Pottery of Tell Billa," pl. LIII:6).

41. TS 53 (App.): compare Telul eth Thalathat, Tell V (Fukai, et al., *Telul eth Thalathat*, pl. XXI: 5).

42. P. Delougaz, pers. comm. to H. J. Kantor.

43. Compare M. E. L. Mallowan and J. C. Rose, "Excavations at Tall Arpachiyah, 1933," *Iraq* 2 (1935): 93, fig. 50:1–5.

CONCLUSIONS

Of all the regions of ancient Mesopotamia, the Upper Tigris basin and the Transtigridian plains immediately to the east remain, comparatively, the least explored and therefore the least understood, a situation that is only now beginning to change as new researches are conducted in the Eski Mosul region north of Mosul and in the northern Jezira region west of the Tigris.⁴⁴ However, much of the new material remains unpublished and little new is known of the plains area east of the river where Tepe Chenchi is situated. Not surprisingly, given the state of our knowledge of developments in the Upper Tigris basin, Tepe Chenchi poses more questions than it answers.

One particularly glaring problem is the absence of recorded remains of the Neo-Assyrian period at Chenchi, other than the already discussed cylinder seal. This conflicts with the site's traditional identification as Gingilinish, a small settlement in the vicinity of Nineveh known to have existed during the reign of Sennacherib.⁴⁵ There seems to be no way to reconcile this conflict unless one presumes that Neo-Assyrian remains were either systematically avoided in the excavations and in the recording process or that those remains have long since eroded away and were therefore missed.

The apparent paucity of Neo-Assyrian period remains at Chenchi makes it profitable to reexamine the original argument, put forward by T. Jacobsen, for the identification of Tepe Chenchi with the Gingilinish of Neo-Assyrian records. The argument is primarily philological in nature and relies on the equation of the modern name of Chenchi (çençi) with the initial and, according to Jacobsen, essential component of the Neo-Assyrian toponym Gingi-l-nish. As supporting evidence Jacobsen points out that the actual location of Tepe Chenchi appears to correlate closely with that expected for Gingilinish if one presumes that toponyms in the Bavian inscription (which among other topics details the construction of eighteen new canals built in 690 B.C. during Sennacherib's reign in order to increase the amount of water flowing into the Khosr river) are arranged geographically.⁴⁶

Two objections may be raised to the equation Gingilinish = Chenchi. The first is archaeological and has already been pointed out to some extent. If indeed Chenchi was the site of a flourishing Neo-Assyrian settlement located near the head of an important canal, we should expect to find more evidence of such a settlement. The second objection is geographical. If Jacobsen is correct in presuming that the Bavian Inscription is arranged in descending geographical order from northwest to southeast, as he probably is, then the equation of Gingilinish = Chenchi is unwarranted. In the inscription, Gingilinish is reached only after a group of three villages (Dur Ishtar, Sulu, and Shibaniba) known to have been situated alongside streams from the Jebel Bashiqah (Mt. Muşry). One of the three villages in question, Shibaniba, has been convincingly identified as Tell Billa near the southeast edge of the Jebel Bashiqah.⁴⁷ Thus it is likely that Gingilinish is

44. See now M. J. Demirji, et al., *Researches on the Antiquities of the Saddam Dam Basin Salvage and Other Researches* (Baghdad, 1987).

45. T. Jacobsen, "The Water Supplies of Nineveh," in T. Jacobsen and S. Lloyd, *Sennacherib's Aqueduct at Jerwan*, OIP 24 (Chicago, 1935), pp. 35-41; D. O. Edzard, "Gingilinish," in W. Weidner and W. von Soden, eds., *RLA* (Berlin, 1957-1971), p. 377.

46. Jacobsen, "Water Supplies of Nineveh," p. 40. For a translation of the Bavian Inscription, see *ibid.* pp. 36-37.

47. E. A. Speiser, "New Assyrian Eponyms From the Tablets of Tell Billah," *BASOR* 49 (1933), pp. 14-15.

situated somewhere to the southeast of Billa and is not Chenchi, as anybody coming down the Khosr would reach Chenchi before Billa and not after (fig. 1).⁴⁸

Also of considerable import are the questions that Tepe Chenchi raises in terms of our understanding of third millennium B.C. and earlier developments in the Upper Tigris area as a whole. On the basis of the various strands of evidence summarized above, it should be clear that for most of its existence Tepe Chenchi was but a small site overshadowed by more substantial contemporary occupations at the nearby site of Tepe Gawra, barely three kilometers to the southeast. This may have been the case in the Halaf and Ninevite V periods; and was certainly so in the Ubaid and Late Chalcolithic periods, when in contrast to the flourishing settlement of Gawra, Chenchi may have been abandoned altogether since no pertinent materials were recovered (or at least recorded) from the site. The reasons for the preeminence of Gawra over Chenchi are not difficult to understand, since Gawra is strategically situated at the head of the plains east of Mosul near the point where a pass occurs across the Jebel Bashiqaq, the western spur of the imposing Jebel Maqlub (fig. 1).⁴⁹ Tepe Gawra thus controls an important natural route allowing passage between the Zagros piedmont and highlands to the northeast and the Transtigridian plains to the southwest.⁵⁰

Only in the second half of the third millennium did settlement at Chenchi surpass that of Gawra in both extent and importance. However, we can only guess at the reasons for this reversal of fortunes since the archaeological history of the Upper Tigris region at the time is only dimly understood. Particularly enigmatic is the presence at Chenchi of the massive structure of apparently public function in the context of what appears to have been a small village-sized site, about two hectares in extent. Whether or not the structure on top of the mound is representative of the remains throughout the site, or whether it was exceptional cannot, of course, be ascertained without further excavation. However, the presumably public character of the Chenchi structure indicates that the site was certainly not an ordinary small village, primarily agricultural in orientation, as would be expected on account of its size. Moreover, the massive structure also suggests some measure of labor mobilization beyond the resources usually associated with small villages of Chenchi's size. The exceptional nature of the Chenchi evidence is more clearly visualized when we contrast it with that of the much better documented contemporary occupation at Tepe Gawra (Level VI) nearby. There, no comparable monumental structures were found even though all of the occupied area of the mound was exposed. On the contrary, Gawra at the time appears to have been a small settlement less than half a hectare in size composed of assymmetrically arranged houses around a communal courtyard, a pattern more in line with what is expected of a small agricultural village.⁵¹

48. Jacobsen himself recognized the geographical contradiction just noted when he pointed out that on the map Tepe Chenchi actually "comes before" (i.e., is closer to the Khosr) than a group of sites associated in the inscription with the Jebel Bashiqaq. However, he chose to disregard this by presenting the not-entirely-convincing argument that the mention of Gingilinish in the inscription *after* the Jebel Bashiqaq group of sites and not *before*, as was to be expected if the inscription were indeed in strict geographical order, was due to "... the misleading impression received on the ground by one traveling down the Khosr." ("Water Supplies of Nineveh," p. 40, n. 49).

49. Speiser, *Excavations at Tepe Gawra*, p. 2; Great Britain, Naval Intelligence Division, *Iraq and The Persian Gulf*, (London, 1944), pp. 90, 93-94, fig. 24.

50. Great Britain, Naval Intelligence Division, *A Handbook of Mesopotamia, Vol IV* (London, 1917), Route 67a, pp. 119 ff. See also Great Britain, War office 1921, map no. 3919 (Mosul: J-38/T).

51. Speiser, *Excavations at Tepe Gawra*, pp. 18-21; pl. VII. It should be noted, however, that contemporary (Gawra VI) remains were found at Khirbet Na'aman, a few hundred yards away from the high mound of Tepe Gawra (ibid, p. 18, note 2). Whether these remains signify that the Gawra settlement extended at the time over a contiguously occupied

A possible explanation for the ascendancy of Tepe Chenchi over Tepe Gawra discerned in the second half of the third millennium, as well as the apparent contradiction between Chenchi's reduced size and the seemingly complex nature of the architectural remains found there, is to presume that Chenchi was a specialized outpost of a more important contemporary polity located elsewhere rather than an isolated agricultural settlement. The existence of an array of such large apparently independent polities, each centered on a site of considerable proportions, across northern Mesopotamia at the time has, of course, been known for some time. West of the Tigris, one of the best known is Tell Taya in the Sinjar area, at more than one hundred hectares. Slightly smaller but still of considerable size were a number of other regional centers further west such as Tell Leilan, Hamoukar, Tell Brak, Tell Mosan, Khoshi, and others.⁵² Most likely, however, Chenchi may have been a fortified bastion allied to other such polities located east of the Tigris. The obvious candidate is, of course, Nineveh by the river some twenty kilometers to the southeast of Chenchi (fig. 1). Although contemporary insitu remains have not yet been exposed at Kuyunjik, the larger mound of Nineveh, a variety of historical documentation indicates that Nineveh must have been a site of considerable importance at the time since it was the seat of Akkadian power in the north.⁵³ Another possible candidate is Tell Jigan, also by the Tigris but some forty-five kilometers west of Chenchi (fig. 1), where recent excavations have identified what appears to have been a well defended settlement of considerable size (more than thirty hectares) that appears to be contemporary with the main period of occupation at Chenchi.⁵⁴

The hypothesis that Chenchi may have been a specialized outpost of a regional state centered on a Tigris site possibly in control of the plains and lower piedmont area immediately to the east serves to explain both the complex nature of the Chenchi structure and the preeminence, for the first time in its history, of Chenchi over Gawra: the position of the latter at the head of a natural passageway across the Jebel Bashiqah/Maqlub loses much of its significance if the areas immediately above (Gomel plain) and below (Mosul/Nineveh plain) the Jebel are in the hands of a single state.

In the absence of a coherent regional survey and excavation program in the vicinity of Nineveh and its fertile hinterland, it cannot be determined whether or not the degree of functional specialization hypothesized above as characteristic for Chenchi in the middle/late third millennium represents an isolated case, or whether it represents a pattern characteristic at the time for the Upper Tigris region as a whole. I would argue, however, that sites such as Jigan, Chenchi, and Gawra may represent distinct levels in a complex multilayered settlement hierarchy whose apex was Nineveh. If indeed so, the Chenchi evidence raises a host of important questions which cannot be answered at the present time, but which are likely to figure prominently as new research spurred by the construction of the Eski Mosul dam is conducted in the Upper Tigris area.

One such question for the future is the impact which the systematic Late Early Dynastic and Early Akkadian expansion of societies of the Mesopotamian alluvium into their northern periphery had on indigenous communities of the Upper Tigris area. In the absence of a more precise understanding of the

area surrounding the high mound of considerable proportions, or, as is more likely, whether they represent a possibly associated, but not physically connected, farmstead in the vicinity of the Gawra mound, cannot be ascertained conclusively without further research.

52. H. Weiss, "Excavations at Tell Leilan and the Origins of North Mesopotamian Cities In the Third Millennium B.C.," *Paléorient* 9 (1983): 49, fig. 11.

53. I. J. Gelb, *Hurrians and Subarians*, SAOC 22 (Chicago, 1944), p. 36, n. 100.

54. II and Kawamata, "The Excavations at Tell Jigan;" R. Killick, "Excavations in Iraq: Saddam Dam Project," *Iraq* 47 (1985): 231-232.

chronology of the area than is currently available, it is impossible to ascertain whether or not the multilayered settlement pattern suggested by the evidence discussed above as characteristic for the plains east of the Tigris in the middle/late third millennium B.C. represents a reflection of conditions preceding the full-fledged intrusion of southern Mesopotamian elements in the Early Akkadian period, whether it mirrors a pattern which emerged only as a result of that intrusion or, alternately, whether it portrays developments in the later part of the Akkadian period when powerful Hurrian kingdoms eventually capable of challenging even the most powerful of Ur III kings emerged in the Upper Tigris area.⁵⁵ Of the three alternatives just proposed, the most likely, given what limited information we now possess, is the second; insofar as we do know that the Akkadian rulers of Nineveh controlled a significant portion of the associated hinterland east of the Tigris.⁵⁶

A second question of considerable importance that also cannot be fully addressed at this time is the manner in which the observed pattern for the middle/late third millennium differed from that of the preceding Ninevite V period.⁵⁷ Do the city-states of northern Mesopotamia in the second half of the third millennium B.C. represent a significant departure from conditions in the first half of the same millennium, or do they represent simply their natural outcome? This question, of course, is unlikely to be answered adequately until significant horizontal exposures of sites spanning both periods have been obtained.⁵⁸ In the meantime, it should be pointed out that the evidence from Tepe Chenchi, limited as it is, does have some bearing on the question at hand. At Chenchi, it will be remembered, insofar as can be judged from the very limited exposure beneath the structure on top of the mound, the transition from the Ninevite V period to the immediately succeeding period was marked by a significant discontinuity in the use of space: the flimsy, apparently domestic, architecture of the Ninevite V period was replaced by the much more massive building of the middle/late third millennium. In addition there is also at Chenchi some evidence indicating that the mound grew significantly in size from the Ninevite V to the immediately succeeding period. These various strands of evidence, circumstantial as they may be, suggest the possibility that the transition between the two periods may have been somewhat abrupt.

Although Tepe Chenchi does not offer any significant new evidence capable of providing conclusive answers to any of the questions just posed, at least it does provide some tantalizing glimpses of possible answers. It is hoped that, by expanding the range of available evidence and by focusing attention on the

55. F. M. Walker, "The Tigris Frontier From Sargon to Hammurabi — A Philologic and Historical Synthesis," Ph. D. Dissertation (Department of Near Eastern Languages and Literatures, Yale University, 1985); W. W. Hallo, "Simurru and the Hurrian Frontier," *Revue Hittite et Asiatique* 36: 71–83.

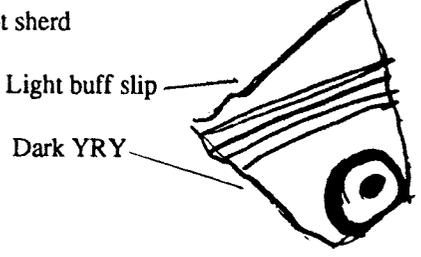
56. That, in addition to controlling the most important preexisting settlements in the Upper Tigris area such as Nineveh, the early Akkadian kings also established some new ones in their hinterland is shown by a late copy of an inscription of an unidentified Akkadian ruler which documents the existence of a settlement in the environs of Nineveh bearing the name Rimush^{ki} — surely a new foundation in the reign of the Akkadian king of the same name (J. Bottéro, "The First Semitic Empire," in J. Bottéro, et al., *The Near East: The Early Civilizations* [New York, 1967], pp. 108, 129). The actual location of Rimush^{ki} (Neo-Assyrian Rimusa^{ki}) in the plains northeast of Nineveh has been established by Jacobsen on the basis of the Bavian inscription (see above note 46). He was able to identify the Neo-Assyrian version of the settlement founded by Rimush as Tell Jerehiyah, some forty km inland from Nineveh on the Khosr river headwaters (fig. 1; Jacobsen, "Water Supplies of Nineveh," pp. 39 ff.).

57. For a summary of the state of knowledge and research on the Ninevite V period, see now G. Schwartz, "The Ninevite V Period and Current Research," *Paléorient* 11 (1985): 53–70.

58. It should be remembered in this context, that although both periods are represented at Gawra (Gawra VII and VI), there appears to be at that site a temporal gap between both levels (Speiser, *Excavations at Tepe Gawra*, pp. 21–22).

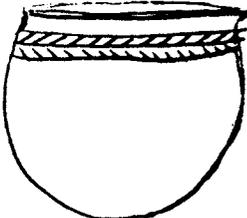
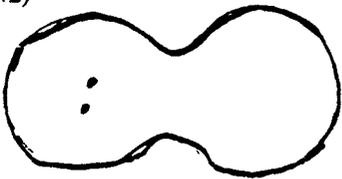
diversity and complexity of what data is known thus far, the materials presented here from the site will help to spur further research which, in time, will illuminate some of the major issues still unsolved in our understanding of the cultural evolution of the Upper Tigris area.

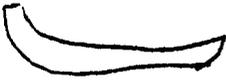
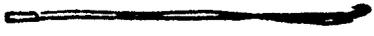
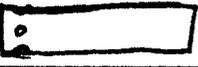
APPENDIX

<i>TS no.</i>	<i>Description</i>		<i>Material</i>	<i>Size (cm)</i>	<i>Provenance</i>	<i>Remarks</i>
1	Double pierced disc-bead		Faience	0.9	P15:1	—
2	Bead		White stone	0.6	P15:1	—
3	Bead		White stone	0.9	P15:5	—
4	Spindle whorl		Black stone	2.7	M16:1	Four incised concentric circles on base
5	Pot		Fine gray ware, grit tempered	13.0	O15:1	Handmade, wet smoothed frgm. of a spout stopper with bitumen
6	Pottery "bird"		Medium buff ware	6.0	O15:1	Dark YR stripes on light Y slip, cf. TS 10
7	Pot		Medium buff ware	10.0	O15:1	Plant tempered, traces of reddish slip(?)
8	Pot		Fine gray ware	6.0	O15:1	Handmade, plant tempered
9	Human effigy		Buff ware	12.0	P12:2	Fragmentary, cf. bronze
10	Pottery "bird"		Buff ware	6.0	O13:1	Incised linear decoration, cf. TS 6
11	Pot sherd Light buff slip Dark YRY		Buff ware	As shown, thickness 0.9	O13:1	Wheelmade, Assur H/G
12	Object		Stone	As shown, thickness 0.4	O13:1	Notched

TEPE CHENCHI: AN IMPORTANT SETTLEMENT NEAR KHORSABAD

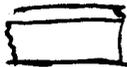
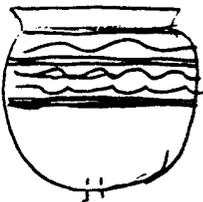
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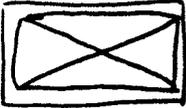
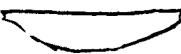
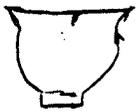
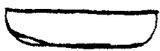
<i>TS no.</i>	<i>Description</i>	<i>Material</i>	<i>Size (cm)</i>	<i>Provenance</i>	<i>Remarks</i>
13	"Toggle" 	Buff pottery	7.5	O13:1	—
14	"Toggle" 	Buff pottery	5.0	O13:1	Plant tempered, fired black
15	Pot/bowl 	Buff ware	6.0	O13:1	Wheelmade, plant tempered
16	Bowl 	Fine buff ware	2.0	O13:1	Wheelmade, grit tempered
17	Bowl 	Fine buff ware	3.7	O13:1	Wheelmade, grit tempered
18	Pot	—	—	O13:1	—
19	Pot 	Fine buff ware	15.0	O13:1	Wheelmade, burnished
20	Effigy 	Buff pottery	2.0	O13:1	Fragmentary: rim pierced
21	Bead 	Limestone	1.7	O13:1	—
22	Bead 	Black stone	1.0	O13:1	Scalloped
23	Needle (A 12441) 	Bronze	12	O13:1	—
24	Object 	Unbaked clay	10	P12:1	Lamp(?)
25	Object (A 12442) 	Pottery	As shown	O16:1	Ishtar(?)

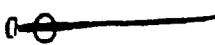
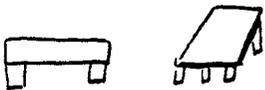
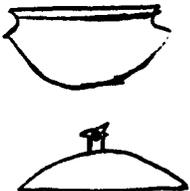
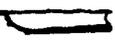
<i>TS no.</i>	<i>Description</i>	<i>Material</i>	<i>Size (cm)</i>	<i>Provenance</i>	<i>Remarks</i>
26	Pot 	Fine buff ware	Frgm: neck 7.0 diameter	P15:1	Stippling on neck, incised on shoulder, wheelmade, grit tempered
27	Sword (A 12444) 	Bronze	46.0	P15:1	Complete
28	Sickle (A12445) 	Bronze	21.0	P15:1	Complete
29	Sickle 	Bronze	23.0	P15:1	Tang incomplete
30	"Fishhook" 	Bronze	5.0	P15:1	TS 30 and 31 are identical
31	"Fishhook" 	Bronze	5.0	P15:1	TS 31 and 30 are identical
32	Ring 	Bronze	8.0 diameter	P15:1	Interlocked joint
33	"Shish" 	Bronze	57.0	P15:1	Rectangular cross section at one end
34	Stamp seal and/or bulla 	Bone	1.2	P15:1	Perforated (incompletely) longitudinally and transdorsally
35	Stamp seal 	Bone	2.2	P15:1	Transdorsally perforated
36	Object 	Stone	13.0	P15:1	Perforated and notched
37	Pot 	Fine buff ware	4.0	O13:1	Wheelmade
38	Pot 	Fine buff ware	15.0	N16:1	Assyrian
39	Pot 	Fine buff ware	—	P12:2	Wheelmade

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21

TS no.	Description	Material	Size (cm)	Provenance	Remarks
40	Stamp seal 	Stone	1.0 x 2.5	P16:1	—
41	Seal cylinder (A 12448) 	Pottery	2.2	Surface	—
42	Pendant 	Stone, red	2.3	L8:1	Top broken away, incised diameter
43	Pendant (A 12449) 	Stone, black	2.0	L8:1	Kiln
44	Bead 	Stone, black, serpentine(?)	2.2	L8:1	—
45	Idol 	Stone	3.0	P12:3	"Ishtar"
46	Bead 	Bone	1.5	P12:3	Polished
47	Pot 	Fine buff ware	3.0 height	P12:3	Gray slip inside and out incomplete
48	Cult object 	Pottery	8.0 height	P15:1	Cf. Andrae "Urform," traces of paint or bitumen
49	Strainer 	Pottery	11.0 diameter	O11:1	Fragment
50	Pot 	Fine buff ware	Frgm	O11:1	Double pot fragment, paint on rim
51	Pot 	Fine buff ware	Frgm	P12:2	Rectangular
52	Pot stand 	Fine buff ware	4.0 height	P12:2	—
53	Pot stand 	Fine buff ware	10.0 present height	P12:2	—
54	Pot	—	—	Floor = level of P12:3	—
55	Pot 	—	22.0 height	P15:1	Hole in bottom

<i>TS no.</i>	<i>Description</i>	<i>Material</i>	<i>Size (cm)</i>	<i>Provenance</i>	<i>Remarks</i>
56	Brick 	Pottery	7.0 x 5.0 x 3.0	P14:1	Pierced through length
57	Pot 	Fine buff ware	8.0 height	P15:1	Nineveh V
58	Pot 	Fine buff ware	9.3 height	O12:2	—
59	Pot 	Very fine buff ware	6.0 height	O12:2	—
60	Pot 	Fine buff ware	7.0 height	M9:1 surface	—
61	Pot 	Fine buff ware	1.2 height	M9:1 surface	—
62	Pot 	Fine buff ware	5.0 height	O10:1	Paint on inside of rim, run over outside
63	Pot 	Fine buff ware	4.7 height	O10:1	Paint on inside of rim, run over outside
64	Pot sherd 	Fine buff ware	—	O10:1	Decoration in dark YR
65	Pot 	Fine buff ware	16.0 rim diameter	O10:2	—
66	Pot 	Fine buff ware	8.5 height	O10:2	Two reddish stripes at neck

TS no.	Description	Material	Size (cm)	Provenance	Remarks
67	Pot sherd 	Coarse gray-green ware, plant tempered	—	M11:4	Mohendjo Daro(?) Anatolian(?)
68	Bronze(?) pin 	Copper	10.4 length	P10:1	Ring attached
69	Pendant 	Limestone	1.8 length	Surface	Incised
70	Pendant (A 12450) 	Quartz	2.0 length	N11:4	Assymetric
71	Object 	Pottery	14.0 x 11.0 x 4.0	O9:1	Rectangular, quadrupedal
72	Bead 	Banded agate	1.0 length	O9:1	Ovoid cross section
73	Pot 	Fine buff ware	17.0 rim diameter	N10:3	Strainer
74	Pots, same shape and dimension as TS-73, but unperforated	Fine buff ware	—	N10:3	—
76	Pot with lid 	Very coarse buff ware, burnished	16.8 rim diameter	N10:5	Conventionalized animal head as lid lifter
77	Bead (A 12451) 	Black striated stone	2.5 length	N10:5	—
78	Pot similar to TS 74, 75	—	17.2 rim diameter	Floor of N10:2 at north door	Ninevite V
79	Pot 	—	10.0 rim diameter	N10:4	—
80	Pot 	Coarse buff ware	15.5 height ca. 16.0 diameter	O12:4	Plant tempered
81	Pot 	Fine buff ware	—	N12:1	Wheelmade
82	Pot 	Fine buff ware	8.0 height	N11:1	Ninevite V

<i>TS no.</i>	<i>Description</i>	<i>Material</i>	<i>Size (cm)</i>	<i>Provenance</i>	<i>Remarks</i>
83	Pot, similar to TS 82 but with "four leaf clover" orifice	Fine buff clay	9.0 height	M11:2	Very heavily fired, perhaps accidentally
84	Pendant	Limestone	1.6 length	M11:2	Polished and perforated
85	Pot	Fine buff ware	6.5 height	N12:1	—
86	Pot	—	4.7 height	M12:2	Roughly handmade
87	Jar stopper	Pottery	13.5 height	N10:5	—
88	Bead	Agate	1.25 present length	N11:4 (basket)	Inscribed
89	Pot, similar to TS 78	—	—	N10:5	Complete
90	Pot	—	22.0 height	M11:3	Complete
91	Group of beads Frit: Limestone: Bone:	—	—	N11:4	Seventeen pieces
92	Brick	Libn	5.0 x 5.5 x 10.0	N11:4	TS 91
93	Pot, similar to TS 82	—	—	N10:1	Burned
94	Celt	Green translucent stone	3.0 length	M10:1	—
95	Spoon(?)	Pottery	9.0 length	O10:3	—
96	Bead or spindle whorl	Libn	2.0 height	O11:5	Biconical
97	"Knuckle bone"	—	3.0 length	N11:2	—
98	Object	Pottery	8.3 length 4.2 width	M11:4	Incised animal on one end

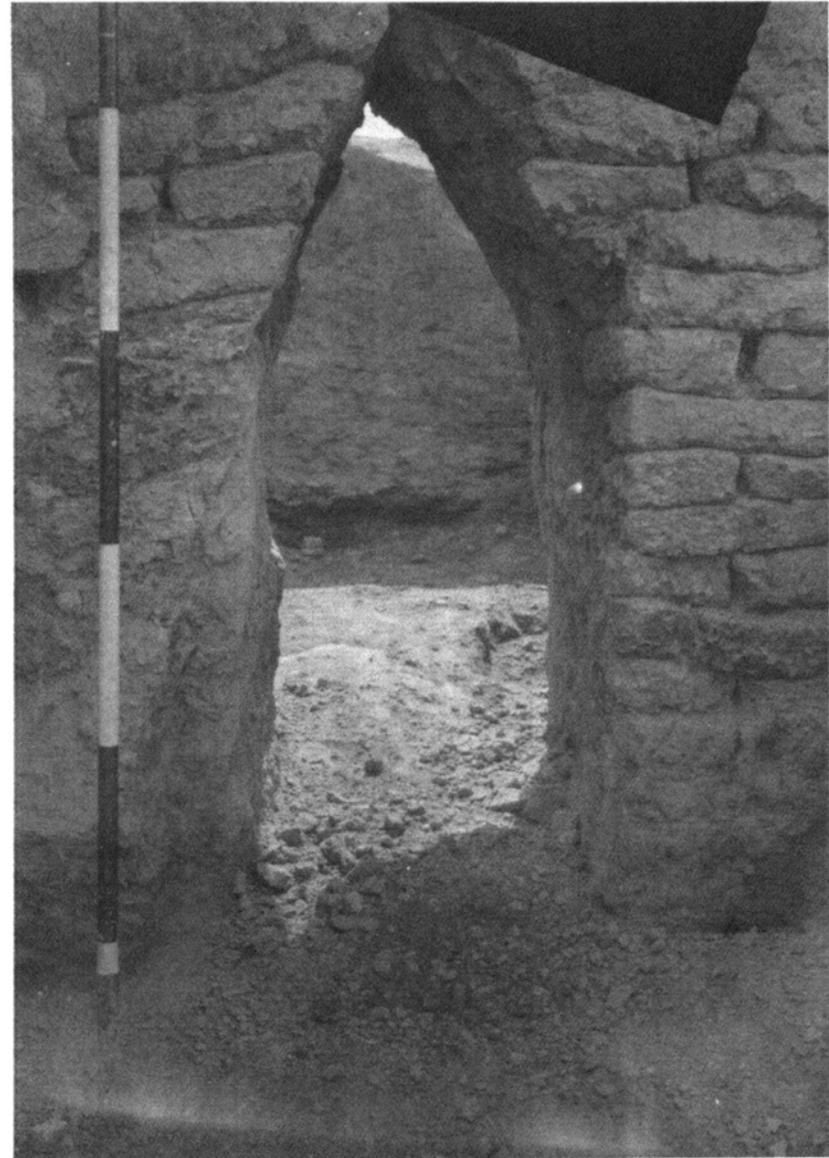
<i>TS no.</i>	<i>Description</i>	<i>Material</i>	<i>Size (cm)</i>	<i>Provenance</i>	<i>Remarks</i>
99	Pot fragment 	Fine buff ware	2.8 thickness 9.0 height ca. 12.0 diameter	O10:1	Red paint on rim
100	Bowl fragment 	Fine light buff ware	3.4 height ca. 18.0 diameter	M10:1	—
101	Bowl fragment 	Coarse reddish buff ware	5.6 height 10.2 diameter	O10:4	Wheelmade
102	Cup fragment 	Coarse gray ware	5.8 height 7.2 diameter	N11:4 2nd floor	—
103	Cup fragment 	Coarse buff ware	5.0 height 7.2 diameter	N11:4 2nd floor	Similar to TS 102, wheelmade
104	Cup 	Fine buff ware	9.0 height 9.0 diameter	N11:4 2nd floor	Wheelmade, complete
105	Cup 	Gray ware	8.1 height 10.5 diameter	N11:4 2nd floor	—
106	Pot fragment 	Very coarse gray ware	6.9 height 7.6 diameter	N11:4 2nd floor	Plant tempered
107	Pot 	Light buff ware	7.0 height 10.3 diameter	N11:4 2nd floor	Plant tempered



(a) Tepe Chenchi: View Towards the North.



(b) Tepe Chenchi: View Towards the South.



(c) Tepe Chenchi: View of Corbeled Doorway between Loci N10:2 and N10:3. Room N10:3 in Background.



a



f



b



e



c



d



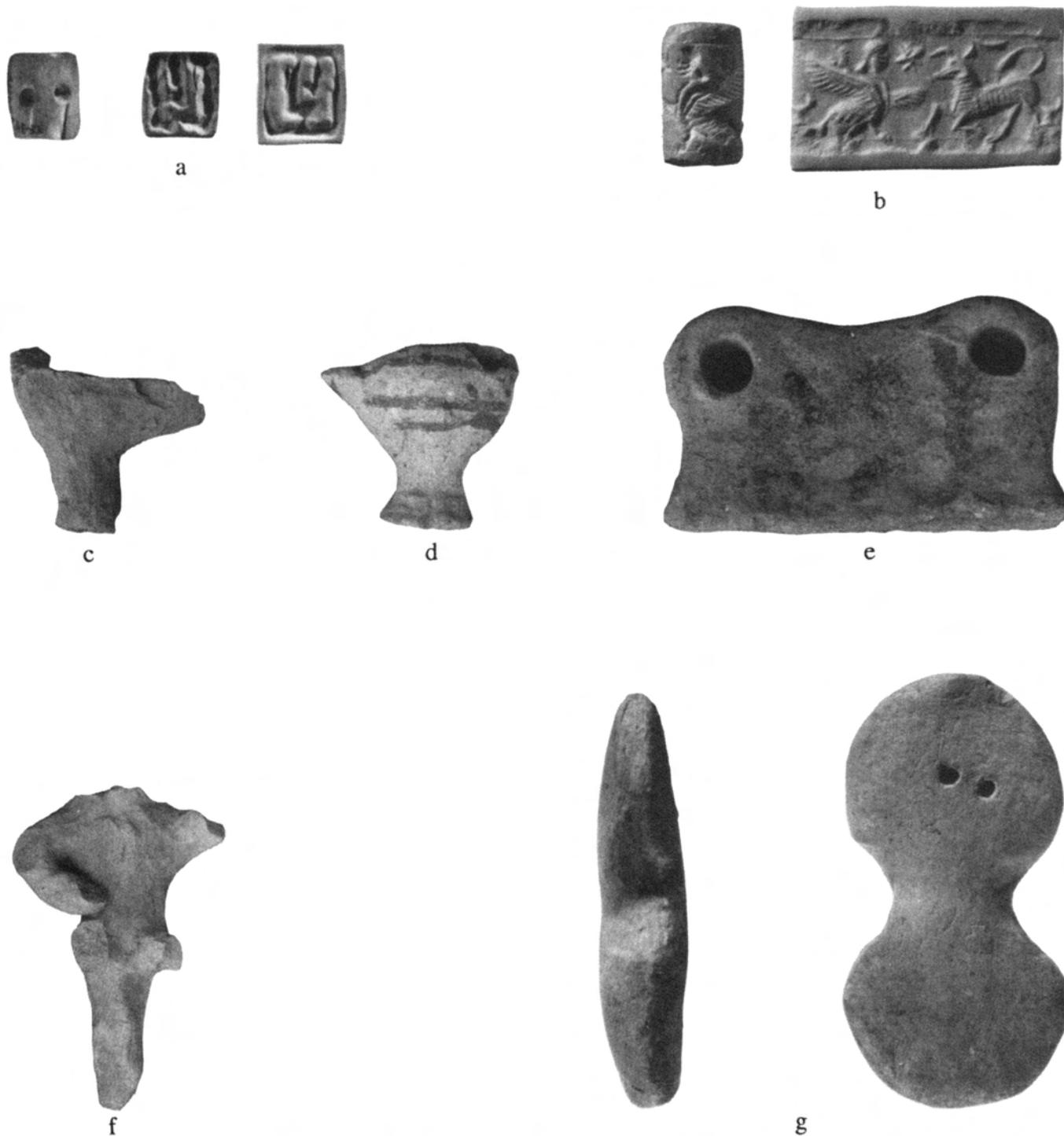
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Tepe Chenchi Pottery: (a) Unidentified Vessel, (b) TS 39, Fine Buff Ware, (c) TS 106, Coarse Gray Ware, Length: 6.9 cm., (d) Deep Bowl: Either TS 15, TS 37, TS 59, or TS 105, (e) Cylindrical Cup: Either TS 57, TS 82, TS 93, or TS 104, (f) TS 76: N10:5, Coarse "Fritty Red Ware" Cooking Pot and Lid, Burnished, Rim Diameter: 16.8 cm, and (g) TS 19: O13:1, Fine Buff Ware, Rim Diameter: 15 cm.

Plate 3



Tepe Chenchi Objects: (a) TS 33: P15:1, Skewer(?), Length: 57 cm, (b) TS 27 [A12444]: P15:1, Sword, Length: 46 cm, (c) TS 29: P15:1, Sickle, Length: 23 cm, (d) TS 28 [A12445]: P15:1, Sickle, Length: 21 cm, (e) TS 30 [A12443]: P15:1, Fishhook, Height: 5 cm, (f) TS 31: P15:1, Fishhook, Length: 5 cm, (g) TS 68: P10:1, Pin, Length: 10.4 cm, (h) TS 23 [A12441]: O13:1, Needle, Length: 12 cm, (i) TS 32: P15:1, Ring, Diameter: 8 cm, (j) TS 77 [A12451]: N10:5, Bead, Black Stone, Scale 1:1, (k) TS 70 [A12450]: N11:4, Pendant, Translucent Quartz, Scale 1:1, (l) TS 43 [A12449]: L8:1, Pendant, Black Stone, Scale 1:1, (m) TS 40 [A12447]: P16:1, Stamp Seal, Blue and White Veined Stone, Scale 1:1, and (n) TS 35: P15:1, Stamp Seal, Bone, Scale 1:1.



Tepe Chenchi Objects: (a) TS 34 [A12446]: P15:1, Stamp Seal, Bone, Scale 1:1, (b) TS 41 [A12448]: Surface, Unstratified, Cylinder Seal, Stone, Scale 1:1, (c) TS 10: O13:1, Terracotta 'Bird' Vessel, Buff, Preserved Height: 6 cm, (d) TS 6: O15:1, Terracotta 'Bird' Vessel, Buff, Preserved Height: 6 cm, (e) TS 48: P15:1, Terracotta 'Cult' Object, Preserved Height: 8 cm, (f) TS 9: P12:2, Terracotta Figurine, Buff, Preserved Height: 12 cm, (g) TS 25 [A12442]: O16:1, Terracotta "Bobbin" or "Toggle Weight," Buff, Scale 1:2.

Chapter 2

RE-EXAMINATION OF A CULT – AND – ART OBJECT FROM BETH YERAH

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The object under re-examination here was found by the first expedition to have excavated in that most important and one of the largest sites (200 dunams) in the country — Beth Yerah (= Khirbet el-Kerak). The expedition, headed by B. Mazar, M. Stekelis, and M. Avi-Yonah worked there for two seasons in 1944–1946.¹ The object dealt with here was discovered in the course of excavating the Circles-Building, dated to the EB III period.²

Though only a small fragment of the object has come down to us (pls. 5–7), its uniqueness is evident, inviting some additional consideration as to its reconstruction, function, and interpretation. It is made of pottery, light-brownish-greenish in color, with tiny black grits. This temper seems³ to be of the basalt rocks, characterizing the geology of lower eastern Galilee. This fact would evidently speak for the conclusion that the object was manufactured locally. Broad and unsystematic strokes of red paint decorate both the figurines and the ring, mainly on its outside. As for the morphology of this object, it is built of two elements: the ring-wall and the figurative representations set upon its brim. The existing fragment measures 5 cm on its inner circumference and 6 cm on its outer one. The diameter of the ring, when whole, was ca. 16 cm on the outer circumference. The length of the entire ring-wall was thus ca. 25 cm. The ring-wall is 2 cm high and 1 cm thick. It is not an upright wall, but somewhat carinated: The lower part flaring while the upper one is vertical, the rim being nicely rounded. The most conspicuous feature about this ring-wall is its flat base, which is 0.3 cm broader than the thickness of the ring itself. Two types of figurative representations are firmly perched on the brim of the ring-wall, arranged densely, touching one another. The flaps of clay which hold these features on the brim are clearly noticeable, though having been smoothed in the process of modeling them. One type, actually the only one preserved, is represented in the two identical animal bust figurines. These show most probably the bull/cow, to judge by the shape of the up-turned horns and the relatively long head. The shortness

1. B. Maisler (Mazar), M. Stekelis and M. Avi-Yonah, "The Excavations at Beth Yerah (Khirbet el-Kerak) 1944–1946," *IEJ* 2 (1952): 165–73, 218–29, pls. 11, 17–19.
2. *Ibid.*, pl. 19: B.
3. The object is too small to permit a thin-section to be sawed out for a petrographical analysis — we have to be satisfied with the eye-examination, ascertained also by the geologist-petrographer Naomi Porat.

of the horns suggests perhaps that the calf is meant in these figures. Of the second type only one stub is preserved, attached to the brim of the ring-wall, rather springing from it. The stub is smaller than the 'neck' of the animal busts. Its section is oval and measures 0.9×0.5 cm. It certainly belongs to a feature totally different from the two identical bulls. These three items, of two different types, point to two conclusions: a) the features perched on the ring-wall could have been of a variegated group, consisting probably of more than these two types, and b) though the three items are fairly crowded on the brim, it would be baseless to suggest a reconstruction of the entire circumference with similar density of features. Some sort of group-arrangement with rhythmic vacant stretches in between is as possible as a dense arrangement.

Both the form of the ring-walled art object and the figurative features perched upon it remind me of the four top-segments among the 'crowns' discovered in the Judean Desert Treasure.⁴ In a previous paper,⁵ I suggested to reconstruct these 'crowns' as segments, or drums of cult-stands (pl. 8), and to see in the four specimens, which carry figurative features, the top-segments of the cult-stands. Crown No. 7 of that treasure shows three different figurative features perched upon its brim, and *not* densely. The three features are: a bird, a portal-like element, and a standard-like one. The Beth Yerah fragment (pls. 5–7) could accordingly be a top-segment of a cult-stand made of pottery. The cult-stand could have been made either in one piece, a barrel-like tall vessel, open on both ends, or made in a number of segments stuck together. And indeed the flat base of our fragment supports this idea — it is only logical that it was meant to be stuck to the segment, or to the one-piece cult-stand beneath it.

We thus seem to have in the Beth Yerah fragment a cult-stand analogous in shape and conception to those of the Chalcolithic treasure from the Judean Desert. Traditions and styles in the world of the cult have, as is well attested, long perseverance and persistence.

As for the date of our Beth Yerah fragment, its find-spot and context in the Circles-Building, as mentioned above, dictate its assignment to the EB III period. We have, however, to bear in mind that being such a small fragment there is the possibility, a faint one indeed, that it could originate in an earlier stratum, either that of the EB I or that of the EB II periods, depending on the stratigraphic sequence in that particular area. In spite of this reservation we do accept the excavators' dating and assign this object to the Circles-Building, i.e., to the EB III period. I would dare to suggest that this cult-object lends some support to the inclination of the excavators⁶ to interpret the Circles-Building as a temple. In this connection we should be reminded that this building, unique thus far in the entire Early Bronze Canaan, is part of the Khirbet Kerak ware culture of the EB III period, the origin of which is no doubt in the Early Trans-Caucasian Culture (of Burney and Lang).⁷ The relationship of the Circles-Building with the circular buildings style of the Trans-Caucasian culture as represented in the buildings at Yanik Tepe⁸ is of great interest and seems quite convincing. Still, we have to

4. P. Bar-Adon, *The Cave of the Treasure: The Finds from the Caves in Nahal Mishmar*, Judean Desert Studies (Jerusalem, 1980).

5. Ruth Amiran, "A Suggestion to See the Copper 'Crowns' of the Judean Desert Treasure as Drums of Stand-like Altars," in J. N. Tubb, ed., *Palestine in the Bronze and Iron Ages; Papers in Honour of Olga Tufnell* (London, 1985), pp. 10–14.

6. Notwithstanding some interesting analogies from Egypt and Melos, which speak for the identification of these circles with granaries.

7. C. Burney and D. H. Lang, *The Peoples of the Hills* (London, 1971).

8. In a previous paper ("Yanik Tepe, Shengavit and the Kh. Kerak Ware," *Anatolian Studies* 15 [1950]), I pointed out the architectural similarity of this building with the Yanik Tepe (and other Trans-Caucasian) buildings. For Yanik

confront many difficulties, and especially two qualifying points which have to be emphasized: a) that we have as yet no temple in the Yanik Tepe culture, and b) that such a complex as the Beth Yerah one, composed of nine large circles built around a central courtyard (rather a courtyard subdivided into two), has no parallel (as far as I know) in the Yanik Tepe Early Trans-Caucasian Culture. Such a complex, whatever function should be assigned to it, is paralleled neither in the EB III culture of Canaan nor in that remote origin of this culture.

Tepe cf. C. Burney, "The Excavations at Yanik Tepe, Azerbaijan, 1961," *Iraq* 23 (1962): 138 ff.; idem, *Iraq* 24 (1962): 134 ff.; idem, "Circular Buildings found at Yanik Tepe," *Antiquity* 35 (1961): 237 ff.

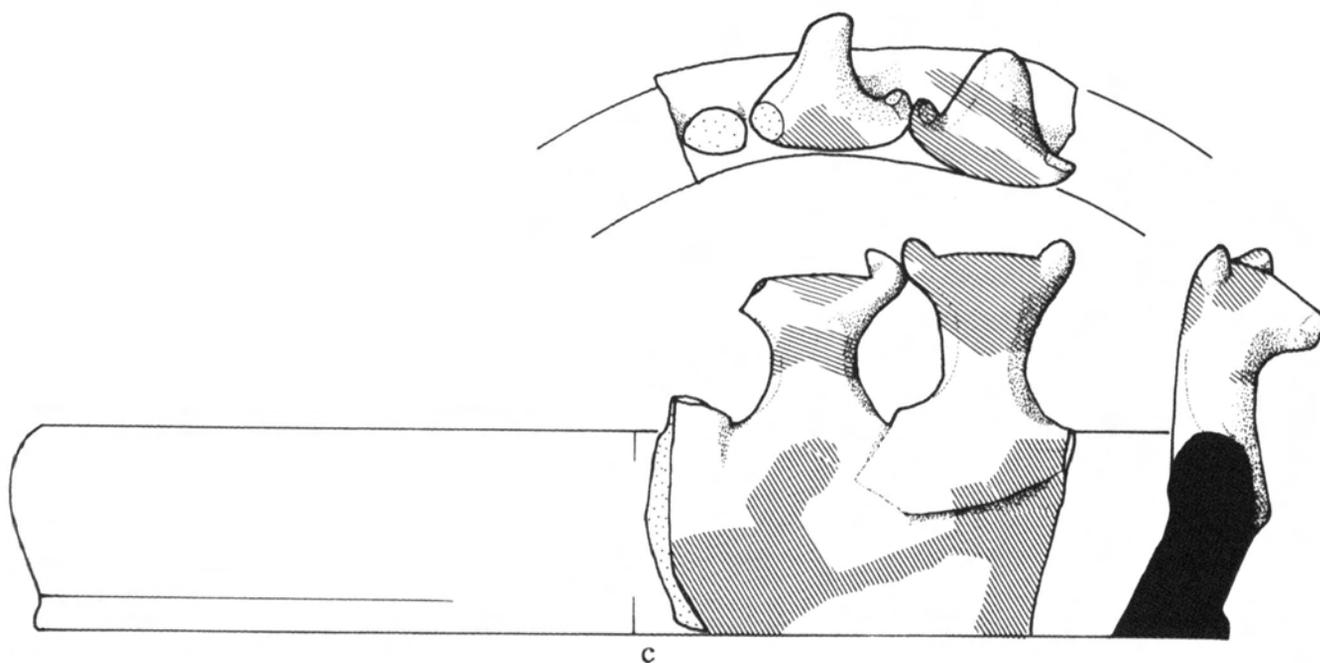
Plate 5



a



b



c

Beth Yerah (Khirbet el-Kerak), Fragment of Ring-Walled Cult-and-Art Object with Zoomorphic Heads:
(a) Photograph, (b) Drawing, and (c) Drawing of Reconstructed Object.



a



b

Beth Yerah (Khirbet el-Kerak), Fragment of Ring-Walled Cult-and-Art Object with Zoomorphic Heads:
(a) Outside View from the Left and (b) Outside View from the Right.

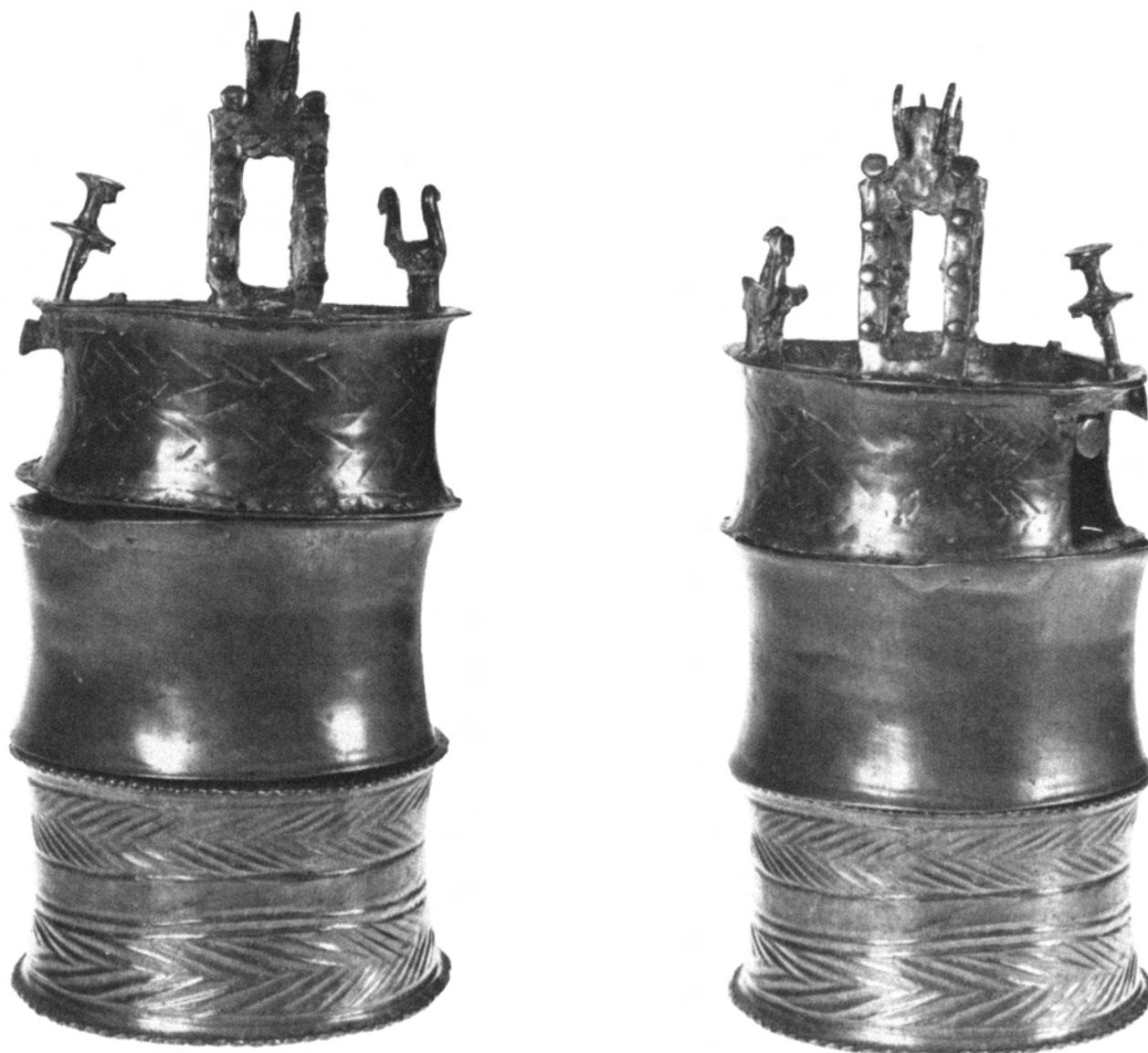


a



b

Beth Yerah (Khirbet el-Kerak), Fragment of Ring-Walled Cult-and-Art Object with Zoomorphic Heads:
(a) Inside View and (b) Side View of Outside Wall.



Naḥal Mishmar: Two Views of Three 'Crowns' (nos 7, 13, and 14) Arranged as a Cult Stand.

Chapter 3

NOTES ON THE STYLE AND ICONOGRAPHY OF THE CHALCOLITHIC HOARD FROM NAḤAL MISHMAR*

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Chalcolithic art in Palestine is characterized by the existence of distinct regional styles which share a common set of symbols manifested in ritual and funerary furniture: a) the Golanite assemblage with its basalt pillar statues¹ and the pottery vessels with relief applications, b) the Coastal Plain assemblage with the painted and relief designs of the clay ossuaries,² c) the sites in the Negev with the ivory, clay, and basalt statuettes,³ and d) the site of Tuleilat Ghassul with its wall paintings.⁴ The unique assemblage from Naḥal Mishmar stands out among those regional groups of objects. The hoard is certainly one of the most interesting assemblages of the period; its enigmatic nature attracted the attention of many archaeologists. This paper deals with some aspects of style and iconography of a group of objects from the hoard and their possible implications.

* Acknowledgement: I am grateful to A. Ben-Tor, M. Tadmor, O. Bar-Yosef, and U. Zevulun, who read the first draft of this paper and made many valuable suggestions.

1. C. Epstein, "Basalt Pillar Figures from the Golan," *IEJ* 25 (1975): 193–201; idem, "The Chalcolithic Culture of the Golan," *BiAr* 40 (1977): 57–62; "Aspects of Symbolism in Chalcolithic Palestine," in R. Moorey and P. Parr, eds., *Archaeology in the Levant* (London, 1978), pp. 23–35; idem, "Cult Symbols in Chalcolithic Palestine," *Bolletino del Centro Camunodi Studi Preistorici* 19 (1982): 63–82.
2. J. Perrot, "Une tombe à ossuaires du IVe millenaire à Azor près de Tel Aviv," *Atiqot* 3 (1961): 1–83; J. Perrot and D. Ladiray, *Tombes à ossuaires de la région côtière Palestinienne au IVe millenaire avant l'ère Chrétienne*, MTJ 1 (Paris, 1980).
3. J. Perrot, "Statuettes en ivoire et autres objets en ivoire et en os provenant de gisements préhistoriques de la région de Beershéva" *Syria* 36 (1959): 8–19; idem, "Les Ivoires de la 7e campagne de fouilles à Safadi près de Beershéva," *Eretz-Israel* 8 (1964): 46*–49*; idem, "La 'Venus' de Beersheba," *Eretz-Israel* 9 (1969): 100*–101*; D. Alon, "Two Cult Vessels from Gilat," *Atiqot* 11 (1976): 116–18.; T. E. Levy, "The Chalcolithic Period," *BiAr* 49 (1986): 82–108; R. Amiran and M. Tadmor, "A Female Cult Statuette from Chalcolithic Beer-sheba," *IEJ* 30 (1980): 137–39; M. Tadmor, "Two Chalcolithic Ivory Figurines — Technique and Iconography," *Eretz-Israel* 18 (1985): 428–34.
4. A. Mallon, R. Koeppel, and R. Neuville, *Teleilat Ghassul I, 1929–32* (Rome, 1934); R. North, *Ghassul 1960 Excavation Report*, *Analecta Biblica* 14 (Rome, 1961).

More than fifteen years ago, Ussishkin⁵ suggested that the hoard comprised the cultic equipment of the En-Gedi temple. He believed they had served there in the performance of rituals, although their use remained enigmatic. It is true that even the ritual use of the objects actually found inside temples eludes us.⁶ Nevertheless, any homogeneous group of ritual objects can provide information about the society which had used them. In this context, it may be of interest to quote Drennan: it is through ritual that religion “strengthens the bonds uniting members of a single local group.”⁷ Moreover, one of the most important functions of ritual is the ‘sanctification’ which is intended to ensure the acceptance of important messages or conventions crucial to the orderly operation of society, or the sanctification of persons and institutions.⁸ It is conceivable that the rituals performed with the objects of the Naḥal Mishmar hoard fulfilled a similar social function.

The hoard from Naḥal Mishmar comprises 429 objects, most of which are made of copper. Some of the metal items appear in considerable quantities,⁹ whereas others are rare or even unique. All the metal objects designated as “standards” by Bar-Adon¹⁰ (fig. 4a) are provided with shaft holes by which they could have been carried,¹¹ probably by men participating in a procession which was part of the ritual. One may speculate that the elaborate standards which display unique designs¹² could have been carried by a small group of people who ranked highest in the community, whereas the ubiquitous ‘simple standards’¹³ were probably used by a larger body of functionaries.

Furthermore, all the metal “standards” so far known from other Chalcolithic sites¹⁴ find parallels only among the so called ‘simple standards’ of the hoard, whereas none of the “exclusive” items have as yet

5. D. Ussishkin, “The ‘Ghassulian’ Temple in Ein Gedi and the Origin of the Hoard from Nahal Mishmar,” *BiAr* 34 (1971): 23–39; idem, “The Ghassulian Shrine at En-Gedi,” *Tel Aviv* 7 (1980): 1–44.
6. F. Hole (“Symbols of Religion and Social Organization at Susa,” in T. Cuyler Young, Jr., Philip E. L. Smith, and Peder Mortensen, eds. *The Hilly Flanks and Beyond: Essays on the Prehistory of Southwestern Asia Presented to Robert J. Braidwood, November 15, 1982*, SAOC 36 (Chicago, 1983), pp. 320–21) has pointed out that the ritual use of vessels and objects found in Susa is actually represented on contemporary seal impressions.
7. R. D. Drennan, “Religion and Social Evolution in Formative Mesoamerica,” in K. M. Flannery, ed., *The Early Mesoamerican Village* (New York, 1976), pp. 347–48.
8. *Ibid.*, p. 348.
9. For example, over two hundred and forty maceheads (P. Bar-Adon, *The Cave of the Treasure* [Jerusalem, 1980], nos. 180–183, 190–429) were found in the hoard. They may be considered as votives brought to the temple. As Moorey has pointed out, such votive offerings are attested in Egypt (B. Adams, *Ancient Hierakonpolis* [Warminster, 1974], pls. 5–6), as well as in Mesopotamia and Elam (P. R. S. Moorey, *Ancient Persian Bronzes in the Adam Collection* [London, 1974], p. 35).
10. Bar-Adon’s terminology is followed here for the sake of convenience.
11. Bar-Adon, *The Cave of the Treasure*, p. 41.
12. *Ibid.*, nos. 17–22, 123–127, 148–154.
13. *Ibid.*, nos. 23–122, 128–147.
14. The sites are: Abu Matar: J. Perrot, “The Excavations at Tell Abu Matar,” *IEJ* 5 (1955): 172, fig. 20:24, which resembles Bar-Adon, *The Cave of the Treasure* no. 42, Neve-Noy: Eldar and Baumgarten 1984:55; I. Eldar, and Y. Baumgarten, “Neve Noy: A Chalcolithic Site of the Beer-sheba Culture,” *BiAr* 48 (1985):134–35, two standards found together, resembling Naḥal Mishmar’s no. 50 and the group consisting of nos. 74, 82, 90–97; Shiqmim: T. E. Levy and D. Alon, “Shiqmim: A Chalcolithic Village and Mortuary Centre in the Northern Negev Desert,” *Paléorient* 11/1 (1985), fig. 4:6; Palmahim: R. Gophna and S. Lifshitz, “A Chalcolithic Burial Cave at Palmahim,” *Atiqot* 14 (1980): pl. 1:5, resembling Naḥal Mishmar’s no. 122.; and the Cave of Bidia in western Shomron: *Ha’Universita* 1987:11, resembling the group of Naḥal Mishmar’s nos. 130–135, especially the latter.

been reported outside the Naḥal Mishmar site. This evidence, which cannot be explained as merely accidental, seems to reflect the social differentiation among the users of the Naḥal Mishmar “standards.” However, in order to establish the inner hierarchy among the bearers of the “elaborate” standards, one would have to consider additional factors. These may include the quality of execution, the amount of work invested in the production of an object, and the uniqueness of its design.¹⁵ This problem, however, will be discussed elsewhere.

Function of the “standards”: The earliest objects found outside of Israel but similar to the standards from Naḥal Mishmar are the maceheads from Iran (Tepe Hissar II, and especially the later one from Tepe Hissar IIIc, from Susa¹⁶ [fig. 4b]) and Mesopotamia (from Uruk and Tepe Gawra).¹⁷ Moorey, who discussed the maceheads from Iran,¹⁸ suggests that “they may have been mounted on a shaft as a symbol of rank; perhaps derivative of a true weapon of similar form.” It is possible that short standards also may have served as tubes in which finials (now lost), such as Moorey no. 177,¹⁹ were set.

Men carrying banners are depicted on Egyptian monuments — for example, on the Narmer palette²⁰ and on a cylinder seal from Mesopotamia showing them walking towards a temple (fig. 4c).²¹ On the stele of Gudea²² priests are depicted carrying standards, including an eagle standard²³ (fig. 4d). These Egyptian and Mesopotamian representations give us an idea about the context in which these “standards” may have actually functioned.

STYLE AND ICONOGRAPHY OF SELECTED OBJECTS FROM THE HOARD: TRIPARTITE AND QUADRIPARTITE COMPOSITION

NO. 127 (“SCEPTER”) (FIG. 4E)

Of the five solid cast, long “scepters” (nos. 123–127), the plastic qualities of no. 127 are outstanding. The lower half is horizontally grooved, while the upper half is swathed in a thin coil which spirals upwards toward the discoid top. The disc is cut into three lobes, resembling the axe-blades in the hoard. Aesthetically, the tripartite division of the disc is a more pleasing solution for the division of a circle than that of standard no. 112 (fig. 5a), in which it is divided into four equal parts. The rotating element is well emphasized in no.

15. See T. E. Levy and D. Alon, “The Chalcolithic Mortuary Site near Meẓad Aluf, Northern Negev Desert: A Preliminary Study,” *BASOR* 248 (1982): 54–56, for rank differentiation in a Chalcolithic cemetery.

16. P. Amiet, *Elam* (Paris, 1966), no. 172A.

17. References in Bar-Adon, *The Cave of the Treasure*, p. 40.

18. P. R. S. Moorey, *A Catalogue of the Ancient Persian Bronzes in the Ashmolean Museum* (Oxford, 1971), pp. 92–95, nos. 90–100.

19. *Ibid.*, no. 177.

20. J. B. Pritchard, *The Ancient Near East in Pictures Relating to the Old Testament* (Princeton, 1954), no. 297.

21. P. Amiet, *La Glyptique mésopotamienne archaïque* (Paris, 1961), pl. 46: no. 658.

22. J. Börker-Klähn, “Neusumerische Flachbildkunst,” in W. Orthmann, ed., *Der alte Orient*, Propyläen Kunstgeschichte 14 (Berlin, 1975), fig. 36b.

23. See also Maxwell-Hyslop 1971: 118.

127, so much so that one is tempted to visualize it as a rotating wind-vane carried in a procession. It seems that wherever the division of the circle into three, rather than into four, parts was preferred, the result was more aesthetically pleasing.

"STANDARDS" NOS. 17, 18, 19, AND 21

The point just made is even more evident when comparing standard no. 17 (fig. 5b) with no. 19 (fig. 6a). While the division of the upper area in no. 19 into four lobes resulted in a monotonous composition, the tripartite division in no. 17 allowed for a more flexible solution emphasizing the importance of the single antelope in the center. The pair of ibexes projecting from the top of this standard enhance the importance of the central antelope in relation to the ibexes on the sides, thereby focusing attention upon it.²⁴ By creating a composition that can only be viewed frontally, the basic circularity of the object is overcome. The emphasis on frontality is also expressed in the composition of nos. 18 (fig. 6b) and 21 (fig. 6d).²⁵

There is no preferred point of view in "standard" no. 19 (fig. 6a). The schematic modeling of its animal heads is inferior to the high quality exemplified in the other objects. The pattern on its shaft also varies from the other "standards." There is no doubt that the two standards, nos. 17 and 19, were produced by different artists.

The particularly small muzzle of no. 18 (fig. 6b) is topped by thick, heavy horns that form an almost closed circle. The two side-studs balance the composition. In this standard, as well as in no. 21 (fig. 6d) with its human head, the artist adhered to the basic shape of the objects to form the desired picture.²⁶ Generally, this feature is in keeping with the tendency revealed by Chalcolithic artists to animate the handles of vessels and objects by depicting the human face. A typical example is found on the handles of the "cream ware" vessel from Gezer²⁷ (fig. 7a) or the pithoi from Beersheba²⁸ (fig. 7b).

THE TWIN IBEXES STANDARD NO. 153. (FIG. 7C)

The piriform macehead serves as a base for the composition of the two ibexes with joined hindparts, each facing an object: one is a curved blade, the other a curved axe (?). The balance of the central composition is disturbed by the two objects, similar but not identical, which frame it. This composition recalls, to a certain extent, the ceremonial weapons of several Mesopotamian gods of a later period. An example of the foregoing is the lion-club with a small piriform vessel in its center, the blades of which terminate in lion heads²⁹ (fig. 7d).

24. See also Tadmor 1986: 78–80.

25. The present conclusion, in which emphasis is put on frontal rather than circular composition, differs from Epstein's views on the idea of circularity underlying the entire scope of Chalcolithic art. See Epstein, *BiAr* 40 (1977): 57–62.

26. Epstein ("Cult Symbols in Chalcolithic Palestine," p. 68) has already pointed out the resemblance of the ears of no. 21 to those of the basalt statues from the Golan.

27. R. Amiran, "The 'Cream Ware' of Gezer and the Beersheba Late Chalcolithic," *IEJ* 5 (1955): pl. 34: A.

28. Perrot, *IEJ* 5, fig. 16: 7.

29. E. D. Van Buren, *Symbols of the Gods in Mesopotamian Art*, *Analecta Orientalia* 23 (Rome, 1945), p. 191, no. K 5b; E. Porada, *Corpus of Ancient Near Eastern Seals in North American Collections. Vol. I: The Collection of the Pierpont Morgan Library* (Washington, 1948), nos. 348–349, 351–353, etc. of the Old Babylonian period.

The standing twin ibexes recall the Hunters palette from predynastic Egypt, bearing a symbol which depicts oxen with joined foreparts³⁰ (fig. 7e), as well as the joined crouching lions on the First Dynasty seal from Saqqara (fig. 7f).³¹ Various monsters, composed of joined pairs of horned beasts or lions, some emanating from the body of a walking animal, appear on seal impressions from Uruk³² (fig. 8a) or Susa³³ (fig. 8b). Animal monsters were among the products of the creative imagination of Uruk period seal cutters.³⁴ The twin ibex composition is therefore in accord with that tradition. There is, however, no way of knowing the symbolic value inherent in the Naḥal Mishmar joined ibexes. (It should be noted that Amiran³⁵ relates standard no. 153 to the sculptured maceheads of third millennium Mesopotamia).

THE "EAGLE STANDARD" NO. 154 (FIG. 8C)

The "Eagle Standard" varies in its shape from all other standards. It has a long, flat trapezoidal body with unidentical wings; details of feathers are incised in geometric design. The vertical shaft indicates that it was carried horizontally on a pole.

The birds in Chalcolithic art are usually small. The 'eagle standard' and the bird-topped round ossuary from Mesillat-Tsiyon are the only two free-standing large birds known in Chalcolithic art.³⁶ The sunken eyes of the metal 'eagle' and its cut beak are executed in a manner identical to that of the twin ibexes of no. 153. It should be noted that the birds in the hoard (see below fig. 8d, "Crown" no. 7) are the only creatures that are fully shown, whereas all the others, with the exception of no. 153, are represented by their heads alone.

THE ICONOGRAPHY OF THE "CROWNS"

The modeling of the horned animal heads on the rim of no. 10 (fig. 8e) indicates a clay model, in which a triangular head was probably shaped by pressing a lump of clay with the fingers. Similar heads are known from pottery vessels in the Golan.³⁷

The outstanding 'crown,' no. 7 (fig. 8d), is the only one with an opening in its wall, birds on the rim and two gate-like projections adorned with studs and topped by a pair of ibex horns. Although there is a general resemblance to the 'frontons' of ossuaries, horns have not been found to appear on studded 'frontons,' but rather on gabled ones. In addition, it should be noted that so far, rows of studs along the door jambs of the

30. W. M. F. Petrie, *Ceremonial Slate Palettes*, BSEA 66 (London, 1953), no. 13, pl. A.

31. Amiet, *La Glyptique mésopotamienne archaïque*, pl. 21 bis: Q.

32. *Ibid.*, pl. 9: no. 172.

33. *Ibid.*, nos. 236, and pl. 14 bis: K.

34. See H. Frankfort, *Cylinder Seals*, (London, 1939), pp. 15–29.

35. R. Amiran, "Some Observations on Chalcolithic and Early Bronze Sanctuaries and Religion," in A. Biran, ed., *Temples and High Places* (Jerusalem, 1981), p. 52, pl. 2: 2, 3.

36. Perrot and Ladiray, *Tombes à ossuaires de la région côtière Palestinienne*, fig. 143: 3; the bird-shaped vessels from Palmahim (Gophna and Lifshitz, *Atiqot* 14, pl. 2) belong to another category.

37. Epstein, "Cult Symbols in Chalcolithic Palestine," p. 73.

ossuaries have not been reported. There is no way of knowing whether the difference in the position of these elements is intentional.

Bar-Adon³⁸ and Epstein³⁹ suggest that the 'crown' represents a temple facade. There are indeed representations of temples with horns emanating from their walls. One appears on a cylinder seal impression from Susa (fig. 9a),⁴⁰ the other (fig. 9b),⁴¹ on a similar impression from Abydos, is compared by Amiran⁴² and Amiet⁴³ to one of the ossuaries. Amiet⁴⁴ suggests that since horns are present on temples of various divinities; they do not represent a specific god, but rather divine power in general. Amiran,⁴⁵ on the other hand, reconstructs the crowns as standing one above the other, and interprets them as stand-like altars. If this interpretation is indeed correct, then nos. 7 and 8 are early examples of the association of altars with horns, mostly known from several millennia later.

Horns alone appear on only a few ossuaries found in the coastal plain, but abound in Ben Shemen, where they appear in clusters of two and sometimes three pairs (fig. 9c). This may perhaps be taken as an indication of differences between local groups, each having its own preferred identity symbol. Horns also appear on basalt statues (fig. 9d) and clay vessels in the Golan (fig. 6c).⁴⁶ Heads of horned (but not bovine) animals executed in the round are seen mainly on standards from Naḥal Mishmar (nos. 8, 10, 17, 18, 29, and 153) and on a fenestrated stand and pithoi from the Golan. They are not represented on ossuaries.⁴⁷

The association of birds with the alleged temple gate is not clear. Birds adorn the cornices of clay models of temples, as on the third millennium example from Assur,⁴⁸ and are ubiquitous in the second millennium. In that period their association with certain goddesses is well established. There is, however, as yet no clue to their divine association in the Chalcolithic period.⁴⁹

38. Bar-Adon, *The Cave of the Treasure*, pp. 132–33.

39. Epstein, "Aspects of Symbolism in Chalcolithic Palestine," p. 26.

40. Amiet, *La Glyptique mésopotamienne archaïque*, no. 659.

41. *Ibid.*, p. 90, no. 25, pl.21 bis: T.

42. Oral communication.

43. P. Amiet, *Les Antiquités orientales au Musée du Louvre (Guide sommaire)* (Paris, 1971), p. 15.

44. *Idem.*, *La Glyptique mésopotamienne archaïque*, p. 90.

45. R. Amiran, "A suggestion to see the Copper 'Crowns' of the Judean Desert Treasure as Drums of Stand-like Altars," in J. N. Tubb, ed., *Palestine in the Bronze and Iron Ages. Papers in Honour of Olga Tufnell*, Institute of Archaeology, Occasional Paper no. 11 (London, 1985), pp. 10–14.

46. Epstein, *BASOR* 258, fig. 8; Levy, *BiAr* 49, p. 94.

47. See also Byblos (M. Dunand, *Fouilles de Byblos*, Tome V [Paris, 1973], fig. 92) for a head of a horned animal attached to a vessel.

48. Pritchard, *The Ancient Near East in Pictures Relating to the Old Testament*, no. 591.

49. For a contrary opinion see C. Elliott, "The Religious Beliefs of the Ghassulians ca. 4000–3100 B.C.," *PEQ* 109 (1977): 3–25; and also Amiran 1986:86, who refers to a female deity.

"CROWN" NO. 9 (FIG. 9F)

Bar-Adon⁵⁰ noted the resemblance of the human face (in association with the zigzag design on this "crown") to the ossuary no. 51 bis from Azor (fig. 10a).⁵¹ The "face" with a prominent nose appears twice in the Naḥal Mishmar hoard on both "crown" no. 9 and on standard no. 21. It is a dominant feature on the 'frontons' of the ossuaries in the coastal plain, where the face is often reduced to a prominent nose alone (fig. 10b).⁵²

As mentioned above, human faces are formed around handles of jars and pithoi from Beersheba.⁵³ It is interesting to note that the combination of painted facial features with a nose in relief, which appears on the vase from Gezer⁵⁴ as well as on pithoi from Beersheba and on several ossuaries,⁵⁵ is also characteristic of the Samarra culture in Mesopotamia.⁵⁶ Furthermore, the geometric design on the shoulder of the Gezer jar probably echoes the design representing the hairdress on the vessels from Hassuna and Tell es Sawwan (fig. 10c).

The noses in Naḥal Mishmar, as well as those on the ossuaries and the basalt statues from the Golan (fig. 9e), jut off the face, at times recalling a raptor's beak.⁵⁷ However, those on the ivory statues from Beersheba and on the Shiqmim basalt head, although exaggerated in length, are human in appearance (fig. 10d).

Perrot,⁵⁸ followed by Bar-Adon⁵⁹ and Epstein,⁶⁰ suggests that the prominent noses reflect the idea of the "breath of life."⁶¹ One may question whether the significance of the noses applied on the ossuaries differs from that of the human face represented on them. In other words, can the representation of only a nose on an object and a full face on another object both represent the same concept? Or does a nose (alone), so far depicted only on ossuaries, perhaps represent a funerary symbol, while the full face has another connotation?

Some of the heads on the basalt statues found in domestic context in the Golan were described by Epstein⁶² as the heads of humans, and similar heads topped by horns as representing those of animals. They were identified by Epstein as gods of the fields and gods of the flocks, respectively. Such dualism, however, also exists on the ossuaries, where painted faces surmounted by a pair of horns in relief are depicted on the

50. Bar-Adon 1980:132.

51. Perrot, *Atiqot* 3, fig. 28: 1.

52. This motif seems less frequent in Ben Shemen.

53. Perrot, *IEJ* 5, fig. 16: 7.

54. Amiran, *IEJ* 5, pl. 34: A.

55. But not in Ghassul!

56. E. Strommenger and M. Hirmer, *5000 Years of the Art of Mesopotamia* (New York, 1964): pl.1; K. Yassine, "Excavations at Tell es-Sawwan, the Sixth Season (1969)," *Sumer* 26 (1970): figs. 26 and 28-29.

57. Perrot, *Atiqot* 3, p. 32.

58. *Ibid.*, p. 34.

59. Bar-Adon 1980:32.

60. Epstein, "Aspects of Symbolism in Chalcolithic Palestine," p. 26.

61. Epstein ("Cult Symbols in Chalcolithic Palestine," p. 70) suggests a life fertility symbol to ensure increase and prosperity.

62. Epstein, "The Chalcolithic Culture in the Golan," *Qadmoniot* IX (1976): 98-102.

'frontons.'⁶³ An additional example of a horned human head, now in the Israel Museum, was recently published by Tadmor.⁶⁴ It seems, therefore, that representations of human faces, with or without horns, found in funerary and domestic contexts, most probably reflect an identical concept. Are the gods of the fields and the flocks also represented on the ossuaries, or is their appearance, both there and on the basalt statues, connected with the realm of the dead? If the latter possibility is accepted then the distinction between the heads with and without horns should be related to funerary symbolism.

The representation of the human face is well known from the stone masks⁶⁵ and the figurines of human heads from Nahal Hemar.⁶⁶ These probably reflect the cult of the ancestors during the Pre-Pottery Neolithic B period. It is conceivable that a remnant of that cult survived in the representation of the human faces on the Chalcolithic ossuaries and on basalt statues.⁶⁷ Thus, a major part of Chalcolithic art should be considered as the dying gasp of the prehistoric age⁶⁸ rather than the beginning of a new period in art. Moreover, from the point of view of art, the fact that so far no representation of human faces from the Early Bronze Age is known may point to a discontinuity between the traditions of the two periods.⁶⁹ In addition to the representation of human faces, the Chalcolithic assemblage comprises full-figure human statuettes made of ivory⁷⁰ and of clay.⁷¹ Being sculptures in the round, these statuettes should be regarded as belonging to a category separate from that of the applied human heads discussed above. The fact that their noses are exaggeratedly long is doubtless of secondary importance. Perrot⁷² considered the full-figured human statuettes as being statues of worshippers.

63. Ben Shemen: Perrot and Ladiray, *Tombes à ossuaires de la région côtière Palestinienne*, pp. 83, no. 633 and 92, no. 2079.3.

64. *Eretz-Israel* 18, p. 431. The ivory horned head published by Tadmor is not included, since, as Tadmor suggests, it represents a horned human head. It should, however, be added that horned figures in upright human posture, garbed in long garments, appear on contemporary stamp seal impressions from Susa (Amiet, *La Glyptique mésopotamienne archaïque*, pp. 70–72; nos. 118–120). These figures are interpreted as being heroes, the ancestor of the "master of animals," or perhaps an archaic form of divinity (see Hole, "Symbols of Religion and Social Organization at Susa," pp. 318–20). On the identity of the horned figures in human posture see also E. Porada, *Ancient Iran* (New York, 1965), p. 32.

65. Perrot, "Syrien und Palästina," in Mellink, Machteld J. and Filip, Jan (eds.) *Frühe Stufen der Kunst*, Propyläen Kunstgeschichte 13 (Berlin, 1965), pp. 182–92, pl. XIX; O. Bar-Yosef, *A Cave in the Desert: Nahal Hemar. 9,000-year-old-finds* The Israel Museum, catalogue no. 258 (Jerusalem, 1985); T. Ornan, *A Man and his Land. Highlights from the Moshe Dayan Collection* (Jerusalem, 1986), pp. 18–20.

66. Bar-Yosef, *A Cave in the Desert: Nahal Hemar. 9,000-year-old-finds*.

67. B. Margalit ("The 'Neolithic Connexion' of the Ugaritic Poem of AQHT," *Paléorient* 9 [1984]: 97) finds "memories" of the Neolithic ancestral cult in Ugarit.

68. The late Ephrat Yeivin expressed to the author, in private conversation, the idea that the wall paintings from Tuleilat Ghassul also reflect earlier Neolithic traditions. She considered several aspects of this period as the dying gasp of the pre-historic age.

In her thesis A. Gera ("The Basalt Sculptures from the Golan and Their Role in the Culture of the Late Chalcolithic Period in the Land of Israel" [M. A. Thesis, Tel Aviv University, 1986]), regards the heads on the basalt statues as masks. She relates the statues to the ancestors' cult.

69. The author intends to discuss the problem of continuity between the Chalcolithic and Early Bronze Age in a separate article.

70. Beersheba, Perrot 1959, pl. 3; the basalt head of an identical statue was found in Shiqmim: Levy, *BiAr* 49, p. 95.

71. Gilat, Alon, *Atiqot* 11, pp. 116–18.

72. Perrot 1959.

THE STYLE AND ICONOGRAPHY OF THE CHALCOLITHIC HOARD FROM NAḤAL MISHMAR 47

Thus, it seems that in the Beersheba region those applied human faces which are confined to the handles of vessels do not point to any funerary association. In other words, here they do not play the same important role they have in the Golan and in the coastal plain. This variation should be added to the other regional features which characterize the Chalcolithic settlements of the Negev.

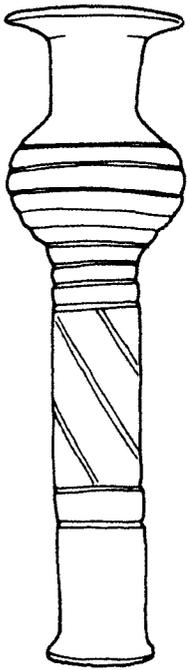
SUMMARY AND CONCLUSIONS

The foregoing discussion attempts to show that the iconography of the Naḥal Mishmar hoard derives from the artistic tradition of the ancient Near East.⁷³ On the other hand, it is closely related to the various local regional assemblages. It has been demonstrated that all the Chalcolithic motifs known in the various local regional cultures appear in the hoard. They do not, however, show up on identical objects, nor in the same frequency; for example, the preference of frontons with applied horns on the Ben Shemen ossuaries versus the frequent appearance of faces on those from Azor, or the relative scarcity of representations of human heads in the Beersheba culture. The fact that the entire set of Chalcolithic symbols is present in the hoard, points to its importance.

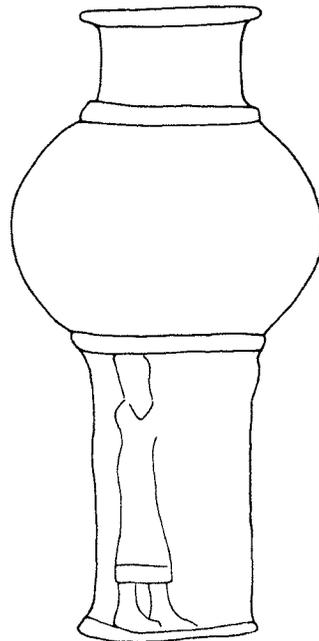
Although the exact center of production has not been found and the arsenical copper alloy is still difficult to explain, the hoard should be regarded as a local product on the basis of its iconography.⁷⁴

73. See also Elliott, *PEQ* 109, pp. 3–25.

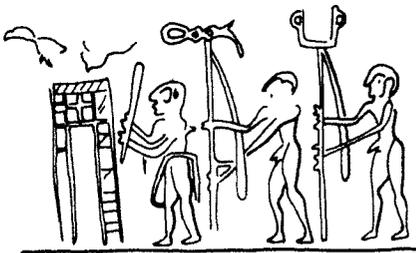
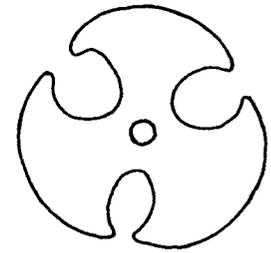
74. The location of the actual manufacturing centers of the rich collections of the "Luristan Bronzes" or the famous copper objects from Alaça Hüyük still puzzles archaeologists. So far, the evidence from the metallurgical activities in the Arava points to mining and smelting rather than to the manufacturing processes. Amiran ("A New Type of Chalcolithic Ritual Vessel and Some Implications for the Naḥal Mishmar Hoard," *BASOR* 262 [1986]: 86) hints to a similar idea; S. Rosen, "The Analysis of Trade and Craft Specialization in the Chalcolithic Period: Comparisons from Different Realms of Material Culture," *Michmanim* 3 (1986): 21–23 and *Treasures of the Holy Land. Ancient Art from the Israel Museum* (New York, 1986), pp. 57–86. expressed a similar opinion.



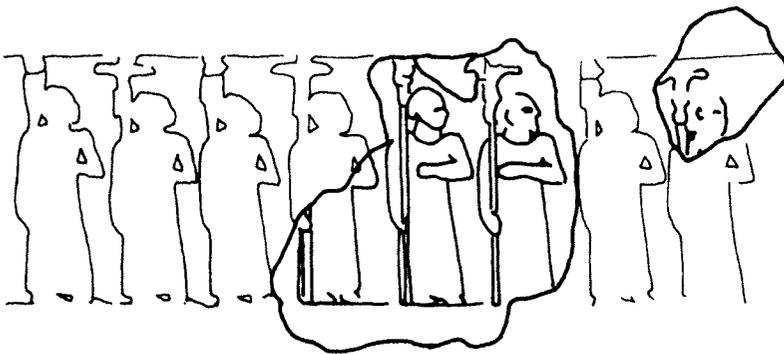
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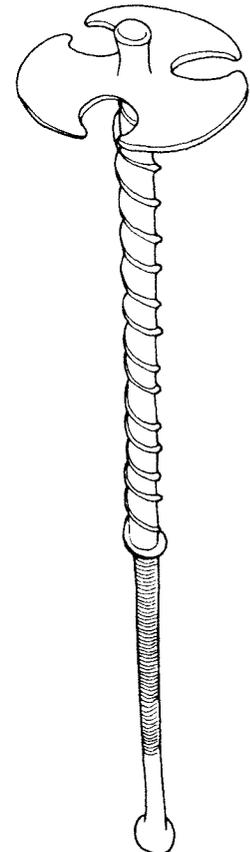
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Fig. 4. (a) Naḥal Mishmar: Simple Standard no. 28, (b) Susa: Standard, (c) Abu Hatab: Cylinder Seal, (d) Girsu (Tellō): Reverse Panel on Stele of Gudea, and (e) Naḥal Mishmar: Standard no. 127.

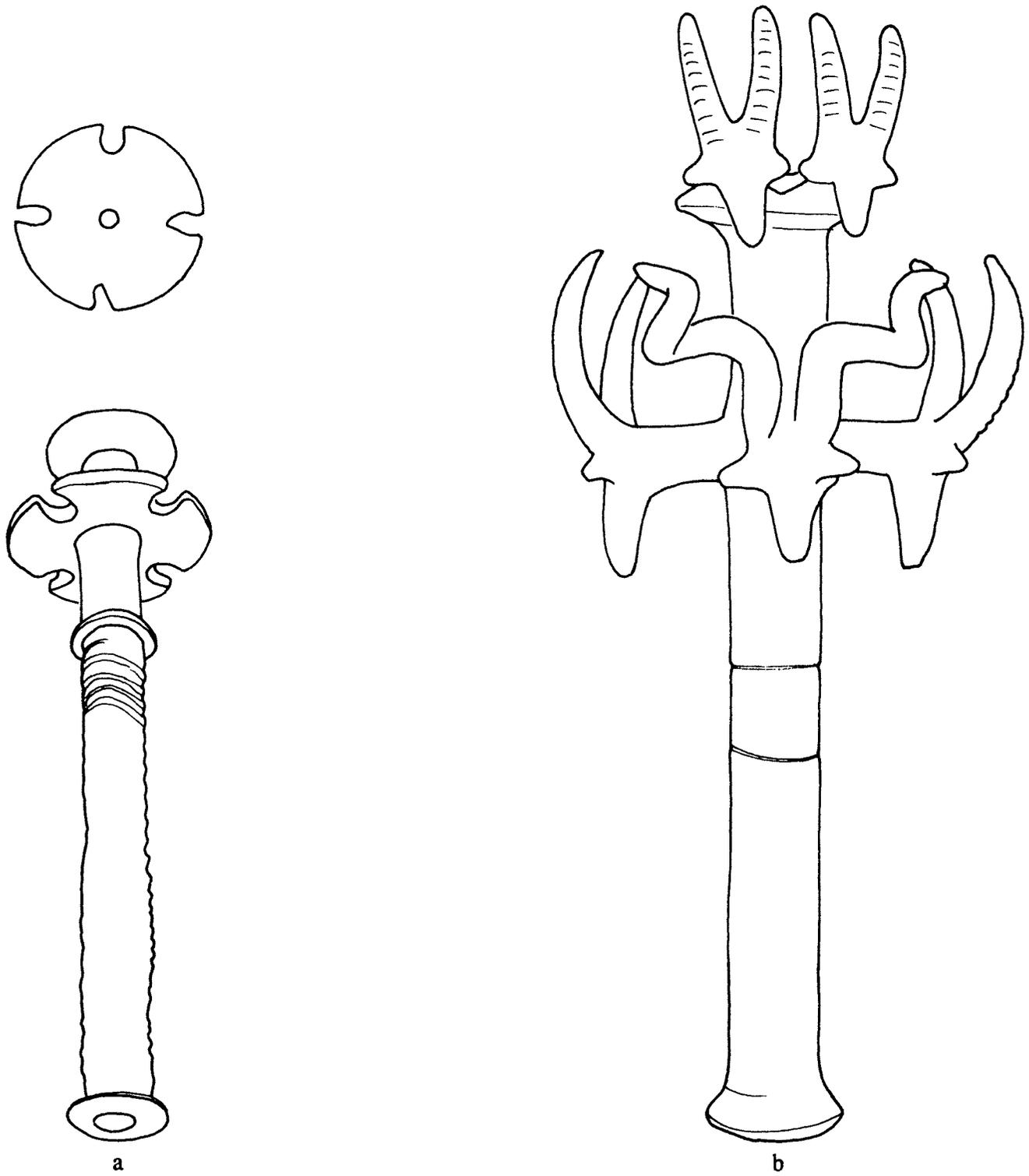


Fig. 5. Nahal Mishmar: (a) Standard no. 112 and (b) Standard no. 17.

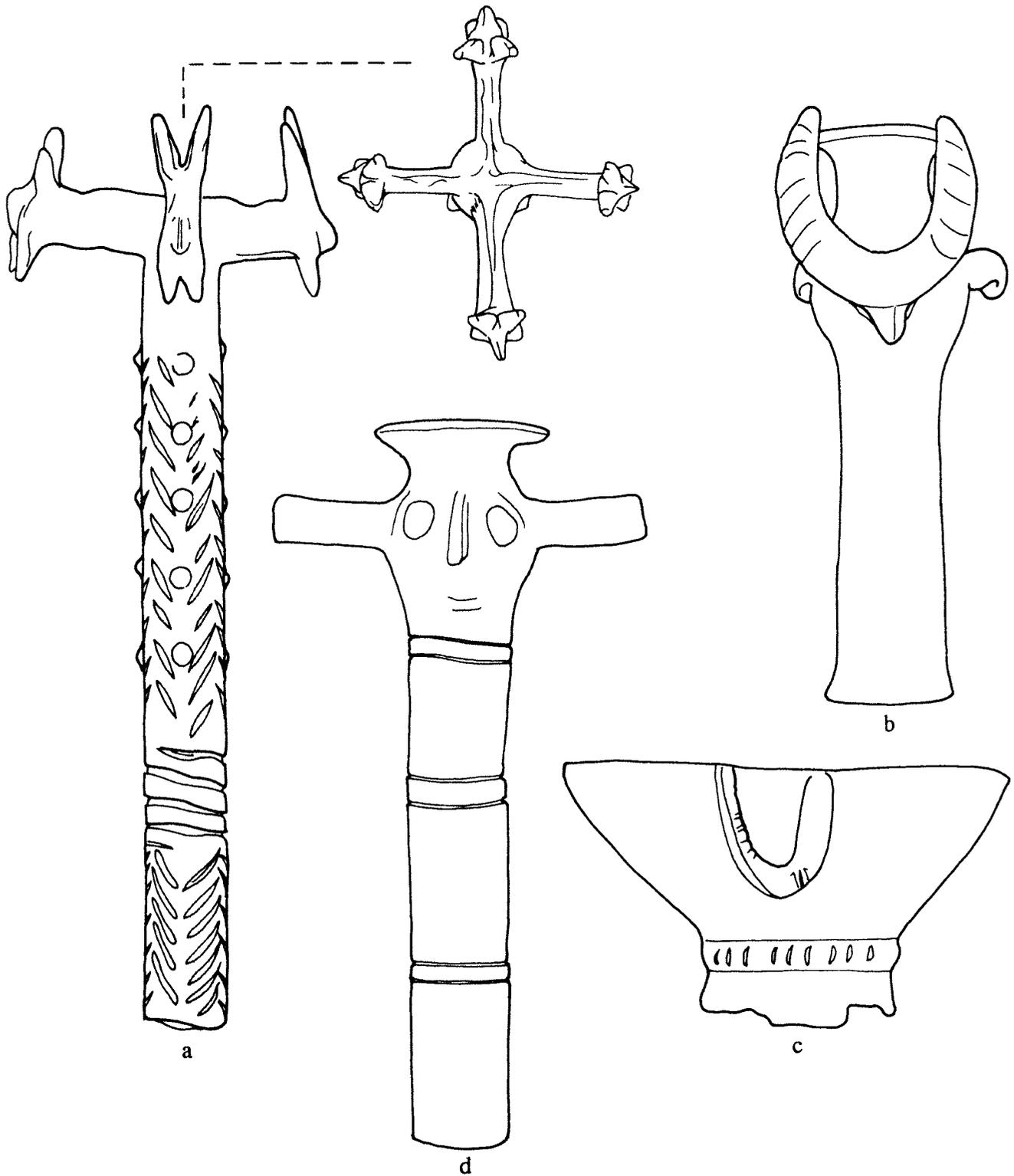


Fig. 6. (a) Naḥal Mishmar: Standard no. 19, (b) Naḥal Mishmar: Standard no. 18, (c) Golan: Ceramic Fenestrated Stand, and (d) Naḥal Mishmar: Standard no. 21.

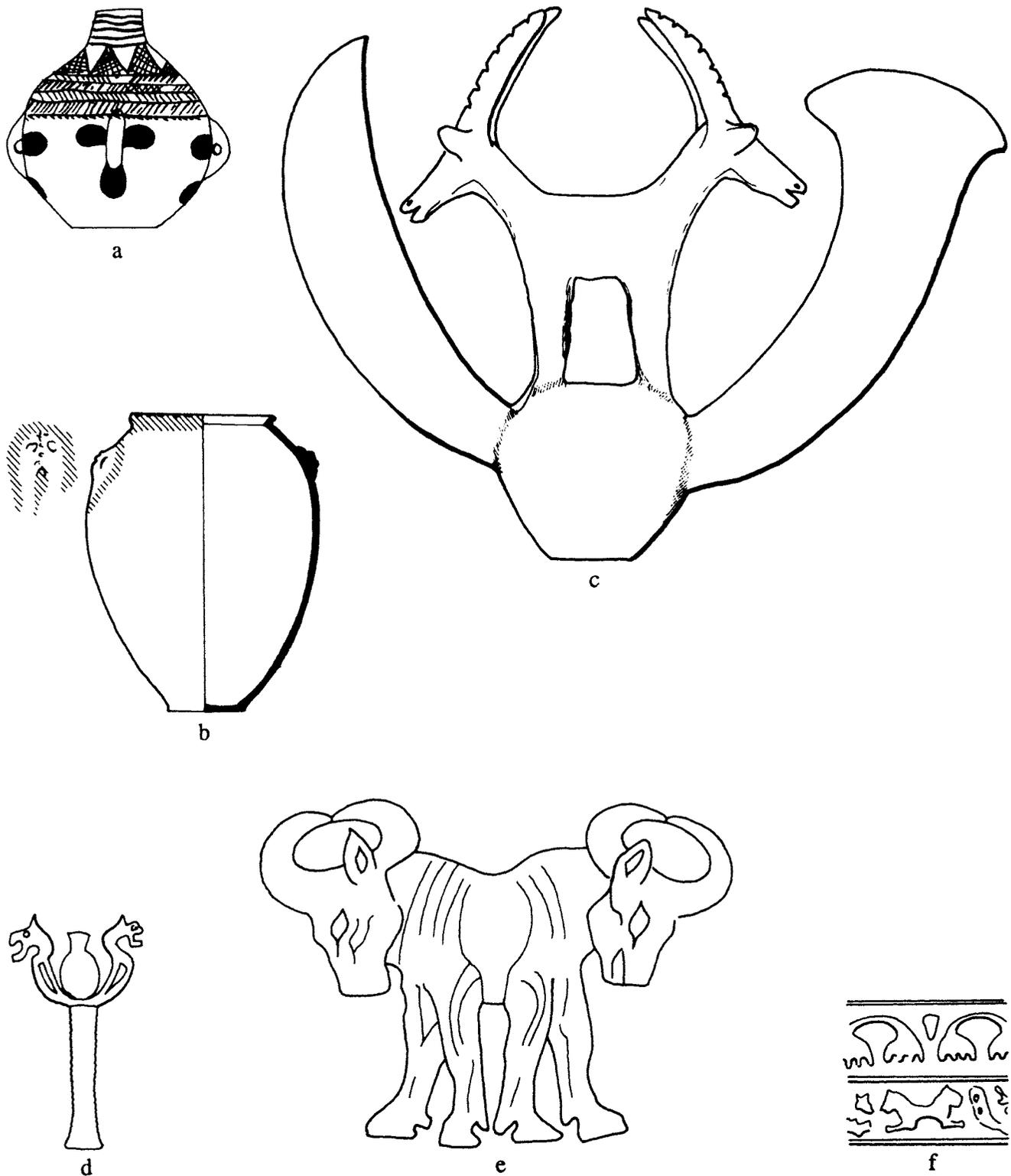
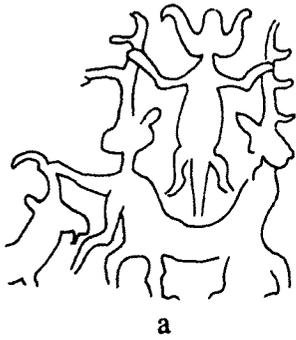
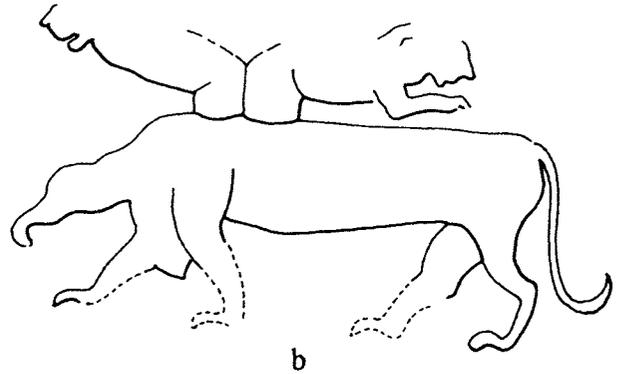


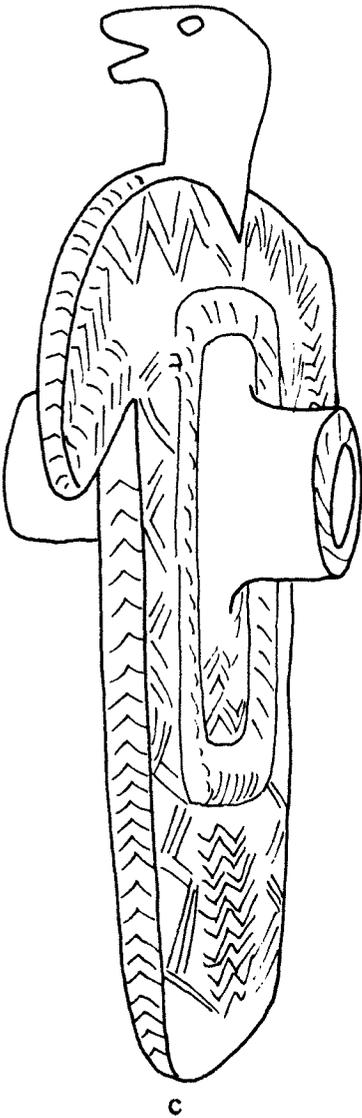
Fig. 7. (a) Gezer: "Cream Ware" Vessel, (b) Beersheba: Pithoi, (c) Nahal Mishmar: Standard no. 153, (d) Mesopotamia: "Lion-Club" Standard, (e) Abydos(?): On Hunters Palette, and (f) Saqqara: First Dynasty Seal Impression.



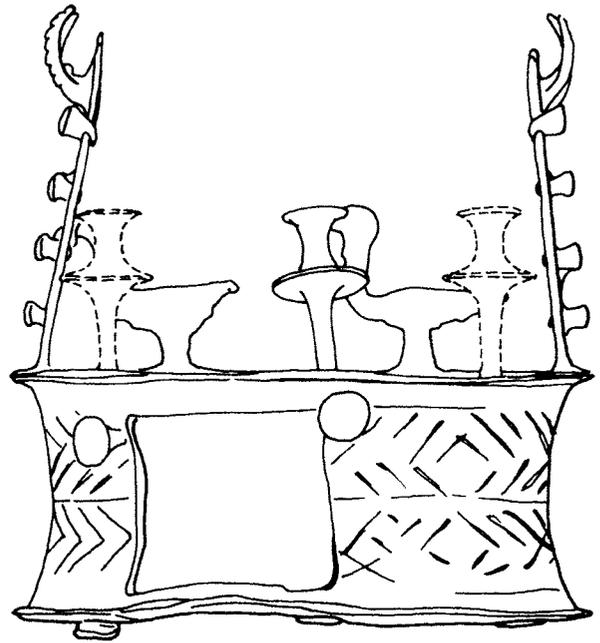
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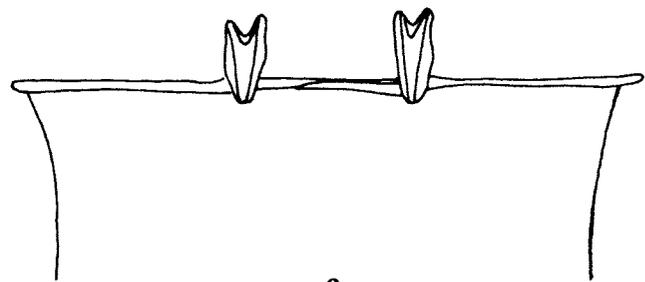
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Fig. 8. (a) Uruk: Seal Impression, (b) Susa: Seal Impression, (c) Naḥal Mishmar: Standard no. 154, (d) Naḥal Mishmar: "Crown" no. 7, and (e) Naḥal Mishmar: "Crown" no. 10.

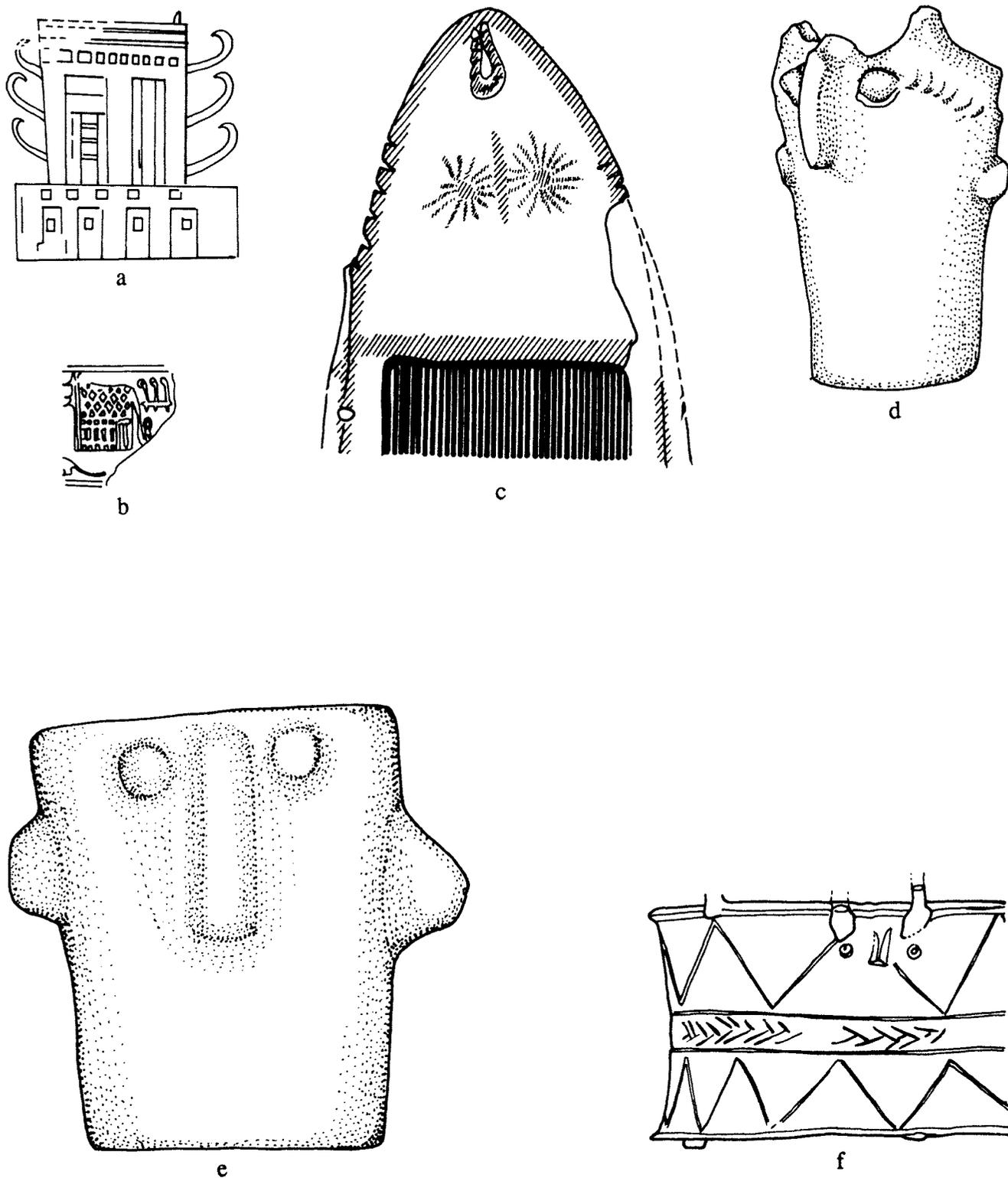


Fig. 9. (a) Susa: Cylinder Seal Impression, (b) Abydos: Cylinder Seal Impression, (c) Ben Shemen: Ossuary no. 2079.3, (d) Golan: Basalt Statue, (e) Golan: Basalt Statue, and (f) Nahal Mishmar: "Crown" no. 9.

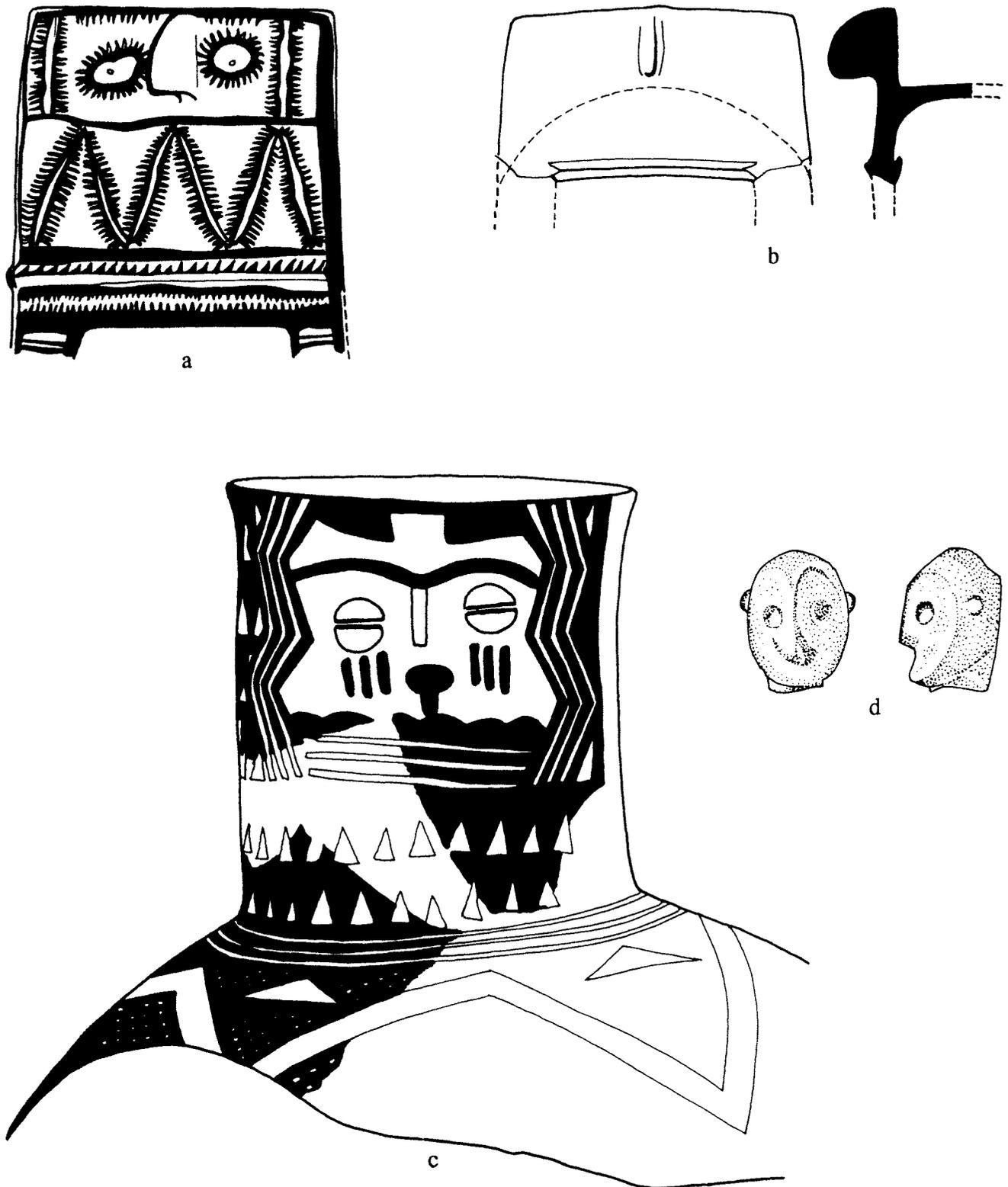


Fig. 10. (a) Azor: Ossuary no. 51 bis, (b) Azor: Ossuary no. 232, (c) Hassuna: Pottery Jar, and (d) Shiqmim: Basalt Head.

Chapter 4

A RECUT OLD BABYLONIAN SEAL WITH A SUMERIAN PRAYER OF THE KASSITE PERIOD

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In recent years increasing attention has been given to the phenomenon of recut cylinder seals. Instances of seals being recut when they were passed from father to son are well documented. However, in other cases seals must have turned up centuries after the time of their original owners and might then be updated with a new inscription or with a modified scene.¹ Our seal appears to be an example of the latter practice.

The seal published here (pl. 9) is of haematite, and measures 2.7 by 1.1 cm (only 1 cm when measured from the inscribed area).² It presents the apparent incongruity of a classic Old Babylonian motif as the principal element of the design, but bearing an inscription consisting of a prayer in Sumerian that is most typical of the Kassite period.³ No traces remain of the original inscription (assuming there was one), but it is clear from examining the seal that its inscription is a later addition. The perforation is now closer to the inscribed area than to the rest of the design, as would be expected. In addition, there is a shallow chip at the end of line two clearly made before the inscription was added. Note also that the inscription is within a box on three sides but that it goes entirely to the edge on the bottom. There is an engraved line across the bottom of the scene which was obliterated below the inscription in the recutting.

1. See particularly Dominique Collon, *First Impressions: Cylinder Seals in the Ancient Near East* (London and Chicago, 1987), pp. 120–22.
2. It is published with the kind permission of the owner, Mrs. Warman Welliver of Indianapolis. The seal was acquired by Mrs. Welliver's late husband some years ago. I am grateful to Mrs. Gustavus F. Swift, Jr., for bringing the seal to my attention.
3. Such seal inscriptions have been studied primarily by Henri Limet, *Les Légendes des sceaux cassites* (Brussels, 1971). There have been others published subsequently, the principal group by J. A. Brinkman, "The Western Asiatic Seals Found at Thebes in Greece: A Preliminary Edition of the Inscriptions," *Archiv für Orientforschung* 28 (1981–82): 73–77 (some of these were included by Limet, based on earlier publications).

The principal motif of the design is the sun-god facing a suppliant goddess.⁴ Since such scenes often include a third figure, it may be that such a figure was removed to make room for the inscription. Between the sun-god and the goddess are a fish-man,⁵ a fly, and a kneeling figure.

THE INSCRIPTION

ᵈUtu en dim ₄ (!)-gal	Oh, Utu, great august lord!
kin geštu ^{II(?)} giš-kin-kin
Ì-lf-ip-pa-al-sà-am Ìr-zu	Ìlī-ippalsam is your servant.
igi-zu ḫé-ša ₆	May he be happy in your presence!

COMMENTARY

1. A similar epithet of the sun-god is attested in another Kassite seal inscription: ᵈUtu en dim₄. See Limet, *Sceaux cassites*, No. 4.16. Note that in our inscription the sign dim₄—if indeed that sign was intended—is written defectively, namely it consists of a single PAB sign rather than PAB+PAB. In other seal inscriptions one finds the epithet dim-gal, “great mast” (Limet, *Sceaux cassites*, Nos. 6.7 and 8.7). Perhaps, especially because of the variability in Sumerian orthography in such inscriptions, one could suggest the possibility that both writings reflect the same term.

2. This line, an epithet of the sun-god, is of uncertain meaning and is apparently unparalleled in these Kassite Sumerian prayers. Because of the two wedges following GIŠ which would normally be taken as an indication of a dual, I am inclined to suspect that the seal cutter intended GEŠTU^{II} but omitted a small horizontal wedge, leaving GIŠ^{II} instead. Because of the graphic similarity between the signs TUK and KIN (the latter having added wedges—Akkadian *gunû*—in the left part of the sign) and because GIŠ.TUK is a common equivalent of *šemû*, “to hear,” it seems possible, despite the problems, that the line refers to the sun-god heeding prayers. Note *še-e-mu-ú te-es-li-ti le-e-qú-ú un-né-e-ni*, “(god) who listens to supplications, who accepts prayers” (Limet, *Sceaux cassites*, No. 8.15) and *ik-ri-bi-šu iš-me-ma*, “(god) who heard his prayers” (Limet, *Sceaux cassites*, No. 12.1). Nevertheless it is impossible to arrive at any Sumerian reading of the line to yield such a sense.

3. The personal name *Ìlī-ippalsam* (meaning “My-God-Has-Looked-upon-Me-Favorably”) is well known in Babylonia.

4. I have not found an exact parallel for this line. A similar passage, however, is *Ìr ní-tuku-zu / igi-za ḫe-li* (Limet, *Sceaux cassites*, No. 6.8), translated by Limet as “le serviteur qui te révère / par ton regard qu’il se réjouisse.” I would prefer there, as in our inscription, to take *igi-za* as “before you” or “in your presence.”

4. See the discussion by Dominique Collon, *Catalogue of the Western Asiatic Seals in the British Museum: Cylinder Seals III: Isin-Larsa and Old Babylonian Periods* (London, 1986), pp. 138–40.

5. See *ibid.*, p. 45, there listed as Mermaid/Merman. See also the discussion of “fish-man” in F. A. M. Wiggermann, *Babylonian Prophylactic Figures: The Ritual Texts* (Amsterdam, 1986), pp. 318–21, and E. Klengel-Brandt, “Apotropäische Tonfiguren aus Assur,” *Forschungen und Berichte* 10 (1968): 19–37, esp. p. 32.



A Recut Old Babylonian Cylinder Seal and Impression.

Chapter 5

COMMENTS ON SMALL FINDS AND ITEMS OF ARTISTIC SIGNIFICANCE FROM TELL HADIDI AND NEARBY SITES IN THE EUPHRATES VALLEY, SYRIA

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This festschrift provides an opportunity to acknowledge the debt of gratitude of a student to his professor and mentor for her many years of patience, advice, concern, imparted methodology, and thoughtful listening. If a strong emphasis is placed in student training on a methodical approach to the study of archaeological reports, historical reconstructions, and development of stylistic features, there never seems to be enough time to concentrate on the extensive artistic heritage which was an integral part of the long cultural traditions of the ancient Near East. This is a particular problem for a field archaeologist who must expend a great deal of effort on the time consuming necessities of analysis of pottery typologies, stylistic details of all artifactual repertoires, and the basis of all of these in a stratigraphical context. It is hard to rival Professor Kantor's persistence and ability to maintain a sense of enthusiasm in continually meeting such challenges. Working with the artistic production of the Near East, on the other hand, provides an exciting balance and Professor Kantor is able to convey her greatest insight in this area and her love for the ancient traditions. It is for this reason that we would like to concentrate on what to me seemed Professor Kantor's greater joy and to provide a modest contribution within the context of our concentration on the pottery traditions and the stratigraphical context which have been our major preoccupation since the last season of excavations at Tell Hadidi. Though the materials of artistic significance or relevance from Hadidi are limited, they do provide a basis from which to view a new body of excavated materials.

I. INTRODUCTION

The archaeological investigations in Syria over the past twenty-five years have produced a limited number of major additions to the corpus of Bronze Age monumental artistic achievements. A few, geographically dispersed examples of stone sculpture have been found, most noticeably, at Tells Mardikh, Chuera, Selenkahiye, Meskent Qadime, and Halawa. A wealth of small finds have been excavated by the

numerous expeditions throughout Syria. At the major sites of Ugarit and Mari, effort has centered on stratigraphy and architecture with major exposures outside of the well-known palace complexes. Only the extensive excavations at Tell Mardikh have yielded larger scale sculpture on basins and statues, and a significant collection of jewelry and furniture decoration in precious metals, ivory, and wood. The many new archives, large and small, of cuneiform tablets which have been excavated at Ras Shamra, Ras Ibn Hani, Mardikh, Mumbaqaat, Hadidi, Meskene Qadime, Bi'a, Ashara, Hariri, Sheikh Hamid, and Leilan have as a by-product generated a large corpus of seal impressions to go with occasional seals and impressions that also have been found, particularly at Chuera and Selenkahiye. Only a smattering of these impressions are published so far but a number of significant studies have been undertaken to organize the sequence of representative styles, determine their places of manufacture, and relate them to Mesopotamian and other known sequences and styles. This glyptic evidence provides the largest non-ceramic corpus of information on the artistic practice and traditions of Bronze Age Syria. When the material mentioned has been published in detail, a successful reevaluation of the artistic achievement in Syria should be possible. We can offer only a few additional comments and illustrations here.

Among the most numerous classes of small objects that have been found in recent excavations are clay figurines and occasional incised representations on clay vessels. The mold impressed figurines, primarily of the second millennium and later, were produced within developed artistic conventions and styles. The hand formed figurines of the third and early second millennium are cruder artistic products but conform to distinct styles and types. The valuable study by Leila Badre¹ compiles the material available through 1980 and provides a basis upon which new examples can be studied.

We would like to devote the remainder of this article to a review of the recently discovered Bronze Age materials mentioned above, concentrating on the material excavated at Tell Hadidi and neighboring Euphrates Valley sites. The first phases, EBI and II, of the Early Bronze Age are represented in very limited exposures. Most of the evidence is confined to a basic ceramic inventory and a very limited selection of small finds. We will not refer here to the ceramic framework upon which the period divisions are based since we have discussed that in general and in detail² elsewhere.

II. EARLY BRONZE AGE ARTISTIC PRODUCTION AND FOLK ART

The second half of the third millennium is well documented throughout Syria. The EBIII-IV complex of artifactual materials begins in the second quarter of the millennium³ and the inventory of artifacts is not uniform from site to site. The Mari statuary and other fine objects found in many seasons of excavations represent variations of established Mesopotamian styles with distinctive local features. They

1. L. Badre, *Les Figurines anthropomorphes en terre cuite à l'âge du bronze en Syrie* (Paris, 1980).
2. R. H. Dornemann, "Salvage Excavations at Tell Hadidi in the Euphrates River Valley," *Biblical Archaeologist* 48 (1985): 49-59; "Early Second Millennium Ceramic Parallels Between Tell Hadidi-Azu and Mari," in *Mari at 50: Studies in Honor of the 50th Anniversary of the Discovery of Tell Hariri-Mari*, ed. G. W. Young (Winona Lake, Indiana, 1987); "The Syrian Euphrates as a Bronze Age Cultural Unit Seen from the Point of View of Mari and Tell Hadidi," *AAAS* (in press, 1987); and "Tell Hadidi: One Bronze Age Site Among Many in the Tabqa Dam Salvage Area," *BASOR* 270 (1988): 13-42.
3. Dornemann, "One Bronze Age Site."

represent the artistic production of an important center in a strategic geographical cross-roads area at the periphery of ancient Mesopotamia. Only a few additional examples of artistic production related to Mesopotamian models are found farther north and west, like the seals or seal impressions and statuary found at Selenkahiye⁴ and Chuera.⁵ The seal impressions which can be attributed to this period, like those from Chuera, conform closely to Mesopotamian examples⁶ and are not related to the early sealings from the Euphrates Valley sites of Habuba Kabire and Jebel Aruda.⁷

Viewed from another perspective, the artistic production of Mari represents the eastern edge of Syrian cultural traditions. The most important body of materials from western Syria are those recently excavated at Ebla. The reconstructed composites of the seal impressions from Palace G of Tell Mardikh IIB1⁸ show stylistic features clearly dependent on Mesopotamian traditions in their repertoire of figures and basic conventions: bull-men, lions, goddesses, and heroes in various combinations in combat scenes. Facial features, dress, position, outlining of anatomical, and other details exhibit Syrian variations of the Mesopotamian conventions which, on the basis of the limited number of impressions available so far, make it difficult to date them precisely. Matthiae considers them to belong to the Early Dynastic tradition⁹ and Porada¹⁰ as transitional works between Early Dynastic and Akkad traditions. The beautiful and delicate inlays from the palace in wood, limestone, lapis-lazuli, steatite, and gold emphasize a naturalistic, though conventionalized, style of representation.

TERRA-COTTA FIGURINES

Sites in the "big bend" area of the Euphrates River have not yielded much which can be added to the list of art objects of this period. Only the inexpensive clay figurines, primarily from domestic context, are available in considerable numbers which can be compared with those from all parts of Syria. Tell Hadidi, like nearby Selenkahiye, Habuba Kabire, el Hajj, el 'Abd, Halawa, Mumbaqaq, es Sheikh, el Qitar, and Sweyhat provide a large collection of figurine fragments which show considerable overlap in representational detail. Very few complete figurines of any period have been found at these sites.

Early Bronze Age figurines were the most common at Hadidi, numbering more than 200. About fifty (ca. 25%) of these are heads or include heads, about seventy (ca. 35%) are upper body fragments and the remainder (ca. 40%) are base fragments. None of the latter were found on the surface (since neither workers nor supervisors were interested in picking up undecorated pieces) while about 25% of the heads and about 20% of the upper body pieces had been picked up on the surface of the site. In some cases, enough fragments were

4. M. N. van Loon, "1974 and 1975 Preliminary Results of the Excavations at Selenkahiye near Meskene, Syria" in D. N. Freedman, ed., *Excavation Reports from the Tabqa Dam Project — Euphrates Valley Syria*, AASOR 44 (Ann Arbor, 1979), pp. 97–112.
5. A. Moortgart, *Tell Chuera in Nordost-Syrien: Vorläufiger Bericht über die fünfte Grabungskampagne 1964* (Wiesbaden, 1967), fig. 15.
6. E. Porada, "Syrian Seals from the Late Fourth to the Late Second Millennium" in H. Weiss, ed., *Ebla to Damascus*, (Washington, D. C., 1985), p. 91.
7. G. van Driel and C. van Driel-Murray, "1983 Jebel Aruda 1982, a Preliminary Report," *Akkadica* 33 (1983): 1–26.
8. M. P. Matthiae, *Ebla, An Empire Rediscovered* (Garden City, 1981), p. 88.
9. *Ibid.*, 86.
10. Porada, "Syrian Seals," p. 92.

preserved with both head and upper body to link specific details, and fortunately these conform to patterns also found at Selenkahiye or elsewhere. The anatomical features of the figurines were summarily represented, bodies were usually flat but heads were closer to three-dimensional treatment. The greatest amount of detail was used in representing the head, particularly the hair. The beak-like noses were standard and were usually created by pinching the clay to a triangular wedge which separated eyes that were created by applying two dot-impressed clay pellets. The indication of other features like ears, mouth or chin were apparently not considered essential to the basic style of representation. Incised details were occasionally added, for example, to indicate beards or to provide greater naturalism in the depiction of the eyes but such detail is unusual.

Eighteen figurine heads from Hadidi were depicted wearing crown-like hats and were apparently intended to represent men (like pl. 10a, e, f, h, and n). The arms on such figurines were depicted as short stubs and were pierced with vertical holes, possibly to hold model weapons (pl. 10e, u, v, and x). We prefer to use the designation "king figure" to refer to such figurines. One large example is modeled on a large tubular body (pl. 10a). The arms were modeled separately and attached to the body. Hands were represented with thumbs pointing up and fists vertically pierced. Arms and hands of similar size were also found in other locations, so similar figurines existed elsewhere. All other figurine body fragments have solid rather than hollow bodies.

Similar "king" figurines were found at Selenkahiye,¹¹ Habuba Kabire,¹² and Meskene,¹³ but more often figurines with pierced stump arms were represented with pointed hats rather than "crowns."¹⁴ These were found at Hama, Selenkahiye, and Habuba but not at Hadidi. Such figurines also frequently have holes pierced at the ears and several of the "king" figurines from Hadidi also show this feature. Another figurine head from Hadidi is unique, but undoubtedly related, in representing a soldier or hero wearing a high, round-topped helmet (pl. 10b). The shape of the helmet is well known from later, Middle Bronze Age reliefs, seals, and plaques but is also found in Early Bronze Age contexts on inlays, reliefs, and seals.

It is difficult to determine whether specific figurine types were intended to represent men or women¹⁵ or whether the figures were meant to represent human or divine forms. It is probable that women are represented by certain specific figurine types, but, since the number of complete figurines is very limited, it is often impossible to be certain of such a determination. Even when figurines are complete, sex determination can still be a problem. A common pose for the figurines depicts the two hands held close to the chest. About 22% of the fragments with upper bodies represented are shown this way (pl. 10q, r, t, and y-aa). On analogy with later figurines, one would expect such figurines to be female and represented holding their breasts, but only in a few instances, 13% of this total (or less than 6% of the total number of figurines with upper bodies preserved), are the breasts specifically represented. The presence of necklaces on the figurines, similarly, does not prove that a woman is represented. Of the sixty-three figurines represented wearing necklaces, 56% wear a single necklace (like pl. 10q-t), 33% wear two (like pl. 10u-y), 11% wear three (like pl. 10z and aa), and there is no pattern that would tie a particular style with men or women. Some clearly male figurines, like some examples of the "king figure" type, are depicted with necklaces (pl. 10a, e, f, u, v, and x).

11. Badre, *Figurines anthropomorphes*, pl. XLIV: 86.

12. *Ibid.*, pl. XLIV: 17.

13. L. Badre, "Les Figurines de terre cuite," in *Meskéné-Emar: Dix Ans de travaux 1972-1982* (Paris, 1982), pp. 99-107.

14. Badre, *Figurines anthropomorphes*, pls. I: 2; XXXIX: 9, 14, 16; XLVIII: 1; XLIX: 17.

15. *Ibid.*, 134.

Only in a few rare instances are figurines depicted holding objects in their hands. One of the complete Selenkahiye figurines is shown holding a cup¹⁶ and another a drinking horn.¹⁷

It is difficult to correlate specific decorative features or hair styles with specific figurine types. It is also difficult to devise accurate statistics to correlate hair styles with other features because of the condition of the figurine heads, but a series of distinctive hair styles are found at Hadidi and all have parallels in the Euphrates Valley and elsewhere. Hair is frequently shown at the sides of the face (pl. 10d–f, h, and j–o), but the hair style at the back is not always clear. It can be represented by incised lines (pl. 10i, l, and n), by a flat piece of clay (pl. 10h), by a rounded roll of clay (pl. 10d and k, which is usually covered with impressions in various stippled or other effects), or by a small rectangular block of clay apparently representing a bun (pl. 10g, m, and o). In some cases, neck length hair is shown full in the back (pl. 10p), and in others no attempt is made at any representation at all (pl. 10i and k–m). In many cases the hair is brought directly back across the top of the head from the forehead. In many examples the head is covered by a “crown,” hat, small cap, or tiara.

Only a few figurines were found at Hadidi which did not conform to the usual patterns. One small figurine from our vicinity, but not necessarily from Hadidi, has its eyes represented by slits in the clay pellets forming the eyes (oriented roughly horizontally) rather than the normal treatment with circular holes impressed at the center of the applied pellet. The treatment of the arms, head, and body, like the eyes, are unusual on this figurine and it is best dated in the fourth millennium B.C.. Eight figurines with eyes formed in this unusual manner are represented among the Selenkahiye figurines included in Badre’s corpus¹⁸ and clearly date to the second half of the third millennium. At Mari, such eyes are more common on figurines than the type of eyes commonly represented at Hadidi and Selenkahiye. The features of these Mari figurines are quite different from the normal type at Hadidi, though excellent examples of the types common at Hadidi, Selenkahiye, etc. are also found at Mari. The unusual figurines from Chuera¹⁹ are represented on the Euphrates at Mari and Bi’a and a few somewhat similar examples were found at Selenkahiye. None were found at Hadidi.

Another figurine type, represented in the Euphrates Valley by a few poorly preserved examples, is apparently most common at Mardikh in central Syria and at Hama in the Orontes River Valley. These figurines are broad across the chest and have a very rounded outline from the neck to the waist.²⁰ It is impossible to say how certain figurine types made their way into the Euphrates Valley, how non-local types influenced the local production and whether or not these non-local features were confined chronologically to distinct phases within a long tradition of figurine making. Too many of the unusual or critical figurines are from surface or insecure contexts for them to clarify this question significantly.

TERRA-COTTA FIGURINES SEEN IN A BROADER SYRIAN ARTISTIC CONTEXT

When the Early Bronze Age figurines are viewed in the context of the contemporary stone sculptures, decorated metal objects, and inlay fragments found in Syria, some features become easier to understand. With the wealth of figurine documentation now available, the cast bronze figurines from phase G at Tell el

16. van Loon, “1974 and 1975 Preliminary Results,” fig. 27.

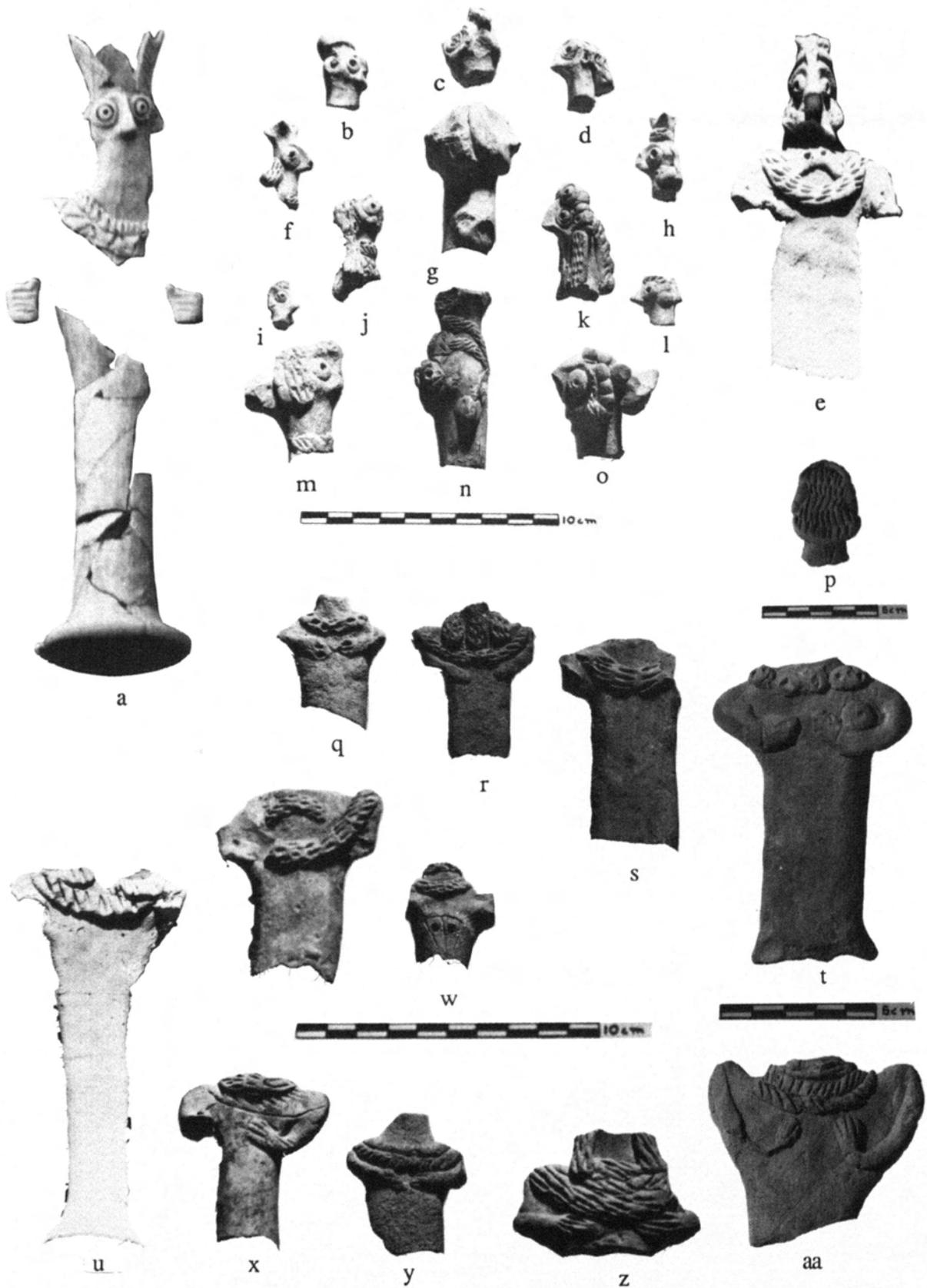
17. *Ibid.*, fig. 10.

18. Badre, *Figurines anthropomorphes*, pls. XXXIX: 1, 6, 12, 13 and XLIII: 74, 77, 79, 84.

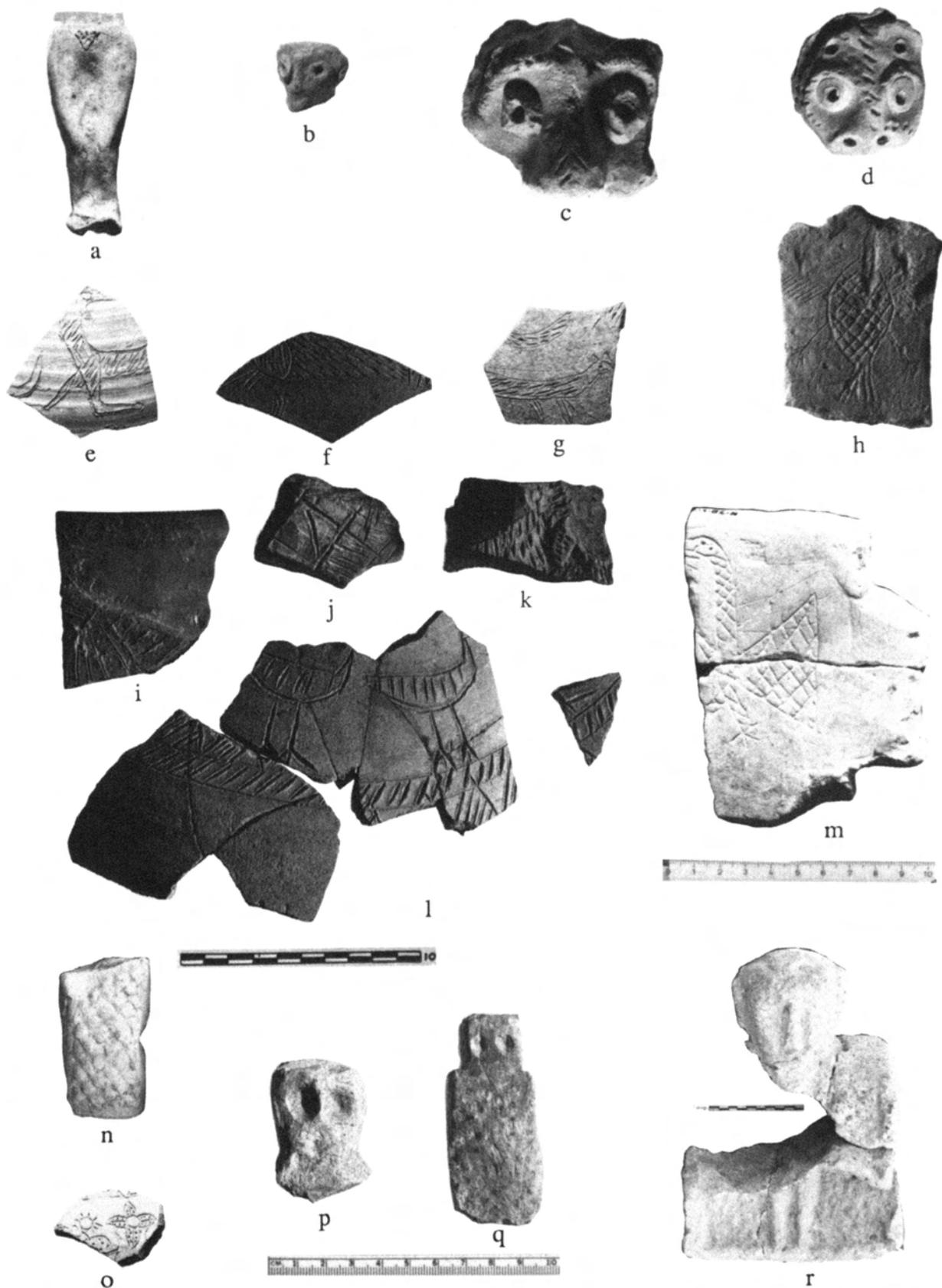
19. *Ibid.*, pls. XXXII: 10–14; XXXIII: 15, 25–27; and XXXIV: 31, 32, 35.

20. *Ibid.*, pls. III: 61–63, 68 and IV: 72, 82, 84, 85 from Hama; pl. XV: 87–90 from Mardikh.

Plate 10



Tell Hadidi: Selection of Head and Body Fragments of Early Bronze II-IV Figurines from Various Areas of the Mound.



Tell Hadidi: (a, b) MB Hand-Modeled Figurine Fragments, (c, d) EB III-IV Applied Anthropomorphic Pottery Heads, (e-k) EB III-IV Incised Body Sherd, (l) EB III-IV Front Fragment of Incised Model Chariot, (m) EB III-IV Incised Stone Plaque, (n) MB Mold Impressed Plaque Figurine, (o) MB Incised Sherd, (p, q) EB III-IV Crude Stone Figures, and (r) LB IIA Crude Stone Statue from the Area H Building.

Judeideh²¹ are less isolated and the tradition within which they were produced can better be understood. All three male figures seem related to the "king figure" type. Their arms are better articulated than on the clay figurines but their hands are held close to the body and their fists hold weapons. The weapons provide reasonable parallels of the reconstruction for the clay figurines, but there is no consistency from figure to figure on the selection of weapons or hands in which they are held. The helmets on the figures mirror the helmet on the one Hadidi figurine shown on plate 10b. The remaining details on the bronze figures are not found on the clay figurines, but, since no other detail is usual from the chest down on the "king figure" and most other male figurines, this is not unexpected. Male figures holding weapons are commonly depicted on cylinder seal impressions and in metal figurines,²² particularly the large number of such figurines found at Byblos.

A greater amount of detail is also represented on the metal Judeideh female figurines than on clay figurines. The hands on the chest and the hair styles can be duplicated between the two types of objects. An interesting fragment of a sculptural relief from Halawa²³ shows the same hair style worn by the Judeideh female figurines and depicted on many clay figurines. In the Halawa relief it is worn by two figures clothed in long, ankle-length garments. Similar hair styles are known from Mesopotamian reliefs and seals.²⁴ Two larger, probably male, figures on this relief hold items in their hands at chest and shoulder height, paralleling the stance of the Judeideh figurines and the "king" figurines. This relief and the figures and figurines discussed above would seem to demonstrate standard iconographical features which represent an established artistic tradition of the Syrian Early Bronze Age.

The other vignettes on the Halawa relief illustrate long-lived, standard Mesopotamian iconographical themes which obviously are well rooted in a Syrian milieu as well: a sheep or goat suckling her lamb, two opposing goats standing and feeding on a tree, and crescent axes used as fill items in the field between major figures. The short fringe at the bottoms of the robes of the two men is also found on one of the statue fragments from Selenkahiye.²⁵ Orthmann suggests that a distinctive north Syrian style of dress is represented by these examples. The lowest scene is not common and is difficult to interpret fully because of its incomplete preservation. It may represent a plowing scene or, as Orthmann prefers, the scene of a man driving a wagon. The man holds a whip and reins which are attached to a yoke on an animal. The wagon is not preserved on this fragment and only one draft animal can be discerned.

We have mentioned Selenkahiye and Hadidi particularly in our discussion but the same figurine tradition is well represented at other sites in the area. Head or body fragments of "king" figurines (with pointed hats and pierced ears or with crowns) were found at Sweyhat, Mumbaqaat, Meskene, Habuba, and Halawa. Many of the hair styles were also represented at neighboring sites, as were figurine heads with low flat hats. The geographical spread of some of the specific features common in the "big bend" area of the Euphrates is demonstrated by examples from recent excavations outside the Euphrates Valley. They document

21. R. J. Braidwood and L. Braidwood, *Excavations in the Plain of Antioch I*, OIP 61 (Chicago, 1960), pp. 300–315 and pls. 56–64.

22. O. Negbi, *Canaanite Gods in Metal* (Tel Aviv, 1976), pp. 8–59.

23. W. Orthmann, "Tall Halawa," *Archiv für Orientforschung* 31 (1984), figs. 33a and b; idem, "Art of the Akkade Period in Northern Syria and Mari," *Mari Annales de Recherches Interdisciplinaires* 4 (1985): 469–74.

24. W. Orthmann, "Tall Halawa," *AJO* 31, p. 145.

25. van Loon, "1974 and 1975 Preliminary Results," fig. 18.

the eastward spread of many of the types from this area as well as their spread to the west and south which is apparent by comparison with figurines from earlier excavations at Hama, Judeideh, Qatna, et cetera.

A TRADITION OF INCISED DECORATION

A variety of incised decoration from Hadidi represents a range from simple geometric patterns and crudely represented figures to a number of fine, well-drawn compositions. In some cases individual motifs and small group scenes are depicted while others seem to represent larger compositions. Since the number of examples is limited, it is difficult to assess the combination of motifs and to decide the extent of overlap with other known representational media such as sculpture or glyptic. Three sherds (pl. 11e–g), a stone plaque (pl. 11m), and a pottery model chariot front (pl. 11l) from Hadidi are intriguing in the implications they suggest but it is premature to develop considerable speculation on the basis of this limited information.

The crosshatched fill covering the long-necked bird represented on the Hadidi stone plaque and the bird on the chariot front are similar to the fill common on sherds decorated with figures drawn with a fairly thick line. The sherds illustrated on plate 11k represent this simplest, primarily geometric decoration which is commonly drawn with such a fairly heavy line. The summarily represented birds with incised dashes for body decoration are paralleled at Sweyhat, Halawa, Mumbaqa, and elsewhere. Several vessels from these sites are decorated in almost identical fashion with incised lions drawn facing a bird. The head of the bird is placed directly beneath the vessel's spout or formed as part of the spout.²⁶ The heads of the lions are fashioned separately and added to the vessel. Similar, but detached, heads have been found at Hadidi (like pl. 11d and j) and elsewhere. The fragment of a schematically modeled human head (pl. 11c) must have been applied to another vessel in a similar manner but the representation of the human form in this manner is unusual. On two vessels from Habuba Kabire, a bird is placed beneath the spout but no lions are depicted.²⁷ The head is attached separately and its wings are incised so as to stretch in both directions on the shoulders.

A vessel from Mumbaqa shows a series of bands decorated with geometric patterns similar to those on the Hadidi sherd group, plate 11k, but they include an extensive composite scene as well.²⁸ The style of the scene is slightly expanded from a stick-figure treatment. It shows individual figures that are commonly represented in the repertoire of clay figurines, but the specific figures and groupings are not all commonly shown in glyptic representation. The figural scene is confined to a band with the geometric decoration above and below. Some figures are placed on the ground line but others are placed at higher levels to fill the space in the band. A variety of animals are organized to face a plant motif. One human figure faces away from a plant and grasps toward something like a streamer in front of him. The main motif off the base line is an incomplete representation of a person seated in an animal drawn chariot. The apparent reins for the draft animal(s) float over the chariot front and toward the figure's hand. The head, like the animal heads, is very schematically

26. D. Machule, K. Karstens, H.-H. Klapproth, G. Mozer, W. Pape, P. Werner, W. Mayer, R. Mayer-Opificius, and M. Mackensen, "Ausgrabung in Tall Munbāqa 1984," *MDOG* 118 (1986): 67–146, fig. 16: 1 and T. A. Holland, "Preliminary Report on Excavations at Tell Es-Sweyhat, Syria 1973–4," *Levant* 8 (1976): 36–70, fig. 7.

27. E. Strommenger, "Fünfter vorläufiger Bericht über die von der Deutschen Orient-Gesellschaft mit Mitteln der Volkswagenwerk in Habuba Kabira unternommenen archäologischen Untersuchungen (Kampagnen 1974, 1974, 1975)," *MDOG* 108 (1976): fig. 5.

28. D. Machule, M. Benter, J. Boessneck, A. von den Driesch, T. C. de Feyter, K. Karstens, H.-H. Klapproth, S. Koellin, J. Kunze, Ö. Tezeren, and P. Werner, "Ausgrabungen in Tall Munbāqa 1985," *MDOG* 119 (1987): fig. 16:2.

represented. Basically, it is depicted as a big eye with attached nose and hair indicated as standing up and curving slightly back.

The common depiction of animals in incised decoration is similar to the common representation of animals as terra-cotta figurines. By far the greater number of Early Bronze Age figurines at Hadidi represent a variety of animals which for the most part are difficult or impossible to identify. Similarly the representation of chariots on seals and reliefs is paralleled by model terra-cotta chariots. Chariot body fragments and wheels are quite common but it is of course impossible to say whether the chariot models were intended to be a part of figurine groups intended to represent scenes similar to the one on this vessel or on the Halawa relief, or whether they were intended for use as children's toys. We expect that the former was the case and that their intended representation was quite specific.

A selection of sherds from Bi'a represent a similar incised style and technique,²⁹ but one sherd represents a finer treatment³⁰ similar to the representation on three of the Hadidi sherds (pl. 11e-g). The animals are difficult or impossible to identify on the Hadidi sherds but in each case a number of figures were represented in the composition. It is impossible to reconstruct the scenes that were represented, but the sophistication of the technique indicates that the entire composition is an artistic achievement of some merit. Incised sherds drawn both with fine-line execution and with heavier lines are published from Halawa³¹ and Sweyhat.³²

The lack of concern in representing facial and body features in incised decoration is similar to the schematic figure representation of the Early Dynastic style cylinder seals represented at Mari, Halawa, Bi'a, and Chuera. Such lack of concern is of course the prime characteristic of the human figurines discussed above. This tradition of producing hand-modeled figurines does not change significantly until the second millennium.

PAINTED WALL DECORATION

Finally, another artistic medium, wall painting, is represented in the Early Bronze Age cultural remains of the Euphrates Valley, though not as very sophisticated productions. Only one of the two fragmentary paintings is reasonably well preserved. The Mumbaqaq painting maintains the artistic tradition of dependence on geometric decoration framing stylized figures.³³ The poor condition of the Halawa painting makes its interpretation impossible.³⁴ The two figures on the Mumbaqaq painting have over-sized, oval heads with large circle and dot eyes separated by noses which are drawn as projections from the neck to the top of the head. The hair, represented as curls on the top of the heads, could fit some of the figurine representations, but the length in long tresses coming down at least to the knees is unusual. The simple abstract rendering of this painting conforms to the styles expressed by the figurines, incised decoration on pottery and stone, and the cylinder seals.

29. E. Strommenger, "Die archäologischen Forschungen in Tall Bi'a 1980," *MDOG* 113 (1981): 23-34; fig. 2: 1, 3-11.

30. *Ibid.*, fig. 2: 2.

31. W. Orthmann, *Halawa 1977-1979*, Saarbrücker Beiträge zur Altertumskunde 31 (Bonn, 1981), pl. 13:2.

32. Holland, "Tell Es-Sweyhat, 1973-4," fig. 15: 23, 50 and "Incised Pottery from Tell Sweyhat, Syria and its Foreign Connections," *Ktema* 5 (1978), figs. 3: 18-20, 4: 9-17.

33. Machule et al., "Ausgrabung in Tall Munbāqa 1984," fig. 10.

34. Orthmann, *Halawa 1977-1979*, pl. 8.

Clearly an intentional abstract artistic style was developed in the Early Bronze Age which flourished for many centuries. Much of this must be classed as folk art but the sculptural fragments, some of the incised sherds, and the Judaideh figures go beyond this in the direction of more sophisticated artistic production. They do not, however, compare in quality to the products of the palace workshops at Ebla or Mari.

III. ADDITIONS TO THE CORPUS OF SECOND MILLENNIUM ARTISTIC PRODUCTION AND FOLK ART

The stratigraphic context of the Hadidi and Halawa figurines, and the absence of specific types at Selenkahiye provide greater accuracy for the dating of specific types. They indicate sequential development in some cases and less temporal overlap than was previously expected between others.

HAND-MODELED TERRA-COTTA FIGURINES

The seated or crouching male figurines, best illustrated by a complete example from Tell Kanas,³⁵ should be placed in an early 2nd millennium context. All of the Hadidi figurines of this type³⁶ are headless and only one head was found which seems to come from a figurine of this type (pl. 11b).

Another hand-modeled type of figurine, a variety of elongated female figurine with accentuated pubic triangle and often separately modeled legs, dates to the beginning of the second millennium B.C. Such figurines, categorized as Euphrates type MA11 by Badre, are rare in the west³⁷ and are best represented at Mari.³⁸ The date of these Mari figurines was first placed in the third millennium B.C.,³⁹ but because none were from secure context the date range of the figurines from the Ishtar and Ninni-zaza temples was extended to bring the type down possibly as late as the beginning of the second millennium.⁴⁰ One figurine of this type is found at Hadidi (pl. 11a), several at Selenkahiye,⁴¹ several at Sweyhat,⁴² one at el Hajj,⁴³ and they are also found at Bi'a.⁴⁴ We are inclined to place them chronologically between the EB and MB figurine traditions, around 2000 B.C. or very early in the second millennium. The Mari figurines, and also the Orontes MA11 type figurines preserve the earlier method of representing arms and hands at the chest. The Mari figurines and one

35. Badre, *Figurines anthropomorphes*, p. 137.

36. R. H. Dornemann, "Tell Hadidi: A Millennium of Bronze Age City Occupation" in D. N. Freedman, ed., *Excavation Reports from the Tabqa Dam Project — Euphrates Syria* (Ann Arbor, 1979), fig. 28.

37. Related figurines were found at Hama, see Badre, *Figurines anthropomorphes*, pls. IV: 88–92 and V: 96.

38. *Ibid.*, pls. XXVI: 12–14 and XXVII: 15–23, 26–37, representing Badre's Euphrates type MA11.

39. A. Parrot, *Mission archeologique de Mari, I: Le Temple d'Ishtar*. Institute d'archeologie de Beyrouth. Bibliotheque archeologique et historique 65 (Paris, 1956), pp. 200–03, pl. LXVIII: 50, 133, 372, 433, 440, 977.

40. A. Perrot, *Mission archéologique de Mari, III: Les Temples d'Ishtar et de Ninni-zaza* (Paris, 1967), pp. 281–83, pl. LXXVIII: 2208, 2566, 2766.

41. Badre, *Figurines anthropomorphes*, pl. XLVII: 189 and van Loon "1974 and 1975 Preliminary Results," fig. 6.

42. Holland, "Tell Es-Sweyhat, 1973–4," fig. 15: 4, 7, 8, 10, 12.

43. P. Bridel, C. Krause, H. Spycher, R. A. Stucky, P. Suter and S. Zellweger, *Tell el Hajj in Syrien; zweiter vorläufiger Bericht, Grabungskampagne 1972* (Bern, 1974), pl. 9a.

44. One in a seated position is illustrated in R. Arns, A. Becker, K. Kohlmeyer, W. Ludwig, E. Schneiders, G. Selz, and E. Strommenger, "Ausgrabungen in Tall Bi'a 1982 and 1983," *MDOG* 116 (1984), 15–63; figs. 6 and 24.

Selenkahiye figurine have applied breasts. A related group of Selenkahiye figurines has standard body features, no applied breasts, and two or three impressed or pierced loops at the sides of the head. These apparently are forerunners of the Orontes MAI2 type figurines.⁴⁵ The figurines, and particularly Selenkahiye no. 189,⁴⁶ would seem to represent some of the latest products from Selenkahiye.

Four Hadidi figurines and one from Jusef Pasha (ten miles north of Hadidi along the Euphrates) should be attributed to Badre's Orontes type MAI2 and they also date to the Middle Bronze Age. Unfortunately, none of the typical figurine heads were preserved to substantiate this typological attribution. Such figurines were not found at Selenkahiye but a complete example was found at Halawa in Middle Bronze Age context⁴⁷ and a head and upper body at el Qitar.⁴⁸

MOLD-MADE PLAQUE FIGURINES

In the Middle and Late Bronze Ages in Syria, mold-made figurine plaques first appear side by side with the hand-modeled figurines discussed above and then almost completely replace them. By far the greatest number of such plaques represent naked women and vary somewhat in details and proportions. Such figurines are virtually the sole type found in central, southern, and western Syria, and only as one moves to eastern sites are there noticeable additions to the repertoire. Ugarit is an exception, as a number of Egyptianizing plaques are found there which are not found frequently farther east. Mari, as is to be expected by its location and history, shows the strongest Mesopotamian influence, but the variety present there is not as great as that found to the south⁴⁹ or farther east in the Assyrian heartland as at Assur.⁵⁰

The "big bend" area of the Euphrates is clearly a transitional area between various geographical districts and Hadidi seems representative with twenty-seven of thirty-two figurines or about 84% representing women. Only 4% of the figurines were in clear Middle Bronze Age contexts or must be attributed to the Middle Bronze Age on stylistic grounds. The majority, twenty-one figures or 66%, are to be attributed to the Late Bronze I and the remainder, 22%, are probably to be considered Late Bronze Age but come from contexts which are not far below the surface, where both Middle and Late Bronze Age pottery was present. One figurine is represented with hands at the sides, three represent feet and the lower parts of legs and one represents only a head. The rest clearly, or probably, represented women with their hands supporting their breasts. The most elaborate figurines, and those which show the greatest detail, are the earliest. Only eight female figurines show any amount of detail in the depiction of navels, pubic hair, anklets, bracelets, necklaces, or waist bands. One is far more detailed than the rest, showing a woman nursing a child.⁵¹ She is drawn

45. Badre, *Figurines anthropomorphes*, pl. XLI: 50–54.

46. *Ibid.*, pl. XLVII.

47. Orthmann, *Halawa 1977–1979*, fig. 51: 4.

48. T. L. McClellan, "A Syrian Fortress of the Bronze Age: el-Qitar," *National Geographic Research* 2 (1986): 418–40, fig. 14A.

49. E. D. van Buren, *Clay Figurines of Babylonia and Assyria*, Yale Oriental Series, Researches 16 (New Haven, 1930).

50. W. Andrae, *Die Archaischen Ishtar-temple in Assur*, WVDOG 39 (Leipzig, 1922), pp. 84–94, 104–5, and 114–15.

51. Dornemann, "A Millennium of . . . Occupation," fig. 28.

wearing a hat, earrings, necklace, and gown. The facial features reflect Assyrian models. The latter figurine was from an early Middle Bronze Age context.

The largest number of published female figurines from the "big bend" area is from Meskene and all date to Late Bronze II. Similar figurines were also found at Halawa, Mumbaqaq, and Habuba Kabire. Detailed features again are limited and three fragments are exceptional. They are the only examples of Egyptianizing figurines east of the coastal area. The heads are missing on two examples but these were represented with Hathor curls which were brought down to encircle the breasts.⁵² The curves of the curls are picked up apparently by a layered vest-like garment. Though the Egyptian influence is clear, the compositions conform best to Hittite artistic models. The other figurine, preserved from the head to the waist, represents a male individual in a typical Egyptian pose and wearing an Egyptian wig.⁵³ One female figurine from Mumbaqaq represents a deity with horns and wings.⁵⁴

Most of the male figurines from the Euphrates Valley are musicians shown playing lutes. The dress and details vary but a common factor in all but one is the positions of the hands held close to the front of the body and beneath the lute.⁵⁵ The body of the lute is quite small. The feet and the bottom of a staff are all that are preserved of another male figurine from Hadidi. A Middle Bronze Age figurine body fragment represents a figure dressed in a tufted garment (pl. 11n) similar to more complete examples from Mari.⁵⁶ The last Hadidi item to be mentioned which includes the depiction of men is the ceremonial beer drinking scene on a small plaque with details that conform to those on the famous investiture scene from the Middle Bronze Age palace at Mari. The details of garments and hat are so similar that they must be considered contemporary, as we have discussed elsewhere.⁵⁷ The only published male figurine from the area that is different comes from Halawa. It is a complete figurine of a naked figure wearing a high, pointed hat. The details of the figurine conform closely to Mesopotamian stylistic conventions.

LATE BRONZE AGE CYLINDER SEALS AND IMPRESSIONS

A corpus of cylinder seals and impressions is available from Late Bronze Age contexts at Hadidi and nearby sites, but our discussion has to be limited because the illustrations of the majority of these pieces are not yet available. There is considerable variety in styles and quality of production.

Syro-Mitannian Glyptic Style

The standard Old Babylonian rendering of a presentation scene before a seated figure is executed in a variety of styles. A Hadidi example (fig. 11a) shows elongated, summarily represented but well modeled figures in a composition known over a broad area from Mesopotamia to the Mediterranean coast at Ugarit,

52. Badre, "Les Figurines," p. 102, fig. 3.

53. *Ibid.*, 103, fig. 4.

54. Orthmann, "Tall Halawa," *AfO* 28 (1981), fig. 19.

55. Dornemann, "A Millennium of . . . Occupation," fig. 28.

56. Badre, *Figurines anthropomorphes*, pl. XXVIII: 51 and the guardian figures represented in M. Pic and I. Weygand, "Une Terre cuite provenant de Mari figurant la déesse Ishtar," *Mari Annales de Recherches Interdisciplinaires* 2 (1983): 201–09, cf. fig. 1 and parallels cited.

57. Dornemann, "The Syrian Euphrates."

where it is best known from the dynastic seal. A seal from Mumbaqaat illustrates a similar scene but in a somewhat more abstract style.⁵⁸ The figures are modeled but there is a heavier dependence on engraved lines. Teissier has divided a Syro-Mitannian glyptic style into “modeled” and “schematic” sub-styles.⁵⁹ The Hadidi scene would be classed under the “modeled” style and the Mumbaqaat impression under the “schematic” style.

Four of the Hadidi seal impressions are from well-engraved seals but with simple compositions using established motifs (fig. 11c–f). Some seals were quite elaborate, multiple register presentations (fig. 11b, h, and i), and one is so poorly preserved that it is difficult to comment on stylistic treatment and the combination of motifs (fig. 11b). A Mumbaqaat seal impression⁶⁰ is similar in treatment and representation to the Hadidi impression on figure 11c. A style similar to the Hadidi seal impressions on figure 11a–e, and h, is illustrated at Mumbaqaat.⁶¹ The rendering of many of the figures is similar though some of the scenes represent different themes and combinations of figures. The Egyptianizing motifs (fig. 11g and h) are additions to the corpus from the area.

Though the figures on another of these Hadidi seals are rounded, its abstracted composition is unusual, closer to the Mitannian “common style” seals (fig. 11f). The best example of the “schematic” style is shown on figure 11h. It is difficult to tell whether two separate seals are impressed here or whether portions of the same seal somewhat overlap with some of the composition erased in the process. The obvious drill holes are more evident on the right with the seated beer drinker. Both sides of the seal are treated in a linear fashion and the animals, mythical beast, and man are represented in a manner which is more schematic than modeled.

The distinction between “modeled” and “schematic” also can be extended to the Mitannian “common” style seals from Hadidi and vicinity. Most of the seals, including the Hadidi seal on figure 11j, are stylized but modeled. Two seals from Hadidi, figure 11k and l, are rendered in an abstracted linear-drill hole composition that would best be considered “schematic.” Figure 11k is in the extreme, representing a simple stick figure composition of human and geometric elements. “Modeled” treatment on Mitannian “common” style seals from Mumbaqaat is represented by a number of seals⁶² but “schematic” renderings of this style are also present.⁶³

One Hadidi seal impression is exceptional in its fine workmanship (fig. 11i). Unfortunately, the impression is reconstructed from several fragments so that the overall composition is unclear. Individual figures like the sacred tree, a man with a mace and fringed kilt, man with a spear and gryphon, and the other animal are very well executed.

58. Machule et al., “Ausgrabung in Tall Munbāqa 1984,” fig. 36.

59. B. Teissier, *Ancient Near East Cylinder Seals from the Marcopoli Collection* (Berkeley and Los Angeles, 1984), pp. 93–96.

60. W. von Soden, “Eine altbabylonische Urkunde (79MBQ 15) aus Tall Munbāqa,” *MDOG* 114 (1982): 71–77, figs. 1 and 2.

61. D. Machule, M. Benter, J. Boessneck, A. von den Driesch, T. C. de Feyter, K. Karstens, H. -H. Klapproth, S. Koellin, J. Kunze, Ö. Tezeren, and P. Werner, “Ausgrabungen in Tall Munbāqa 1985,” fig. 32: 2–8.

62. Machule, et al., “Ausgrabung in Tall Munbāqa 1984,” figs. 31–33 and Machule et al., “Ausgrabungen in Tall Munbāqa 1985,” fig. 32: 1.

63. Machule et al., “Ausgrabungen in Tall Munbāqa 1985,” fig. 31.

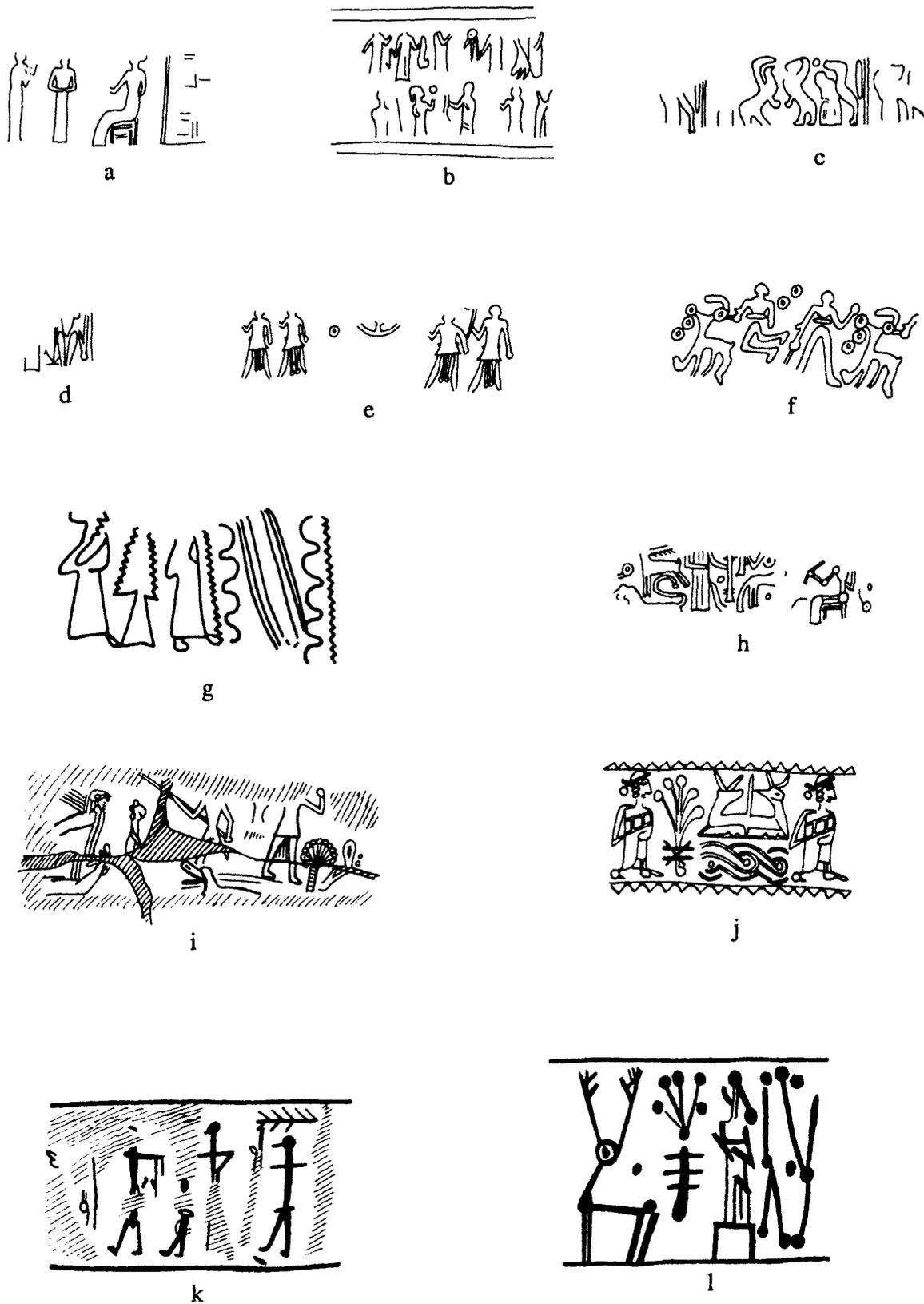


Fig. 11. Tell Hadidi, Late Bronze Age IIA Cylinder Seal Impressions: (a-i) Found on Tablets in the Area H Building and (j-l) Found in General Area H. (Scale 1:1)

Syro-Hittite Glyptic Style

Seals similar to those mentioned from Hadidi and Mumbaqaat are among the selection of seal impressions published so far from Meskene-Emar.⁶⁴ A portion of the impressions from Emar, however, represent a new Syro-Hittite style⁶⁵ which adapts the iconographic features known from Hittite bullae impressions to a cylinder seal format. Impressions of bullae with the characteristic iconography of Hittite 14–13th century B.C. glyptic are also present.⁶⁶ Contemporary impressions from Tell Frey and el Qitar⁶⁷ demonstrate this same Syro-Hittite style in cylinder seal impressions.

A comparison of these Late Bronze Age seals and impressions with other Syrian seals that have been compiled recently, and discussed by Beyer, Collon, el Safadi, Porada, Teissier, and others, provides on the one hand a collection of well represented styles and motifs that are to be expected in this area as well; on the other hand there are a few exceptional examples that represent distinctive features, which hopefully will stand out clearly when fuller publication is available.

The cylinder seal impressions discussed above indicate that though distinctive features were developed in the glyptic of the “big bend” area, the artists were familiar with a broader range of styles and traditions.

Other Art Objects

When we look beyond the glyptic and the collection of figurines to the other small finds from this area and compare this material with the rich assemblage of finds from Ugarit, it is difficult to say whether this area was impoverished in the availability of well executed artistic productions or whether areas on the excavated sites comparable to the rich palaces, temples, and tombs at Ugarit have not been encountered so far in the salvage operations. The decorated ivory tusk with elaborately decorated bands from the temple area at Meskene, the decorated metal utensils, fragment of a sculptured basin, and roughly decorated stela⁶⁸ give the impression, as do the cylinder seal impressions and figurines mentioned above, that a richer artistic tradition did indeed exist in the area, but we can not now tell how well it compared with the rich traditions represented at Ugarit.

Only one incised sherd of particular note can be attributed to the first half of the second millennium B.C. (pl. 11o). Though small, it is fascinating in what it suggests for its original composition. It is well drawn, showing a small portion of a pointed, horned hat, a flower, and a sun. The composition was the top part of a much larger scene.

64. D. Beyer, ed., *Meskéné-Emar: Dix Ans de travaux 1972–1982* (Paris, 1982), pp. 62–65, figs. 1, 2, 5–9 and D. Beyer, “Le Sceau-Cylindre de Shahurunuwa, Roi de Karkémish,” in M. Yon, ed., *La Syrie au Bronze Récent* (Paris, 1982), pp. 67–78.

65. Beyer, ed., *Meskéné-Emar: Dix Ans*, pp. 63, 66–68, figs. 3, 11–13.

66. *Ibid.*, p. 63, fig. 4.

67. D. Snell, “The Cuneiform Text from el-Qitar,” *Abr-Nahrain* 22 (1983–84): 159–70.

68. Beyer, ed., *Meskéné-Emar: Dix Ans*, pp. 115–25.

The rudimentary basalt sculptures from Late Bronze I context at Hadidi (one of which is shown on plate 11r) and from Mumbaqa⁶⁹ represent a tradition also found at Alalakh,⁷⁰ Diyarbakir, Qatna, and other Syrian sites. The small stone head and figurine shown on plate 11p and q, indicate that this tradition dates back to the Early Bronze Age. These figures, pottery masks from Hadidi and Meskene,⁷¹ a badly eroded but once apparently well sculptured limestone male torso from one of the temples at Mumbaqa,⁷² a variety of incised decoration on different pottery vessels, and a portion of the rougher cylinder seal impressions demonstrate the range of artistic representation which was present in our area in the Late Bronze Age.

The range of artistic production and execution in the "big bend" area of the Euphrates extended from rough, abstract, in many instances products which are best classed as folk art, to highly developed, beautifully executed, artistic creations. The greater abundance of material for the Late Bronze Age, in contrast to earlier periods, makes the latter artistic creations stand out more clearly from folk art productions. On the other hand, in the Early Bronze Age we could find only a limited number of items in this area which would not best be classed as folk art.

69. E. Heinrich, et al., "Vierter vorläufiger Bericht über die von der Deutschen Orient-Gesellschaft mit Mitteln der Stiftung Volkswagenwerk in Ḥabuba Kabira (Ḥabuba Kabira, Herbstkampagnen 1971 und 1972 sowie Testgrabung Frühjahr 1973) und in Mumbaqa (Tall Munbāqa, Herbstkampagne 1971) unternommen archäologischen Untersuchungen (Fortsetzung)," *MDOG* 106 (1974): 53–97; fig. 64 and Machule et al., "Ausgrabungen in Tall Munbāqa 1985," fig. 28.
70. L. Woolley, *Alalakh* (Oxford, 1955), pl. 44: a–h.
71. A. Caubet, "Les Masques," in *Meskéné-Emar: Dix Ans de travaux 1972–1982*, ed. D. Beyer (Paris, 1982), pp. 109–10.
72. W. Orthmann, "Mumbaqa 1974 Vorläufiger Bericht über die von der Deutschen Orient-Gesellschaft mit Mitteln der Stiftung Volkswagenwerk unternommenen Ausgrabungen," *MDOG* 108 (1976), fig. 9.

Chapter 6

VILLAGE POTTERS IN EARLY BRONZE PALESTINE: A CASE STUDY

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New excavations of Early Bronze Age sites (fig. 12) in the past two decades have yielded a rich quantity of new data on both cities and villages of the late fourth and early third millennium B.C. These excavations, coupled with numerous intensive surveys, have provided a substantial amount of information both to reconstruct the culture history of Early Bronze Age Palestine and to refine our perception of the process of urbanization.

Ceramic analysis has at times played an ambiguous role in this archaeological reconstruction of ancient political and social systems. In some cases ceramics have been ascribed vivid anthropomorphic characteristics, in others ceramics have been viewed as a very minor craft with little to say about the larger questions of cultural development. Clearly there is a middle ground, and more recent ceramic analysis has stressed the importance of viewing ceramic production and distribution as an important subsystem in both the economic and social fabric of ancient society.¹

In the 1963–64 excavations at Beth Yerah, sponsored by The Oriental Institute of The University of Chicago, Professors P. Delougaz and H. Kantor discovered a ware with distinctive attributes, which they labeled “Crackled” ware. Crackled ware was abundant, and its surface finish and firing bore similarities to another more widespread vessel type, Gray Burnished ware. Chronologically, Crackled ware seemed to be slightly later than the dominant period of Gray Burnished ware production. It is especially fitting that in this volume, in honor of the substantial contributions of Professor Helene J. Kantor to ceramic studies of the Early Bronze Age, this ware shall receive attention. Her perception in distinguishing this vessel type, and her

1. As examples see: D. Arnold, *Ceramic Theory and Cultural Process* (Cambridge, 1985) with an explicitly ecological approach; A. Glock, “Ceramic Ethno-Techniculture,” in A. Hadidi, ed., *Studies in the History and Archaeology of Jordan*, Vol. 1, (Amman, 1982), pp. 145–51, who integrates technological analysis with ethnography; S. van der Leeuw, “Ceramic Exchange and Manufacture: A ‘Flow Structure’ Approach,” in H. Howard and E. Morris, eds., *Production and Distribution: A Ceramic Viewpoint*, BAR International Series 120 (Oxford, 1981), pp. 361–86, who approaches the study of ceramics as information flow; and the study of the more symbolic aspects of pottery production and distribution by I. Hodder, “Pottery Distribution: Service and Tribal Areas,” in M. Millet, ed., *Pottery and the Archaeologist*, Institute of Archaeology Occasional Publication No. 4 (London, 1975), pp. 7–23.

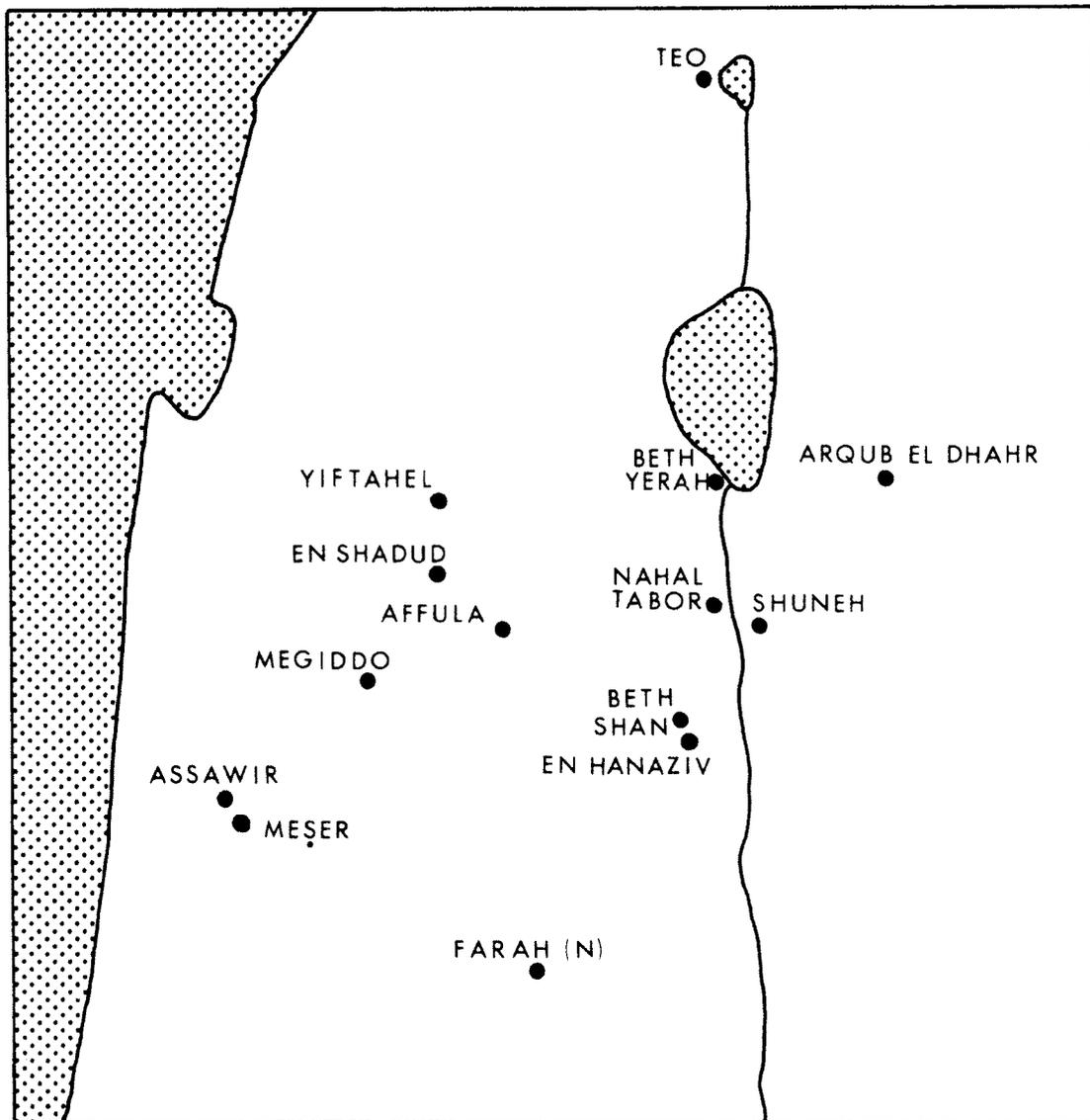


Fig. 12. Early Bronze Age I Sites in Northern Palestine.

quantification of the Beth Yerah material allow us to place this ceramic in its proper chronological and cultural context.

In this paper, Cracked ware, with a very specific range of forms and surface treatment, is used to illustrate a limited production and distribution pattern in the latter part of Early Bronze Age I Palestine. The chronology of this vessel type, its distribution, and details of its technical production, are useful tools in reconstructing a specific culture history. A second level of analysis, however, examines how this production and distribution scheme fits into the general pattern of EB I society. This level necessarily involves a more complete elaboration of the subsystem of ceramic production. This paper discusses the production and distribution of a distinctive ware (both in form and finish) within the context of the larger social and economic framework of the Early Bronze I period.

MANUFACTURE

Although Cracked ware was handbuilt, it was probably shaped and smoothed with the aid of a tournette.² Components of tournettes dating to the EB I period have been found at Megiddo (Stage IV), Meser (St. I), and Beth Yerah (St. II). Examples also have been recovered from Tell el Farah (N) dating to EB II, and Megiddo (Strata XVIII–XV) from the EB II–III period.³

Information on tournette manufacture is based both on modern observation of traditional potters and on replication in the laboratory. The two stone components of the ancient tournette were probably surmounted by a wooden plank or “bat” attached to the upper half of the tournette with a lump of clay. The sockets could have been lubricated with olive oil or even flour. If the wheel was turned by an assistant, enough centrifugal force could have been generated to allow the forming of small vessels which would have almost horizontal spiral grooves on the interior.⁴ The tournette, however, was best suited for shaping the necks and rims of these vessels.

If the potter relied solely on his or her own strength, the tournette could not have attained the rotational speed to “throw” pottery. Most pottery formed on a tournette was probably manufactured by coiling and handbuilding, with intermittent recourse to the tournette to keep the vessel symmetrical. As the wheel turned, the potter could then stroke the exterior of the vessel with a stick while supporting the interior of the vessel with the other hand. This allowed the walls of the vessel to remain a consistent thickness.⁵

The “Cracked” ware of Beth Yerah was probably formed using a process similar to a method described by Balfet for potters from northern Africa. First the tournette is sprinkled liberally with sand to allow easy removal of the pot once it is finished. Then, a clay disc or “pancake,” the size of the desired vessel base is placed on the sandy layer on the “bat” of the tournette.⁶ A coil is then placed along the perimeter of the disc. This coil is molded onto the disk and becomes the lowest portion of the vessel wall.

Like the north African examples, the base of Cracked ware vessels appears to have begun as a flat disc, or “pancake.” The prominent ridge along the base perimeter of most vessels of this ware emphasizes the

2. Use of the tournette may date at least as early as the Chalcolithic period; see T. Levy, “The Chalcolithic,” *BiAr* (1986): 94.
3. R. Engberg and G. Shipton, *Notes on the Chalcolithic and Early Bronze Age Pottery of Megiddo*, SAOC 10 (Chicago, 1934), p. 40; M. Dothan, “Excavations at Meser, 1957,” *IEJ* 9 (1959): 28, fig. 8:16, pl. 2F; B. Maisler, M. Stekelis, and M. Avi-Yonah, “The Excavations at Beth Yerah,” *IEJ* 2 (1952): 170; R. de Vaux and A. Stève, “La Première Campagne de fouilles à Tell el-Far’ah, près Naplouse,” *RB* 54 (1947): 405; G. Loud, *Megiddo II*, OIP 62 (Chicago, 1948), pl. 268:1–3. Possible tournette components also have been recovered at Arad Strata III–II dating to the EB II period, R. Amiran, *Early Arad* (Jerusalem, 1978), p. 57, pl. 77: 5–11.
4. Edwards and Jacobs reached a continuous rate of 15–20 rpms with the aid of an assistant; see I. Edwards and L. Jacobs, “Experiments with Stone ‘Pottery Wheel’ bearings — Notes on the Use of Rotation in the Production of Ancient Pottery,” *Newsletter of the Department of Pottery Technology, University of Leiden* 4 (1986): 54–55, and fig. 1. Amiran and Shenhav, also with assistance, attained a speed of 60 rpms; see R. Amiran and D. Shenhav, “Experiments with an Ancient Potter’s Wheel,” in P. Rice, ed., *Pots and Potters*, Institute of Archaeology Monograph 24 (Los Angeles, 1984), p. 108 and fig. 3.
5. R. Johnston, “The Development of the Potter’s Wheel: An Analytical Synthesizing Study,” in H. Lechtman and R. Merrill, eds., *Material Culture: Styles, Organization, and Dynamics of Technology* (St. Paul, 1975), pp. 177–87. Johnston found this technique of pot construction to be the most commonly attested method used on Early Bronze Age pottery at Bab edh-Dhra.
6. H. Balfet, “Methods of Formation and the Shape of Pottery,” in S. van der Leeuw and A. Pritchard, eds., *The Many Dimensions of Pottery*, *Cingula* 7 (Amsterdam, 1984), pp. 183–84.

join between the disc and the coil. The vessel was then built up with coils. In some cases the exterior shows slight grooves (fig. 13a), which could indicate that the coils ranged from 1 – 1.5 cm in diameter. The interior seldom showed any trace of grooves from the coils, such traces having been obliterated by the finishing technique. The bases showed no traces of mat impressions or coiling, and from the fairly uneven character of the surface it was probably sitting on a rough surface while the vessel was being formed. In at least one case from Nahal Tabor a bowl was removed from the tournette while the tournette was revolving, but the vessels observed from Beth Yerah had uneven and unfinished bases, which reproduced the surface on which they sat while being formed.

The fabric of the ware ranged from buff to gray, with most pieces falling toward the gray end of the scale. Temper was composed predominantly of finely ground pieces of limestone, with minute chunks of silica and grog. Some vegetal temper was also used. In some cases the expansion of the limestone temper caused minor spalling, and the surface of some sherds was quite pock-marked.

The slip was thick, and due to the firing techniques, ranged in color from reddish-brown, to brown, to dark gray.⁷ The vessels were slipped both on their interior and on their exterior. Slip was rarely applied to the exterior of the base, although often the slip slightly overlapped the edge of the base. The slip was often burnished, particularly on the interior. Patterns in the slip were clearly striated, which indicated that the slip was simply wiped or painted on, following the circumference of the bowl with a circular motion.

The “crackle” in Cracked ware is directly the result of flawed manufacturing techniques. The surface of the ware is characterized by fine cracking lines which indicates either that the content of clay in the slip was too high, which led to excessive shrinking during firing, or that the slip was applied too thickly and cracked during drying. Typical of this technical problem is a fine network of hexagonal shaped cracks.⁸

In the case of Cracked ware, red/brown to dark gray colors would frequently appear on the same pot. This range in color on single vessels was probably caused by the uneven access of air to the vessel during the firing and cooling of the vessel. Large black patches are common on Cracked ware; the technical term for this phenomenon is “fireclouding.” The range of colors in these vessels was a result of varying degrees of oxidation and reduction during firing, and probably indicates that these vessels were the product of open firing. In open firing, controlling the atmosphere once firing has begun is impossible.⁹

The forms of these vessels ranged from shallow bowls (fig. 13 b–d) to deep bowls. Shallow bowls were sometimes marked by vestigial handles or “horned” projections¹⁰ (fig. 13 c and d). Deep bowls had simple V-shaped forms with lips which ranged from straight (fig. 13a) to in-curved (fig. 14). In some cases the

7. Munsell numbers: 2.5YR 4/6; 5YR 3/4; 2.5YR N4.

8. O. Rye, *Pottery Technology: Principles and Reconstruction* (Washington, D.C., 1981), pp. 43, 54, and fig. 98b.

9. Rye, *Pottery Technology*, p. 98 and see also p. 120 for the term “fireclouding.” The presence of one updraft kiln, dating to the EB II period, at Tell Farah (N) is the sole evidence for kiln firing in the Early Bronze Age; see R. de Vaux, “La Cinquième Campagne de fouilles à Tell el-Far’ah, près Naplouse,” *RB* 62 (1955): 558–62, pl. 9. Evidence for open firing is found at Meser; see M. Dothan, “Excavations at Meser, 1956,” *IEJ* 7 (1957): 221; for Arqub el Dhahr, see description of three vessels with black patches in P. Parr, “A Cave at Arqub el Dhahr,” *ADAJ* 3 (1956): nos. 99–101; En Shadud mottled ware is probably also the result of open firing techniques; see E. Braun, *En Shadud*, BAR International Series 249 (Oxford, 1985), p. 61.

10. Note that R. Amiran, *Ancient Pottery of the Holy Land* (Jerusalem, 1969), p. 47, also calls this distinctive ware “Cracked ware” in her discussion of the large shallow bowl with horned projections from Beth Yerah (our fig. 13d) and a small bowl with conoid projections from Affula (her plate 10:9). She also emphasizes the “general relationship” between Gray Burnished ware and Cracked ware.

in-curved lips were quite sharply angled, in others the curve was much more gradual. Everted and thickened rims were much less common. On occasion the rims of the bowls were marked by small knobs distributed around the rim exterior (fig. 15). This addition was fairly rare on pottery from the tell of Beth Yerah (fig. 15b); the small knobs seemed to be more common in the tombs of Naḥal Tabor (fig. 15d).

Chronologically, Crackled ware should be placed in the latter part of the EB I period. At Beth Yerah, sherd counts of Crackled ware, when compared with Gray Burnished ware, indicate that Crackled ware began after the floruit of Gray Burnished ware. Surface treatment of Crackled ware was probably imitative of Gray Burnished ware, but a direct correspondence in form does not exist. The main form in which there may have been an overlap was the bowl with conoid projections. One form from Beth Yerah (fig. 13b) may also be derived from the carinated forms of Gray Burnished ware. In general, bowls with conoid projections seem to date to the latter part of EB I. They were found as far west as Megiddo (fig. 15a) and Tell Assawir (fig. 15g), and as far south as Tell en-Nasbeh.¹¹ Crackled ware bowls with conoid projections from Naḥal Tabor (fig. 15d), identical to those from Beth Yerah, and "mottled ware" bowls with conoid projections at En Shadud, reinforce a date in the late EB I. At En Ha Naziv, just south of Beth Shan, a tomb has yielded several bowls with conoid projections and vertically pierced lugs, similar to those from Naḥal Tabor.¹²

The closest parallels to Crackled ware, both in form and in surface treatment, come from a burial cave at Arqub el Dhahr in northern Transjordan (fig. 16). The contents of the cave were mixed EB I–III, but included with a large proportion of EB I ware were three bowls with red/brown slip.¹³ The bases of the bowls from Arqub el Dhahr appear similar to the bases of the Crackled ware bowls from Beth Yerah. The profile of the Transjordanian bowls is identical to one of the bowl types from Beth Yerah. Black patches mentioned in the ware description of the Arqub el Dhahr bowl indicate that the bowls were fired under open firing conditions.

At En Shadud, a specific ware ("mottled ware") was associated mainly with bowls with conoid projections (fig. 15f). The slip of the bowls was fired to shades of black, gray, and brown, and was characterized by a patchy or mottled appearance. The fabric was gray, and Braun compared it most closely to the gray fabric of the Gray Burnished bowls also discovered at En Shadud.¹⁴ En Shadud is dated to the latter part of EB I.

At Beth Shan, no Crackled ware was specifically mentioned, although a bowl with conoid projections was illustrated from Level XV (fig. 15c). Level XV was characterized by rectilinear rooms and the

11. P. O. Guy, *Megiddo Tombs*, OIP 33 (Chicago, 1938), pl. 3:31, 32. At Megiddo bowls with conoid projections were found with what Wright considered to be late forms of Gray Burnished ware. See also M. Dothan, "A Burial Cave near Tel 'Asor (Assawir)," *Azor Menashe* 2 (1970), pl. 6:29, 30. The tomb near Tell Assawir yielded bowls with conoid projections, Gray Burnished ware of a late type similar to that from Megiddo, and a bucranium amulet (pl. 27:2). These amulets were common in Dynasty 0. A similar amulet was found at En Besor in Stratum III. See R. Gophna, "Excavations at En Besor, 1976," *Atiqot* 14 (1980), pl. 3:4. The bowl with conoid projections from Tell en-Nasbeh was found in Tomb 67; see C. C. McCown, *Tell en-Nasbeh I* (Berkeley, 1947), p. 72, pl. 25:37 and Joseph Wampler, *Tell en-Nasbeh II*, (Berkeley, 1947), pl. 52:1124.
12. R. Amiran and M. Sebbane, "The Excavation of Two Tomb-Caves: One at Ancient Arad and One in the Beth Shean Valley," *Israel Museum Journal* 5 (1986): 16. I would like to thank Michael Sebbane for bringing this reference to my attention. Mr. Sebbane has informed me that at least four more bowls with conoid projections are attested from this tomb.
13. Parr, "A Cave at Arqub el Dhahr," fig. 14: 99–101.
14. Braun, *En Shadud*, p. 61. I would like to thank Eliot Braun for showing me the pottery from his excavations at En Shadud.

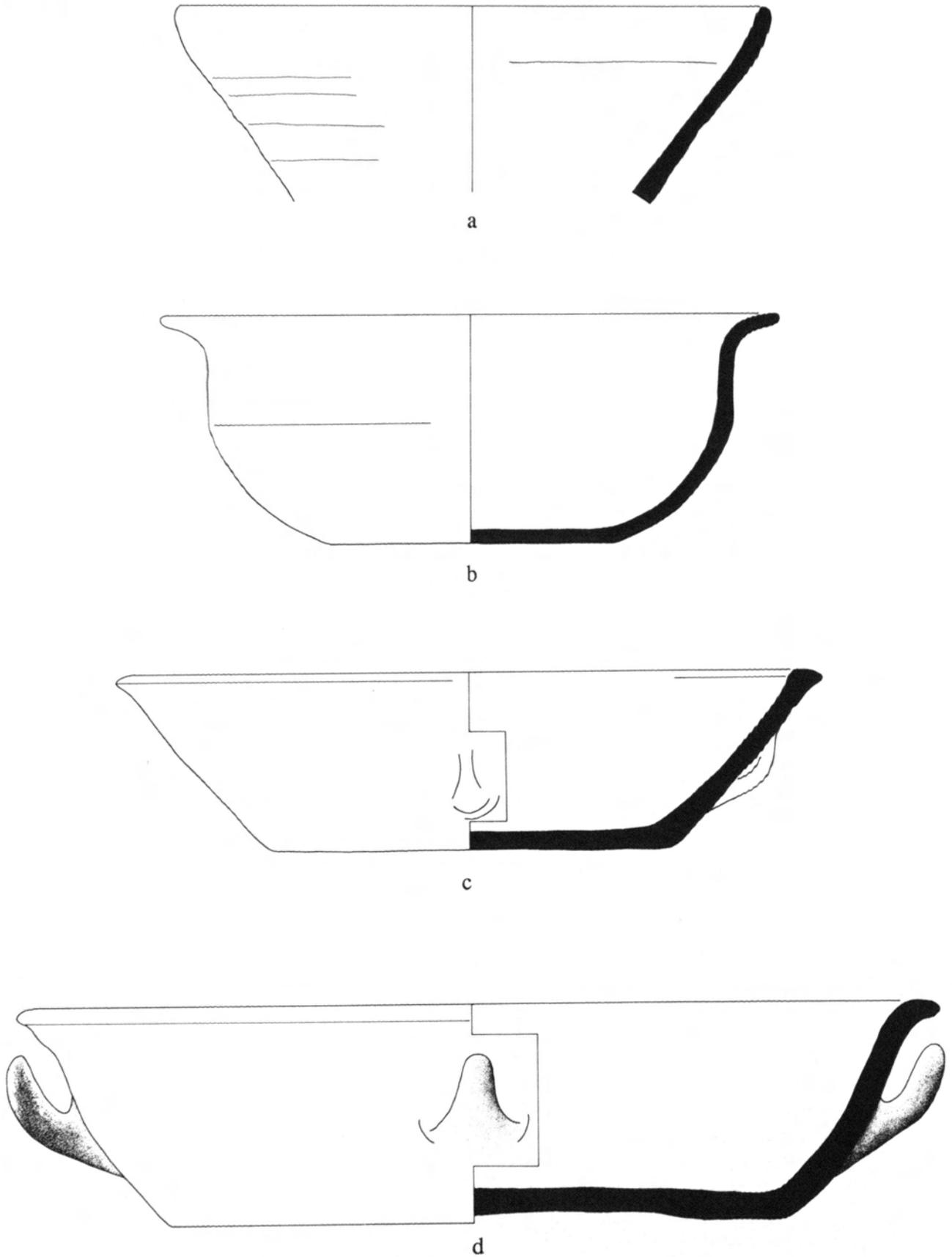


Fig. 13. Beth Yerah (Khirbet el-Kerak): Bowls. (Scale 2:5)

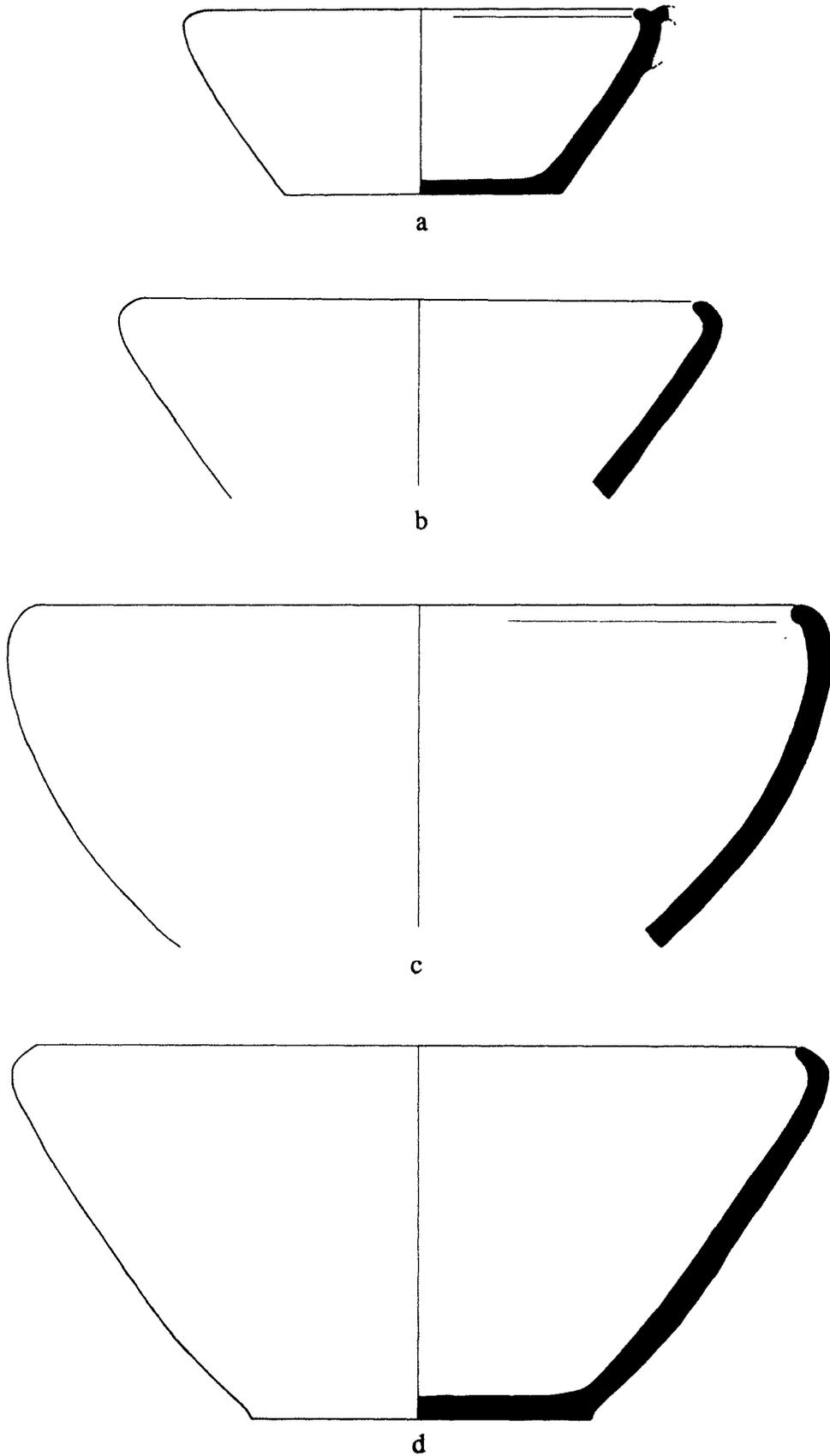


Fig. 14. Beth Yerah (Khirbet el-Kerak): Bowls. (Scale 2:5)

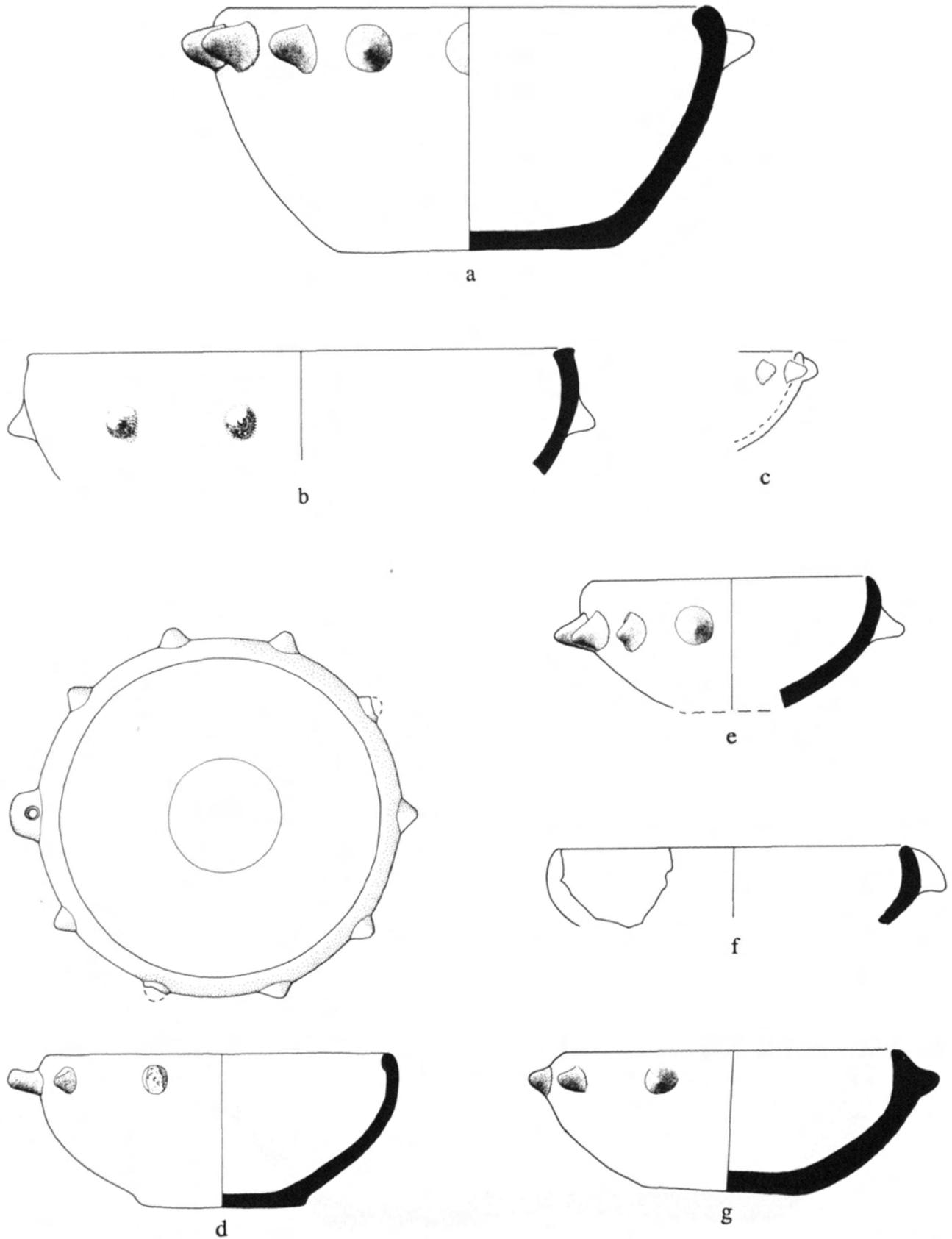


Fig. 15. Bowls with Conoid Projections: (a) Megiddo, (b) Beth Yerah, (c) Beth Shan, (d) Naḥal Tabor, (e) Affula, (f) En Shadud, and (g) Assawir. (Scale 2:5)

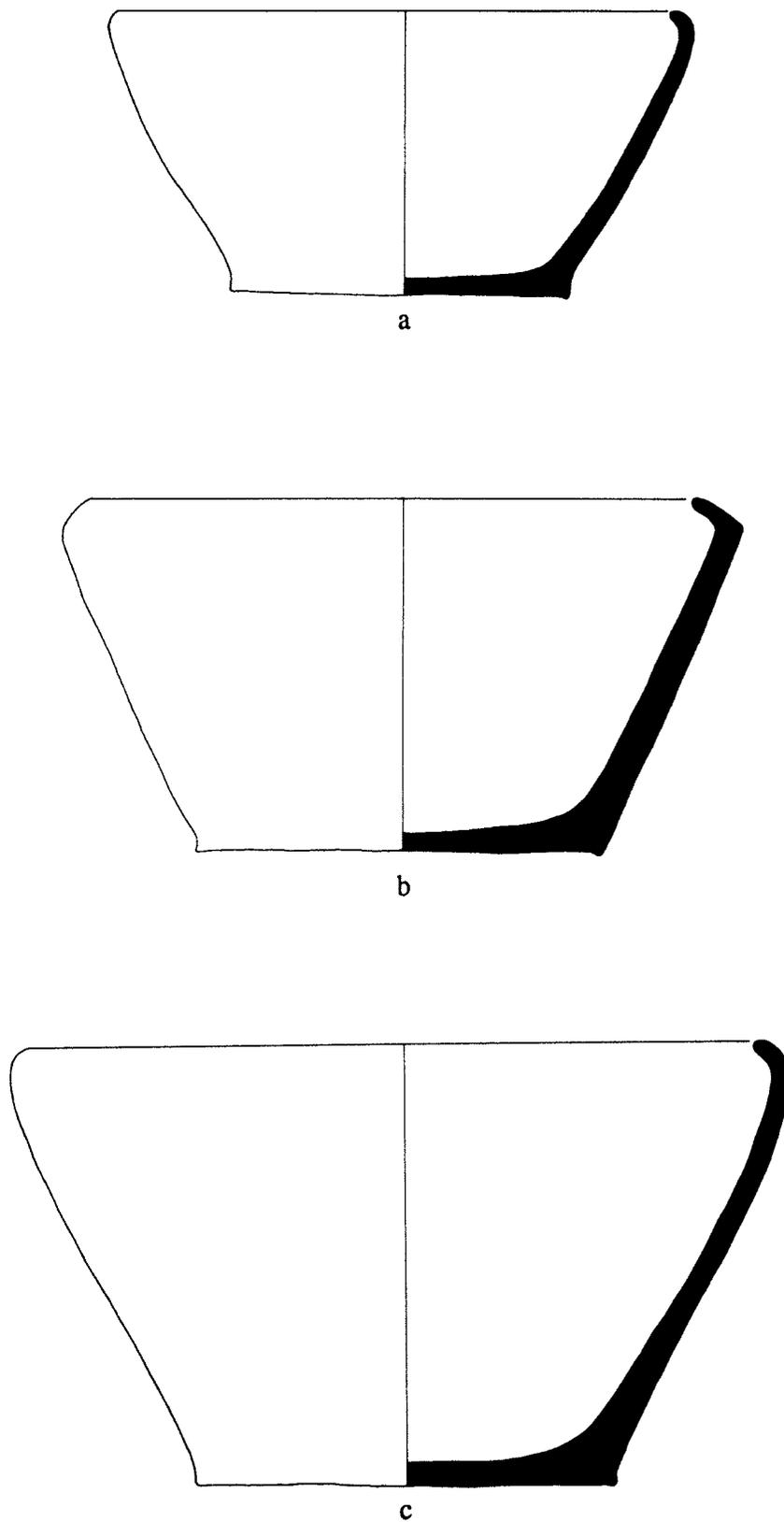


Fig. 16. Arqub el-Dhahr: Bowls. (Scale 2:5)

introduction of classic grain wash ware. Thus, the general context for the bowl with conoid projections is similar to the context of Crackled ware from Beth Yerah. Although Gray Burnished ware was found in Level XV, it was much less evident than in the previous stratum, Level XVI. In contrast with Level XV, Level XVI at Beth Shan consisted of curved walls, at least one "apsidal" house, "scattered buildings," and a "considerable quantity of the grey-black burnished ware."¹⁵

Helms excavated a sequence at Tell Um Hammad which spans the Early Bronze I period. No direct parallels to Crackled ware are published, but the interiors of a group of bowls from Stage 2 (his EB IA and containing Gray Burnished ware bowls) are described as having a "crazed" surface.¹⁶ This at least indicates a similar technological flaw in production.

PRODUCTION AND DISTRIBUTION

An analysis of the EB I ceramic production system requires some sense of the location of production centers. When relying on archaeological evidence to discuss ceramic production and distribution, there are several methodological considerations. The best evidence would of course consist of direct excavation of kiln sites. Textual evidence of ceramic production would also be helpful. Least reliable, but most often employed, is evidence based on distribution maps. Distribution maps make assumptions about the production and distribution of certain ware types that could easily be skewed.¹⁷ In general, however, the limited geographical distribution of the main types of EB I pottery renders this method a suitable departure point for analysis.

Most ceramic studies concentrate on distinguishing local from imported wares, and by their nature deal more with trade than with production. Such studies are characterized by Rice as "macro-proveniencing." By contrast, regional studies ("micro-proveniencing") focus on production within a local area.¹⁸ Micro-provenience studies most naturally rely on the local, often coarse, pottery which does not extend far beyond its region of manufacture.¹⁹ The limits of the supply zone are determined by several constraints. Hodder describes them as:

- 1) The friction effect of distance.
- 2) The effect of nucleation or agglomeration on distribution because consumers are attracted to large centers from greater distances than small ones.
- 3) Social boundaries which may inhibit distribution.²⁰

15. G. Fitzgerald, "The Earliest Pottery of Beth-Shan," *MJ* 24 (1935): 10.

16. S. Helms, "Excavations at Tell Um Hammad, 1984," *Levant* 18 (1986): 33, also fig. 10: 1-4, and 7.

17. See the warnings in P. Rice, *Pottery Analysis: A Sourcebook* (Chicago, 1987), p. 177; S. van der Leeuw, "Pottery Manufacture: Some Complications for the Study of Trade," in P. Rice, ed., *Pots and Potters*, Institute of Archaeology Monograph 24 (Los Angeles, 1984), p. 59. Paste analysis is the best method, but this takes much sampling and detailed work on context. See also Arnold, *Ceramic Theory*, p. 236.

18. P. Rice, "The Archaeological Study of Specialized Pottery Production: Some Aspects of Method and Theory," in P. Rice, ed., *Pots and Potters*, Institute of Archaeology Monograph 24 (Los Angeles, 1984), p. 45.

19. Rice, *Pottery Analysis*, pp. 197-99 for references.

20. Hodder, "Pottery Distributions: Service and Tribal Areas," pp. 7-8. For an example of the friction effect on Early Bronze Age lithics, see S. Rosen, "Tabular Scraper Trade: A Model of Material Cultural Dispersion," *BASOR* 249 (1983): 79-86.

Using the “criterion of relative abundance” it is possible to narrow the field of manufacturing centers. Rice correctly points out that this procedure relies too heavily on the concept of “culture area,” but without scientific provenience studies the determination of provenience remains dependent on distribution analysis. Supply-zone behavior is more adequately determined by an analysis of vessels that are likely to have been more utilitarian than objects of status or high value. Thus “bulky, low-value goods . . . typically exhibit a high frequency near their source and then a sharp fall-off in frequency with distance beyond what may represent a day’s journey to the source of supply.”²¹

Scale of pottery production is an important indicator of both the technology and the social context of the craft. Several levels of pottery production have been defined which speak to the issue of how society was organized to produce and at what scale:²²

- 1) Household Production.
- 2) Household Industry.
- 3) Workshop/Village Industry.
- 4) Large Scale Industry.

HOUSEHOLD PRODUCTION

At this simplest stage each household produces pottery for its own use. The zone of supply for this level of production is difficult to detect archaeologically and depends on intra-site archaeological analysis.

HOUSEHOLD INDUSTRY

Household industry marks the “beginning of specialized production.” The reaction of the system to demographic pressure shifts a portion of the population away from direct agricultural subsistence activities.²³ Land marginal to subsistence activities then might be suitably adapted for use as production centers.²⁴ This decrease in the percentage of population employed directly in subsistence activities is concurrent with an increase in the level of political integration. The scale of household industry production does not imply full-time craft specialization, however. The zone of supply of a household industry would probably show a fairly tight local bias. Although “household industries” require more specialization than “household production,” the distribution pattern should still reflect local consumption. The extent of this local consumption would be dependent on local trade patterns and demand, possibly somewhat restricted by cultural boundaries based on kinship.

21. Rice, *Pottery Analysis*, 198.

22. See especially S. van der Leeuw, “Towards a Study of the Economics of Pottery Making,” in B. van Beek, R. Brandt, and W. Groenman-van Waateringe, eds., *Ex Horreo*, Cingula 4 (Amsterdam, 1977), table 1 (and modifications of this in D. Arnold, *Ceramic Theory*, pp. 225–31); and Rice, *Pottery Analysis*, pp. 183–87. See also H. Balfet, “Production and Distribution of Pottery in the Maghreb,” in H. Howard and E. Morris, eds., *Production and Distribution: A Ceramic Viewpoint*, BAR International Series 120 (Oxford, 1981), p. 261, for the village potter. Arnold’s chart reflects a simplification of van der Leeuw’s categories.

23. Arnold, *Ceramic Theory*, p. 226.

24. Studies have shown that potters are often marginal, both socially and economically. See Arnold, *Ceramic Theory*, p. 227.

WORKSHOP/VILLAGE INDUSTRY

The workshop/village industry marks the appearance of pottery production as a full-time craft.²⁵ Potters no longer depend on pottery production as a supplement to agricultural subsistence activities. Pottery production has become the primary source of income. Potters working on the craft full-time become more efficient, producing more pots in the same amount of time. Technical changes which increase efficiency also may appear, such as improved kiln technology and increased use of the wheel or tournette. There is also a trend toward standardization and a lack of innovation. All these factors promote efficiency of production and as a result lead to greater competition for markets. Fewer potters make more pots. The zone of supply should show, then, a much wider distribution of basic ceramic types, reflecting more standardization, due to the decrease in the number of local or intra-regional village production centers.²⁶

As production becomes more efficient the level of standardization increases. For example, work done on Aegean pottery of the Middle Cycladic I through the Late Cycladic II periods demonstrates that an increase in the use of the wheel over handbuilding techniques coincided with both a decrease in burnishing and a simplification of design.²⁷ This points to an increasing concern for economizing measures that lessened the amount of time spent on each individual vessel. The net result of such economizing measures led to an increase in standardization. Davis and Lewis suggest that standardization in the ceramic repertoire may have been a result of "fewer potters contributing their own peculiarities to the production of pottery in LC II than previously . . .".²⁸

This system also requires the more active participation of middlemen to extend the distances over which the vessels are traded. Thus the distribution system reflects both the increased demand of a more centralized or stratified society and the larger regional territories that inter-regional trade might foster.

25. The term workshop/village industry combines van der Leeuw's two distinct terms: workshop industry and village industry (van der Leeuw, *Ex Horreo*, table 1). The main difference between the two categories is the size of the distribution network, with the village industry more widespread than that of the workshop. Balfet's village potter could be subsumed under this category as well. The "village" production scheme could have been represented in Early Bronze Age Anatolia; see F. Matson, "Techniques of the Early Bronze Potters at Tarsus," in H. Goldman, *Excavations at Gözli Kule, Tarsus*, Vol. 2, Appendix (Princeton, 1956), p. 361.

26. See especially G. Feinman, S. Kowalewski, and R. Blanton, "Modelling Ceramic Production and Organizational Change in the Pre-Hispanic Valley of Oaxaca, Mexico," in S. van der Leeuw and A. Pritchard, eds., *The Many Dimensions of Pottery*, Cingula 7 (Amsterdam, 1984), p. 303.

27. J. Davis and H. Lewis, "Mechanization of Pottery Production: A Case Study from the Cycladic Islands," in A.B. Knapp and T. Stech, eds., *Prehistoric Production and Exchange*, Institute of Archaeology Monograph 25 (Los Angeles, 1985), pp. 82–83. See also D. Arnold, *Ceramic Theory*, p. 229, who stresses that innovation in design and form tend to be stifled when potting is done to satisfy economic demand rather than artistic expression. Innovation involves risk and will be less frequent in more demand oriented economies. Thus one would expect more variation in form and technique in the household production and household industry modes of production than in the village/workshop industry.

28. Davis and Lewis, "Mechanization of Pottery Production," p. 90.

LARGE SCALE INDUSTRY

The final stage of production, large scale industry, uses sufficient technology to guarantee year-round pottery production. This level of production requires an extensive distribution network as well as an advanced production technology and is not applicable to the Bronze Age.

The analysis of distribution for the Early Bronze Age ceramic industry is a necessary first step in the study of pottery production and distribution.²⁹ A recent analysis of a distinctive carinated bowl type illustrates the potential for such focused studies.³⁰ General descriptions of form and finish are helpful for chronological and typological conclusions, but specific studies such as that undertaken by Beck serve to clarify the details of ceramic production and distribution.

These carinated bowls were partially handmade in a mold, and then finished with the aid of a tournette. Their distribution ranges from Tel Qashish in the north to Arad in the south. The quantity of these bowls found at Aphek suggests that they were manufactured there. This distributional study is important because it concentrates on a particular vessel, made with a distinctive technology that renders it easily identifiable and thus provides a reliable distribution map. The broad area of distribution reflects an extensive inter-regional trade network.

During Early Bronze I, ceramic categories take on regional significance. Ware groups such as Gray Burnished ware, Grain Wash ware, and Line Group Painted ware, illustrate regional distributions. These regional distinctions, also reified by Kenyon's Proto-Urban A, B, C, and de Miroschedji's pré-urbaine D, have been understood at various times to have regional, chronological, and ethnic connotations.

Probably the best example of regional pottery production can be seen in the distribution of Line Group Painted ware. This ware (also known as Band Painted ware) is characterized by a distinctive painted design on bowls, amphoriskoi, and basket handled jars, which probably represented basketry patterns.³¹ Although the distribution of Line Group painted ware stretches from the Arqub el Dhahr cave in northern Transjordan to Arad in the northern Negev of Cisjordan, the center of production, or at least the greatest relative abundance, was probably located in the Ai, Jericho, Jerusalem, Bab edh-Dhra axis. Originally viewed as the material evidence for invaders, or at least newcomers,³² a more subtle understanding of social change is now generally advanced. Schaub now broadens the Line Group Painted ware into what he calls the "B"

29. See for example the maps prepared by J. B. Hennessy, *The Foreign Relations of Palestine during the Early Bronze Age* (London, 1967), pls. 28, 46, 62, 74, and P. de Miroschedji, *L'Époque pré-urbaine en Palestine*, Cahiers de la Revue Biblique 13 (Paris, 1971). A recent distribution analysis of the "B tradition" painted pottery has been completed by R. T. Schaub, "The Origins of the Early Bronze Age Walled Town Culture of Jordan," in A. Hadidi, ed., *Studies in the History and Archaeology of Jordan*, Vol. 1 (Amman, 1982), pp. 67-75.

30. P. Beck, "An Early Bronze Age 'Family' of Bowls from Tel Aphek," *Tel Aviv* 12 (1985): 17-28. Although the author suggests a broad chronological distribution for these metallic bowls, from EB I through EB III, it seems that they are almost the hallmark of EB II occupation levels. Note that the bowls are small, light and easily transported. Balfet mentions peddlers transporting pots up into the Atlas mountains of Morocco up to 40-50 km from the source of production (Balfet, "Production and Distribution," p. 262).

31. L. Stager, "The Periodization of Palestine from Neolithic through Early Bronze Times," in R. Ehrich, ed., *Chronologies in Old World Archaeology*, 3rd ed. (Chicago, forthcoming). See this work for the most recent analysis of Line Group Painted ware.

32. K. Kenyon, *Archaeology in the Holy Land*, 4th ed. (New York, 1979), p. 79. Also P. Lapp, "Palestine in the Early Bronze Age," in J. Sanders, ed., *Near Eastern Archaeology in the Twentieth Century: Essays in Honor of Nelson Glueck*, (Garden City, N. Y., 1970), pp. 108-9.

tradition. In addition to the more familiar painted pottery, he extends the definition of the "B tradition" to include form in addition to surface decoration. Although this extends the geographical and chronological range of this pottery, it also dilutes the usefulness of the category as a reflection of regional production.³³

If defined narrowly, Line Group painted ware illustrates quite well the system of regional pottery production. A recent analysis by de Miroschedji demonstrates the misuse of the term "ethnic" in association with this ware. Miroschedji stresses the importance of understanding the Line Group Painted ware in terms of clan or tribal production. By maintaining ethnic identification at that level, rather than as a component in large scale migration theories, "regional particularism" reflects more accurately the archaeological evidence.³⁴ This offers a much more fruitful line of inquiry.

Localized, or village production schemes, may also be detected in the distribution pattern of Gray Burnished ware in Early Bronze I. In general, Gray Burnished ware is considered to be limited to northern Palestine.³⁵ Although the distinctive gray surface treatment usually is linked with specific forms, enough variation in surface treatment exists to suggest regional village production centers. Red, buff, and cream variants of traditionally Gray Burnished ware forms are recorded at Yiftahel, Meser, Megiddo, En Shadud, Beth Shan, and Tell es Shuneh.³⁶ Region specific forms such as the straight sided bowls with rope decoration from Tell el Farah (N) and the newly discovered Gray Burnished ware bowls from Tell Teo in the Huleh Valley provide even stronger evidence for limited regional village production.³⁷

SYSTEMIC ORGANIZATION

Regionalism decreases and standardization increases in ceramics through time from the Early Bronze I period through the Early Bronze III period. EB II–III pottery (with the exception of Khirbet Kerak ware)

33. Schaub, "The Origins of the Early Bronze Age Walled Town Culture of Jordan," p. 70.
34. P. de Miroschedji, "Céramiques et mouvements de population: le cas de la Palestine au III^e millénaire," in M.-Th. Barrelet and J.-C. Gardin, eds., *A propos des interprétations archéologiques de la poterie*, Editions Recherche sur les Civilisations, Mémoire no. 64 (Paris, 1986), p. 17. In this article I will refrain from using the term "ethnic." The correlation between ethnic population and ceramic styles is by no means clear cut, even in ethnographic studies. See D. Arnold, "A Model for the Identification of Non-Local Ceramic Distribution: A View from the Present," in H. H. Brown and E. Morris, eds., *Production and Distribution: A Ceramic Viewpoint*, BAR International Series 120 (Oxford, 1981), pp. 38–39, for possible ethnic associations with pottery. See also Hodder who indicates that some borders based on social or tribal lines can dramatically affect the distribution of certain artifacts and have no effect whatsoever on others (Hodder, "Pottery Distributions: Service and Tribal Areas," pp. 8–9).
35. Gray Burnished ware represents Kenyon's Proto-Urban C. For distribution see Hennessy, *Foreign Relations*, pl. 28. For the most recent treatment of this ware, see Stager, "The Periodization of Palestine."
36. E. Braun, "Of Megarons and Ovals: New Aspects of Late Prehistory in Israel," *Bulletin of the Anglo-Israel Archaeological Society* (1985–86): 25; Dothan, "Excavations at Meser, 1956," p. 221; Engberg and Shipton, *Notes on the Chalcolithic and Early Bronze Age Pottery of Megiddo*, p. 17; Fitzgerald, "Earliest Pottery of Beth Shan"; Braun, "En Shadud," p. 61; and C. Gustavson-Gaube, "Tell esh-Shuna North 1984: A Preliminary Report," *ADAJ* 29 (1985): 51.
37. The bowls from Tell el Farah (N) equal G. E. Wright's Type 3 in G. E. Wright, "The Problem of the Transition Between the Chalcolithic and Bronze Ages," *EI* 5 (1958): 41*; for Tel Teo, see E. Eisenberg, "Cultural Innovations at Tel Teo: Contrasting the Chalcolithic and Early Bronze Age I Occupations," in P. de Miroschedji, ed., *L'Urbanisation en Palestine à l'âge du bronze ancien*, Colloque d'Emmaus (Jerusalem, in press).

does not show the distinct regional patterning so evident in the EB I repertoire.³⁸ Increasing standardization of ceramics corresponds, not coincidentally, to the shift from the pattern dominant in EB I, the small agricultural village, to the predominant pattern in EB III, the large urban agglomeration.

Between EB I and EB II/III the total number of settlements in northern Palestine dropped markedly.³⁹ The median size of the sites which remained, however, tripled. This shift in population distribution correlates well with the beginnings of urbanization in Palestine in EB II. As a result, agglomeration of the population into the large urban centers of the EB II/III period decreased the number of pottery producing villages. Decreased numbers of villages diminished the number of regional or village styles of pottery production.

Increased competition resulting from this urbanization process also would have put a premium on efficiency and would have rewarded standardization. Craft specialization in ceramic production was simply one aspect of increasing specialization or differentiation in all segments of society (e.g., priests, kings, metallurgists, and bureaucratic officials). Ceramic specialization need not have derived directly from a powerful centralized bureaucracy but may have been a natural outcome of the gradually intensifying effects of competition to supply products for increasingly efficient distribution systems. These distribution systems, or trade networks, became more efficient for both inter-regional and international exchange. Craft specialization, then, may have resulted more from general efficiency and "attrition" than from centralized planning.⁴⁰

As the political system began to develop into more specialized "stratified" units, increased demand for commodities led to a shift in production strategy. In general, at the "household production" level, when pottery was made exclusively for home use, the potting was done by women.⁴¹ At the level of "household industry," participation by both sexes reflects the beginning of the male's shift from purely subsistence activities and his active role in pottery production. With the emergence of the workshop industry and the development of pottery making into a full-time craft, potters were generally males, once the craft supplanted agriculture as a subsistence strategy.⁴²

Although the general correspondence between social complexity and ceramic specialization/standardization seems to be indicated by the evidence, one must beware of rigid categorizations of social developments based on technological progress.⁴³ In many periods, "collateral survival" of crude handbuilt forms alongside advanced wheelmade forms indicates that the social implications of ceramic production must

38. D. Esse, "Secondary State Formation and Collapse in Early Bronze Age Palestine," in de Miroschedji, ed., *L'Urbanisation en palestine à l'âge du bronze ancien*, Colloque d'Emmaus (Jerusalem, in press), table 1, and de Miroschedji, "Céramiques et Mouvements de Population," p. 17.

39. Esse, "Secondary State Formation and Collapse."

40. See Rice, *Pottery Analysis*, p. 169 on the danger of relying too heavily on medieval analogies. It is unlikely that urban EB society was centralized to the extent of organizing craft guilds. See also Arnold, who effectively challenges the idea that "leisure" time or "surplus" led to full-time pottery making as a specialized craft (Arnold, *Ceramic Theory*, p. 231).

41. Arnold, *Ceramic Theory*, p. 226.

42. See Arnold, *Ceramic Theory*, pp. 225–28. Also see Johnston, "Development of the Potter's Wheel," pp. 177–79, who contrasts female use of handbuilding and tournette techniques with male use of the fast or kick wheel. But see also the warning by Kramer on unwarranted assumptions about sex-linked production schemes; see Kramer, "Ceramic Production and Specialization," *Paléorient* 11 (1985): 117.

43. Balfet, "Production and Distribution," p. 257. An example of collateral survival is the crude handmade "Negev" ware found alongside the more standardized pottery of the Iron Age II period.

be based both on the highest level of technical achievement and on the scale of production. A potter could specialize in products primarily for local markets, but also produce a limited number of pottery types specifically intended for wider distribution. Also, analytical categories that differentiate between part-time and full-time pottery production may be too subtle to detect archaeologically.⁴⁴ Modern concepts of craft specialization may be more rigid than what was actually practiced in preindustrial society.

Despite the caveats mentioned above, societal development in the Early Bronze Age can be charted by using pottery production as an illustration of the processes of political integration. Pottery production in the small agricultural villages and pastoral sites of the Early Bronze I period created a distribution network of fairly restricted regional ceramic types. Even a rather extensive pan-regional type, such as Gray Burnished ware, was probably produced at a number of dispersed centers, indicated by significant variations both in ware and in form (Yiftahel, Megiddo, Assawir, Farah (N), Beth Yerah, Tell Shuneh, and Tel Teo). Line-Group Painted ware, defined in its strictest sense, also illustrates restricted distribution which may indicate limited output by village potters working at a "household industry" scale of production.

Like Line-Group Painted ware, Crackled ware also was manufactured in a very limited production scheme, probably at the "household industry" level. The handbuilt construction of the vessels and the strong correlation between the distinctive surface finish and the limited range of shapes suggest that this ware was produced in a limited number of workshops. To reinforce this interpretation, Crackled ware shows a very local regional distribution. From the data available, the main distribution area, or zone of supply, does not greatly exceed a region demarcated by Beth Yerah, Nahal Tabor, and Arqub el Dhahr. Parallels in form, for example bowls with conoid projections, extend as far west as Megiddo (fig. 15a) and Tell Assawir (fig. 15g), although comparisons become more diffuse outside the northern Jordan Valley. Crackled ware illustrates, in conjunction with other regionally produced handmade pottery, one more component in the diverse and fragmented landscape of ceramic production in the Early Bronze I period. The low level of standardization in ceramics may reflect the lack of craft specialization among the potters of the late fourth millennium, and thus the lack of political and economic "centralization" or integration.

Increasing ceramic standardization in the EB II-III period suggests a more developed level of political and economic integration. This integration in turn would have encouraged craft specialization. Ceramic production was not a causal element in determining social change or evolution. The system of ceramic production did, however, parallel or accompany such social change. Case studies of ceramic production and distribution, if properly limited in scope and specific enough in definition, may clarify the role of pottery analysis in social archaeology. Although we would emphasize the scheme of production more than just limiting ourselves to ceramic identification, Sir Flinders Petrie's statement on the study of ceramics remains apt even by today's standards of archaeological inquiry: "once settle the pottery of the country, and the key is in our hands for all future explorations."⁴⁵

44. Kramer, "Ceramic Production and Specialization," p. 117, and Rice, *Pottery Analysis*, p. 171.

45. W. M. F. Petrie, *Tell el Hesi (Lachish)* (London, 1891), p. 40.

Chapter 7

Dämonen ohne Stammbaum : Zu einigen mesopotamischen Amuletten aus dem Kunsthandel

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1. Vorbemerkung. — 2. Ergänzungen zum Lamaštu-Korpus. — 3. Pazuzu. — 4. Ein Amulett mit einer Beschwörung an Sirius.

1. VORBEMERKUNG.

Eine vergleichende Studie zur Typologie, Stilgeschichte und Realienkunde altmesopotamischer Amulette ist seit langem ein wichtiges Desiderat unserer Wissenschaft. Der Verfasser dieser Zeilen hatte, bei seiner Arbeit an magischen Texten mit Problemen dieser Art konfrontiert, immer wieder das Glück, von der beeindruckenden Detailkenntnis der Jubilarin profitieren zu dürfen und hofft, diese Schuld wenigstens partiell mit der vorliegenden Sammlung einiger neuer Details begleichen zu können.

Das Zögern des kunstgeschichtlich orientierten Archäologen, sich mit diesem Teilbereich magisch motivierten Kunsthandwerks zu befassen, ist gewiss zum Teil darauf zurückzuführen, dass Amulette (ganz ähnlich wie etwa Siegelzylinder) als einigermaßen attraktive, dauerhafte Artefakte schon früh im Kunsthandel auftauchten und ihren Weg in eine unübersehbare Zahl von privaten und öffentlichen Sammlungen fanden. Auch heute noch erfreuen sich im Handel angebotene Stücke bei Sammlern offenbar ungebrochener Beliebtheit - vielleicht nicht zuletzt, weil der magische Bereich, dem sie entstammen, für viele 'aufgeklärte' Menschen des 20. Jahrhunderts immer noch ein besonderes, exotisches Flair erweckt. Die Folge hiervon ist, dass nicht nur eine unbekannte Anzahl von Amuletten seit langem in Sammlungen überall auf der Welt schlummert und der Wissenschaft noch nicht zugänglich gemacht wurde, sondern dass auch ein beträchtlicher Teil der neu auftauchenden Exemplare sich schnell wieder dem Auge der wissenschaftlichen Öffentlichkeit entzieht. Es steht daher ausser Zweifel, dass trotz der Bemühungen vieler Fachkollegen seit mehr als 100 Jahren auch heute noch Vollständigkeit in der Sammlung des Materials so gut wie ausgeschlossen ist. Gleichzeitig stellt die genannte Gruppe von Artefakten ein ziemlich leichtes und beliebtes Ziel für Fälschungen dar, und es ist m.W. bis heute nicht gelungen, archäologische Kriterien zu formulieren, die es erlauben würden, aufgrund von Materialien, Stil, Arbeitstechniken etc. eine sichere Entscheidung

zwischen echt und falsch zu treffen. Sehr oft bleibt daher die Inschrift auf einem Stück, so vorhanden, bis auf weiteres das einzige handfeste Beweismaterial für oder gegen die Echtheit eines Amuletts. Es ist deshalb kaum verwunderlich, dass viele Archäologen von der Publikation und Auswertung dieser interessanten Stücke Abstand nahmen, wenn sie nicht aus wissenschaftlichen Grabungen stammten, und die Veröffentlichung von 'Irrläufern' den Philologen und Epigraphikern überliessen, die ihrerseits oft den künstlerischen und handwerklichen Aspekten der Stücke nicht ganz gerecht werden konnten. Der vorliegende Beitrag stellt dieses Dilemma erneut unter Beweis, und ich möchte mich gleich zu Beginn bei der Jubilarin für all die Unzulänglichkeiten entschuldigen, die auf fehlendes Verständnis archäologischer Zusammenhänge und unzureichende Kenntnis altmesopotamischen Kunsthandwerks zurückgehen.

Von allen Untergruppen altvorderasiatischer Amulette haben diejenigen, die in irgendeiner Beziehung zur Dämonin Lamaštu stehen, insgesamt sicher die meiste Beachtung gefunden. In den letzten Jahren haben sich (neben anderen Fachkollegen) vor allem F.A.M. Wiggermann und ich selbst mehrfach mit diesen Stücken befasst und die Bibliographie publizierter Lamaštu-Amulette zuletzt bis zur Nr. 66 erweitert.¹ Zwei weitere Stücke wurden seither von anderer Seite publiziert, und einige weitere Ergänzungen und Berichtigungen der Liste sollen unten, Abschnitt 2, zusammengestellt werden.

Ein Dämon, der im Umkreis der Lamaštu eine betont eigenständige, aber weitgehend immer noch ungeklärte Rolle spielt, ist Pazuzu.² Er ist, als Vollfigur oder nur durch seinen Kopf repräsentiert, oft auf Lamaštu-Amuletten zu sehen. Pazuzu-Köpfe als apotropäische Amulette hatten aber auch selbst eine weite Verbreitung, und ein hübsches neues Exemplar dieser Gattung wird unten, in Abschnitt 3, bekanntgemacht.

Als eine weitere wichtige Gruppe mesopotamischer Amulette können solche Stücke zusammengefasst werden, die Beschwörungen tragen, die im Altertum zur Textserie *Hulbazizi* gehörten.³ Die Darstellungen dieser Amulette sind häufig, aber keineswegs immer, auf Lamaštu bezogen. Eine Publikation des gesamten Textmaterials der Serie sowie der hierhergehörigen Amulette durch I.L. Finkel ist in Vorbereitung.⁴ Als Abschnitt 4 des vorliegenden Artikels möchte ich ein neues in Text und Darstellung ungewöhnliches Stück dieser Gruppe vorstellen, beschränke mich dabei jedoch im Hinblick auf Finkels angekündigte Arbeit auf eine beschreibende Veröffentlichung des Amuletts, sowie eine kurze Bearbeitung des darauf befindlichen Textes; eine ausführlichere Interpretation und Würdigung des Stückes kann sinnvollerweise erst im Rahmen des Gesamtmaterials erfolgen.

1. Vgl. zuletzt F. A. M. Wiggermann, *Babylonian Prophylactic Figurines* (Amsterdam, 1986), S. 10; s. auch die Aufzählungen der Amulette bei *id.*, *apud* M. Stol, *Zwangerschap en Geboorte* (Leiden, 1983), S. 96-98, sowie W. Farber, *RIA* 6 (1983): 441b. Nach anfänglichen Diskrepanzen ist diese letztgenannte Liste nunmehr auch von Wiggermann übernommen worden, und die dortige Numerierung empfiehlt sich daher als Standard-Zitierweise für Lamaštu-Amulette.
2. Vgl. zuletzt A. Green, *Iraq* 47 (1985): 75ff.
3. Vgl. Anm. 4 ! Die Amulett-Beschwörungen gehören dabei meist zu dem Untertypus, den Ebeling, *ArOr* 21 (1953): 357 ff. als "Gattung IV" bezeichnet hat.
4. Vgl. vorläufig Finkel, *Hulbazizi* (unpubl. Dissertation, University of Birmingham, 1976).

2. ERGÄNZUNGEN ZUM LAMAŠTU-KORPUS.

2.1 LAMAŠTU-AMULETTE NR. 24 UND 51 : NEUE PHOTOS, UND ZUSÄTZLICHE HINWEISE.

Amulett 24 : L. J. Krušina-Černý sah dieses Stück 1946 bei einem Händler in Beirut und veröffentlichte 1950 Photos, die unter ungünstigen Bedingungen hergestellt waren, sowie eine recht flüchtige Kopie des Textes der Rs. (*ArOr* 18/3, S. 297ff.). Das Amulett fand später den Weg in die Yale Babylonian Collection,⁵ wo es heute die Nr. YBC 13600 trägt. G. Beckman verdanke ich hervorragende neue Photos des Stückes, die auf Taf. 12 a-b wiedergegeben sind. Eine neue Kopie der Inschrift schien nicht erforderlich, doch dürfte eine neue Umschrift des Textes von Nutzen sein.⁶

- 1 *ÉN d̄im.me
 *d[u]mu d̄a-nim
 3 *mu.pà.da dingir.*e.ne.*ke₄
 *su mu.un.da sag.gi₆*gá
 5 zi an.na h̄é.pà
 zi ki h̄é.pà

Der Text ist eine verkürzte Version der 10. Beschwörung der kanonischen Lamaštu-Serie (*Lam.* Taf. II, 126ff.),⁷ wie sie sich des öfteren auf Amuletten finden. Bisher ist jedoch kein exaktes Duplikat der eben hier vorliegenden Kurzfassung bekannt geworden. Die einzigen wichtigeren Varianten zum Ninive-Text finden sich in Z. 4 (su statt šu, da statt dū, gá statt ga).

Amulett 51 : Dieses Stück wurde 1926 von R. Dougherty bei Warka angekauft und von ihm in *AASOR* 8, S. 50 in Umzeichnung veröffentlicht. Es befindet sich heute ebenfalls in Yale (Nr. YBC 10196); als Ergänzung zu Doughertys Zeichnung gebe ich auf Taf. 12 c–d neue Photos von Vs. und Rs. des Amuletts.

2.2 LAMAŠTU-AMULETTE NR. 67 UND 68

Amulett 67 : MMA 1984.348, vor drei Jahren vom Metropolitan Museum, New York erworben, ist ein hochinteressantes, gut erhaltenes Stück aus Obsidian, das wohl in die mB Zeit zu datieren ist. Eine vorläufige Publikationsnotiz von P. Harper findet sich in *Metropolitan Museum, New Acquisitions 1985*, S. 4. Von derselben Autorin ist eine ausführliche Veröffentlichung über dieses Exemplar und seine Parallelen zu erwarten, und W.G. Lambert plant eine Bearbeitung der Inschrift, die wiederum auf der 10. Beschwörung der Serie (*Lam.* II 126 ff.) basiert; die Version auf dem New Yorker Stück ist gegenüber der jüngeren, kanonischen Fassung um einiges ausführlicher und länger.

5. Ich möchte an dieser Stelle Herrn Prof. W. W. Hallo, Curator der Yale Babylonian Collection, meinen Dank dafür aussprechen, dass er mir genehmigte, dieses und die andern weiter unten zu behandelnden Stücke aus Yale zu bearbeiten und zu veröffentlichen.
6. S. Krušina-Černý, a.a.O. Taf. XIV und S. 299; alle von der Erstausgabe abweichenden Lesungen wurden, soweit nicht schon vom Photo eindeutig, durch Kollationen seitens G. Beckman bestätigt.
7. S. bisher D. Myhrman, *ZA* 16 (1902): 178, Z. 6-11, sowie demnächst in meiner Neuausgabe der Lamaštu-Texte. Eine zweisprachige Version dieser Beschwörung findet sich bei R. Borger, *AOAT* 1, 12, No. XXII.

Amulett 68 : Das Museum of Fine Arts, Boston erwarb 1985 ein Lamaštu-Amulett (Nr. 1985.103), das T. Kendall kürzlich in *A Table of Offerings: 17 Years of Acquisitions* (Boston, Museum of Fine Arts, 1987), S. 96f. publizierte. Die dort nicht abgebildete Rs. des Stückes ist laut freundlicher Mitteilung des Verfassers völlig unverziert und blankpoliert. Die Vs. zeigt in Ritzzeichnung eine der üblichen Darstellungen der Lamaštu mit Löwenkopf und Vogelkrallen an den Beinen; links und rechts springen ein Hund und ein Schwein nach ihrem Hängebusen. In ihren Händen hält sie einen Kamm und einen Spinnwirtel(?).⁸ Sie steht auf einer an beiden Seiten nach oben geschwungenen Grundlinie, die wahrscheinlich (mit Kendall) das aus elaborierteren Darstellungen geläufige Boot darstellen soll, auf dem sie auf die Reise geschickt wird. Zusammen mit dem ähnlich konzipierten Amulett Nr. 10 (Gussform, aus Ninive : *AfO* Beih. 1 Taf. X Nr. 26) stellt dies einen Zwischentyp zwischen der einfachen (und oft älteren) Darstellung der Dämonin nur mit ihren Attributen, und der in nA Zeit weitverbreiteten 'Reiseszene'⁹ dar, wo Lamaštu allerdings regelmässig auf einem Esel kniet oder steht, der seinerseits im Boot steht oder liegt. Rückschlüsse auf die Datierung des Bostoner Stückes können daraus wohl allerdings nicht ohne weiteres gezogen werden. Das Amulett wirkt trotz der unverzierten Rs. insgesamt unverdächtig, doch ist ein strikter Beweis für seine Echtheit kaum zu erbringen; die atypische, aber im Kontext sinnvolle Darstellung des Bootes ist m.E. das wichtigste Argument für die Authentizität des Täfelchens.

2.3 NBC 8151 : LAMAŠTU-AMULETT NR. 69

NBC 8151 ist bisher unpubliziert; es wurde 1939 angekauft und befindet sich heute in Yale. Material: Rauchiger Quarz. Masse : 45 × 28 × 4 mm. Photo Taf. 12 e-f.

Auf der Vs. ist Lamaštu zu sehen, mit einem ungewöhnlich gezeichneten Kopf ohne Ohren und ohne das typische weit geöffnete Maul; hier könnte es sich um eine etwas missglückte Darstellung der vogel- statt löwenköpfigen Dämonin handeln (vgl. etwa die Amulette Nr. 18 und 32). Die Darstellung der Hände erinnert an kleine Tannenbäumchen, Brüste und Füße sind gar nicht angegeben. Neben der Dämonin stehen ein Schwein und ein Hund, darüber sind Kamm und Spindel zu sehen. Links neben dem Kopf der Lamaštu ist nochmals ein spindelähnlicher Gegenstand abgebildet, allerdings diesmal waagrecht.¹⁰ Rechts oben ist noch eine abgelenkte Linie zu erkennen, die vielleicht ein Eselsbein wiedergeben soll.¹¹

Die Rs. trägt eine 5-zeilige Inschrift, deren Zeichen jedoch nicht alle lesbar sind. Die schlechte Qualität des Textes und der Zeichenformen findet ihre Parallele auf vielen anderen Amuletten und ist, für sich selbst genommen, gewiss kein Beweis für eine moderne Fälschung. Obwohl auch bei diesem Stück ein Echtheitsbeweis nicht zu erbringen ist, glaube ich, es als authentisch ansprechen zu dürfen. Das fragwürdigste Detail der Darstellung ist zweifellos das Fehlen der Füße, die sonst gern als ausladende Adlerkrallen wiedergegeben werden.

8. T. Kendall, l.c., sieht in dem unklaren Gegenstand eine Fibel, doch hält Lamaštu sonst nie eine solche in ihrer Hand.

9. Vgl. hierzu ausführlicher W. Farber, *Fs. für Erica Reiner* (=AOS 67, New Haven, 1987), S. 85ff.

10. Ähnliche dreieckige Figuren mit einem Strich rechtwinklig zur kurzen Seite sind auf mehreren Lamaštu-Amuletten zu sehen und stellen des öfteren gewiss die Spindel dar, besonders wenn sie senkrecht ausgerichtet sind. Die Fälle, in denen sie waagrecht abgebildet sind, bzw. in denen zwei ähnliche Gegenstände zu sehen sind, sind noch nicht alle geklärt und erfordern weitere Untersuchung. Ich danke P. Harper dafür, meine Aufmerksamkeit auf dieses Problem gelenkt zu haben.

11. Vgl. hierfür W. Farber, *Fs. für Erica Reiner*, S. 95.

Der Text kann versuchsweise wie folgt gelesen werden :

- 1 ÉN.É.NU.<RU>
 ^dDÌM.<ME>
- 3 DUMU AN.NA
 BÍ?[?].ÍB.GU.
- 5 LU AN BE NI

Zeile 5 sträubt sich gegen alle Interpretationsversuche, während Z. 4 vielleicht auf *Lam. II 130* zurückgehen könnte : ^ddìm.me íb.gu.ul lú.ra nam.ba.te.GÁ.dè. Die Z. 1-3 bieten keine besonderen Probleme, obwohl sie den zu erwartenden Text nur unvollständig wiedergeben.

2.4 EINE FÄLSCHENDE KOPIE NACH VERLORENEM ORIGINAL : LAMAŠTU-AMULETT NR. 70F.

1965 publizierte J. Nougayrol ein Lamaštu-Amulett mit einer Inschrift, die er plausibel als moderne Kopie eines verlorenen antiken Originals deutete ("Du bon usage des faux", *Syria* 42, S. 227ff.: Amulett Nr. 56). Obwohl er selbst diese Ansicht ein Jahr später zum Teil widerrief (*Syria* 43, S. 332f.) und zumindest die Möglichkeit einräumte, dass das kuriose Objekt doch echt sei, halte ich das fragliche Stück nach wie vor für eine kopierende Fälschung, der jedoch, was den Text betrifft, der wissenschaftliche Wert nicht abzuspüren ist.

Das hier im Folgenden vorzustellende Stück¹² lässt m.E. fast noch weniger Zweifel an seiner modernen Herkunft aufkommen. Genau wie das Amulett Nr. 56 trägt es jedoch eine Inschrift, die, obwohl Duplikat zu Wohlbekanntem, verdient, als einigermaßen getreue Kopie eines verlorenen echten antiken Textes veröffentlicht zu werden. Ganz ähnlich wie im obengenannten Beispiel hat auch hier ein moderner 'Künstler' eine teilweise beschädigte Vorlage genau abkopiert und, um für die zerstörten Textteile nicht selbst sofort als Fälschung erkennbaren Text erfinden zu müssen, dann auch die Bruchkante des im Original rechts oben fehlenden Stückchens so genau wie möglich nachgearbeitet. Unglücklicher-, aber kaum überraschenderweise reichten dabei seine Kenntnisse der Keilschrift jedoch nicht aus, um den verbleibenden, zu kopierenden Text auch noch korrekt auf die Zeilenlänge zu verteilen. Die Folge ist, dass in Z. 1 und 2 der künstliche Bruch nicht breit genug ausfiel, als dass die mit Sicherheit hier zu rekonstruierenden Zeichen darin noch unterzubringen wären. Darüber hinaus schlichen sich beim Kopieren der beschädigten Zeichen am Ende von Z. 3-4 einige typische Fehler ein : Beim Zeichen ke₄ wurde, wie das ja so leicht geschieht, ein vertikaler Keil an der Bruchkante als Horizontaler missverstanden, und das letzte Zeichen in Z. 4, GÁL, wurde ohne die beiden offenbar abgebrochenen abschliessenden Winkelhaken als (dann vollständig erhaltenes) PÚ abgezeichnet. Auch sonst finden sich Unsicherheiten in den Zeichenformen, die es recht klar machen, dass der Text nicht von einem der Keilschrift kundigen Assyrer geschrieben, sondern ohne Fachkenntnis im 20. Jahrhundert abkopiert wurde, wobei gelegentlich Einzelkeile falsch gedeutet wurden : Vgl. etwa die unterschiedlichen Formen für DÌM in Z. 2 und 8, KE₄ in Z. 3, 5 und 7, oder auch das simple E, das in Z. 3 viel zu schräg geraten ist. Abgesehen davon verdanken wir dem Fälscher eine recht brauchbare, und durchweg lesbare, Wiedergabe seiner Vorlage. Eine Kopie der Inschrift gebe ich als Abb. 17.

12. Kenntnis dieses Stückes verdanke ich J. Rosen, New York, dem es im Kunsthandel angeboten worden war. Ich habe ihm für die Überlassung von Photos herzlich zu danken. Als Herkunftsort wurde ihm 'Syrien' angegeben.

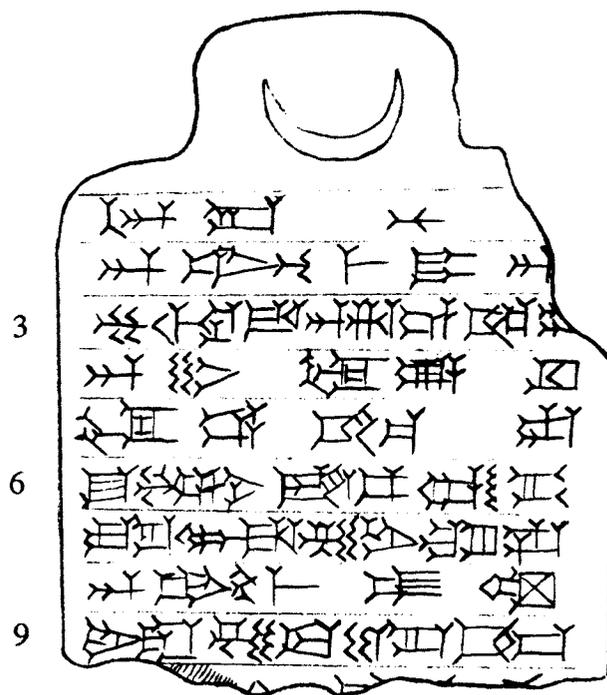


Fig. 17. Lamaštu-Amulett Nr. 70F (nach Photo).

Auch dieser Text stellt nochmals eine weitere Parallele zu Lam. II 126ff., der 10. Beschwörung der Serie, dar; er entspricht dabei fast exakt dem Wortlaut der kanonischen Fassung aus Ninive. Die 9 erhaltenen Zeilen duplizieren *Lam. II 126-130*; Reste einer weiteren Zeile, die wahrscheinlich ib. 131 entsprochen hat, sind über der Bruchkante eingeritzt. Der Text lautet :

- 1 ÉN.É.NU.[RU]¹
 ḏim.me dumu an.[na]¹
 3 mu pà.da dingir.re.e.ne.k[e₄]¹
 ḏin.nin nir.gá<l>
 nin.e.ne.ke₄¹
 6 šu mu.un.dù á.zág.gig.ga
 u₁₈.lu dugud.da nam.lú.u₁₈.lu.ke₄
 ḏim.me fb.gul
 9 lú.ra nam.ba.te.GÁ.dè
 (Spuren)

Eine so eng an der ninivitisches-kanonischen Version bleibende Textform¹³ ist für diese Beschwörung sonst bisher auf Amuletten nicht belegt. Es steht daher ausser Zweifel, dass die fälschende Kopie nicht auf einem der schon bekannten Exemplare fassen kann; auch scheint es absolut undenkbar, dass ein Fälscher eine so korrekte Textversion selbst aus anderen Quellen hätte zusammenstellen können. Der Text unseres Amuletts stellt daher die Kopie eines sonst bisher unbekanntes Duplikats unserer Beschwörung dar und kann als solche durchaus als wissenschaftlich akzeptable Quelle aufgefasst werden - allerdings mit der Einschränkung, dass

13. Die einzige Variante gegenüber dieser Fassung ist die Auslassung von .e. zwischen GÁ und dè, Z.9.

der bisher allein vorliegende Textzeuge nicht die Abschrift eines Assyriologen, sondern nur die Nachzeichnung dessen, was ein an der Inschrift nur marginal interessierter Fälscher auf dem ihm vorliegenden Original zu sehen glaubte, darstellt.

Die Vs. des Amuletts lohnt dagegen keine Veröffentlichung, da - anders als im Falle der Inschrift - die fälschende Abzeichnung der Figur der Lamaštu und ihrer Attribute offensichtlich nicht als Basis für irgendeinen stilistischen oder realienkundlichen Vergleich dienen kann. Der Bildaufbau ist der übliche : Lamaštu mit Schwein und Hund, rechts eine Schlange (die linke offenbar auf dem Original abgebrochen und daher vom Fälscher weggelassen), und ein Skorpion. Links oben befindet sich wieder ein künstlicher Bruch, um den herum eine viel zu grosse Fläche gar keine Zeichnungen enthält - auch hier zögerte der Fälscher, Details anzugeben, die auf seiner Vorlage abgebrochen waren. Eine interessantere Einzelheit : Der Aufhänger-Vorsprung trägt auf der Vs. einen sechsstrahligen Stern und auf der Inschriftseite eine liegende Mondsichel. Falls sich hierin die Anordnung auf dem Original widerspiegelt, ist dies im Bereich der Lamaštu-Amulette neu: Zwar sind Ištar und Sin des öfteren auf diesen durch ihre Himmelskörper vertreten, jedoch bisher immer auf derselben Bildseite, und regelmässig neben Darstellungen der Sonne und der Plejaden.

Als Fälschung sollte das vorliegende Stück eigentlich gar keine eigene Nummer zugewiesen bekommen, doch möchte ich vorschlagen, es trotzdem als Nr. 70F in die Liste der Amulette aufzunehmen. 'F' steht hierbei als mehrsprachig verwendbares Kürzel für 'Fälschung, faux, forgery, falso' etc.; sollte das Original, nach dem es gearbeitet wurde, jemals wieder auftauchen, müsste dies dann natürlich die Nr. 70 erhalten.

2.5 BOSTON MFA 1975.341 : ORIGINAL ODER FÄLSCHUNG ?

Ausser dem oben, S. 96 besprochenen Lamaštu-Amulett Nr. 68 besitzt das Museum of Fine Arts in Boston noch ein weiteres, 1975 erworbenes Amulett, das mir erstmalig bei einem Besuch des Museums im Jahre 1981 ins Auge fiel. T. Kendall hatte die Freundlichkeit, mir Photos des Stückes zu verschaffen, die auf Taf. 13 a-b mit freundlicher Genehmigung des Museums wiedergegeben sind.

Das Amulett ist in mehrfacher Hinsicht so ungewöhnlich, dass sich starke Zweifel an seiner Echtheit einstellen. Leider trägt es keine Inschrift, und wir sind wieder einmal allein auf Vergleiche mit anderen Amuletten angewiesen. Die äussere Form, annähernd oval mit einer halbkreisförmigen Ausbuchtung am oberen Ende, und am Rande rundum rosettenartig geriefelt, ist sonst bei Lamaštu-Amuletten nicht zu beobachten; vergleichbare Stücke anderer Gattungen kenne ich ebenfalls nicht. Die Darstellungen auf der Vorderseite sind dann jedoch ganz ohne Zweifel auf Lamaštu zu beziehen : Die löwengestaltige Dämonin, auf den Hinterbeinen stehend (keine Füsse oder Klauen sind zu sehen); Menschenhände, die etwas halten, das wie eine Art Springseil aussieht, jedoch wahrscheinlich zwei Schlangen darstellen soll; ein weit geöffnetes Maul, das fast die Form eines Schnabels hat; und ein leicht gebogenes Horn auf dem Hinterkopf, wahrscheinlich eine missglückte Darstellung der langen Ohren der Lamaštu. Der Schwanz dieses Wesens ist in einen Dreiviertelkreis gerollt. Vor der Figur ist ein Gegenstand zu sehen, der am ehesten als Räucherbecken auf einem hohen Ständer zu deuten sein dürfte.

Diese ganze Zeichnung wirkt fast wie eine Parodie auf ein wohlbekanntes Lamaštu-Amulett, das F. von Luschan 1894 in Zinčirli, dem antiken Sam^f al, ausgegraben hat (veröffentlicht: W. Andrae, *Ausgrabungen*

in *Sendschirli* 5, 1942, S. 146f und Taf. 9c).¹⁴ Mit freundlicher Genehmigung des Verlages W. de Gruyter, Berlin, kann dieses unzweifelhaft echte Stück auf Taf. 13 c-d dem Bostoner Exemplar gegenübergestellt werden. Die beiden Stücke sind fast exakt gleich gross (Höhe des Amulette aus Sam'al 9,2 cm, des Bostoner Stückes etwa 9,5 cm). Der Hauptunterschied zwischen beiden ist, abgesehen von der allgemeinen Qualität der Ausführung, dass im Sam'al-Amulett die Dämonin Adlerkrallen besitzt und auf einem liegenden Vierfüssler (wohl einem Esel, obwohl die Darstellung eher wie ein Hund aussieht) steht. Diese beiden Details passen gut zur Ikonographie anderer Amulette. Der räucherständerartige Gegenstand des Bostoner Stückes ist allerdings weder auf dem Exemplar aus Zinčirli, noch auf anderen Lamaštu-Amuletten zu sehen. Der Rand des Sam'al-Amuletts ist ausserdem glatt, ohne die auffällige und suspekthe Riefelung. Die Gesamtform beider Stücke ist im grossen und ganzen vergleichbar, obwohl das aus der Grabung stammende Amulett nicht oval ist, sondern stattdessen einigermassen parallele Seitenkanten mit einem halbkreisförmigen unteren Rand und einer etwas asymmetrisch versetzten Ausbuchtung oben zeigt. Es steht damit der normalen Form der Lamaštu-Amulette viel näher als das Bostoner Exemplar.

Die Ähnlichkeiten zwischen den beiden Stücken setzen sich auch auf der Rs., speziell in deren oberem Register, fort. In beiden Fällen ist auf der oberen Ausbuchtung eine Mondsichel, und darunter eine Flügelsonne zu sehen.¹⁵ Rechts davon zeigt das Amulett aus Sam'al ein Kugelkreuz, und darüber die sieben kleinen Kreise der Plejaden; das Bostoner Stück zeigt stattdessen einen achtstrahligen Stern mit einer grossen Kugelbohrung in der Mitte und kleineren solchen an allen Strahlenenden. Links des bereits erwähnten Sonnensymbols sind auf beiden Exemplaren drei oder vier senkrechte Linien eingraviert, von denen eine eine pfeilartige Spitze besitzt und evtl. als Lanze oder Marduk-Symbol¹⁶ zu deuten ist. Das Sam'al-Amulett zeigt darüber hinaus noch ein paar weitere, ungeklärte Darstellungen (cf. Klengel, a.a.O.). Eine davon, eine einfache grosse Kugelbohrung, könnte durchaus für den Stern der Ištar, d.h. den Planeten Venus stehen. Dieses obere Register ist auf dem Sam'al-Amulett durch eine schmale, vertikal gestrichelte Doppellinie von der darunter befindlichen Szene abgesetzt. Auf dem Bostoner Stück ist dieses Zwischenband viel breiter und nur von gelegentlichen doppelten senkrechten Strichen unterteilt; direkt unterhalb davon ist genau in der Mitte ein sechsstrahliger Stern zu sehen. Die Hauptszene dieses unteren Teils besteht dann hier aus zwei derb gezeichneten menschlichen Figuren in langen Gewändern; die recht detaillierte Wiedergabe der Kleidung steht in scharfem Kontrast zur primitiven Strichzeichnung der Arme und der Füsse. Der Kopf der linken Gestalt ist unproportional gross und im Profil gegeben; die rechte scheint eine Axt(?) zu halten, und ihr Kopf ist fast nicht zu erkennen. Zwischen den beiden Figuren sieht man ein Dreieck (Fibel ?), einen Kamm, sowie auf dem Boden einen unklaren Gegenstand (Hund ?); links aussen ist eine Gewandnadel zu sehen.¹⁷ Das Sam'al-Exemplar zeigt statt all diesem eine Gruppe von (wohl vier) Strichmännchen mit kugelgebohrten Köpfen. Die Bedeutung der Szene (Gebet ? Opfer ?) bleibt unklar. Eine offenbar aramäische Inschrift, die jedoch m.W. bisher nicht entziffert wurde, füllt den Raum links der Figuren und unterhalb der Standlinie. Direkt über dieser Linie sind vielleicht ein Kamm und ein gequetschtes Dreieck (Fibel ?) zu erkennen, doch bleibt dies nach dem Photo recht unklar.

14. = Lamaštu-Amulett Nr. 46, cf. H. Klengel, *MIO* 8 (1963): 25.

15. Auf dem Stück aus Boston ist diese wie ein Gewand mit Ärmeln gezeichnet, und das zentrale Mittelstück, die Sonnenscheibe, ist überhaupt nicht auszumachen.

16. So die Interpretation des Amuletts aus Sam'al bei Klengel, *MIO* 8, 25.

17. Für Darstellungen dieser Gegenstände auf anderen Lamaštu-Amuletten s. W. Farber, *Fs. für Erica Reiner*, S. 85ff.

Zusammenfassend kann gesagt werden, dass sich fast alle Züge des Bostoner Amuletts irgendwie auch auf dem Stück aus Zinçirli wiederfinden. Einige Details sind auf beiden Stücken so parallel, dass sich der Schluss aufdrängt, das neue Exemplar sei nichts anderes als ein moderner Abkömmling des ausgegrabenen. Die Unterschiede in der Anordnung einzelner Gegenstände (Kamm, Fibel[?], Stern), die Hinzufügung zweier Darstellungen, die das Sam'al-Amulett nicht kennt (Nadel, Räucherständer[?]), wie auch die viel ausführlichere Darstellung der menschlichen Figuren auf der Rs., zeigen zusammen allerdings deutlich, dass es sich dabei nicht um eine direkte Abzeichnung handeln kann. Obwohl nicht mit allerletzter Sicherheit ausgeschlossen werden kann, dass auch das Bostoner Stück antik ist (und dann wohl aus derselben lokalen Tradition wie das Sam'al-Amulett stammen dürfte), scheint es doch viel wahrscheinlicher, dass tatsächlich eine moderne Fälschung vorliegt, zwar nicht direkt von dem in Zinçirli gefundenen Exemplar kopiert, aber doch deutlich von ihm inspiriert. Will man nicht annehmen, dass der Fälscher jenes in Berlin in Augenschein nehmen, oder gar die wissenschaftliche Publikation verwenden konnte, so scheint es am plausibelsten, dass er es gleich bei (oder kurz nach) der Ausgrabung gesehen haben könnte. Er hätte dann wohl später nach der Erinnerung, oder aber nach einer an Ort und Stelle gefertigten rohen Skizze gearbeitet. Auch in diesem Falle könnten unsere beiden Exemplare durchaus derselben Gegend entstammen, allerdings getrennt durch mehr als zweieinhalb Jahrtausende . . .

Da ich persönlich überzeugt bin, dass das Bostoner Amulett eine Fälschung darstellt, weise ich ihm wiederum keine eigene Nummer zu. Seine Veröffentlichung ist wohl dennoch gerechtfertigt, solange kein absoluter Beweis geführt werden kann, dass es unter keinen Umständen echt sei. Ich schlage daher nach der oben gegebenen Argumentation vor, MFA 1975.341 als Nr. 46F zu bezeichnen, da das Sam'al-Amulett die Nr. 46 trägt.

3. PAZUZU.

Der kleine Pazuzu-Kopf auf Taf. 12 h–k stammt ebenfalls aus dem Kunsthandel und befindet sich heute in einer Privatsammlung; ich danke der Besitzerin für die Erlaubnis, ihn hier publizieren zu dürfen. Der Kopf ist 19 mm hoch und aus hellem Karneol. Ein Echtheitsbeweis für das Stück ist nicht zu erbringen, doch spricht die Art der Darstellung und Ausführung primär dafür, dass es sich um ein authentisches, antikes Amulett handelt. Der Kopf ist von Hand in vertikaler Richtung zur Aufnahme einer Fassung oder Schnur durchbohrt, und zwar von beiden Seiten aus, wobei die beiden Bohrschäfte in der für diese antike Technik typischen Weise nicht exakt aufeinandertreffen. Der Kopf trägt keine Inschrift. Er gehört zu einer wohlbekannteren Gruppe apotropäischer Anhänger und Amulette, die in verschiedenen Materialien (Ton, Stein, Metall) auf uns gekommen sind. Eine erste Sammlung des damals bekannten Materials geht auf F. Thureau-Dangin zurück (*RA* 18, 1921, 189ff.), und C. Frank ergänzte die dortige Liste in *MAOG* 14/II, 1941, 22f.; P.R.S. Moorey behandelte das gesamte 1965 bekannte Material um Pazuzu in *Iraq* 27, 33ff., und kürzlich gab A. Green ausführliche Hinweise zur neuesten Bibliographie des Dämons (*Iraq* 47, 1985, 76 Anm. 13).¹⁸ Einige Pazuzu-Köpfe mit Inschriften sind darüber hinaus im Lauf der Jahre in mehreren philologisch orientierten

18. Dort wäre an wichtigeren Publikationen noch nachzutragen E. L. B. Terrace, *Bulletin of the Museum of Fine Arts, Boston*, Bd. 62 (1964) S. 56f. und 64, Anm. 19 (Pazuzu-Kopf aus Chalzedon; Hinweis J. Larson); E. Klengel-Brandt, *FuB* 12 (1970) 37ff. (Terracotta-Köpfe aus Babylon); sowie M. Noveck, apud O. Muscarella, *Ladders to Heaven* (Toronto, 1981), S. 139-141 und Anm. auf S. 318f. (4 Köpfe aus Stein und Bronze).

Artikeln behandelt worden.¹⁹ Für die Darstellungen von Pazuzu-Figuren und/oder -Köpfen auf Lamaštu-Amuletten s. zuletzt, wenn auch nur summarisch, W. Farber, *Fs. für Erica Reiner*, 1987, S. 102. Unser Kopf, wahrscheinlich als an einer Halskette zu tragendes Amulett gedacht,²⁰ fällt typologisch nicht aus dem Rahmen des bisher Bekannten, besticht jedoch durch sein attraktives Material, die gute Ausführung, und die unverletzte Erhaltung.

Ein weiterer bisher in der Fachliteratur übersehener Pazuzu-Kopf aus Jade(?), dessen Kenntnis ich J. Larson verdanke, sei hier noch kurz besprochen. Das Stück stammt aus Khorsabad und wurde in OIP 40, Nr. 256 (S. 99 und Taf. 64) publiziert. Larson war auch so freundlich, für mich die Fundjournale nach Angaben über dieses Stück durchzusehen, doch ergab sich dabei leider kein völlig sicherer Ansatz für eine genauere Datierung, da nirgends klar genug gesagt ist, ob das Köpfchen in primärem Kontext (dann = Sargon II.), oder aber in sekundärer Lage gefunden wurde. Die primäre Wahrscheinlichkeit spricht dabei sicher für eine Datierung auf die kurze Blütezeit von Dür-Šarrukīn, auch wenn die Grabung gelegentlich Einzelstücke aus späteren Perioden ans Licht brachte; die wenigen anderen Fundstücke aus demselben Raum (H.43 = Nabû-Tempel, Raum 3) sind ebenfalls, für sich genommen, nicht sicher datierbar. Das Pazuzu-Amulett, das wie das oben neu veröffentlichte Stück eine senkrechte Bohrung zur Aufnahme einer Schnur aufweist, blieb bei der Teilung der Funde in Bagdad, so dass mir eine Überprüfung der Materialangabe 'Jade' (so das Fundjournal 1932/35, S. 28, vom 20.3.1933; die Publikation sagt stattdessen nur 'light green stone') derzeit nicht möglich ist. Da die Abbildung des Köpfchens in OIP 40 wegen des kleinen Formats kaum Details erkennen lässt, gebe ich hier auf Taf. 12 g einen etwas vergrößerten neuen Abzug des originalen Grabungsnegativs (Nr. 698; jetzt O.I. Nr. P 31186/N 18754) wieder. Die Masse des Stückes sind im Fundjournal mit 18 × 11 mm angegeben.

Während der Ausarbeitung dieses Manuskripts wurde mir von mehreren Kollegen nahegelegt, auch noch die bronzene Vollfigur des janusköpfigen Pazuzu aus dem Oriental Institute (A 25413) miteinzubeziehen. Eine ausführliche Veröffentlichung dieses bisher nur unzulänglich publizierten und dabei so ungewöhnlich attraktiven Stückes durch einen Philologen schien mir allerdings kaum angemessen. Im Einvernehmen mit der Kuratorin des Museums, K. L. Wilson, kann ich jedoch stattdessen wenigstens einige hervorragende Photos der Statuete auf Taf. 15 a-c beifügen und diese durch folgende Informationen aus dem Museums-Register ergänzen:

Angekauft 1943, Herkunft unbekannt. Wohl aus neuassyrischer Zeit.

Material Bronze, Masse 140 × 93 × 60 mm.

Im Register ist das Stück folgendermassen beschrieben: "Body and tail of scorpion, legs and feet of bird, four expanded wings, right forepaw upraised, left forepaw held down; double-faced leonine head, with large staring eyes, an open mouth with bared fangs, double beard below chin, horns on top of head. For suspension there is a loop on top of the head. He stands on an oblong base."

Die Statuette wurde erstmalig bekanntgemacht durch G. G. Cameron, *Biblical Archaeologist* 7 (1944): 33 Abb. 7; diese Abbildung ist auch zitiert bei Moorey, *Iraq* 27: 34 Anm. 7 und Green, *Iraq* 47: 76 Anm. 13 (der Moorey fälschlicherweise vorwirft, das Stück übersehen zu haben). Eine neuerliche Abbildung findet sich im *Guide to The Oriental Institute Museum* (1982), S. 84.

19. S. besonders R. Borger, *AJO* 17 (1954/6): 358 f.; H. W. F. Saggs, *AJO* 19 (1960): 123ff.; E. Klengel-Brandt, *Or.* 37 (1968): 81ff.; W. G. Lambert, *FuB* 12 (1970): 41ff.; sowie B. Ismail, *Sumer* 30 (1974): 121ff. Ein neues Duplikat einer der Standardinschriften findet sich bei E. von Weiher, *SPTU* II Nr. 9, eine Neubearbeitung des Materials jetzt bei R. Borger, *Fs. für Erica Reiner*, S. 15ff.

20. Vgl. hierzu besonders Moorey, *Iraq* 27, S. 35.

4. EIN AMULETT MIT EINER BESCHWÖRUNG AN SIRIUS (HULBAZIZI-GRUPPE).

Das letzte hier vorzustellende Amulett ist gewiss echt; die interessante und ungewöhnliche Inschrift lässt hieran keinen Zweifel aufkommen. Das Stück ist in voller Höhe erhalten (8,5 cm), und die Breite lässt sich aufgrund der erhaltenen Reste der beiden Seitenränder mit Sicherheit auf ziemlich genau 7 cm rekonstruieren. Es besteht aus einem harten Stein mit kontrastreicher Hell-Dunkel-Wölkung; in der kurzen Zeit, die mir zur Beschäftigung mit dem Original zur Verfügung stand, war es mir nicht möglich, das Material genauer zu bestimmen. Die Musterung des Steines erschwert die Lesung der eingeschnittenen Keilschriftzeichen, wie auch das Erkennen einzelner Details der Bildszene. G. Beckmann beschaffte mir die auf Taf. 14 a–b wiedergegebenen hervorragenden Photos des Stückes, wie auch Abdrücke des Figurenfrieses; aufgrund dieser Materialien konnte A. Alizadeh für mich die auf Taf. 14 c–d wiedergegebene Umzeichnung der Darstellungen anfertigen : Beiden gilt mein aufrichtiger Dank für ihre Hilfe. Die Kopie des Keilschrifttextes (Abb. 18) basiert auf dem Original, doch konnte ich für die endgültige Reinzeichnung ebenfalls auf die Photos zurückgreifen und einige Lesungen danach verbessern. Das Amulett ist im Besitz von J. Rosen, New York, dem hier sehr herzlich für die Genehmigung zur Publikation gedankt sei.

Das Steintäfelchen besass in seinem unbeschädigten Originalzustand offenbar eine recht breite Ausbuchtung auf der Oberkante, die zur Aufnahme einer Schnur durchbohrt war.²¹ Das Bohrloch ist heute völlig mit einer bituminösen Substanz verstopft und kann nicht mehr genauer untersucht werden. Die Oberkante dieses breiten Henkels ist abgerundet und der ganze Vorsprung durch Riefen im Abstand von 1-2 mm gegliedert. Darunter befinden sich drei schmale horizontale Bänder, das obere und untere unverziert, während das mittlere vertikal gestrichelt ist. Hierunter folgt ein Fries von magischen Figuren, sorgfältig in glyptischer Technik in den Stein geschnitten. Dieser Fries lief ursprünglich rund um das gesamte Amulett, ist jedoch heute an beiden Seiten durch Bruchstellen gestört. Es ergibt sich dabei eine Prozession von sieben nach rechts schreitenden Figuren, wovon eine heute fast völlig verloren ist (linker Rand).²² 5 dieser Figuren (die drei der Vs., sowie die beiden hinteren der Rs.) sind identische löwenköpfige Mischwesen; sie tragen alle eine Keule in der Linken und eine Sichel in der Rechten. Dolche(?) sind an ihren Hüften zu sehen. Sie sind weiter mit jeweils zwei Sternen geschmückt, deren einer durch zwei Striche mit ihrer rechten Schulter verbunden ist, während der zweite diagonal dazu links von der Brust herabhängt. Sie sind in knielange Röcke gekleidet, von denen eine Quaste vor dem linken Bein baumelt; ein längerer Überwurf bedeckt, von der linken Schulter ausgehend, das rechte Bein bis zum Knöchel.

Die sechste Figur stellt einen Mann mit kronenartiger Kopfbedeckung dar.²³ Er ist fast genau wie die Mischwesen gekleidet, doch ist der Überwurf anders gemustert, und kein Dolch ist zu sehen. Auch er trägt in der Rechten die Sichel und ist mit zwei Sternen geschmückt. In seiner Linken hält er statt der Keule einen noch nicht identifizierten flachen oder länglichen Gegenstand, vielleicht ein Art Tablett o.ä.

21. Der heutige beschädigte Zustand lässt keine sichere Entscheidung zu, ob das Loch nicht sogar das Amulett in voller Breite, vom linken bis zum rechten Rand, durchlaufen habe, in welchem Falle das Stück die Form eines vollständigen Rechtecks mit abgerundeten Ecken, also etwa die einer Tontafel, gehabt hätte. Meine Rekonstruktion mit griffartiger Ausbuchtung (Abb. 18) richtet sich nach der üblichen Form vergleichbarer Amulette.
22. "Links", "rechts", "Vs." und "Rs." sind hier immer von der Inschrift aus definiert, die auf der "Vs." beginnt und natürlich von links nach rechts läuft. Zu ihrem Verhältnis zu den bildlichen Darstellungen s. unten S. 104 und 108.
23. Wegen einer Beschädigung im Stein bleibt unklar, ob vielleicht sogar eine Hörnerkrone vorgelegen hat, doch macht die Form des Kopfpfetzes dies nicht wahrscheinlich (s. *RIA* 5 s.v. "Hörnerkrone"!).

Die siebente und letzte Figur ist fast völlig verloren; erhalten ist nur noch der Stern über der Schulter, sowie ein weiterer Stern an der Stelle, wo alle anderen Gestalten die Sichel halten. Es liegt nahe, aus dem zusätzlichen Stern auf die besondere Bedeutung dieser Gestalt zu schliessen, die dann entsprechend vielleicht die Prozession der sieben Figuren anführt oder aber deren Zielpunkt darstellt. Darüber hinaus sehe ich allerdings bisher keine Möglichkeit, diese oder auch die anderen Figuren näher zu bestimmen. Überhaupt geht die Würdigung und detaillierte Interpretation dieser Szene weit über die Fähigkeiten des Philologen hinaus. Soweit ich heute sehe, ergibt sich keinerlei unmittelbare Verbindung zwischen den Figuren und der sie begleitenden Beschwörung, noch ist es bisher möglich, die Mischwesen oder die männliche Figur mit irgendwelchen aus sonstigen Texten bekannten Dämonen oder Genien zu verbinden.²⁴

Unmittelbar unter diesem Figurenfries, der sich wie ein in Stein geschnittener Rollsiegelabdruck um den oberen Teil des Täfelchens legt, beginnt die Inschrift. Auch diese folgt dem Schema einer Tontafel und setzt sich über den unteren Rand direkt auf die Rückseite fort, die sie bis zur Basislinie des Figurenfrieses ausfüllt. Als Folge hiervon sind Schrift und Darstellung zwar auf der Vorderseite übereinstimmend orientiert, stehen jedoch auf der Rückseite zueinander Kopf.

Der Text besteht aus einer Beschwörung, deren Anfangszeilen sich als Duplikat zu dem wohlbekannten, an MUL.KAK.SI.SÁ = Sirius gerichteten 18. Abschnitt der Serie *Ḫulbazizi* zu erkennen gibt. I. L. Finkel rekonstruierte diese Passage in seiner Edition der Serie (s. oben, Anm. 4) aus 14 Duplikaten, von denen nicht weniger als 7 beschriftete Amulette sind, die interessanterweise ausnahmslos die Form von Siegelzylindern aufweisen (*Ḫulbazizi*-Serie Zz. 68-72 // hier Zz. 1-8). Ab Z. 9 sind keine zusammenhängenden Duplikattexte mehr bekannt, jedoch sind einige Zeilen parallel zu Passagen aus der Beschwörung *ša maldi eršija* (*Ḫulbazizi* Nr. 60 = Zz. 326-333), die ebenfalls mit Vorliebe auf Amuletten Verwendung fand: Mir sind bisher 13 solche Stücke bekannt, die meisten davon mit auf Lamaštu bezogenen Darstellungen, und diesmal sämtliche in der typischen 'Amulettform', d.h. kleine Täfelchen mit Henkelöse o.ä. Die Kombination der verschiedenen Beschwörungselemente in einem einzigen Text, der zudem auf einem Amulett Verwendung fand, das in ganz ungewöhnlicher Weise Elemente der Amulettform und des apotropäischen Rollsiegels vereinigt, ist wohl kaum zufällig, und das Stück dürfte neues Licht auf die Frage werfen, wie und zu welchem Zweck die Serie *Ḫulbazizi* kompiliert wurde, und welche Beziehungen zwischen den Beschwörungen und Amuletten verschiedener Typen und Formen bestanden.²⁵

Der Text selbst ist recht schwierig, besonders wo statt Duplikaten nur Textbrüche vorliegen, und ein beträchtlicher Teil der Beschwörung bleibt mir weiterhin unverständlich.

24. Ich danke F. A. M. Wiggermann für die Freundlichkeit, mit mir die Abdrücke zu untersuchen; auch er kam zur selben negativen Aussage.

25. Ich nehme von einer näheren Auseinandersetzung mit dieser interessanten Frage Abstand und verweise auf Finkels zu diesem Themenkreis zu erwartende Arbeit.

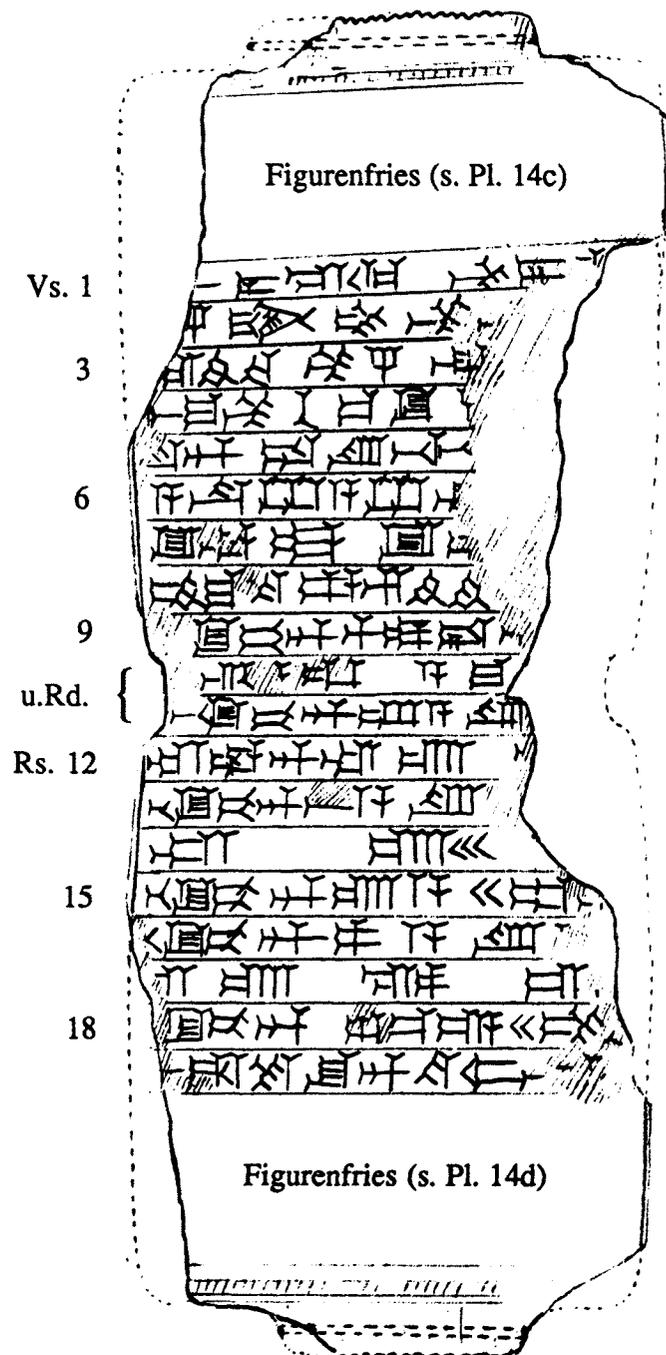


Fig. 18. Amulett der Hulbazizi-Gruppe (Privatbesitz). (1:1)

- 1 [MU]L.KAK.SI.SÁ MU.NI.Ē?
[mu]-šá-lil qab- mu-[uš-te-³-u]
- 3 [ú]r-ĥe-tú mu-šá-a[k-lil]
[m]im-ma MU-šú GIŠ.TUKUL.<AN> š[á ina IGI GIŠ.TUKUL]
[n]a-an-du-ru ti-[bu-ú]
- 6 a-na NENNI A NENNI l[a TE-ĥa]
lu.ši.ši lu.š[i.ši]
am.ma.te^{1?}.e.ge ĤI [?]
- 9 [ina] qí-bi ^dMAŠ DUMU.UŠ M[AŠ]
[ma[?]]-ri <<A>> ra-a-ma [(?)]
ina qí-bi ^dMES a-RU [(?)]
- 12 URU.KÁ.DINGIR URU É.[xx]
ina qí-bi ^dAŠ a-RU [xx xx]
URU É.EŠ.[xx.xx]
- 15 ina qí-bi ^dÉ-a MAN ap-s[i-i]
[ina] qí-bi ^dPA a-RU x[x (xx)]
[U]RU É.SAG.Í[L]
- 18 [ina q]í-bi ^dSAG[?].KAL MAN GAB-x[x]
[pá]r[?]-da-te-šú ^dUTU lit-b[al[?]]

¹Sirius/KAK.SI.SÁ ist sein Name,

²[der] im Kam<pfe> den Kriegsrufer erschallen lässt,

der auf allen ³Strassen ²[suchend unterwegs ist],

³der ⁴alles ³vervoll[kommnet];

⁴Keu<le>, die [bei Waffenlärm] ⁵angriffslustig, (jederzeit) kampfbereit ist :

⁶Dem NN, Sohn des NN, darfst du [dich nicht nähern] !

⁷⁻⁸... ..

⁹[Auf] Geheiss des Ninurta, des Erbsohnes *par [excellence]*, ¹⁰des geliebten[?] Sohnes[?];

¹¹auf Geheiss des Marduk, der da wohnt[?] ¹²in Babylon, der Stadt des (Tempels) E-[... ..];

¹³auf Geheiss des, der da wohnt[?] in [... ..], ¹⁴der Stadt des (Tempels) E-eš[...];

¹⁵auf Geheiss des Ea, des Königs des Aps[û];

¹⁶[auf] Geheiss des Nabû, der da wohnt[?] in [... ..], ¹⁷der Stadt des (Tempels) Esagi[la];

¹⁸[auf] Geheiss des, des Königs von[?] ... [...];

¹⁹Möge Šamaš seine [schr]ecklichen[?] (Träume[?]) davont[ragen[?]] !

KOMMENTAR:

Vieles in dieser Beschwörung, und zwar durchaus auch in den Teilen, die schon aus anderen Quellen lange bekannt waren, ist unklar. Die Übersetzung versucht zwar, den Text einigermaßen flüssig wiederzugeben, musste jedoch des öfteren auch wörtlicher bleiben als vielleicht wünschenswert gewesen wäre. Nur so ist der Gefahr auszuweichen, dass interpretierende Spekulation über die beweisbare textliche Basis hinausschiesst, auch auf die Gefahr hin, dass dabei die eine oder andere Wiedergabe keinen rechten Sinn zu geben scheint.

Z. 2,4 : Die beiden eindeutigen Zeichenauslassungen legen es nahe, auch andere problematische Schreibungen des Textes nicht unbedingt auf die Goldwaage zu legen.

Z. 7-8 : Die 'kanonische' Version der Serie Ḫulbazizi hat hier : lú.zi.zi lú.zi.zi nam.ba.te.ḡe_x(GÁ).e.dè. Einem mündlichen Vorschlag Finkels folgend, fasse ich unseren Text als hieraus verballhornt auf. Mit der Schreibung auf unserem Amulett ist auch noch W. G. Lambert, *FuB* 12,47, 5-6 zu vergleichen : lu-u-zi-iš-ši lu-u-zi-iš-ši nam-bat-tin-ti[?]; die Identität des ersten Teiles mit lú.zi.zi lú.zi.zi und unserem lu.ši.ši lu.ši.ši ist kaum zweifelhaft. Schwieriger sind die letzten 4 Zeichen, die Lambert, a.a.O., als NAM.UG_x TIN-*tim* = *mūtu balātu* aufgefasst hat. In dem miserabel geschriebenen Text scheint mir jedoch fast noch näher zu liegen, dass auch diese Zeichen eine Verballhornung der Formel *nambateḡede sind. Ganz unklar bleibt dann allerdings, ob wir auch unser am.ma.te[?].e.ge(.)ḪI(=di[?]) [. . .] hierher stellen dürfen. Die lautliche Entsprechung wirkt weithergeholt, und weitere vergleichbare Parallelen oder Zwischenformen sind mir bisher nicht bekannt geworden.

Z. 9-12 : Vgl. Ḫulbazizi Z. 330-331 (Z. 5-6 der Beschwörung *ša maldi eršija*) : ³³⁰ina qibūt Ninurta apli ašarēdi māri(A) rāme ³³¹ina qibūt Marduk āšib Esagila u Babilī. Um Z. 10 unseres Amuletts hiermit in Übereinstimmung zu bringen, muss nur entweder ein MA am Beginn von Z. 10 ergänzt (oder emendiert) und gleichzeitig die auf A weisende Spur getilgt werden, oder aber RI muss getilgt und A (wie im kanonischen Text) als *māru* gelesen werden. Angesichts der fragwürdigen Qualität unseres Textes scheinen mir beide Emendationen gleichermassen möglich. Wenn die Lesung insgesamt zutrifft, ist am Ende von Z. 10 wohl nichts mehr zu ergänzen. Die Länge der dann unbeschriebenen Lücke kann ohne weiteres durch die physische Beschaffenheit des Steines am unteren Rand bedingt gewesen sein und passt gut zur Situation in Z. 9, wo die Schreibung MAŠ = *ašarēdu*²⁶ ebenfalls einigen unbeschriebenen Raum am Ende frei lässt.

In Z. 11 fällt die Schreibung a-RU, offenbar parallel zu a-šib/DÚR der anderen Texte, ins Auge. Sie wiederholt sich in gleichem Kontext in Z. 13 und 16. Die Versuchung ist gross, in allen drei Fällen *a-šub als fehlerhafte Schreibung (kaum als phonetische Nebenform) zu *āšib aufzufassen, doch kenne ich keine weiteren Belege oder Schreibungen, die eine solche unerwartete Form erklären könnten. Wiederum ergäbe sich am Zeilenende ein etwas längerer freier Raum, wenn meine Gleichsetzung von A-RU URU.KÁ.DINGIR mit āšib Babilī zutrifft. Am Ende von Z. 11 ist die nach der Parallele zu erwartende Ergänzung zu É.[SAG.ÍL] (vgl. auch unten, Z. 17) aus Raumgründen ausgeschlossen; eine überzeugende Alternative kann ich nicht vorschlagen.

Z. 13-14 : Es bleibt unklar, welcher Gott hier gemeint sein könnte. AŠ ist epigraphisch sicher, trotz der kleinen Beschädigung über dem waagerechten Keil. Der Name des Tempels, É.EŠ.[. . .],²⁷ erlaubt keine sichere Ergänzung und ist daher für die Deutung der Doppelzeile ebenfalls unergiebig.

Z. 16-17 : Die Ergänzung des Endes von Z. 16 bereitet erhebliche Probleme. Neben ^dNabû denkt man unwillkürlich an dessen Hauptkultort Borsippa, und eine kurze Schreibung B[ar-sip] könnte sogar in die enge Lücke passen; doch hätte Borsippa wohl kaum als *āl Esangila* (Z. 17) beschrieben werden können, ein Ausdruck, der ganz unzweideutig auf Babylon weist. Eine entsprechende Ergänzung von Z. 16 zu É.[KI] wäre nach den Raumverhältnissen durchaus denkbar, stünde jedoch im Widerspruch zur Schreibung oben Z. 12 und bliebe als Kultort für Nabû insgesamt schwierig.

Z. 18 : Wiederum macht die Lesung des Götternamens Schwierigkeiten. Das als SAG[?] wiedergegebene Zeichen ist dabei nicht eindeutig zu identifizieren; SAG.KAL ist sonst Wz. für *ašarēdu* (für das unser Text allerdings in Z. 9 MAŠ schreibt) und m.W. nicht als Schreibung für eine der in unserem Kontext denkbaren

26. Für weitere Belege für diese Schreibung in Duplikaten unserer Beschwörung s. G. Wilhelm, *ZA* 69 (1979): 39. Das Logogram MAŠ = *ašarēdu* ist sonst geläufig in Personennamen, aber so gut wie unbelegt in anderen Kontexten.

27. Für Tempelnamen, die mit *E'eš . . . beginnen, vgl. bis auf weiteres *RIA* 2, S. 276f.

wichtigeren Gottheiten belegt. Ich kenne jedoch auch sonst keinen hier in Frage kommenden Götternamen, der mit einem auf KAL endigenden Zeichenkomplex geschrieben würde. Die Ergänzung des Endes (*qabli, qabri, gabbi, tuḥdi* etc. ?) hängt natürlich primär von der richtigen Identifizierung des Götternamens ab.

Z. 19 : Ich kann keine Parallelen zu dieser abschliessenden Zeile beibringen. Leider sind das erste und das letzte Zeichen jeweils nicht mehr sicher zu identifizieren. Mein Versuch, *[pá]r-da-te-šú* zu lesen, fasst dies als elliptischen Ausdruck statt **šunātešu pardāte* auf; eine solche Deutung könnte sich auch darauf berufen, dass a) die Beschwörung an eine nächtliche Erscheinung, den Stern Sirius, gerichtet ist, b) alle Figuren der Bildszene mit Sternen geschmückt sind, was vielleicht auch auf eine nächtliche Orientierung des Stückes insgesamt hinweisen könnte, und c) in unserer Z. 19 die Sonne angerufen wird, um das wie auch immer geartete Übel zu beseitigen (wenn jedenfalls meine Lesung **litb[al]*, die epigraphisch möglich, aber nicht unbedingt sicher ist, zutrifft) : Dies geschähe dann doch wohl am ehesten durch den Beginn eines neuen Tages nach den Schrecken einer schlechten Nacht.

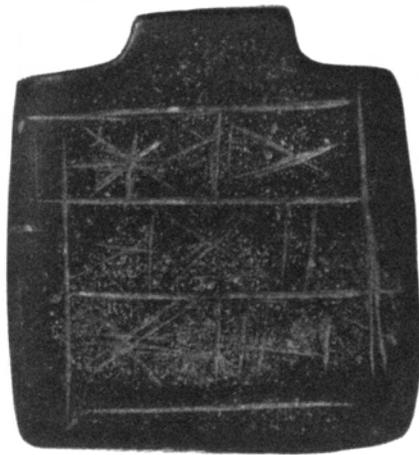


a



b

(1:1)



c



d

(1:1)



e



f

(1:1)



g

(2:1)



h



i

(2:1)



j



k

(a, b) YBC 13600, Lamaštu-Amulett Nr. 24, (c, d) YBC 10196, Lamaštu-Amulett Nr. 51, (e, f) NBC 8151, Lamaštu-Amulett Nr. 69, (g) Pazuzu-Köpfchen aus Khorsabad, und (h-k) Pazuzu-Köpfchen in Privatbesitz.

Plate 13



(a, b) MFA 1975.341, Lamaštu-Amulett Nr. 46F, (c, d) Lamaštu-Amulett aus Sam'al, Nr. 46.



a



b

(1:1)



c



d

(3:2)

(a, b) Amulett der Hulbazizi-Gruppe (Privatbesitz) und (c, d) Figurenfries desselben Amuletts.



Pazuzu-Figur im Oriental Institute Museum, A 25413, (a) von hinten, (b) rechts, und (c) vorn.

Chapter 8

HITTITE *KURSA* “HUNTING BAG”

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The following essay is an attempt at pulling together some thoughts and observations — including observations made by others — that have occupied me for some time. Although its greater part will deal with philological detail it is also concerned with Hittite iconography. I hope that Helené Kantor, who has herself contributed so much to the interpretation of pictorial representations, will accept these lines as a token of my friendship.

Part of this paper was written some years ago.¹ At that time my main concern was to further the understanding of the scene depicted in the frieze of the stag rhyton in the Norbert Schimmel Collection (pl. 16a, b) by comparing it with well-known Hittite stamp seals in the British Museum² (pl. 17a, b) and Dresden³ (pl. 17 c–e). Looking for other comparable pieces I came across a seal published by Ali Dinçol from a private collection in Adana⁴ (pl. 18a), which he already compared with the seals just mentioned and the Schimmel rhyton. Through Dinçol's discussion I was led to Sedat Alp's description of the frieze.⁵ Alp suggested that the bag depicted in the frieze behind the seated deity might be the object called *kursa* in Hittite, a suggestion that immediately struck me as convincing.

1. “A Note on the Frieze of the Stag Rhyton in the Schimmel Collection,” Festschrift for Ekrem Akurgal, to appear in *Anatolia* (Ankara), submitted in December, 1984; cf. now S. Alp, “Einige weitere Bemerkungen zum Hirschrhyton der Norbert Schimmel-Sammlung,” in F. Imparati, ed., *Studi di Storia e di Filologia Anatolica Dedicati a Giovanni Pugliese Carratelli*, Florence, 1988, pp. 17–23.
2. British Museum 115655 (formerly 17804): E. A. W. Budge, *Proceedings of the Society of Biblical Archaeology* 9 (1887): 27; L. Messerschmidt, *OLZ* 3 (1900): 441–42, fig. 3 = *Corpus Inscriptionum Hethiticarum*, pl. XLIII 3; D. G. Hogarth, *Hittite Seals* (1920), p. 75, fig. 78; R. L. Alexander, *Anatolica* 5 (1976), pl. III, fig. 6; S. Alp, *Beiträge zur Erforschung des Hethitischen Tempels*, TTKY VI 23 (1983), fig. 12 a-b (hereafter *Beitr. Tpl.*); E. Porada in J. V. Canby et al., eds., *Ancient Anatolia: Aspects of Change and Cultural Development: Essays in Honor of M. J. Mellink* (1986): 90, fig. 8-6, 8-7.
3. Dresden, Albertinum, ZV 1769: Messerschmidt, *OLZ* 3, fig. 1 = *Corpus* pl. XLIII 4-5; E. Unger in H. Th. Bossert, ed., *Geschichte des Kunstgewerbes* 3, p. 421, 9; idem, *Janus und der Mann mit der Adler- oder Greifenmaske* (1959), pl. 3, fig. 8; S. Alp, *Belleiten* 31 (1967): 513 ff., fig. 2; idem, *Beitr. Tpl.*, fig. 11. — Both seals here turned upside-down to show the scene under discussion on top.
4. A. M. Dinçol, “Hethitische Hieroglyphensiegel in den Museen zu Adana, Hatay und Istanbul,” pp. 213–49 in *Anadolu Araştırmaları* 9 (1983): see pp. 220–22, no. 8.
5. S. Alp, *Beitr. Tpl.* pp. 93–100.

Thus far my earlier paper. Since I thought that Professor Alp would want to present his own evidence for the equation of *kursa* with the bag, I did not go into detail but only stated in general terms that the textual evidence seemed to favor his proposal. In the meantime Professor Alp told me that he had no plans for publishing the philological evidence and that I should go ahead. This is what I propose to do here.⁶

First I have to recapitulate what the elements common to the rhyton and the stamp seals are. The main figure in all of them is a seated deity, wearing a long robe and the conical hat of Hittite gods, holding a cup in her right hand and a bird in the left; on the rhyton this is clearly a bird of prey, probably a falcon. In front of this deity there is an altar: on the rhyton it has an unusual shape (which led some scholars to doubting the genuineness of the object!), but on the three seals it is the well-known Hittite altar with its conical base. On the Adana seal a large pithos is inserted before it. Unique to the rhyton is the youthful god standing on a stag, to which we shall return. Approaching the deity are several worshippers: on the rhyton they are one man pouring a libation, one carrying a loaf of bread (which has the same shape as the hieroglyph for “bread”), and a kneeling man who holds up a pitcher, known from Hittite texts as “the cupbearer of squatting.” On the London and Dresden seals the person pouring the liquid has a bird’s head or mask, while the second, who is holding up a cup, wears a trailing robe which probably marks him as king. On the Adana seal there are four worshippers; details are hard to make out in the published illustrations, except that the third man is again kneeling and holding a pitcher.

Behind the seated deity all three seals show a stag’s head above two horizontally positioned legs.⁷ These parts of the animal are shown on the Schimmel rhyton as head and front part of the stag lying under the tree and two lower legs leaning against it, disconnected from the front parts of the animal. Between the deity and the stag are depicted two upright spears, a bag with a handle, and a quiver filled with arrows and provided with a carrying strap. On the seals these elements come after the head and legs: on the London seal in the sequence bag (over triangular symbol for “blessing”), the quiver with arrow points and strap, and the two spears. On the Dresden seal the quiver comes before the bag. On the Adana seal the spears and the quiver are omitted; the bag is clearer in the published photograph than in the drawing, and the triangle is replaced by a disk. On all three seals a tree marks the end of this scene (in the London and Dresden examples, a tree separates the scene from another cult scene), and on the rhyton the handle runs exactly over the tree. It is clear from all this that here, too, the stag and the hunting gear belong behind the gods, not at the other end.

Who are these deities? The frieze on the rhyton shows two divine figures: first, a male standing on a stag and holding an upright lituus and a falcon. Although the divine headgear is lacking, there is no doubt that this is a god. The fact that he stands on a stag characterizes him as the tutelary god of the open country, the protector of wildlife, as described in a cult inventory text.⁸ There are gold labels fixed to the surface of the vessel above the divine figures. Are they original or added later? The bent-over rim of the vessel covers the upper parts of both. This seems to indicate that they are original; if they were meant to replace other, original

6. The textual evidence for *kursa* was presented in July, 1985, at the Collège de France at the “Colloque Anatolien” in honor of Emmanuel Laroche. I regret that through lack of communication I missed having my paper included in the official publication, *Hethitica* 8 (1987).

7. Recognized as such by Dinçol, *Anadolu Arastirmaları* 9, pp. 220-22. Best on the photograph of the Adana seal, *ibid.*, pl. 8, and on the illustration in Porada, in *Ancient Anatolia*, fig. 8-7 (which shows the stamp surface, not an impression!).

8. ⁴LAMMA.LÍL. *KUB* 38.1 ii 1-6, ed. C. G. von Brandenstein, *MVAG* 46, 2 (1943): 14 f.; L. Rost, *MIO* 8 (1961): 179f.

inscriptions on the silver surface, this replacement must have taken place while the rhyton was still in the making. Maybe they were added in gold just to underline the importance of the names. On the label belonging to the god on the stag the late Franz Steinherr recognized the "antler" sign which is well known as the logogram for the tutelary god (the sign below it is not identified). The other label is much harder to interpret. From right to left one sees the human profile which is the sign for the syllable *a*; an incomplete sign partly covered by the rim; below it, the unidentified sign seen on the first label, and finally a sign which could be either the syllable *ta* or the logogram for "daughter" (though neither of them exactly). The sex of the seated figure has been a matter of debate: male because of the pointed hat or female because of the long garment? Obviously the figure on the three seals must be of the same sex as that on the rhyton. The Hittites had many tutelary deities, among them both gods and goddesses; so the possibility exists that our seated figure is a goddess. But this is not certain; the unclear label does not help.⁹

* * *

We turn now to Professor Alp's proposal to identify the bag with the Hittite *kursa*. Ordinarily this word is written with the determinative KUS "hide, leather," but this is not the only material it is made of. The best known description of a *kursa* is found in the myth of the god who disappears, at the point after his return when fertility has already been restored.¹⁰ Here the *kursa* of a sheep is hanging from an evergreen tree and filled with all good things, like "sheep's fat, (abundance of) grain, (wild) animals, and wine, cattle and sheep, long lifetime, and progeny." This may well be an actual sheepskin, sewed up so as to form a bag. But it was soon seen that this is not the only meaning of the word. Since it is occasionally mentioned together with weapons, it was thought that *kursa* might be a shield, an idea obviously influenced by the thought of the *aegis*.¹¹ However, the weapons associated with the *kursa* are the following: 1) the bow: "The cooks put a ^{GI}*senti* (a tree or wooden object?) before the stela and hang up a gold bow and a *kursa*."¹² and 2) arrows and a quiver: "But the arrow and the *kursa* they carry away."¹³ "The god had a quiver, and in it were 20 arrows; now it is lost. Also the two iron handles(?) of the *kursa* are lost."¹⁴ There is no example of *kursa* mentioned together with "sword" or "mace." In other words, *kursa* belongs to the implements of the hunt, not to those of war. There is no direct evidence for a meaning "shield."¹⁵

9. Cf. H. G. Güterbock, in R. M. Boehmer and H. H. Hauptmann, eds., *Beiträge zur Altertumskunde Kleinasien: Festschrift für Kurt Bittel* (1983), pp. 207f. I cannot accept the readings of Alp, *Beitr. Tpl.*, pp. 94f.

10. Maciej Popko published two detailed studies of the *kursa*, which were of great help to me in preparing the following pages: "Zum hethitischen ^{KUS}*kurša*," *Altorientalische Forschungen* 2 (1975): 65-70; *Kultobjecte in der hethitischen Religion (nach keilschriftlichen Quellen)* (Warsaw, 1978), section "*kurša*- 'Vlies,'" pp. 108-20; hereafter MP1 and MP2, respectively, — The passage cited is *KUB* 10.17 iv 27-31, MP1 p. 69; cf. Goetze, in *ANET*, p. 128.

11. E. Laroche, *Recherches sur les noms des dieux hittites*, p. 75.

12. *KUB* 30.41 i 15-17, MP1: 66.

13. *KUB* 39.14 iii 10 f., ed. H. Otten, *Hethitische Totenrituale* 80 f. MP1: 66.

14. *KUB* 5.7 rev. 23-25, cf. F. Sommer, *Die Ahhijavā-Urkunden* 181.

15. Cf. MP1: 66.

The *kursa* can be used as container. While it is true that a sewed-up skin may serve the same purpose, it is not well suited as a container for rhyta: "He lifts up the rhyta from a *kursa*."¹⁶ And from a fragmentary line it is learned that a *kursa* and a sheepskin are not the same.¹⁷ In addition there are texts that show that the *kursa* was not itself a hide but rather made of animal skins: "The chief of the shepherds gives six goat hides to the chief of the lea[ther workers], and he makes the god's *kursa*."¹⁸ "Six black he-goats, two white he-goats — they make (them into) *kursas* — the chief shepherd gives (out). Of these, the cowherd of the god takes two white ones, the priest of Telipinu takes two black ones, the priest of Zababa takes two white ones, the shepherd of the god takes two black ones, and they make *kursas*."¹⁹ (never mind the arithmetic!).

Leather is not the only material of which a *kursa* can be made. A "*kursa* of cloth" is once mentioned.²⁰ A *kursa* could also be made of wood or reed; this is expressed by the determinatives GIŠ "wood" and GI "reed," respectively. Both the ^{GIŠ}*kursa* and the ^{GI}*kursa* have a secondary *-i*-stem, *kursi*, but *-a*-stem forms are also attested.²¹ Instead of ^{GI}*kursi*- a wickerwork *kursa* could also be written ^{GIŠ}*kursis* AD.KID,²² where the determinative GIŠ simply classifies the word as an implement while AD.KID "wickerwork" specifies the material.

I think there was a *kursa* "of beads," either adorned with beads or actually made of beads strung on threads.²³ In the KILAM festival the "*kursas* of beads" are carried in the procession, following the priest of the tutelary deity (^dLAMMA) and the spears, but before the "animals of the gods," i.e. images of wild animals made of precious metals.²⁴

None of the passages cited above is positive proof that *kursa* must be a bag. But neither does anyone contradict this meaning, nor is there any evidence for "shield." The possibility that the *kursa* was simply a sewed-up animal hide cannot be completely ruled out; in the Telepinu myth, where it is modified by the

16. *KUB* 46.48 obv. 3.

17. *KUB* 7.13 obv. 25: [. . .] ^{KUŠ}*kursaz harkanzi* KUŠ.UDU-ya išharwi[l . . .]. "They hold [. . .] with a *kursa*, and the red sheepskin [. . .]."

18. *KUB* 30.32 i 9-10 with dupl. *KBo* 18.190:4, cf. MP1: 66 without the dupl. *kursan* sing. probably meant as collective.

19. *KUB* 25.31 obv. 11-13 + 1142/z, *ZA* 62: 234.

20. TÚG-as ^{KUŠ}*kursan*, *KBo* 20.32 ii 7, MP2 p. 117 n. 48.

21. Popko (MP1 65) takes the *-i*-stem as a separate word. It is true that most of the occurrences with det. GIŠ and GI are in the so-called *babili* rituals of Hurrian background, and that these contain clear *-i*-stem forms, nom. *kursis*, acc. *kursin*. But the frequent dat.-loc. *kursi* can also be from an *-a*-stem, and there is an abl. ^{GI}*kursaz* (HT 5 i 8). Outside the *babili* texts there is the acc. pl. [. . .] *gur-šu-uš* AD.KID 254/d i 4, Lebrun, *Samuha* 188) and the Old Hittite *I* ^{GIŠ}*kur-ša*[. . .] (*KBo* 20.4 i' 6, StBoT 25, text 13 i 23.) I take *kursi*- as a secondary stem of *kursa*- limited to the *babili* texts.

22. *KUB* 39.71 i 15, 36, iv 31.

23. *kunnanas kursas* *KBo* 10.23 v 15 (StBoT 28: 14 text 1a), *kunnanas kurses* *KBo* 10.23 vi 3-4 with dupl. *KBo* 30.14 v 7 (StBoT 28:52 text 1j). *kuwanna(n)*-, *kunna(n)*-, usually written with the det. NA₄ "stone," is equated with NA₄.NUNUZ "bead" by the variant in the Song of Ullikummi (*JCS* 5: 146 with n. 16). The passages from which Goetze (*JCS* 1: 307 f.) deduced the identification of *kunnanas* with URUDU "copper," are not strictly parallel to one another. Instead of "sun and moon emblems (made) of silver, gold, bronze, and copper" the other passage may have said ". . . and beads." The proposed meaning "copper ore, azurite" or the like was an *ad hoc* attempt at reconciling "copper" with "bead." Note that the Hittite reading of URUDU is genus commune according to *KBo* 4.1 obv. 8, while *kunnan-* is neuter.

24. Cf. the outline by Singer, StBoT 27: 90, where I replace "copper fleeces" by "beaded hunting bags."

genitive "of a sheep," it probably is just that. But the passages where hides are used to make *kursas* and the existence of *kursas* made of wood and reed show that it is not a simple hide or fleece. It is really the representation of the bag in art which is decisive for the interpretation of the word.

In the pictorial representations the bag is one of the implements of the hunt and, together with parts of the game, deposited next to the tutelary deity. From the texts it has long been known that the *kursa* belongs to this deity, or rather, to several of the deities who form the group of "protectors." There is a ^dLAMMA ^{KUŠ}*kursas* "Tutelary deity of the Hunting Bag," and a "Tutelary Deity, the Hunting Bag," with the two words in apposition.²⁵ That the bag represents the god also can be observed in other texts. One of them describes the renewal of bags in the capital; the old ones were sent to other cities and renamed: the old "*kursa* of Zithariya" became "The Tutelary God of the *kursa*," the old "*kursa* of the Tutelary God of the town of Halenzuwa" became "The Tutelary God of the town of Zapatiskuwa." Thus a bag became a god.²⁶

The word *kursa* itself is occasionally written with the divine determinative; ^d*kursa* or ^d.KUŠ*kursa*. There is a "house of the divine *kursa*"²⁷ which may or may not be the temple of that deity.

The bag is taken on a voyage through several towns in the course of the Spring Festival.²⁸ In another festival the high priestess and the king, separately, enter the "house of the *kursa*" preceded and followed by musicians playing their instruments.²⁹

It is hard to tell what specific deity — god or goddess — is meant by the logogram or, in other words, how the logogram should be read in the various contexts. One such name is Inar, the name of a goddess.³⁰ Also in apposition: "[The king and queen drink the *kursa* Inar from a cup. [The singer of] Kanish sings."³¹ In a fragment attributed by Laroche to the myth of Inara there is a scene where the bee brings a ^{KUŠ}*kursa* and deposits it in a bowl which is in a well made by the Mother goddess Hannahanna.³² Unfortunately the episode is isolated. There is another isolated fragment of the myth in which the Stormgod sends out the bee to search for his daughter Inara.³³ A few lines later it seems that "[Inara ?] threw the x (a body part) of every animal into a bag." In a list of offerings for various tutelary deities there is listed "The Labarna's bag filling ^dLAMMA."³⁴

25. Many examples of the genitive construction, see MP1: 67 n. 17, the best known in the Ritual of Anniwiyani. For the apposition see KBo 14.70 i 9 etc., MP1: 68. There is also ANA ^dLAMMA ^{GIŠ}*kursas* EN-i "to LAMMA, the lord/owner of the *kursa*" KBo 4.13 i 11.

26. Parts were edited years ago by H. Otten in *Festschrift Johannes Friedrich* (1959), pp. 351-59. Now the whole text is KUB 55.43, which is edited by J. G. McMahon ("The Hittite State Cult of the Tutelary Deities" [Ph. D. diss., Chicago, 1988], ch. 5), who shows that offerings for a god are deposited on the *kursa*.

27. For the det. DINGIR and combined D.KUŠ see MP1: 66 n. 10, 11. É ^d*kursas*, KBo 14.76 i 13, KUB 22.27 iv 3, 12, etc., Otten, *Festschr. Friedrich*, pp. 356-59.

28. EZEN.AN.TAH.ŠUM.SAR, Güterbock, *JNES* 19 (1960): 85, 3rd to 6th days; MP1 69.

29. KBo 10.27 iii 8-18 (the NIN.DINGIR), v 27-35 (the king).

30. *kursas* ^dLAMMA-ri KUB 41.10 iv 15, MP1: 67. Inara is the daughter of the Stormgod, KUB 33.57 ii 10 (RHA 77: 151).

31. KBo 15.36 + KBo 21.61 iii 10f.

32. KUB 33.59 iii 5-13, Laroche, RHA 77: 149 f., MP1: 70.

33. KUB 33.57 ii (RHA 77: 150 f.).

34. ^{KUŠ}*kuršan šuwanza Labarnaš* ^dLA[MMA-aš] KUB 2.1 ii 32 with dupl. KUB 44.16 v(!) 11.

However, in some cases ^dLAMMA stands for a male god, as in the description of the image of ^dLAMMA of the Field that we adduced for the figure of the god on the stag on the Schimmel rhyton. There also occurs the phrase “my lord, ^dLAMMA of the *kursa*.”³⁵

There are other named deities who either have a *kursa* or are represented by one.³⁶ The most important among them is Zithariya. That his old *kursa* became a god was mentioned above (n. 26). The *kursa* is sometimes listed as one of the “holy places” in the temple at which offerings are made,³⁷ but sometimes the name Zithariya takes the place of *kursa*: “(offerings are made) once to the altar, once to Zithariya, once inside the hearth, (etc.).”³⁸ Another text says that “in the palace the queen’s Zithariya is already hanging.”³⁹ This can only be the *kursa*. In the autumn festival it is Zithariya who is taken on a side trip, just as the *kursa* in the spring festival.⁴⁰ In a cult inventory we read that Tudhaliya (IV) rebuilt the ruined town of Halenzuwa: “Its gods they re-made thus: Zithariya [they made] as one ^{KUS}*kursa*, one gold sundisk they struck on it; a temp[le they built].”⁴¹

A certain class of attendants is called “dog men.” In a festival “the king and queen, standing, drink ‘Zithariya of the High Priestess’ indoors. But the king drinks (only) the aroma (lit.: in the aroma). (There is music of) the great lyre and singing; the dog-men bark.”⁴² The fact that Zithariya is sometimes represented by the hunting bag suggests that these men may have been those who were in charge of the hunting dogs. Their barking during the ceremony for Zithariya may be the ritual representation of what their dogs do when chasing animals. In the KI.LAM Festival the “high-ranking dog-man” (LÚ.UR.GI₇.DUGUD) is apparently in charge of the procession of the “animals of the gods,” figures of wild animals made of precious metals.⁴³

A text regulating the cult of the tutelary deity of the town of Karahna mentions among the festivals celebrated for this deity one called EZEN *hurnayassar*, a name that may be derived from the verb *hurn(ia)*—“to hunt” and might mean “Festival of the Hunt.”⁴⁴ A related but different term is EZEN AYALI “Festival of the Stag.”⁴⁵

I do not want to imply that all Hittite gods written with the logogram ^dLAMMA are hunters. Only of those connected or identified with the *kursa* “hunting bag” can we say that they are. Whether the *kursa* might have been secondarily also connected with other ^dLAMMAs I cannot tell. Nor do I know whether Inar was a huntress comparable to Artemis.

35. *KBo* 20.107 ii 10, MP1: 67.

36. MP1: 67.

37. Examples listed in MP1: 68 n. 21.

38. *KBo* 4.13 iii 21, v 5, *KUB* 20.42 ii 9, MP1: 67, MP2: 111.

39. 315/t 12'-14' (*Alp. Beitr. Tpl.*) [n. 2] pp. 228-31; ^h*halentuwas-ma-kan anda ŠA SAL.LUGAL* ^d*Zithariyas karū ganganza*.

40. Cf. Güterbock, in G. Walser, ed., *Neuere Hethiterforschung* (1964), p. 68.

41. *KUB* 38.35 i 1-5, L. Jakob-Rost, *MIO* 9: 195 f.

42. *KBo* 4.13 vi 5-7, MP2: 112. — I wonder whether the “high priestess” here is not the queen; cf. “the queen’s Zithariya” above.

43. *StBoT* 28:52 f., text 1j vi 3-10 (animal procession, reward) and p. 34 f., text 1h ii 17-20 (no animals, no reward).

44. *KUB* 38.12 i 21; the double -ya- may be a scribal error (dittography).

45. *KUB* 13.4 i 39 (against *HW*² 48).

* * *

The importance of the hunt in the religious life of the Hittites is also evident in their art. In addition to the stag rhyton and the seals which were our starting point there is an old Hittite seal reconstructed from two partial impressions on a bulla found on Büyükkale at Boğazköy⁴⁶ (pl. 18b) It has an elaborate outer ring, unfortunately only preserved in two unconnected sections. It shows offerings to a seated deity holding a bird in one of them, an archer shooting at a deer and a lion in the opposite one. The kneeling archer recalls those on the hunting reliefs from Hüyük, which, as first proposed by the excavator, Th. Macridy, and confirmed by the present writer,⁴⁷ originally formed the upper course of the front wall of the left-hand tower of the Sphinx gate, above the well-known elaborate cult scene of the lower course (pl. 18c). Also comparable is the stamp-cylinder in the Louvre⁴⁸ (pl. 18d). While its upper register is taken by a mythological rather than a cult scene, the lower one shows a hunt: a flock of deer, the hunter with his charioteer on one chariot, and game drivers on other chariots. Adjacent to this scene there are four dead animals spread out in front of a god standing on a lion, the offering of the game.

The hunting scenes of Höyük bring us back to the silver rhyton. The rhyton helps to understand the unfinished part of one of the reliefs. Some years ago, looking at the originals in the Ankara museum, Robert Alexander showed me that in the unfinished upper panel of the left-hand block⁴⁹ (pl. 19) the following elements can be made out: The tree on the left is fairly clear. At its foot there is a roughly triangular form at whose top two hooks are protruding, apparently meant as parts of antlers. Thus we have here the deer head under the tree like on the rhyton. Further to the right the contours of a man pouring a libation is fairly well recognizable: the liquid comes down just in front of the object standing between the man and the tree. This object is not clear since its lower part is unfinished and its upper part is flaked off. One would think of a divine figure (seated?), or an altar, or a pithos on a stand (cf. the Adana seal). Since the libation is poured out in front of it it must somehow represent the numen. Finally, at the right end of the panel, three unfinished shapes seem to be lying flat, shown one above the other. They recall the four dead animals on the Louvre stamp-cylinder, and indeed the lowest one has two curved horns protruding.

Thus, not only were the hunting reliefs arranged on top of a scene of worship, they actually included the offering of the game. Conversely, it is significant that the rhyton depicts a scene that has this parallel at Höyük.

46. Güterbock, *Siegel aus Boğazköy* 2, Nr. 220, pl. VI.

47. Güterbock in *Anatolian Studies* 6 (1956) 54-56; M. J. Mellink, "Observations on the Sculptures of Alaca Hüyük," in *Anadolu* 14 (1970 [1972]): 15-20.

48. AO 20138, A. Parrot, in *Syria* 28 (1951): 180-190; R. L. Alexander, in *Anatolica* 5 (1976): 154 f., pl. II fig. 3c; enlarged photograph in M. Riemschneider, *Die Welt der Hittiter*, pl. 97.

49. Th. Macridy Bey, "La Porte des sphinx à Euyuk, *MVAG* 13, 3, (1908): 17 fig. 24; J. Garstang, *The Hittite Empire* (1929), pl. XXXI bottom; A. Moortgat, *Die Kunst des Alten Orients und die Bergvölker* (1932), pl. XXXVI; H. Th. Bossert, *Altanatolien* (1942) no. 522. In the recent books of E. Akurgal and K. Bittel the upper register is not shown due to its poor state of preservation.



a



b

Frieze on Stag Rhyton in the Norbert Schimmel Collection: (a) Photograph and (b) Drawing.



a



b



c

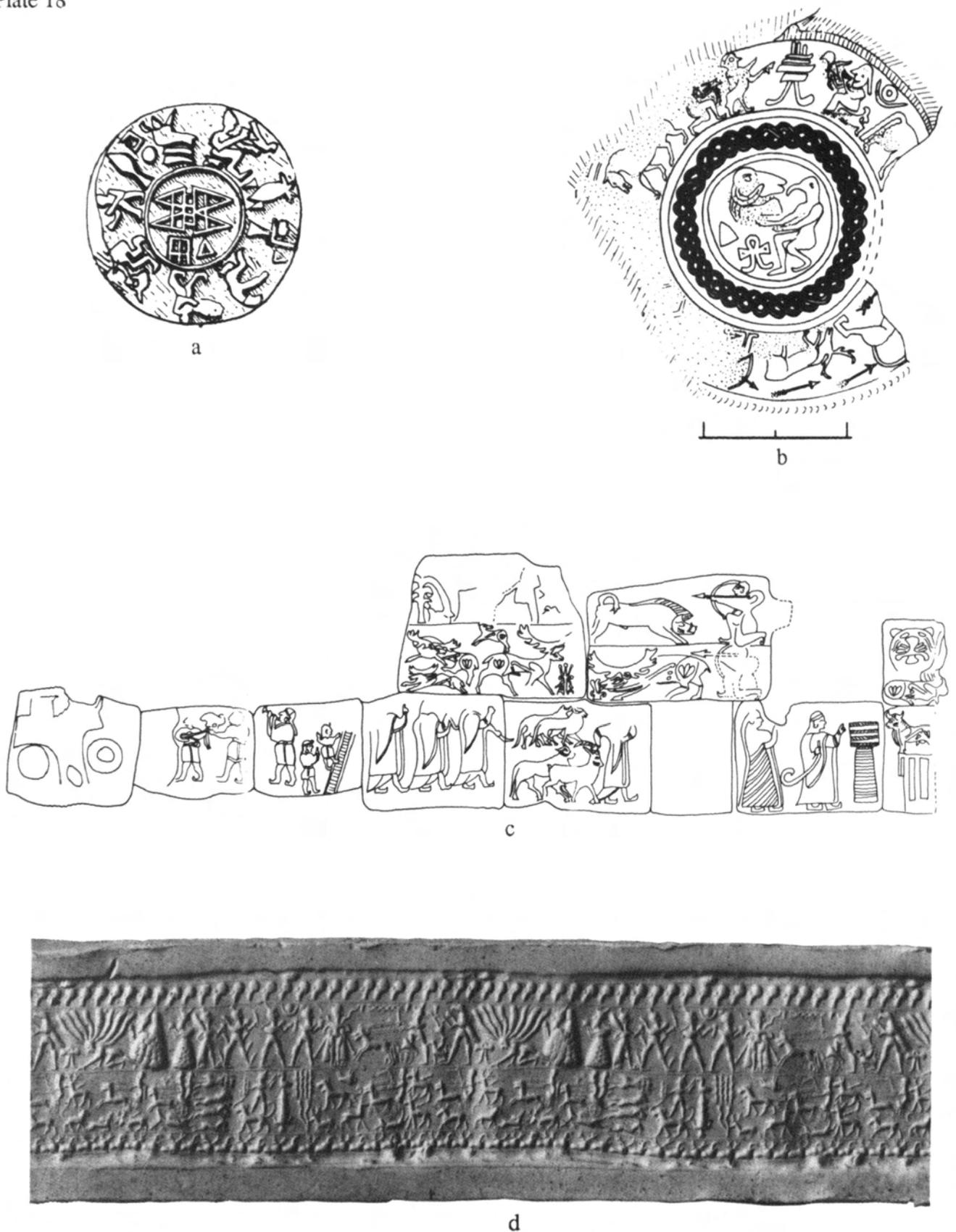


d

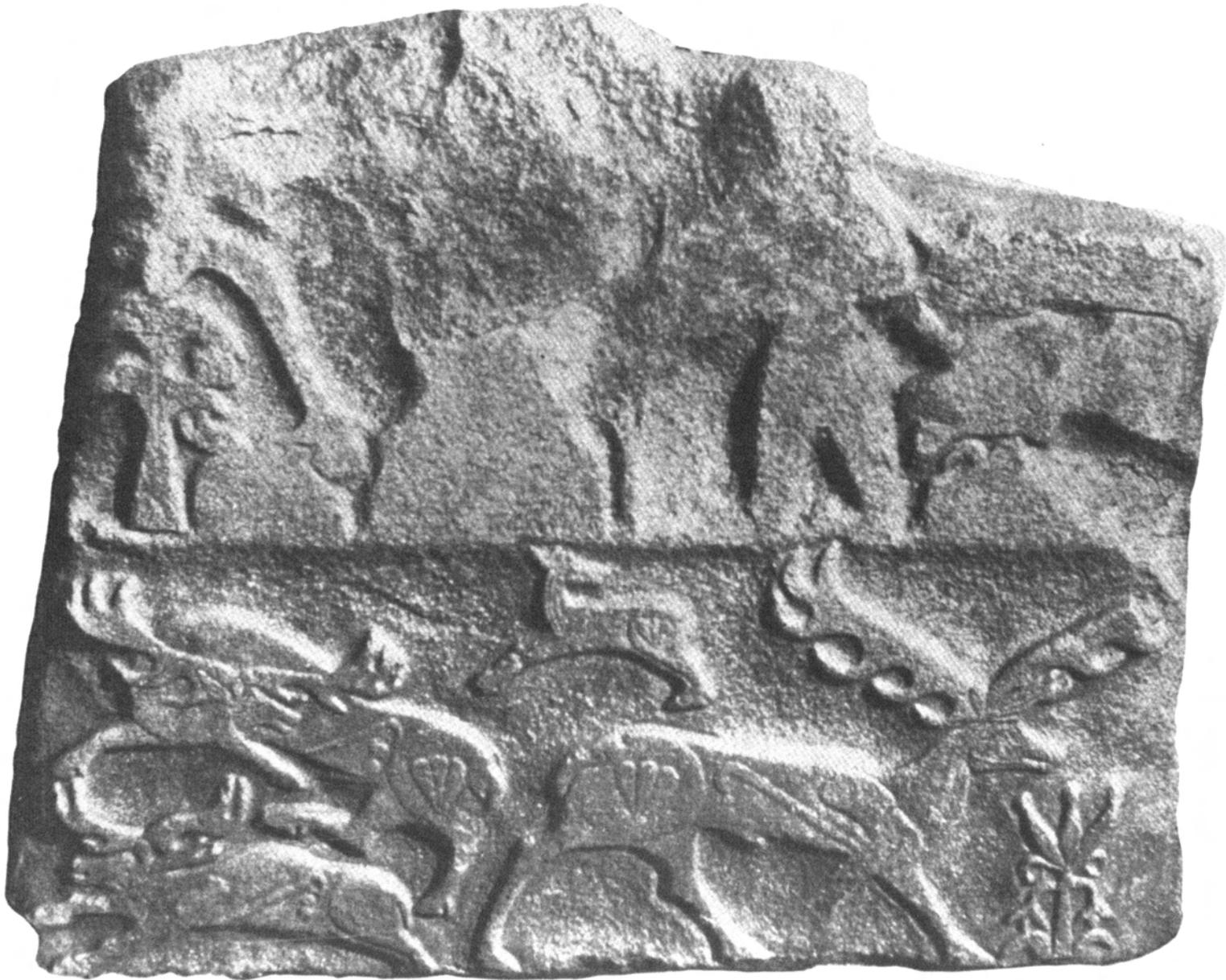


e

(a) Photograph of Impression of Stamp Seal, BM 115655, (b) Drawing of Impression of Stamp Seal, BM 115655, and (c-e) Photographs of Stamp Seal in Dresden, Albertinum, ZV 1769: Views of (c) Whole, (d) Base, and (e) Impression.



(a) Drawing of Impression of Stamp Seal in Adana, (b) Drawing of Seal Impression from Boğazköy, (c) Reconstructed Front of the Sphinx Gate at Höyük, and (d) Photograph of Impression of Stamp-Cylinder in the Louvre, AO 201 38.



Höyük: Photograph of Relief from the Sphinx Gate.

Chapter 9

GOD OR WORSHIPPER

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In the hoard of statues dating to the period of ED II and found in the so-called "square temple" in Tell Asmar two statues, one male and one female, stand out (pl. 20a, b).

Henri Frankfort, in dealing with the find,¹ pointed to a number of features that sets them apart from the other statues in the hoard and that call for a different interpretation of their character and purpose. The points made by him are:

- 1) The size. These statues are larger than any of the other statues in the hoard.
- 2) The eyes of these statues are unnaturally large, especially the pupils, and altogether different from the eyes of the other statues.
- 3) On the base of the male statue is an emblematic carving of an eagle with outstretched wings flanked by two recumbent mountain goats. Behind and above the goats are two leafy branches (pl. 21).
- 4) The hair of the male figure flows freely down over shoulders and nape of neck, whereas on the other male statues it is made to hang down in two locks in front of the shoulders (pl. 22).
- 5) The female statue had apparently a small image of a child fixed into its base suggesting a representation of a mother goddess and her child.

From these distinctive features, especially from the more than human size of the eyes and from the bird emblem which Frankfort recognized as symbolizing the god of the temple, Abu, as a personification of the generative force of nature, he concluded that the two statues stood apart because they represented deities rather than men, and therefore they were cult statues.

Frankfort's conclusions have not, it seems, met with very ready acceptance. Almost as soon as they were first stated Legrain dismissed them, preferring to see in the carving on the base a royal emblem developed from an earlier role of the eagle as a clan totem.² Woolley considered the two statues votive statues like the other statues in the hoard because of similarity of stance and dress; Strommenger and Mallowan likewise saw

1. Most fully in his *Sculpture of the Third Millennium B.C. from Tell Asmar and Khafājah*, OIP 44 (Chicago, 1939).
2. L. Legrain, "Les dieux de Sumer" *RA* 32 (1935): 118-19. The statement that the hair of the large statue is treated like that of the other statues is incorrect. Nor is it clear on what Legrain based his statement that the eagle "est surtout symbole de pouvoir royal." We know of no single instance of such symbolism. Legrain's other points, spread of the Anzu motif, totemism, and comparison with the relief on the support for statue no. 21 from Khafājah (Frankfort 1939, pl. 35) were answered by Frankfort in OIP 44, pp. 13-16. For Legrain's reference to the statue of Gudea with flowing vase see below note 19.

no significant difference.³ Moortgat seems to be alone in thinking that the statues in question “have both been endowed with a lofty, supernatural character,” but he settles for an assumption that they are a portrait of a prince or high priest who had to represent the god at the cult marriage festival.”⁴ Spycket was content to state Frankfort’s arguments without committing herself in her earlier work; later she finally opted for the statues being votive statues.⁵ Winter, finally, gathered up the various reasons that have been, or could be, cited against Frankfort’s interpretation.⁶

Since the question of whether the two statues at issue were meant to represent deities or merely human worshipers is not without interest, and since the near unanimity in favor of the latter of the two alternatives seems to us rather too easily arrived at, it may be permissible to go over the argument once more, trying to look afresh at the various points made. We follow the very clear and useful summary by Winter.

To Frankfort’s first point, the large size of the two statues, it is objected that the male figure’s size is not evidence for his divinity “as one can cite other instances in which size is commensurate with the rank and prestige of the donor, and need not be associated with a god.” This is very true as shown by the Ur-Naanše family relief, which is a good example. But it does not exclude, of course, the feasibility of associating it with divinity since it was generally believed by the ancients that the gods were of larger stature than men. Compare, for example, the obverse of the Stele of the Vultures which shows Ningirsu with his net full of enemies or the top of the Stela containing the code of Hammurabi.

Next it is argued, following Woolley, that the dress is like that of all other male votive statues; and the cup in hand, it is argued, is in later periods, at least, not generally associated with gods, but rather with kings. We also may add that the strong anthropological bent of Ancient Mesopotamian religion favored representing the gods in human form and dressed as humans. There is not a single type of dress represented on the monuments, as they have come down to us, that is limited to clothes worn only by deities or only by humans. Specifically, one may refer again to the representation of Ningirsu, Abu’s avatar, on the obverse of the Stele of the Vultures. The god’s upper body is bare like that of the statue and he wears a plain skirt like that of the statue. The hem of his skirt is broken away but comparison with representations of such skirts elsewhere indicate that it too ended in a fringe like the one of the statue. As for the cup in the hands of the statue one may cite as parallel the statue of a goddess in the Louvre referred to by Frankfort; it holds a cup in each hand. The statue is shown to be that of a deity by its horned crown and is identified as Inanna by an emblem carved on its base showing an eight-leaved rosette flanked by Inanna’s two lions. It dates to the Akkadē period.⁷ It seems to us natural to assume that the cup was meant to symbolize divine readiness to accept the libation, which was a standard feature of the ritual of prayer and an appeal for help.⁸ There is thus nothing here that would militate

3. L. Woolley, *The Development of Sumerian Art* (New York, 1935), p. 61 note 1. Cf. Frankfort, *Sculpture . . .*, p. 14 note 33, E. Stromenger, “Das Menschenbild in der altesopotamischen Rundplastik,” *Baghdader Mitteilungen* 1 (1960): 10-11, and M. E. Mallowan, *Early Mesopotamia and Iran* (London, 1965), p. 45, caption to fig. 33.

4. A. Moortgat, *The Art of Ancient Mesopotamia* (London, 1969), p. 34.

5. A. Spycket, *Les Statues de culte dans les textes Mesopotamiens* (Paris, 1968), pp. 11-13, and idem., *La Statuaire de proche orient ancien* (Leiden, 1987), p. 54.

6. I. Winter, review of Spycket, *La Statuaire . . .* in *JCS* 38 (1984), p. 106. Note that the statues are not inscribed.

7. Spycket, *Les Statues . . .*, p. 106 and pl. II: 1.

8. H. Frankfort, *The Art and Architecture of the Ancient Orient* (Hammondsworth, 1958), p. 24, assumes that the cup meant that gods and worshipers both are represented as participants in the New Year festival. We would rather see the worshipers’ cups as indications that the statue shared in the gods’ daily meals as members of their households.

against interpreting the statue as an image of a god. The parallel with the Louvre statue shows that holding a cup was an accepted feature of a divine image.

Again it is argued that “the decoration of the statue base with a representation of the AN-ZU bird between two caprids, while associated with the god Ningirsu (for example on the Stele of the Vultures) is used in other Early Dynastic works such as the silver vase of Entemena in association with royal imagery.” However, the silver vase of Entemena, according to its inscription, was the vessel from which Ningirsu drank and the Anzu design on its sides, showing the bird flanked alternately with caprids and with lions, is thus clearly associated with the god; in fact it is his original form. Moreover, as the design of Anzu between caprids is associated with Ningirsu on the silver vase, so one would naturally expect to find it associated also with Abu, since Ningirsu and Abu were, according to the ancients, the same god. We know no example of its being ever associated with human kingship,⁹ neither in any place or at any time.

Lastly, it is argued that “there are no other standing divine statues of the period, all are seated,” which may well be true,¹⁰ but since so little is known about divine statues of the ED II period it seems perfectly possible that statues could have existed and for one reason or another they have not survived. Clearly standing cult statues existed in the immediately following period of ED III as shown by a seal impression from Ur¹¹ which depicts a scene of offerings to an image of a god standing in an aedicula in his temple. The door to the temple or cella, incidentally, is surmounted by the Anzu bird so the temple may have been a temple of Ningirsu or one of his avatars.¹²

Having thus gone through the list of objections raised against Frankfort’s thesis, we find them, as will be seen, not very persuasive; at best they point to possible, but not *per se* any more probable than other interpretations. We may therefore go back, take up Frankfort’s points afresh, try to assess how much weight they carry, and see where they lead.

Two features of the statues, their impressive size compared to that of the other statues in the hoard and the free flowing hair of the male statues, are equally compatible with the interpretation of them as representations of gods or of men. The large size can, as stated above, reflect divine status or human social prominence equally well. The free flowing hair suggests the *apkallu* “sage,” “counselor,” a title applicable equally to men and to gods, since letting his hair down over his back is a characteristic of an *apkallu*.¹³ The presence of the figure of a child on the base of the female statue is also ambiguous. Clearly it could be a representation of a human child whom the parents wished to be included with them in their figurative appearing before the god if the interpretation of the statues as worshipers is to be preferred. It could equally well, however, represent a divine child if the larger statues are to be interpreted as statues of deities. These features thus offer no help and must be put aside.

This leaves essentially only two points to be considered, the extra-ordinarily large eyes and the emblem on the base of the male statue. Both are, we think, incompatible with an interpretation of the two

9. The idea that it might do so would seem to go back to Legrain’s unsubstantiated statement in “Les dieux de Sumer,” p. 119.

10. We are not aware of any, but may well have missed them.

11. L. Legrain, *Archaic Sealings*, UE III, no. 387, pl. 20.

12. The impression is wrongly cut; the door belongs behind the worshipers who must be thought of as having just entered through it.

13. See Åke W. Sjöberg, “Contributions to the Sumerian Lexicon,” *JCS* 21 (1967), p. 278. The title denotes a high official in Urukagina Oval Plaque ii. 29-31. In later times it survived largely as a title of gods.

statues as those of worshippers and make sense only if the statues are seen as representative of deities and in fact represent cult statues.

We may begin by considering the implications of the inordinately large eyes of the two statues, since that can be done very briefly. The eyes were characterized accurately by Frankfort when he called them “unnatural,” for they differ signally from the human-sized eyes of other statues or the eyes of any living human being. They must thus render a feature not found in nature, and therefore be a supernatural feature. Rendered as the eyes of supernatural beings, of gods, the eyes become understandable. Their large size symbolizes great powers of vision; they are the allseeing eyes with which the ancients credited deities. Thus, if the statues represent gods their large eyes are appropriate. If, on the other hand, one could assume that the sculptor intended them to represent known humans, it becomes exceedingly difficult to imagine why he would have given them eyes that could belong to no human being. This feature is thus distinctly in favor of Frankfort’s interpretation of the statues as cult statues.¹⁴

Next there is the Anzu¹⁵ carved on the base of the male statue, and here, to evaluate its significance properly, it may be well to try to see it in its total context.

The two statues with which we are concerned were found with the others under the floor of a cella in the so-called “square temple” at Tell Asmar. The cella was a rectangular room of “Herdhaus” type with a high dais for a cult statue or statues at the end wall farthest from the door. At one time, one surmises, these and the other statues with which they were found had their places in the cella, the cult statues on the dais, the votive statues along the side walls, until they became out of date and were discarded. It would not be surprising if all the outdated statuary, cult and votive statues together, were put away as a group. The god to whom the temple was dedicated seems to have been the god Abu (^dAB-Ú) since an inscribed bowl dedicated to him by a certain Lugal-kisal-si son of Ur₅-dú was part of a cache of bronze vessels and implements found in a wall a few meters north of the temple and presumably were brought from there for safekeeping in times of

14. Spycket (*Les Statues* . . . , p. 12) cites as an example of a similar representation of eyes as abnormally large those on a painted stucco relief of a nude female figure found in the archaic Ishtar Temple at Assur. Andrae considered it a possible replica of the cult image. In any case, considering the findspot, it must seem likely that it depicts the goddess. For the characteristic superhuman vision of the gods note that Ningirsu scans all lands from his dread place of judgment, Shugalam (Gudea Cyl. A viii 6-7). Nanna’s penetrating gaze searches the bowels (Lament for Ur 432), Nanshe looks into the hearts of wrongdoers (Nanshe Hymn 164). Enlil’s lifting up of his eyes reaches the mountains, his raising his (eye)-beams sees into the heart of the highland (Great Enlil Hymn 3-4). For later examples see *CAD B* p. 116 *barû* A 1, 2’ and H 159f. *hâtu* 1 and 2.

Of little help is a line in the physiognomical omnia published by Kraus in *MVAG* 40/2 65f, 24:14 which explains the expression “face of a god” as meaning that the “edges of his eyes are both visible,” presumably the white of the eye above and below the pupil. This applies to the eyes of the two statues discussed but also to the eyes of all the other statues. *CAD I/J* 103 top left is probably right in assuming that the phrase means generally an eye looking like the eye of an image.

15. The head of the bird is damaged beyond recovery so it is not possible to decide whether it had a bird’s or a lion’s head originally. In older times either of the two possibilities were apparently acceptable. See H. Frankfort, *Cylinder Seals* (London, 1939), pl. III: b for an Uruk period representation with bird’s head. The earliest representation with lion’s head is the Jemdet Nasr seal (ibid, pl. V: h). A clear example of a representation with bird’s head of probable ED I date is found in B. Buchanan, *Early Near Eastern Seals in the Yale Babylonian Collection* (New Haven and London, 1981), no. 24; another of ED II date is in Frankfort, *Cylinder Seals*, pl. XI: g. It can even be found in ED III; see Buchanan, *Early Near Eastern Seals*, no. 347 besides the then normal representation with lion’s head.

trouble.¹⁶ Abu was, according to the ancients, identical with the god of thunderstorms Ninurta, also known as Ningirsu.¹⁷ The name Abu, "Father Pasture," stresses his role as the power in the thundershowers to call forth pasture in the desert in Spring.

The earliest form under which this god was visualized was that of an enormous black eagle floating on outstretched wings in the sky — the thundercloud — and after a while the mythopoeic imagination gave this bird a lion's head since the roar of the thunder could surely come only out of a lion's maw. The name given to the god in this early form was Anzu¹⁸ and he was thought to have his home in the mountains to the east. The bird is therefore often shown with mountain fauna, wild goats, and Ningirsu was regularly served goat's milk in his temple in Girsu. On the base of the statue with which we are here concerned Anzu is flanked by recumbent mountain goats, as it is also on the silver vase of Entemena from which Ningirsu was served. Leafy boughs are added, evidently to stress the relation to vegetation of the form of the god that Abu, "Father Pasture," represented.

While there can be little doubt that the carving on the statue base represents Anzu, questions may be raised about its function. Does it complement the presentation of the god by adding his non-human form to his human one rendered in the statue or is it to be considered mere decoration relieving a blank space on the base of a statue of a human worshiper?

To form an opinion here it will be helpful to consider other cases of sculptured statue bases to see what kinds of relation between the subject of the statue and that of the relief on its base they express. These relations seem to be mainly two, a relation of the identity and a relation of superiority. As instances favoring a relation of identity one may cite the Akkadē period statue of a seated goddess in the Louvre with Inanna's lions and an eight leaved rosette on its base.¹⁹ Another such instance is an Old Babylonian bronze statuette from Larsa of a man kneeling in prayer. It shows on its base a representation of the same man in the same position before a seated deity.²⁰ Perhaps the statue of Gudea holding the flowing vase, which has the base decorated

16. See Lloyd in P. Delougez and S. Lloyd, *Pre-Sargonid Temples in the Diyala Region*, OIP 58 (Chicago, 1942), pp. 184-85.

17. See CT XXV pl. 13 K4339 rev. iii-27 ⁴AB-Ú-MIN (i.e. ⁴Ninurta). His wife was Gula (CT XXIV pl. 49 F 11 and Parallel CT XXV pl. 1. 23-24). On Abu see also our note in OIP 58, p. 298.

18. The reading Anzu of the name written AN-IM-DUGUD_xMI^{mu}en, later AN-IM-DUGUD^{mu}en was first proposed by Landsberger in *WZKM* 57 (1961), pp. 1-21 with convincing arguments. Since then further evidence has been adduced by others confirming it. See J. Cooper, "More Heat on the AN.IM.DUGUD Bird," *JCS* 26 (1974), p. 121, with lit.

We are inclined to consider the formerly used simple reading of the signs as they stand, ⁴IM-duġud, as also valid, and, in fact, original, and see in Anzu an early phonetic variant of it. The form *im-duġud* "raincloud" would seem to have undergone much the same phonetic changes as did the parallel term *imduġud* "heavy clay," and "slingstone of clay," which became *ansuk>assuk* and was borrowed into Akkadian as *assukku*. The changes involved were *im>an*, a change attested also for *im-hul* "evil wind" which became *anhul* borrowed into Akkadian as *anhullu*, assimilation of *n* to the following *d* which was aspirated to *dh* and was rendered in Akkadian as *z/s* much as in *ud.uz* "goat" and by elision of the final syllable.

In the case of ⁴*Im-duġud* as name of the Thunderbird no assimilation of *n* seems to have taken place nor was the Sumerian *z>dh* rendered by Akkadian *s* but the *ġ* which had become final was elided with compensatory lengthening of the preceding vowel resulting in *imduġud>Andhuġ>Anzu*.

19. Spycket, *Les Statues* . . . , pl. 21, cf. p. 106.

20. Frankfort, *Art and Archaeology*, pl. 64.

with the same motif, also is another example.²¹ The other relation, the one expressing superiority, is natural enough since what is shown on the base is perforce under the feet of the statue above, and the typical gesture of victory and vanquishing in Sumer was placing one's feet on the vanquished opponent. Examples of this relation are the now lost statues of Sargon of Akkadē in Nippur, of which we are told in later copies of their inscriptions that the base of one had a representation of Sargon's vanquished enemy Lugal-zage-si, while another is said to have captives on its base.²² Of extant works one may cite the statue of Ur Ningirsu, on the base of which crouching figures — obviously subject people — abjectly present tribute.²³

Considering then again the base of the Tell Asmar statue, it must indeed seem highly unlikely that any human dignitary, however grand, would have had the temerity to put the image of his god under his feet. The Anzu form of the god of thunderstorms was in ED III still fully alive as a shape imbued with a divine presence and was an object of worship.²⁴ It would have been even more generally revered in the earlier ED II. One would therefore rather assume that the relationship here expressed is the one of identity: the relief on the base shows the same god as does the statue, but in his other, non-human form. By including both forms the representation of him gains completeness and depth.

We may now try to summarize our conclusions: The temple in which the statue was found apparently belonged to the god Abu who is the same as the god of thunderstorms Ninurta/Ningirsu. The image on the base of the statue, the Anzu bird, represents that god in his early form. The fact that it is placed on the base beneath the feet of the statue militates against the possibility that the statue represents a human ruler and favors seeing the statue as a representation of Abu in human form complemented with a representation of him in his bird form as Anzu. To an interpretation of the two statues as divine, as Abu and his consort, points also the superhuman size of the eyes which make sense if the eyes were meant to render the all-seeing eyes of gods, but which is inexplicable if the statues are interpreted as statues of humans. We therefore consider Frankfort's interpretation to be the true one.

21. V. Scheil, "Nouvelles Statues de Gudêa," *RA* 27 (1930), pp. 161–67, pls. 1 and 2. To find the flowing vase in the hands of a human rather than in those of a deity or demigod is most unusual. The flowing vase represents the rivers, the Euphrates and the Tigris as is made clear by the representation of fish along the streams from it. Since Gudea could hardly have been credited with power to control those rivers it seems most likely that the statue represents him as recipient of the blessing flowing from the regular rise of the rivers in spring such as was promised him by Ningirsu in the dream vision (Cyl A XI 10-17). Here the donor would naturally be Geshtinanna to whom the statue is dedicated. Some support for this might be found in the name Gudea gave the statue ("Geshtinanna gave him life") if the life Geshtinanna gave him may be seen as symbolized by the life-giving rivers.

However that may be, it is fairly clear that there is identity with and repetition of, the main motif of the statue on its base just as the Larsa statue of the man kneeling in prayer repeated that action in the representation on the base.

22. See H. Hirsch, "Die Inschriften der Könige von Agade," *AfO* 20 (1963), pp. 37, 42-49, 44, 48-50, 47, and 46.

23. A. Moortgat, *The Art of Ancient Mesopotamia* (London, 1969), pls. 175, 176.

24. See the macehead of Bara-ki-ba dedicated to Ningirsu and showing the donor adoring the god in bird shape. See H. Frankfort, "Early Dynastic Sculptured Maceheads," in *Miscellanea Orientalia*, *Analecta Orientalia* 12 (1935), pp. 109ff, figs. 5, 6, 7, 8 and compare our discussion in *JNES* 12 (1953) p. 167f n. 27.



Tell Asmar, Iraq: (a) A Male Statue from the Square Temple of Abu and (b) A Female Statue from the Square Temple of Abu.



Tell Asmar: Close-Up View of Emblematic Carving on the Base of a Male Statue from the Square Temple of Abu.



Tell Asmar: Back View of a Male Statue
from the Square Temple of Abu.

Chapter 10

A ROYAL HEAD FROM LUXOR

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The Oriental Institute has had an enduring association with the monuments of Luxor. It is the locus for the work of the Epigraphic Survey, which has completed over sixty years of work on its temples and tombs. Though the vast majority of the efforts of the Oriental Institute involve the precise documentation of temple reliefs and inscriptions, archaeological clearance also occupied the research team in the early years, particularly at Medinet Habu. At this site, Hölscher's work documented the long evolution of this architectural space after construction of the temples themselves. His initial excavations carefully revealed the complex town of the Coptic period, its houses standing to the second story, and produced one of the finest studies of an early medieval town.¹

A similar succession of periods of occupation around a major religious structure, but one of much longer duration, was originally preserved at Luxor Temple. A vestige of this long and important occupation still may be seen in the first court of the Temple, where the walls of a sixth century church are built into a corner of the colonnaded Ramesside court (built ca. 1250 B.C.). Above the church is the thirteenth century A.D. shrine of Sheikh Abu'l Haggag, the patron "saint" of Luxor. The late antique, medieval, and early modern town grew up in and around the Temple; by the nineteenth century the town of Luxor sat on a "tell" as much as 15 m high.² In the late nineteenth century, it was decided to clear the Temple interior down to its original floor level. This work began in 1881 and gradually extended outside the Temple walls to include the Roman castrum to the east and west and, finally, in the late 1950s, the area north along the Avenue of the Sphinxes.³ All of the traditional town, which had its central *maidan* or square in front of the pylon of the Temple, has been razed (most of the 300–500 houses having been two and three stories high). Now visible on either side of

1. Uvo Hölscher, *The Excavation of Medinet Habu, Vol. 5: Post-Ramessid Remains*, OIP 66 (Chicago, 1954).
2. For a view of the 15 m height of the tell, see Muhammad Abdul-Qader Muhammad, "Preliminary Report on the Excavations Carried out in the Temple of Luxor, Seasons 1958–1959 and 1959–1960," *ASAE* 60 (1968): pl. 24.
3. See Muhammad, *ASAE* 60 (1968): 227–79, and Jean-Claude Golvin, Sayyed 'Abd el-Hamîd, Guy Wagner, and Françoise Dunand, "Le Petit Sarapeion Romain de Louqsor," *BIFAO* 81 (1981): 115–48.

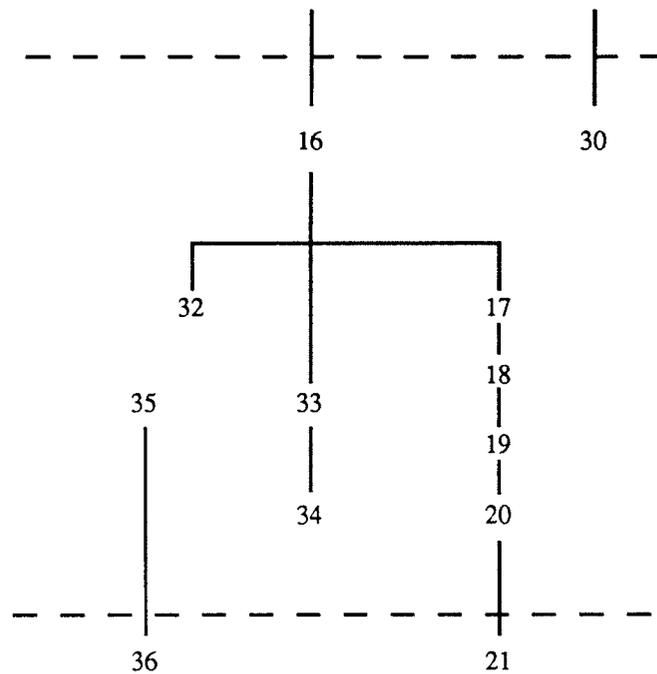
the Avenue of the Sphinxes are large areas of excavation in which one can still see walls of houses, probably dating from Coptic, Roman, or even earlier periods.⁴

The one area which still preserves a fragment of this archaeological record is the embankment left behind the house of Yasa Andraus Pasha, north of the Temple, near the river. In order to salvage some of this archaeological evidence of the urban history of Luxor, revealed through a large corpus of ceramics from stratified contexts and, secondarily, through fragments of the architecture of the successive periods, two narrow (2 m wide) step trenches were excavated in this embankment. These trenches were excavated in the winter of 1985–86 with the permission and assistance of the Egyptian Antiquities Organization;⁵ they were 18–19 m long, sited to preserve the standing structure, and exposed a total height of occupation of 8–9 m.

While the chronological range exposed stretched from the fourteenth century A.D. near the top to the Late Pharaonic in the deepest part reached, the main periods represented in this mound were, as expected, Islamic (8–14th century A.D.) and Coptic (4–8th century A.D.). A dozen blocks bearing carved relief or hieroglyphic inscriptions were found reused in walls of buildings in the town.⁶ Since we had not anticipated other Pharaonic remains in the medieval town, it was something of a delightful surprise to find in one room a well-preserved royal stone head, apparently of Thutmose III (pls. 23–25).⁷ The purpose of this paper is to present this statue head within its archaeological context.

Stratigraphically the room formed the middle portion of trench B-C, with about 2 m of later medieval levels above and at least 1 m of Roman below (earlier strata were excavated further east). The upper portion of trench B (oriented east-west) revealed portions of a room with a fine baked brick floor set in a herringbone pattern. Materials above this floor dated to the 10th and 11th centuries A.D. The bricks were set into a fill, 10 cm of light brown soil with dense pebble content, locus [16]. Both the bricks and the fill covered the entire surface of the trench, 4.25 × 2.00 m. The eastern edge of the trench ended in an almost vertical drop. A sequence of layers on the eastern end, where contamination from surface erosion was possible, was cleared (between 2.50 and 3.25 m in east-west length). These layers were composed of brown soil with fallen bricks and mudbrick detritus, loci [17], [18], and [19] (70, 60, and 40 cm in depth respectively). The layer below this debris was similar but with quantities of ash and some burnt brick detritus, locus [20], resting on a clay fill which served as the floor, locus [21].

4. These architectural remains are currently being studied by Dr. Peter Grossmann and J. Kosciuk. Unfortunately the medieval, and especially Ayyubid — Mamluk, town plan is now gone.
5. We are pleased to acknowledge the assistance we received from Dr. Ahmed Qadry, President of the Egyptian Antiquities Organization, and Dr. Mohammad el-Sogheir, Director of Antiquities for Southern Upper Egypt, and their staffs.
6. The blocks have been cataloged and will be published by Mr. Raymond Johnson of the Epigraphic Survey. They include one fragment bearing the cartouches of Thutmose III, at least one piece from the sun court of Amenhotep III, one Akhenaten talatat block, four pieces from the Luxor Temple Colonnade Hall of Tutankhamun, and three pieces from the sun court of Ramesses II. This reuse suggests a late Abbasid or Fatimid date for dismantling of the upper walls of the Tutankhamun colonnade.
7. The statue was discovered on January 5, 1986, and labeled (locus) B33, (find number) FN 2; it was subsequently given (registration number) RN 203.

Diagram of the lower portion of trench B.⁸

The removal of the pebbly fill, [16], revealed two walls, E and F, forming a corner. The exposed, eastern surfaces of these walls were covered with painted plaster. A small test trench, locus [32], showed that the painted design was a paneled composition, possibly originating as imitation stone revetment, in maroon, yellow, orange, dark green, black (?), and white paint.⁹ The test was expanded as locus [33], a homogeneous mass of yellow-brown mudbrick detritus as in [17], [18], and [19]. The occasional lenses of ash became more dense toward the bottom; within the 40 cm nearest the floor, locus [34], were thick accumulations of ash, charcoal, pieces of fallen plaster, and even burnt beams. Excavation within the room stopped at the floor level and attention turned to cleaning and preserving the painted plaster walls, preserved almost 2 m in height. No sooner had these loci been finished, when the south balk separated from wall F and came crashing down; the debris was removed and excavated down to the floor as locus [35]. This had the added benefit of confirming the corner of wall F and wall G, the latter preserved just above the floor level, having formed part of an earlier room.

It was during the clearance of the mass of fallen brick in locus [33] that the royal head was found (pls. 23–25), about 1 m above the floor and about 80 cm from the top of the locus. Next to the head was a whole bowl (fig. 20c), a type of red slipped ware common to the fifth–sixth centuries A.D.¹⁰ Other ceramics from the

8. For drawings of the section and top plan of the central portion of trench B–C, showing the loci under discussion here, see figure 19.
9. The painted plaster is currently being prepared for publication by Dr. Ann M. Roth, who supervised the excavation of this portion of trench B–C.
10. Pottery comparanda confirming a 5–6th century A.D. date are found in several stratified sites in Upper Egypt, for example: Helen Jacquet-Gordon, *Les Ermitages chrétiens du désert d'Esna, Vol. 3: Céramiques et objets* (Cairo, 1972), 2c = D1; 2i = H9; 2h = M20; 2k = F16; 2j = M16; 2l = N5, 36; 2p, q = P3, 4; Werner Kaiser, et al., "Stadt und Tempel von Elephantine," *MDAIK* 32 (1976), Abb. 9e = 2k; 9f = 2c; 9h = 2f; and H. E. Winlock, *The Monastery of Epiphanius at Thebes, pt. I: The Archaeological Materials* (New York, 1926), 2i = Pl. XXXIF; 2c = Pl. XXXIC; 2d =

loci closest to the statue include impressed terra sigillata (fig. 20d), lamps (fig. 20e–g), larger bowls (fig. 20h, i, k), jars and juglets (fig. 20j, l, m), amphorae (fig. 20o–q), and one lid (fig. 20n). While the latest elements of this assemblage fit a 6–7th century date, it is obvious that there is an appreciable admixture of Roman materials from the lower levels. (Indeed, the layers below locus [21] and wall G were essentially an enormous Roman pottery dump.)

Among the more important non-ceramic artifacts was a small steatite head of the popular Greco-Egyptian deity Serapis (fig. 21a). This had a flat back and was slotted to receive a separate basket-shaped calathus (*modius*).¹¹ The carving is quite good, in spite of the poor material used. Although statues and statuettes of Serapis from Ptolemaic and Roman Egypt are numerous,¹² Serapis is relatively rarely documented from Thebes, where Isis was more popular.¹³ One other stone statuette, made of green schist but badly damaged (fig. 21b), was found in an adjacent locus [19]. Although at first glance the animal bears some resemblance to a crocodile, which could be identified with the god Sobek popular in the Thebaid,¹⁴ the shape of the back and haunches does not fit.¹⁵ Could this piece represent a lion, a sphinx,¹⁶ or some composite creature? If the element at the right, rear, end of the statuette is not a separate upright element, it could be a serpent tail, as found in the late composite sphinx identified as the deity Tutu.¹⁷

Also found in the fill of these loci were numerous fragments of twisted lumps of bronze (fig. 21c–i). Several of the identifiable pieces were cut and pierced with small bronze nails; others were wire pull handles. All of these pieces seem to have been fittings for a wooden box or casket (and indeed some wood was attached

Pl. XXXIIB; 2k = fig. 47; 2q = fig. 35A. The surprisingly poor parallels with Epiphanius suggest an earlier, pre-7th century date for the Luxor Temple assemblage. Other sites with comparanda are J. E. Quibell, *Excavations at Saqqara (1908–9, 1909–10): The Monastery of Apa Jeremias* (Cairo, 1912), 2j = Pl. XLVIII, 2; 2m = Pl. XLVIII, 1 (far right); 2p = Pl. XLVIII, 3; 2q = Pl. XLVIII, 1 (far left) and Mieczysław Rodziewicz, *Alexandrie, Vol. I: La Céramique romaine tardive d'Alexandrie* (Warsaw, 1976) 2c = Pl. 23, O6; 2d = fig. 10; 2i = Pl. 17, K3. A few ceramic types, such as 2g and 2o, are residual Roman pieces.

11. For discussions of the iconography of Serapis, see John E. Stambaugh, *Sarapis under the Early Ptolemies* (Leiden, 1972), pp. 14–26, and Wilhelm Hornbostel, *Sarapis* (Leiden, 1973). On Serapis, see, e.g., the short discussion and bibliography by Günther Höbl, "Serapis," *LÄ* 5 (1984), pp. 870–74.
12. 326 examples of Serapis from Egypt are listed in G. J. F. Kater-Sibbes, *Preliminary Catalogue of Sarapis Monuments* (Leiden, 1973).
13. See Golvin, et al., *BIFAO* 81 (1981): 141–42; only catalogue numbers 122–26 (pp. 22–23) of Kater-Sibbes, *Preliminary Catalogue*, come from Thebes. Another small Serapis head of steatite is published in Abd el-Mohsen al-Khachab, "A Collection of Gems from Egypt in Private Collections," *JEA* 49 (1963): 153, fig. 1.
14. For discussions of crocodiles and crocodile cults see, e.g., László Kakosy, "Krokodilskulte," *LÄ* 3 (1980), pp. 801–11, and Emma Brunner-Traut, "Krokodil," *LÄ* 3 (1980), pp. 791–801, and the references therein. On the god Sobek in Thebes, from the Middle Kingdom through the Greco-Roman period, see, most recently, Edward Brovarski, "Sobek," *LÄ* 5 (1984), pp. 995–1031 and the references cited therein.
15. The crocodile is normally represented, both two-dimensionally and three-dimensionally, with the thick tail straight out behind the body, resting on the same ground as the body itself, or with the tail draped down, at a 90-degree angle, over the end of the ground on which the crocodile's body rests. The haunches almost look like those of a jumping animal.
16. Similar haunches are found, e.g., on the Munich sphinx (Munich photo number 294) dated to dynasties 29 or 30 of which a photograph is given in Ursula Schweizer, Lowe und Sphinx im alten Ägypten, *Ägyptologische Forschungen*, Vol. 15 (1948): pl. 15, 4.
17. Sometimes depicted with upcurling uraeus-tail. See Serge Sauneron, "Le Nouveau Sphinx composite du Brooklyn Museum et le rôle du dieu Toutou-Tithoès," *JNES* 19 (1960): 269–87, as noted by Robert K. Ritner.

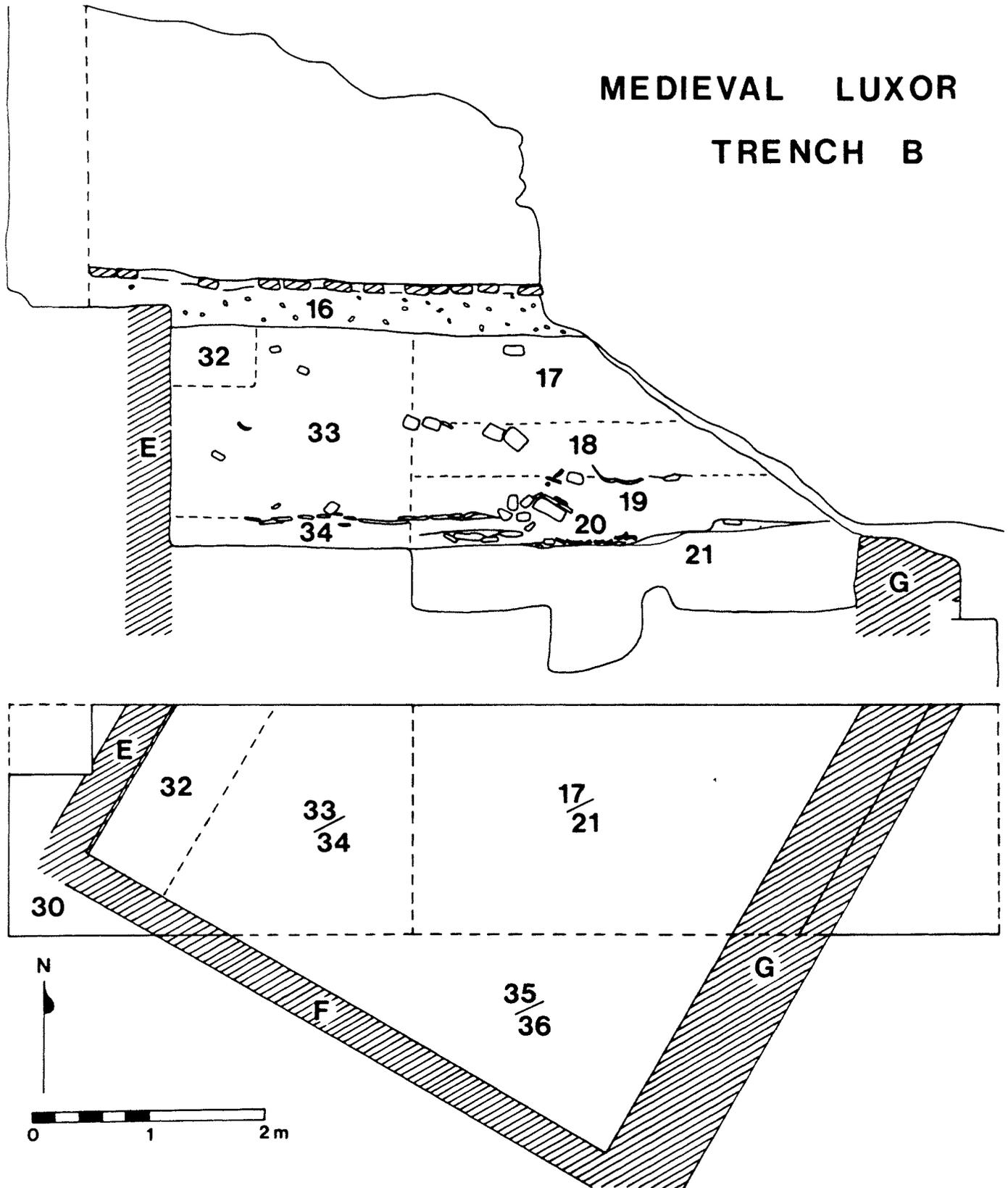


Fig. 19. Medieval Luxor: Section and Plan of the Central Portion of Trench B-C, Showing Loci under Discussion.

to the medallion, fig. 21g). Very similar fittings were found on a casket from Karanog (fig. 21j); this was dated on the basis of decorations (not shown in the adapted drawing in figure 21j) to the 4th century but with the metalwork added some time later.¹⁸ Mixed with the metal pieces were numerous small coins; most of these seem to be Coptic, though the cleaning has not been completed.

The most important artifact from this mix of debris and artifacts was the newly discovered royal head (pls. 23–25).¹⁹ This new sculpture from Luxor adds a significant piece to the known portraiture of Hatshepsut and Thutmose III.²⁰ The following comments are brief and do not include all parallels. Our intent is merely to make this piece available to art historians and Egyptologists as a small token of our esteem for Helene J. Kantor, one of the finest historians of ancient art. The head, made of what appears to be schist, is 35 by 10 by 7.5 cm, making it approximately one-half life-size. The white crown, missing the top knob, is greatly attenuated, characteristic of statues of Hatshepsut and Thutmose III.²¹ The uraeus, ears, and beard are slightly damaged, but the facial area, tabs, and beard strap are well preserved. The distinguishing characteristics of this piece are the pronounced curve of the nose, the flaring nasal alae, the strong ridge at the end of the lips, the pronounced philtrum, the long cosmetic line that widens towards the end, arched eyebrows, eyes framed by eyelids, v-shaped canthus, tapered tear-ducts, and tapered tab that extends to the lower part of the inner ear.

The specific identification of the piece as Thutmose III or Hatshepsut is made difficult by the development during the early 18th Dynasty of a royal Theban style based on the earlier classical idealizing style rather than on the portraiture of the Late Middle Kingdom²² and by the very strong family resemblance between Hatshepsut and Thutmose III.²³

The Luxor Temple piece definitely does not belong to the “feminine” statues of Hatshepsut (as MMA 29.3.2 and 31.3.157). In these, the cheekbones are more softly molded and the cheeks taper in a gentle manner in a v-shape to a smaller, less forceful chin than the classic Thutmose III Cairo statue (CG 42053).²⁴ In fact the Luxor head is extremely similar to the Cairo and the British Museum heads.²⁵ All three wear the white crown, have pronounced, curved noses, flaring nasal alae, lip ridges, long cosmetic lines that taper

18. Karanog 7518, published by C. Leonard Woolley and D. Randall-MacIver, Karanog, *The Romano-Nubian Cemetery* (Philadelphia, 1910), pl. 21. The box was found in the filling of the superstructure of tomb G140. On the later addition of the metal fittings, see p. 70.
19. The photographs published here were done by Mr. Thomas van Eynde; the drawings were done by Ms. Susan Osgood. Both are members of the staff of the Epigraphic Survey and we would like to express our thanks and appreciation both to them and to Dr. Lanny Bell, its Field Director, for their assistance. Our thanks also to Jean Grant, Oriental Institute photographer, for the prints which are published here.
20. On which, see, for example, the discussion by J. Vandier, *Manuel d'archéologie égyptienne, Vol. 3* (Paris, 1958): pp. 299–305.
21. For instance MMA 30.3.1 (Hatshepsut), Cairo CG 42053 (Thutmose III), and British Museum Inventory 986.
22. See, e.g., Cyril Aldred, *New Kingdom Art in Ancient Egypt* (London, 1951), p. 9.
23. See, e.g., William Stevenson Smith, *The Art and Architecture of Ancient Egypt*, revised by William Kelly Simpson (New York, 1981), p. 236, and Vandier, *Manuel, Vol. 3*, p. 302.
24. Published extensively; for the most recent publication and bibliography, see Mohamed Saleh and Hourig Sourouzian, *Die Hauptwerke im Ägyptischen Museum Kairo* (Mainz, 1986), cat. number 133.
25. The classic publication remains H. R. Hall, “Head of a Monarch of the Thutmosid House, in the British Museum,” *JEA* 13 (1927): 133–34 with plates xxvii–xxx. See also Vandier, *Manuel, Vol. 3*, pp. 302–3 with n. 10, who considered the British Museum head to have characteristics of both Hatshepsut and Thutmose III.

outwards towards the end, arched eyebrows, eyes framed by eyelids, v-shaped canthi, tapered tear-ducts and tapered tabs that descend exactly to the bottom of the inner ear. The overall impression of the face of the British Museum head retains some of the “feminine” qualities of certain Hatshepsut heads and, as a consequence, may be early in the career of Thutmoses III. On the other hand, the Cairo head is that of a mature monarch. The fleshiness of the cheeks in the Luxor piece may indicate a date between the two.²⁶

It is impossible to establish where this statue was originally set up. It may have come from Karnak, where Thutmoses III carried out extensive construction and reconstruction in and near the central Amun temple, or from some other Theban location (he is known to have built on the West Bank at the small temple at Medinet Habu and at Deir el-Bahri as well as at his own mortuary temple). But it is also possible that Thutmoses III built a small chapel in the area of the current Luxor Temple and that this royal head, and the reused block with his cartouches, come from that chapel.

This fine sculpted head of an 18th Dynasty king antedates by some 2000 years the presumed use of the room in which it was found. This fine work of art was found with much lesser, and more recent, statues and the fittings for an ornate casket. This assemblage, within a room decorated with colorful “fresco” suggests, if not a museum, at least the house of a collector and appreciator of fine art. Obviously, this small exposure of part of a very large building makes speculation extremely premature and hazardous on what is probably a fortuitous juxtaposition. Nevertheless such speculation has the virtue of emphasizing the special quality of this excavation in Luxor, the on-going relationship of this town and religious center with its past. Objects, from humble statuettes to royal heads, are found and become part of the lives of later peoples. These artifacts, and by extension archaeology, change peoples’ lives. This is an enhancement which might have affected our sixth century collector and certainly has deeply affected the students of Helene Kantor.

26. We would like to take this opportunity to thank Mr. Thomas J. Logan for his valuable comments on the distinguishing characteristics of the head and the specific stylistic comparisons with other heads of Thutmoses III and Hatshepsut.

Fig. 20. Medieval Luxor: Ceramics from Trench B, Loci 32, 33, and 34

<i>Illus.</i>	<i>Locus</i>	<i>Reg. No.</i>	<i>Description</i>
a	33	206	orange, black paint, moderate medium sand
b	32	170	orange, red slip on exterior, common medium sand
c	33	213	orange-brown, orange slip on exterior, moderate medium sand
d	33	206	brown, red slip, burnished, stamped, moderate medium sand
e	34	287	orange-brown, moderate medium sand
f	33	295	orange, saring-cut base, moderate medium sand
g	33	291	brown, molded, moderate medium sand
h	33	206	brown red slip on interior and exterior, traces of white paint, moderate medium sand
i	33	206	red-orange, red slip on interior and exterior, moderate medium sand
j	33	206	orange, red slip on interior and exterior, moderate medium sand
k	34	270	brown, spout, moderate medium sand
l	34	270	red-brown, moderate medium sand
m	34	288	cream, ribbed, moderate medium sand
n	33	212	red, common grit and chaff
o	34	270	brown, blackened interior, common medium sand and chaff
p	34	270	cream, purple-red slip on exterior, moderate medium sand
q	32	170	red, moderate medium sand and chaff

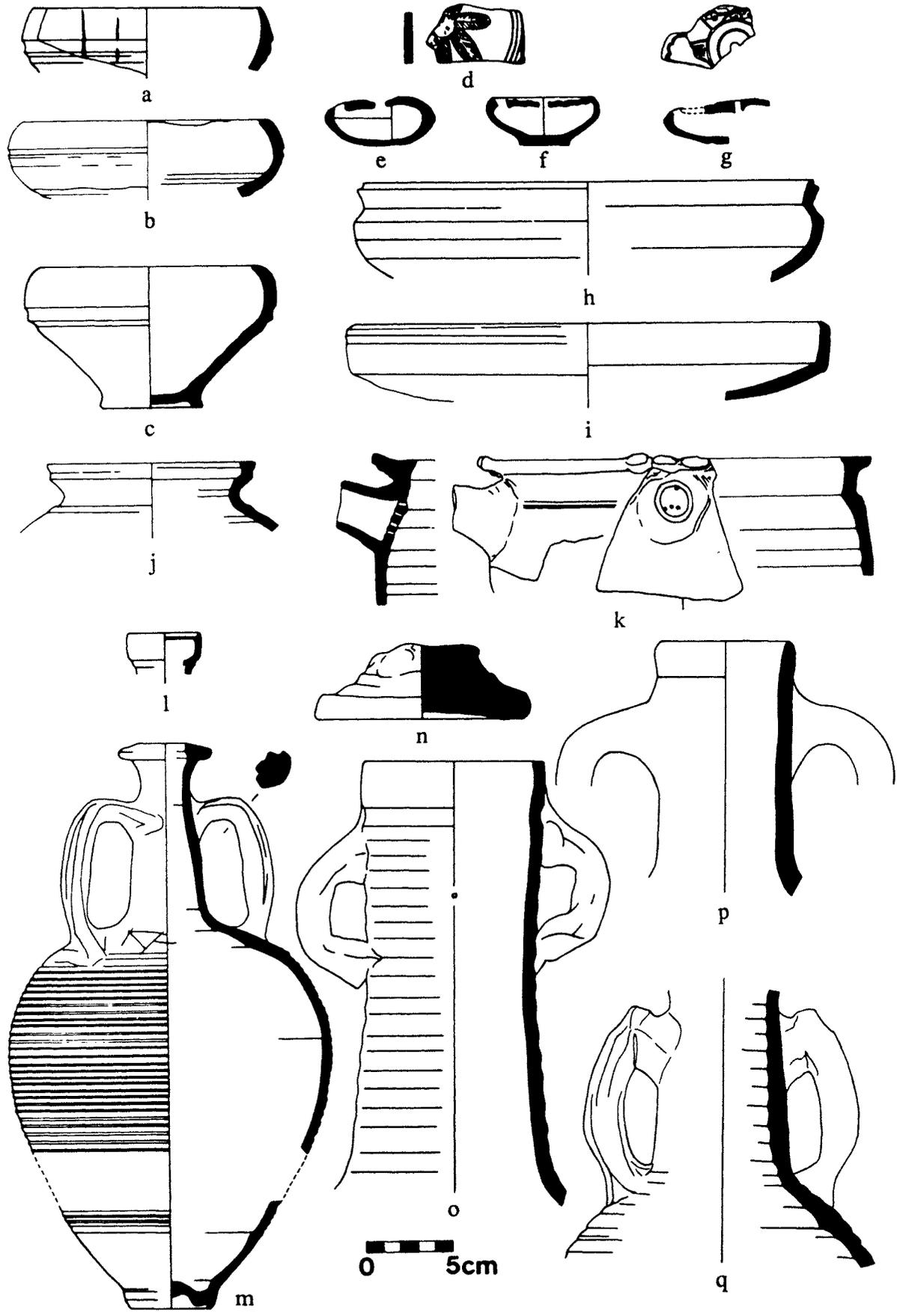


Fig. 20. Medieval Luxor: Ceramics from Trench B, Loci 32, 33, and 34.

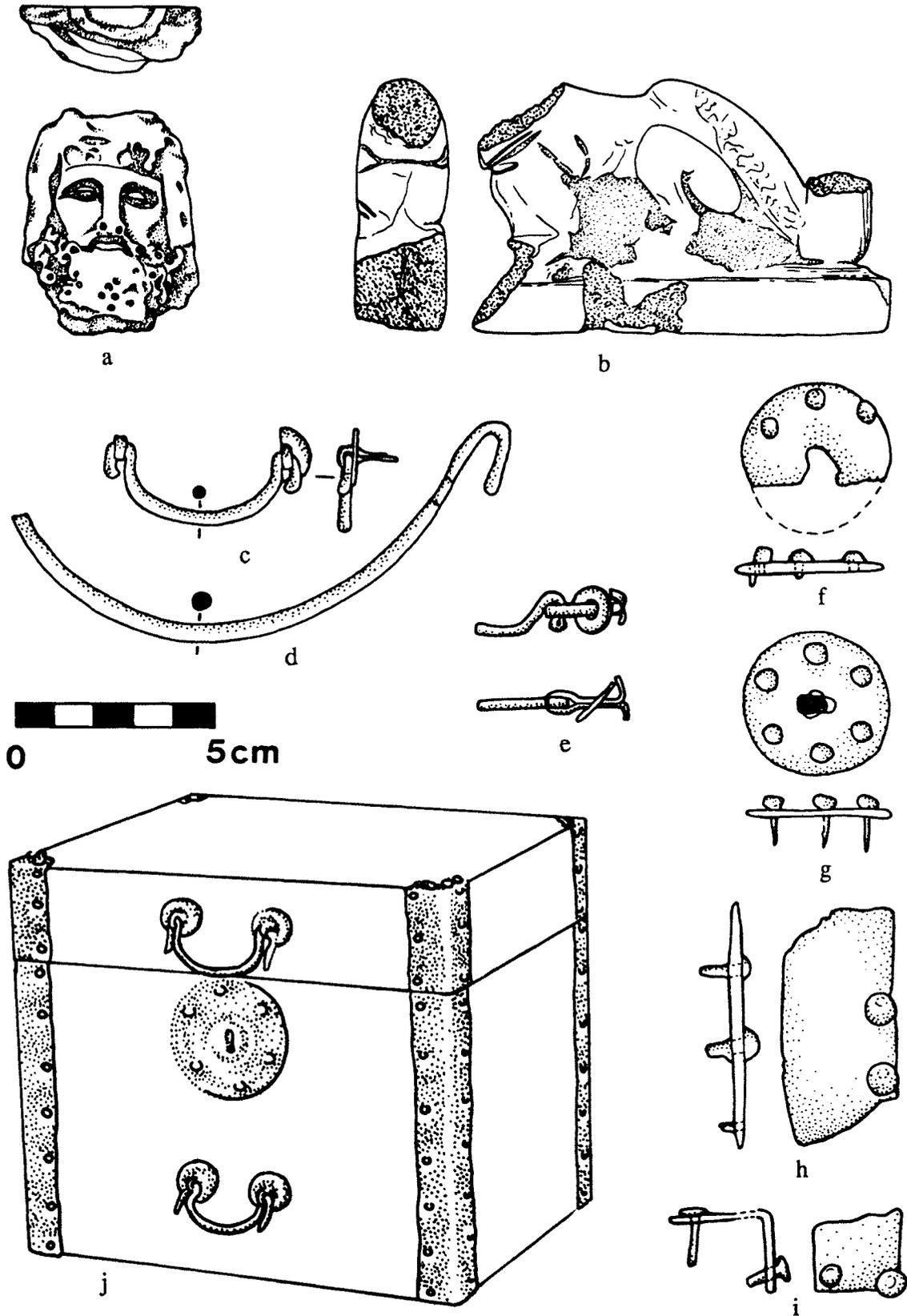
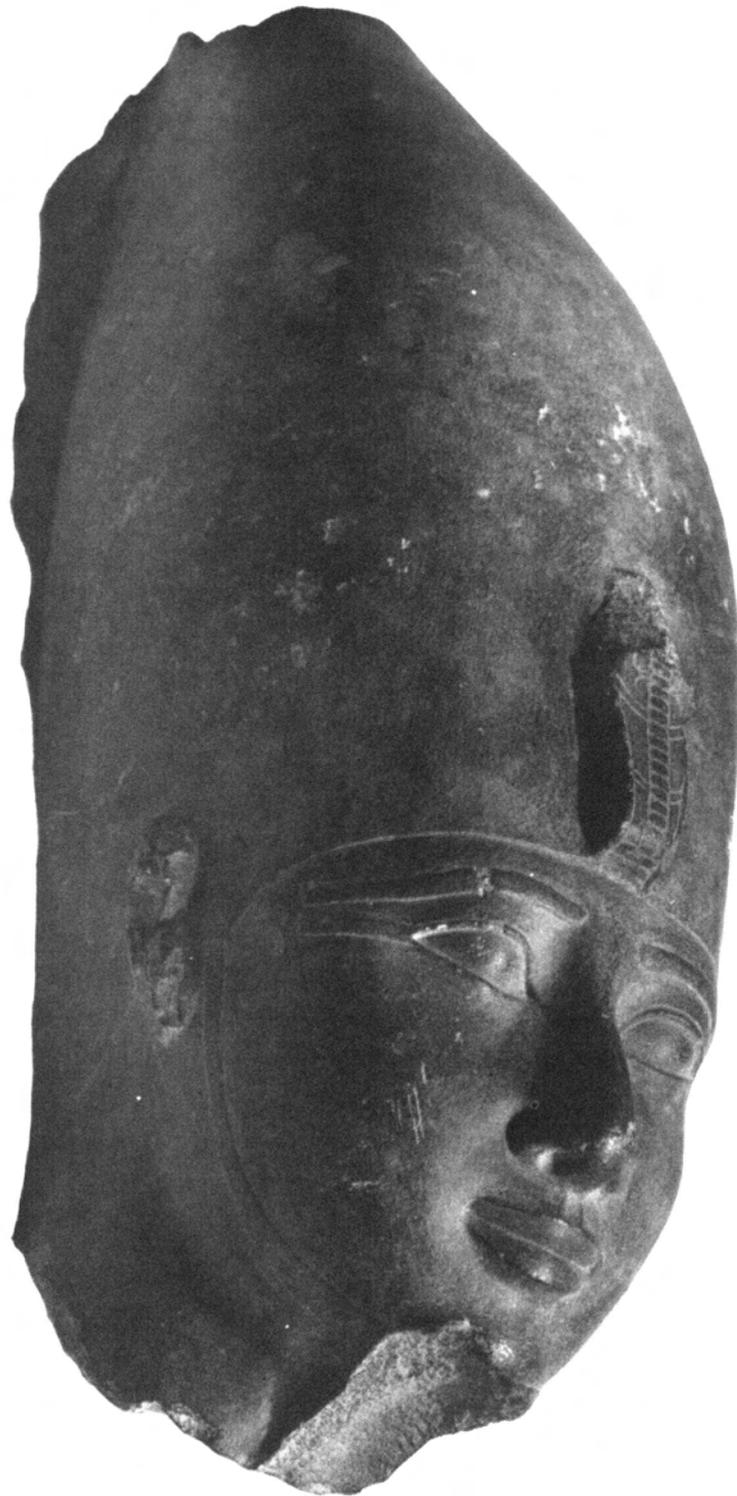


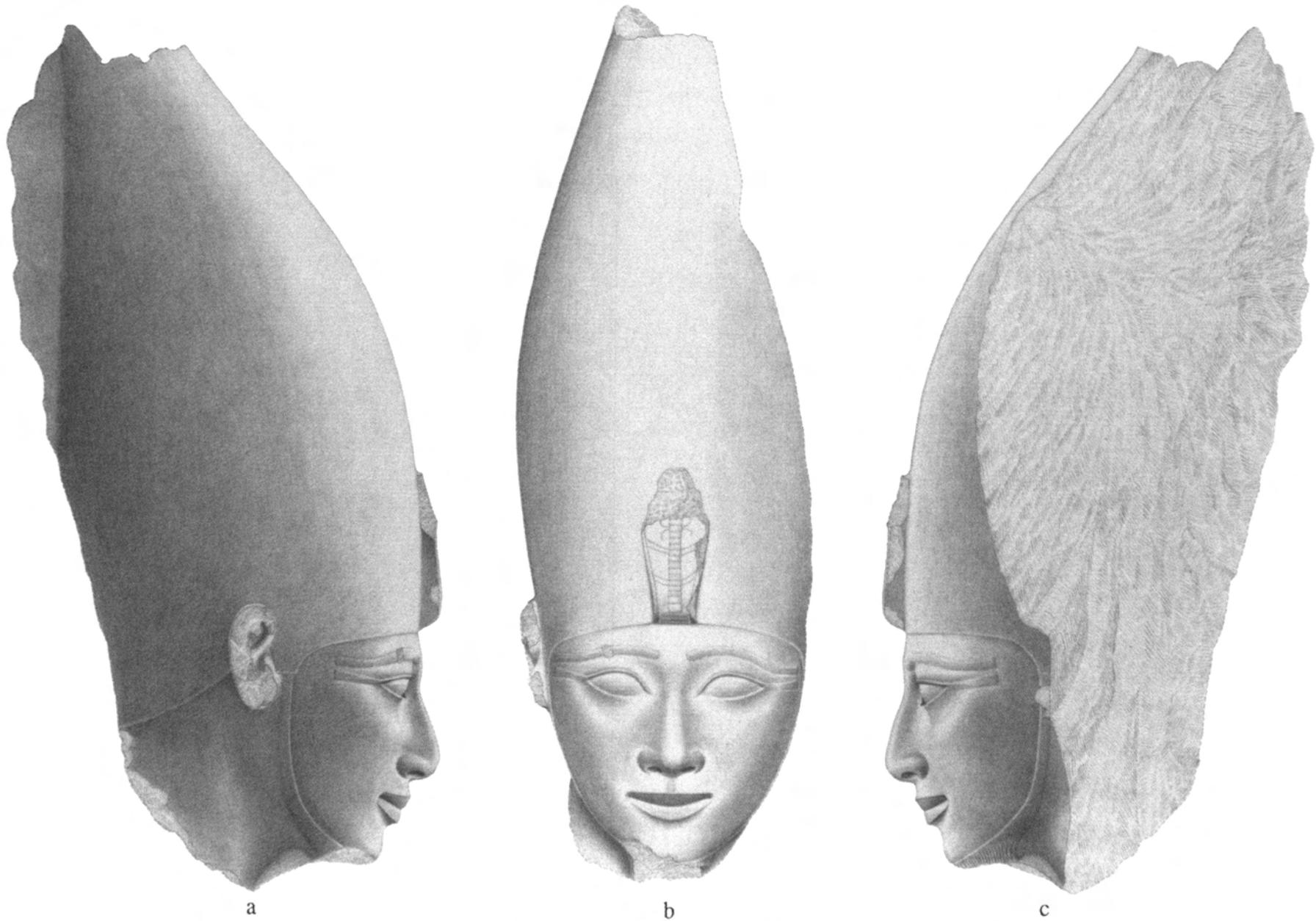
Fig. 21. Luxor, Stone and Metal Artifacts from Loci in Context with the Thutmosid Head: (a) Locus 33, RN 254, Steatite Head of Serapis, (b) Locus 19, RN 167, Green Schist Feline(?), (c, d) Locus 35, RN 286, Bronze Handles, (e-i) Locus 34, RN 283, Bronze Fittings, and (j) Casket from Karanog.



Luxor: A Royal Head, RN 203, from the Embankment
North of the Luxor Temple (Frontal View).



Luxor: A Royal Head, RN 203, from the Embankment
North of the Luxor Temple (Right Side View).



Luxor, Drawings of a Royal Head, RN 203, from the Embankment North of the Luxor Temple.
(a) Right Side View, (b) Front View, and (c) Left Side View

Chapter 11

A NEW THIRD MILLENNIUM SCULPTURE FROM MOZAN

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The nature of the third millennium B.C. urban tradition in northeastern Syria has been in the forefront of our interest and research strategy in the excavations at Mozan in the Khabur triangle. Soundings conducted during the first two seasons (1984 and 1985), and regular excavations in the subsequent seasons (1986 and 1987) have revealed a remarkably homogeneous third millennium occupation characterized by exceptional architectural and artifactual remains. I wish to present here the most significant sculptural object discovered thus far, a small double-sided stele (pl. 26). It is a great pleasure for me to publish this original and important work in honor of Helene Kantor who first introduced me to the world of ancient Near Eastern art; through her insights and enthusiasm she sparked my interest in the third millennium which now has led me to Mozan. In order to place the Mozan stele in its archaeological context, I am first describing briefly the scope of our work there.

An initial surface survey was conducted on both the High Mound and the Outer City of Mozan.¹ A survey also was made in the first two seasons of sites in the Wadi Darah.² A survey in this area was of particular interest for two reasons: 1) it is in the section of the Khabur triangle most likely to be the location of Urkish, the major Hurrian city in this area, and 2) it is on the strategic trade route via the Mardin pass into the ore rich Ergani mining area and the main route to the Keban and surrounding districts. It is also in one of the principal water courses in northeastern Syria, the Wadi Darah, and thus was a focal point for the east-west trade route from Mesopotamia to the Mediterranean coast. While the Wadi Dara had previously been surveyed,³ our survey turned up a number of additional sites in this area. Further it was determined that in this

1. The Outer City survey was conducted by Dr. Judith Thompson-Miragliuolo.
2. This survey was conducted by Guy Bunnens and Arlette Roobaert now of the University of Melbourne. I wish to thank Giorgio Buccellati for his many perceptive suggestions in our discussions of this monument both in Mozan and afterward. He and William Shelby both read and contributed to various drafts of this manuscript; I also benefitted greatly from discussions of this stele with Pauline Albenda.
3. T. E. Davidson and H. McKerrell, "Pottery Analysis and Halaf Period Trade in the Khabur Headwaters Region," *Iraq* 38 (1976): 45-56.

geomorphological zone no other sites exist of the size and importance of Mozan during the third millennium.⁴

Previous to our work, Max Mallowan, in his survey of the Upper Khabur, had made some soundings at Mozan before he finally decided to excavate at Chagar Bazar. While these are not published, Agatha Christie mentions that he thought that the site of Mozan had a heavy cover of late material.⁵ Unpublished notes on these soundings, now in the British Museum, show that he was excavating third millennium levels with pottery comparable to what we have uncovered in our own excavations at the site.⁶

The topography of Mozan is clearly differentiated into a High Mound and an Outer City. The High Mound, over 18 hectares in area and over 25 meters above the present plain level, is distinguished by a configuration of five rises surrounding a depressed central portion; this central portion had relatively few sherds on its surface. The five rises appear to be the consequence of extensive occupation on each, possibly resulting from the accumulated remains of five large public buildings surrounding a central open area. On the north are two other rises, one of which may incorporate the earliest occupation strata of the High Mound.⁷ Around this entire High Mound is an imposing city wall made of mudbricks. Our excavations on this wall show that it was at least eight meters wide, and more than seven meters in height. The Outer City is much lower than the High Mound and is delimited on its outer perimeter by a rise. Investigations of this rise are still continuing with a particular view toward ascertaining whether there is evidence for an Outer City wall. The area of the Outer City is approximately 135 hectares with only its extent to the northwest being uncertain.

From the surface surveys of both the High Mound and the Outer City it is clear that the major occupation of Mozan occurred throughout the third millennium. Some Halaf sherds on the southern edge of the Outer City may indicate the initial period of occupation of the site.⁸ During the Khabur ware period the tell was occupied; remains dating to this period however were not found as extensively distributed over the site as they had been in the third millennium.⁹ Some Nuzi pottery seems to represent the period of latest use of the site, although it may not have been for permanent settlement.

In addition to soundings by the city wall in Area K, excavations have been carried out on the High Mound on one of the rises surrounding the central open area, called by us Area B. This rise was chosen both for its position in respect to the central depression and because of the fact that an extensive area of red clay, not characteristic of other areas of the site, could be seen there showing through the sod layer covering the surface of the mound. What we initially thought was burning, turned out instead to be the decomposed remains of mudbricks. In addition, just under the surface we encountered a significant number of stones which were part of an architectural plan. After further excavation it became clear that we were excavating an impressive

4. Excavations at Mozan started in 1984 and have continued regularly since under the direction of the writer and Giorgio Buccellati. Funding for this excavation principally comes from the Ambassador International Cultural Foundation and from the National Endowment for the Humanities, RO-21543-87.

5. Agatha Christie, *Come Tell Me How You Live* (London, 1977), pp. 72ff (first published in 1946).

6. I wish to thank Terence Mitchell of the British Museum for permission to consult these records, and Joan and David Oates and Dominique Collon for copies of them.

7. For a report on the first two seasons see Giorgio Buccellati and Marilyn Kelly-Buccellati, *Mozan I* (forthcoming).

8. The Wadi Darah is one of the most important and heavily occupied of the Halaf occupation zones. Dr. Ismael Hijarah will publish the ceramics found in the Wadi Darah survey.

9. Cf. *Mozan I* for distributional maps of the surface ceramic finds from all periods represented.

temple with mudbrick walls resting on stone foundations. The temple was entered by a stone ramp leading up to what appears to be the main room. This room is rectangular, measuring 10.5 meters by 11.5 meters and is covered by a hard white plastered floor about 10 cm thick. A large stone altar or offering table measuring 1 meter by 1.5 meters was placed near the center of the room. Three building phases have been distinguished at present. In the earliest phase excavated thus far, this temple resembles to some extent the stone buildings at Chuera, especially Steinbau III¹⁰ with its stone steps and Steinbau I¹¹ with its altar (although this is located in a small side room and the Mozan example is positioned near the center of what appears to be the main room; as the excavations of the Mozan temple are not completed, the Mozan example may be either an altar or an offering table). While neither of these buildings is exactly like the Mozan temple, their similarity points to the likelihood of a coherent architectural tradition in northern Syria unlike the examples of religious architecture in the south.

Outside the northern edge of this main room of the temple were a series of open-air paved use-areas; the portion next to the temple wall was covered with a reed mat roofing. A walkway made from small stones and medium to small flat sherds ran parallel to the northern wall. The sides of this walkway were delineated by the placement of rims of large jars upright along the edge. It is not clear what relation this series of pavements had to the temple, since no doorway connecting them has thus far been found in the excavations. They may be part of a courtyard connected with the temple or may be an area used by the temple but not architecturally part of the building. For this reason also we do not know with what phase of the temple the walkway and pavements are contemporary. The pavements are truncated near the western end of the building because of the slope of the mound. It is in this disturbed and eroded area that we found in 1986 a small stone sculpture (pl. 26). While the date cannot be precisely determined since the pottery of the late third millennium from the Upper Khabur is not sufficiently well known as yet, it was found in a context with artifacts dating to the late ED III and Akkadian period.

The sculpture is of white calcareous stone carved on a piece which is triangular in section and measuring 11.2 cm wide by 9 cm high.¹² The sides of the stone are narrow and have been flattened by chiseling; the stone is flat on the bottom so that it is free standing. The top is rounded on the sides but flat on the top. The general shape then is similar to examples of early round topped stelae found elsewhere, but not identical to them.¹³ The type of stone is readily available on the nearby southern slopes of the Tur Abdin and continues to be quarried in the vicinity of Mozan today. A similar kind of stone is used in the foundations of the architecture and as linings in the third millennium graves in the Outer City. The piece is free standing and carved in low relief on both sides. Traces of chisel marks can be seen both on the flattened bottom and top. One end is preserved and has chisel marks three quarters of the way down the side while the bottom portion of this end remains unfinished. The other end has been broken off but from the design it appears that about half of the piece is preserved. I am calling it a stele for lack of a better term even though its size is not comparable to larger stelae from other sites. This piece cannot be a surviving portion of a composition carved on a larger stele

10. Anton Moortgat and Ursula Moortgat-Correns, *Tell Chuera in Nordost-Syrien: Vorläufiger Bericht über die Sechste Grabungskampagne 1973* (Berlin, 1975).

11. Anton Moortgat, *Tell Chuera in Nordost-Syrien: Vorläufiger Bericht über die Zweite Grabungskampagne 1959* (Wiesbaden, 1960).

12. This small stela was excavated in the third season of Mozan: field number B1.19.

13. See Jutta Börker-Klähn, *Alt Vorderasiatische Bildstelen und Vergleichbare Felsreliefs*, *Baghdader Forschungen*, vol. 4 (Mainz am Rhein, 1982), especially the Early Dynastic inscribed stele from Ur, number 15 on p. 123.

— of which we have a number from the late Early Dynastic and Akkadian periods — since the Mozan stele has its top and bottom well preserved as well as one side (evidenced by the deliberate carving and the chisel marks still present). On the first side of the Mozan stele to be discussed, Side A, (pl. 26a), the theme of cattle is carved with one pair of animals apparent and the head of a third animal barely visible behind the horns of the second animal. This third animal is especially intriguing since the portion of his head behind the horns of the second figure is carved in very low relief in order not to interfere with the pattern of the horns of the second bull figure. The portions of this head visible between these horns (i.e., the ear and neck) are carved in relief of the same height as the first two animals. No horns are carved for this third animal. One figure, the animal in the front, is shown in profile so that its horns are seen as curving forward and then back. The hindquarters of the figure in back are seen in profile; the sculptor has used an almost three quarter view for his face. The horns of this second animal are presented in front view, that is, in a contrasting pattern with the first animal. Unfortunately the head of this figure is damaged because the stone is broken down the face. Both animals appear to be bulls because of their horns, but their hindquarters are slimmer than one would expect for bulls if shown realistically. Each of these animals is characterized by cloven feet, short ears, and large eyes. The hindquarters of the second animal are visible and indicate the presence of a long tail. The front-most animal does not seem to have been finished since an uncut portion of the stone extends from the top of his snout down his chest.

Both the animals of the crossed pair are shown in movement. The animal in front has three legs visible and all are shown almost as if prancing. The second bull, placed behind the first, has the one front leg somewhat off the ground; his leg position appears to show him as if ready to spring or jump. Clearly this animal is not standing on his hind legs as is so often the case in late Early Dynastic or Akkadian art. The general positional relationship of the animals too is not the same as the crossed animals in southern examples; rather they are shown in a more naturalistic rendering, as if the artist was trying to present a herd. The general body position of both animals is quite different from southern examples of crossed animals; in the south crossed animals are shown either as standing straight up or as standing on their hind legs with their bodies diagonally placed in the composition. In other words their bodies are stressed by the artist as part of a two dimensional pattern and not principally as animal bodies. On the other hand, in the Mozan relief the animals are conceived as on a three dimensional plane whereby their bodies are overlapping in a very natural manner. The front animal has all feet on the ground while the rear animal is seen only slightly off the ground so that its head is barely showing above the back of the first animal. This may explain why the artist then had trouble with the composition in carving the third animal. This animal's head is placed above the hindquarters of the front animal and thus overlapped with the horns of the second animal. Neither of the two animal bodies preserved gives the static, motionless impression of the posture of the usual southern animals during this time period. Furthermore the Mozan relief is carved on the stone in such a way that a space was left at the preserved end. It does not appear as if the artist meant to carve anything there, but as it is unfinished (the background has not been cut away) this is not absolutely certain. However, the placement of the figures so that there is a small border at both the top and bottom of the stone is in harmony with the idea of a border at the end.

On Side B of the stele (pl. 26b) is a scene of a plowman with the hindquarters of his draft animal preserved. Above him are the hindquarters of a dog with a straight tail extending over the plowman's head. The dog is positioned on the stone so that there is a wide border above it but little room between it and the head of the plowman. The dog appears to be in a resting position. Only the hindquarters of the draft animal are

preserved, but the fact that he is moving can be clearly seen. The plowman is depicted with a long nose, large eye, small mouth, short pointed beard, close fitting cap, and is wearing a short skirt. He is holding with his left hand a long curved implement which ends at his foot; this must be a plow of a different type than the seed plow used in the Akkadian period. His right is near the back of the animal probably holding the reins which, however, cannot be seen. As the plowman is depicted in profile the artist was not able to resolve the problem of how to carve his shoulder and left him with an awkward folded over shoulder.

The composition of this plowing scene is remarkable. The plowman has been positioned toward the end of the stone with ample empty space behind him. This empty space was intended since the background has been cut away in this area. The unfilled area emphasizes the diagonal line toward the bottom of the stone made more dramatic by the fact that the right foot of the plowman is pushing off, as it were, from this diagonal. The forward thrust is accentuated by the forward bend of the body and head of the plowman and the movement shown in the legs of the animal. Traces of chisel marks can be seen near the head of the plowman and the dog, making it appear as if this side was not completely finished, even if only the smoothing of the background had to be completed.

Plowing scenes appear in southern Mesopotamia in the Uruk period and then again in Akkadian times. In Syria, a recent relief found at Halawa should be mentioned along with the Mozan stele.¹⁴ The Halawa stele is a portion of a larger stele divided compositionally into registers of which parts of three are preserved. Here we are especially interested in the lowest register which depicts a man with a whip and a pair of reins behind a draft animal. As shown, the reins droop very low and are held by the man at the level of the animal's legs. Orthmann mentions the possibility that the man may be in a cart or chariot.¹⁵

Indeed in the Mozan stele the dramatic movement made possible by the diagonal connected with the liveliness in postures expressed in both the plowman and his draft animal are impressive. At the same time it is noteworthy that this innovation in composition is associated not with a scene of rulers or deities, nor does it appear to represent a part of myth or secular power but rather with an outwardly simple act of daily life in this region: plowing. While a heightened sense of drama is noticeable in Akkadian art, it is not until late in the Akkadian period that the diagonal comes in as a compositional device,¹⁶ and even then, not as a conveyor of forward movement as it does here. This then is a new aspect of third millennium art not seen before.

While the subject matter of the Mozan stele appears to be a simple statement of country life, in reality I think that it can be connected with those monuments of the Protoliterate period which stress the fruitfulness of the fields and herds, of which the Inanna vase is the best example. Although the composition of the Inanna vase is much more static, the analogy between the Inanna vase and the Mozan stele can be seen in the depiction of grain and animals. As shown at the bottom of the Inanna vase the register filled with grain would correspond to the more dynamic depiction of a plowing scene in the Mozan relief. The animals too, depicted in rows on the Inanna vase, can be discerned in their more naturalistic representation as a herd in the Mozan example.¹⁷ The Mozan stele never had the human offering bearers or deities shown on the Inanna vase and

14. Winfried Orthmann, "Tall Halawa 1982," *AJO* 31 (1984): 142-46.

15. G. Buccellati has suggested that this may be an example of a threshing vehicle.

16. The use of diagonals in the Naram Sin stele immediately comes to mind, see especially the exemplary analysis of this stele in H. Groenewegen-Frankfort, *Arrest and Movement* (London, 1951), pp. 163-66.

17. For a discussion of the representation of herds and their symbolism see P. P. Delougaz, "Animals Emerging from A Hut," *JNES* 27 (1968): 184-97.

indeed the animals are cattle, not sheep and goats. However there are parallels for the representation in which only appear cattle and plants in both the fourth millennium¹⁸ and in the Early Dynastic period.¹⁹ With this as a background it is possible to view the Halawa stele in the same way: a threshing scene on the bottom with feeding animals both young and old in the central register and human offerings at the top, thus duplicating the relative positions of the figures in the Inanna vase in a similar register format. The Halawa example has two larger men on the right who fill the space of two registers. While this type of composition was not used on the Inanna vase it is a compositional device used during this time period. Both the Halawa and Mozan examples were found associated with temples.

In her classic article on landscape in Akkadian art²⁰ Helene Kantor summarized succinctly the most important stylistic qualities of Akkadian art. She characterized it as tremendously vital and fresh in its approach, expressing often the physical detail and unity of individual figures. She contrasted this by saying that Akkadian figures "are not conflated or even interwoven so as to become mere subservient elements of a design, as often in Early Dynastic art."²¹ The Mozan stele should now be considered in light of her assessment of Akkadian art. Clearly the cattle on Side A are not carved with the same awareness of the physical presence of the individual since the musculature is not shown and indeed internal aspects of the bodies are not stressed. What we can say about these animals is that they have the clear outline and fullness of body and general heaviness of appearance characteristic of ED III art. This can also be noted for the draft animal on Side B. The plowman is shown as thin but with the large and long straight nose typical of ED statues; his right shoulder is carved awkwardly. In this case too there is no stress on individual body parts or musculature. We can see on the other hand that our figures are not viewed by the artist as subservient to the pattern; the individuality of each figure is accentuated by the amount of space given in the composition to it and by the placement of the bodies in the naturalistic position of movement. This movement is never exaggerated but rather stresses the characteristic flow of that figure. This concern for the individual expressed by showing the bodies in natural and typical poses may be a general characteristic of Mozan art since the emphasis on the individual bodies in a naturalistic stance is also found on the seal impressions found near the city wall and dated to ED III.²² The vital and fresh aspects of the Mozan stele can be discerned in this naturalism combined with the dynamic design of the plowman. The Mozan stele then can be placed in an intermediary position between those stylistic characteristics of ED III art and those of the Akkadian period and as such present us with fresh and innovative aspects of northern Syrian art in the third millennium.

18. Pierre Amiet, *La Glyptique mesopotamienne archaïque* (Paris, 1961), 396–99 and 746.

19. Henri Frankfort, *Sculpture of the Third Millennium B.C. from Tell Asmar and Khafajāh*, OIP 44 (Chicago, 1939) pl. 106, no. 186. This is a plaque from the Single Shrine of the Abu Temple at Tell Asmar. Its lower register depicts two reclining cattle with a plant motif.

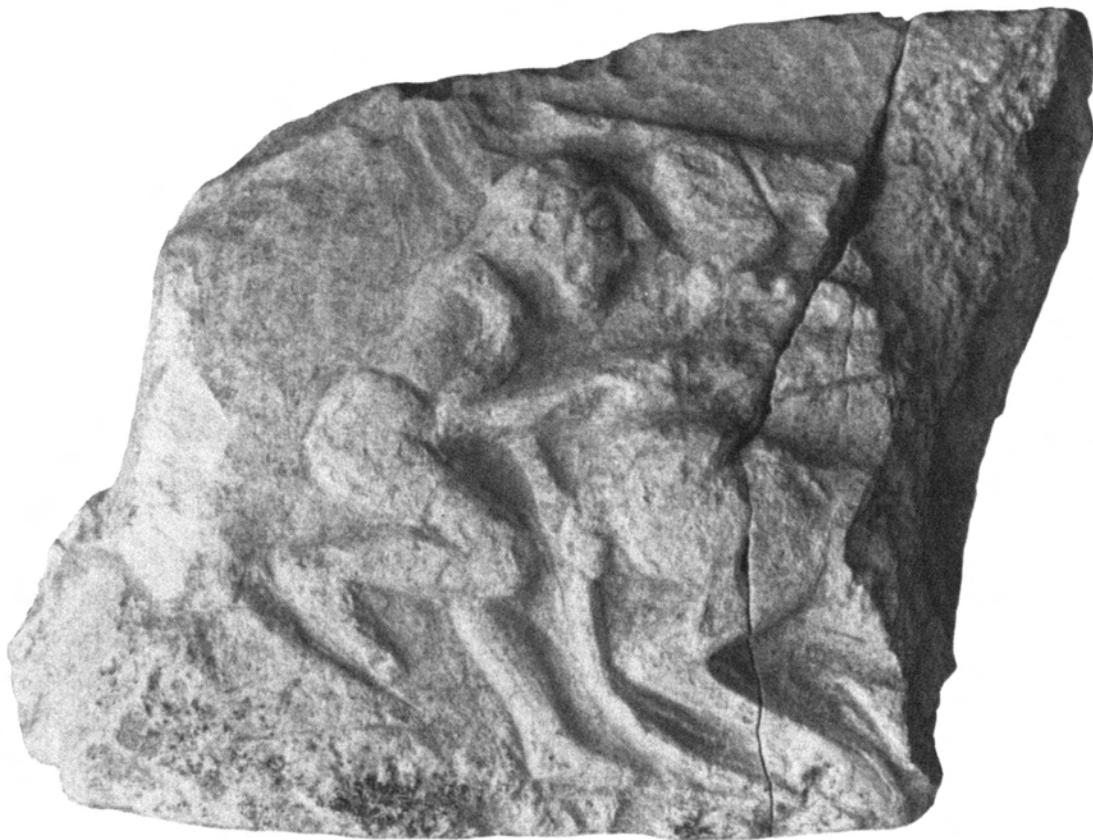
20. H.J. Kantor, "Landscape in Akkadian Art," *JNES* 25 (1966), pp. 145–52.

21. *Ibid.*, p. 146.

22. See Mozan 1.



a



b

Mozan Stele, B1.19: (a) Side A and (b) Side B.

Chapter 12

AN EARLY INDUSTRIAL PROTO-URBAN CENTER ON THE CENTRAL PLATEAU OF IRAN: TEPE GHABRISTAN

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Contrary to western, and specifically to southwestern Iran, where the last three decades of archaeological investigations have contributed a great deal to the better understanding of the prehistoric cultures of Iran, our knowledge of the prehistoric cultures of the central plateau of Iran remained confined to the limited results of three major archaeological excavations in the 1930s. One of these, Tepe Cheshmeh Ali, a site a few kilometers south of Tehran, has not been published to date; the second is Tepe Hissar, in the vicinity of Damghan, a city on the northeast corner of the central plateau;¹ and the third site, Tepe Sialk near Kashan, is on the southwest corner of this central high plateau.² The latest archaeological activities in this vast region were directed by the Department of Archaeology of Tehran University in the 1970s for ten successive seasons in the Qasvin Plain at the three prehistoric sites of Zagheh,³ Ghabristan (fig. 22),⁴ and Tepe Sagzabad.⁵

The small number of excavated sites on the central plateau, the incomplete excavation reports, the position of the archaeological strata, and the lack of a complete knowledge about the settlement pattern of the prehistoric societies in this vast area, prevents any attempt to study the distribution of population, or the population density in the region, and does not allow us to open any discussion about population growth in the region at the dawn of urbanization in the ancient Orient. At both Tepe Hissar and Tepe Ghabristan the early periods are missing.⁶ The early prehistoric occupation at both Tepe Cheshmeh Ali and Tepe Zagheh, which correspond to the early village farming period,⁷ were abandoned before Tepe Ghabristan and Tepe Hissar came

1. E. F. Schmidt, *Excavations at Tepe Hissar* (Philadelphia, 1937).
2. R. Ghirshman, *Fouilles de Sialk I* (Paris, 1938).
3. S. Malek Shahmirzadi, "Tepe Zagheh: A Sixth Millennium B.C. Village in the Qazvin Plain of the Central Iranian Plateau" (Ph. D. dissertation, The University of Pennsylvania).
4. Y. Majidzadeh, "The Early Prehistoric Cultures of the Central Plateau of Iran: An Archaeological History of Its Development during the Fifth and Fourth Millennia B.C." (Ph. D. dissertation, the University of Chicago, 1976).
5. S. Malek Shahmirzadi, "The Excavation at Sazgabad Mound, Qazvin Plain, Iran," *Marlik* 2 (1977): 67–79.
6. Y. Majidzadeh, "Correction of the Internal Chronology for the Sialk III Period on the Basis of the Pottery Sequence at Tepe Ghabristan," *Iran* 16 (1978): 93–103; Y. Majidzadeh, "Sialk III and the Pottery Sequence at Tepe Ghabristan: The Coherence of the Cultures of the Iranian Central Plateau," *Iran* 19 (1981): 141–46.
7. R. J. Braidwood, *Prehistoric Man* (Glenview, Illinois, 1967).

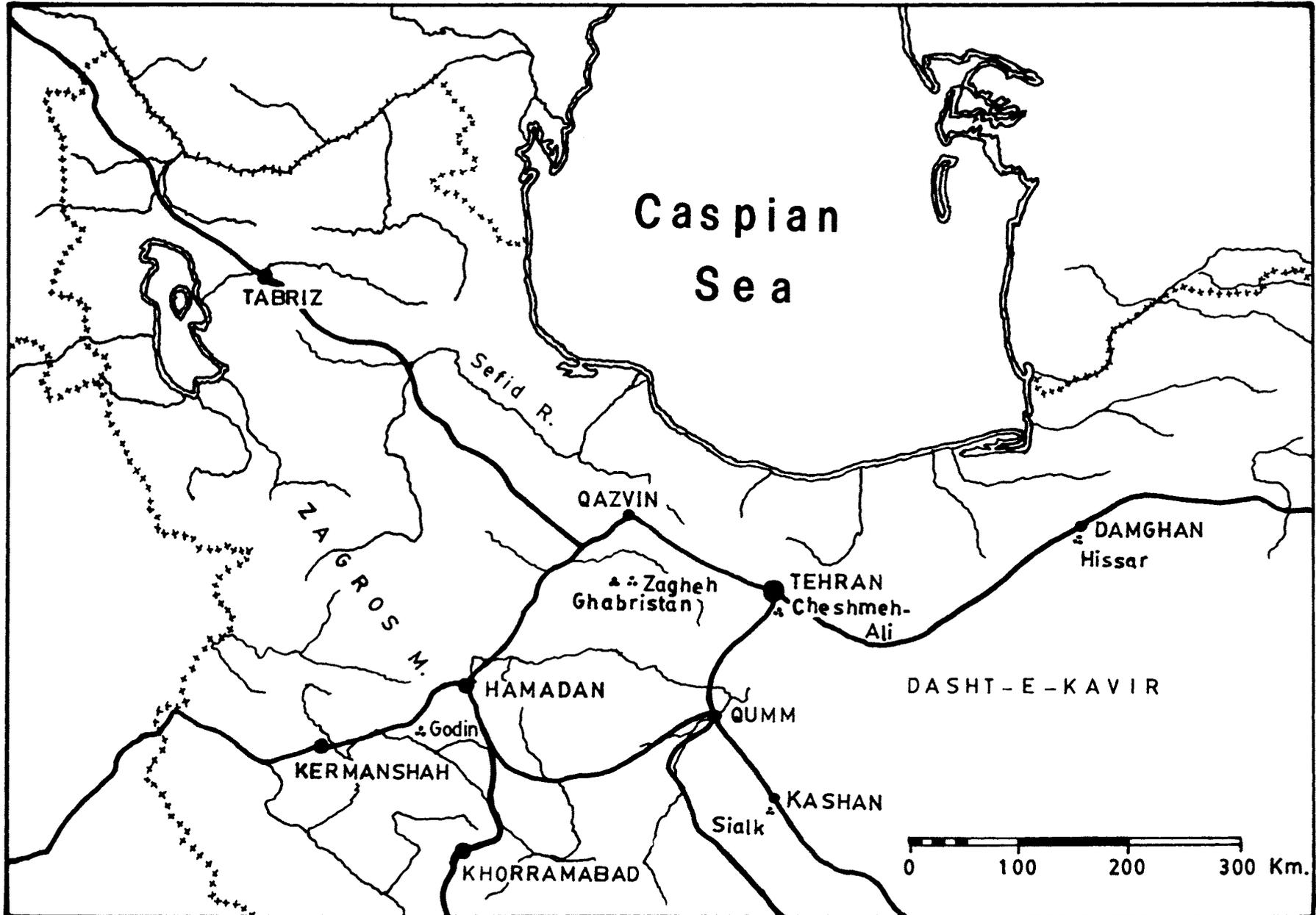


Fig. 22. Map of the Central Plateau of Iran.

into existence. We have no information about the size of the settlements at Tepe Cheshmeh Ali, but the early village of Zagheh measured 3.5 hectares.⁸

At Tepe Sialk one can also gather some information about the population growth for a sixth millennium B.C. early village in the central plateau. The northern mound at Sialk, which contains the earlier cultural layers of Periods I and II (contemporary with Zagheh), like Zagheh, covers an area of about 3.5 hectares,⁹ while the southern mound, containing the later Periods III and IV, measures about five hectares in size.¹⁰ The difference between these two figures points to some forty per cent of demographic increase from the end of Sialk II to the beginning of the Sialk III Period. If we imagine that the entire area of this five hectares was occupied during the Sialk III Period, the size of Sialk III4–5 (a phase contemporary with Period IB at Tepe Hissar and period II9–10 at Tepe Ghabristan) would be, thus, almost equal to that of Hissar IB, since it also measured some five hectares in size.¹¹ A careful study at Tepe Ghabristan shows that the growth of this site was considerably more noticeable than the other two sites. It grew from the 3.5 hectares of the late sixth millennium B.C. village of Zagheh to approximately ten hectares in period II9, about 4500 B.C., at Tepe Ghabristan.

Considering the small sizes of the private houses, about ten to twenty square meters and their density, with either no courtyards at all or those so tiny as not to be readily recognizable,¹² it seems that at this time at Tepe Ghabristan the population density was somewhat greater than the assumed 100–200 persons per hectare for southern Mesopotamia and southwestern Iran.¹³

There is considerable variation in the house plans from the standard one room type to larger complexes. In distinguishing individual dwellings the presence of a hearth and double walls were guide lines. Each one room house had a partition wall which divided the room into a larger part in front and a smaller space at the rear. The larger space, which was directly accessible from the outside, was obviously the living room, while the smaller space served as a storage compartment. The living room always had a deep bowl-like small hearth sunk in the ground against one of the long walls, and was sometimes flanked by two short and narrow projecting walls. In addition to one room houses, there are two room and three room houses. Houses with more than one room have always a second living room with a storage compartment in the rear, similar to those of one room houses, behind the first living-room (pl. 27a).

The largest complex, and in all probability, the largest in the entire settlement, at level 9, was unearthed at the highest point of the settlement. In contrast to the walls of the private houses which were usually not more than thirty-five centimeters thick, and where the number of rooms did not exceed three, the main walls of this monumental building were from seventy centimeters to one meter thick, and it consisted of ten relatively large rooms, one of which was possibly a small courtyard. The whole complex occupied a large area of about 170 square meters.

8. S. Malek Shahmirzadi, "Urbanization and Urban Planning During the 5th Millennium B.C.," in M. Y. Kiani, ed., *A General Study on Urbanization and Urban Planning in Iran* (Tehran, 1986), p. 11.

9. Ghirshman, *Fouilles de Sialk*, p. 9.

10. *Ibid.*, p. 34.

11. Schmidt, *Excavations at Tepe Hissar*, p. 23.

12. Majidzadeh, "The Early Prehistoric Cultures," pp. 155–56.

13. R. McC. Adams, *Land Behind Baghdad* (Chicago, 1965), pp. 123–24.

The exceptionally large size of the complex and the unusual number of rooms indicate that this monumental building was quite possibly an administrative building. The location of this complex in the settlement also indicates its importance. It occupied the highest point of the entire settlement, which from that point sloped gradually downwards in all directions. With regard to all of the criteria, it seems that Ghabristan II9 had a population of approximately three to four thousand.

The growth of these three centers in size and in terms of population density is not merely related to the concentration of the rural population, but also to the increase in the number of specialized functions. In the case of Tepe Ghabristan, the craft activity production centers during period II9 were centered on the northern half of the settlement. Three potters' shops and two copper smelting workshops were gathered on both sides of the main street running east-west. The three pottery production centers were located on the north side of the street, and the two coppersmiths' workshops were placed on the south side of the street. It should be noted that only twenty meters of the length of this street have so far been excavated. One of the three potters' shops was located at the east end of the exposed limit of the street, and another one on the west edge of the trench. Therefore, one must accept the possibility of finding more industrial working places along this street.

Towards the end of Period II9 a new pottery production unit was built on the west side of the main building, some twenty-five meters to the south of the workshop area.

INDUSTRIAL AREAS

THE COPPER SMELTING WORKSHOPS

Undoubtedly the most important industrial activity at Ghabristan II9 was the smelting of copper. Although at both Hissar IB¹⁴ and Sialk III4-5¹⁵ metal objects similar to those from Ghabristan II9 have been recovered, the complete absence of any evidence pertinent to any metallurgical activities suggests the possibility that copper was being smelted and cast only at Tepe Ghabristan, and that the manufactured products of these workshops were being distributed in the region.

Two coppersmiths' workshops, including the working installations and moveable implements mostly in situ, were excavated at Ghabristan II9. The first workshop, unearthened during the fourth season, was a single room, 4.85 × 2.75 m in size.¹⁶ In the back of the workshop a doorway gave access to a second room, which was in all probability the coppersmith's living room. The kiln was a small hearth built in the floor. It was 25 cm in diameter at the opening and 30 cm deep. It reached a greater diameter of 30 cm towards the bottom. A complete crucible was found in situ and next to that there was a fragmentary mold (pls. 27b and 28a, b). A short distance from the kiln, a large deep bowl contained more than twenty kilograms of copper ore, which was broken into hundreds of nut-sized pieces. At least ten molds were recovered. Four of them were fragmentary and their shapes could not be recognized. The other six were a double-headed pick with two

14. Schmidt, *Excavations at Tepe Hissar*, pl. 16.

15. Ghirshman, *Fouilles de Sialk*, pl. 84.

16. Y. Majidzadeh, "An Early Prehistoric Coppersmith Workshop at Tepe Ghabristan," *Archaeologische Mitteilungen aus Iran* 6 (1979): 82-92.

straight pointed ends (pl. 28c), a pick with one single pointed end, an adze, two adze/axes (pl. 28d), and an ingot mold (pl. 28e).¹⁷

The second workshop was located on the southwest end of the east-west street. It was square in shape, and measured 2.50 × 2.50 m in size. A small hearth, 25 cm in diameter, identical with that in the other workshop, was made in the floor close to the wall. Several fragments of various open molds including two fragmentary crucibles were spread around the hearth or the kiln (pl. 29a). Contrary to the well-preserved condition of the first workshop, the continuous penetration of rain water had done much damage to this workshop to the extent that the standing walls could hardly be distinguished from the fallen ones. Thus it is quite possible that, during the excavation, we have cut away some minor architectural features of this workshop. This workshop was probably connected with another room, possibly a living room for the coppersmith which is partly excavated, and measured 3.20 × 2.50 m in size.

Only one of the crucibles and one mold for an adze/axe could be reconstructed, while the others were too fragmentary to be distinguished. However, two exciting pieces of evidence from this workshop increased our knowledge about the early metallurgical techniques used by the Ghabristan coppersmiths. One of them was an intact *tuyere* (pl. 29b, left foreground in photograph). With this valuable evidence it was beyond any dispute that the Ghabristan metalsmiths were certainly using bellows. This *tuyere* was a baked clay pipe. It was cylindrical except at one end, which was shaped like a somewhat flattened funnel. This was done for two typical purposes: 1) the funnel end of the *tuyere* was pushed inside the end of the bellows, so that one could not pull it out, and 2) the wide hole of the pipe inside the bellows could provide an easier passage for the air.

The second evidence consisted of two small cylindrical solid baked clay implements, 5.3 cm long and 1.8 cm in diameter (pl. 29b, one example shown on extreme left middle portion of photograph). Before casting a shaft-hole tool, one of these small cylindrical cores was placed inside the hole made in the middle of the mold (pl. 28d), so that after casting, the object would have received a shaft hole.

POTTERS' WORKSHOPS

The remains of three similar rectangular bins and the objects found in association with them identify the potters' shops in level 9. One of these workshops was badly destroyed, and the second one is not completely excavated since a large portion of it was located beyond the limits of the trench. The third workshop was preserved in relatively good condition and can be taken as representative of all three installations. The kiln was a small rectangular structure, 2.20 m long and ca. 1.80 m wide. The walls of the kiln were built of mudbricks, and lined with mud-plaster. The bottom of the kiln was at ground level. North of the kiln was the workroom, and a second room, which lies behind the workroom, was probably the living room of the potter.¹⁸

The objects found in the workrooms and the kiln are of great importance as they confirm the identification of the installations as potter's workshops and illustrate the implements used.

A rather small stone object, a very shallow bowl with a high stand, was found in the middle of the workroom. A thin layer of ochre remained at the bottom of the bowl. Since the foot of the object is too

17. Ibid., p. 83, figs. 2, 3.

18. Y. Majidzadeh, "The Development of the Pottery Kiln in Iran from Prehistoric to Historical Period," *Paléorient* 3 (1977): 207–21.

rounded to stand independently, and the volume of the bowl is too small to make it practical for holding anything but a small quantity of, as we presume, pigment, it could be used as a painter's palette, inside the bowls of which the potter mixed his paint. It should be noted that the stand could serve excellently as the handle of the palette held by the pot painter in one hand. A similar "palette" was also recovered from one of the other two potters' workshops.

A fairly large stone mortar, also with traces of ochre inside, and a rather large vase with a flat base and short vertical walls and a solid column-like projection in the center, were found inside the rectangular kiln. The traces of ochre, especially on the top of the central column, suggest that this vessel was used for grinding ochre or a similar material needed for painting pottery.

The fourth, and the best preserved, potter's workshop was located on the southwest corner of Area A in square 14. The entire complex was built on top of the ruins of an earlier level 9 building or buildings, and for that reason it stood about 75 cm higher than the surrounding floor levels. The whole complex consisted of four different units: the kiln, the workroom, the storage compartments, and the living room (fig. 23 and pl. 29c).

THE KILN

Contrary to the earlier square kilns, which were built on ground level, this was a double-chambered, vertical down-draft kiln (pl. 30a). Like most of the known kilns, the superstructure was completely missing, while the firebox was well preserved. It was a relatively small kiln, 1.80 m in diameter and 0.80 m below ground level. It was a simple hole in the ground and was plastered with a rather thick layer of well-levigated plain mud. A stoke-hole on the south side sloped from the surface level down into the firebox. A column, to support the grate, stood in the center of the firebox (pl. 30b). It was 25 cm in diameter and 80 cm high. The bottom of the kiln was covered with a thin layer of black earth, and then a thick layer of ashes. On top of them lay a number of semi-baked bricks of more or less equal size, measuring ca. 10 × 10 × 15 cm (pl. 31a). These bricks originally formed the grate. Finally, on top of all, lay the fragments of the domed superstructure, or the firing chamber. It consisted of large and small lumps of mud, heavily mixed with straw (pl. 30a). These were slightly curved and their concave surfaces were almost baked. Accordingly, we can conclude that the superstructure, the firing chamber, was a temporary dome built on top of the grate after stoking the unbaked pots. The exact height of the walls of the firebox was 75 cm. At this point, they were stepped back about five centimeters to form a base for setting the grate. The central column which once supported the grate was at least 80 cm high. Therefore, the grate was slightly curved and was placed at ground level.

THE WORKROOM

About three meters to the south of the kiln, one entered the workroom (G14:1006). Part of the south side of the room is located beyond the limits of the excavated area (pl. 31b). It measured 2.50 m by probably 3.00 m in size. Two deep niches in the middle of the west wall were built side by side (pl. 32a). One of them G14:1015, 40 cm higher than the floor level of the workroom and with rounded corners, formed the working table. It was carefully plastered and well smoothed, both on the walls and the floor, with well-levigated plain mud. Probably, prior to throwing the vessel, the final levigation and preparation of clay was being done on this working table. The second niche, G14:1018, was also higher than the floor level, but only 20 cm. The

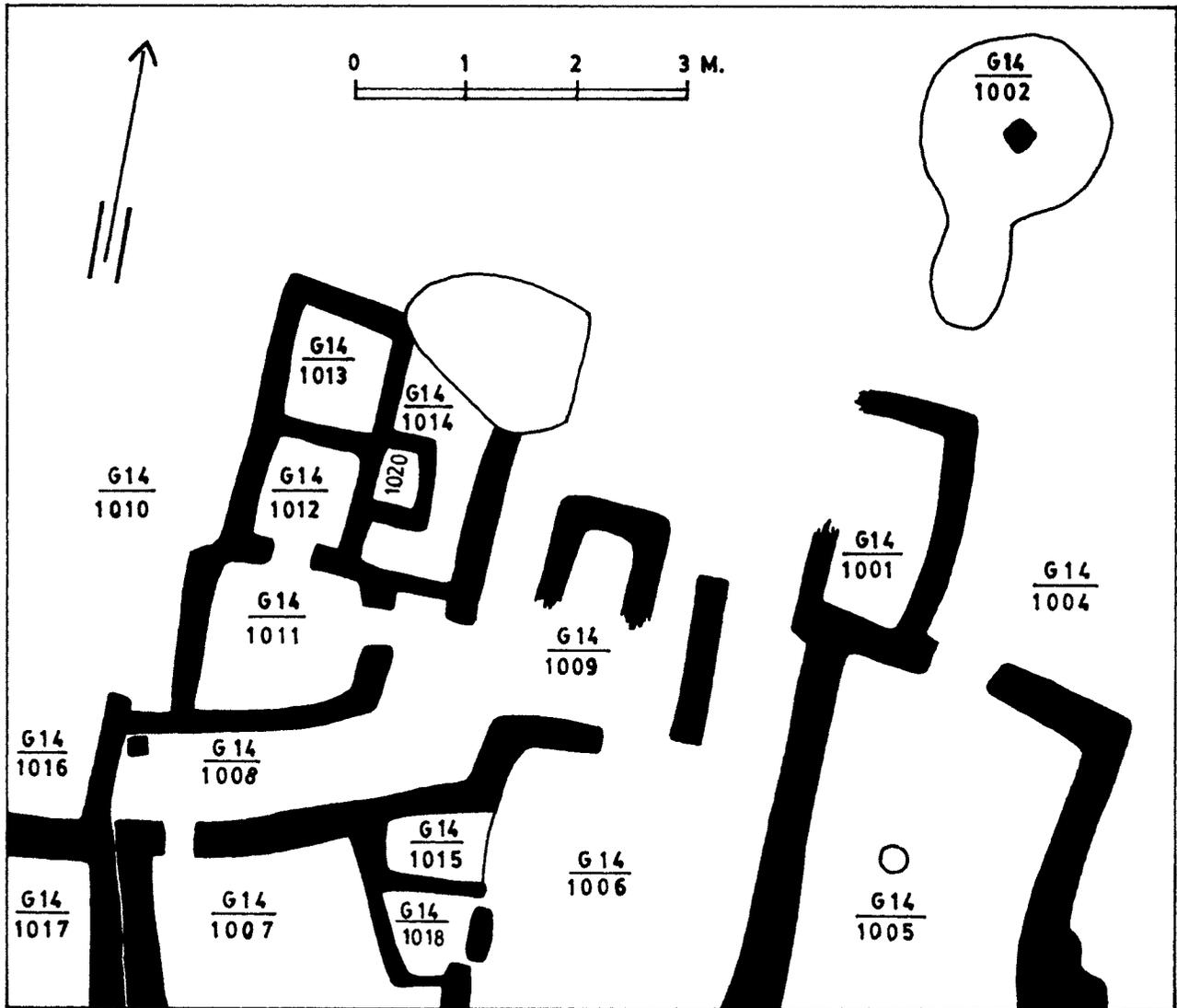


Fig. 23. Tepe Ghabristan, Gh. L. 9: Plan of the Potter's Workshop and the Kiln.

walls and the floor of this niche were also plastered, but not as well as the other one. The accumulation of several lumps of levigated clay inside this niche suggests that the potter kept certain amounts of clay inside this small space and used it as a temporary storage for his daily use. A work bench, 60 cm high, was built of mudbricks in front of the storage niche (G14:1018). It was rectangular on the top section and measured 50 × 25 cm. Although no traces of a potter's wheel were found inside the workroom, the use of such a wheel in this workroom is beyond any dispute for the following reasons: 1) at this time almost all the pottery in this settlement was wheel made, 2) the height of the bench was suitable for a person to sit on it and turn the wheel with his feet, and 3) one of the fragmentary potter's wheel tables (pl. 33b, c) was found within the area between the kiln and the workroom.

THE STORAGE COMPARTMENTS

This complex consisted of a set of small rooms located to the northwest of the workroom (pl. 32b). A doorway from the alley, G14:1008, gave access into a tiny room, G14:1011, measuring 1.50 × 1.20 m in size. A second doorway from this room opened into two successive, almost identical, small rooms, G14:1012 and G14:1013. Each measured 0.95 × 0.80 m in size. G14:1014, a long and narrow room, with a very small space (G14:1020) inside it completed the storage complex. A late pit, dug by clandestine diggers, had cut away the northwest corner of G14:1014. These five compartments were being used for storing clay. Two of these rooms, G14:1012 and G14:1013, were filled with thick layers of fine clay. Apparently, the main portion of clay was being stored in these compartments, while certain amounts of it, after primary levigation, were being removed into the workroom and being stored in G14:1018 for daily use.

LIVING AREAS

THE LIVING ROOM

G14:1007 was, in all probability, the living room of the potter himself. the doorway on the south end of the alley, G14:1008, opened into this room. No traces of a hearth or the dividing partition wall, two important features so typical of the living room of the period, were found in this room. This situation may have been due to the fact that part of the southern half of this room is located beyond the limits of the excavated area. The only feature in this room was a relatively small straw-tempered vat which was sunk in the northeast corner.

The last room of this complex, G14:1009, was located to the north of the workroom. Since a late pit had cut through the floor and destroyed parts of its walls, nothing can be said about the function of this room.

In general, one can say that in comparison with the well-planned and remarkably well-structured architecture of the Level 9 settlement, this complex appears very poor with its irregular ground plan and construction.

CONCLUSION

Isolated pieces of evidence pointing to the destruction of the level 9 settlement had already appeared during the second season, but were too fragmentary from which to draw any general conclusions until the fourth season, when everything came into focus. While digging three burned houses, masses of nut-sized unbaked round clay balls for slingshots were recovered from both the floor of the living rooms and within the filled-in debris. The following facts suggest that the settlement of Ghabristan level 9 was violently destroyed: 1) the large numbers of slingshot balls, including those from the square potter's kiln found during the second season, 2) the burning and destruction of some of the houses and workshops of the settlement, 3) the sudden evacuation of the buildings indicated by the abandonment of valuable property such as pottery, copper daggers and chisels, and objects of organic materials, 4) the presence of several kilograms of charred wheat in the storage compartment of one of the burned house units, and 5) the charred skeleton lying in the living room of another burned house and a second skeleton with a sharp stone in the back found lying in the middle of the street.

An interesting observation pertinent to our subject matter was that a short glance at the archaeological findings in level 9 and the study of the circumstances under which the settlement had been abandoned indicate that at the time of the incident all workshops were in full operation. Inside the earlier square kiln a fairly large number of unbaked clay slingshot balls had been piled up for baking.¹⁹ But as a result of the unexpected invasion, which was followed by the destruction of the settlement, the slingshot balls were never baked.

Equally, both coppersmelting workshops had been destroyed when the metalsmiths were in the process of smelting their copper ore. In the first workshop, the crucible was found, still sitting on top of the kiln, with a thick layer of smelted copper and slag inside it (pl. 27b); and in the second workshop the crucible was smashed into several pieces while lying on the top of the kiln (pl. 29a), with broken molds and other implements scattered around. Although we did not find the skin of the bellows, as I have already mentioned, rainwater had done much damage to this workshop and as a result one cannot rule out the possibility that during the excavation we removed the remains of the already perished skin of the bellows, including some other minor details, without noticing them.

Finally, in the fourth potter's workshop also, one can clearly observe some signs of a sudden abandonment of the workroom, while the work was in process. The potter had just removed his baked pottery production from the kiln without having enough time to clean the kiln for another process. This could be seen from the broken fragments of the temporary domed superstructure of the firing chamber²⁰ which were scattered both inside and around the kiln (pl. 31a). It was also noticeable that the potter was preparing himself for throwing new pots. This was suggested by the presence of several levigated lumps of clay inside the temporary storage compartment (G14:1018).

The above observations indicate that in the Ghabristan II level 9 period we are faced with professional full-time craftsmen. This industrial section of the settlement, upon which depended part of the economy of the society, was fully active, and the craftsmen were practicing their profession as a full-time specialty.

19. Ibid., pl. 71; Majidzadeh, *The Early Prehistoric Cultures*, p. 133.

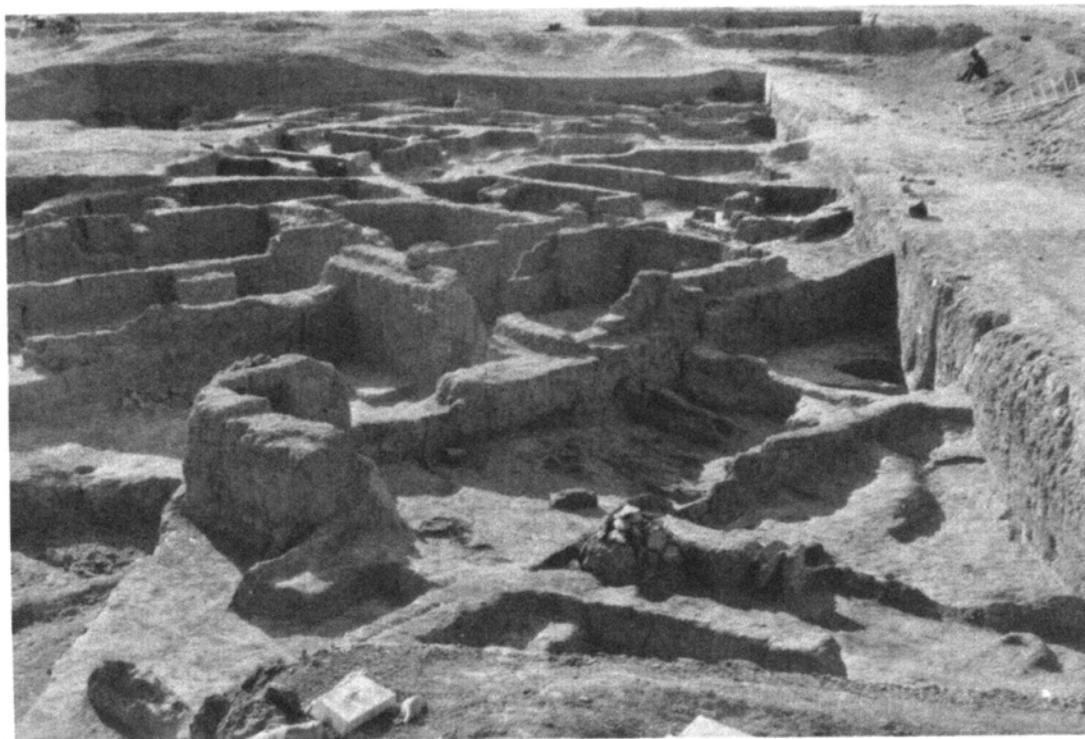
20. Majidzadeh, "The Development of the Pottery Kiln."

Furthermore, the organization of craft activities at Tepe Ghabristan during the level 9 period shows a tendency towards a definite separation of specialties from the domestic sphere. In all probability, this separation first took place in connection with pyrotechnological activities, mainly metal smelting and pottery making. Heavy smoke caused by the burning of large quantities of combustibles for long periods of time and the poisonous gasses liberated during the smelting of copper ore would severely pollute the air and cause serious health problems for the entire community and especially for the neighboring residents of the workshops. At Tepe Ghabristan, however, this separation was in its early stages. In later times, with the advent of urbanization, one can see the complete separation of craftsmen's quarters from the domestic sphere at, for example, Shahr-Sokhta,²¹ Shahdad,²² and Malyan.²³ At Tepe Ghabristan, pyrotechnological activities also have shown a tendency towards a level of territorial integration by being grouped in a certain portion of the settlement, but it obviously was by no means a complete separation, because they were yet grouped in the middle of the domestic area; and furthermore, however hazardous to their health, the craftsmen lived next to their workrooms located in the same building.

On the basis of other archaeological findings, it is also logical to take into consideration the existence of some other kinds of specialized craft activities at this early stage at Tepe Ghabristan. For example, the large number of stone door sockets found in level 9 indicate the use of wooden doors which were probably made by carpenters; the presence of reed-mat impressions, and several mortar stones, including three potters' palettes, which, in all probability, had to be the work of some professional stone cutter since they were very skillfully shaped, show the possibility of the existence of other specialized crafts such as lithic industry and reed-mat making workshops. One may include other types of technological activities practiced in this settlement. A large number of metal objects from level 9 consisted of various tools and implements, certainly used by some specialized craftsmen, such as axes, double-headed picks, single-headed picks, different types of adzes, chisels, awls, and needles,²⁴ which we may never learn anything about. For example, a rectangular low platform about 20 cm high was found, with a gentle sloping surface, which occupied a large portion of a square room adjacent to the main building. The platform was built of mudbricks and smoothed on the top with a thick layer of well-levigated clay. The room with this platform in the center certainly served as a workshop for some sort of craft unknown to us.

Certainly, a detailed archaeological survey in the future and further excavations in the entire area can contribute a great deal to our now fragmentary and incomplete knowledge about the early history of the societies which once lived in this vast region, and may allow us to learn more about their population and technological changes, their local, inter-regional, and intraregional exchange, and early state formation in this part of the Iranian Plateau.

21. M. Tosi, "Shahr-i Sokhta Project: Tepe Rud-i-Riyaban," *Iran* 10 (1972): 175.
22. S. Salvatori, "A Brief Survey at Shahdad, 1977." Paper presented at the Sixth Symposium on Archaeological Research in Iran, Tehran, 1977.
23. I. M. Nicholas, "Spatial/Functional Analysis of the Banesh Occupation at Malyan: The TUV Operation." *Problems of Large-Scale, Multi-Disciplinary Regional Archaeological Research: The Malyan Project*. A Symposium Presented at the Annual Meeting of the Society for American Archaeology, Philadelphia, 1980.
24. Majidzadeh, "An Early Prehistoric Coppersmith Workshop."



(a) Tepe Ghabristan Gh. L. 9: Architecture in Area A.

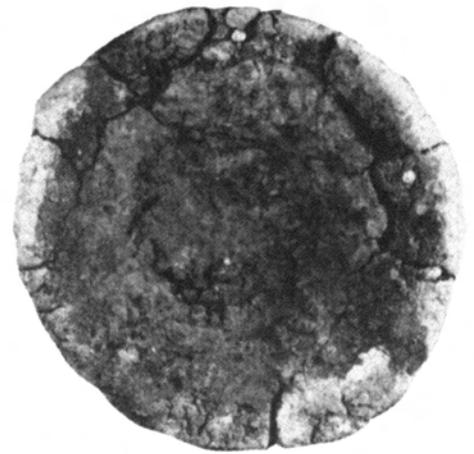


(b) Tepe Ghabristan Gh. L. 9: Copper Smelting Crucible on Top of the Kiln.

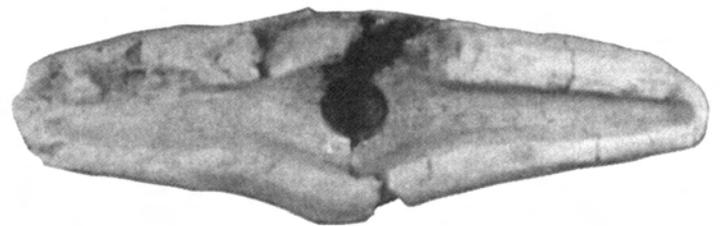
Plate 28



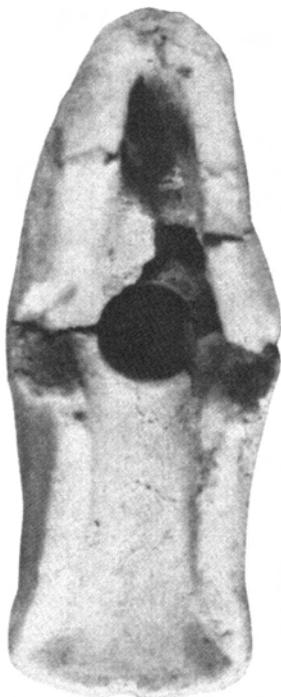
a



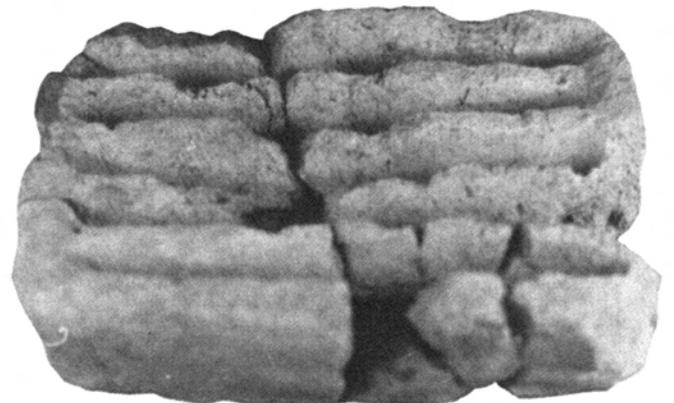
b



c



d



e

Tepe Ghabristan GH. L. 9: (a) Copper Smelting Crucible, (b) Inside View of Crucible Showing a Thick Layer of Smelted Copper Ore, (c) A Double-Headed Pick Mold, (d) An Adze/Axe Mold, and (e) An Ingot Mold.



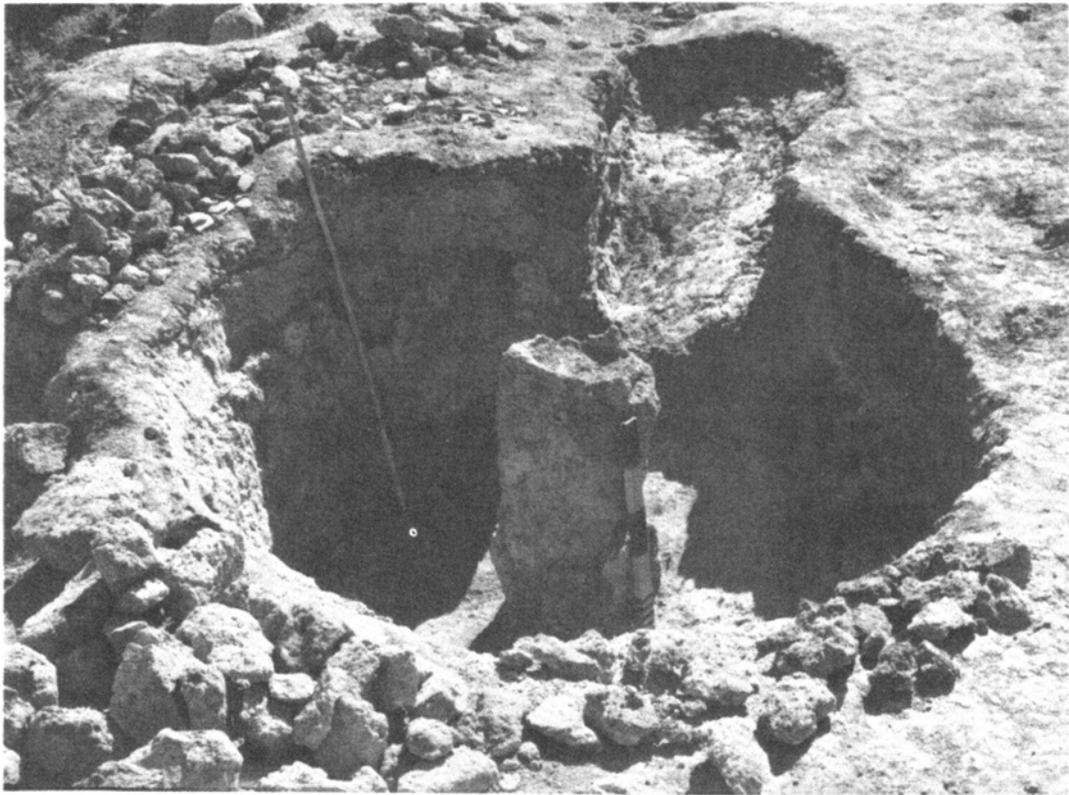
(a) Tepe Ghabristan Gh. L. 9: Copper Smelting Kiln with a Broken Crucible.



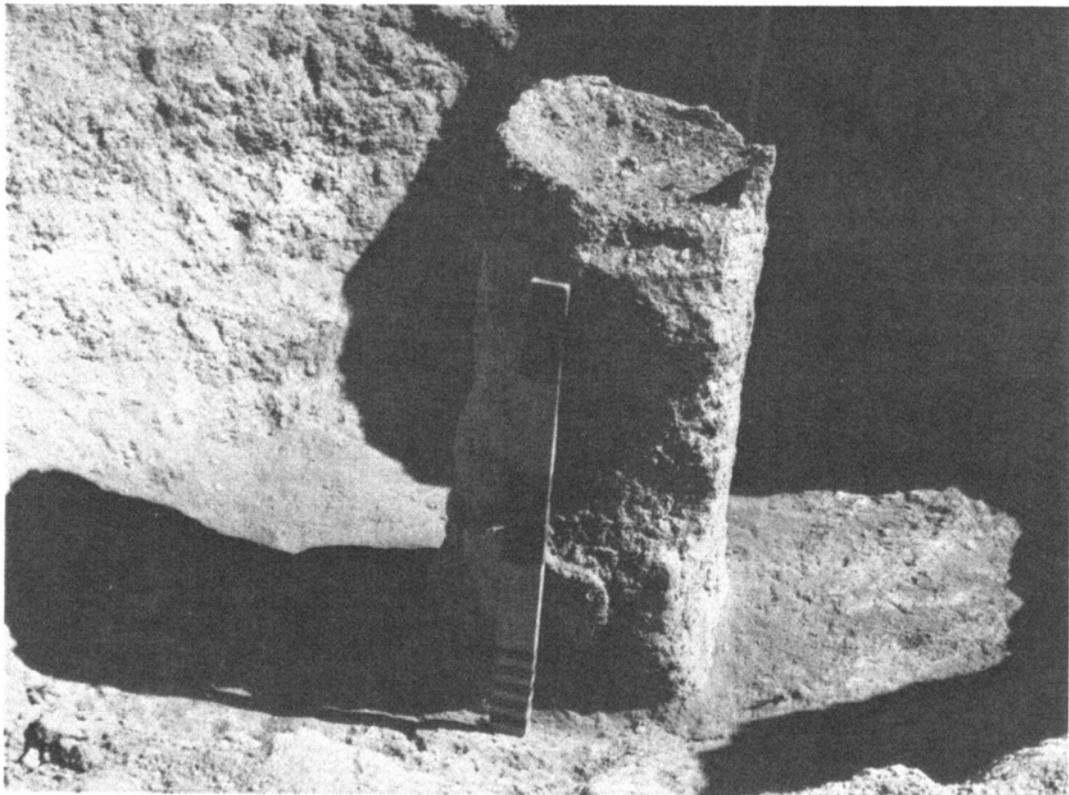
(b) Tepe Ghabristan Gh. L. 9: Coppersmith's Workshop with Broken Tools and Implements.



(c) Tepe Ghabristan Gh. L. 9: Pottery Workshop and the Kiln, a General View.



(a) Tepe Ghabristan Gh. L. 9: The Pottery Kiln.



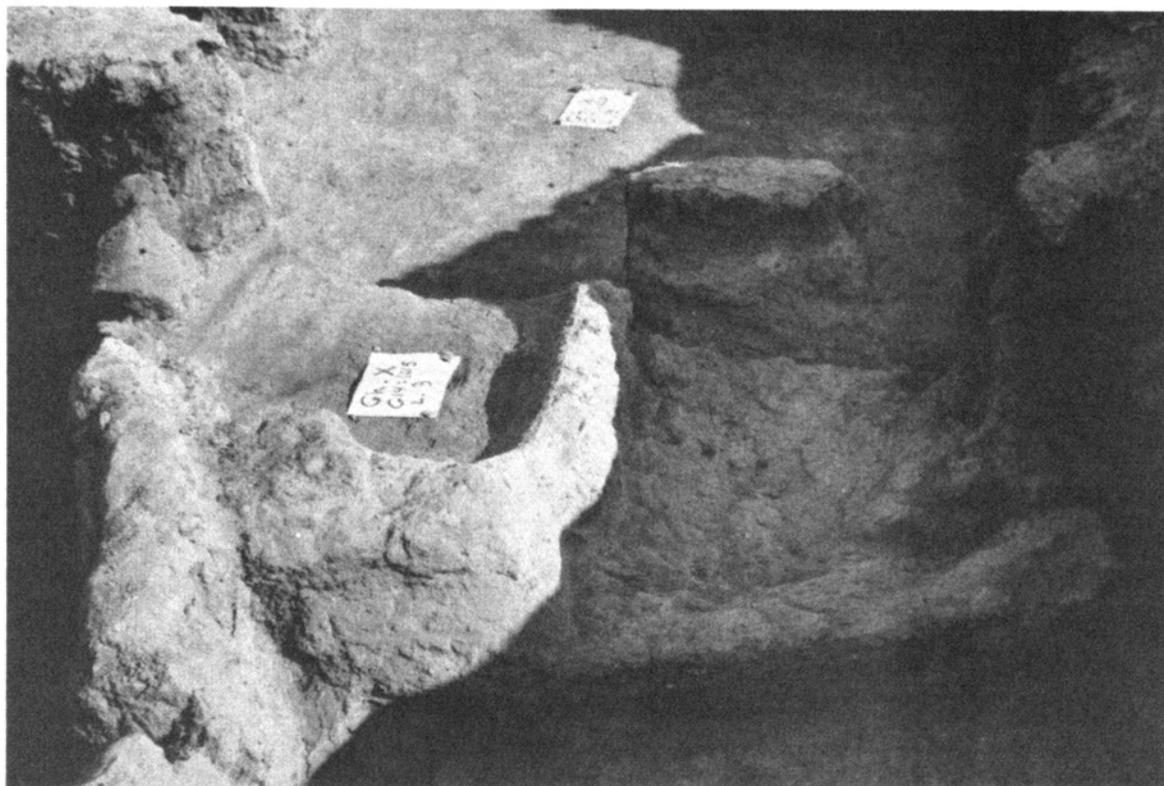
(b) Tepe Ghabristan Gh. L. 9: The Central Column of the Pottery Kiln.



(a) Tepe Ghabristan Gh. L. 9: Fragments of the Pottery Kiln.



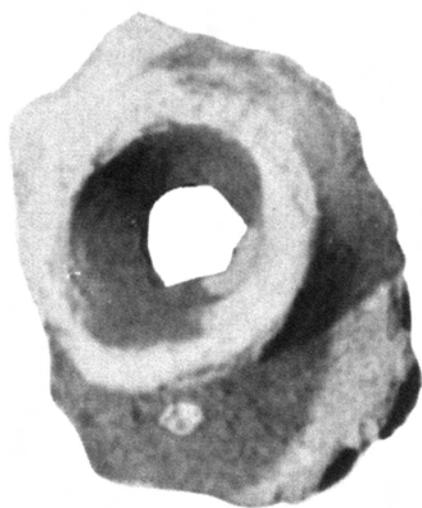
(b) Tepe Ghabristan Gh. L. 9: Detailed View of the Potter's Workshop.



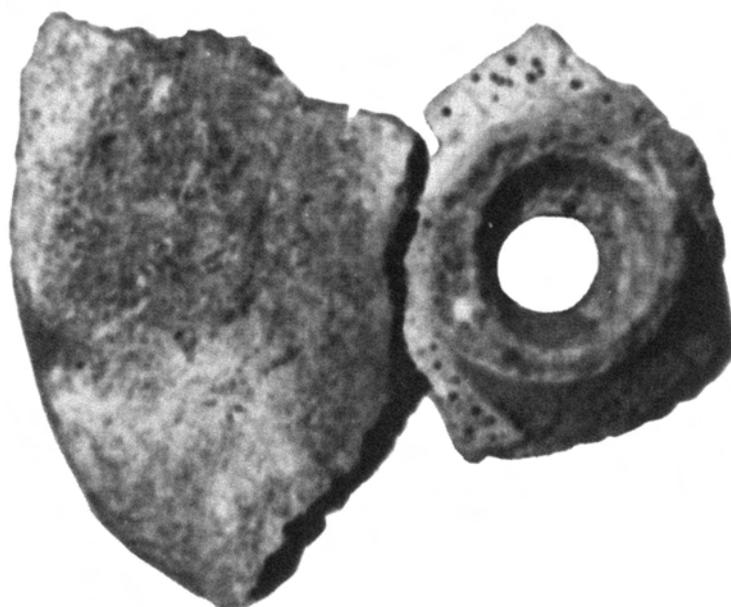
(a) Tepe Ghabristan Gh. L. 9: The Potter's Workshop: Work-Bench and Two Niches.



(b) Tepe Ghabristan Gh. L. 9: Storage Compartments in Foreground.



a



b



0 2 4 6 cm.

c

Tepe Ghabristan Gh. L. 9: (a, b) Fragments of Two Potter's-Wheel Tables and (c) Drawing of a Reconstructed Potter's-Wheel Table.

Chapter 13

A MONSTER MIRRORED

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My delight in drawing and studying seals began during my studies with Helene Kantor and I am very grateful to her for emphasizing the artistic as well as the archaeological delights of ancient artifacts. It is a privilege to dedicate this article to her.

The seal cutters of ancient Mesopotamia delighted in making patterns with symmetrical lions. Already in the Uruk period lions are placed symmetrically about a vertical axis.¹ Indeed, in this period seal cutters often carried the patterning of symmetrical lions further by entwining their tails.² As is well known, symmetrical lionesses were taken a step further and were cut with entwined necks.³ At least once Uruk period artists tried to graft two symmetrical winged lions on to one head, but to my knowledge the experiment was unique.⁴

The early Early Dynastic SIS seal patterns from Ur also made use of symmetrical patterns of lions and lionesses. Lions may attack their prey from both ends⁵ or they may stand back to back and cross tails.⁶ Lions occur on ED I and II seal impressions from Fara in similar patterns:⁷ symmetrical lions attack the same prey, or (fig. 24a) symmetrical lions stand back to back. In many cases the prey attacked by the lions is a bullman; this results in the “master of animals” motif (e.g., fig. 24b).

On some ED II seals the symmetry of the scene is extended to include the lions’ prey and bullmen attacking the lions (e.g., fig. 24c). The main innovation of the ED II period is, however, the convention of crossing the figures in the animal friezes. In a great many cases the only animals to be crossed are the symmetrical lions.⁸ The crossed animal patterns led, in their turn, to the symmetrical monsters of ED II. Here

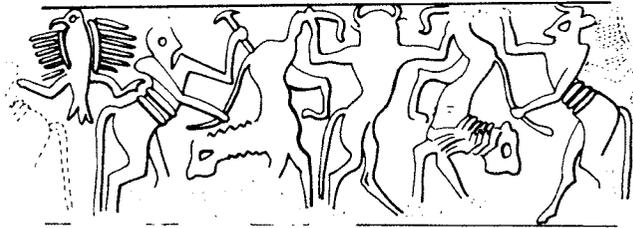
1. E.g., Pierre Amiet, *La Glyptique mésopotamienne archaïque*. Éditions du centre national de la recherche scientifique. (Paris, 1980), 244 and pl. 14 bis A, D and F.
2. Ibid., pl. 14 bis F.
3. E.g., *ibid.*, pl. 13 bis L, pl. 14 240, pl. 14 bis C, and pl. 26: 424.
4. Ibid., pl. 26: 425.
5. Léon Legrain, *Archaic Seal Impressions*, UE III (London and Philadelphia, 1936), nos. 231, 238.
6. Ibid., no. 217.
7. Ernest Heinrich and Walter Andrae. *Fara. Ergebnisse der Ausgrabungen der Deutschen Orient Gesellschaft in Fara und Abu Hatab, 1902–1903* (Berlin, 1931), 55c and 59f.
8. E.g., Amiet, *La Glyptique mésopotamienne archaïque*, nos. 903–905, 907.



a



b



c

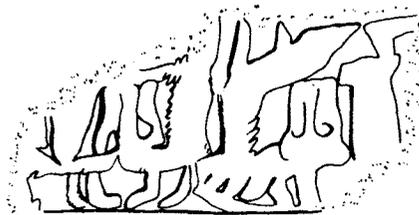


d

Fig. 24. Fara: Drawings of Cylinder Seal Impressions after Heinrich and Andrae 1931, pls. 59h (a), 47a (b), 50b (c), and 511 (d), and Martin 1988, nos. 248 (a), 250 (b), 235 (c), and 386 (d). (Scale ca. 1:1)

A MONSTER MİRRORED

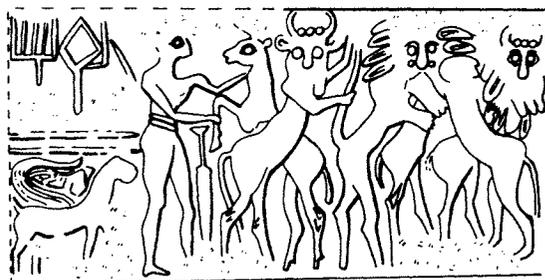
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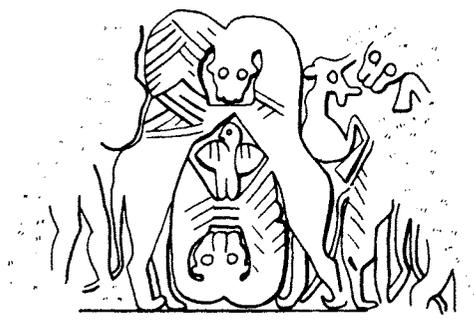
a



b



c



d

Fig. 25. Fara: Drawings of Cylinder Seal Impressions after Heinrich and Andrae 1931, pls. 62b (a), 50e (b), and 42h (c), and Martin 1988, nos. 388 (a), 392 (b), 448 (c), and 449 (d). (Scale ca. 1:1)

again symmetrical lions are the most popular participants in monster making. Indeed, many monsters are just summary versions of the “master of animals” motif (e.g., fig. 24d). On such ED II seals a monster has one head and torso, but the legs/tails turn into further animals (often lions).

Figure 25b (no. 392)⁹ shows a seal from Fara; it was found in trench XIII i near the large ED IIIa house/administrative center in XIII f–i.¹⁰ It was found on the same day that the register reports finds of tablets and a seal impression in XIII f, but it is not certain that the seal came from the same level as the large house. On this seal there are two “monsters.” One is the classical ED II monster with a human torso plus two lion hindquarters with tails which have lioness heads. The other is the more unusual monster type of two lions which share one head. The standard monster suggests an ED II date (which is where I have placed this seal in my Fara catalog). The similarity in composition between this seal and figure 25c, which is typically ED IIIa, suggest that possibly no. 392 is transitional between late ED II and ED IIIa. There is a somewhat similar ED II seal published by Delaporte.¹¹ It shows two lions, with one head between them, attacking a wild goat. Occasionally ED II “standard monsters” have legs that turn into the foreparts of lions. On a few seals these lions bend their necks toward a neighboring lion so that they can share the same (inverted) head.¹² A crude and fragmentary example of this motif was found at Fara (fig. 25a).

The lion monster with two bodies and one head therefore appears in the Uruk period and recurs in ED II, but is rare in both periods. Just as it predates the ED II monster fashion, however, it continues to appear after the ED II period. A seal impression of ED IIIa date (fig. 25c) from Fara also shows lions joined at the head. This was published by Heinrich in 1931,¹³ but in his publication the heads of the figures on the right half of the seal were omitted. A further five impressions of this same seal are in the Istanbul Museum. These indicate that the two opposing lions at the right end of the seal share one head. We do not have the exact provenance for these seal impressions, but it is quite likely that they were found in the large house (or administrative center) in trench XIII f–h mentioned above. Although the Deutschen Orient Gesellschaft find register states that many seal impressions were found here, only a few can now be identified through their find numbers. No. 448 (fig. 25c) has much in common with the most famous seal owned by Anzu-Sud from this locus.¹⁴ Both have an end panel with an inscription above separated by two horizontal lines from animals below. Both have a “hero” starting the animal combat frieze. Both show full-faced bullmen; both show bullmen with human arms as well as armless bullmen. On both seals the lions’ manes are shown tufted. It may well be that one workshop produced both seals although some details differ between the two (e.g., the three curls between the bullmen’s horns on no. 448).

On figure 25c the merged lions attempt to attack one headless animal squeezed between them. In addition, the lion on the right is crossed with a bullman. Thus there are hindquarters of two animals both facing the same direction in the space between the lions’ bodies. This makes a pattern that is rather confused; the symmetry of the pattern is broken. (On the earlier seal on figure 25b the space between the lion monster’s

9. The numbers given to these seal impressions are taken from Harriet P. Martin, *Fara: A Reconstruction of the Ancient Mesopotamian City of Shuruppak* (Northfield, Birmingham, UK, 1988).

10. Source of many of the “Fara tablets” and Anzu-Sud style seals; Heinrich and Andrae, *Fara*, fig. 12.

11. Amiet, *La Glyptique mésopotamienne archaïque*, no. 890.

12. E.g., Amiet, *La Glyptique mésopotamienne archaïque*, nos. 917 and 918.

13. Heinrich and Andrae, *Fara*, pl. 42h.

14. Heinrich and Andrae, *Fara*, pl. 42c.

bodies is also filled with hindquarters of two animals, but on that seal they repeat the symmetry of the monster.) In general there is much less interest in symmetrical patterns on the ED IIIa seals from Fara than there is on the ED II seals.

The maker of no. 448 faced another problem when he came to join the lion heads. He carved the lion torsos and manes as if for a normal lion. He then squeezed the lions' joint head between its two necks. Because it looks strange and out of place, the viewer's first impulse may be to wonder if the seal rolling is faulty; one could be forgiven for peering closely to check whether the seal had slipped here, overlaying one impression with another.

When studying the seal impressions from Fara in the Vorderasiatische Museum in Berlin, yet another seal impression with a lion monster came to light. This seal impression (my no. 449) was not published in Heinrich's book and I am indebted to Frau Dr. Klengel for permission to include this seal with my study of the Fara material.

In my study of the Fara material, I cataloged this seal with the ED IIIa material, largely because of its use of full-face lion heads. Looking at all of these lion monsters together now, it seems more probable that this seal impression is ED II rather than ED IIIa. There are a number of differences between nos. 448 and 449. Although both show lion monsters sharing one head, the seal designers approached the problem of merging the lion bodies quite differently. On no. 449 the lions have broad necks which arch up and then curve down to a single head. The design is clear and bold, not muddled like that of no. 448. Lions with similar arching necks and hatched manes are found on a seal without provenance now in the British Museum.¹⁵ The lion's manes on this seal and on our figure 25d are similar to those on the Mesilim mace head.¹⁶

In its composition the seal impression shown on figure 25d is unique. The lion monster of no. 449 is doubly symmetrical: it is symmetrical around a horizontal as well as a vertical axis. This was achieved by repeating the pattern of two lion necks merging into one head and inverting it between the legs of the first lions. The idea of inverting a merged lion head may not have been new (see fig. 25a), but its use here is artistically brilliant.

A small eagle with spread wings fills the diamond shaped space between the two lion heads. Even this little eagle is simplified so that, although it retains its identity as an eagle, it appears to be symmetrical about a horizontal as well a vertical axis. The wings are ovate with slightly pointed ends. The eagle's talons are omitted; its head and tail are much the same size and, indeed, much the same size as the wings. The use of an eagle to fill this space follows in a long tradition of associating lions and eagles in symmetrical/ heraldic patterns¹⁷ (With the Anzu bird, of course, the eagle actually takes on the lion's head).

Although this design is pleasing to the eye, it appears that the seal cutter had some difficulty in achieving the perfect balance between the lion's necks and heads. The upper lion head is relatively small for its bodies and necks; the lower lion head is bigger, but the necks are now atrophied. Clearly, making this lion

15. D. J. Wiseman, *Cylinder Seals of Western Asia*. (London, n.d.), no. 19; Amiet, *La Gylptique mésopotamienne archaïque*, 893.

16. Eva Strommenger, *5000 Years of the Art of Mesopotamia* (New York, 1964), pl. 43.

17. See Amiet, *La Gylptique mésopotamienne archaïque*, no. 778 etc.

monster with head, necks, and bodies all in proportion was a problem. In fact the inverted lion heads are the “tail ends” of monsters made by grafting these inverted lions on to the forequarters of a bull and an unidentified animal. The transition between these animals and the lions is hidden behind the upright lion monster. Unfortunately the remaining seal pattern to both sides of these animals is unclear.

Chapter 14

THE CHRONOLOGY AND CERAMIC ASSEMBLAGES OF ALALAKH*

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PART I: EVIDENCE FOR THE ABSOLUTE CHRONOLOGY OF ALALAKH

INTRODUCTION

Alalakh is one of those rare sites where historical, textual, archaeological, and art historical data converge to provide opportunities for formulating integrated hypotheses about absolute chronology that have consequences for northern Syria as well as Mesopotamia and Anatolia. In addition to the tablets found in levels VII and IV which provide genealogies of the local dynasts of Yamhad and Alalakh itself, the information contained on the tablets also provides historical evidence relating to monarchs of Hatti, Babylonia, Mari, Mitanni, and Egypt. Archaeologically, Bichrome ware, Habur ware, Nuzi ware, Gray ware, Amuq-Cilician Painted ware, and the Cypriote, Mycenaean, and Minoan wares, almost all the distinctive pottery wares in the second millennium B.C. Levant, glyptics and other small objects, have been marshaled to support premises about the dating of strata at Alalakh.

These discussions cover the entire second millennium B.C. and in terms of chronology they affect our understanding of its beginning (with Amuq-Cilician pottery at issue) and its end (the significance of Mycenaean IIIB pottery found at Alalakh). But it is the question of the dates of levels VII and IV that has generated the most intense investigations since they are related to the problem of high, middle, and low chronologies of Mesopotamia. New information is emerging from different quarters that threaten (or perhaps one should say promise) to make the Alalakh material obsolete, but at the moment Alalakh still plays an important role in our understanding of chronology.

Alalakh has long been a key element in the widely used middle chronology which in a sense was canonized by its adoption in the prestigious *Cambridge Ancient History*.¹ In recent years re-examination of the

* Helene Kantor's analysis of Alalakh chronology (H. J. Kantor, "Syro-Palestinian Ivories," *JNES* 15 [1956]: 158–60) is still basic to any new consideration. In her honor I am pleased to submit a few more words about Alalakh.

1. I. E. S. Edwards, C. J. Gadd, and N. G. L. Hammond, eds., *CAH³* vol. I:1 (Cambridge, 1970), pp. xix–xx.

archaeological data from Alalakh has seriously challenged that prevailing view in favor, in some quarters, of the low chronology. How valid is this reinterpretation and does the archaeological data independently favor one chronological scheme over another? To put it another way, what is the evidence for the dates of levels VII through IV and how precisely can the archaeological material in them be dated, either as evidence used to date the levels or to be firmly dated by their presence in those presumably chronologically fixed levels?

HISTORY OF MODERN SCHOLARSHIP (Fig. 26)

Destruction of Level VII

In reviewing the extensive literature for the dates of the end of level VII and the beginning of level IV there have been several turning points in the discussions on the fixing of these dates. Originally in 1940 Smith, followed by Woolley in the 1950s, fixed the date for the destruction of level VII to ca. 1750 B.C., Smith based his assessment on ceramic and glyptic evidence and on a synchronism of Yarim-Lim of level VII with Hammurapi of Babylon.² Habur ware, Smith believed, could be dated 1800-1600 B.C., assuming its beginning was fixed at Chagar Bazar, and its end by its stratigraphic relationship with Nuzi ware at Tell Billa, a ware whose date was fixed at Nuzi where it occurs in a context dated to Sauštatar. The glyptics of level VII showed Egyptian influences dating to the 12th Dynasty. Smith attributed the destruction of level VII to general unrest related to the Kassite invasion of Babylonia, and he suggested level VI was destroyed by Muršili I.³

After the publication of the Alalakh tablets in 1953 it was quickly demonstrated by Landsberger that five generations of rulers were mentioned in the tablets, and that Hammurapi I of Yamhad, a contemporary of Hammurapi of Babylon, lived considerably earlier than the destruction of level VII.⁴ In 1956 Kantor and Albright lowered the date for the destruction of level VII by 100 to 150 years.⁵ In addition to adopting this new understanding of the historical synchronisms they both correlated the pottery of level VII with the Middle Bronze IIB period in Palestine and specifically with Megiddo strata XII-X, and discussed the seals. For many years these were the most detailed ceramic analyses of level VII apart from Woolley's final report; of the two, Kantor provided the fuller comparisons and also discussed the seals mentioned by Smith:

To sum up, the glyptic from Alalakh VII can now be added to the other evidence which supports the view that Canaanite art, as a clearly recognizable and coherent school of craftsmanship, came into being in the final stage of the Middle Bronze period, the phase contemporary with the late First Dynasty of Babylon and the Second Intermediate Period of Egypt.⁶

The basis for dating level VII by Albright and Kantor remained the ceramics and glyptics, though Kantor attributed its destruction to Muršili I, following Landsberger. Albright saw Alalakh level VII as

2. S. Smith, *Alalakh and Chronology* (London, 1940); C. L. Woolley, *A Forgotten Kingdom* (Baltimore, 1953); idem *Alalakh* (London, 1955).
3. Smith, *Alalakh and Chronology*, pp. 3-4, 13-16, 35-36.
4. D. J. Wiseman, *The Alalakh Tablets* (London, 1953); B. Landsberger, "Assyrische Königsliste und 'Dunkles Zeitalter,'" *JCS* 8 (1954): 31-73, 106-133.
5. Kantor, "Syro-Palestinian Ivories"; W. F. Albright, "Stratigraphic Confirmation of the Low Mesopotamian Chronology," *BASOR* 144 (1956): 26-30.
6. *Ibid.*, p. 160; for a recent study of level VII see A. Kempinski, *Syrien und Palästina (Kanaan) in der letzten Phase der Mittelbronze IIB-Zeit (1650-1570 v. Chr.)* AAT 4 (Wiesbaden, 1983).

YEARS BC	Smith 1940	Woolley 1953-55	Lands- berger 1954	Kantor 1956	Albright 1957a, b	Goetze 1957	Rowton 1958	Rowton 1962	Collon 1975	Williams 1975	Na'aman 1976 Kempinski 1983	Gates 1981, 1987	Dever 1985
1900									XVII				
75				IX									
50		VIII											
25				VIII						XVI			VIII
1800													
75	VII	VII	?		?								
50			VII							XV	VIII		
25									VIII				
1700				VIIA						XIII			
75			VI			?	?	VIIA	VIIA	XII		?	
50	VI	VI			VIA			VIIA	VIIA	XI			
25										IX			
1600								VI		VIII			
75			V		?	VI		V	VI	VII	VI		
50				VI								Vla	VII
25	V	V		V	VI	V					V	Vlb	
1500					V			IV	V	VI			
75			IV							V		Va	
50	IV	IV		IV	IV	IV			IV		IV		Vb
25			III		IV								
1400			II										VI
75											?		
50		III		?	?								
25	III	II							III				
1300									II				
75													
50	II												
25		I							I				
1200	I												

Fig. 26. Alalakh: Proposed Dates for Levels.

“Stratigraphic Confirmation of the Low Mesopotamian Chronology” as the title of his 1956 article stated, but he was vague about the time between the end of level VII and the beginning of VI. Goetze, who dated the destruction of level VII to 1650 B.C., or within twenty years of Albright, thought “that the two dates proposed, reduced to their real meaning, actually coincide,” and found that the Alalakh data fit well with the middle chronology.⁷ In his discussion of the dating of level VII, the destruction of which he attributed to Muršili I, Goetze appealed to an argument that links its date with the duration between it and level IV; this argument was later taken up by Rowton (see below).

In 1957 the discussion about the destruction of level VII took a new turn with the discovery of a tablet at Boğazköy which states that Hattusili destroyed Alalakh. The correlation of a general Zukraši in the level VII tablets with the same who was mentioned in a Hittite document independently dated to the reign of Hattušili I has led most scholars to conclude it was level VII that Hattušili I destroyed.⁸ However this synchronism did not provide a firm absolute date for the stratum’s destruction or Hattušili I’s campaign.

The end of this first phase of scholarship was marked by two chronological studies of Rowton that linked the date for the destruction of Alalakh level VII with Mesopotamian middle chronology.⁹ In the first instance he simply adopted Albright’s date of 1640 B.C. and Kantor’s 1600 B.C., based on their pottery studies. He noted, however, that since the pottery cannot provide a more precise date than ca. 1640-1600 B.C. for the destruction of level VII, it is “compatible with the [Mesopotamian] low chronology, as well as with the higher chronologies”; thus it was not Alalakh VII that persuaded him to favor the middle chronology.¹⁰

A few years later he modified his views; Alalakh VII could not have been destroyed later than 1650 B.C. because it would unduly compress the duration of the following strata. Using the low chronology, level VII would have been destroyed around 1575 B.C., but that is too low because “. . . we have seen that the end of level IV is to be dated not later than 1473 B.C. A total of only one hundred years for the three levels, VI, V, and IV, is very improbable.”¹¹ This is one of three arguments he presented against the low chronology, but figure 26 illustrates that Rowton’s seemingly fixed date for the destruction of level IV is much higher than the consensus of opinion; we will review this dating of level IV below.

On the other hand Rowton argued that the Mesopotamian ultra-high chronology of 1750 B.C. for the destruction of Babylon by Muršili I is ruled out because that would mean Hattušili I, who destroyed Alalakh VII, did it fifty years earlier, or 1800 B.C. But that would mean the ceramics and glyptics of VII would then be contemporary with Egypt’s 12th Dynasty, which Kantor and Albright showed to be impossible.¹² He

7. A. Goetze, “Alalakh and Hittite Chronology,” *BASOR* 146 (1957): p. 25; idem, “On the Chronology of the Second Millennium B.C.,” *JCS* 11 (1957): pp. 63–73; also see W. F. Albright, “Further Observations on the Chronology of Alalakh,” *BASOR* 146 (1957): pp. 26–34.

8. J. D. Muhly, “Near Eastern Chronology and the Date of the Late Cypriote I period,” in N. Robertson, ed., *The Archaeology of Cyprus: Recent Developments* (Park Ridge, New Jersey, 1975), pp. 76–89; N. Na’aman, “Syria at the Transition from the Old Babylonian Period to the Middle Babylonian Period,” *UF* 6 (1974): p. 273; Landsberger, “Assyrische Königsliste,” p. 52.

9. M. B. Rowton, “The Date of Hammurabi,” *JNES* 17 (1958): pp. 97–111; Idem, “Chronology: Ancient Western Asia” in Edwards, Gadd and Hammond, eds., *CAH*³ vol. I:1, pp. 193–239, [published in fascicle form in 1962].

10. Rowton, “The Date of Hammurabi,” p. 100.

11. Rowton, “Chronology: Ancient Western Asia,” p. 232.

12. *Ibid.*, p. 61.

marked the interval between Hattušili I and Muršili I at fifty years, but this is an estimate which he said was supported in part by the dynastic genealogy of the rulers of Yamhad and Alalakh.¹³

Over a decade passed before the stratification of Alalakh was again discussed in detail, but in the space of two years, 1975-76, studies about Alalakh appeared on glyptics, genealogy, the pottery and artifacts of levels VI-V, and, in part of a much larger work, pottery from the earliest levels XVII-VIII.¹⁴

Both Collon and Na'aman presented new evidence and interpretations for genealogies found in the tablets and sealings of level VII. In particular Na'aman proposed the existence of two new figures in the ruling line at Alalakh, using the principle of papponomy. This thesis, he believed, best fits the internal evidence for the tablets and sealings, but also is necessary to span the long time duration of level VII that is known to have existed through correlations with the 1st dynasty of Babylon.

Collon, from her study of the sealings, concluded most of them date to the latter part of level VII, or about 1700-1650 B.C., but Na'aman strongly argued that they cover the entire span of level VII which he dated to 1720-1620 B.C.¹⁵ In a later work Collon lowered her estimate for the destruction of VII to the "late 17th century."¹⁶ Most significantly her decision not to use glyptics as a primary dating tool has effectively removed them from the chronological debate over Alalakh.

They both accepted the middle chronology, but whereas Collon referred to Rowton to confirm that view, Na'aman recited arguments against the low chronology. One argument stated that the names found in tablets from levels VII and IV differ greatly, and "thus it is difficult to assume that such a sharp change of personal names at Alalakh took place over a span of only a few decades, and it seems more likely to us that a much longer period was required."¹⁷ His other two arguments cited archaeological data. First, the pottery of level VII is Middle Bronze Age II and not later than 1600 B.C., according to the expert opinions of Albright, Kantor, and Kempinski. Secondly, the low chronology would place the destruction of level VII only fifty years before the beginning of level IV and Idrimi, i.e. about 1500 B.C., but that is too short a time for levels VI and V according to the archaeological evidence.¹⁸ In accepting the middle chronology, Na'aman assumed Muršili I destroyed Alalakh VII, but he reduced Rowton's estimate of fifty years between events and argued for a date of 1620 B.C. for the destruction of level VII.

In marked contrast is the position of Gates who dated the destruction of level VII much lower, to 1575 B.C. on the basis of archaeological data.¹⁹ She attacked the problem indirectly by concentrating on the dates for levels VI and V rather than level VII (see below). Levels VI and V span a period from 1575 to 1460

13. Ibid., pp. 43-45.

14. D. Collon, *The Seal Impressions from Tell Atchana/Alalakh* AOAT 27 (Neukirchen-Vluyn, 1975); N. Na'aman, "A New Look at the Chronology of Alalakh Level VII," *AnSt* 26 (1976): pp. 129-43; M.-H. Gates, *Alalakh-Tell Atchana, Levels VI and V: A Re-examination of a Mid-Second Millennium B.C. Syrian City*. Unpublished Ph. D. dissertation, Yale University, (Ann Arbor, 1976); B. Williams, *Archaeological and Historical Problems of the Second Intermediate Period*. Unpublished Ph. D. dissertation, University of Chicago (Chicago, 1975).

15. D. Collon, "A New Look at the Chronology of Alalakh Level VII: A Rejoinder," *AnSt* 27 (1977): pp. 127-31; N. Na'aman, "The Chronology of Alalakh Level VII Once Again," *AnSt* 29 (1979): pp. 103-113.

16. D. Collon, *The Alalakh Cylinder Seals*, BAR International Series 132 (Oxford, 1982), p. 3.

17. Na'aman, "A New Look," p. 142.

18. Na'aman, "Syria at the Transition," pp. 265-74; Idem, "A New Look," p. 141.

19. See now M.-H. Gates, "Alalakh Levels VI and V: A Chronological Reassessment," *Syro-Mesopotamian Studies* 4/2 (1981); idem, "Alalakh and Chronology Again," in P. Åström, ed., *High, Middle or Low?* (Gothenburg, 1987), pp. 60-86.

B.C., determined primarily on the basis of Cypriote and Palestinian synchronisms. These levels contain numerous Cypriote imports whose absolute dates have been established by Egyptian chronology determined in Palestinian contexts. Especially important to levels VI-V is Bichrome ware that dates from 1575/60 to 1475/60 B.C.²⁰ Furthermore, examination of levels VII and VI shows that there was no gap between them, so level VII was destroyed about 1575 B.C. Gates points out that we can no longer discuss Mesopotamian dates in terms of high, middle, and low chronologies since re-examination of the Venus tables of Ammišaduqa of Babylon show them to be unreliable for those purposes.²¹

Another recent study of the archaeological data from Alalakh is that of Kempinski from whom Na'aman found archaeological support for the middle chronology.²² Although published in 1983, it is a modified version of his earlier doctoral dissertation and does not take into consideration the works of Collon and Gates or the new study of the Venus tablets.

Kempinski is concerned with a rather narrow time span in Palestine: 1650-1570 B.C., the chronology of which he fixes with reference to five points: 1) Alalakh VII was destroyed by Hattušili I around 1620/15 (middle) or 1555/50 (low), 2) Bichrome and Black-Imprinted wares are found in Alalakh VI-V, 3) synchronism of Alalakh with Megiddo and Tell el-Ajjul may be established: Alalakh VI, Megiddo X and Ajjul II are coeval, as are Alalakh V, Megiddo IX and Ajjul I, 4) the time span of Ajjul II may be estimated, and 5) the time span of Megiddo IX helps determine the date of stratum X there.²³

In terms of absolute dating, the middle chronology must be used because the low chronology, which places the destruction of Alalakh VII to ca. 1550 B.C., unduly compresses levels VI-V into a fifty year period delimited by the Idrimi inscription of level IV.²⁴ Furthermore it would place the destruction of VII one year after the fall of Dynasty 15 in Egypt, and the emergence of Bichrome ware, the floruit of Black-Imprinted ware, and the "Hyksos" scarabs would fall in that late, short fifty year period 1550-1500 B.C., which he says is impossible. The discussion of the archaeological assemblages of Alalakh by Kempinski is detailed and needs careful consideration. Innovative aspects of it are his equation of Black-Imprinted ware with Tell el-Yahudiyeh ware and his analysis of "Hyksos" design motifs on scarabs and pottery of levels VI-V.²⁵

But it is the broad design of Kempinski's argument that is most surprising. In his effort to date the Palestinian Middle Bronze Age IIB period he turned to what he considered to be the well-dated strata at Alalakh, levels VI-V. In fact this is a reversal of the line of argument by Albright, Kantor, Rowton, and Gates who seek dating support for those Alalakh levels from synchronisms with the well-dated Palestinian sequence. In other words we have a classic tautology.²⁶

20. Gates, *Alalakh Levels*, p. 22.

21. *Ibid.*, p. 37; E. Reiner and D. Pingree, *The Venus Tablet of Ammišaduqa*, Bibliotheca Mesopotamica 2/1 (Malibu, 1975), p. 23.

22. Kempinski, *Syrien und Palästina*.

23. *Ibid.*, pp. 79-80.

24. *Ibid.*, pp. 220-21.

25. See Gates, "Alalakh and Chronology Again," pp. 79-80.

26. I have not considered the dating of levels XVII to VIII, but the extremely low dates suggested in Williams, *Archaeological and Historical Problems*, for the latest of these levels affect the date of level VII. It was previously shown that the earliest stratum, level XVII, could not predate the end of Amuq J, i.e. circa 2000 B.C. due to the presence of Amuq-Cilician Painted ware through these earliest Alalakh levels, and the absence of earlier Amuq material; see M. J. Mellink, Review of *Alalakh*, by C. L. Woolley, *AJA* 61 (1957): pp. 395-400. It is generally

DATING OF LEVELS VI AND V

Until the studies by Gates the dating of Levels VI and V was usually an afterthought to the issues of levels VII and IV. Once those crucial levels were pinpointed, then VI and V were sandwiched in between them. The early exception was Kantor's detailed list of ceramic similarities between Alalakh VI-V and Megiddo IX.²⁷

Gates argued that in fact VI-V provide better chronological evidence than does level VII:

However, that date [the destruction of VII] cannot be given precisely by any archaeological features of Level VII, whose pottery is typically MB II B-C in Syro-Palestinian terms, without any eccentricities, or — more significantly — without any imported wares which might better define it. In contrast, Level VI . . . is the earliest level at Alalakh with imported wares which can be used as reliable dating indices.²⁸

Specifically it is the imported Cypriote, "Syrian," and Palestinian pottery that is most useful for dating, while she found Aegean and Mesopotamian imports less so.²⁹ Among the Cypriote pottery at Alalakh it is the Bichrome ware that is the best evidence: ". . . the Bichrome Ware examples provide the most specific chronological reference: by themselves they date Alalakh VI-V."³⁰ The other Cypriote wares of chronological value are Monochrome, White Slip I and II, Red-on-Black, and Base Ring.³¹ In addition Gates

assumed that the small sample sizes of these strata and the lack of stratigraphic control of material recovered below the modern water level means it is not possible or at least not wise to search for/distinguish chronological or typological differences in the assemblages. Nevertheless, Williams classified the levels into different periods of the Middle Bronze Age and proposed dates for them:

Alalakh	Period	
XVII	MB I	2000 B.C.
XVI		
XV	MB IIA	1800
XIV		
XIII		1725
XII		
XI		
X		
IX	MB IIIA	1650
VIII		
VII	MB IIIB	1600
		1550/1540

The rationale for Williams' dates is not entirely clear to me; at one point (Williams, *Archaeological and Historical Problems*, p. 1162) he stated that the dating of Alalakh VII is determined by correlations with Egyptian chronology, but he did not state what those correlations are. Elsewhere, he provided a fuller discussion of the pottery from strata XVII–VIII, B. Williams and R. Hassert, "Some Aspects of the Excavation at Tell Atchana, Part I: A Critical Review of the Pottery from Levels XVII–VII," *Serapis* 4 (1978): pp. 41–56.

27. Kantor, "Syro-Palestinian Ivories," p. 159.

28. Gates, *Alalakh-Tell Atchana*, p. 3.

29. *Ibid.*, pp. 17–27.

30. *Ibid.*, p. 19.

31. *Ibid.*, pp. 18, 22.

found glyptics, mold-made figurines, glass vessels, and glazed earthen ware to be useful for dating; yet it is clear they are secondary next to the Cypriote wares and Bichrome ware.³² How can the date of Bichrome ware be so precisely established? In the main, by its presence in Megiddo Stratum IX, whose date is chronologically fixed by its destruction at the hands of Tuthmose III in 1468/1467 B.C..³³

DATE OF LEVEL IV

Construction of the palace in stratum IV was attributed to Niqmepa by Woolley because it was originally believed that the earliest and greatest number of tablets found in the palace were from his reign,³⁴ but that is at issue, and it depends on his relationship to Idrimi.

In turn the dating of Idrimi presents its own set of problems. Line 43 of the inscription on the statue of Idrimi provides a synchronism with a Mitannian king. Originally Smith read the name as Bara *Sutarna, which has subsequently been read as Barrattarna. A further problem is whether Idrimi was the grandson of Niqmepa or his father. Again, following Landsberger, the consensus today is that Idrimi was the father of Niqmepa.³⁵

The date of Idrimi has been linked to the campaign of Thutmose III to the Euphrates. Rowton pointed out that there should be reference to the Egyptian presence in the Idrimi inscription if he reigned during or after the raid. Therefore Idrimi must have reigned before Thutmose III's campaign, which Rowton dated to 1473 B.C..³⁶ On the other hand, Oller, whose assessment of the dating of Idrimi and of level IV is the most detailed study of the past decade, suggests that the campaign of Thutmose III could have occurred after the Idrimi inscription was composed.³⁷ In any event the impact of the Egyptians at Alalakh and in northern Syria may not have been as great as has been suggested.³⁸

While most scholars would date Idrimi to about 1500 (\pm 50) B.C., Oller believed the evidence allowed for a more precise date in the lower part of that range — i.e. ca. 1475 B.C., on the basis of four points: Alalakh texts, Hittite evidence, Nuzi evidence, and archaeological evidence from level IV.

In the Alalakh texts the genealogical data shows the line of descent to be Ilmilimma, Idrimi, Niqmepa, and Ilmilimma. Furthermore, there are from three to six tablets from the level IV archives which belong to Idrimi, contrary to the original assessments of Smith and Woolley.³⁹ From these tablets Oller

32. Ibid., pp. 27–28.

33. Ibid., p. 21, but see below.

34. Woolley, *A Forgotten Kingdom*, p. 101; idem, *Alalakh*, pp. 110–111, 392.

35. S. Smith, *The Statue of Idri-Mi* (London, 1949); Woolley, *Alalakh*, p. 392; Landsberger, "Assyrische Königsliste," pp. 53–55.

36. Rowton, "Chronology: Ancient Western Asia," pp. 229–30.

37. G. H. Oller, *The Autobiography of Idrimi: A New Text Edition with Philological and Historical Commentary*, Unpublished Ph. D. Dissertation, University of Pennsylvania (Ann Arbor, 1977), p. 169. He dated the campaign of Thutmose III to 1457 B.C., following the accession date of 1490 for Thutmose III instead of 1504 B.C. An ingenious suggestion has been made that the statue and inscription were actually crafted much later by nationalists tired of Hittite control. Thus the historical value of the inscription would be diminished, J. M. Sasson, "On Idrimi and Šarruwa, the Scribe," in M. A. Morrison and D. I. Owen, *Studies on the Civilization and Culture of Nuzi and the Hurrians* (Winona Lake, Indiana, 1981), pp. 309–24.

38. Ibid., pp. 169–73.

39. Ibid., pp. 150–52; Collon, *The Seal Impressions*, pp. 160–70.

concluded that Idrimi reigned in level V and possibly for a short period in level IV, which means that the palace of level IV might have been constructed by Idrimi, not Niqmepa.⁴⁰

Using Hittite and Nuzi data, Oller adduced two other arguments for the dating of Idrimi to ca. 1475 B.C. Through the treaty between Idrimi and Pilliya, known from an Alalakh tablet, and through a Hittite treaty with a Pilliya, king of Kizzuwatna, and the Hittite monarch Zidanta, Idrimi may be synchronized with the Hittite ruler and given a date of ca. 1475 B.C. That is only one of several possible dates for the Hittite ruler, but it is most acceptable, it is argued, because Kizzuwatna did not exist before ca. 1500 B.C.⁴¹

Idrimi was contemporary with Barrattarna and Niqmepa with Sauštatar. At Nuzi Barrattarna may be synchronized with Tehip-tilla, and Sauštatar with Winnerke, Tehip-tilla's mother. Winnerke and Tehip-tilla belong to the first and second generation of a family that ended in its fifth generation with the destruction of Nuzi, which may be dated to ca. 1350 B.C. Assuming a generation spanning twenty-five to thirty years, then Winnerke, and consequently Barrattarna and Idrimi, date to about 1500-1475 B.C.⁴² Unfortunately there is some uncertainty over the date for the destruction of Nuzi.

According to Oller, archaeological evidence from level IV provides a chronological range for that stratum and in turn for Idrimi whose reign partially overlaps with it. The absolute dates for level IV may be bracketed by a *terminus post quem* and a *terminus ante quem*. A Late Helladic IIIA sherd and Base Ring II sherds found in level IV provide a *terminus post quem* of no earlier than 1400 B.C., following the assessment of Merrillees and Collon.⁴³ The *terminus ante quem* is derived from Gates' dating of level V, which ends around 1475/1460 B.C.

It may be observed at this point that in accepting the possibility that Idrimi was the builder of the level IV palace we are faced with yet another point of ambiguity in the dating of that level. A more serious aspect is that while Oller's arguments are quite acceptable within the context of his discussion, his arguments are not acceptable to us because they border on tautologies from the archaeological point of view. A *terminus ante quem* for level IV based on presumed fixed dates for levels VI and V cannot be used by those who would be concerned about the floating levels VI and V being compressed against the presumably fixed date of level IV. Finally we cannot use the archaeological data to support the date of Idrimi because in most of the discussions Alalakh IV is dated by the presumably fixed chronology of Idrimi.

SUMMARY AND DISCUSSION

Throughout the discussions three main archaeological arguments have been used to date Alalakh level VII: 1) lowering the date of level VII too much will unduly compress levels VI and V against level IV, the date of which has been established, 2) level VII is contemporary with Megiddo strata XII-X on the basis of ceramic parallels (and therefore is fully Middle Bronze Age II in characteristics and date), 3) the imported Palestinian and Cypriote pottery in Alalakh VI and V and consequently those strata themselves can be dated from the mid sixteenth to the mid fifteenth centuries B.C. (1550-1450 B.C. — Albright, 1575/60-1475/60 B.C. — Gates).

40. Oller, *The Autobiography*, pp. 152, 158–59.

41. *Ibid.*, pp. 162–65.

42. *Ibid.*, pp. 165–66.

43. Collon, *The Seal Impressions*, 169.

1. *Compression of Levels VI and V against Level IV*

This argument is based on two assumptions: a) the date of level IV may be fixed, and b) the layers between VII and IV, i.e. levels VIa, VIb, Va, and Vb, are too numerous and too substantial to have existed in a very short period of time.

Neither argument is compelling. First, we do not have precise absolute dates for the reign of Idrimi or level IV (see above). Second, one of the most difficult and dangerous procedures is to estimate the absolute duration of an archaeological deposit by the number or thickness of its layers or by the grandeur or flimsiness of architectural elements. Thick debris layers can accumulate in a very short period, as can substantial rebuildings. By the same token, the reverse is true; thin layers and flimsy architectural remains may span long time periods. In short, archaeological strata in themselves are not reliable indicators of chronological duration.

2. *Synchronisms of Alalakh with Megiddo (fig. 27)*

The comparison of the Alalakh and Megiddo assemblages is the foundation for the archaeological dating of Alalakh, but the foundation is shaky for three reasons: 1) the problem of distance, 2) the problem with the stratigraphy of Megiddo, and 3) uncertainty of the absolute date for Megiddo stratum IX. To be sure the general procedures follow accepted archaeological assumptions — the greater the similarities, the closer the assemblages are in date. But the distance between the two sites is so great that geo-cultural differences are substantial. Gates attempted to overcome this problem by concentrating on comparison of imports that come from Cyprus, a third source common to both sites. Despite the geo-cultural differences, there has been general agreement about the synchronisms of strata at Alalakh and Megiddo, at least until recently (fig. 27).

But how valuable are these correlations? As long ago as 1969 Kenyon pointed out major problems with the Megiddo sequence, especially in the correlation of Areas AA and BB within Megiddo.⁴⁴ Most recently this has been reinforced by Gonen who suggests stratum IX in Area AA should be equated with stratum X in area BB.⁴⁵ In her effort to sort out the stratigraphy Kenyon discussed the Middle Bronze Age and Late Bronze Age sequence in terms of selected loci called phases H to S and AA to AH, and pottery groups A to H. In other words, the Megiddo strata no longer have the value and meaning we once thought they possessed. If we are to relate Alalakh to Megiddo, it should be correlated with specific pottery groups and/or phases established by Kenyon, Müller, or Gonen.⁴⁶ More than ever this is necessary since the previous consensus of Kantor and Albright for the Megiddo-Alalakh correlation (fig. 27) has broken down. Now Gates and Kempinski correlate Alalakh level VI to Megiddo stratum X, while Dever compares level VII to Megiddo X.

44. K. M. Kenyon, "The Middle and Late Bronze Age Strata at Megiddo," *Levant* 1 (1969): pp. 25–60; also see U. Müller, "Kritische Bemerkungen zu den Straten XIII bis IX in Megiddo," *ZDPV* 86 (1970): pp. 50–86; H. E. Kassis, "The Beginning of the Late Bronze Age at Megiddo: A Re-examination of Stratum X," *Berytus* 22 (1973): pp. 5–22.

45. R. Gonen, "Megiddo in the Late Bronze Age—Another Reassessment," *Levant* 19 (1987): pp. 83–100.

46. As, for example, is done in the chart by W. G. Dever, "Relations between Syria-Palestine and Egypt in the 'Hyksos' Period," in J. N. Tubb, ed., *Palestine in the Bronze and Iron Ages* (London, 1985): fig. 1. However Gonen, "Megiddo," p. 84, notes serious problems with Kenyon's study; Gonen's analysis should be more reliable.

MEGIDDO		ALALAKH					
Kenyon		Kantor	Albright	Epstein	Gates	Kempinski	Dever
A	XIII				?		
	XII				VII		XIII
B	XI	VII	VII			VII	VIII
	X				VI		
E						VI	
F							VII
G	IX	VI	VI	VI	V	V	VI
	VIII	V	V	V			
H							

Fig. 27. Megiddo and Alalakh: Proposed Synchronisms Between Levels.

Closely related is the question of absolute dates for Megiddo and for the Palestinian sequence in general. It is often assumed that stratum IX at Megiddo was destroyed in the famous campaign of Tuthmose III (1468/67 B.C.).⁴⁷ This assumption is crucial to Gates' argument⁴⁸ but it is doubtful, according to Gonen:

However, now that it has been convincingly pointed out that the Egyptian king never boasted of destroying Megiddo (Shea 1979, 4-5), the siege need not be tied to a destruction level. It could well have taken place during the lifetime of layer VIII.⁴⁹

But not only the absolute dates for Megiddo are questioned; the chronology for the entire Palestinian Middle Bronze Age II sequence is currently in dispute. Dever provides a chronological scheme that is in the

47. Gates, "Alalakh and Chronology," p. 65; but see now W. Helck, "Was kann die Ägyptologie wirklich zum Problem der absoluten Chronologie in der Bronzezeit beitragen?" in P. Åstrom, ed., *High, Middle or Low?* (Gothenburg, 1987), p. 26; K. A. Kitchen, "The Basics of Egyptian Chronology in Relation to the Bronze Age," in P. Åstrom, ed., *High, Middle or Low?* (Gothenburg, 1987), pp. 40-41.

48. Gates, *Alalakh Levels*, p. 21; idem, "Alalakh and Chronology," p. 65. Gates is now aware of this serious challenge to the date of stratum IX — personal communications.

49. Gonen, "Megiddo," p. 97.

mainstream of Palestinian archaeology, for example see Kenyon's absolute dates and Cole's relative chronology.⁵⁰ But this scheme has been challenged by Bitak who wishes to lower the absolute dates for the Palestinian sequence on the basis of his interpretation of the Tell Da'ba stratification in the eastern Delta, and other Egyptian data.⁵¹ One important dating criterion is the scarab, and here too there is strong disagreement as to absolute dates.⁵² While these new debates do not necessarily mean dates used in the past in comparing Alalakh with Middle Bronze Age Palestine are incorrect, they must be used with increased caution.

3. Cypriote Pottery

It is assumed that the distribution of imported Cypriote ware at Alalakh will manifest the same chronological range as at other sites. Of these the best dated is thought to be Bichrome ware, and it is Megiddo, especially stratum IX, that provides its date.

We have already seen that the absolute date for Megiddo IX has broken away from its fixed mooring. The occurrence of Bichrome ware at Megiddo has been subject to several studies that locate it primarily in stratum IX.⁵³ At Alalakh Bichrome ware is found in levels VI and V, but at most there are no more than twelve sherds.⁵⁴ In contrast, larger quantities of other Cypriote wares were found. I suggest it may be better to evaluate the whole range of Cypriote wares and their general pattern of distribution, rather than relying heavily on Bichrome ware which, because of its scarcity, may provide a misleading sense of its date. The chronological distribution in northern Syria may differ somewhat from that of Palestine; such is the case for Nuzi ware at Alalakh when compared to northern Mesopotamia.

50. Dever, "Relations between Syria-Palestine," fig. 1; cf. idem, "The Beginning of the Middle Bronze Age in Syria-Palestine," in F. M. Cross, W. E. Lemke, and P. D. Miller, Jr., eds., *Magnalia Dei: The Mighty Acts of God* (Garden City, New York, 1976); K. M. Kenyon, "Palestine in the Middle Bronze Age," in I. E. S. Edwards, et al., *CAH³* vol. II:1 (Cambridge, 1973), p. 94; D. P. Cole, *Shechem I: The Middle Bronze IIB Pottery* (Winona Lake, Indiana, 1984), p. 84.

51. M. Bietak, "Problems of Middle Bronze Age Chronology: New Evidence from Egypt," *AJA* 88 (1984): pp. 471–85.

52. D. O'Connor, "The Chronology of Scarabs of the Middle Kingdom and the Second Intermediate Period," *JSSEA* 15 (1987): pp. 1–41; W. Ward, "Scarab Typology and Archaeological Context," *AJA* 91 (1987): pp. 507–32.

53. C. M. Epstein, *Palestinian Bichrome Ware* (Leiden, 1966); M. Artzy, I. Perlman, and F. Asaro, "Imported and Local Bichrome Ware in Megiddo," *Levant* 10 (1978): pp. 99–111; B. Wood, "The Stratigraphic Relationship of Local and Imported Bichrome Ware at Megiddo," *Levant* 14 (1982): pp. 73–79.

54. Epstein, *Palestinian Bichrome Ware*, pp. 134–37; Gates, *Alalakh Levels*, p. 19.

PART II: ANALYSIS OF ALALAKH POTTERY ASSEMBLAGES

THE PROBLEM

The comparison of the strata from Alalakh with other Near Eastern sites continues to be hindered by our incomplete understanding of the Alalakh material itself, a problem that arises from the way it was originally published. Its pottery is illustrated in a series of 168 types for seventeen levels, which makes it difficult to recognize differences in assemblages from one level to the next. To understand the characteristics of the assemblages one consults distribution tables, but the meaning of the tables' figures are obscured by the unequal size of the assemblages; for example, there are 617 pots from level IV and only two from level XI and four from level XV.⁵⁵ Drawing inferences from the raw numbers without standardizing the assemblages is misleading. Compounding the issue is the fact that the Cypriote and Mycenaean pottery are not listed in the tables.

The classification system is also problematic. Often three or four variants of a type are illustrated, for example type 23a-e, but the shapes of the variants may be significantly different, as in the case of types 4a and 4b, which may lead to a sense of unease about the reliability of Woolley's typology.⁵⁶ Sometimes a single drawing represents scores of specimens; eighty-two specimens for type 3b were found in level IV alone, but there is only one illustration. Thus our understanding is vague of how representative the illustration is of the constituted type and of the range of variation within the type.

Gates' study of levels V and VI, in which she illustrates many new drawings of pots and sherds, goes far in helping clarify the nature of those assemblages and their relevant types.⁵⁷ In the following section I wish to present another approach which is to analyze the type distributions through frequency curves, and the assemblages of various levels by frequency curves and multivariate statistics.⁵⁸

DATA PREPARATION

Using Woolley's distribution tables quantitatively is something of a risk, as was noted above, for the published types may be so poorly defined as to render them unreliable, and the counts of specimens may present problems.⁵⁹ Nevertheless it is worth the effort to experiment with them and, as we will see, meaningful patterns are produced. However, it must be kept in mind that there are likely to be unavoidable distortions in the results that can only be recognized and rectified by fresh fieldwork. Throughout it is assumed here that Woolley's distribution tables record only whole, restorable, and partially complete vessels.

Except for level VI, Woolley divided levels I to X into a and b sublevels, but usually the bulk of the pottery from a level is from only one sublevel. To establish data sets of pottery for the levels, the choice was faced either to omit the smaller sublevel or group it with the larger sample. Unfortunately, the Cypriote and

55. Woolley, *Alalakh*, pp. 332-40.

56. *Ibid.*, pls. 109-10.

57. Gates, *Alalakh-Tell Atchana*, *idem*, *Alalakh Levels*.

58. For another example see T. L. McClellan, "Chronology of the 'Philistine' Burials at Tell el-Far'ah (South)," *JFA* 6 (1979): 57-73.

59. Cf. Williams and Hassert, *Some Aspects*.

Mycenaean pottery is listed only by level, not by sublevel.⁶⁰ Consequently, the decision was made to group sublevels, and some levels, together to constitute the data sets used. In our figures levels are labeled with roman numerals except for the level 10 assemblage which represents grouped Alalakh levels XI to XVII that separately have very small assemblages: XI-(2 pots), XII-(31), XIII-(11), XIV-(27), XV-(4), XVI-(0), XVII-(8). Alalakh level X was omitted.

Woolley's 168 pottery types were reduced to eighty types, which will be referred to as variables, by eliminating some infrequent types and by grouping many of the types on the basis of shape similarities (see the variable-pottery type conversion lists, fig. 28a, b).⁶¹ This was done for ease of handling on the computer, but it also may be more realistic to use broader types when there is such uncertainty about Woolley's typology. Variable v81 is a miscellaneous category that lumps all the unused types (a total of eighty-seven types and sub-types); despite this large number of omitted types, together they generally represent less than ten percent of the vessels Woolley listed in each assemblage, except for levels 2 (10.06%) and 10 (13.25%). In the multivariate analyses the miscellaneous vessels (v81) were omitted and percentages recalculated (not illustrated). The other eighty variables are based on shape except for Red Lustrous ware and the imported Cypriote and Mycenaean wares (i.e., variables v24-v30).⁶²

Figure 29 lists the percentage presence of each variable in the assemblages. Except for the total number of vessels in each assemblage (end of fig. 29), the count of vessels in each assemblage is not listed since they are found in Woolley's tables.

DATA ANALYSIS

Multivariate statistics were used to search for patterns in the relationship of the levels (cases) and the pottery (variables) from Alalakh. The distribution of variables (pottery types) in the levels is used to establish measures of similarity and correlation between the levels, and by inverting the data matrix the similarity or correlation of variables (pottery types) is determined by their patterns of distribution in find spots (levels). Two measures of association were used: the Pearson correlation coefficient and Euclidean distance. In the program with the Pearson correlation coefficient the data is standardized so that variables with large numbers of vessels or large percentages of vessels and those with small numbers and percentages have equal weight or influence in determining the strength of the correlations. When the Euclidean distance is used on a matrix of percentages of types, it gives more weight, in determining measures of similarity, to those pottery types (variables) that constitute high percentages of individual assemblages.

60. Woolley, *Alalakh*, pp. 354-76.

61. Hereafter the term types associated with numbers refers to Woolley's typology; variables with numbers have the prefix v. The term variable is widely used to describe the elements or attributes that something (a city, a flower, a pot, a stratum) possesses that makes it similar to or different from another thing; the degree to which these variables are present or absent in something are used to measure the similarity between one thing and another. In computer programs, variables are usually organized in columns and the thing being measured, cities or flowers, are listed in the rows, and are usually called the cases. A matrix is the listing of rows and columns (cases and variables); to invert a matrix is to make the rows the columns and the columns the rows, or to make the cases variables, and the variables the cases.

62. The Alalakh data sets were analyzed on a Macintosh Plus with a 20 megabyte hard disk and the software package Systat: L. Wilkinson, *SYSTAT: The System for Statistics* (Evanston, Illinois, 1988).

THE CHRONOLOGY AND CERAMIC ASSEMBLAGES OF ALALAKH

ALALAKH		ALALAKH		ALALAKH		ALALAKH		ALALAKH	
Variable	Type	Variable	Type	Variable	Type	Variable	Type	Variable	Type
01	002a	12	084b	35	026a	56	050	72	129b
01	002b	12	084c	36	032	56	051	72	129c
01	003a	12	085	37	042a	56	052	72	130a
01	005	13	091a	37	042b	56	053	72	130b
01	006a	13	091b	38	063	56	054a	72	130c
01	006b	13	093b	38	064a	56	054b	73	131a
02	003b	13	093c	38	064b	57	056	74	132a
02	004b	13	094a	39	067a	57	057a	75	136
03	021a	13	094b	39	067b	57	057b	76	139
04	023a	14	103a	40	095a	57	058	77	146
04	023b	14	103b	40	095b	58	072b	77	147
04	023c	14	104a	41	097a	59	073a	78	149
04	023d	14	104b	41	097b	59	073b	79	159
04	119	15	106b	42	099a	60	075	79	160
05	043	16	113a	42	099b	61	086	80	163
05	044a	16	113b	42	099c	61	087		
05	044b	16	113c	43	100	61	088		
05	044c	17	115a	44	102a	61	089		
06	048a	18	118a	44	102b	62	098		
06	048b	18	118b	45	120	63	107a		
06	048c	19	137	46	152a	63	107b		
07	055a	20	153	47	008	64	108a		
07	055b	21	158	48	009a	64	108b		
08	060a	22	163b	49	009b	64	108c		
08	060b	23	167a	49	009c	65	110		
08	061a	24	Monochrome	50	013	66	111		
08	062a	25	Base Ring I	51	021c	67	117a		
08	062b	26	Base Ring II	52	024	68	121		
09	068a	27	Red Lustrous	53	029	68	122		
09	068b	28	White Slip I	54	040	68	123a		
09	068c	29	White Slip II	54	041a	68	123b		
09	069a	30	Mycenaean	54	041b	68	124		
09	069b	31	007a	54	041c	68	125		
10	070	31	007b	55	045	68	126		
11	082	32	011	55	046	69	127		
12	083	33	015	55	047	70	128		
12	084a	34	022	56	049	71	129a		

a

ALALAKH		ALALAKH		ALALAKH		ALALAKH		ALALAKH	
Type	Variable	Type	Variable	Type	Variable	Type	Variable	Type	Variable
002a	01	044c	05	073a	59	108a	64	152a	46
002b	01	045	35	073b	59	108b	64	153	20
003a	01	046	35	075	60	108c	64	158	21
003b	02	047	35	082	11	110	65	159	79
004b	02	048a	06	083	12	111	66	160	79
005	01	048b	06	084a	12	113a	16	163b	22
006a	01	048c	06	084b	12	113b	16	165	80
006b	01	049	36	084c	12	113c	16	167a	23
007a	31	050	36	085	12	115a	17	Base Ring I	25
007b	31	051	36	086	61	117a	67	Base Ring II	26
008	47	052	36	087	61	118a	18	Monochrome	24
009a	48	053	36	088	61	118b	18	Mycenaean	30
009b	49	054a	36	089	61	119	04	Red Lustrous	27
009c	49	054b	36	091a	13	120	45	White Slip I	28
011	32	055a	07	091b	13	121	68	White Slip II	29
013	50	055b	07	093b	13	122	68		
015	33	056	37	095a	13	123a	68		
021a	03	057a	37	095b	13	123b	68		
021c	51	057b	37	094a	13	124	68		
022	34	058	37	095a	40	125	68		
023a	04	060a	08	095b	40	126	68		
023b	04	060b	08	097a	41	127	69		
023c	04	061a	08	097b	41	128	70		
023d	04	062a	08	098	62	129a	71		
024	52	062b	08	099a	42	129b	72		
026a	35	063	38	099b	42	129c	72		
029	53	064a	38	099c	42	130a	72		
032	36	064b	38	100	43	130b	72		
040	54	067a	39	102a	44	130c	72		
041a	54	067b	39	102b	44	131a	73		
041b	54	068a	09	103a	14	132a	74		
041c	54	068b	09	103b	14	136	75		
042a	37	068c	09	104a	14	137	19		
042b	37	069a	09	104b	14	139	76		
043	05	069b	09	106b	15	146	77		
044a	05	070	10	107a	63	147	77		
044b	05	072b	38	107b	63	149	78		

b

Fig. 28. Alalakh: Conversion Lists (a) Sorted by Variables and (b) Sorted by Type.

THE ALALAKH LEVELS

Two cluster analyses and a factor analysis were run on the data. For the cluster analyses two dendrograms (fig. 30a, b) represent two runs to produce hierarchical clusters using single linkage method. In the first dendrogram (fig. 30a) the distance measure was Euclidean. It shows that levels VI and VII are most closely clustered, then levels V, VI, and VII, then levels IV, V, VI, and VII, and another cluster of levels I and II. Level III does not cluster closely with levels I to VII and levels VIII, IX, and 10 are increasingly farther away, in terms of Euclidean distance, from other levels.

In the second dendrogram (fig. 30b) the Pearson correlation coefficient was used. Levels VIII and IX are the most closely clustered, then levels V and VII, etc. Overall there are two large clusters: 1) levels I-III and 2) levels IV-10. But in that second cluster, level IV joins it at some distance from the main group.

These differences between the two clustering schemes can be explained in part by their different measures of distance. In the dendrogram on figure 30a levels IX and 10 stand in isolation because they have a few variables (types) that represent very high percentages of their assemblages, and the Euclidean distance measure reflects this aspect. In the dendrogram on figure 30b the clustering reflects the standardized weight of types regardless of the percentage of an assemblage they represent.

Factor analysis (fig. 30c) was run on the same data set using the Pearson correlation coefficient.⁶³ Levels V, VI, and VII load highly on factor 1; VIII, IX and 10 on factor 2; and I, II, and III on factor 3. Level IV loads only moderately on factors 1 and 3. The results of the factor analysis correspond more closely to the dendrogram on figure 30b which not surprisingly uses the same Pearson correlation coefficient.

The analyses using the Pearson correlation coefficient indicate three distinct groups: one — levels VIII, IX, and 10; two — levels V, VI and VII; and three — levels I, II and III. Conversely there is a break between levels VII and VIII and another between levels III and V. Recognition of three groups in these analyses confirms a tripartite division made earlier by the author through visual inspection of selected frequency curves (see below and fig. 38) in which breaks between levels VII and VIII and levels III and IV were observed. What was not recognized in the visual inspection was the intermediate position of level IV which in the multivariate analyses does not group closely with either the levels before or after it.

It is assumed that time is the main influence causing the levels to cluster or to load as they do. Thus we can speak of the following periods: Period 1: levels 10 (=XVII-XI), IX, and VIII; Period 2: levels VII, VI, and V; Transitional Period 3: level IV; and Period 4: levels III, II, and I.

63. Rotation was by varimax method; loadings on the factors were sorted. A loading of less than ± 0.5 is the rule of thumb cutoff point for assigning a variable to a factor. For discussions of factor analysis see R. J. Rummel, *Applied Factor Analysis* (Evanston, Illinois, 1970); J. Kim and C. W. Mueller, *Factor Analysis: Statistical Methods and Practical Issues* (Beverly Hills, 1978); and M. Norusis, *SPSS/PC+: Advanced Statistics* (Chicago, 1986), pp. B40-B69.

THE ALALAKH POTTERY TYPES

The pottery from Alalakh may be analyzed using factor analysis, cluster analysis, and frequency curves. Factor and cluster analyses, utilizing the Pearson correlation coefficient, produce similar results. In factor analysis 9 factors were extracted (fig. 31).⁶⁴

To determine whether the factor loadings were caused by chronological differences, and if so what those distinctions are, the percentages of pottery variables assigned to the factors were calculated and graphed as frequency curves (fig. 37a); the factors are arranged to read from left to right, earliest to latest. Also included on the graph are three of the six variables (see bottom of fig. 31) that did not load highly on any of the nine factors. Pottery drawings (figs. 33–36) illustrate what kinds of pottery load highly on the different factors.

The pottery was also subjected to cluster analysis (fig. 32) using the Pearson correlation coefficient and the single linkage method of clustering. A number of clusters correspond closely to specific factors of the factor analysis, and at one point of dissimilarity most of the eighty variables (pottery types) fall into eight clusters, labeled A to H. Cluster A contains most of the variables that load on factors 2 and 4; cluster B contains mostly variables of factor 5; large cluster C contains elements from factors 1, 6, and 7; cluster G has two variables from factor 9 and one from factor 4; cluster H mainly contains variables from factor 8. Again, frequency curves (fig. 37b) illustrate the distribution of pottery belonging to the eight clusters, plus four individual pottery types still unclustered in the point selected on the dissimilarity scale (cluster E was omitted from fig. 37b).

Finally, frequency curves (fig. 38) of selected individual pottery types are presented, as well as frequency curves of painted and decorated wares (fig. 37c). In the latter figure some of the calculations are based on incomplete and impressionistic data. In the Alalakh report there is no accurate statistic for the distribution of the Amuq-Cilician painted ware, though it usually occurs on two vessel types: bowls (types 23a-c and 119) and pitchers (type 70). The frequency curve is based on the assumption that all of those vessels were decorated in the Amuq-Cilician style, but in fact how many were undecorated is not known. In the case of the local painted ware and Habur ware there are no figures, nor is there for Nuzi ware in level III, although its presence in levels IV and II should be accurately reflected. The frequency curve for Gray ware should also be reasonably accurate. No attempt was made in figure 37c to subdivide Mycenaean and Cypriote wares, but see figure 38 for a breakdown of Cypriote wares. In both figures the mainland Red Lustrous ware was grouped with Cypriote wares, since I used Åstrom's classification for it too.⁶⁵

64. The rotation was by varimax and the factors were sorted. Choice for the number of factors to be extracted was by using the rule of thumb of eigenvalues greater than 1.

65. For classification of Cypriote pottery I followed P. Åstrom, "Relative and Absolute Chronology, Foreign Relations, Historical Conclusions," in P. Åstrom, ed., *The Swedish Cyprus Expedition* vol. 4:1D: *The Late Cypriote Bronze Age* (Lund, 1972).

TABLE OF LEVEL (ROWS) BY TYPE (COLUMNS)

ROW PERCENTS

	1	2	3	4	5	6
1	1.14	2.27	.00	.00	3.41	1.14
2	.00	2.52	.00	.00	3.77	.63
3	4.07	1.63	.81	.00	.00	6.50
4	6.32	19.45	.16	.00	.81	.97
5	34.67	.73	.00	.73	.36	.00
6	14.29	.00	.00	3.17	.00	1.59
7	19.35	6.45	7.26	.00	.00	.00
8	16.62	.00	14.12	21.18	.00	.00
9	7.04	.00	39.44	36.62	.00	.00
10	.00	1.20	1.20	43.37	.00	.00
TOTAL	11.50	6.24	3.08	4.98	.89	1.01

	25	26	27	28	29	30
1	.00	.00	.00	.00	.00	22.73
2	.00	.00	1.89	.00	.00	4.40
3	.00	.00	.00	.00	.00	.00
4	1.62	2.59	2.76	1.94	1.94	.16
5	1.09	1.09	1.46	.00	.00	.00
6	3.17	.00	.00	.00	.00	.00
7	.00	.00	1.61	.00	.00	.00
8	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00
TOTAL	.89	1.13	1.54	.71	.71	1.66

	7	8	9	10	11	12
1	.00	.00	12.50	.00	2.27	4.55
2	.00	2.52	6.18	.00	1.89	13.21
3	1.63	4.88	3.25	.00	.81	8.13
4	1.94	2.43	3.24	.00	1.13	2.92
5	1.82	.73	2.19	.36	.36	.36
6	.00	3.17	.00	.00	.00	4.76
7	.00	.81	.00	.81	.00	.00
8	.00	.00	.00	2.35	.00	.00
9	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	7.23	.00	.00
TOTAL	1.13	1.78	3.20	.99	.83	3.38

	31	32	33	34	35	36
1	3.41	2.27	.00	.00	.00	.00
2	.63	1.26	3.14	1.26	.00	1.89
3	.00	1.63	.00	.81	.81	23.58
4	1.13	.49	.81	.81	.97	.00
5	.73	.36	4.01	.73	1.46	.00
6	.00	1.59	1.59	.00	.00	1.59
7	.00	.00	.00	.00	.00	.00
8	.00	.00	1.18	.00	8.24	.00
9	.00	.00	.00	.00	.00	.00
10	1.20	.00	.00	.00	4.82	1.20
TOTAL	.83	.65	1.36	.59	1.30	2.02

	13	14	15	16	17	18
1	4.55	2.27	.00	.00	.00	.00
2	4.40	1.26	.00	.63	.00	5.03
3	4.88	3.25	.00	.00	.00	4.88
4	7.94	1.94	.00	.00	.00	2.11
5	4.01	4.74	1.82	.36	.00	.73
6	4.76	9.52	4.76	.00	.00	1.59
7	.81	4.84	8.87	6.45	.00	.81
8	1.18	.00	.00	5.88	3.33	.00
9	.00	.00	.00	.00	4.23	.00
10	1.20	.00	.00	3.61	8.43	.00
TOTAL	4.82	2.67	1.13	1.07	.77	1.84

	37	38	39	40	41	42
1	4.55	3.41	1.14	3.41	.00	1.14
2	.63	1.26	.00	.00	.00	.63
3	1.63	.81	.00	3.25	.00	.00
4	.65	.81	.32	.00	.00	1.30
5	.00	.00	3.65	.00	.36	.73
6	.00	1.59	.00	.00	1.59	.00
7	.00	.00	1.61	.00	.00	.00
8	.00	.00	.00	.00	1.18	.00
9	.00	.00	.00	.00	1.41	.00
10	.00	.00	.00	.00	.00	.00
TOTAL	.65	.71	.89	.41	.24	.71

	19	20	21	22	23	24
1	.00	1.14	1.14	.00	1.14	.00
2	.00	.63	12.58	.00	3.77	.00
3	.00	1.63	.81	.00	1.63	.00
4	.16	1.94	.65	5.19	1.13	.49
5	1.46	.36	.00	.36	.00	.36
6	3.17	1.59	.00	3.17	1.59	1.59
7	4.03	1.61	.00	.81	.00	.00
8	7.06	.00	.00	.00	.00	.00
9	1.41	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00
TOTAL	1.13	1.19	1.54	2.13	1.01	.30

	43	44	45	46	47	48
1	.00	.00	.00	1.14	.00	.00
2	.00	.00	.00	.63	.00	.00
3	.00	1.63	.00	.00	.00	.00
4	.00	.65	.00	.16	.16	.00
5	.73	.00	1.82	.73	.36	.00
6	.00	4.76	.00	.00	3.17	.00
7	.81	.00	.00	.81	.00	.00
8	7.06	.00	.00	.00	.00	1.18
9	4.23	.00	.00	.00	.00	4.23
10	.00	.00	.00	.00	.00	.00
TOTAL	.71	.93	.30	.36	.24	.24

Fig. 29. Alalakh: Matrix of Percentages of Eighty-One Variables in Ten Levels.

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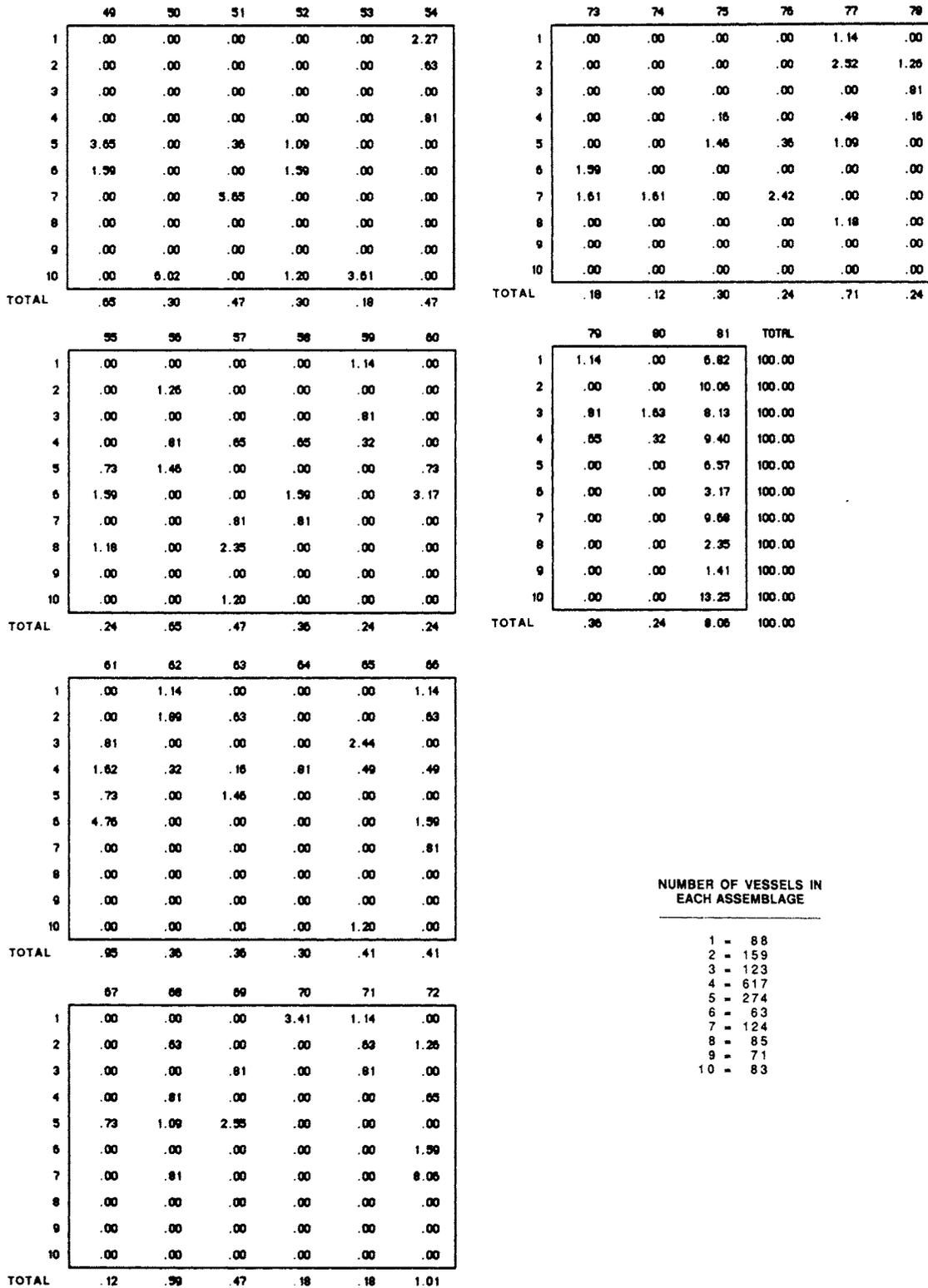
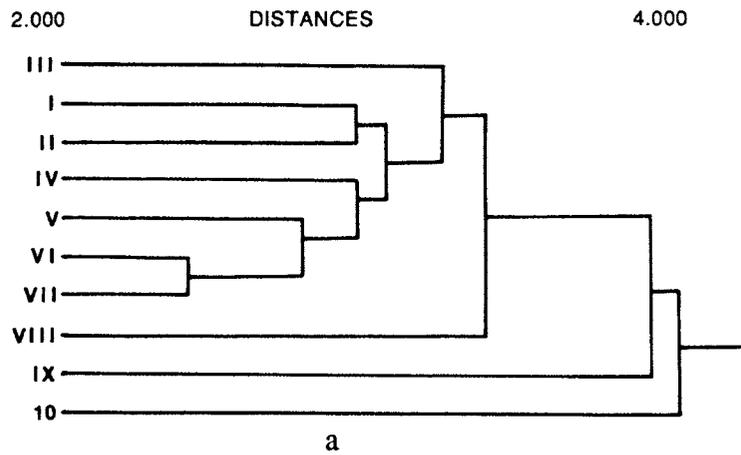


Fig. 29. Alalakh: Matrix of Percentages of Eighty-One Variables in Ten Levels. (cont.)

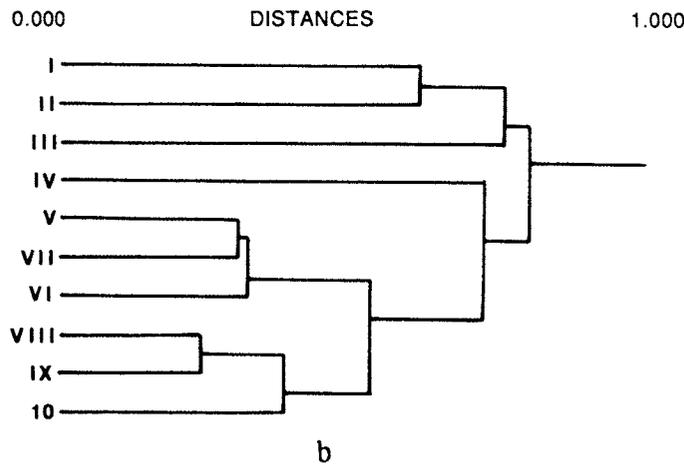
DISTANCE METRIC IS EUCLIDEAN DISTANCE
SINGLE LINKAGE METHOD (NEAREST NEIGHBOR)

TREE DIAGRAM



DISTANCE METRIC IS 1-PEARSON CORRELATION COEFFICIENT
SINGLE LINKAGE METHOD (NEIGHBOR)

TREE DIAGRAM



ROTATED LOADINGS

	1	2	3
L5	0.901	0.075	-0.002
L7	0.867	0.128	-0.088
L6	0.823	0.083	0.113
L9	0.077	0.911	-0.058
L10	-0.115	0.880	-0.020
L8	0.457	0.837	-0.098
L2	-0.048	-0.054	0.850
L1	-0.092	-0.016	0.701
L3	0.180	-0.031	0.528
L4	0.446	-0.104	0.382

c

Fig. 30. Alalakh: (a) Dendrogram for Cluster Analysis of Levels Using Euclidean Distance, (b) Dendrogram for Cluster Analysis of Levels Using Pearson Correlation Coefficient, and (c) Factor Loadings of Levels on Three Factors (High Loadings are Bracketed).

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	1	2	3	4	5	6	7	8	9
(70)	-0.965	0.071	0.075	0.042	0.123	0.136	0.145	0.042	0.032
(30)	-0.962	0.098	0.086	0.048	0.135	0.173	-0.041	0.045	0.050
(37)	-0.957	0.124	0.116	0.086	0.042	-0.188	0.002	0.083	0.066
(54)	-0.936	0.102	0.120	0.083	-0.199	0.182	-0.112	0.058	0.061
(31)	-0.900	0.144	-0.046	0.141	-0.145	0.209	0.051	-0.273	0.066
(38)	-0.895	-0.307	0.186	0.103	0.021	-0.005	-0.203	0.091	0.096
(9)	-0.864	0.170	-0.023	0.105	-0.028	0.014	-0.439	0.081	0.108
(59)	-0.832	0.121	0.124	0.105	-0.054	-0.486	0.109	0.104	0.065
(79)	-0.791	0.112	0.140	0.123	-0.289	-0.464	0.109	0.107	0.066
(11)	-0.774	0.179	0.023	0.123	-0.198	-0.040	-0.539	0.089	0.118
(71)	-0.752	0.186	0.122	0.091	0.228	-0.408	-0.372	0.099	0.104
(32)	-0.734	-0.394	0.082	0.134	0.137	-0.352	-0.325	0.125	0.131
(40)	-0.733	0.128	0.101	0.085	0.191	-0.609	0.085	0.101	0.065
(46)	-0.677	0.191	-0.381	-0.480	0.063	0.270	-0.195	0.086	0.085
(5)	-0.675	0.160	0.036	0.073	-0.001	0.255	-0.659	0.049	0.102
(42)	-0.619	0.091	-0.292	0.142	-0.641	0.189	-0.211	0.067	0.084
(62)	-0.505	0.161	0.103	0.061	0.004	0.246	-0.795	0.042	0.103
(47)	0.093	-0.987	0.019	0.041	0.097	0.056	0.027	0.035	0.040
(60)	0.100	-0.973	-0.101	0.042	0.150	0.063	0.035	0.034	0.043
(24)	0.100	-0.973	-0.069	0.072	-0.155	0.060	0.041	0.044	0.047
(61)	0.098	-0.967	0.016	0.083	-0.168	-0.110	0.030	0.061	0.055
(44)	0.087	-0.934	0.157	0.066	0.052	-0.284	0.006	0.068	0.055
(25)	0.102	-0.915	-0.156	0.092	-0.329	0.063	0.052	0.050	0.051
(14)	-0.042	-0.855	-0.265	-0.380	0.057	-0.165	0.024	0.119	0.092
(58)	0.136	-0.849	0.188	-0.392	-0.228	0.073	0.083	0.070	0.034
(55)	0.214	-0.716	-0.192	0.186	0.221	0.157	0.122	0.194	-0.494
(66)	-0.468	-0.716	0.236	-0.347	-0.019	0.221	-0.166	0.095	0.082
(52)	0.193	-0.684	-0.349	0.135	0.192	0.113	0.156	-0.527	0.055
(73)	0.154	-0.638	0.154	-0.710	0.127	0.085	0.110	0.068	0.020
(22)	0.073	-0.544	0.103	-0.030	-0.824	0.036	0.052	0.060	0.034
(67)	0.068	0.004	-0.989	0.060	0.029	0.064	0.086	0.010	0.038
(45)	0.068	0.004	-0.989	0.060	0.029	0.064	0.086	0.010	0.038
(75)	0.069	0.002	-0.985	0.071	-0.080	0.064	0.089	0.014	0.040
(69)	0.071	0.035	-0.956	0.082	0.070	-0.242	0.073	0.039	0.055
(63)	0.079	0.059	-0.926	0.079	-0.036	0.140	-0.316	0.019	0.076
(49)	0.100	-0.403	-0.893	0.070	0.088	0.081	0.088	0.023	0.051
(39)	-0.173	0.074	-0.893	-0.334	-0.007	0.130	0.184	0.051	0.044
(1)	0.300	-0.177	-0.733	-0.257	0.057	0.140	0.294	0.290	-0.284
(33)	0.157	-0.202	-0.733	0.154	0.005	0.238	-0.541	0.103	-0.111
(56)	0.075	0.089	-0.699	0.107	-0.341	0.175	-0.573	0.033	0.098
(68)	0.138	0.123	-0.645	-0.444	-0.487	0.168	-0.277	0.069	0.074
(7)	0.054	0.052	-0.554	0.151	-0.600	-0.538	0.050	0.087	0.068
(72)	0.146	-0.056	0.122	-0.972	-0.009	0.106	-0.016	0.072	0.015
(51)	0.127	0.118	0.016	-0.970	0.029	0.069	0.136	0.060	-0.005
(74)	0.122	0.117	0.079	-0.969	0.027	0.065	0.130	0.059	-0.008
(76)	0.133	0.118	-0.069	-0.966	0.032	0.075	0.144	0.061	-0.002
(15)	0.169	-0.379	-0.053	-0.882	0.103	0.097	0.146	0.073	0.017
(16)	0.301	0.280	0.181	-0.537	0.180	0.203	0.191	-0.175	-0.608
(29)	0.004	-0.014	0.092	0.097	-0.990	-0.005	0.021	0.036	0.014
(28)	0.004	-0.014	0.092	0.097	-0.990	-0.005	0.021	0.036	0.014
(64)	0.004	-0.014	0.092	0.097	-0.990	-0.005	0.021	0.036	0.014
(2)	-0.053	0.070	0.114	-0.206	-0.966	-0.019	-0.034	0.013	0.035
(26)	0.032	-0.012	-0.312	0.118	-0.939	0.021	0.055	0.039	0.029
(27)	0.109	0.124	-0.290	-0.348	-0.740	0.162	-0.428	0.071	0.077
(13)	-0.383	-0.366	-0.177	0.184	-0.651	-0.326	-0.346	0.054	0.030
(80)	0.011	0.098	0.077	0.091	-0.063	-0.979	-0.032	0.101	0.059
(36)	0.027	0.054	0.080	0.084	0.157	-0.970	-0.105	0.050	0.067
(6)	-0.139	-0.118	0.125	0.106	0.052	-0.952	-0.100	0.119	0.083
(65)	0.081	0.159	0.141	0.150	-0.014	-0.896	0.046	-0.342	0.062
(8)	0.102	-0.407	0.071	-0.000	-0.189	-0.750	-0.432	0.136	0.124
(18)	0.079	-0.050	0.046	-0.002	-0.110	-0.590	-0.773	0.115	0.136
(21)	-0.059	0.151	0.068	0.039	0.068	0.140	-0.966	0.026	0.100
(23)	-0.217	-0.210	0.177	0.108	-0.043	-0.169	-0.899	0.089	0.141
(78)	0.032	0.178	0.091	0.075	0.051	-0.394	-0.881	0.071	0.116
(12)	-0.248	-0.124	0.144	0.110	0.052	-0.326	-0.866	0.099	0.144
(77)	-0.274	0.230	-0.248	0.184	0.039	0.328	-0.756	0.159	-0.265
(34)	0.064	0.158	-0.348	0.138	-0.357	-0.331	-0.754	0.084	0.130
(53)	0.150	0.141	0.144	0.135	0.107	0.068	0.163	-0.936	0.013
(50)	0.150	0.141	0.144	0.135	0.107	0.068	0.163	-0.936	0.013
(10)	0.228	0.207	0.147	0.101	0.158	0.127	0.222	-0.844	-0.267
(17)	0.354	0.312	0.291	0.343	0.241	0.242	0.343	-0.583	-0.047
(57)	0.292	0.257	0.246	-0.015	-0.063	0.193	0.243	-0.175	-0.811
(35)	0.274	0.240	0.056	0.312	0.102	0.097	0.220	-0.255	-0.796
(19)	0.350	-0.148	0.074	-0.233	0.231	0.257	0.269	0.369	-0.684
(43)	0.365	0.305	0.164	0.267	0.242	0.296	0.309	0.464	-0.467
(48)	0.359	0.300	0.264	0.346	0.225	0.302	0.345	0.457	0.349
(3)	0.402	0.342	0.296	0.193	0.244	0.309	0.384	0.463	0.282
(20)	-0.285	-0.430	0.148	-0.457	-0.497	-0.456	-0.078	0.174	0.109
(4)	0.413	0.297	0.320	0.396	0.280	0.298	0.398	-0.388	0.077
(41)	0.388	-0.473	0.155	0.349	0.319	0.307	0.306	0.432	-0.054

Fig. 31. Alalakh: Table of Factor Loadings of Eighty Variables (Pottery Types) on Nine Factors (High Loadings are Bracketed).

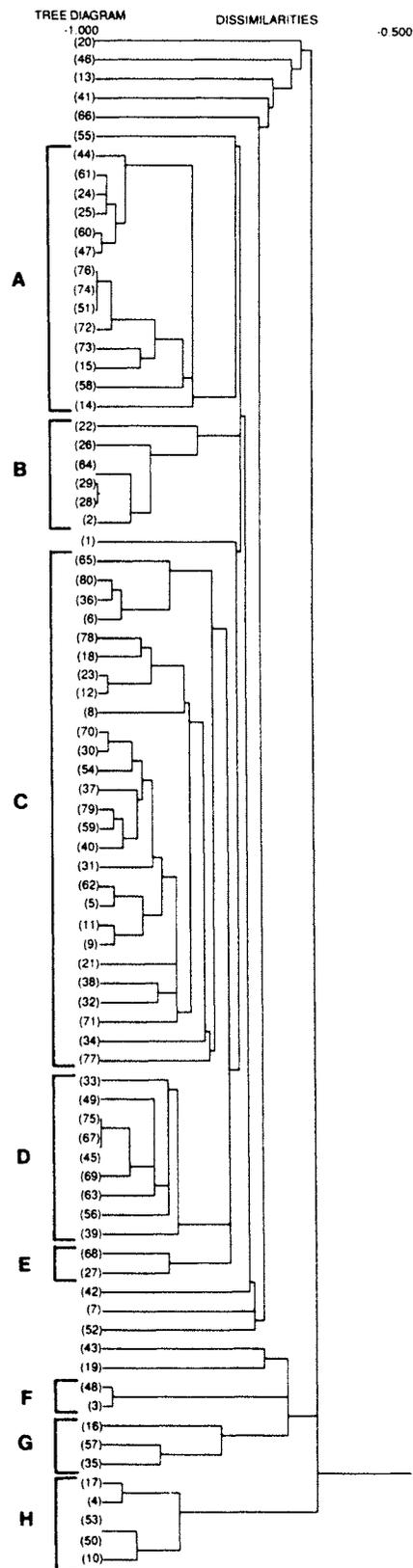


Fig. 32. Alalakh: Dendrogram for Cluster Analysis of Eighty Variables (Pottery Types). Clusters A to H are Bracketed.

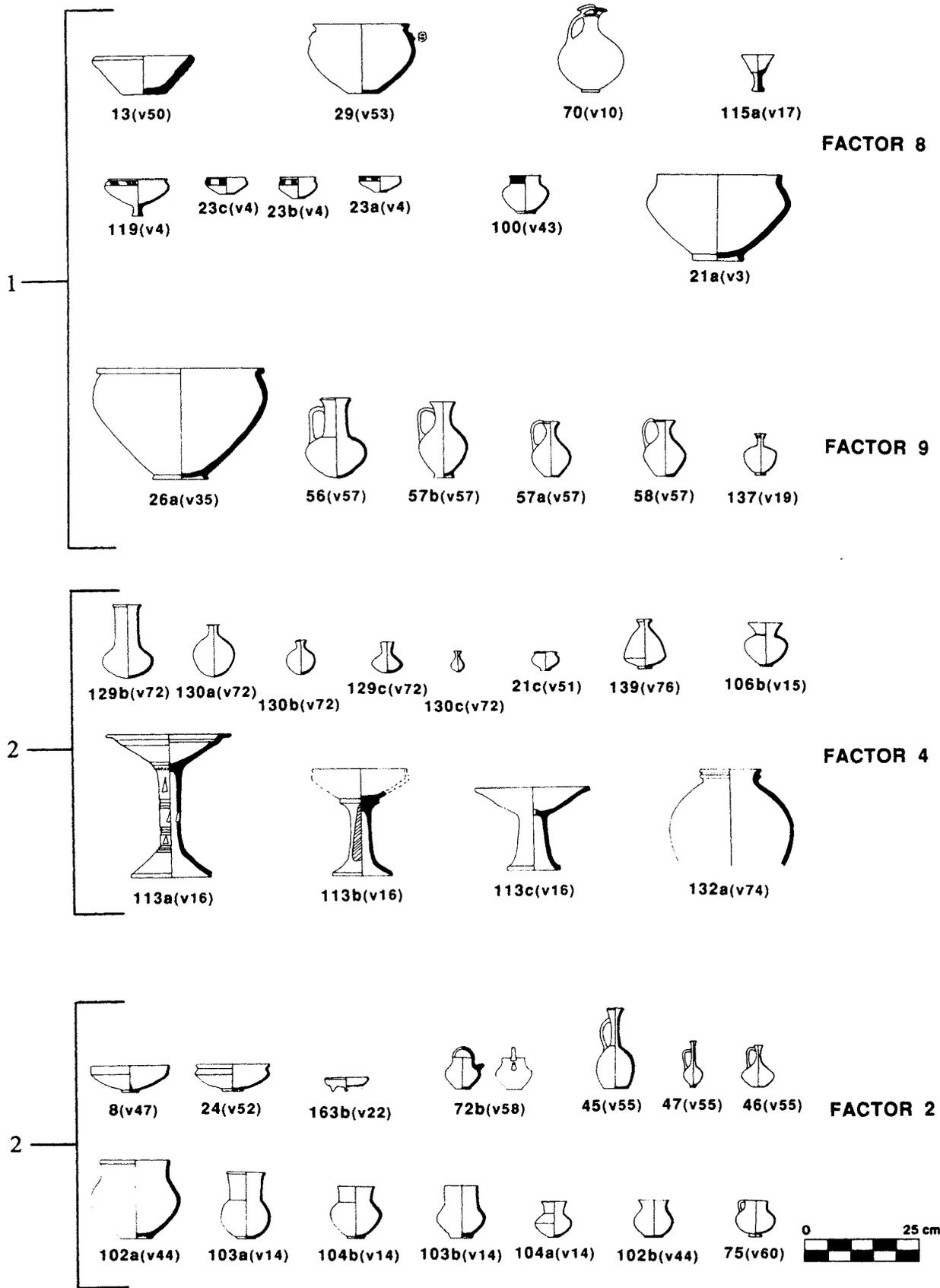


Fig. 33. Alalakh: Drawings of Variables (Pottery Types) That Load Highly on Factors 8, 9, 4, and 2.

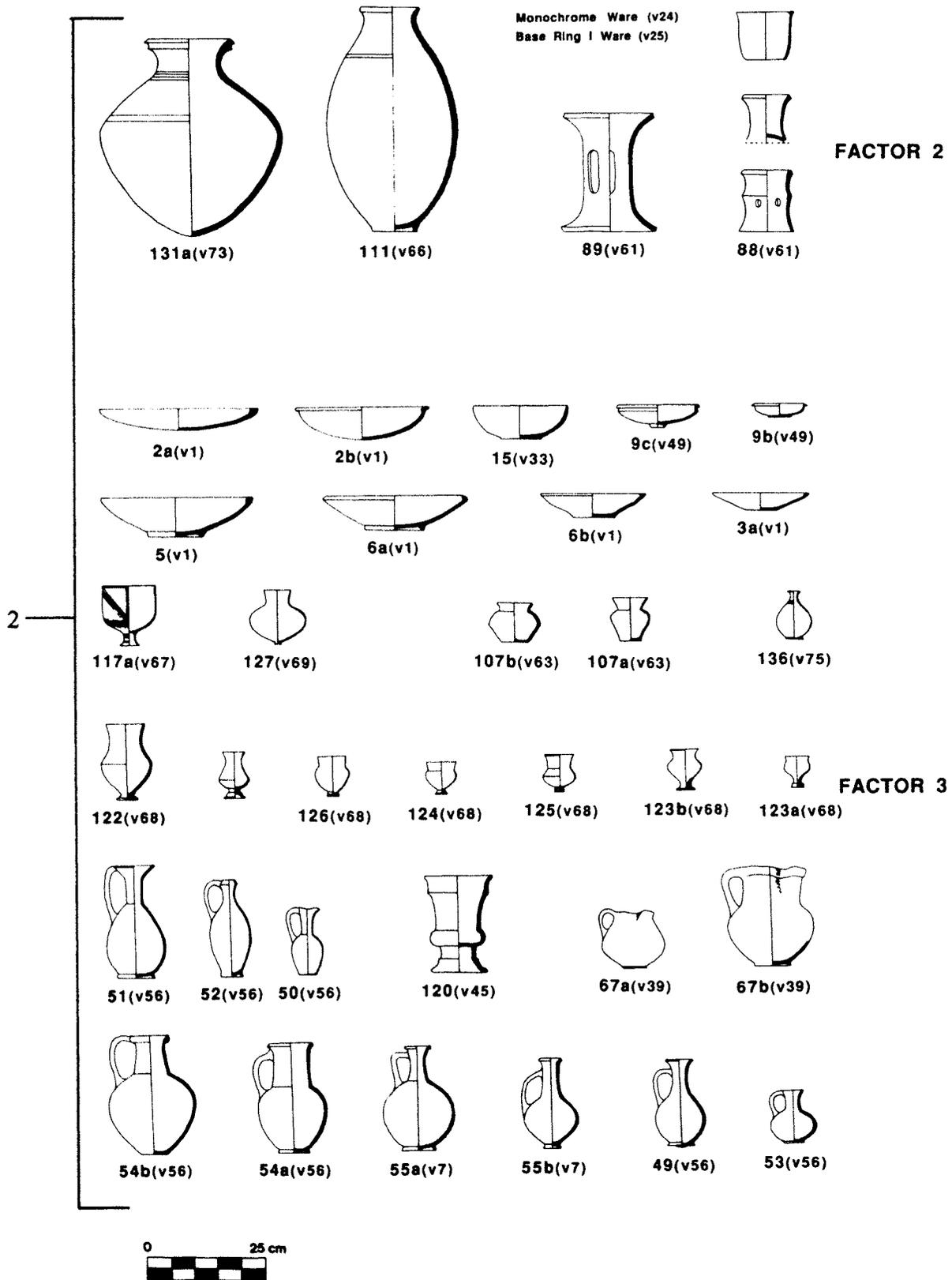


Fig. 34. Alalakh: Drawings of Variables (Pottery Types) That Load Highly on Factors 2 (cont.) and 3. (Note: Types 86 [v 61] and 87 [v 61] from Factor 2 and Type 121 [v 68] from Factor 3 were inadvertently omitted.)

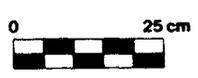
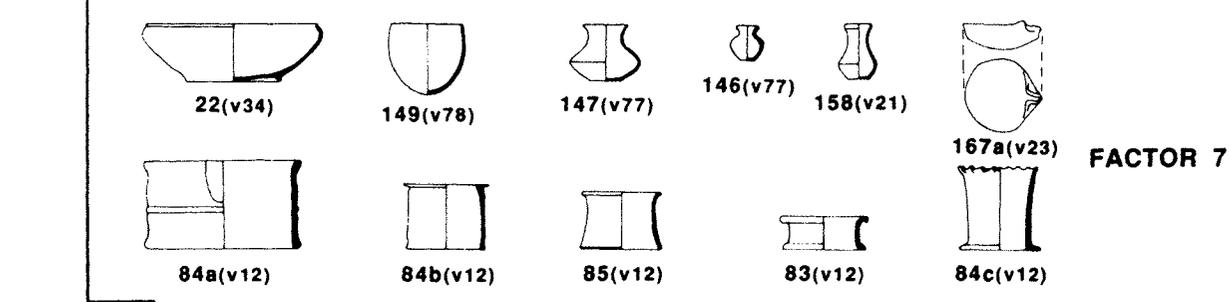
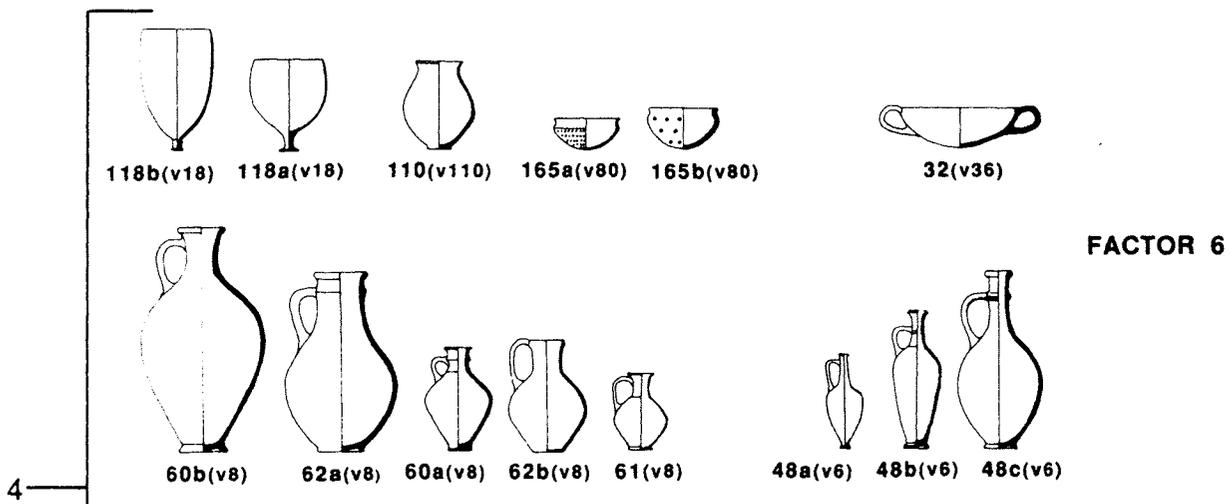
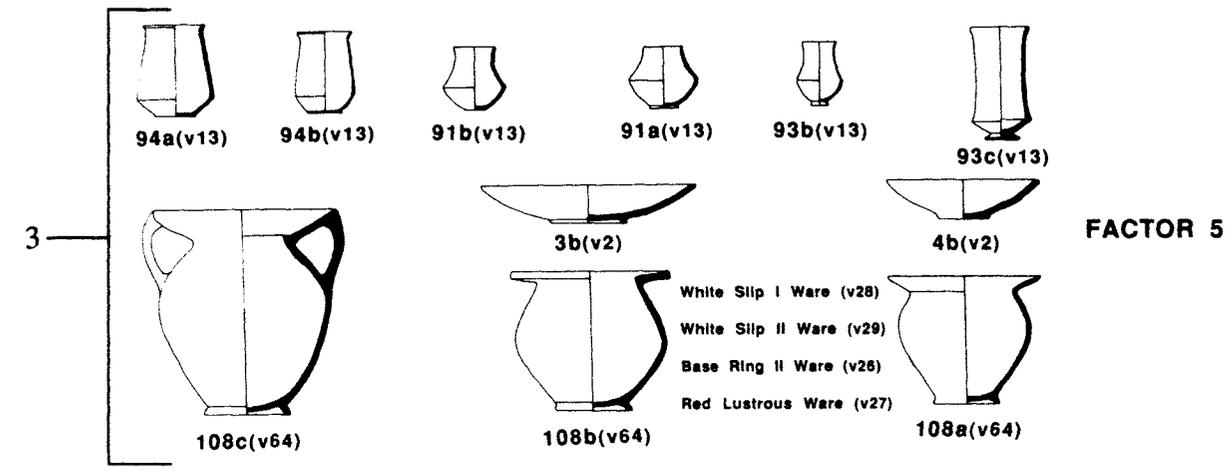


Fig. 35. Alalakh: Drawings of Variables (Pottery Types) That Load Highly on Factors 5, 6, and 7.

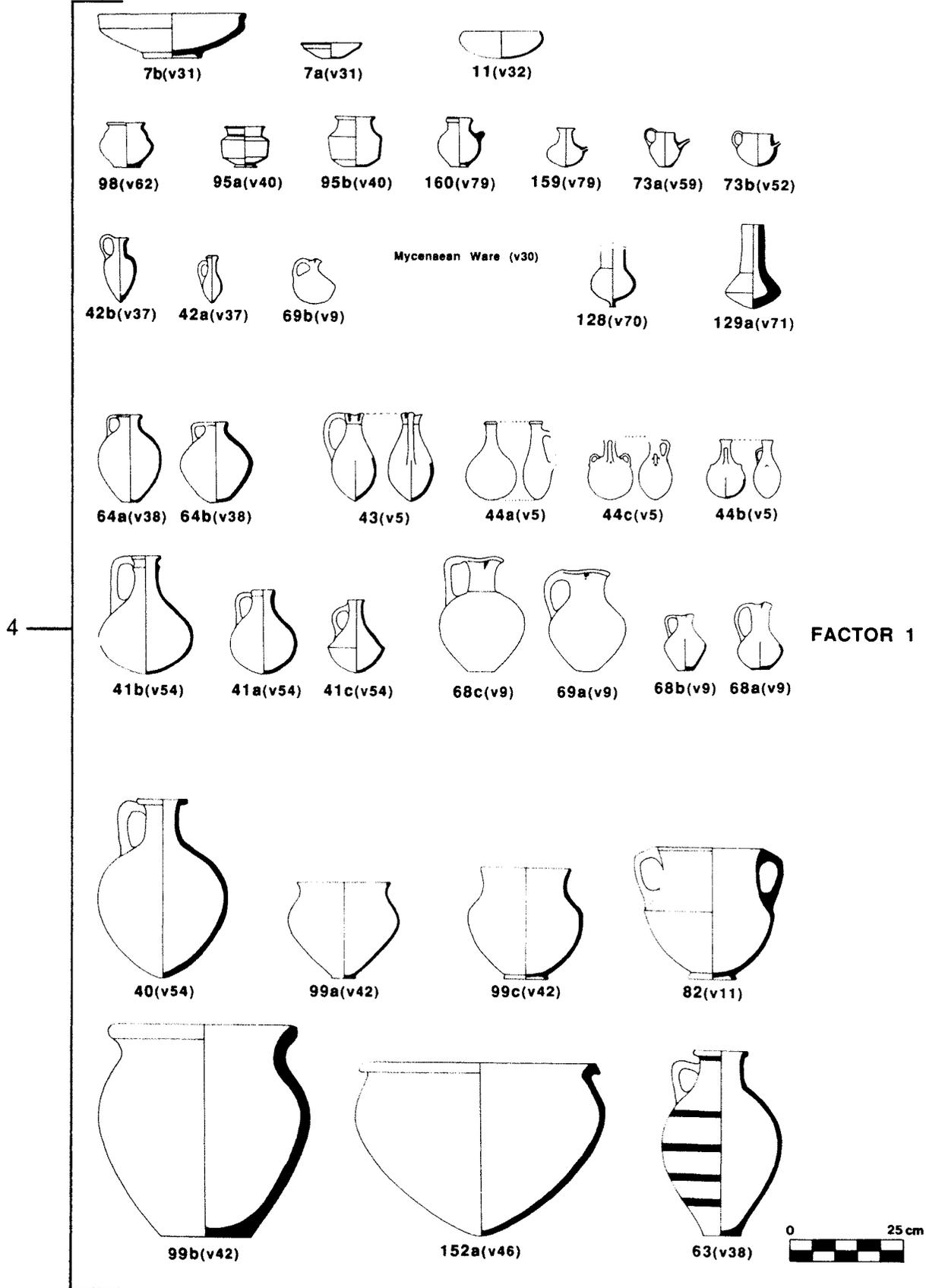


Fig. 36. Alalakh: Drawings of Variables (Pottery Types) That Load Highly on Factor 1.

DISCUSSION

Period 1: (levels 10[=XI-XVII], IX, and VIII)

Given these different analyses, we are now in a position to re-evaluate the strata and ceramics of Alalakh. Within Period 1 there are observable differences between the three assemblages. The earliest types are the painted bowl (types 23abc and 119), the eye pitcher (type 70), and the chalice (type 115). The eye pitcher is also found in levels VII and V, possibly an heirloom or an extrusive element, though it may have continued in production that late. Both it and the painted bowls (types 23abc and 119) are the main forms in Amuq-Cilician painted ware.⁶⁶ Certain examples of Painted Simple ware in Amuq I and J are similar to Amuq-Cilician ware, as for example bowl types 23abc and eye pitchers (type 70).⁶⁷

Unfortunately it is uncertain how many of the specimens of bowls 23abc and 119 were decorated with paint. That group of bowls was a dominant type in levels 10(=levels XI-XVII), IX, and VIII (fig. 38); it declined suddenly in Period 2. Another very frequent group consists of bowls 21a (v3) and 26a (v35) (fig. 38).⁶⁸ Bowl type 100 (v43) ranges from levels IX through V, but its importance in the earlier periods is strengthened by the "+" notation in the earliest levels (levels XIII, XIV, XV, and XVII) in Woolley's tables. It sometimes occurs with painted bands.⁶⁹ Similarly shaped bowls found on the Euphrates are assigned to the EB IV period.⁷⁰ If bowl type 100 is related to the Euphrates vessels and Amuq-Cilician ware to Simple Painted ware, then there may be some overlap with the earliest Alalakh pottery and that of EB IV and Amuq I and J.⁷¹

Period 2 (levels VII, VI, and V)

Factor 4 which includes types 106b and 21c is strongly represented in level VII. Those pottery types plus juglet type 137, most common in level VIII, have similarities with typical Middle Bronze Age II pottery in Palestine. The juglet type 137 is similar in shape to Middle Bronze Age II piriform juglets.⁷² With its rounded body walls and cyma-shaped rim and neck, bowl type 21c is similar to bowls of Period 1 and common Middle Bronze Age II vessels in Palestine.⁷³ The flaring rim and cordon neck of type 106b is also frequently found with a stemmed base in Middle Bronze II Palestine.⁷⁴ Gray ware is said to be characteristic of level VII but the frequency curve (fig. 37c) shows it to have a long range, which is present throughout the entire second millennium B.C., most common from levels IX through V, and at the peak of its frequency in

66. J. Tubb, "The MBIIA Period in Palestine: Its Relationship with Syria and its Origin," *Levant* 15 (1983): 49-62.

67. R. J. Braidwood and L. S. Braidwood, *Excavations in the Plain of Antioch, I: The Early Assemblages Phases A-J OIP* 61 (Chicago, 1960), figs. 317, 343-44.

68. These types are lumped in fig. 38 but kept separate elsewhere.

69. Woolley, *Alalakh*, pp. 310, 312.

70. E.g. R. H. Dornemann, "Tell Hadidi: A Millennium of Bronze Age City Occupation," in D. N. Freedman, ed., *Archaeological Reports from the Tabqa Dam Project — Euphrates Valley, Syria*, AASOR 44 (Cambridge, Mass., 1979), fig. 13.

71. See however the comment in Braidwood and Braidwood, *Excavations in the Plain of Antioch*, pp. 520-23.

72. K. M. Kenyon, *Excavations at Jericho*, Vol. I: *The Tombs Excavated in 1952-4* (London, 1960), p. 399.

73. K. M. Kenyon, *Excavations at Jericho*, Vol. 2: *The Tombs Excavated in 1955-8* (London, 1965), p. 393.

74. Cf. Gates, "Alalakh and Chronology," p. 67.

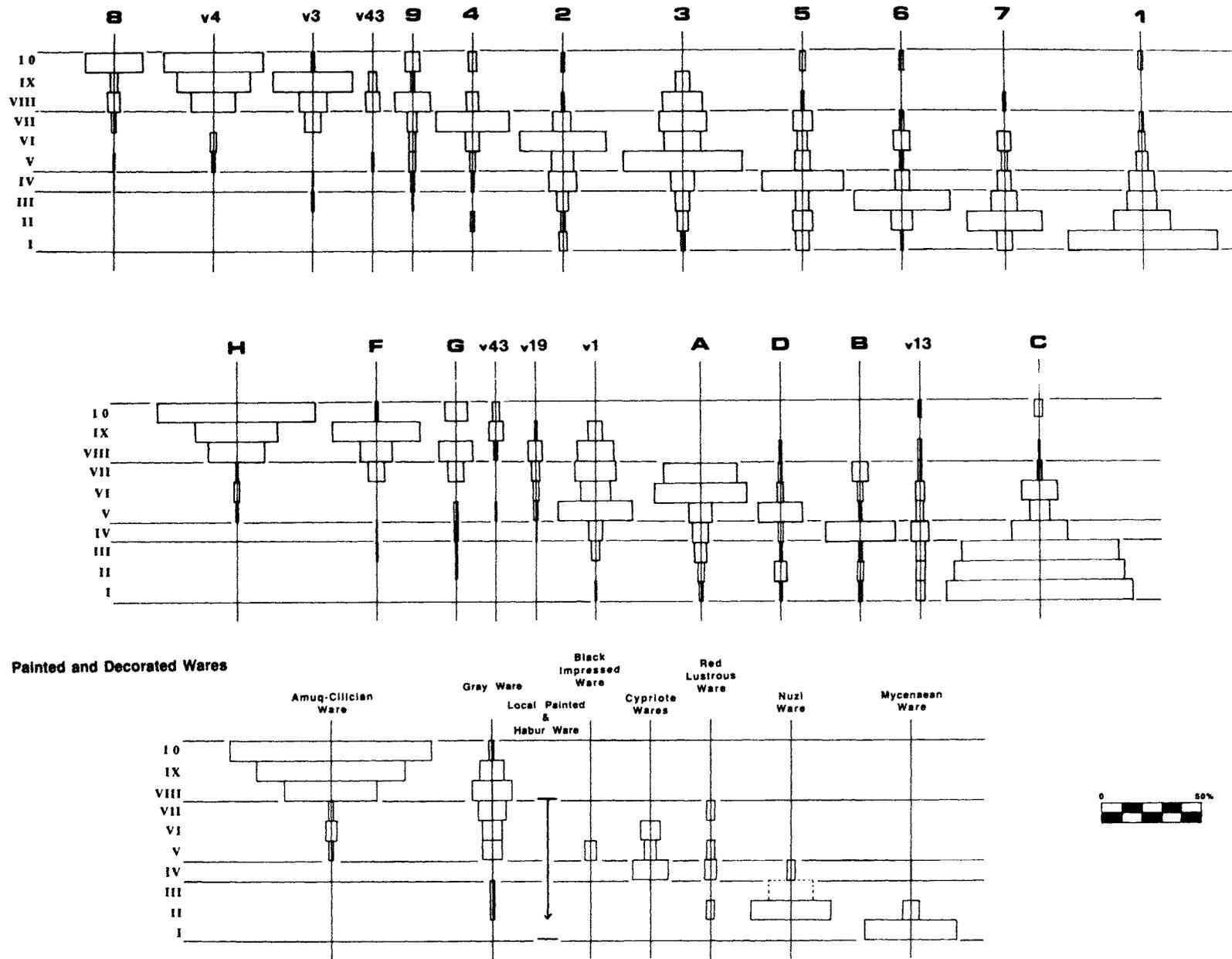


Fig. 37. Alalakh: (a) Frequency Curves for Variables (Pottery) Grouped by Nine Factors, (b) Frequency Curves for Variables (Pottery) Grouped by Clusters A to H, and (c) Frequency Curves for Painted and Decorated Wares.

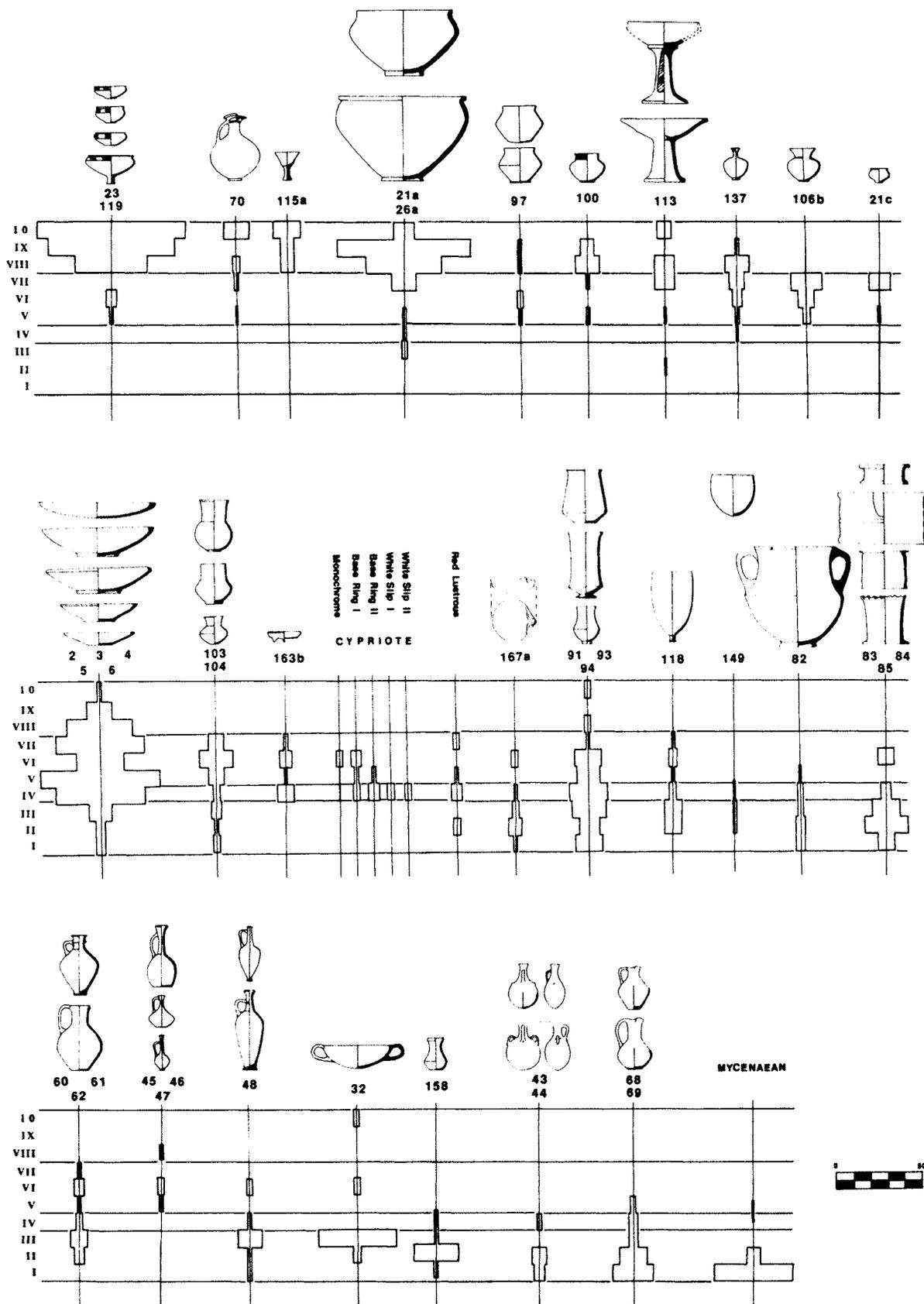


Fig. 38. Alalakh: Frequency Curves for Selected Pottery Types.

level VIII, not VII. Gray ware is not a good chronological indicator at Alalakh unless treated quantitatively.⁷⁵

Factors 2 and 3 also predominate in period 2, as do clusters A and D. Open bowls with inverted rims (types 2ab, 3a, 4b, 5, 6ab [v1]) are the most common vessels of the period.

Imported Cypriote pottery first appears in level VI with the introduction of Monochrome ware (v24) and Base Ring I ware (v25) (fig. 38). A graceful tall necked jug (type 45), which I lumped with types 46 and 47 into v55 and which loads on factor 2, is identified, probably correctly, as a Black Lustrous juglet by Gates; only two specimens are recorded, one in level 8 and the other in Va.⁷⁶ Åstrom does not recognize any examples of this ware at Alalakh, and there is some question whether it is Cypriote.⁷⁷

Transitional Period 3: (level IV)

Woolley correctly noted that the most common vessels in level IV are plates, Cypriote milk bowls (i.e. White Slip ware), beakers, and Base Ring jugs, but his comments that "With Level IV there comes a remarkable change in the pottery" and ". . . that the general character of Level IV pottery is quite different from that of earlier levels . . ." overlooks its transitional nature.⁷⁸ Many of the plates and open bowls common in level IV were equally common as a group in earlier levels (types 2ab, 3ab, 4b, 5, and 8ab [v1]); the same holds true for beakers (types 91ab, 93bc, and 94ab [v13]). Simultaneously some new types occur in level IV that become more common in Period 4 (e.g. types 48abc, type 158, types 43, 44abc, and types 68, 69). The overlapping of earlier and later types in Transitional Period 3 (level IV) partially accounts for the large number of types present (Woolley notes 120 types) while so few are distinctive to this period, i.e. Factor 5 (figs. 35 and 37a) and Cluster B (fig. 37b).

Cypriote ware stands out among the types distinctive to level IV; in fact the bulk of Cypriote ware is found in this level, especially Base Ring II (v26) and White Slip I (v28) and II (v29). These wares load on factor 5 (fig. 35) and belong to cluster B (fig. 32). There is a marked decline in the presence of Cypriote ware at Alalakh after the destruction of level IV.

Period 4 (levels III, II, and I)

The shared ceramic elements of the latest three levels at Alalakh are best illustrated by Cluster C (figs. 32 and 37b), but within the period each level has its own characteristics. Pottery of factor 6 (figs. 35 and 37a) is common in level III. Specific vessel types include goblets type 118ab (v18), a shape associated with Nuzi ware, and tall-necked jugs (types 48abc [v6]) which are very similar, if not identical, to spindle bottles of Red Lustrous ware. But the dominant component numerically is the round-base bowl with vertical loop handles (type 32 [v36]).

75. Woolley, *Alalakh*, p. 314; Gates, "Alalakh and Chronology," p. 67.

76. *Ibid.*, fig. 1; *idem*, *Alalakh Levels*, p. 23, Illustration 6:e-h.

77. Åstrom, "Relative and Absolute Chronology," p. 744; E. Oren, *Opuscula Atheniensia* 9 (1969): 130.

78. Woolley, *Alalakh*, pp. 318-19.

Level II is distinguished by pottery of factor 7, which includes jar stands (types 83, 84 and 85 [v12]) and squat pots (types 146, 147 (v77), and type 158 [v 21]). The jar stands, which are found in all levels of Period 4, indicate the presence of large round and/or point-based storage jars.

The main ceramic element of level I is Mycenaean pottery (v30). Closely related is the pyxis (type 95ab [v40]) and the pilgrim flask (types 43, 44abc [v5]). These types are assigned to factor 1 (fig. 36) which, though most common in level I (fig. 37a), are also well represented in earlier levels.

CONCLUSION

However we measure it, three major groups of levels emerge: Period 1 (levels 10 [=XVII-XI], IX, and VIII), Period 2: (Levels VII, VI, and V), and Period 4 (Levels III, II, I). Transitional Period 3 (level IV) stands in an intermediary position between the last two groups. Variations and differences between the levels exist in each of the three main periods, but their shared group similarities stand out. Conversely, there are noticeable breaks between the three major periods.

Sorting out the Alalakh pottery by level and period is a first step to making more secure synchronisms. Correlations with Megiddo are critical, but until a similar quantitative analysis is performed on the Megiddo material my comments are tentative. Period 1 (levels 10, IX, and VIII) of Alalakh probably dates to stratum XIII and earlier; the ceramic traditions are so different as to make any comparison hazardous. Period 2 (levels VII, VI, and V) at Alalakh may range from Kenyon's group B (or even A?) to group H. The main problem is how early to begin level VII. Albright and Kantor's scheme may remain the best solution; in other words give level VII a long duration. If the pottery of a stratum tends to date to the latter part of an occupation, i.e. at the time of destruction/abandonment, then the sizeable difference between the pottery of level VII and earlier level VIII reflects either a very long occupation period or an actual gap in occupation; the archives of level VII may provide evidence for the former explanation. Dever's placement of Alalakh VIII to XIII so late in relation to Megiddo does not seem possible given the difference between the assemblages of VIII and VII and the lack of similarity between levels VIII-XIII and Kenyon's groups A-E at Megiddo. On the other hand the synchronism of Alalakh VI with Kenyon's groups E and F by Gates and Kempinski appears to be too high, since Cypriote pottery is found in level VI but it is absent in Kenyon's groups.

Like Gates I think Cypriote pottery is our best tool at the moment for synchronisms, but in contrast to her I would stress its general distribution pattern. In figure 38 we observe that Monochrome and Base Ring I occur in level VI while in level V there is Base Ring I, Base Ring II, and White Slip I. But it is in level IV that Cypriote Base Ring I, Base Ring II, White Slip I, and White Slip II is most plentiful at Alalakh. Such a distribution pattern is similar to evidence from Cyprus and Palestine. Åstrom showed that in Cyprus these wares reach a peak in LC IIA.⁷⁹ Alalakh level IV fits best at the transition of LC IB2 and LC IIA1.⁸⁰ Turning to the mainland, Gittlen has shown that ". . . LB IIA, the Amarna Age, was the period of greatest frequency for Base-Ring I, Base-Ring II, . . . and White Slip II pottery in Palestine."⁸¹ At Megiddo stratum VIII is assigned

79. Åstrom, *The Swedish Cyprus Expedition*, p. 124.

80. *Ibid.*, pp. 700-01.

81. B. Gittlen, "The Cultural and Chronological Implications of the Cypro-Palestinian Trade During the Late Bronze Age," *BASOR* 241 (1981): 49-59.

to the LB IIA period which is dated to the fourteenth century by Palestinian archaeologists.⁸² A synchronism of Alalakh IV with Megiddo VIII would therefore place level IV's destruction in the fourteenth century, if the date for Palestinian LBIIA is secure. How much earlier Period 2 is than Transitional Period 3 (Alalakh IV), remains unclear. In any case level VII cannot date much earlier than VI and V on the evidence of its close relationship to them, as seen in factor and cluster analysis.

82. *Idem*, *Studies in the Late Cypriote Pottery Found in Palestine*. Unpublished Ph. D. dissertation, University of Pennsylvania, (Ann Arbor, 1977); Gonen, "Megiddo," p. 96.

Chapter 15

CROWN WINDOW PANES: CONSTANTINIAN OR JUSTINIAN?

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Attempting to guess the number of students Helene Kantor has taught Near Eastern art and archaeology, much less guided through field work, theses, and dissertations, soon becomes startling. Whatever the true figure, the extent of her influence on her students would be hard to overestimate. Many of us remember her massive bibliographies and insistence on familiarity with the old sources, the original material, which has doubtless saved us much fruitless reduplication of effort. Not that all of us have stuck to the straight and narrow, the prehistoric or early historic periods, but given the range of Dr. Kantor's studies, from Egypt to Iran and beyond, perhaps she will be tolerant of this offering, late in time range.

Window glass lacks the glamour of, say, the Portland Vase, but at some sites there is so much of it that the excavator must do something with it — tabulate it, draw a sample, and report it. On reflection, it becomes even more important, so many window panes so suddenly, and the implications of windows with or without glass. Anyone who has ever lived in a house with unglazed, shuttered windows will confirm that it becomes an on-going question of choosing between cold and wind or light, cool shade or visibility, not to mention dust and rain. When window glass became generally available it affected people's daily activities, the way both private and public buildings were planned, and hence to some extent even the city layout. The date when easily manufactured window panes, the "crown" or "bull's-eye" type, came into use should therefore be of some importance. It is generally stated to have been developed in the Near East in the fourth century A.D., largely if not entirely replacing the older style of flat panes. The technique was carried to Italy and eventually to western Europe¹ and it remained in use until a new, more efficient means of making flat glass was invented more than a millennium later. Evidence from recent excavations, particularly from churches, points to a sixth century date, however, and re-examination of the old sources provides no compelling evidence for the earlier date.

1. D. B. Harden, "Roman Window-panes from Jerash, and Later Parallels," *Iraq* 6 (1939): 91; idem, "Ancient Glass, III: Post-Roman," *Archaeological Journal* 128 (1971): 82–83.

Three methods of making window panes are in question. The flat, cast panes were formed by pouring molten glass into a mold made of stone, wood, or clay² and tooling or rolling it until it reached the edges and corners. If a roller was used, the panes may be called “roller-molded,” though unless a mark remains on the surface it is impossible to tell a tooled pane from a roller-molded one. Upper surfaces are smooth, but the lower ones tend to be rough, a glossy/matte finish. This is probably the oldest type of window glass, attested as early as the first century A.D. at Pompeii, if not in abundance.³ The second kind of flat glass is made by blowing a cylinder, cutting it lengthwise and flattening it out, the “muff” process. Blown glass vessels did not become prevalent until the first century A.D., and muff glass is generally dated later still, after ca. A.D. 300.⁴ Muff glass has the advantage of being smooth on both sides; most of the medieval stained glass windows were made from such sheets. It can be difficult to distinguish cast from muff glass, especially if there is a decomposition layer on the surface, but in case of doubt both kinds may still be labeled “flat” panes. The third process yields the round crown or bull’s-eye panes. The glassworker blows a globe, attaches a pontil rod to the base, and cuts open the mouth of the globe as if making a glass cup or bowl. He then spins the glass by the pontil rod until it “flashes” or opens out into a nearly flat disk. Virtually all the crown panes included in this study have rims that were folded down, presumably to strengthen them. The crown technique produces a pane that is thin on the edges and thick in the center — the bull’s-eye famous from Dutch paintings — but has the advantages of being fire-polished on both sides and fast and easy to manufacture, and hence cheap. Most of the glass made by any of the three methods was blue, blue-green, or green, but a wide variety of colors are reported, and even a little colorless glass. One could not as a rule see out of the windows even had they been at eye level, but they would have admitted light, generally a cool blue or green, and kept out the wind.

The two sites said to have yielded the earliest crown window panes (4th–5th cent. A.D.) are Jerash and Samaria, so the evidence from there should be reviewed. The 1982–1983 excavations of the ACOR team of the Jerash International Project retrieved a large corpus of glass, all of which was kept, cleaned, tabulated, and then discarded or retained for further study. The loci in which glass was found were dated primarily by the pottery and stratigraphic position, secondarily by the coins and lamps. Several hundred window panes were included in the corpus as illustrated below:

	<i>EByz</i> ⁵	<i>LByz</i>	<i>LByz/Um</i>	<i>Um</i>	<i>Post-Um</i>
Flat Panes (+ 1 Roman?)	11	1(?)	1(?)	1(?)	4(?)
Crown Panes (1 plate?, 1 v. thin)	2(?)	8(?)	47	69	18
Unidentified Panes	273	2	14	41	12

- George C. Boon, “Roman Window Glass from Wales,” *Journal of Glass Studies* 8 (1966): 44; Carol Meyer, “Glass from the North Theater, Byzantine Church, and Soundings at Jerash, Jordan, 1982–1983,” *Bulletin of the American Schools of Oriental Research Supplement* 25 (1987): 195.
- Mary Luella Trowbridge, *Philological Studies in Ancient Glass*, University of Illinois Studies in Language and Literature, vol. 13 (Urbana, 1930), p. 187.
- Boon, “Roman Window Glass from Wales,” p. 45. An alternative method of sealing windows, thin sheets of translucent stone such as mica or perhaps gypsum, is mentioned by Roman writers as late as the fourth century Trowbridge, *Philological Studies in Ancient Glass*, pp. 187–88.
- The dates used by the Jerash International Project were: Early Byzantine = A.D. 324 to 491, Late Byzantine = A.D. 491 to 636, Late Byzantine/Early Umayyad = ca. A.D. 630 to 670, Umayyad = A.D. 661 to 747 or later. The time periods are historical markers such as the Battle of Yarmouk and hence are more or less arbitrary divisions of the stream of cultural changes and technological innovations.

Flat panes are best attested in the Early Byzantine period and then dwindle sharply. Most of the Early Byzantine window glass, 281 pieces out of 286, came from trench JNT-A-XIV, the access corridor to the North Theater, downslope from the Byzantine period church of Bishop Isaiah. The glass is thought to come from an earlier church or from repairs to the Bishop Isaiah church, but the excavations were terminated before soundings below the floor level could be made. Much of the JNT-A-XIV glass was flat, but unfortunately the interest of flat versus crown panes was not appreciated during the course of the excavations so the fragments were simply recorded as "window glass." What is clear is that crown panes became much more abundant in the Late Byzantine/Early Umayyad period, seventh century, and later. Eight pieces, of which two are uncertain, are attested in the Late Byzantine period (6th to early 7th cent.) enough to indicate at least their presence. The two possible Early Byzantine crown panes are so thin they may actually be dishes; the manufacturing technique is the same and if the sherds are small it is difficult to be certain. On the other hand, some of the pieces published as "dishes or shallow bowls" from the excavations in the 1930s⁶ are most likely window panes.

The problem is that the Jerash crown panes and other glass were dated to the fourth-fifth centuries in the old publications. Given the severe earthquakes in the eighth century, Baur states that "We can therefore say that all the glass dates before the middle of the eighth century. Most of it belongs to the fourth or fifth century A.D., as is evinced by the quality of the glass and especially by the forms. Shapes of the second and third centuries are more pleasing, more graceful . . ." ⁷ There is post-Umayyad material at Jerash, but the main objection is that "less pleasing" does not seem an adequate reason to assign all the glass a date two to three hundred years earlier than the earthquakes, especially as many of the vessel forms Baur published as fourth-fifth centuries would now be dated to the sixth-seventh centuries on evidence from recent excavations at Jerash and elsewhere.⁸ Two major deposits of glass treated in the old study came from a room below the stairs from the cathedral's Fountain Court up to St. Theodore's and from a passage north of St. Theodore's.⁹ The latter was destroyed by an earthquake,¹⁰ presumably the one of A.D. 746/747; the date of the collapse of the cathedral is uncertain, but as some reconstruction was undertaken as late as the sixth and seventh centuries¹¹ it seems unlikely that the glass, which was as much as 0.25 m deep,¹² was buried as early as the fourth or fifth centuries. The window glass itself was only briefly described; it included panes with straight and curved edges, with and without bulls'-eyes, in green, blue, and clear glass,¹³ evidently both flat and crown glass.

The other place consistently cited as having fourth to fifth centuries crown panes is Samaria. Here "round panes with both folded rims and with thickened rims were found, the former being the earlier and

6. P. V. C. Baur, "Other Glass Vessels," in Carl H. Kraeling, *Gerasa: City of the Decapolis* (New Haven, 1938), pp. 528, 532.

7. *Ibid.*, p. 518.

8. Meyer, "Glass from Jerash," pp. 175–222.

9. Baur, "Other Glass Vessels," p. 514.

10. J. W. Crowfoot, "The Christian Churches," in Carl H. Kraeling, *Gerasa: City of the Decapolis* (New Haven, 1938), p. 220.

11. *Ibid.*, pp. 217, 211.

12. Baur, "Other Glass Vessels," p. 514.

13. *Ibid.*, p. 546.

commoner kind,"¹⁴ a sequence not reported elsewhere. The earliest panes came from the floor of the Ganymede House, broken into small fragments.¹⁵ The Ganymede House is dated by fourth century coins and pottery.¹⁶ The first problem is that small sherds of crown panes are, as mentioned, difficult to distinguish from plates, a form in use from Roman times onwards; the Samaria panes are only described, not illustrated. Secondly, some of the other Ganymede House glass¹⁷ appears to be sixth century or later, particularly the bottles with flaring mouths and rolled-in rims, and the tumbler lamp handle.¹⁸ Round panes with thickened rims and some large flat panes, possibly roller-molded, are mentioned from the "glass factory" area as well, fourth to fifth centuries.¹⁹ This refers to the southwest corner of the forum, which had two post-Roman occupation levels over the portico. The lower level had a "patch of plain mosaic paving which might date from the Byzantine or Umayyad period; under the mosaics was a mass of broken glass" including wasters presumed to have come from a near-by glass factory.²⁰ If the occupation level and mosaic are seventh to eighth centuries, or even sixth to eighth centuries, there is no compelling reason to date the glass two or three centuries earlier, especially as the forms published, not just the window glass, are comparable to pieces with later dates from other sites.²¹ More window panes, both round panes with folded rims and ones with thickened rims, are noted from the church of St. John the Baptist and the Monastery in area Db; in this case the dates (early 6th to 15th cent.) are so broad that they do not conflict with the other evidence.²²

Large, excavated, published glass corpora from the Near East are scarce, but there are a few that bear on the question of the introduction of crown panes: Sardis in Turkey, Karanis in Egypt, Carthage in Tunisia, and the church at Shavei Zion. At Sardis thousands of sherds of window glass were recovered, representing over 1000 panes and constituting by weight more than all the other glass put together. The panes are flat, most are glossy on both sides though a few are glossy/matte, and all or most seem to have been manufactured by the muff process.²³ Most are light aquamarine, plus some olive, and a few clear pieces, and the largest are about 32 × 40 cm. The panes are dated to the Early Byzantine period, which at Sardis means ca. A.D. 400 to 616.²⁴ Sardis was virtually deserted for several centuries, but reoccupied in the late tenth to thirteenth or fourteenth centuries, and the window panes from these levels, about thirty fragments, are all crown panes in blues, pale

14. G. M. Crowfoot, "Glass," in J. W. Crowfoot, G. M. Crowfoot, and Kathleen M. Kenyon, *The Objects from Samaria* (London, 1957), p. 420.

15. *Ibid.*, p. 420.

16. J. W. Crowfoot, Kathleen M. Kenyon, and E. L. Sukenik, *The Buildings at Samaria* (London, 1942; reprint ed., 1966), p. 62.

17. Crowfoot, "Glass," p. 417, fig. 98.

18. Meyer, "Glass from Jerash," pp. 200, 202, 205–6, 208.

19. Crowfoot, "Glass," pp. 420–21.

20. Crowfoot, Kenyon, and Sukenik, *The Buildings at Samaria*, p. 57.

21. Note especially the trailed thread decoration, both looped and flat footed goblets, and hollow stem lamps (Crowfoot, "Glass," p. 405) all of which would be dated to sixth to seventh centuries or later. Meyer, "Glass from Jerash," pp. 196, 199–203, 208.

22. Crowfoot, "Glass," p. 421.

23. Hanfmann, however, states that they are more nearly akin to the roller-molded glass than to the medieval Islamic or Byzantine glass; George M. A. Hanfmann, "A Preliminary Note on the Glass found at Sardis," *Journal of Glass Studies* 1 (1959): 50, 52.

24. Axel von Saldern, *Ancient and Byzantine Glass From Sardis* (Cambridge, Mass., 1980), pp. 91–92.

yellow, purples, green, and olive.²⁵ If a date in the sixth century is possible or probable for the development of crown glass, it is somewhat surprising to find none from the equivalent levels at Sardis. Events during the later history of Sardis, however, may not have been conducive to new building programs and the introduction and manufacture of a new item, crown panes. Sardis suffered a series of troubles in the 6th cent. including heavy taxation,²⁶ war and plague, culminating in widespread burning and destruction in the early seventh century; the coin series stops at A.D. 616.²⁷ The large corpus of glass from Karanis included only a few pieces of flat, roller-molded glass,²⁸ but the Faiyum suffered a depression in the 4th cent., and Karanis was effectively abandoned by the mid-fifth century.²⁹ At Carthage window glass was not cataloged but it appears to be the double-glossy muff or cylinder-blown type. It occurred in all but the "Building 1 period"; and indeed 89% of the glass from Carthage fell into the A.D. 425–700 range.³⁰ Finally, the glass from the Byzantine church at Shavei Zion may be noted; it included some 300 fragments of window glass, all said to be roller-molded. The corpus as a whole dates to the fifth to sixth centuries or a little earlier.³¹ At none of these sites is there any mention of fourth century round or crown panes.

Some of the earliest narrowly dated crown panes may perhaps come from the time of Justinian, who ruled from A.D. 527 to 565. Some crown panes from S. Vitale in Ravenna were found "in such a position that they almost certainly came from the windows and apse and were probably the original ones inserted when the basilica was dedicated in A.D. 547–8."³² Most of the panes are monochrome, in various colors, but one is painted with Christ in majesty, which may be dated also by comparison to a sixth century mosaic in S. Apollinare Nuovo at Ravenna.³³ Following Justinian's conquests in Italy, a great deal of building was carried out, notably the churches at the capital city Ravenna, and it is difficult to see how imperial Byzantine art — including mosaics and architecture — could have been imported there on a large scale before that time. St. Catherine's monastery in the Sinai, another Justinian foundation, still has crown panes in some windows, though their date is not certain. Finally, the greatest church of all, Hagia Sophia, had small glasses in the apse or vault to let sunlight in.³⁴ Given the impressive number of churches, defensive systems, and other construction undertaken during Justinian's reign,³⁵ it may be suggested — but only suggested — that a short-

25. Ibid., p. 101.

26. A. A. Vasiliev, *History of the Byzantine Empire*, 2 vols. (Madison, Wisconsin, 1928), pp. 195–97.

27. Jane Ayer Scott, "Sardis in the Byzantine and Turkish Eras," in Eleanor Guralnick, ed., *Sardis: Twenty-Seven Years of Discovery* (Chicago, 1987), pp. 79–80.

28. D. B. Harden, *Roman Glass from Karanis* (Ann Arbor, 1936), pp. 302–3; idem, "Roman Window-panes from Jerash," p. 91.

29. Hamca Geremek, *Karanis: Communauté rurale de l'Égypte romaine au IIe – IIIe siècle de notre ère* (Warsaw, 1969), pp. 49–52.

30. V. A. Tatton-Brown, "The Glass," in *Excavations at Carthage: The British Mission*, vol. 1, pt. 1 (Sheffield, 1984), pp. 208, 210.

31. Dan Barag, "The Glass," in M. W. Prausnitz, *Excavations at Shavei Zion* (Rome, 1967): 69–70.

32. Harden, "Ancient Glass III: Post-Roman," p. 84; Giuseppe Bovini, "Les Anciens Vitraux de l'église Saint-Vital a Ravenna," *Annales du 3e Congrès International d'Etude Historique du Verre* (Liège, 1964), pp. 85–86.

33. Bovini, "Les Anciens Vitraux de l'église Saint-Vital a Ravenna," p. 89; Joseph Philippe, *Le Monde Byzantine dans l'histoire de la verrerie* (Bologna, 1970), pp. 89–90.

34. Trowbridge, *Philological Studies in Ancient Glass*, p. 188; Philippe, *Le Monde Byzantin dans l'histoire de la verrerie*, p. 18.

35. Vasiliev, *History of the Byzantine Empire*, pp. 226–31.

cut to glazing windows such as crown panes would have been welcome, and could have been widely distributed in a fairly short span of time. At least eight out of the fourteen Jerash churches known to date were founded or refounded at that time,³⁶ not counting subsidiary chapels, and Justinian is known to have sent teams of imperial architects from Constantinople to work on far-flung projects such as St. Catherine's.

Other early but more broadly dated crown panes have been published from Jerusalem, sixth century.³⁷ A fifth to sixth centuries fragment from Nikertai near Apamea is listed as a bowl rim³⁸ but may be a crown pane. At Dibon two "plate" rims from the fill of a Byzantine period bath may also be crown panes.³⁹

By the ninth century, however, the use of round bull's-eye panes is well established. A large number were recovered from the houses and palaces at Samarra in reds, greens, yellow, blue, violet, black, amber, and colorless glass, plus a few chunks of the thick plaster frames that held the panes.⁴⁰ A crown pane from Iran (no provenance) seems to have been dated to the ninth century by comparison to the Samarra material.⁴¹

Farther afield, numerous fragments of crown panes, in dark blue or greens, were excavated at the eleventh to twelfth century Corinth glass factory.⁴² Soba in the Sudan has produced crown panes ranging in date from the sixth to twelfth centuries, some associated with a church.⁴³ At Debira West, a series of crown panes come from both house and church areas, ranging in date from eighth to eleventh centuries, plus some material as early as the seventh century.⁴⁴ A surface collection at Aidhab, an important Red Sea port from the eleventh century to A.D. 1426, produced a purple crown pane.⁴⁵ Sites that yielded crown panes but no usable dates include Mt. Nebo, displaying a wide range of colors plus some fragments of the plaster frames,⁴⁶ Bethany,⁴⁷ and Hama, which seems to have both straight-edge and round panes⁴⁸ though the purple panes may tentatively be placed late by comparison to the later Sardis material and to Aidhab.

36. Fawzi Zayadine, ed., *Jerash Archaeological Project 1981–1983* (Amman, 1986); Iain Browning, *Jerash* (London, 1982).
37. J. W. Crowfoot and G. M. Fitzgerald, *Excavations in the Tyropoean Valley, Jerusalem 1927*, Annual of the Palestine Exploration Fund (London, 1929), pp. 37, 99.
38. Maria Theresa Fortuna Canivet, "Vetri del V–VI Secolo Trovati nell'Apamene (Siria)," *Journal of Glass Studies* 12 (1970): 64–66.
39. A. D. Tushingham, *The Excavations at Dibon (Dhibân) in Moab*, Annual of the American Schools of Oriental Research, vol. 40 (Cambridge, Mass., 1972), pp. 61, 157; fig. 13: 17, 18. On the other hand, the fragments of "shallow bowls or plates" from Araq el-Emir datable to ca. A.D. 100–150 or ca. 365–500 are hard to judge because of their small size. Nancy L. Lapp, ed., *The Excavations at Araq el-Emir*, vol. 1, Annual of the American Schools of Oriental Research, vol. 47 (Cambridge, Mass., 1983), pp. 44, 54, 56; figs. 19, 22, 24.
40. Carl Johan Lamm, *Das Glas von Samarra*, Die Ausgrabungen von Samarra, vol. 4 (Berlin, 1928), pp. 127–28.
41. Carl Johan Lamm, *Glass from Iran* (London, 1935), p. 10; pl. 14.
42. Gladys R. Davidson, "A Medieval Glass-Factory at Corinth," *AJA* 44 (1940): 322.
43. P. L. Shinnie and D. B. Harden, *Excavations at Soba*, Sudan Antiquities Service, Occasional Papers 3 (Khartoum, 1955), p. 64; fig. 37.
44. D. B. Harden, "Glass," in P. L. Shinnie and Margaret Shinnie, *Debeira West* (Warminster, 1978), pp. 88–89, 93.
45. Shinnie and Harden, *Excavations at Soba*, p. 76.
46. Sylvester J. Saller, *The Memorial of Moses on Mount Nebo* (Jerusalem, 1941), pp. 64–66.
47. Sylvester J. Saller, *Excavations at Bethany* (Jerusalem, 1956), p. 326.
48. P. J. Riis and Vagn Poulsen, *Hama: Fouilles et Recherches 1931–1938*, vol. 4, pt. 2 (Copenhagen, 1957), pp. 38–39, 43–46.

The change from flat, rectangular panes to crown panes had a number of implications, starting with the fact that the latter type was much easier to make and thus less expensive. The older style of flat panes were held in place at least in part by lead strips⁴⁹ whereas crown panes were held by cheaper plaster frames, remnants of which have been found stuck to panes from Jerash, Mt. Nebo, and Samarra.⁵⁰ The shapes of windows had to be adapted to hold the different shapes and sizes of panes. At Sardis flat panes up to 40 × 30 cm rectangular must have been made,⁵¹ whereas the usual range of diameters for bull's-eye glass is about 21 to 24 cm; at least two, probably four or more, round panes would be set in a window.⁵² Most importantly, however, glass allows light to enter rooms and blocks the wind, dust, and weather. Vitruvius, working and writing about the end of the first century B.C., pays considerable attention to placing rooms to catch the best light; as many as three triclinia per house are recommended,⁵³ and storage of books, wine, oil, and even cattle must be oriented to the appropriate light and wind.⁵⁴ A basilica is to be located on the warmest side of the forum so that business may be conducted in the winter,⁵⁵ and a long discussion on city planning instructs that entire cities and their streets should be laid out to avoid or break the force of prevailing winds.⁵⁶ His lengthy sections on building materials and parts of buildings nowhere mention glass for windows. Once an adornment of the most luxurious palaces, flat window panes gradually came into more widespread use, as at Sardis, but with the development of blown crown panes in the sixth century A.D. it became feasible to use much more. Judging from the archaeological evidence, the architects for the many new churches founded in the sixth century were quick to adopt the use of a great deal of glass, perhaps with the theological connotation of letting in the light of God. Certainly by the ninth century a great deal of crown glass was used both in public buildings and in private homes, from Samarra, capital city of the Abbasid caliphs, to places as remote as the Sudan.

49. von Saldern, *Ancient and Byzantine Glass from Sardis*, p. 92.

50. Window glass in some Athenian churches, however, is reported to be held in stone frames. Philippe, *Le Monde Byzantin dans l'histoire de la verrerie*, p. 18.

51. von Saldern, *Ancient and Byzantine Glass from Sardis*, p. 91.

52. Harden, "Roman Window-panes from Jerash, and Later Parallels," p. 91.

53. Vitruvius *On Architecture* 6.4. Loeb Classical Library, 1934.

54. *Ibid.*, 6.6.

55. *Ibid.*, 5.1.

56. *Ibid.*, 1.6.

Chapter 16

MOSAIC, GLASS, AND FRIT VESSELS FROM MARLIK

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In 1961 and 1962 a team from the Archaeological Service of Iran, under my direction, carried out the excavations of Marlik Tepe, located in the highlands of the Elburz mountains, in the region of Rahmatabad of Rudbar in the province of Gilan (fig. 39). Marlik Tepe, one of five prominent and apparently related mounds in the valley of the Gohar Rud (Crystal River), proved to be the royal cemetery of a long forgotten kingdom which had flourished in this area during the late second and early first millennium B.C. (pl. 34).

The people of Marlik, who left almost no written records, seem to have belonged to that group of Indo-Iranians, possibly called Marda or Amarda, who entered Iran and settled along the northern slopes of the Elburz mountains and the southern shores of the Caspian Sea during the second half of the second millennium B.C. They established a strong kingdom in this area and used the mound of Marlik for their royal cemetery for at least two or three centuries between the fourteenth and tenth centuries B.C. Scattered over the crest of this mound were fifty-three roughly constructed tombs (fig. 40) filled with a profusion of gold, silver, bronze, and pottery objects which give testimony to the wealth and sophisticated craftsmanship of this three thousand year old culture.

Included among the wide variety of objects crowding the Marlik tombs were a few mosaic, glass, and frit vessels. Glazed pottery, frit, and glass have a long background of development in the ancient world. It has been suggested that the first glazes were produced as early as the fifth millennium B.C.,¹ but it took some time to solve the problem of how to make the alkaline glaze adhere to an ordinary clay body and the earliest examples of glazed pottery vessels found belong to the sixteenth century B.C.² Glass, which began with the production of thick glazes, also was developed over a long period of time. Peltenberg suggests that the earliest glass objects produced in a discipline of glass making date to the mid-second millennium B.C.,³ a date supported by findings of early Egyptian glass.⁴ The process of making polychrome into vitreous material was

1. Edgar Peltenberg, "Some Early Development of Vitreous Materials," *World Archaeology* 3 No. 1 (June, 1971): 6.
2. *Ibid.*, pp. 7-8.
3. *Ibid.*, p. 8.
4. B. von Nolte and T. E. Haevernick, *Ägyptische und griechische frühe Glassgefäße*, *Wissenschaftliche Zeitschrift der Universität Rostok-16 Jahrgang 1967*, Gesellschaft und Sprachwissenschaftliche Reihe, Heft 7-8, Herausgeber: Der Rektor, pp. 491-93.

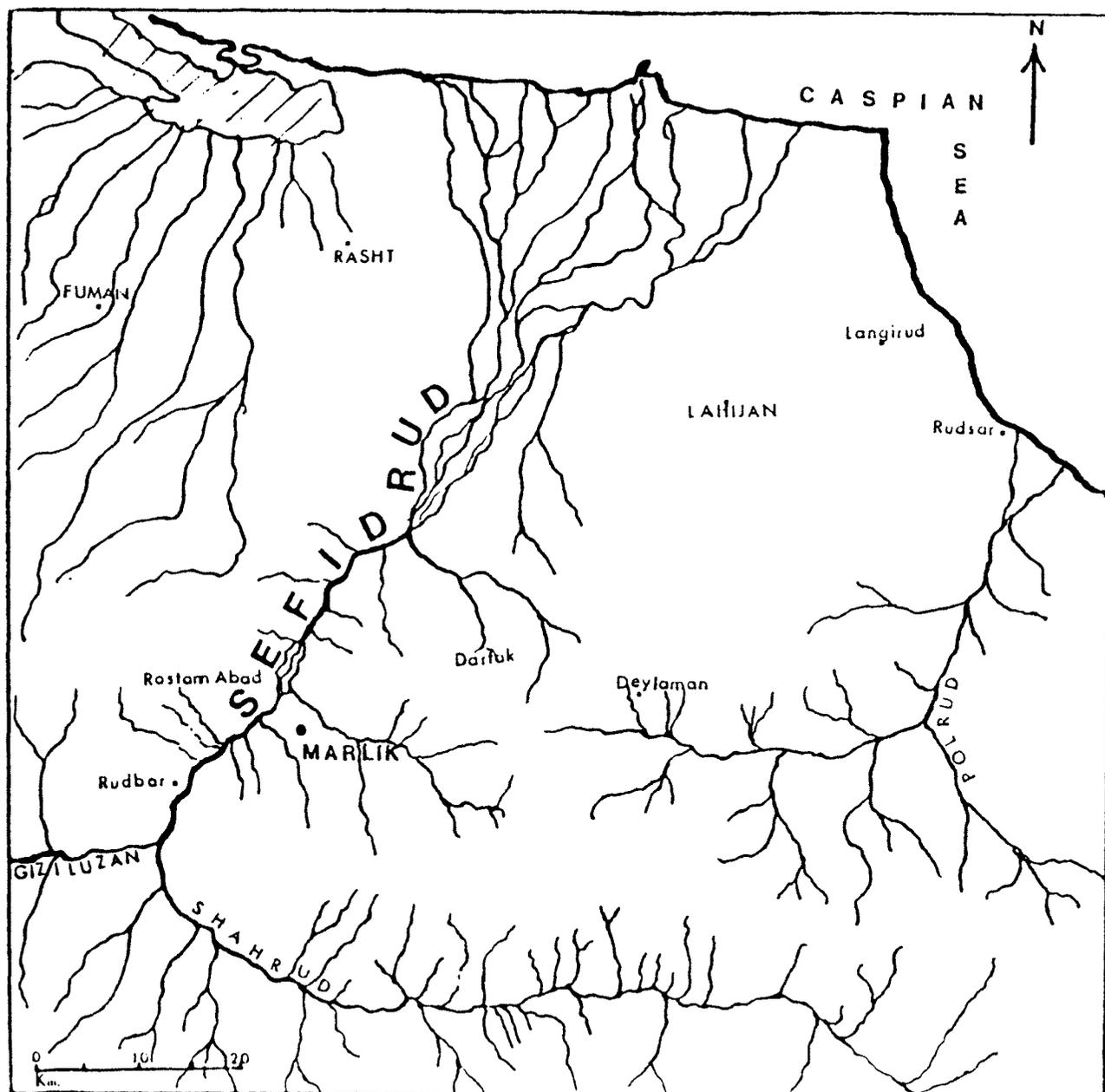


Fig. 39. Map of the Province of Gilan in Iran.

also developed around the sixteenth century B.C.⁵ The various techniques used to make glass in ancient times have been described in detail by Schuler.⁶

For its period, the late second and early first millennium B.C., the Marlik Royal Cemetery was relatively rich in glass-like vessels, containing eight examples altogether. Found in the Marlik tombs were three mosaic glass vessels, four frit vessels and one vitreous-frit vessel. Although eight might not seem to be a

5. Peltenberg, "Some Early Development of Vitreous Materials," p. 9.

6. Frederic Schuler, "Ancient Glassmaking Techniques, the Molding Process," *Archaeology* 12 No. 1 (Spring, 1959): 47-52; idem, "Ancient Glassmaking Techniques, the Blowing Process," *Archaeology* 12 No. 2 (Summer, 1959): 116-22; idem, "Ancient Glassmaking Techniques, the Egyptian Core Vessel Process," *Archaeology* 15 No. 1 (Spring, 1962): 32-37.

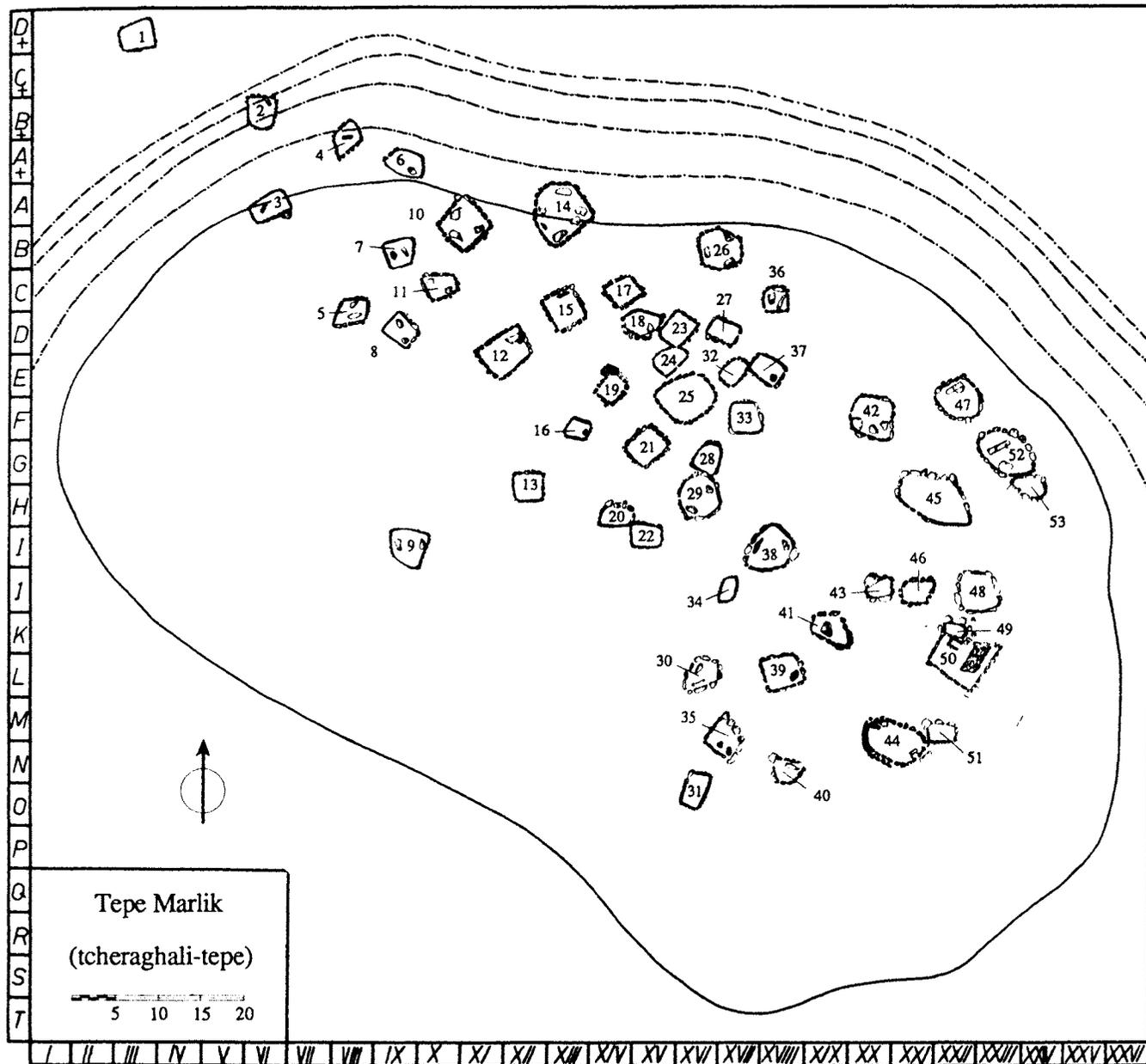


Fig. 40. Tepe Marlik: Plan Showing Distribution of Tombs.

large number, it becomes more impressive when compared to the one or two examples of similar type found in other excavated sites of the second half of the second millennium B.C.

MOSAIC GLASS VESSELS

Three mosaic glass vessels were found in Tomb 45 of Marlik. Their location in the same tomb points to the probability that all three were made by the same glass maker in whose workshop the technique of producing mosaic glass was well developed. Since the process was very delicate and consequently expensive, such a glass workshop would most probably only have been found at the seat or capital of a major power.

MOSAIC VASE 1114 M (pl. 35a, b)

This vase, badly broken and restored,⁷ about 17.0 cm high and 7.0 cm in diameter of the rim with walls about 0.4 cm thick and found in Tomb 45, Trench XXII H, is made of an elaborate glass mosaic, formed of very fine small cylinders of blue and white stone, each about 0.275 in diameter, laid next to each other in a mortar which vitrified to red or green upon firing. This beautiful mosaic vase is tall with a knob at the rounded bottom and very slightly outward curving sides ending in a plain rim which has been ground smooth. The knob at the base fits into a hole in the center of a separate stand, only part of which was found, with a round base and projecting center with a cavity in the middle.

The technique used in making this mosaic vase has been very carefully carried out, with the individual rods precisely made and the heating in the kiln well controlled so that the light blue and white rods were not noticeably affected, while the red mortar used to bind the rods together flowed into the interstices of the pattern, becoming a little deformed and in some parts changing in color to green. Alternatively the present greenish color of some of the mortar may have been produced by the long period underground. This vase was studied by Von Saldern⁸ and several very small broken pieces left from the restoration were analyzed at the Corning Museum of Glass laboratory under the supervision of Robert H. Brill.⁹

MOSAIC BEAKER 1115 M (pl. 35c, d)

The cylindrical-shaped beaker of mosaic glass from Tomb 45, Trench XXII H, is about 9.3 cm high, has a mouth diameter of 5.8 cm, and has a flat base. The beaker is divided horizontally by rather wide bands of blue-white-blue glass into three main registers with horizontal bands of multicolored glass in irregular red-white and yellow-blue chevron and vertical zigzag patterns. Each of these glass bands is constructed of two threads of contrasting color twisted together while still soft and then flattened to form a ring. These rings may have been placed one on top of the other around a solid cylindrical core and then surrounded by an outer mold containing the base to which the lowest ring would adhere.¹⁰

MOSAIC GLASS CHALICE 1116 M (pl. 36a, b)

A mosaic glass chalice also was found in Tomb 45, Trench XXII H. It is partly broken and restored and measures about 11.5 cm high and 6.0 cm in diameter of the rim. Its tall bowl, rounded at the bottom with a rim turned slightly inward, has a long cylindrical stem with a flat-bottomed solid pedestal base. The design consists of white, gray, and yellow encircling horizontal bands of parallel connected semi-circular and zigzag patterns set in a light bluish matrix.

7. Mr. Piramoon of the Iran Bastan Museum was most helpful in restoring this vase, of which enough remained to reveal the profile from rim to base. The light areas in the pictures are not original.

8. Axel von Saldern, "Mosaic Glass from Hasanlu, Marlik and Tell Al-Rimah," *Journal of Glass Studies* 3 (1966): 9-25.

9. Robert H. Brill, "Laboratory Examinations and Related Studies of the Mosaic Glass Vessels from Hasanlu, Al-Rimah and Marlik," unpublished paper prepared to accompany the article by Axel von Saldern which describes these and other early mosaic glasses.

10. von Saldern, "Mosaic glass from Hasanlu, Marlik and Tell Al-Rimah," p. 17.

FRIT VESSELS

Although frit had been used for some time in the making of seals and beads, the second half of the second millennium B.C. saw a great development in the production of larger frit objects. The frit jars of Marlik reveal a rather well developed technology used to produce vessels of great beauty and proportion. One in particular, 103 M, which is in some parts well vitrified like glass, may even represent an early and crude attempt to make a wholly glass vessel. Three tombs contained frit jars, with Tombs 50 and 41 each contained two and Tomb 24 contained one frit jar.

FRIT JAR 30 M (pl. 36c)

The frit jar 30 M from Tomb 24, Trench XV E (see plan of tombs, fig. 40) is about 26.0 cm high and has a rim diameter of 2.5 cm. It is made of light greenish-blue frit whose surface is in some parts aged with a granulated effect. The oval body has its largest diameter in the middle, gradually decreasing toward top and bottom, with a rather small flat base and a small shoulder, encircled by a band of connected parallel chevrons. The shoulder turns in a sharply projected angle into a long cylindrical neck. This frit jar is beautifully proportioned with a graceful elegant shape.

FRIT JAR 94 M (pl. 36d)

The frit jar 94 M was found in Test Trench 2, located in the area of Tomb 50, Trench XXII L. It is about 15.0 cm high and has a rim diameter of 4.0 cm. The vessel is manufactured of whitish frit, which on some parts of the surface is pulverized and decayed with a granulated effect. The globular body has an almost circular pointed base. The shoulder, which is an extension of the body, curves into a rather concave neck. The flat rim splays outwards. On some parts of the vessel's surface the firing has produced vitrification. This jar has a beautifully balanced shape.

A glass jar similar in shape to 94 M was found at Tell Al-Rimah in the Mid-Assyrian level.¹¹

FRIT JAR 103 M (pl. 37a)

This jar, about 6.2 cm. high and 2.8 cm. in diameter of the rim, found in Test Trench z in the area of Tomb 50, Trench XXII L, is made of whitish frit which in some parts has become well vitrified, similar to glass. In fact this jar may well represent a very early example of primitive glass. Particles of frit and soil sediment produce a granulated effect on the surface. The jar has a carinated body with a flat base, concave neck, and outward rather thick rim.

FRIT JAR 1086 M (pl. 37b)

The frit jar 1086 M from Tomb 41, Trench XIX K, is about 10.5 cm high and has a rim diameter of 3.8 cm. It is made of whitish frit which shows a granulated effect on some parts of the surface. The globular body has a round base and straight neck which slants outward toward a flat rim with a rather narrow mouth.

11. David Oates, "The Excavation at Tell al-Rimah, 1968," *Iraq* 32 (1970): 2-3, pl. III b, e, p. 3.

FRIT JAR 1087 M (pl. 37c)

The frit jar 1087 M was found in Tomb 41, Trench XIX K. Although the jar is broken, with some parts missing, it is about 18.5 cm high and has a rim diameter of 2.4 cm. The jar is made from a whitish frit so soft and powdery that it looks like gypsum. It has a rather long body with a flat outward turned base and a long neck which slants inward near the flat rim surrounding a rather small mouth. A loop handle is situated between the shoulder and the neck.

The making of glass is referred to on several ancient clay tablets with the earliest mention occurring on a few broken clay tablets found in the library of the palace of Assurbanipal at Nineveh. There are also three more isolated tablets of the same genre; one was acquired from a dealer, another excavated in Babylon, and a third was found at Boğazköy.¹²

Several examples of mosaic glass similar to 1114 were found at Tell Al-Rimah, including a broken piece of a mosaic vessel technologically very similar to the Marlik beaker but with a design of parallel zigzag bands. The Rimah pieces were found in Level I b and dated by Oates to 1400–1350 B.C.¹³ Other fragments of mosaic glass from Tell Al-Rimah are discussed by von Saldern¹⁴ with a detailed scientific analysis of the pieces undertaken by Brill of the Corning Museum of Glass.¹⁵ Pieces of three badly crushed mosaic glass beakers were found in Level IV of Hasanlu, dated to the ninth century B.C., which when restored apparently represented narrative scenes.¹⁶ These have also been analyzed by Brill.¹⁷

Zigzag patterns similar to those of 1115 M can be seen on a glass jar found in the Mid-Assyrian level of Tell Al-Rimah.¹⁸ Von Saldern says, "The shape of the beaker resembles a type represented in the Nuzi ware. The bands are technically related to the twisted bands or ropes frequently laid around the rims of Egyptian and to a lesser degree Mesopotamian core-formed vessels. They are also reminiscent of the black and white twisted rods from Tchoga Zanbil.¹⁹ Analogs seem to exist furthermore between them — when seen as a strip of two alternating colors — and decorative painted bands on late Assyrian ceramics from Assur."²⁰

Several vessels with similarities to 1116 M also have been found. A somewhat similar technique was used in Egyptian core vessels from the XVIII Dynasty.²¹ Other examples from Egypt belonging to the second

12. A. Leo Oppenheim, "The Cuneiform Texts," in A. L. Oppenheim, R. H. Brill, D. Barag, and A. von Saldern, *Glass and Glassmaking in Ancient Mesopotamia* (Corning, New York, 1970), p. 4.

13. David Oates, "The Excavation of Tell Al-Rimah, 1965," *Iraq* 28 (1966): 127 note 9; pl. 35 D.

14. von Saldern, "Mosaic Glass from Hasanlu, Marlik and Tell-Al-Rimah," fig. 13, pp. 18–19.

15. Brill, "Laboratory Examinations and Related Studies of the Mosaic Glass Vessels from Hasanlu, Al-Rimah and Marlik," pp. 26–7.

16. von Saldern, "Mosaic Glass from Hasanlu, Marlik and Tell-Al-Rimah," pp. 10–15, 23.

17. Brill, "Laboratory Examinations and Related Studies of the Mosaic Glass Vessels from Hasanlu, Al-Rimah and Marlik," pp. 3–20.

18. Oates, "The Excavation of Tell Al-Rimah, 1965," pp. 2–3.

19. R. Ghirshman, *Tchoga Zanbil*, Vol. 1, Mém., Tome XXXIX, Librairie Orientaliste. (Paris, 1966). zpl. 52, No. 2, p. 98, G. T. Z. 63.

20. von Saldern, "Mosaic Glass from Hasanlu, Marlik and Tell-Al-Rimah," pp. 17–18.

21. Schuler, "Ancient Glass Making Techniques, the Egyptian Core Vessel Process," *Archaeology* 15 No. 1 (Spring, 1962): 32–7; J. R. Va'vra, "Das Glas und die Jahrtausende," (Prague, 1954), figs. 4, 8–9, 11–12 Beilage I (top right) III, pp. 13–23.

half of the second millennium B.C. also can be compared to the Marlik vessel.²² A glass jar of unknown provenance in the Iraq museum is dated to the eighth to seventh centuries B.C.,²³ while a somewhat similar glass jar with a sand core, of similar technique but from a later time, was found in the Fortetsa Tomb near Knossos in Crete, assigned to the Geometric Period with a suggested date of 750 B.C.²⁴

Although the number of mosaic glass and frit vessels was so limited compared to the other categories of objects at Marlik, they are still indicative of the degree to which the artists and master craftsmen of Marlik were informed of and in touch with contemporary technological and artistic developments throughout the Middle East. Objects comparable to the three mosaic glass vessels of Marlik were found at Hasanlu in northwestern Iran, Tell Al-Rimah and Aqar Quf in Mesopotamia, and various sites in Egypt, which demonstrates that highly specialized and experienced mosaic glass makers were conducting workshops in different parts of the ancient world, and that, during the second half of the second millennium B.C., the technique of making mosaic glass was developed to the point that it was applied with some success to the production of sizeable vessels. Considering that the technology was in its early stages, it is interesting to see how well these vessels were manufactured. The Marlik masters were able to produce examples which can be compared to those achieved elsewhere in the Middle East, and, as evidenced by Frit Jar 103 M, they may have attempted even to produce a wholly glass vessel. With so few examples of these early mosaic glass and frit vessels discovered in other excavated sites, it is impossible to suggest a center of origin for this industry and the degree to which one region influenced another. We hope that further study and research will throw more light on the question.

22. von Nolte and Haevernick, *Ägyptische und griechische frühe Glassgefäße*, p. 491, pls. 59–62, 64.

23. Heinrich J. Lenzen, "Irak, Kunst aus Mesopotamien von der Frühzeit bis zum Islam" (Hamburg, 1965), pl. 52, cat. no. 134, p. 89.

24. Gladys Davidson Weinberg, *Glass Vessels in the Museums of Greece* (Leiden, 1962), fig. 4, pp. 2–3.



Marlik: General View Depicting from the Left, Mrs. Miriam Negahban, the Late Prof. P. Delougaz, Prof. H. Kantor, and the Author, 1961.



a



b



c



d

Marlik. Mosaic Glass Chalice 1114 M: (a) Photograph of Restored Vessel, (b) Drawing; and Mosaic Beaker 1115 M: (c) Photograph of Restored Vessel, and (d) Drawing.



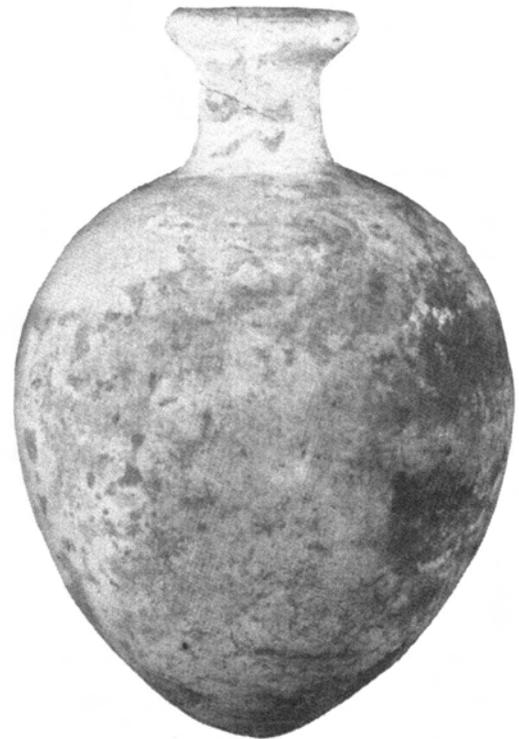
a



b



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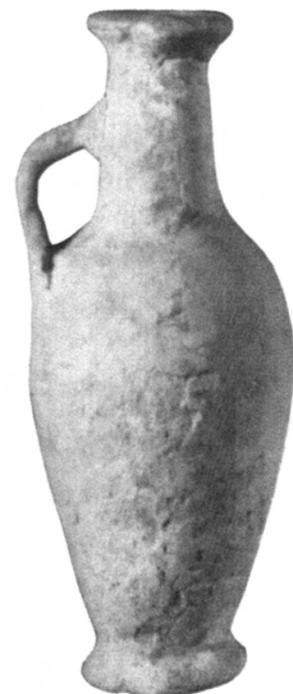
Marlik. Mosaic Glass Chalice 1116 M: (a) Photograph of Restored Vessel, (b) Drawing; Frit Jar 30 M: (c) Photograph Showing Impressed Decoration; and Frit Jar 94 M: (d) Photograph.



a



b



c

Marlik: (a) Frit Jar 103 M, (b) Frit Jar 1086 M, and (c) Frit Jar 1087 M.

Chapter 17

PROBLEMS OF LATE ASSYRIAN RELIEFS

EDITH PORADA

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Helene Kantor's range of interest and expertise extends from Egypt to the eastern Mediterranean and the ancient Near East. In each of her articles on a subject from one of these regions she draws on all the material available at the time of her writing to illuminate the different approaches possible for the evaluation and interpretation of the subject. This gives her articles lasting validity.

The following remarks on two fragments of Assyrian reliefs, one in the Royal Ontario Museum in Toronto, the other in the Metropolitan Museum of Art in New York, are intended as a greeting to her in a field in which she has pointed out special qualities which appear to distinguish late works of Assyrian Art.¹

Fragments of Assyrian relief are found in big and small museums of the world. They derive from the series of orthostats — that is, rectangular blocks of stone, plain or carved in low relief on one face. Orthostats lined the walls of important halls as well as smaller rooms in the palaces of the Assyrian kings from the ninth to the seventh centuries B.C. One of the reasons for the choice of this type of wall decoration, rather than the paintings used in earlier periods of Assyrian art,² may have been its durability. The first Assyrian king to have employed such orthostats, Ashurnasirpal II (883–859 B.C.), was also the first to have used the walls of his throneroom to give pictorial form to the texts of his victorious campaigns in regions to the west and north of Assyria. The themes of the throneroom also were represented in other rooms as indicated by scattered orthostats mentioned as coming mostly from the west wing of the palace by J. E. Reade, who also cited glazed tiles, parts of several obelisks or similar monuments, and small fragments of wall painting as belonging to “compositions similar to those of the throneroom.”³

Ornamental patterns and apotropaic representations were timeless and therefore could be renewed whenever necessary, and it probably did not matter if an artist of a later generation changed some of the forms. For narrative scenes of war and victory, however, some details were probably considered of importance, despite the general tendency to omit indications of time and space in the reliefs of Ashurnasirpal noted by

1. “A Rock Crystal Bowl in the Cincinnati Art Museum,” A. U. Pope and Phyllis Ackerman, *A Survey of Persian Art*, vol. 14 (Tehran, 1967), pp. 2981–93, pls. 1494–95.
2. The ornamental wall paintings which decorated the palace of king Tukulti Ninurta I (1244–1208 B.C.) are exemplified by the color reproductions in W. Andrae, *Coloured Ceramics from Ashur* (London, 1925), pls. 1–4.
3. J. E. Reade, “Narrative Composition in Assyrian Sculpture,” *Bagh. Mitt.* 10 (1979): 57, 59.

Reade and Wäfler.⁴ The suggestion can be made especially for the hunting scenes that only people familiar with hunting game are aware of the significance assigned by a huntsman to the particulars of the approach to the game and the ultimate kill. While the lion hunt in Ashurnasirpal's reliefs was a traditional theme and may not have held any specific details, the less common bull hunt may therefore have contained more factual features than today's scholars recognize.

The reliefs of each ruler from Ashurnasirpal II to Ashurbanipal (668–627 B.C.) show a specific style and, at the same time, a progression toward a more extensive illustration of the respective king's underlying historical text. Reade points out that the basic subjects of later narrative relief were already present in the shorthand renderings of the White Obelisk, which he dates about 1050 B.C., a date generally accepted by art historians. The reliefs show the king's battles, his booty in goods and prisoners, his hunting scenes, festivals, and rituals.⁵

The reliefs of Ashurnasirpal II show an extension of this subject matter in what are among the most carefully executed works of Assyrian sculpture. The scenes are arranged in two horizontal bands, separated by a band of inscription. The major figures tend to fill the band completely, thereby creating the impression of great massiveness and power.

The bronze bands from Imgur Enlil (Balawat) of Ashurnasirpal's son Shalmaneser III (858–824 B.C.) foreshadow much of the compositional development of later Assyrian art.⁶ For example, the surroundings of the figures in the scenes at the source of the Tigris⁷ prefigure the increased role of landscape and architectural elements in the reliefs of Tiglath-pileser III (744–727 B.C.). These reliefs occasionally seem to convey a sense of the effects of Assyrian siege and plunder on the general enemy population.⁸

In contrast with the reliefs of Tiglath-pileser III, those of Sargon II (721–705 B.C.) seem to express the most remote attitude toward the victims of Assyrian aggression. These are often represented as small ant-like creatures in comparison with the gigantic figures of Assyrian attackers.⁹

While these compositions appear highly decorative, the desire to report a campaign, the main objective of the reliefs, is nevertheless indicated by the continuity of the representations within one room.¹⁰

4. Reade, *Bagh. Mitt.* 10, p. 62, points out in Ashurnasirpal's composition "the same tendency to disregard time and space" as in the White Obelisk on which Ashurnasirpal's compositions were mostly based. M. Wäfler, *Nicht-Assyrischer neuassyrischer Darstellungen*, *Alter Orient und Altes Testament*, vol. 26, (Neukirchen-Vluyn, 1975), p. 10, stated that the reliefs of both Ashurnasirpal II and Sargon II have a tendency toward stereotypes in the objects of material culture (Wäfler's term is *Antiquaria*) and in the representations.

5. Reade, *Bagh. Mitt.* 10, p. 53 ff. and his discussion of the White Obelisk, *Iraq* 37 (1975): 129–50.

6. For an analysis of the bands see Reade, *Bagh. Mitt.* 10, pp. 64–72.

7. *Ibid.*, pl. 16.

8. R. D. Barnett and M. Falkner, *The Sculptures of Assur-nasir-apli II (883–859 B.C.), Tiglath-Pileser III (745–727 B.C.) and Esarhaddon (681–669 B.C.) from the Central and Southwest Palaces at Nimrud* (London, 1962), pl. III, shows the two confronted battering rams remaining alone before the walls of the conquered town, which is being abandoned by the population marched into captivity by the Assyrians. Plate VII depicts the disconsolate inhabitants of perhaps the same town, for which Barnett suggested that it might have been Babylon (*ibid.*, pp. XVI–XVII), sitting around beside one of their cut-down date palm trees which take years to grow, while the symbols of their gods are being carried away by Assyrian soldiers.

9. See, for example, P. E. Botta and E. Flandin, *Monument de Ninive* (Paris, 1849–50), pl. 68 bis.

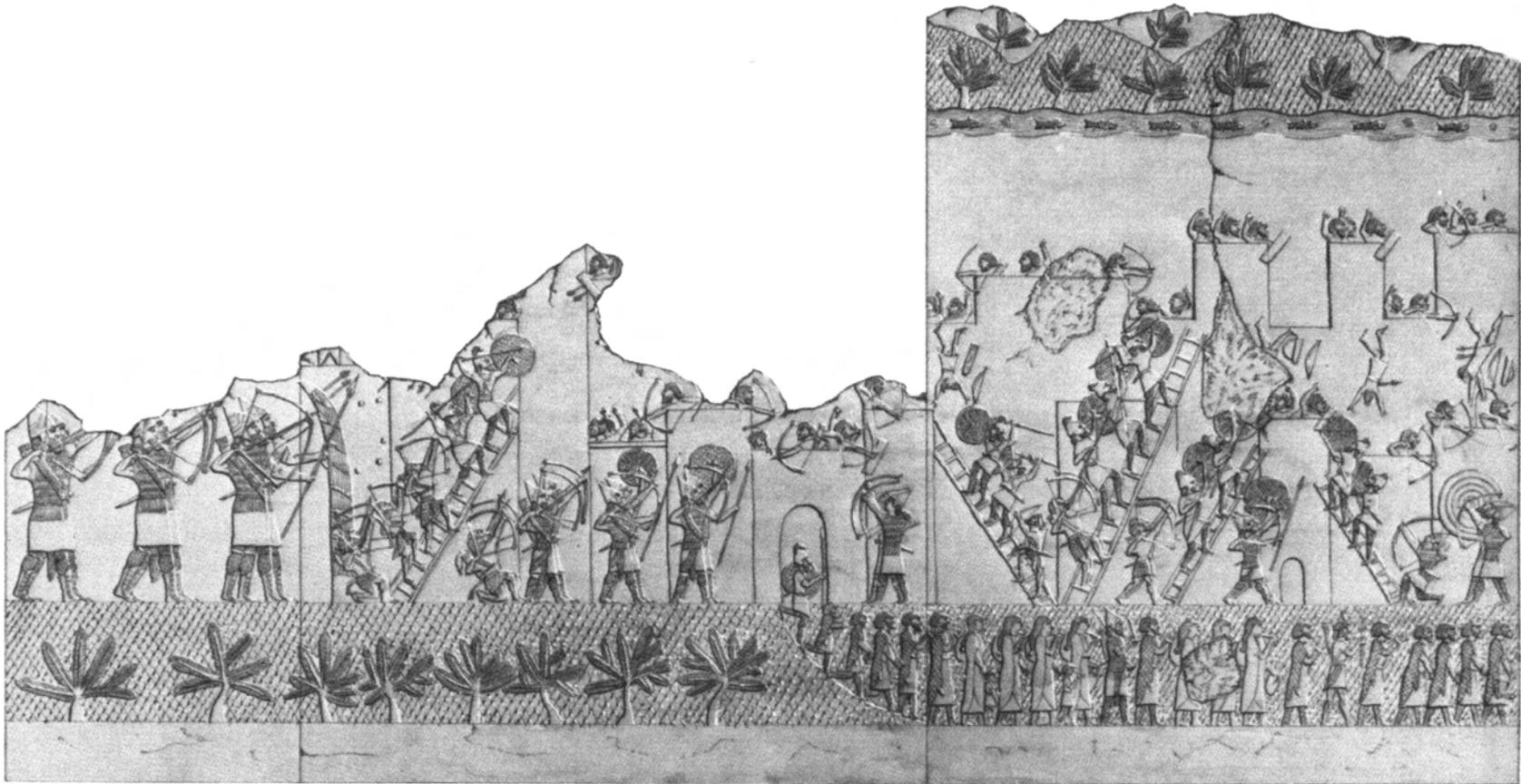
10. Reade, *Bagh. Mitt.* 10, p. 85.

In the reliefs of Sennacherib (704–681 B.C.) there seems to have been a renewed concern with the factual rendering of the people involved in the actions portrayed and in the geographical surroundings of these actions. Panoramic images were created by the elimination of the inscribed bands of text between the narrative scenes. Within a given subject the space was articulated in various ways. In siege scenes (pl. 38) the city walls served to organize the small-scale figures of attackers and defenders.¹¹ In other scenes, such as battles in the marshes of southern Babylonia, elements of landscape served to frame the action and divide the groups of figures (pl. 39).¹² In scenes showing the progression of the colossal gate figures of human-headed bulls from the quarry to Sennacherib's palace at Nineveh, J. M. Russel¹³ points out the manner in which the figures, arranged in diagonals, define pictorial space without the benefit of an over-all background pattern.¹⁴

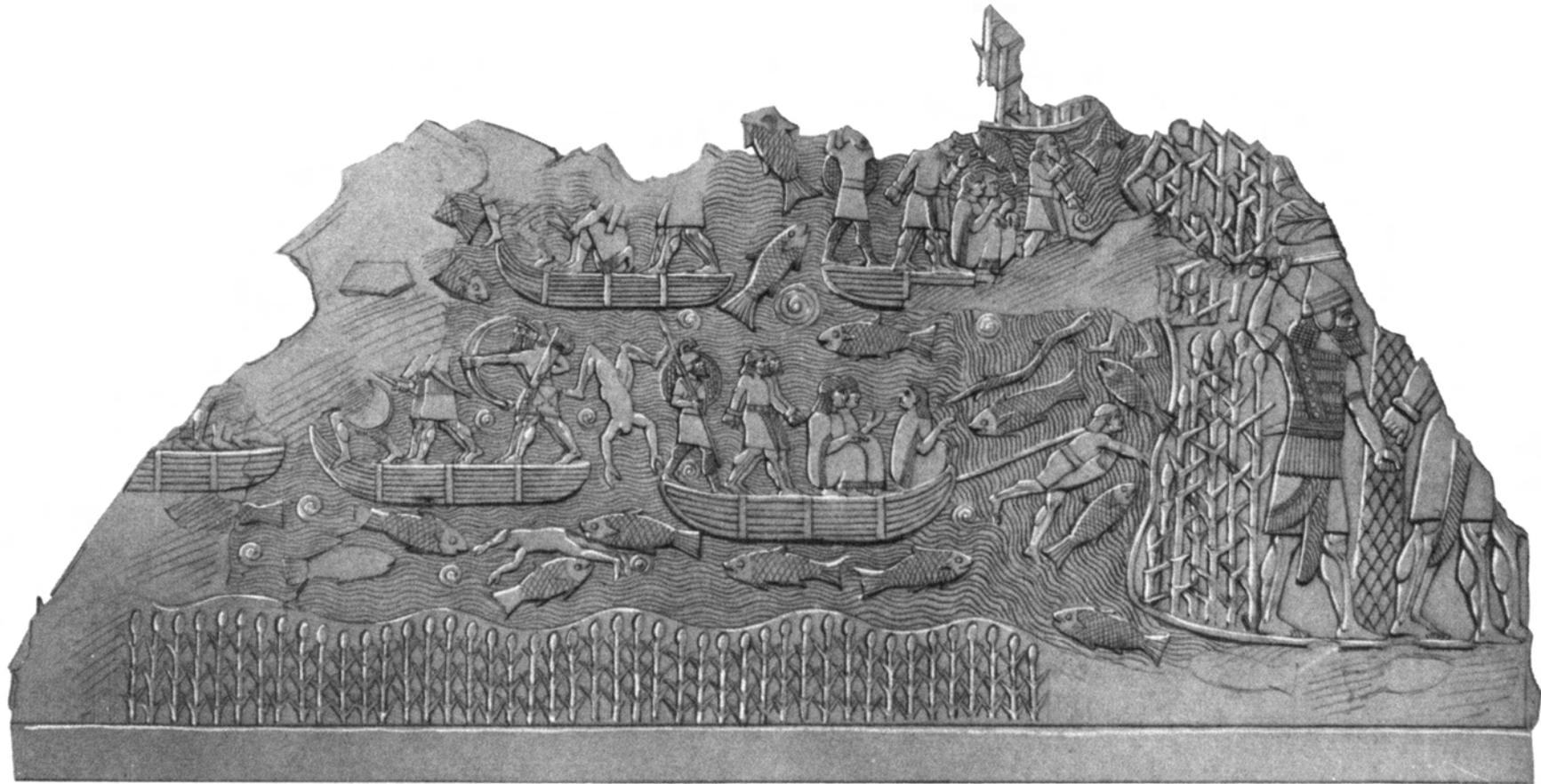
These panoramic scenes are viewed as from a considerable height, which suggests great distance separating the viewer from the figures of the scenes. It seems logical, therefore, that no individual variety was sought in the various groups of figures: courtiers, Assyrian soldiers, enemies, and prisoners, who are aligned singly or in pairs usually without contact with each other. Such contact came only in the reliefs of Ashurbanipal, carved in the palace of Sennacherib, his grandfather, which the young king used before his own, North Palace, was built.¹⁵

Some of the reliefs from the time of Ashurbanipal had been ascribed to Sennacherib until they were recognized by Margarete Falkner as containing certain criteria differentiating them from the earlier reliefs.¹⁶

11. Plate 38 is a pencil drawing with some traces of white heightening on brownish paper, signed by A. H. Layard, *Oriental Drawings*, Volume 1, no. 64, and is reproduced in Layard, *Monuments of Nineveh II* (1853), pl. 31 and frequently thereafter. See Erica Bleibtreu, "Layard's Drawings of Assyrian Palace Reliefs," in *Austen Henry Layard, tra l'Oriente e Venezia* (Rome, 1987), p. 195 and n. 5.
12. Plate 39 is an unsigned pencil drawing rendering slab 1 of Room LXX in the Southwest Palace of Sennacherib at Nineveh, *Oriental Drawings*, Volume IV, no. 42, and is reproduced in Layard, *Monuments of Nineveh II* (1853), pl. 28. See Bleibtreu, "Layard's Drawings of Assyrian Palace Reliefs," p. 197 and n. 37.
13. J. M. Russel, "Bulls for the Palace and Order in the Empire: The Sculptural Program of Sennacherib's Court VI at Nineveh," *The Art Bulletin* 69 (December, 1987): 520–39.
14. *Ibid.*, p. 526.
15. There is some uncertainty about the identity of the palaces. R. D. Barnett, *The Sculptures of the North Palace of Ashurbanipal at Nineveh (668–627 B.C.)* (London, 1976), p. 5, (henceforth, Barnett, *Ashurbanipal*) assumed that Ashurbanipal's inscriptions found in the North Palace (the Rassam cylinder and copy), which described the *bū ridūti* ("place of retiring") referred to the Southwest Palace, which Sennacherib had built. W. Nagel, *Die assyrischen Reliefstile unter Sanherib und Assurbanaplū* (Berlin, 1967) and J. E. Reade follow B. Meissner, *Or. I* (1942), who considered the *bū ridūti* to be the North Palace. There can be no doubt, however, about the fact that Ashurbanipal had reliefs of the battle against the Elamites carved for room XXXIII in the Southwest Palace and that reliefs with other subjects in the Southwest Palace had also been carved for Ashurbanipal. The precise purpose for which that palace was used in the time of Ashurbanipal, whether as personal living quarters before his own palace was completed, or as administrative localities, is not known as yet, though planned future excavations at Nineveh may clarify these problems.
16. M. Falkner, "Die Reliefs der assyrischen Könige. Zweite Reihe. 1. Zehn assyrische Reliefs in Venedig," *AfO* 16 (1952): 25–34. This article contains the principal criteria which differentiate the objects of material culture and plant forms, as well as compositional devices in Ashurbanipal's reliefs, from those of Sennacherib's. Reade drew attention to Falkner's findings in "Two Slabs from Sennacherib's Palace," *Iraq* 29 (1967): 44, n. 8. In the same year W. Nagel published in *Die neuassyrischen Reliefstile* (cited here in note 13 above), pp. 32–34, a list of the most striking criteria distinguishing the reliefs of Ashurbanipal from those of Sennacherib which had been singled out by M. Falkner and B. Hrouda in *Die Kulturgeschichte des assyrischen Flachbildes*, Saarbrucker Beiträge zur Altertumskunde 2 (Bonn, 1965). Most recently J. M. Russel summarized these criteria in "Sennacherib's Palace Without a Rival," Ph. D. dissertation, the University of Pennsylvania, 1985, pp. 150–59.



Drawing of Orthostat Relief. Siege and Capture of a Town in a Region Northeast of the Tigris, Probably in Northwestern Iran.



Drawing of Orthostat Relief, BM 002805. Assyrians Taking Prisoners in the Marshes of Southern Mesopotamia.

The fragment to be discussed here was also originally classified as having been made for Sennacherib.¹⁷ It is obvious, however, that it could not have been made before Ashurbanipal's artists had developed their characteristics, but it is difficult to decide whether or not it might belong to a series carved for one of Ashurbanipal's successors. The following analysis and discussion will attempt to explore that question.

The fragment in the Royal Ontario Museum,¹⁸ (pl. 40), is made of soft, easily carved Mosul marble,¹⁹ from which most of the Neo-Assyrian reliefs of the region were made. It shows a Babylonian carrying a boy, doubtless his son, and holding a stick with which to drive a donkey carrying two women, perhaps his wife and daughter. The three adults who wear fringed garments have their hair in corkscrew curls tied with a plain band. The women wear long pieces of fringed cloth each differently wrapped and sit on an elevated object, perhaps a cushion, over which hangs a blanket to which a band is attached. The band seems to pass under the donkey's tail to the other side, where it was probably again attached to the blanket.

The man wears a short-sleeved shirt and, over it, a kilt with a long edge of fringe visible between his legs. In representations which show Babylonians walking to the right, as in the upper row of the drawing (pl. 41), the fringed edge is seen running down from the triple belt around the waist. The man in our fragment grasps his son firmly below the boy's knee, as the child, sitting on his father's shoulder, holds on to the man's head with both hands. For this design the sculptor must have visualized the postures and gestures of the Babylonian and his son, manifesting thereby a remarkable interest in naturalistic portrayals. This is not evident to the same extent in other representations of male captives carrying a boy.²⁰

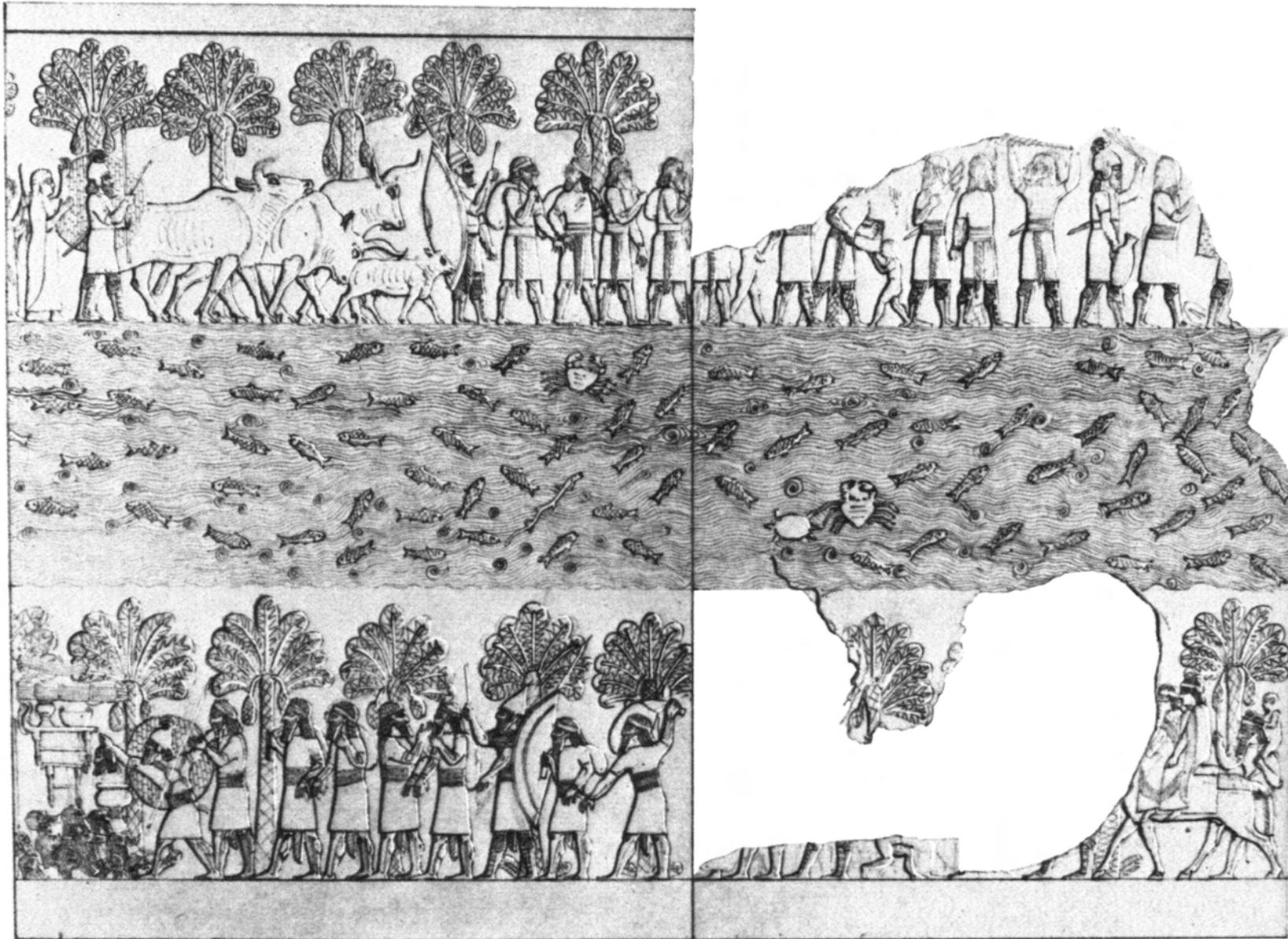
The relief of the Toronto fragment is very low. The figure's outlines are sharp and deep, and the background descends to them in beveled places. This makes the figures stand out, although the entire background has not been lowered. Such a lowering of the background would have entailed far more work than the present shortcut. Another shortcut is the linear execution of the details such as the marking of the palm fronds, of the stem of the tree, or of the fringes of the figures' garments.

The nine palm fronds and two clusters of fruit in this fragment are characteristic, in general, of reliefs of Ashurbanipal, as is the overlapping of the forms of man and boy covering parts of the stem of the tree and one of the clusters of fruit. In turn, the figures are covered in part by the donkey's hindquarters. Such

17. Not only was the fragment advertised by Spink and Son as being part of Sennacherib's sequence of reliefs portraying the siege of Lachish (see the relevant text in the List of Illustrations, s.v. fig. 3) but Layard's drawing of two slabs from this series, which includes the fragment, was published by C. J. Gadd, *The Stones of Assyria* (London, 1936), pl. 14 (opp. p. 66), as being from the palace of Sennacherib. Hence it had been ascribed by the Royal Ontario Museum to Sennacherib until 1987, although Erika Bleibtreu already knew a photograph of the fragment and had classified it in her files as of the time of Ashurbanipal, as I learned in the summer of 1987.
18. Acquired by the Royal Ontario Museum from Spink and son who had advertised the relief by a good photograph in *The Connoisseur* (December, 1949, last page before the text). The size of the relief is 61 x 33 cm. It was said by the dealer to have come from the private collection of A. H. Layard. In view of Layard's drawing of the relief as the partly broken orthostat at the end of a series in court XIX of the Southwest Palace (see pl. 41) it is possible that he considered that this relief could be removed without loss to the pictorial sequence of the events portrayed in the campaign.
19. Reade names Mosul marble as the stone from which the Assyrian reliefs were made and describes it as a form of *anhydrite*, which varies in color from white to gray (*Bagh. Mitt.* 10, 18).
20. Barnett, *Ashurbanipal*, pl. 17, middle row; pl. 19, top row; pl. 36, lowest row, right. All show men carrying boys, but only the last has postures resembling those of the figures shown on the Toronto fragment, though the figures seem to be much smaller and the child seems to have only one hand on or above the head of the father, not both hands which give intensity to the posture in the Toronto fragment.



Photograph of Orthostat Relief, ROM 950.86. Fragment of an Assyrian Relief from Sennacherib's Series of the Siege of Lachish.



Drawing of Orthostat Relief. The Prisoners and Booty of a Campaign in Babylonia. Time of Ashurbanipal, 668-627 B.C.

overlapping creates a slight illusion of depth although there was never a clearly defined concept of a third dimension in Assyrian art.²¹

The salient stylistic features singled out in this fragment correspond to those of the frequently published relief in the British Museum, BM 124773 (pl. 42a),²² showing a marsh scene of Sennacherib, partly recarved by the sculptor of a later king, who depicted a Babylonian fleeing on his leaping horse from the attack of an Assyrian spearbearer. Though that relief was executed with greater attention to detail (for example the hair on top of the head is indicated [pl. 42b], whereas it was left plain in the Toronto relief), the linear definition in the fronds of the tree, in the tails of horse and donkey, and in the fringes of the garments is the same, as are the outlining of major forms and the beveling of the planes descending from the background to the outlines.

The Toronto fragment (pl. 40) can be identified with the lower right corner of a damaged orthostat from court XIX, reproduced by C. J. Gadd²³ (pl. 41). The orthostat belongs to a series about which Reade says: "In court XIX the old carvings had again apparently been chiselled away and replaced by two-register scenes of an unusual type. The registers are separated, not by a thin plain strip, but by a river as wide as the bands of inscription which had separated the registers in pre-Sargonid work; the idea for this could well have come from one of the older palaces."²⁴

Reade adds that all these scenes show wars in Babylonia and that the king appears in person on campaigns, as was not the case with Ashurbanipal. For this reason and because he found that the king's entourage differed somewhat from that of Ashurbanipal, he was inclined to ascribe the reliefs to Sin-shar-ishkun,²⁵ one of Ashurbanipal's sons and the last Assyrian ruler to reside at Nineveh. Reade supported his suggestion with a text according to which Sin-shar-ishkun repaired the western side of one of Sennacherib's buildings, described as a marble palace.²⁶

About the provenance and dating of the recarved relief (pl. 42a) which has some traits in common with our fragment, Reade suggests that it could have come from corridor XVIII, which "would accord . . . with the apparent concentration of recarved slabs in places of public importance and the passages connecting them: mainly in and around court XIX, which was probably used for administration . . . and it was naturally on those walls which were still widely seen that the subsequent kings chose to advertise their personal victories."²⁷

The style of a successor of Ashurbanipal would have shown little change within the two decades between the old king's death and the fall of Nineveh in 612 B.C. A change which may have occurred, however,

21. See E. Porada, Review of Barnett, *Ashurbanipal* in *AJA* 84/4 (1980): 533.

22. The relief was discussed by Reade, "Two slabs from Sennacherib's Palace," *Iraq* 29 (1967): 42-45.

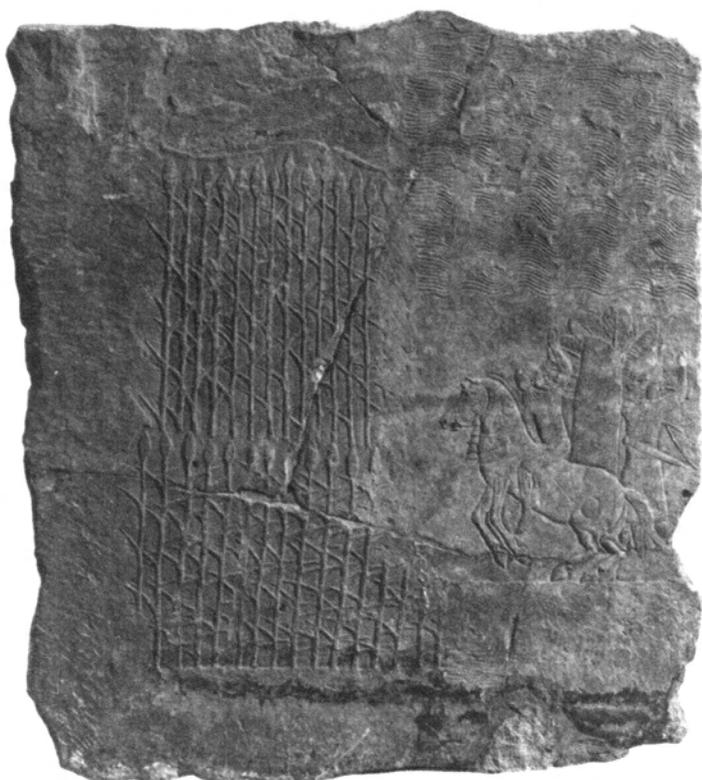
23. *The Stones of Assyria* (London, 1936), pl. 14 opposite p. 66.

24. Reade, *Bagh. Mitt.* 10, pp. 109-10.

25. Reade, "The Neo-Assyrian Court and Army: Evidence from the Sculptures," *Iraq* 34 (1972): 90 (top).

26. Ibid. For this information concerning Sin-shar-ishkun, Reade cites M. Falkner, "Neue Inschriften aus der Zeit Sin-šarru-iškuns," *AfO* 16 (1952-1953): 306. But Falkner left the name of the stone *aban parūti* untranslated.

27. Reade, *Iraq* 29 (1967): 45.



(a) Nineveh: Photograph of Orthostat Relief, BM 124773. A Marsh Scene Recarved to Depict a Babylonian Fleeing on Horse-back from an Assyrian Spear-bearer. From the Southwest Palace of Sennacherib, Partially Recarved in the Time of Ashurbanipal.



(b) Nineveh: Detailed View of Recarved Scene on Orthostat Relief, BM 124773, Depicted on (a).

would have been an increase of shortcuts in the working methods greater than that which had been used before in reliefs of Ashurbanipal²⁸ and occasionally in those of Sennacherib.²⁹

Furthermore, there is in the last Assyrian reliefs an intensification of a tendency, already present in Ashurbanipal's earlier reliefs to stress individual details in the relationship of figures. The examples presented here are the protective gesture of the father and the intimate one of the son in the Toronto fragment, for which Erika Bleibtreu has kindly provided a parallel in a child carried on the shoulder of its parent, in this case a mother, and holding on to her hair in a relief in the Vatican, which probably belonged to the series of court XIX.³⁰

A striking example of an individual detail is provided by the recarved British Museum relief (pl. 42a) in the momentary posture of the leaping horse, frightened by the Assyrian who threatens its master.³¹

The recarving of this and the other reliefs of Sennacherib, while not the only instance of a planned reuse of earlier orthostats for the palace of a later king,³² would nevertheless have been a surprising act on the part of the sculptors of Ashurbanipal, who was Sennacherib's grandson and whose grandmother Naq'ia lived into the beginning of his reign. It seems more likely that this occurred under a later descendant of Sennacherib (probably Sin-shar-ishkun), as Reade suggested, in a period of stress when the manpower to obtain new orthostats from the quarries may not have been easily available as the result of the threatening military situation at the end of the Assyrian empire and when sculptors may not have hesitated to destroy older reliefs in order to carve upon them the more interesting and effective reliefs of their own style.³³

28. A reconstruction of the working methods in Assyrian relief was attempted by Nagel, *Die neuassyrischen Reliefstile*, p. 11 ff.
29. The labor saving device of sharply outlining the figures and beveling the planes descending to the outlines from the background, which was not worked off in its entirety, was used in several reliefs of Sennacherib. A good photograph illustrating the practice is published in E. Strommenger, *5000 Years of the Art of Mesopotamia* (New York, 1964), fig. 233.
30. The photograph will be reproduced as fig. 168 in R. D. Barnett and Erika Bleibtreu, *Sculptures from the Palace of Sennacherib at Nineveh*. It is MGP 14982 (Vatican State), *Musei e Gallerie Pontificie* and is entered in Dr. Bleibtreu's list as court XIX with a question mark.
31. Frightened horses in momentary positions are seen only in Ashurbanipal's reliefs of the battles against the Elamites in the Southwest Palace, Room XXXIII, where the horses are riderless and swimming or floating in the river. A good photograph is reproduced by H. Frankfort, *The Art and Architecture of the Ancient Orient*, 4th impression (Baltimore, Maryland, 1969), pl. 103.
32. Barnett and Falkner, *The Sculptures of Tiglath-Pileser III*, p. XV, describe the state in which the orthostats of that king were found, stacked and ready for remounting and annexation by Esarhaddon in his unfinished palace.
33. In view of the strong belief of the people of the Late Assyrian period in sympathetic magic, as demonstrated in the text cited in part II of this article, it is not impossible that representations of Assyrian victories were thought to have a beneficial effect on the defenses of the country, which needed all possible physical and magical support.

II

One of the Assyrian reliefs in the Metropolitan Museum of Art (pl. 43)³⁴ assigned by me to Sennacherib in 1945³⁵ can now be recognized as belonging to the works of Ashurbanipal. It is included here because it illustrates well the interest of Assyrian sculptors of the time in the reaction of the enemy population to their Assyrian conquerors, a subject for which there was little evidence before.

Two women are being taken into captivity in a reed boat which is punted by a man under the guard of an Assyrian spear bearer. The man has a short beard and wears his hair tied by a narrow head-band in the Elamite manner with the two ends sticking out in the back. His garment, which ends below the knees, is completely plain and belted at the waist. With both hands he holds a punting pole, the top of which has landed on the body of a dead man lying in the water. The fact that this is an inanimate body is clear not only from the actionless pose but also from the closed eye. The sharp lines beside the lower part of the pole are accidental scratches. The two women each sit on a cushion on either side of the punting man, who seems to look over the head of the women at his left, who sits with her legs drawn up and her hands raised in a gesture of supplication or prayer,³⁶ perhaps directed toward the Assyrian soldier. The second woman is bent over, with her hands, which may be handcuffed, raised before her face, and leans forward in a posture of utter dejection. Above her head the spear bearer holds a stick, perhaps threateningly. Both women have wavy, shoulder-length hair, forming curls at the bottom, and wear garments edged with short fringes. In the soldier's gear only the helmet with earflaps, which seem attached to it in one piece, is characteristic of the time of Ashurbanipal; none of the other criteria of Ashurbanipal's soldiery can be recognized here.³⁷

The very fact that the figure of the soldier lacks detailed definition permits identification of the fragment with reliefs which show equal summary execution and weathering. These reliefs derive from Rooms F and G of Ashurbanipal's North Palace. Room F is the Susiana Room, in which Ashurbanipal's successful siege and capture of the Elamite town of Hamanu and an unidentified city by a river were represented. The reliefs of Room G also illustrated the defeat of the Elamites, showing in the lowest register captives ferried in boats along or across a river. Very few of the slabs of this room were drawn and the photographs of those identified as coming from Room G show that the reliefs were in part badly weathered.³⁸ It is most likely that fragments would have been cut from such reliefs and that our fragment (pl. 43) comes from that room.³⁹

34. The stone was found to be alabaster by the Objects Conservation of the Metropolitan Museum of Art. The relief was part of a gift of John D. Rockefeller, Jr., who had acquired it from Lord Wimborne, a descendant of A. H. Layard's cousin, Lady Charlotte Guest, who had resided at Canfield manor.
35. "Reliefs from the Palace of Sennacherib," *Bulletin of the Metropolitan Museum of Art* (February 1945): 156.
36. This gesture occurs in Neo-Assyrian cylinder seals, for example in E. Porada, *Corpus of Ancient Near Eastern Seals in North American Collections*, Bollingen Series 14 (Washington, D.C., 1948), pl. CXVI, no. 773.
37. The criteria have been conveniently summarized by Russel, *Sennacherib's Palace Without a Rival*, pp. 152–53.
38. Barnett, *Ashurbanipal*, pl. XXII.
39. The determination of Room G rather than Room F as the original emplacement of the fragment in the Metropolitan Museum of Art is due to a discussion with J. M. Russel who pointed out to me that there was no available space for the fragment in Room F. Moreover, the boat with its high prow and stern and with vertical elements numbering 3–5 instead of 2 (as in room F) corresponds more closely to the boats illustrated for room G (Barnett, *Ashurbanipal*, pl. XXII). Independently, Erika Bleibtreu made the same comparisons with the Metropolitan Museum fragment in a letter dated August 12, 1987.



Nineveh: Photograph of Orthostat Relief, MMA 32.143.5. Two Women Being Taken into Captivity in a Reed Boat Which is Punted by a Man Under the Guard of an Assyrian Spearbearer. Fragment of a Relief (51.6 x 46.3 cm) from the Susiana Sequence of the North Palace of Ashurbanipal.

In our fragment and in several ones of Room F the Elamite who punts the boat is considerably smaller than the Assyrian soldier in the boat;⁴⁰ perhaps he was a boy.

In Barnett's text Room F, the Susiana Room is described as follows:

This was a small square room entered only from Room G but having a large niche or recess in the North-West wall (occupied by slabs 11–13). The doorway was flanked by two slabs with large apotropaic figures. Slabs 1–10 and 14–15 were decorated with historical reliefs in two registers: the upper register shows the assault and capture of the Elamite city of Hamanu and the exodus of prisoners from it; the lower register shows the counter-march of the prisoners and counting of the booty. The door jambs were decorated with two slabs illustrated each with an identical pair of demonic figures, the lion-headed man and the bearded man with horned helmet. They faced toward Room G. The necks, ruffs, eyelids, and gums of the lion-men were originally painted red.

The niche contained scenes of apotropaic figures. Rassam relates that each side was formed by

a bas relief divided horizontally into two compartments representing in the upper part a human figure with a lion's head and eagle's feet, while in the lower there was a human-headed lion, with its paws stretched out as if in an act of supplication (pl. 44a). At the back of the recess was a sculpture representing a most hideous lion-headed monster with extended jaws, the tail of a scorpion and the feet of an eagle; resembling very much those monsters found by Sir Henry Layard in the Nimroud temple near the Pyramid.⁴¹

The monstrous apotropaic creatures, examples of which were found in room F, are partly identified on the basis of comparative representations⁴² as well as reinterpretations of ritual texts and publication of new rituals by F. A. M. Wiggermann.⁴³

One of these reinterpreted texts gives directions for the drawing of lion demons which Wiggermann calls "Big-Weather-Beasts" in a translation of their Babylonian name, which refers to their association with the weather god. These demons are to be drawn in the gate and on the right and left of "the lord;" texts are to be inscribed which refer to the power of these demons to block the entry of the enemy.⁴⁴ This and similar texts provide unequivocal evidence for the fact that according to Neo-Assyrian beliefs, drawing or sculpting a figure and inscribing the relevant text served to put into action powerful creatures that could serve as protectors against human and superhuman enemies.

Among the protective figures in Room R was an anthropomorphic god who is often paired with the lion-demon. He is distinguished by his raised fist in which, in Assyrian art, he does not hold a weapon, though he is shown holding a dagger in a Neo Elamite cylinder.⁴⁵ Wiggermann identifies the god with Lulal.⁴⁶

40. Barnett, *Ashurbanipal*, pl. XX, Fragments (A), (B), and the drawing by M. Howard.

41. Barnett, *Ashurbanipal*, p. 39, cited from a report by Rassam. Barnett's reference to A. H. Layard in *Discovery in the Remains of Nineveh and Babylon* (London, 1853), p. 348, does not render the same wording. An easily accessible drawing of the relief showing "the hideous lion-headed monster" from the Ninurta Temple at Nimrud is the drawing reproduced by H. Frankfort, *Art and Architecture of the Ancient Orient*, p. 88.

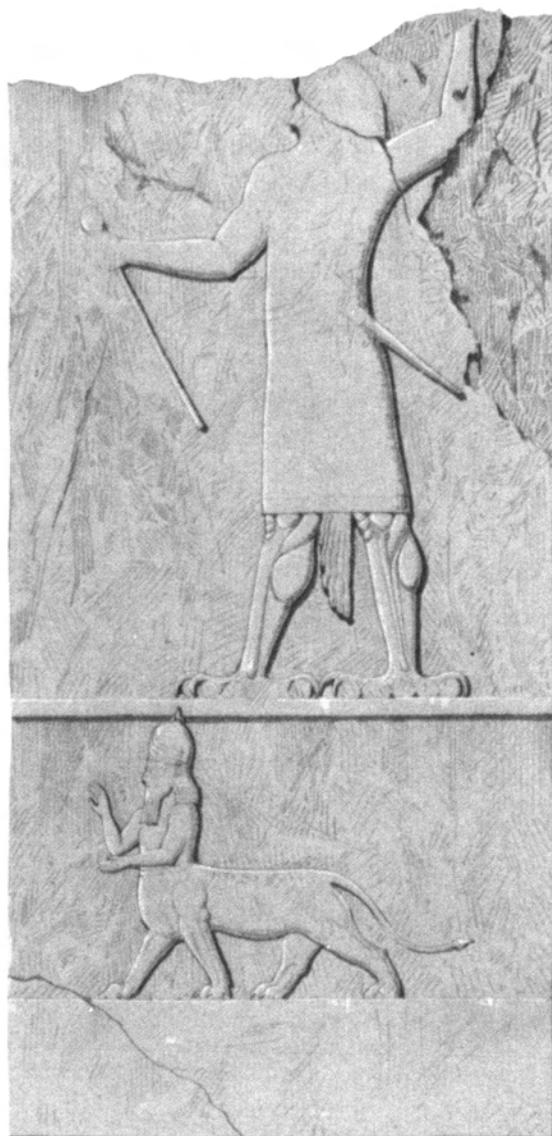
42. D. Kolbe, *Reliefprogramme religiös-mythologischen Charakters in neu-assyrischen Palästen*, Europäische Hochschulschriften, Reihe XXXVIII, Archäologie, Bd. 3 (Frankfurt am Main, 1981); D. Rittig, *Assyrisch-Babylonisch Kleinplastik magischer Bedeutung*, Münchener Universitätschriften, Philosophisches Fachbereich 12, Münchener Vorderasiatische Studien, Bd. 1 (Munich, 1977).

43. F. A. M. Wiggermann, *Babylonian Prophylactic Figures: The Ritual Texts* (Amsterdam, Free University Press, 1986).

44. Wiggermann, *Babylonian Prophylactic Figures*, pp. 76–77.

45. E. Porada, *Ancient Bronzes, Ceramics and Seals: the Nasli Heeramaneck Collection* (Los Angeles, 1981), no. 232. (1227).

46. Wiggermann, *Babylonian Prophylactic Figures*, p. 329 s.v. *lulal*.



(a) Nineveh: Drawing of Reliefs on Slab 11, BM 147860. A Human Figure with a Lion's Head and Eagle's Feet is Depicted in the Upper Register and a Human-Headed Lion with Outstretched Paws is Shown in the Lower Register. The Relief was Located on the Right of the Recess in the Susiana Room F of Ashurbanipal's North Palace.



(b) A Seal Impression Showing a Winged, Human-Headed Lion Holding a Lioness(?) at Bay with its Wing. From the Archive of Tiglath-Pileser I, 1114-1076 B.C.

Also represented in Room F was a lion-centaur, identified by Wiggermann with the *urmahlullu*, a creature thought to protect bathrooms and lavatories.⁴⁷ Wiggermann points out that the connection of the *urmahlullu* to bathrooms is striking because “other figures do not seem to guard specific rooms. The unique position of the *urmahlullu* is matched on the side of evil by an equally striking phenomenon: a demon that resides especially in lavatories, Šulak. According to the description of Šulak in the ‘Unterweltsvision’ (cf. Frank [MAOG XIV/2] 25 x, 33) this demon has the appearance of a regular lion.⁴⁸ Wiggermann also points to a Middle Assyrian seal impression in which a lion-centaur attacks a lion (pl. 44b). Actually, the leonine creature lacks the mane of the male lion, for which reason it was described in the publication as a lioness. It also seems to have the tall pointed ear of the lion demons so that it probably was not meant to look like a natural lion. Nevertheless, if these figures were indeed meant to represent *urmahlullu* and Šulak it follows that the proper interpretation of figures of monsters and animals in Mesopotamian art would have to be far more specific than has been assumed on the evidence available so far.

The interpretation of the lion-headed-feathered, bird-legged monster described by Rassam as appearing at the back of the recess, doubtless corresponds to the creature shown with a storm god in the temple of Ninurta at Nimrud (as implied above in note 37). Though the monster occurs in connection with the god Ninurta in several instances, its precise affiliation and meaning has not been determined.

Although the exact significance of all the apotropaic figures in Room F therefore cannot be established as yet, it may be said that they were all meant to induce fear in their beholders and were believed by their makers and their public — the king and his court — to be powerful defenders of the palace and the persons within.

If we return now to the illustrations of the king’s campaigns, we may ask whether they should be considered to have been merely records of the king’s victories for his gratification or to have had a beneficial function. Such a function might have been to sustain the effect of the king’s victory in an active way, for example, that the pain and sorrow brought upon the enemies of Assyria should continue. Thus such details as the representation of the bent-over Elamite woman in the boat of the Metropolitan Museum fragment would be not an expression of compassion on the part of the sculptor, as the modern viewer might assume, but the desire to represent most expressively the suffering of Assyria’s enemies in order to assure their continuous submission to Assyrian rule.⁴⁹

47. *Ibid.*, pp. 194–95.

48. *Ibid.*, p. 195.

49. This article, which was written in the mountains of Austria, was made possible through the kind loan by J. E. Reade of offprints of his articles and through the help of Erika Bleibtreu, who generously supplied references and xerox copies from the excellent library of the Oriental Institute of the University of Vienna.

Chapter 18

THE JUDEAN DESERT TREASURE FROM NAḤAL MISHMAR: A CHALCOLITHIC TRADERS' HOARD?

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Almost three decades after its discovery in 1961, the Judean Desert copper treasure from Naḥal Mishmar still poses many questions and retains more than a fair measure of its mystery.¹ It gives evidence of a massive use of copper and arsenical-copper and highly advanced metal technology which were hitherto unknown and unexpected in the Chalcolithic period and which are perplexing to this day. Likewise, this assemblage of over 400 metal objects — six ivory objects, one limestone macehead, and six hematite maceheads — presents an array of shape and ornamentation which at the time of its discovery was a novelty in the Chalcolithic culture of ancient Israel and whose nature and purpose are still hard to comprehend. In this paper, offered to Helene Kantor — friend and teacher — I would like to suggest a new explanation with regard to the nature of this unusually large collection of metal objects and its presence in a Judean Desert cave. But before presenting our argument, a few remarks on several issues pertinent to the discussion are in order.

The find spot of the treasure can provide only corollary evidence for its dating. There existed a rich Chalcolithic level in the “Cave of the Treasure,” with traces of prolonged occupation and with five burials of two men, one woman, and two children.² But the hoard was found in a niche (pl. 45), separated from the main hall and sealed by a stone; therefore, theoretically, it could have been hidden in the cave without any connection to its occupation.

The assignment of the treasure to the Chalcolithic period has subsequently been affirmed by radiocarbon dating, by recent archaeological finds, and by the comparative study of motifs: ¹⁴C tests have repeatedly placed the treasure in the fourth millennium B.C. and the recently calibrated dates are very early

1. P. Bar-Adon, *The Cave of the Treasure* (Jerusalem, 1980); henceforth: Bar-Adon. M. Tadmor, “The Judaeian Desert Treasures” in *The Treasure of the Holy Land: Ancient Art from the Israel Museum* (New York, 1986): 72–84; henceforth: Tadmor, “Treasures.”
2. Bar-Adon, p. 198. Bar-Adon assumed that caves 2 and 3, adjacent to the Cave of the Treasure (Cave 1), were connected with it and served for burial, while the Cave of the Treasure served for habitation. Altogether twenty-one burials were found in the three caves.



Naḥal Mishmar: General View of a Portion of the Judean Desert
Treasure Partially Seen In Situ in the North Wall of Cave 1.

indeed, not later than mid-fourth millennium.³ In addition, and of utmost significance for the correct chronological assignment of the treasure, is the fact that similar objects have since been unearthed in excavations. To date they occur mainly in the one-period Chalcolithic sites of the northern and western Negev, in the Beersheba river basin: in Beer Matar (Abu Matar), which was excavated in the 1950s prior to the discovery of the treasure; at Neve Noy, excavated recently on the outskirts of Beer Safad (Safadi), and in Shiqmim, further west along the Beersheba riverbed, which is still in process of excavation. Its westernmost occurrence is at Palmachim on the Mediterranean coast, where a copper "standard" of the Naḥal Mishmar type was found in a tomb cave.⁴ But it must also be added that very little is yet known of central and northern Israel in the Chalcolithic period and only when Chalcolithic sites are excavated there, will an accurate distribution pattern of such objects be known. In the Golan sites no metal objects have been unearthed and only a single piriform hematite macehead occurs there.⁵

Stylistic affinities have also been adduced as proof that the treasure is firmly rooted in local Chalcolithic milieu. Among the most outstanding features are the round eyes, prominent noses, and the lack of mouths in anthropomorphic images, which thus become symbolic rather than naturalistic representations; the frequent, but selective use of horns and horned heads in zoomorphic images (pl. 47b, c); and the use of architectural elements (pl. 48a). All these are attested in the treasure and appear in all types of Chalcolithic art: the Negev ivory and stone sculptures, the ossuaries, and the Golan sculptured pillar-bowls.⁶

Stylistic comparisons of the treasure with other cultures of the ancient Near East have been pointed out in several studies. I should like to single out the complex nature of those with Anatolia, which are evident in the use of raw materials as well as in stylistic affinities. Obsidian was imported from Anatolia in the Neolithic and Chalcolithic periods. The use of arsenical copper also points to eastern Anatolia, and beyond to the Caucasus and to central Asia. The violin shaped figurines from Gilat must be mentioned in this context as well as the recently discovered double-spiral copper pendant from Neve-Noy. Perhaps the pronounced use of animal horns and horned heads also should be added to the list of stylistic affinities with Anatolia, where such elements are prominent in funerary metal sculpture of the third millennium (i.e., Alaça Hüyük); these

3. J. M. Weinstein, "Radiocarbon Dating in the Southern Levant," *Radiocarbon* 26 (1984): 306 and 334. The calibrated dates are mostly in the second quarter of the fourth millennium B.C. And see also J. D. Muhly, "Supplement to Copper and Tin," *Transactions of the Connecticut Academy of Arts and Sciences* 46 (1976): 88.
4. J. Perrot, "Excavations at Tell Abu Matar, near Beersheva," *IEJ* 5 (1955): 167–89 and especially p. 172, fig. 20; idem, "Prehistoire Palestinienne," in Letouzey and Anc, eds., *Supplement au dictionnaire de la Bible VIII* (Paris, 1968) col. 428–431; idem, "Structure d'habitat, Mode de la vie et environnement les villages souterrains des pasteurs de Bersheva dans la sud d'Israel, au IVe millenaire avant l'ere Chretienne," *Paléorient* 10 (1984): 75–92; J. Eldar and Y. Baumgarten, "Neve Noy: A Chalcolithic site of the Beer-Sheba Culture," *BiAr* 48 (1985): 134–39; T. E. Levy and D. Alon, "Shiqmim: A Chalcolithic Village and Mortuary Centre in the Northern Negev," *Paléorient* 11 (1985): 71–83. M. Dothan, "Excavations at Horvat Beter," *Atiqot* 2 (1957): 1–40 (Hebrew); R. Gophna and S. Lifshitz, "A Chalcolithic Burial Cave at Palmahim," *Atiqot* 14 (1980): 1–8, pl. I. 5.
5. C. Epstein, "Golan 1977," *IEJ* 28 (1978): 116–17. For finds at Meser, in central Israel, see M. Dothan, "Excavations at Meser, 1956," *IEJ* 7 (1957): 217–28.
6. Tadmor, "Treasures," pp. 57–86; J. Perrot et D. Ladiray, *Tombes à ossuaires de la région côtière palestinienne au IVe millénaire avant l'ère chrétienne*, Mémoires et Travaux du Centre de Recherche français de Jerusalem, 1 (Paris, 1980); C. Epstein, "Cult Symbols in Chalcolithic Palestine," *Bolletino del Centro Camuno di Studi Preistorici* 14 (1982): 63–82; R. Amiran and M. Tadmor, "A Female Cult Statuette from Chalcolithic Beer-Sheba," *IEJ* 30 (1980): 137–140; R. Amiran, "A New Type of Chalcolithic Ritual Vessel and Some Implications for the Naḥal Mishmar Hoard," *BASOR* 262 (1986): 83–87.

elements occur in the treasure as well as in pottery, stone, and ivory sculpture in Chalcolithic Palestine.⁷ There is a persistent discrepancy of at least several hundred years between Palestinian Chalcolithic and the Anatolian Bronze Age, to which the above mentioned objects belong. Still, the growing number of contacts should not easily be dismissed in the hope that further discoveries and studies will bring us closer to understanding the nature of these occurrences.

Crucial to proper understanding of the treasure is the question of its designation. The ceremonial-ritual character of the majority of the treasure finds was easily recognized; clearly these were artifacts intended for use in some cultic ceremony. This consideration prompted a suggestion that the treasure originally belonged to a temple, was removed from it in time of danger and hidden in the cave. A large enclosure in the vicinity of the Cave of the Treasure was suggested by Bar-Adon and the En-Gedi temple, further north on a plateau above the Dead Sea, by Ussishkin.⁸ But not a single metal object was found at either site. Nor have such objects been found since in Chalcolithic temples; not in Gilat where a building — identified as a temple — produced a large number of objects of cultic nature, nor in the Tuleilat Ghassul sanctuary region.⁹ In fact the Negev sites are still virtually a terra incognita in aspects of personal, temple or funerary cults. Therefore, the possibility that the treasure objects could be used in house cults or funerary gifts (like the standards at Alaça Hüyük), should not be excluded. To date, only the tomb at Palmachim contained a copper standard among the offerings; and a hematite macehead was discovered in a tomb in the cemetery of Shiqmim.

It is here that we come to our suggestion pertaining to the nature of the treasure. It is submitted that rather than being the content of a temple stored for safety, the treasure was the possession of traders or trader-smiths, in whose hands was invested the trade of such commodities and who acted as intermediaries between production centers and the Negev sites. This interpretation — which of course has no bearing on the question of its ultimate cultic use — ties the treasure in an organic way to the Chalcolithic cave-occupation in the Judean Desert, which was contemporary with the Ghassulian-Beersheba settlements and which displays similar material culture.¹⁰ If so, the treasure will be our first tangible illustration of the manner in which

7. Bar-Adon, p. 201; J. B. Hennessy, *The Foreign Relations of Palestine During the Early Bronze Age* (London, 1967): 41–43, pl. XXXVI; Carolyn Elliott, "The Ghassulian Culture in Palestine: Origins, Influences and Abandonment," *Levant* 10 (1978): 43–44; B. Teissier, "Glyptic Evidence for a Connection Between Iran, Syro-Palestine and Egypt in the Fourth and Third Millennia," *Iran* 25 (1987): 27–53. On contacts in the use of arsenical copper see already C. A. Key, "The Trace-Element Composition of the Copper and Copper Alloys: Artifacts of the Naḥal Mishmar Hoard," in Bar Adon, pp. 238–43; Perrot suggested some connections with Anatolia, above n. 4, p. 78. On the violin shaped figurines: D. Alon, "A Chalcolithic Temple at Gilath," *BiAr* 40 (1977): 63–65; on the copper pendant: Eldar and Baumgarten, above, n. 4; on the use of obsidian: Tadmor, "Treasures," pp. 85–86 (bibliography there) and J. Perlman and J. Yellin, "The Provenience of Obsidian from Neolithic Sites in Israel," *IEJ* 30 (1980): 83–88.

8. Bar-Adon, p. 202; D. Ussishkin, "The "Ghassulian" Temple in Ein Gedi and the Origin of the Hoard from Naḥal Mishmar," *BiAr* 23 (1971), 23–39; idem, "The Ghassulian Shrine at En Gedi," *Tel-Aviv* 7 (1980): 38–41, P. Bar-Adon, "The Naḥal Mishmar Caves," *Encyclopedia of Archaeological Excavations in the Holy Land* (Jerusalem, 1977), p. 690.

9. D. Alon, "Two Cult Vessels from Gilat," *Atiqot* 11 (1976): 116–118 and above, n. 7; J. B. Hennessy, "Tuleilat Ghassul: Its Place in the Archaeology of Jordan," in Adnan Hadidi, ed., *Studies in the History and Archaeology of Jordan I* (Amman, 1982), pp. 55–58.

10. On the sources of copper and on copper trade see the detailed discussion of J. D. Muhly, *Copper and Tin* (Hamden, Conn., 1973, especially pp. 180–234 and the extensive bibliography there. On aspects of obsidian trade see also Gary A. Wright, "Obsidian Analyses and prehistoric Near Eastern Trade: 7500 to 3500 B.C.," in *Anthropological Papers, Museum of Anthropology, University of Michigan*, no. 37 (Ann Arbor, 1969), pp. 1–92, and bibliography.

trade was handled in that period which produced superb art in a variety of imported materials, a most important matter for the economy of these Chalcolithic villages, which dealt so much in specialized crafts.¹¹

Moreover, this assumption can explain some of the unusual features of the treasure, first and foremost the extraordinary number of its components. In the Negev sites, the standards and maceheads — though similar or even identical to those of the treasure (pls. 46, 47, and 49) — never occur in such staggering numbers. At each site there are only a few such objects found in a small number of loci, while the treasure comprises over 400 items.

One other feature is easier to explain if we assume that the treasure was a hoard belonging to trader-smiths. A close typological scrutiny reveals that, surprisingly, this very large collection consists of a rather limited range of shapes and in each category there is a large number of similar (though not identical) items. Four categories form the vast majority of the entire collection: maceheads, standards, "crowns," and axes and chisels. The group of maceheads is the largest: it comprises over 240 pieces of various shapes (pl. 46a).¹² The overwhelming majority are piriform but there is also a significant number of disc-shaped maceheads. It is worth mentioning that maceheads are rather common and that many more maceheads have been found in excavation sites than "standards." Maceheads — like axes and chisels — continued to be used also in the following, Early Bronze age, though in stone rather than in copper, while all the unusual ornate artifacts were discontinued.

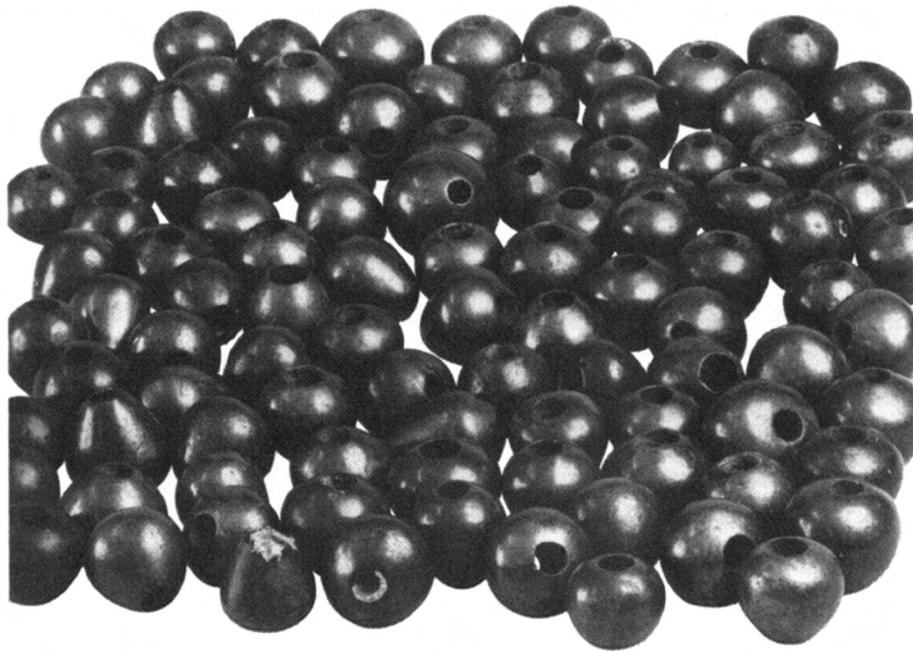
The category of "standards" — or as I would rather suggest "maces"¹³ — comes next with some eighty items of various sizes and decoration (pls. 46b, 47c, and 49d and e). There are ten so called "crowns"; three are plain, six bear geometric or representational decorations (i.e., pls. 48 and 49c). One combines both

On aspects of ancient trade, though later than Chalcolithic, see A. L. Oppenheim, "Trade in the Ancient Near East," in *V International Congress of Economic History* (Moscow, 1970), pp. 1–37; On patterns of trade and exchange in later periods cf. recently the studies in A. Archi, ed., *Circulation of Goods in Non-Palatial Context in the Ancient Near East* (Rome, 1984). The Negev and the Judean hill country are the traditional area of the Biblical Kenites, itinerant smiths who also engaged in ritual and who in time settled there permanently, B. Mazar, "The Sanctuary of Arad and the Family of Hobab the Kenite," *JNES* 24 (1965): 297–303. Groups of copper ingots have been found in Lachish, Har Yeruham, and in the Hebron hills north of Dhahariyeh; W. G. Dever and M. Tadmor, "A Copper Hoard of the Middle Bronze Age I," *IEJ* 26 (1976): 163–69; R. Maddin and T. S. Wheeler, "Metallurgical Study of Seven Bar Ingots," *IEJ* 26 (1976): 170–73. It is beyond the scope of this paper to enter into the complex issues pertaining to traders, "itinerant-smiths," their social status, and their connection to ancient metallurgy. For a different view on their role and very existence see, C. Zaccagnini, "Patterns of Mobility among Ancient Near Eastern Craftsmen," *JNES* 42 (1983): 245–64, especially p. 258.

11. J. Perrot, "Les Statuettes en ivoire de Bershéva," *Syria* 36 (1959): 8–19; see also note 4, above; Steven A. Rosen, "The analysis of trade and craft specialization in the Chalcolithic period: comparison from different realms of material culture," *Michmanim* 3 (1986): 21–32; T. E. Levy, "The Chalcolithic period," *BiAr* 49 (1986): 89–96.

12. Bar-Adon, pp. 116–31.

13. The term "standard" is used by Bar-Adon for elongated, hollow objects, which comprise a shaft and a head, mostly piriform but often disc shaped. Objects of such shapes should better be termed maces (Tadmor, "Treasures," p. 83). Unlike the common maces, these ornate copper maces were clearly intended for ceremonial, not practical use. They differ from the regular maces in being cast in one piece, shaft and head together. The copper and stone maceheads, both piriform and disc shaped, were obviously meant to be mounted on wooden staffs. Found in the treasure were also short segments of maces with disk heads (Bar-Adon, pp. 94–95). In view of this, one wonders whether the mace with a decorated shaft, raised by Narmer, was not a metal one, cast in one piece, J. B. Pritchard, ed., *The Ancient Near East in Pictures* (Princeton, 1954): 92.



a



b

Nahal Mishmar: (a) General View of a Selection of Maceheads and (b) Four "Maces" of Various Sizes and Decorations.



a



b



c

Nahal Mishmar: (a) The "Eagle" or "Vulture" Standard, (b) Piriform Macehead Surmounted with Twin Ibexes, and (c) The "Ibex Scepter."

geometric and representational motifs and seems to resemble a round edifice (pl. 48a).¹⁴ There are fifteen plain axes and chisels (pl. 49f) of various sizes and three socketed axes, two of them identical.¹⁵

To these large typological categories should be added those that comprise only a few items: three identical horn-shaped objects, similar in shape and size but with different decorative elements¹⁶ and three small jars with basket handles which are also similar in shape and differ in decoration.¹⁷

Of the six ivory objects found in the treasure, five are identical: these are the sickle-shaped segments of hippopotamus tusks perforated all over, which are even more enigmatic than the rest of the treasure.¹⁸ Finally, there are six hematite maceheads, similar in shape and size.¹⁹

If the treasure was indeed a trader-smiths' hoard then another feature becomes natural and easier to comprehend. On the whole the metal artifacts were masterfully produced and enormous effort and proficiency were invested in the casting and the surface treatment. In these respects the treasure is truly revolutionary in the history of early metallurgy. But upon close inspection we note that, surprisingly, the objects appear to be in different states: some seem to be new, some not yet finished, while others show signs of faulty casting or wear and repairs.

Such objects as the long, solid scepters, the "Vulture Standard" (pl. 47a), the decorated mace (pl. 47b), or the "Ibex Scepter" (pl. 47c)²⁰ are examples of outstanding artifacts in excellent condition, with no signs of wear or repairs; and there are many others. But a variety of defects can be discerned in most "crowns." Certain projecting elements are missing, either broken off in casting or use, or forcefully removed. Even on the most ornate "crown" at least two upright bosses are now missing and the legs at the bottom are uneven in size or broken off (pl. 48a). On another "crown" at least three projections are broken off and missing, and only one hook (possibly out of nine) remained on a third.²¹

Holes are a common occurrence, obviously the result of faulty casting, and many were left untouched.²² Of special interest however, from the standpoint of ancient metallurgy, are the repairs by soldering. Such patches of repair can be observed in several "crowns" (i.e., pl. 48b).²³

14. Tadmor, "Treasures," 76. A different interpretation is offered by R. Amiran, "A Suggestion to see in the Copper 'Crowns' of the Judean Desert Treasure Drums of Standlike Altars," in J. N. Tubb, ed., *Palestine in the Bronze and Iron Ages* (London, 1985), pp. 11–14. It is tempting to mention here the round structures of the Nawamis and the round graves at Shiqmin; see Levy, above, note 4 and O. Bar-Yosef, A. Belfer-Cohen, A. Goren, I. Hershkovitz, O. Ilan, H. K. Mienis, and B. Sass, "Nawamis and Habitation Sites near Gebel Gunna, Southern Sinai," *IEJ* 36 (1986): 121–67.

15. Bar-Adon, 112–15 and 98, Nos. 148 and 149. These two are rightly included in the category of "standards," not tools.

16. *Ibid.*, pp. 104–05.

17. *Ibid.*, pp. 108–09; Tadmor, "Treasures," 77; R. Amiran, "A New Type of Chalcolithic Ritual Vessel and Some Implications for the Nahal Mishmar Hoard," *BASOR* 262 (1986): 84.

18. Bar-Adon, pp. 16–23.

19. *Ibid.*, p. 116.

20. *Ibid.*, pp. 90–92, 100–01, and 42–45.

21. *Ibid.*, pp. 24–31.

22. *Ibid.*, pp. 32–34.

23. *Ibid.*, pp. 35, 38.



a



b



c

Naḥal Mishmar: Copper "Crowns" (a) No. 7, (b) No. 8, and (c) No. 9.

One “crown” is more damaged than others: at the upper rim, all four projections are broken off; of the four parallel projections at the base rim only stubs remain and a section is missing from the body (pl. 49c).²⁴

Similar defects appear also in the maces; some have holes or broken and damaged edges.²⁵ The cylindrical projection at the back of the head of the anthropomorphic mace is broken off, while the two side ones are intact.²⁶

It is impossible to define with certainty the manner in which the ornate objects of seemingly nonfunctional shape were used. But it is clear that the four axes which have blunt edges are yet unfinished and could not possibly have been used as tools.²⁷ In this respect we may mention another phenomenon, evident in the maces, which may be pertinent here. Remains of wooden sticks preserved in several maces indicate that such objects were meant to be carried mounted on wooden staffs. It is surprising therefore, that in certain cases the casting investment of the inner core was left inside the shafts and the passage became narrow in places;²⁸ some shafts are very narrow all the way and not straight.²⁹ In a considerable number of maces the shaft is partially, or even completely blocked.³⁰ When the shaft was so narrow that a wooden staff could not be inserted a twisted thread was substituted for the staff.³¹ We may assume that in some cases we witness here remains of casting and that those maces in which the shafts are blocked were not yet used. Otherwise, one must assume that these maces were used in various manners, not all mounted on wooden staffs (as, for example, in the Narmer palette), so that the width of the shafts or the fact that some were obstructed, was of no importance. The wooden shafts and the string might be connected to the transportation of these objects rather than to their use.

In the Negev sites — at Beer Matar, Neve Noy, and Shiqmim — the copper objects, of shapes comparable to the treasure, are consistently mentioned in connection with copper working activities.³² The find from Neve Noy is especially illuminating, as it provides an example of a small hoard of two used axes and two maces enclosed within a segment of a broken “crown.” Nearby was a crucible, an object identified as a part of a bellow, bits of ore, and slag. It seems that this small hoard was brought to the workshop to be remelted. But nowhere yet within these Negev sites were found molds or an installation adequate for the primary production required for smelting and casting, certainly not on the scale necessary for such a large number of objects and for such advanced technology as we have in the treasure. All we can conclude for the time being is that objects similar to the treasure were used in the Negev sites and that some were probably remelted there when discarded.

24. *Ibid.*, p. 39.

25. *Ibid.*, p. 52, no. 23; p. 66, no. 53; p. 67, nos. 57, 58, and many others.

26. *Ibid.*, p. 49.

27. *Ibid.*, p. 113, nos. 164, 165, 167; p. 115, no. 179, which also shows signs of casting defects.

28. *Ibid.*, p. 53, no. 27, p. 61, no. 40; p. 69, no. 65.

29. *Ibid.* p. 54, no. 28; p. 61, no. 39; in no. 107 (p. 83) a very narrow stick had to be inserted to match the narrowness of the passage.

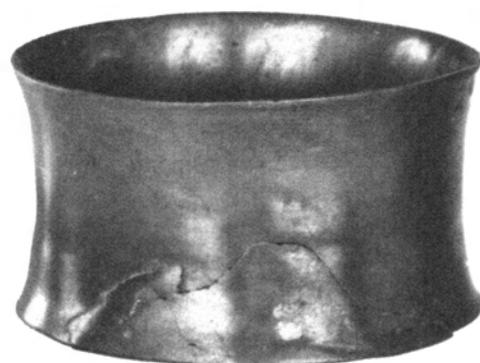
30. Partially blocked: *ibid.*, p. 64, no. 48; p. 70–71, nos. 68, 69, 72, and many more; completely blocked: p. 68, no. 61; p. 69, no. 64; p. 70, no. 67, and others.

31. *Ibid.*, p. 68, no. 62.

32. See above, note 4.



a



b



c



e



d



f

Nahal Mishmar: (a-c) Copper "Crowns" Nos. 11, 15, and 16, (d) "Maces," Nos. 40, 71, 57, and 53, (e) "Maces," Nos. 68 and 59, and (f) Chisels, Nos. 165, 164, 179, and 176.

The location of a production site (sites?) still remains unknown. Because of the pronounced local character of the Palestinian Chalcolithic, of which the treasure is an integral part, I am inclined to think that production site(s) were located not very far away. If so, the treasure — locally produced — represents regional rather than long-distance trade and the Cave of the Treasure could have served as a central hiding place for such trade.³³ It is proper to mention in this context that maceheads of copper and hematite have been found also in Naḥal Seelim caves in the Judean Desert. The numerous beads wrapped in cloth bags and a beaded purse, found hidden in the “Cave of the Skulls” in Naḥal Seelim, may also have been the property of a trader rather than a private possession.³⁴

Unknown also are the sources of metal which were used in the production of the treasure, although the Arabah mining center may now be considered a possibility. Analysis of thirty objects shows a variety in elemental composition, indicating the use of various different raw materials. I believe therefore, that only when all the ca. 420 objects are analysed will further work on the composition of metals and metal sources of the hoard be practical.³⁵

Already Potashnik and Bar-Avi in their initial study³⁶ observed that two entirely different metal technologies were employed in the production of the treasure: that of casting — in the maces, maceheads, “crowns,” and other ceremonial objects — and that of forging — in the tools. The complexity and variety of the casting techniques, the degree of their success and failure, became even more apparent in a later study of the treasure, employing the method of thermal neutron radiography.³⁷

Obviously, the treasure is not a body of uniform production, neither in the composition of the metals from which it was made nor in the technology of its production. It may have been cast in one or several production centers by smiths who had access to various ores or alloys and used each deliberately. These smiths shared a very high level of metallurgical expertise in every stage of production. They also knew the needs of their customers, and kept producing large quantities of certain ceremonial and cultic objects.

We don't know the modes of production of that remote age, whether copper working was controlled by contemporary palaces (not yet discovered in excavations), temples, or whether it was in the hands of specialized tribal organizations. Likewise unknown are the modes of distribution of raw materials and

33. But see Perrot, above note 4 (*Paléorient*, p. 80), who suggests that the cast objects made of arsenical-copper were imported from Anatolia; S. A. Rosen advocates long distance transport of raw materials and the subsequent manufacture and regional distribution of cultic objects; he assumes that redistribution of utilitarian objects was organized along different lines; see above, n. 11, where he deals also with basalt trade. And see also R. Amiran and N. Porat “The Basalt Vessels of the Chalcolithic Period and the Early Bronze I,” *Tel-Aviv* 11 (1984): 11–19. On the local character of the Chalcolithic culture and the continuity from the Neolithic to the Chalcolithic, see A. M. T. Moore, “The Late Neolithic in Palestine,” *Levant* 5 (1973): 36–68.

34. Y. Aharoni, “The Nahal Seelim Caves,” *Encyclopedia of Archaeological Excavations in the Holy Land III* (Jerusalem, 1977), p. 674.

35. Key, above, note 7; also R. F. Tylecote, B. Rothenberg, and A. Lupu, “The Examination of Metallurgical Material from Abu Matar, Israel,” *Historical Metallurgy* 8 (1974): 32–34; B. Rothenberg, R. F. Tylecote, P. J. Boydell, “Chalcolithic Copper Smelting,” *Archaeo-metallurgy* 1 (London, 1978).

36. R. Potashnik and K. Bar-Avi, “A Material Investigation of Metal Objects from the Naḥal Mishmar Treasure,” *Bar-Adon*, pp. 235–37.

37. Conducted by the writer in collaboration with Dr. Dan Kedem of the Nahal Soreq Nuclear Center with the support of the Israel Academy of Sciences and Humanities for basic research.

finished products. If our suggestion is valid then the Judean Desert hoard, which comprises new, damaged, and repaired objects, sheds light on some aspects in the logistics of exchange, collection, and distribution of metal objects in the fourth millennium society.³⁸

38. After this article was submitted, I received S. Shaler and P. J. Northover, "Chalcolithic Metal and Metalworking from Shiqmim," in *Shiqmim I*, ed. Th. E. Levy, BAR International Series 356 (1987). The authors' conclusion that "the prestige objects were imported to the site from a more specialized production centre" (p. 365), already in their final stage, while the tools were locally produced, is very much in line with what I propose. Also see M. Tadmor, *The Judean Desert Treasure*, *Rotunda*, vol. 21, No. 1 (Summer 1988): 14–20.

Chapter 19

URARTIAN BRONZES FORMERLY IN THE ORIENTAL INSTITUTE MUSEUM

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University of Amsterdam
Amsterdam

This article is dedicated to Helene J. Kantor, with whom I had the privilege of working at the Oriental Institute and from whom I have gained many insights into Near Eastern archaeology.

The subject of this article is a group of bronze objects that were in the Oriental Institute from 1970 to 1979, on loan from Constantine and Jacob Knanishu, who gave permission for them to be photographed and published. Messrs Knanishu had been the owners from the day of discovery in 1905. The objects were said to have been found near the village of Koocheye, about thirty miles north of Urumia. The current whereabouts of the artifacts are unknown. The group consists of the following items:

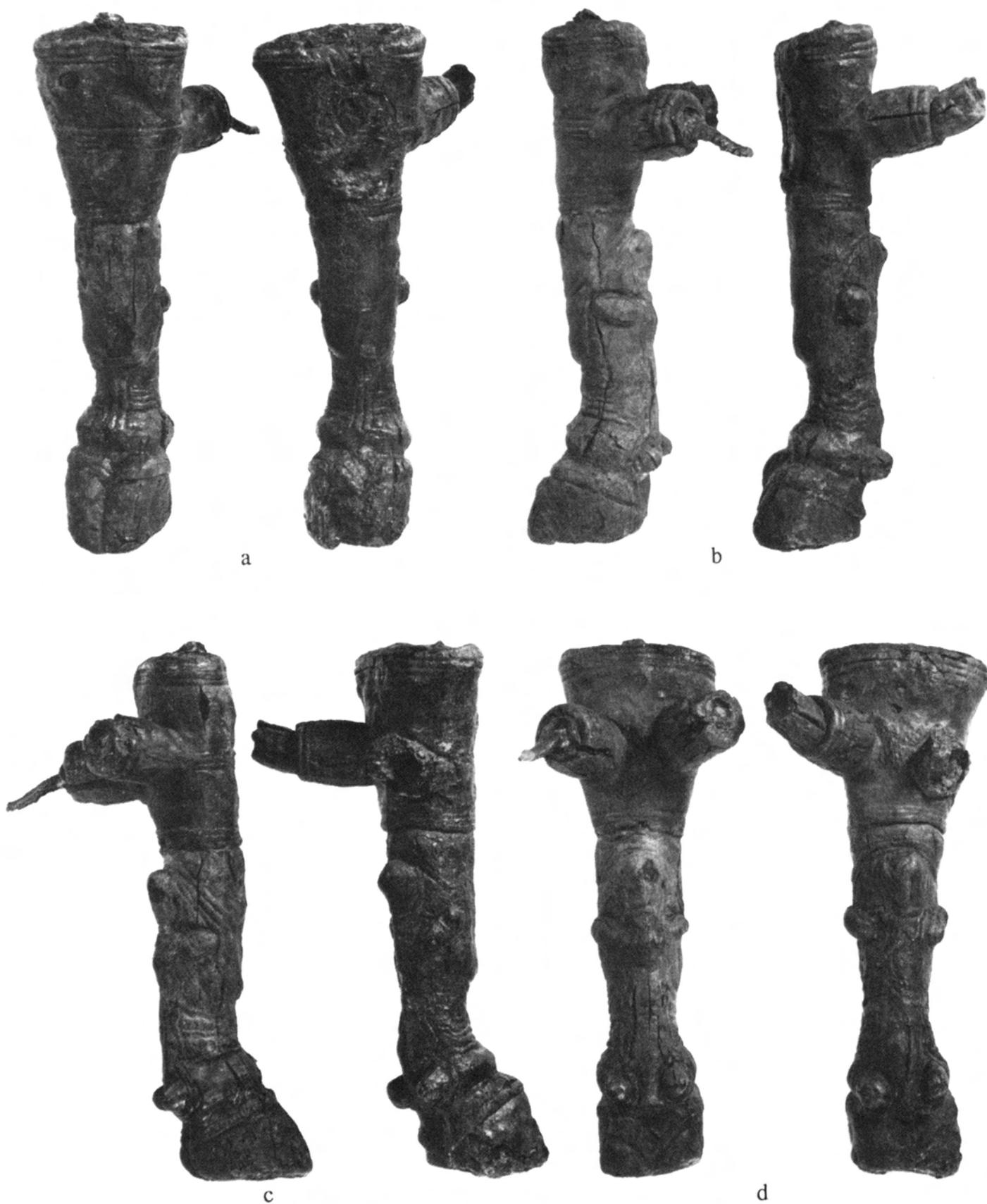
- 1–2) Two bulls' legs measuring $21.5 \times 4.5 \times 2.5$ cm, with the broken stumps of a triple rising bar and two horizontal bars, which indicate that they formed part of a tripod (pl. 50).

Although cracked and attacked by corrosion, the legs show a considerable amount of detail. Above the split hoof, one first sees a coronet of hair, then three protuberances on either side apparently represent, from bottom to top, the upper sesamoid, the swelling of the primary metatarsal bone and the *os pisiforme*.¹ This means that the foreleg of the bull is probably represented in a somewhat shortened version. Double wavy lines indicate the large cutaneous veins; more wavy wrinkles encircle the foot and double outlines surround the knee.

Above the bovine part comes a structural member from which two bars took off horizontally to join the other bulls' legs, of which there must have been three originally; from the splayed top three bars diverged, one rising vertically and two forming arcs that supported the ring in which the vessel rested.

- 3) One fragment of a cylindrical bar 20 cm long and .2 cm in diameter, bent into an arc (pl. 51a). This may actually be part of one of the three arcs of the tripod. One end is broken at the point where the bar had been perforated, possibly to hold a rivet that fixed it to the ring.
- 4) A cylindrical bar bent into the shape of a cotter pin, measuring $12 \times 5.5 \times 1.5$ cm. I have no suggestion as to the possible use of this object (pl. 51b).

1. W. Ellenberger et al., *An Atlas of Animal Anatomy for Artists* (New York, 1956), pp. 94–95, pl. 7.



Guşci. Bronze Tripod Legs in the Knanishu Collection: (a) Front View, (b) Left Side View, (c) Right Side View, and (d) Back View.

5) About one-half of a bronze bell, 12 cm high and 5.5 cm wide, with an iron clapper (pl. 51c).

By a fortunate coincidence, we are informed, in a somewhat distorted way, of the circumstances of discovery by a 1912 report signed "Atrpet" in an Armenian periodical.² A summary in English of this report was given by George M. A. Hanfmann.³ I quote him verbatim:

The village of Guşçi is located on the western shore of Lake Urmia, 3 kilometres from the peninsula of Qara Bagh (Garapagh) Kent. In 1905 some peasants were digging foundation trenches for a house in the locality of Ançali when they came upon a small "temple" of substantial stone masonry. They found two bull-statues made of bronze ("brass"). One of the statues was a few centimetres taller than the other; in all other respects it was difficult to tell them apart. As these statues stood on a high stone platform and had been covered by stones they were free from the disintegrating influence of humidity. Because the statues were very heavy the discoverers thought that they contained gold and smashed them with hammers. The village elders came upon this scene and saved the two bulls' heads. Subsequently one of them went to the "collection of Mecid Sultan," in Tbilisi, and the other was sent to Mahomet Alla Mirza. The bull's head belonging to Mahomet Alla was then auctioned off and taken by A. Avtandelian to Europe to be resold there. In the Guşçi ruins there was also found the mummified skeleton of an "Apis" which was smashed and thrown into the lake by the finders. A bronze snake and some silver vases were kept by the owner of the land. Among other worn and disintegrated ornaments was part of a "copper" belt with rows of three lions and three bulls.

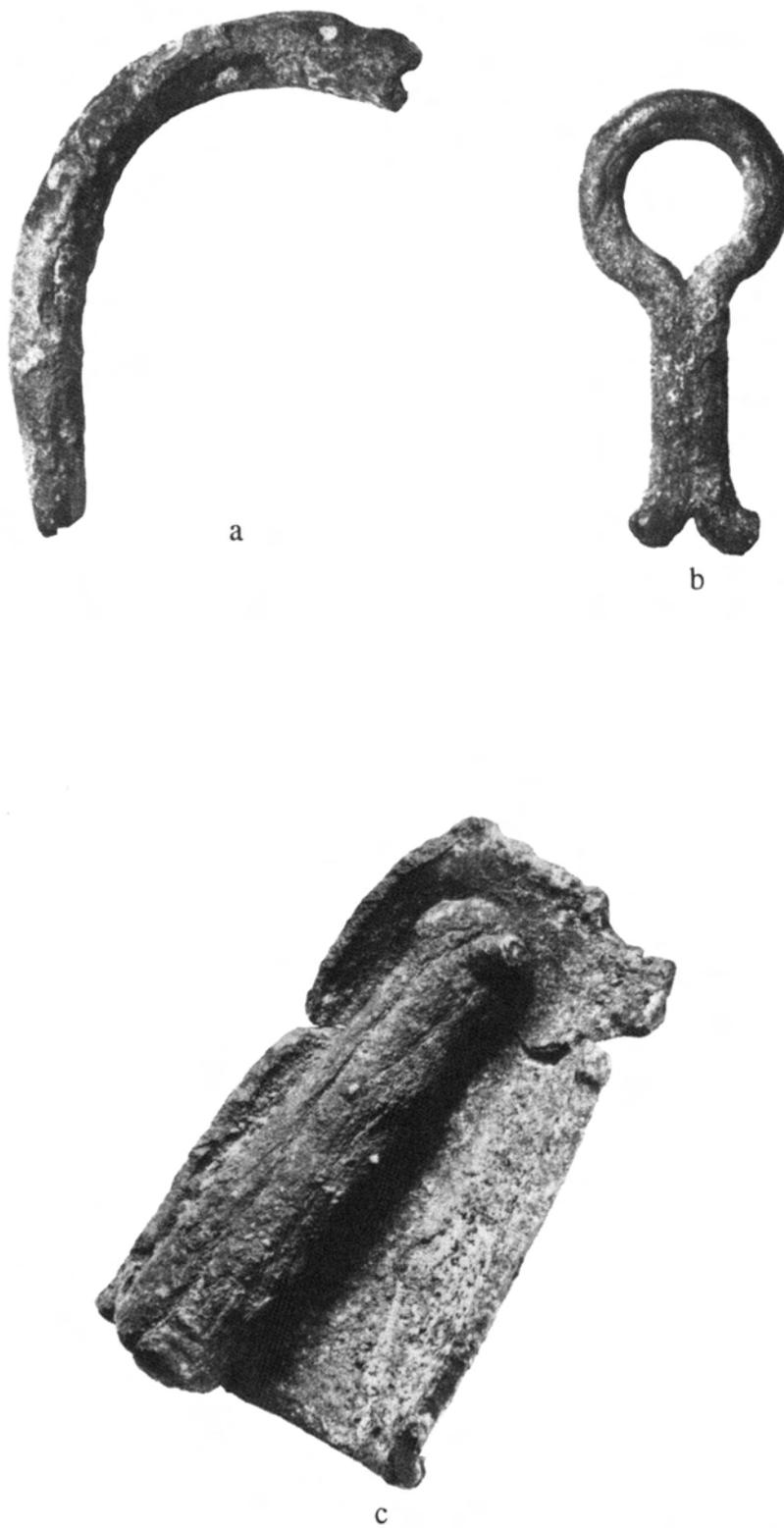
Hanfmann himself hinted at the very likely possibility that the structure uncovered at Guşçi was actually an Urartian chamber tomb like that found in 1938 at Altintepe.⁴ I would venture to suggest that the account of its discovery became somewhat garbled in the course of its transmission. As Hanfmann was able to establish the existence of four very similar bronze bulls' heads,⁵ it is very likely that the two "bull statues" were actually one cauldron with four bulls' heads,⁶ resting on a tripod with bulls' legs as at Altintepe (pl. 52a).

Whether the skeleton smashed by the peasants was bovine, as reported, or human, as one suspects, is not relevant here. The presence of the object shown on plate 51a, however, may explain the passage in the report about the bronze snake. In its broken state the piece might easily be taken to represent a snake.

Parts of the copper belt decorated with rows of three lions and three bulls, as well as with shooting sirens and fleeing ibexes, are also still extant. One is in the Metropolitan Museum at New York (accession number 52.123).⁷ Three fragments are in the Ashmolean Museum at Oxford⁸ and one is believed to be in Tbilisi.⁹

2. *Azgagrakan Handess, Revue Ethnographique publiée par la Société Ethnographique Arménienne* 23, part 2 (1912), pp. 114–24.
3. "Four Urartian Bulls' Heads," *AnSt* 6 (1956): 205–13; the summary is on p. 206.
4. R. D. Barnett and Nuri Gökçe, "Urartian Bronzes from Erzincan," *AnSt* 3 (1953): 121–29; Tahsin Özgüç, *Altintepe II: Tombs, Storehouse and Ivories*, Türk Tarih Kurumu Yayinlari, vol. 27, (Ankara, 1969), p. 67.
5. Hanfmann, *AnSt* 6, pp. 205–13.
6. As suggested by Hanfmann, *ibid.*, p. 210.
7. *Ibid.*, p. 211, note 19; see also Guitty Azarpay, *Urartian Art and Artifacts: A Chronological Study* (Berkeley and Los Angeles, 1968), pl. 26.
8. R. W. Hamilton, "The Decorated Bronze Strip from Gushchi," *AnSt* 15 (1965): 41–51. On account of its length (more than 2 m) Hamilton doubted that it was used as a belt and suggested that it was a chariot rim. However, it shows stitch-holes, not nail holes, and several comparable strips end in rings by which they could be fastened, e.g. Orhan A. Taşyürek, *The Urartian Belts in the Adana Regional Museum* (Ankara, 1975), figs. 18, 30, and 32.
9. B. A. Kufin, "Urartskii kolumbarii u podoshvy Ararata . . .," *Vestnik Gosudarstvennogo Muzeia Gruzii* 13B (Tbilisi, 1943), summarized by R. D. Barnett in *AnSt* 13 (1963): 153–94, fig. 48.

Plate 51



Guşçi. Objects in the Knanishu Collection: (a) Bronze Bent Bar, (b) Bronze Cotter Pin, and (c) Bronze Bell Fragment with Iron Clapper.



a



b

Altintepe Tomb II: (a) Bronze "Cauldron" on Tripod and (b) Close-Up View of a Bull's Head Attachment on the "Cauldron."

Hanfmann demonstrates a stylistic development in the bull's-head attachments to Urartian cauldrons.¹⁰ At the beginning of the series he places the bull's heads from Toprakkale with their linear treatment of eyebrows, veins, and muzzle; an engraved collar runs from ear to ear.¹¹ Toprakkale was probably founded by Rusa II (ca. 685–670 B.C.), but older material may well have been brought there from Van.¹² An eighth-century date for the Toprakkale bulls' heads, as proposed by Hanfmann, is confirmed by the similar linear treatment of the bull's head from Verakhram near Alishar on the Araxes (pl. 53a).¹³ The tomb at Verakhram is dated to the reign of Argishti I (ca. 780–756 B.C.) by an inscribed bronze bell.¹⁴ Also found at Verakhram was a bull's leg tripod fragment with considerably less relief in its details than the pieces published here (pl. 53b).¹⁵

Next in Hanfmann's series come the bulls' heads on the cauldron from Altintepe (pl. 52b). While the collar is flatter, the eyebrows and the wrinkles of the muzzle are cast as plastic forms. Tomb II at Altintepe, which yielded this cauldron with its tripod, may be dated on inscriptional evidence between 740 and 732 B.C.¹⁶ The bull's legs on the Altintepe tripod also take a middle position between the flat treatment of the Verakhram example and the high relief of our present pieces.¹⁷

The third step in Hanfmann's series is formed by the four bulls' heads from Guşçi in which manes, eyebrows, and details of the muzzle are all cast in relief; the collar has been omitted (pl. 53c). Hanfmann dated the Guşçi bulls' heads to the seventh century;¹⁸ he probably meant the earlier half of the seventh century, as he assumed a fourth, late seventh-century step in the series, which is represented by the pieces from Karmir-blur.¹⁹

Confirmation of an early seventh-century date for the Guşçi bulls' heads comes from the belt recovered from the presumed tomb.²⁰ It displays bulls, lions, ibexes, and shooting sirens interspersed with palmettes and circles. Guitty Azarpay offers a chronology for Urartian belts.²¹ The belt from Altintepe Tomb III "shows no frames or panels, but the figures are arranged at regular intervals, interspersed with rosettes and fantastic elements which minimize the narrative meaning of the hunt."²² Tomb III is dated by inscriptional evidence to the reign of Argishti II (ca. 712–685 B.C.).²³ Azarpay suggests a slightly later date

10. Hanfmann, *AnSt* 6, p. 212.

11. R. D. Barnett, "The Excavations of the British Museum at Toprak Kale near Van," *Iraq* 12 (1950): 19, pl. 16.

12. As older material was brought from Arin-berd (Erebuni) to Karmir-blur, Boris B. Piotrovsky, *Ourartou*, *Archaeologia Mundi* (Geneva, 1969), p. 174.

13. B. B. Piotrovsky, *Iskusstvo Urartu* (Leningrad, 1962), fig. 1, pl. 1.

14. *Ibid.*, p. 7.

15. *Ibid.*, fig. 1.

16. Tahsin Özgüç, *Altintepe II*, pp. 70–71.

17. The very simple bulls' legs from Tomb III (ca. 712–685 B.C.) do not seem to fit into this line of development, *ibid.*, pl. 22: 2–3.

18. Hanfmann, *AnSt* 6, p. 213.

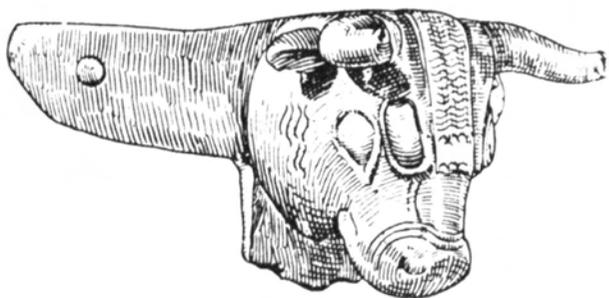
19. *Ibid.*, p. 212; Piotrovsky, *Iskusstvo Urartu*, fig. 31.

20. See note 8.

21. Azarpay, *Urartian Art and Artifacts*, pp. 47–50. Her analysis is largely confirmed by Seyyare Eichler, *Götter, Genien und Mischwesen in der urartäischen Kunst* (Berlin, 1984), p. 71.

22. Azarpay, *Urartian Art and Artifacts*, p. 49.

23. Özgüç, *Altintepe II*, p. 70.



a



b



c

(a, b) Verakhram, near Alishar on the Araxes: Bronze Bull's Head Attachment and Bronze Bull's Leg; and (c) Guşçi: Bronze Bull's Head Attachment.

for the Guşçi belt on account of the increased number of ornamental palmettes and circles in the design (in their final, late seventh-century stage Urartian belts show a highly decorated background including palmettes and circles).

In his painstaking analysis of the Guşçi belt, R. W. Hamilton finds that its most diagnostic feature is a peculiar caparison engraved on the bulls' shoulders and haunches.²⁴ This feature is shared by the shield of Rusa III from Toprakkale. According to a new proposal by Mirjo Salvini, Rusa III is now likely to have reigned ca. 655 B.C.²⁵

The bulls' legs that were formerly in Chicago can therefore also be dated with some confidence to the early seventh century B.C. As in the case of the bulls' heads from Guşçi, they show higher relief and more cast detail than the Altintepe examples; their likeness to the Verakhram prototype is even more remote.

Stone-built tombs equipped with cauldrons on tripods and/or belts and horse trappings including bells were apparently standard among the Urartian elite. The royal inscriptions often found on these objects suggest a close link between this elite and the king. The commoners' cemeteries stand in sharp contrast to these.²⁶ The only feature they share with the elite tombs is the occasional presence of a belt.

24. Hamilton, *AnSt* 15, pp. 48–50.

25. Mirjo Salvini, "Die urartäischen Tontafeln," in Wolfram Kleiss, *Bastam I*, Teheraner Forschungen, vol. 4 (Berlin, 1979), pp. 115–36, table 4. I accept his variant II as the most plausible of the three variants proposed in this table.

26. See note 9.

Chapter 20

CARVED BONES FROM CORINTH

EMILY VERMEULE

Museum of Fine Arts, Boston

Miss Kantor taught many of us much about the carving of ivory and bone, and she may enjoy this essay on a group of figured bones that are slightly outside her preferred field, and mine. The bones are badly broken, some of them are charred, and they are not all easily understandable, individually or as an ensemble, but they offer some novelties, and there are a few attractive pieces among them.

The group of two hundred and seventy fragments came to the Museum of Fine Arts, Boston, in 1928, with a simple note: "from Corinth."¹ Most of them are warped; they are difficult to fit together, and even when they seem to join there is daylight in the crack. They are all made of ordinary animal bone, probably sheep and goat, leg bones and shoulder blades.²

Both the convex and the concave surfaces of the bones are carved. They are all small and delicate. The largest are a piece of Lesbian Leaf molding, 0.09 m, and a laurel leaf, 0.07 m. That so many pieces measure about 0.035 m, no matter what their original scale, one wonders whether they were archaeologically screened somehow, like debris from a funeral pyre that fell through a grate. Ordinarily this would suggest that they are a miscellaneous collection of ornaments from several different pieces of decorated furniture or chests used in local cremations, but there seems to be a consistency of style about them as though a single workshop produced them.³ There does not seem to be anything alien here, however, even though the original form is almost impossible to see. I fear it is a Hellenistic fantasy.

The obvious idea would be that these burned bones represent the partial remains of the bone ornamentation of a wooden couch, or couches, like those used in Roman cremations; this would put the origin after the days when Corinth had been refounded as a Roman veterans' colony under Caesar in 44 B.C. Bone ornamentation from fulcra, horizontal panels, and legs of couches is well known, and have been particularly studied recently by R. V. Nicholls in connection with a couch in the Fitzwilliam Museum, dated to perhaps

1. Museum of Fine Arts, Boston, Res.28.107, a gift from Mr. Edward Perry Warren of Lewes House in England. The group was put in order and photographed by Dr. Hazel Palmer.
2. Dr. R. V. Nicholls of the Fitzwilliam Museum in Cambridge, Mary Comstock, John Herrmann, Michael Padgett, Cornelius Vermeule, Florence Wolsky, and the MFA conservation laboratory have all been extremely helpful; but relatively few joins could be made in the "trophy," the shields, the crotes, and the moldings.
3. R. V. Nicholls, letter of 20 October 1982, writes "Lots of these bone carvings passed through the market in the 1920's and early 1930's . . . regularly broken up quite illogically into lots." This particular group probably represents a single source, however, not a dealer's mixture.

the mid-first century B.C. or the beginning of the Augustan period.⁴ Some of the fragments here are appropriate to a couch — the largest head perhaps for a fulcrum, some moldings to edge the recessed lateral panels, and round elements with acanthus leaves to cover bell-shaped turnings of wood on the iron core of the legs.⁵ Nicholls connected some of the erotes in style and iconography to a group from the Tabor Collection, in which figures from the recessed panel along the wooden frame of a couch may be erotes going to school or being spanked.⁶ Some kinds of leaf or wreath ornaments suit a couch, too, and there are acanthus and, probably, laurel leaves here. However, most couch ornaments are made with flat backs for gluing on the bedframe, and are larger than what survives here. The dimensions of many of the Corinth fragments seem far too small in scale for a six-foot couch, and there are many different scales represented. Some of the moldings are not flat, but rolled like ribbon candy, and the acanthus leaves with their curly ends would have caught the threads even on funeral clothing. Perhaps something other than furniture is involved, something that demands graduated figures on a swelling scale and three-dimensional forms. If this is so, it would be a nightmare to reconstruct — an elaborate candelabrum or incense burner, a peopled scroll, even a small (stucco?) Corinthian capital with figures among the acanthus leaves, or a late Hellenistic “confection” of the kind often recorded in Roman wall painting.⁷ There are pointers toward a Hellenistic date.

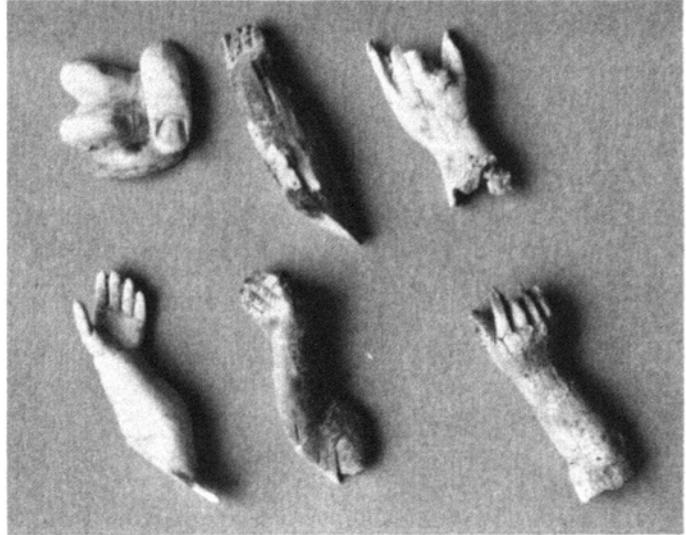
TECHNIQUE

Most of the fragments are about one-half centimeter thick. A few are far thinner, especially the moldings, a tenth of a centimeter or less. In some figures a single bone did not give the craftsman enough depth for his conception, so he built the figure up with layers of bone which he glued together, sometimes both the back and front plates are carved as is clear in one eros (pl. 55c and d), which occasionally covers up the backplate completely, as for the breastplate of the trophy (pl. 54d). One fragment is marked on top with a Greek letter, probably a *lambda*, as a guide for where the upper surfaces should be glued to the lower, but none of the surviving fragments have a corresponding mark on the underside. Some pieces have clear traces of ancient glue and many have large patches of stucco on the back. Some pieces are built up vertically in several pegged sections, and the drill is used for the peg-holes; occasionally the bone peg survives in the hole. The drill is also used for eyeballs, for “sockets” in rich spreads of hair tresses ([pl. 56d], perhaps a lion’s mane), or for a horse’s nostrils and (?) bit attachment (pl. 57a), and to make the frills on the edges of the acanthus leaves (pls. 58 and 59a, b). The general engraving is done with a simple set of fine and thick tools.

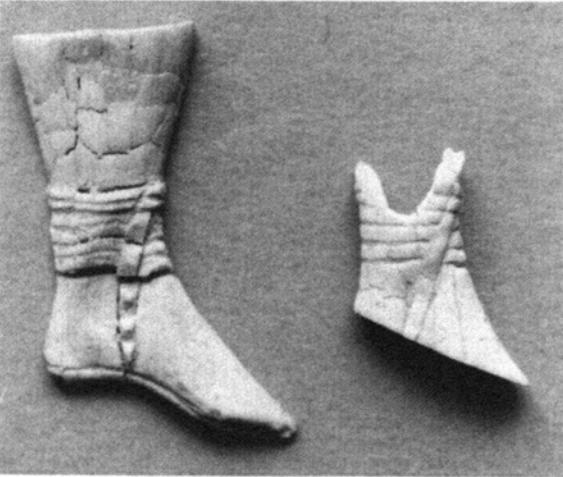
4. R. V. Nicholls, “A Roman Couch in Cambridge,” *Archaeologia* 106 (1979): 1–32. See also C. Letta, *Due letti funerari in osso dal centro Italico-Romano della Valle d’Amplero (Abruzzo)*, *MonAnt.* Serie Miscellanea III.3 (1984); D. K. Hill, “Ivory Ornaments of Hellenistic Couches,” *Hesperia* 32 (1963): 293–300, bone couch ornaments: 298–99; C. L. Ransom, *Couches and Beds of the Greeks, Etruscans and Romans* (Chicago, 1905).
5. As on Nicholls’ no. 12, a couch from Vindonissa in Brugg, Vindonissamuseum 28.325, with cupids and a trophy, T. Eckinger, *Knochenschnitzereien aus Gräbern von Vindonissa*, *Anz. f. schw. Alt.* 31(1929): 242–43, 255–56, pls. 28–29.
6. Now Fitzwilliam Museum GR.17–28.1982; C. J. Tabor Collection, Sotheby Catalogue 12 ix. 1928, lot 275A.
7. Like the painted column bases and arches of the House of the Vettii, e.g. K. Schefold, *Vergessenes Pompeji* (Bern, 1962), pls. 62, 65, 66, and 72.



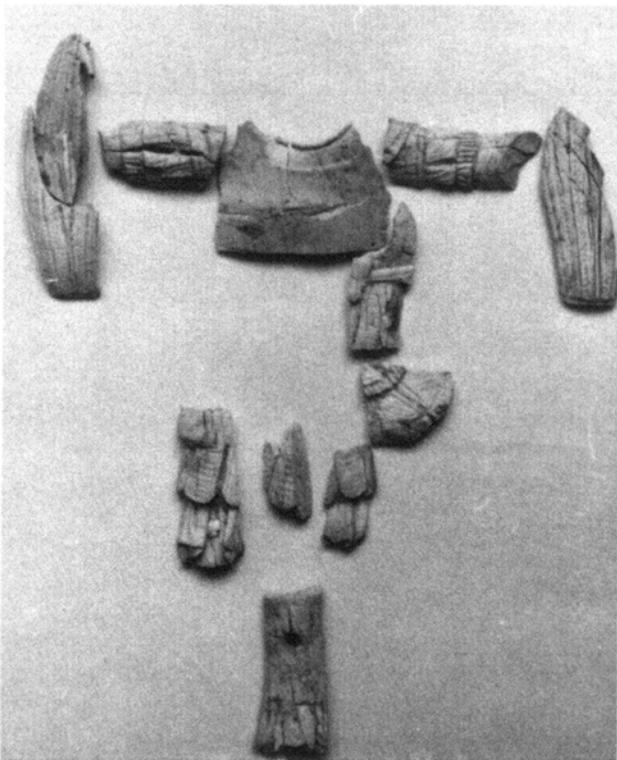
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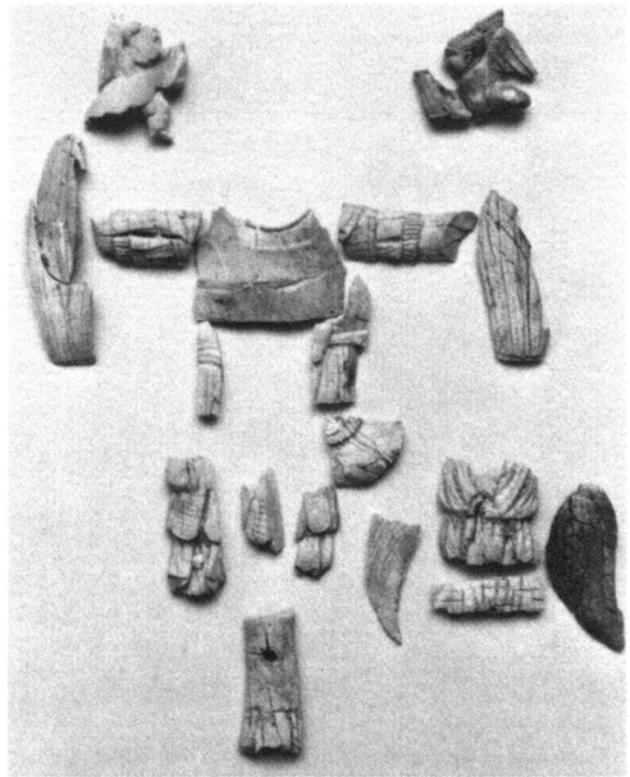
c



b



d



e

Corinth, Carved Bones: (a) Heads, (b) Booted Feet, (c) Hands and Arms, (d) Trophy(?), and (e) Shields and Two Wings from a "Victory" Figure.

SUBJECTS

1) *Heads*. (pl. 54a) All seven of the heads are profile or three-quarter studies. Three human heads are in right profile, four in left. The largest is 0.055 m and the smallest is 0.035 m. One might conceivably have been a lion, with the eye socket, curved cheek and start of the mane showing. The finest and largest has the pupil drilled for inlay, probably with crystal, the hair is curled back and down, an eyelid is lowered, and has a drooping pretty mouth; there may be a low fillet. Two heads are on the same scale as the bigger helmets, but they do not fit inside them.

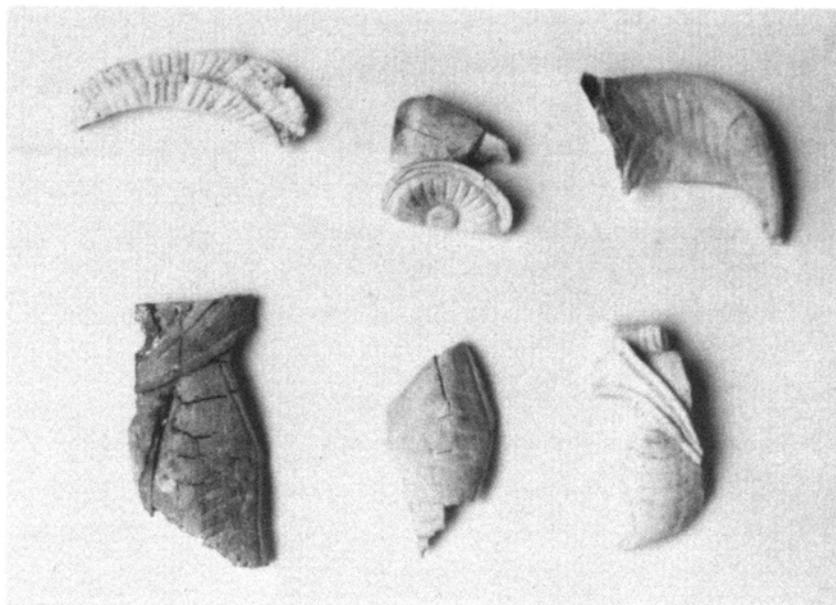
2) *Booted feet*. There are two booted feet (pl. 54b), one with a thick leg, both with a cuff of horizontal straps around the ankle, and an obliquely descending strap to the sole, which might be a spur strap. Both apparently represent the outside of the right foot. One is convex, one concave. They suit a figure who is not touching the ground, but who is perhaps riding or descending. The position is like that of the more elaborate booted leg of the bronze equestrian statue in the Athenian Agora, which is identified as Demetrios Poliorcetes.⁸

3) *Hands and arms*. Most examples are childish, plump, and curved (pl. 54c). They are too small in scale to go with the heads, and far too large to belong to lost erotes of the same size as the surviving ones. Several are made with a back and a front segment. There is also one very large frontal hand with the thumb clenched across the curled fist, with grooves for the skin of the thumb and a clearly defined thumbnail. This might join a piece representing two projecting fingers, and so indicate that the hand held something measuring one centimeter thick.

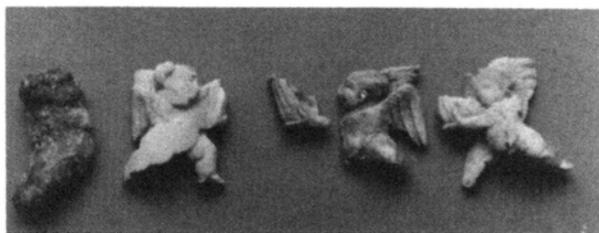
4) *Trophy(?)*. The ensemble restored here as a possible trophy may be put together incorrectly (pl. 54d and e). There is a breastplate which is only the under layer for a front that is missing, which leaves only the groove around the neck. The flattened planes on the present surface of the front have traces of ancient glue or stucco, and there is a large area of stucco on the back. There are no joins, but two fragments have been put with it to form the arms, which extend horizontally. On the left arm there are traces of an epaulet, a row of plates, and the grooved folds of a soft short-sleeved undergarment. On the right arm a similar arrangement may be discernable, although the fragment is worn.

Below the breastplate is a fragment with a horizontal fold of drapery that has a vertical loop; perhaps it is a cingulum across the breast. Under this come three fragments with vertical pteruges that are rectangular with rounded lower ends, and another fragment with pteruges angled up to the right, which perhaps form a swirl at the left hip. That would be more normal for a living soldier in motion than for a trophy on a pole, unless it were the standard fashion of the time. The pteruges have raised ridges around each contour; they are grooved in nearly straight, slightly pendent lines across where they hang on the lower skirt, and in oblique loops where the swinging piece with a grooved frill may have come higher up on the hip

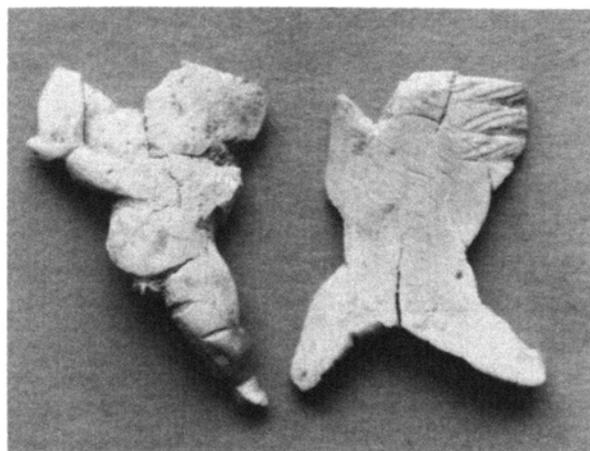
8. C. Houser, "Alexander's Influence on Greek Sculpture," *Macedonia and Greece in Late Classical and Early Hellenistic Times, Studies in the History of Art*, vol. 10 (Washington D.C., 1982), 230, fig. 4; 237, note 4; cf. the Herculaneum bronze of Alexander, *ibid.* fig. 17 and the Daochos dedication at Delphi, T. Dohrn, "Marmor-Standbilder des Daochos-Weihgeschenk in Delphi," *Antike Plastik* 8 (1968): pls. 30–31. For spur straps, K. D. Morrow, *Greek Footwear and the Dating of Sculpture* (Madison, Wisconsin, 1985): 121, and pl. 79, a bronze foot from the Amphiareion at Oropos.



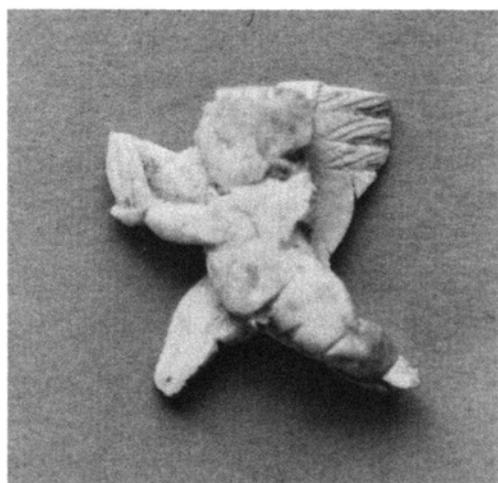
a



b



c



d



e

Corinth, Carved Bones: (a) Helmets and Crests, (b) Four Erotes, (c) Two Erotes, (d) Erote, and (e) Erote with "Indian-Like" Face.

(pl. 54e). The shape of the pterux is not unlike those on the stele of Aristonantes in Athens.⁹ If the high cingulum is correctly identified, this should be a Hellenistic rather than a Roman cuirass.¹⁰

This is the most obviously frontal set of pieces in the whole collection. A plain cylindrical element with a drill hole may be the pole on which the trophy hung.¹¹ Such a trophy might have shields at the arm stumps, and victories or erotes tending it (love with the arms of war). The shields are almost certainly present; the erotes might be the right scale to hover around.

5) *Shields*. Two fragments which at first seemed to be leaves with square tips are proposed as the kind of narrow hexagonal shield with a swelling midrib which is fairly common on Hellenistic trophy reliefs (pl. 54e). They appear, with cuirasses and helmets, on the propylon of the Council House at Miletos,¹² dated to about 170 B.C., and continue into Roman triumphal art, as on the medallion of Augustus for his victory at Actium.¹³ Two of the shields form a pair, with carved edges and raised vertical bands, ornamented with vertical zigzag between; another seems more like wickerwork, with small horizontal compartments on either side of the central raised rib; another simply has raised ribs.

6) *Victory(?)* Not much survives of a plausible figure — two fragments of a draped female breast, and parts of two wings (pl. 54e, lower right). The wings are too big for the erotes, and there is no evidence even in this Corinthian context that they were attached to a Pegasos. One wing is only a tip; the other is quite a large fragment from near the bend of the shoulder, and, though badly cracked and burned, seems to have gouges along the edge, like the separation of the feathers. The girdle is worn very high up under the breasts, like early Hellenistic Attic statues of Athena.¹⁴ The type becomes a Hellenistic standard on the frieze of the Altar of Zeus at Pergamon, or the Nike of Samothrace. Victories adorning a trophy of roughly the same type continue into Roman art, but the prototype must be Hellenistic.¹⁵

7) *Helmets*. There are parts of three helmets, and parts of three detached helmet crests (pl. 55a). They have a ridged triangular peak at the brow, and a cheekpiece with a double curve, and a sharp inward jut halfway down, probably over the point of the cheekbone below the eye socket. This is a modified type of Attic helmet used also in Macedon, which appears on the coins of Seleucus I Nicator before 300 B.C.¹⁶ Two real helmets of this form, but with a brim, have been found at Prodromi near Paramythia in Thesprotia, both iron, one silvered,

9. E.g. C. C. Vermeule, *Berytus* 13 (1959): pl. 1.3.

10. C. C. Vermeule, *Hellenistic and Roman Cuirassed Statues* (Cambridge, 1980) no. 4, the "Ares of Halikarnassos," in the Vatican. Cf. G. C. Picard, *Les Trophées romains* (Paris, 1957), pl. 1, Persian or Hellenistic trophy in Rome, Museo Capitolino.

11. Cf. Picard, *Les Trophées romains*, pl. 3, the Sant' Omobono relief.

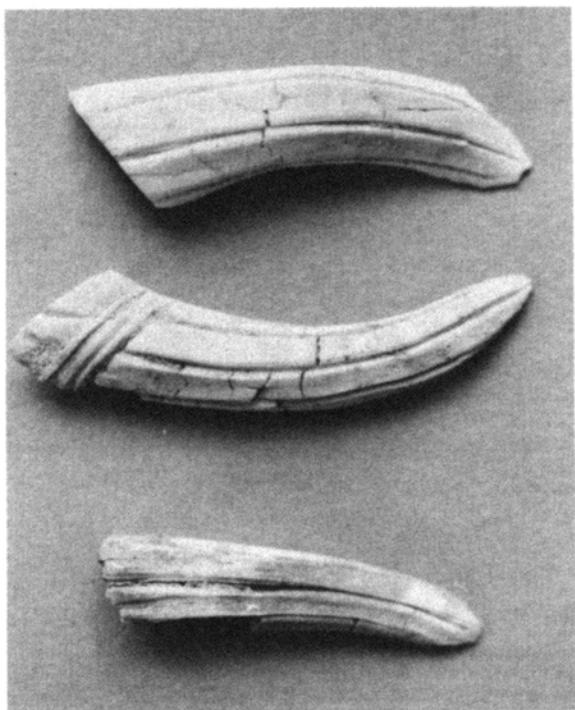
12. A. W. Lawrence, *Greek Architecture* (Harmondsworth, 1957), pl. 145.

13. Picard, *Les Trophées romains*, pl. 8; in Pompeian art, *idem.*, pl. 13.

14. M. Bieber, *Sculpture of the Hellenistic Age* (New York, 1961), fig. 210, the Athena from Castra Praetoria, Rome, or fig. 264, the running Niobid in Florence; the Alexandrian counterparts at the Ptolemaic court, L. Marangou, *Bone Carvings from Egypt, The Benaki Museum, Athens* (Tübingen, 1976), p. 72.

15. Picard, *Les Trophées romains*, pl. 18, on a cuirassed statue of Domitian; S. Rotroff, *The Athenian Agora XXII, Hellenistic Pottery. Athenian and Imported Moldmade Bowls* (Princeton, 1982), p. 21, item 4, nos. 200, 216, woman decorating a trophy, pls. 38, 43, and 82.

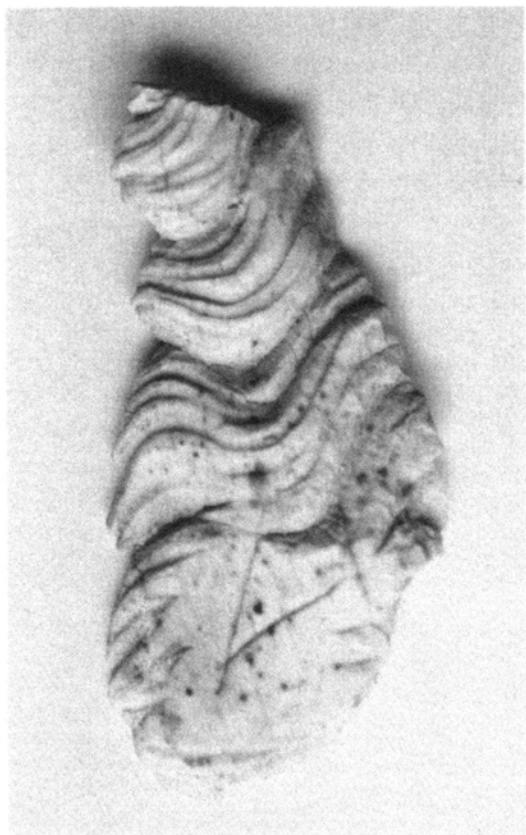
16. E.g. A. B. Brett, *Catalogue of Greek Coins, Museum of Fine Arts, Boston*, (New York, 1974), pl. 99, no. 2148, MFA 35.155, tetradrachm from Persepolis, the helmet covered with a panther skin; cf. A. Houghton, *Coins of the Seleucid Empire* (New York, 1983), nos. 1023–25.



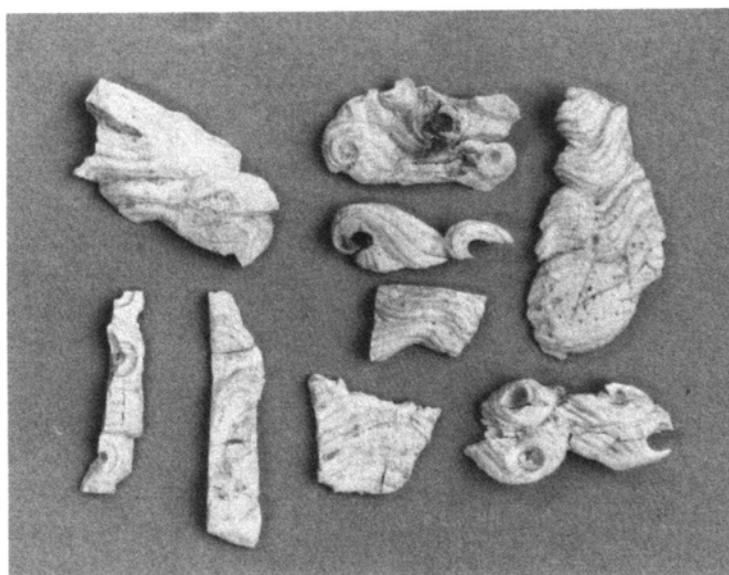
a



b



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d

Corinth, Carved Bones: (a) Torches or Cornucopias(?), (b) "Lion Skin" (?) Fragment with Terminal Claws(?), (c) Carved "Hair" Fragment Inscribed with *lambda*, and (d) Carved "Hair" Fragment as in (c) above and Other Miscellaneous "Hair" Pieces.

along with an iron cuirass and sword.¹⁷ The group may belong to the third quarter of the fourth century. Similar helmets also appear, both with and without the brim, along with “Phrygian” types, in connection with trophies, on the balustrade of the stoa in the precinct of Athena Polias at Pergamon.¹⁸ However, the closest parallel seems to be in the painted helmets that surmount the trophies in the Tomb of Lyson and Kallikles, where the cheekpieces curve under to touch and support the whole. Those are frontal helmets, these profile, and cannot be put directly on the trophy, but might have been strewn near it. The tomb, near Leukadia in Macedon, is generally dated in the third century B.C.¹⁹

8) *Crests*. (pl. 55a) The three crest fragments do not join to the helmets. One is a long thin arc with a double row of short parallel striations. Another is a disc with a central eye and the striations radiating out in a circle. A third is very pointed, with a sharp right angle, and might be a wing tip instead.

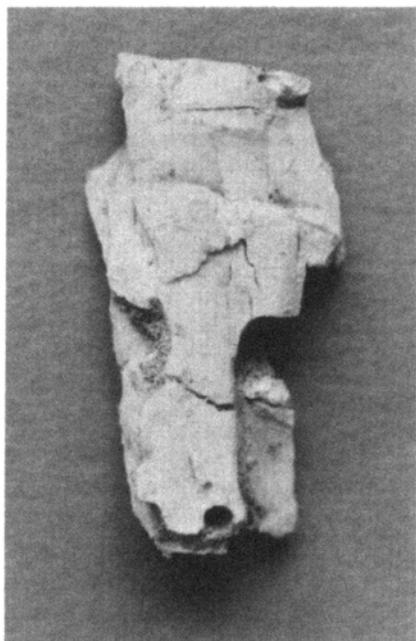
9) *Erotes*. There are parts of four erotes, two facing left and two right (pl. 55b). One is very badly burned. There is an extra arm, burned, which may join the best preserved eros. One left-running eros fits onto a backing piece of bone that has the top of his wing carved on it (pl. 55c and d). One has a beautiful “Indian” face with a sharp high nose, full cheek, low ear, and rich hair combed back short behind the ear (pl. 55e). All run at speed with the wings stacked, the rear one higher, with the feathers obliquely grooved; the best, “Indian-like” one has four rows of feathers. They stretch their arms out straight in front holding a small offering with the front hand under and the rear hand on top of it. In two cases this seems to be a small soft bag or purse grooved vertically. One might think of bags for holding the astragals of the game of love. There seem to be no good iconographic parallels for this activity,²⁰ although “love’s astragals” were known since Anakreon (“the knucklebones of Eros are madneses and battle-confusion,” fr. 34 Diehl).

Eros appears with a trophy as early as the fourth century B.C.,²¹ but there is no obvious reason for taking a bag, least of all of astragals, to a trophy. The bag could hold something else, not incense, but the coins confiscated from the enemy, the distribution of wealth gained by victory, or the erotes may be involved in a quite separate scene. The only reason to connect them to the trophy would be the scale, which is suitable, and the typical play on love and war.

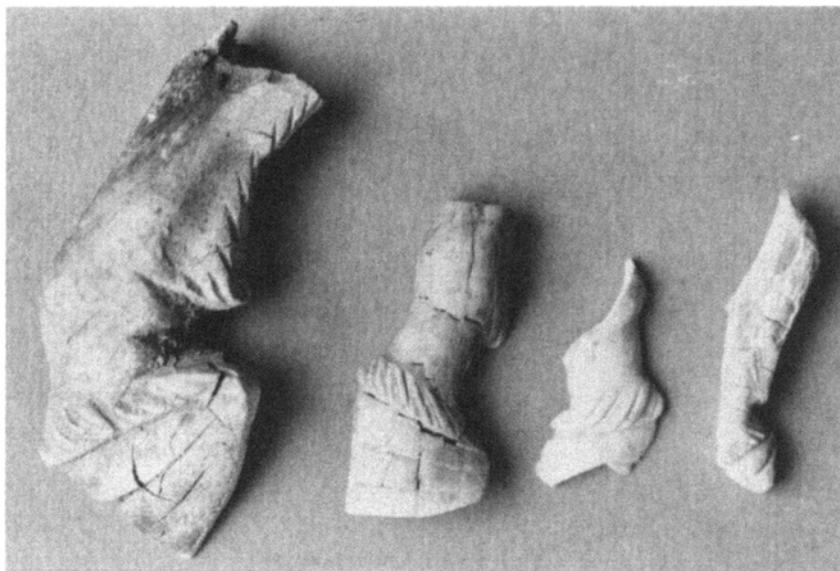
10) *Torches or cornucopias(?)*. There are five long, curved, pointed objects with vertical grooves. They have a triple cross-binding around the thicker end (pl. 56a). They do not look like horns from a living animal.

11) *A lion skin(?)*. This narrow vertical piece has a surface scored freehand in curves like coarse hairs, and seems to terminate in claws (pl. 56b). One thinks of the dangling end of a lionskin, perhaps on the model of the Lysippan Herakles Farnese,²² or the Roman copy of the painting of Herakles and Telephos which has

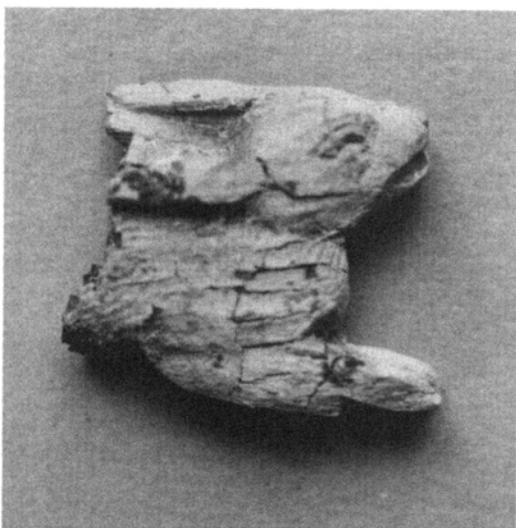
17. A. Choremis, *Athens Annals of Archaeology* 13 (1980): 1–20; there was also a wreath with bronze leaves and clay berries, rather like the leaves in this group (below).
18. E.g. *Altertümer von Pergamon* 2 (Berlin, 1885), pls. 43–50, or E. Rohde, *Pergamon* (Munich, 1982), figs. 17–19.
19. Cf. M. Andronikos *et al.*, *Philip of Macedon* (Athens, 1980), pl. 38; C. Makaronas and S. Miller, “The Tomb of Lyson and Kallikles,” *Archaeology* 27.4 (1974): 249–59.
20. None are figured in the *Lexikon Iconographicum Mythologiae Classicae* III (Zurich, 1986) article “Eros,” 850–952, where erotes carry vases, boxes, baskets, sashes, wreaths, and bows, but no sacks.
21. *LIMC* III “Eros,” 728, a bronze ring, Museum of Fine Arts, Boston 01.7553; the Roman versions, “Eros-Amor,” 285–93.
22. C. C. Vermeule, “The Weary Herakles of Lysippos,” *AJA* 79 (1975): 323–32, pl. 55, fig. 5, in the Detroit Institute of Arts; cf. H. Metzger, *Les Représentations dans la céramique attique du IVe. siècle* (Paris, 1951), pl. 31.



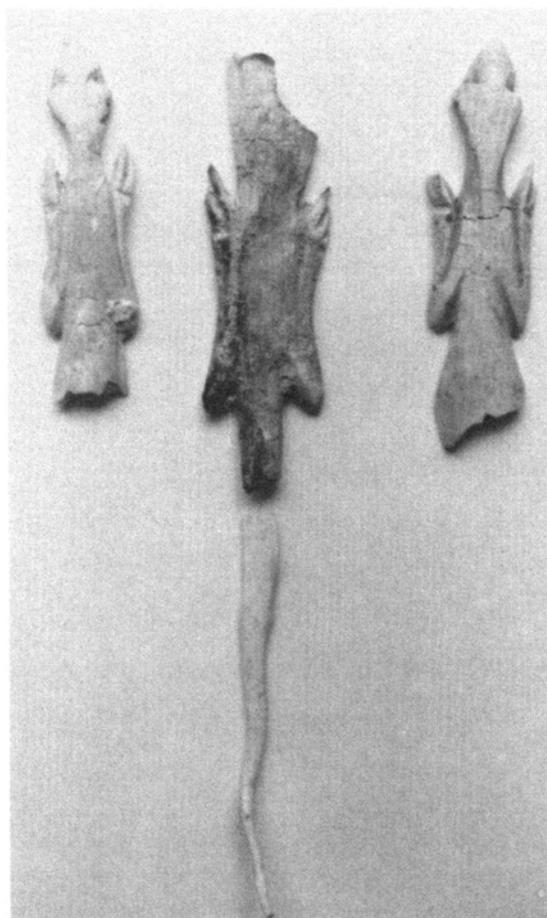
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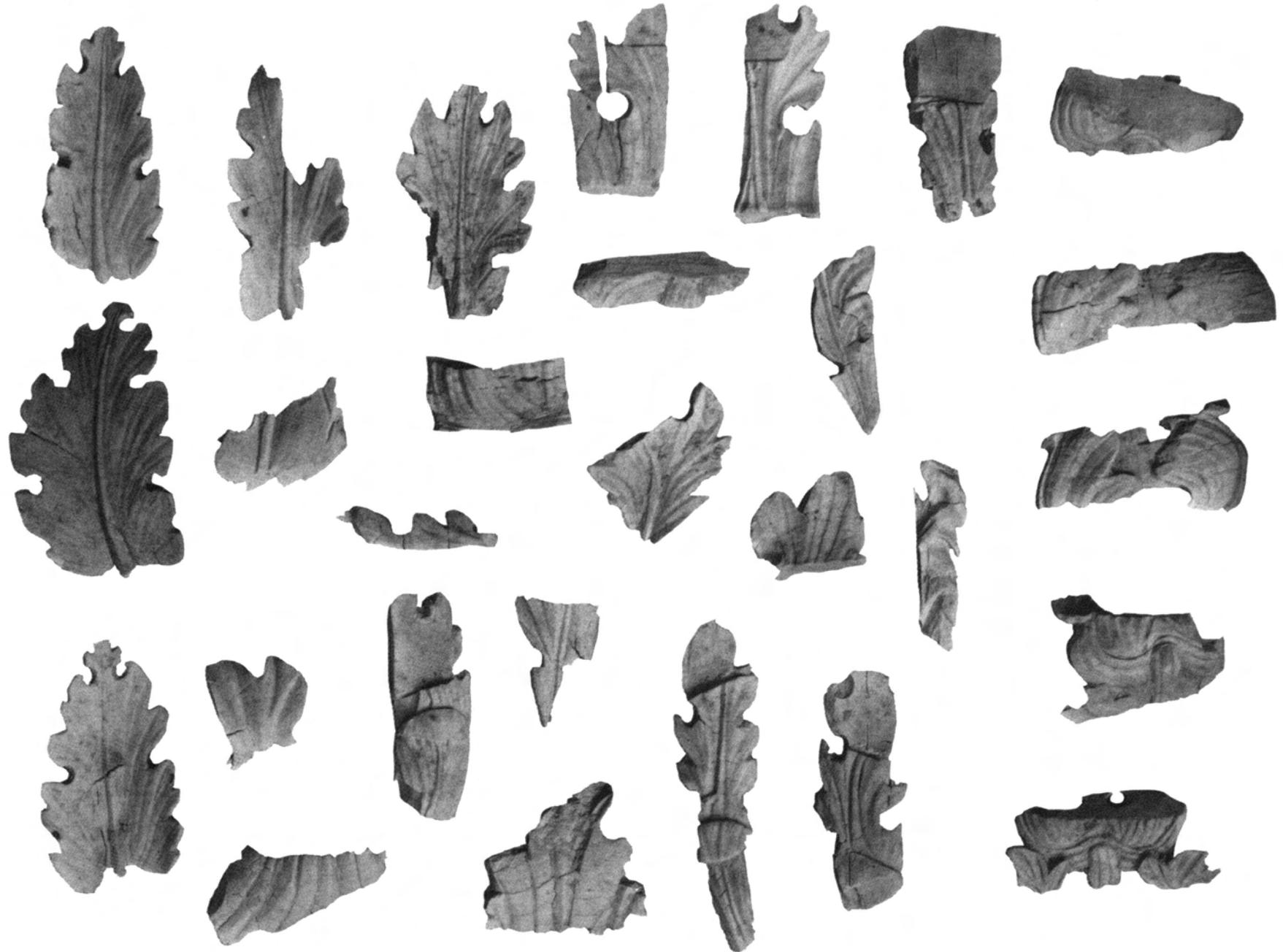


c



d

Corinth, Carved Bones: (a) Horse Head, (b) Four Horse Hooves, (c) Hare, and (d) Three Salamanders.



Corinth: Carved Bones in the Shape of Acanthus Leaves.

fourth century elements in it,²³ or the Herakles on the Telephos relief at Pergamon.²⁴ There are no other signs of Herakles in the group of fragments, however. One might think, alternatively, of a lion skin flung over a horse's back, as on the Horse and Groom relief in Athens of the early third century.²⁵ It would suit a funerary context in some grandeur of style. Or, one could connect the several fragments with rich curling hair, the possible lion's head, and this paw into a single unit (pl. 56d).

These fragments of richly carved hair, in a series of flat pieces, are interesting because they are so clearly built up in layers to a considerable depth. The plain upper surface of one fragment was inscribed with a *lambda* (pl. 56c), no doubt to indicate in the workshop where two pieces should be glued together.

12) *Horses*. There is one recognizable horse head, not quite frontal, evidently with a twist in the neck. Most of the surface is split off (pl. 57a). The eye sockets and nostrils are preserved and deeply drilled. The brow is there, but the separation of the ears is not; these must have been pegged in individually. The nose band is also gone. This might conceivably be a candidate for a funerary horse, wearing a lion skin, for a dead commander, in the spirit of the Horse and Groom relief, in Athens, of the later fourth century.

There are four (or five) hooves of horses (pl. 57b). These are all near legs, moving left. They are on four totally different scales, ranging from 0.005 m across the bottom of the hoof to 0.025 m. The hooves are grooved twice, horizontally, and the legs are strongly marked with hair down the back and across the fetlock and coronet. They are like the horse hooves on the Horse and Groom relief, and like a bronze hoof from the Kerameikos,²⁶ rather more restrained than the later Hellenistic exuberances like the Triton hooves of the Great Altar at Pergamon.²⁷

13) *Hare*. The charming piece illustrated on plate 57c is the front half of the animal, which seems in some distress. (A large misshapen lump, not shown, might be the rear half, without legs or tail). The head is slightly tilted down and toward us so that both ears show; they lie flat against the head. The mouth is open, the long almond eye spread wide. The paws are stretched straight out in front. The hare had been a commonplace of Corinthian art in the archaic period, with many rhyta in the shape, and in late archaic and classical times they are well-known love gifts, both dead and alive. They seem to be less common in the fourth century and Hellenistic periods. The hare chased by the hound is a motif on the famous gold collar from Tolstaya Mogila, and a hare on a fourth century Apulian vase is being offered a drink from a phiale by Artemis Bendis, but the ears are upright and the animal seems happier.²⁸

23. E.g. J. Charbonneaux, R. Martin, and F. Villard, *Hellenistic Art* (London, 1973), pl. 155.

24. E. Schmidt, *Der grosse Altar zu Pergamon* (Leipzig, 1961), pl. 63.

25. The Horse and Groom relief, W. H. Schuchhardt, "Relief mit Pferd und Negerknaben im National-Museum in Athen NM 4464," *Antike Plastik* 17, Part 5 (Berlin, 1978), pp. 75–99; possible dates reviewed 86–93, and the third quarter of the second century B.C. proposed; a date near 322 B.C., C. C. Vermeule, "The Horse and Groom Relief in Athens," *Studies Presented to Sterling Dow on his Eightieth Birthday* (Durham, North Carolina, 1984), pp. 297–300, for the General Leosthenes; early in the third century, J. J. Pollitt, *Art in the Hellenistic Age* (Cambridge, 1986), p. 112, pl. 116; the skin on the horse of Selene on the frieze of the great altar at Pergamon is fussier and more intricately textured, Schmidt, *Der grosse Altar zu Pergamon*, pl. 19.

26. The bronze hoof from the Kerameikos, Schuchhardt, "Relief mit Pferd und Negerknaben im National-Museum in Athen NM 4464," fig. 23; comparable treatment in Tarentine relief sculpture dated 295–255 B.C., J. C. Carter, *The Sculpture of Taras*, *Transactions of the American Philosophical Society* 65.7 (1975): pl. 33.

27. Schmidt, *Der grosse Altar zu Pergamon*, pl. 30.

28. Cf. M. I. Maximova, *Les Vases plastiques dans l'antiquité* (Paris, 1927), pl. 22; Payne (note 29) 74; G. Koch-Harnack, *Knabenliebe und Tiergeschenke* (Berlin, 1983), "Hasengeschenke," 64–98; the Scythian collar, *From the*

14) *Salamanders*. Like the hare, the salamander (wet) or lizard (dry) is a traditional figure in Corinthian iconography. There are at least three present, consisting of head, neck, forepaws held close to the body, and back; the long thin tail of one survives (pl. 57d).²⁹ The animals are thin and flat compared to earlier Corinthian forms, the carving is angular and simple. Two have been drilled in the belly underneath, and have remains of stucco there; perhaps these were attached in a vertical position, climbing, as usual on the older vases. Painted lizards may be striped or spotted; there is no sign that these were patterned.

15) *Leaves*. Over seventy fragments represent acanthus leaves, both long and short. Some are fairly flat, as they might be on a couch leg, but some are scrolled around to full three-dimensionality, an exuberant burst of foliage. The curl desired for these leaves was too great to be achieved by single thicknesses of bone, and many pieces are drilled with two holes for further attachment and enrichment (pls. 58 and 59a, b). They are crisply carved with deep hollows and notches, and frilled at the edges with the drill; the central ribs are high, and the veins are raised in lower relief. They curl both in and out, left and right, and if they had been attached to a couch they would have broken easily or caught at threads in the clothing. One set is squared off across the top with lateral curves, the other is smaller and fully pointed. The number of fragments may indicate that the original form may have been something like a Corinthian capital. There are similar acanthus designs on some Corinthian molded bowls.³⁰

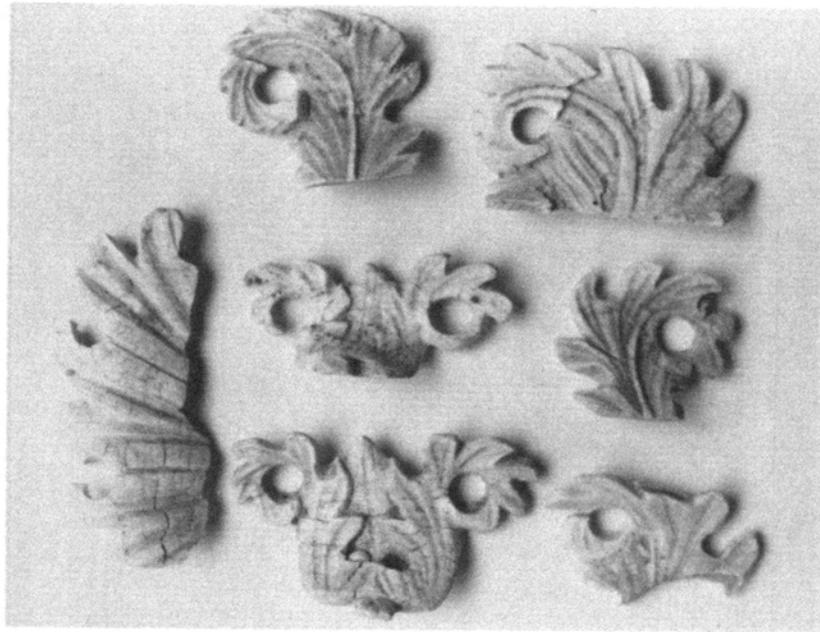
Five other leaves represent either myrtle (although they look too narrow for the *Myrtus communis*), laurel, or olive, with a central rib and five to six delicate diagonal veins on either side (pl. 59c). There are five long oval berries, one on a thin stem. These are probably the common laurel or bay (*Laurus nobilis*), and recall the leaves of fourth century and Hellenistic gold crowns with sprays of fruit interspersed.³¹

16) *Moldings*. Several varieties are represented.

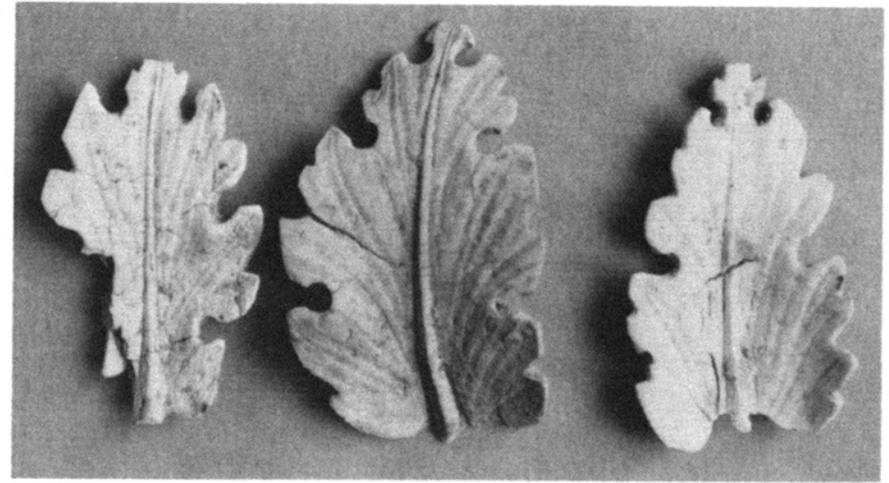
- a) A plain set of six with a beveled rim as the only ornamentation, the profile of a shallow cup (pl. 60, center left).
- b) A plain set of five, carved with an offset rim and a shallow relief band below; this is curved, like a small cup (pl. 60, center right). If these sets were not so thin one could liken them to the cup-shaped elements on furniture legs, either plain or occasionally covered with acanthus

Lands of the Scythians, The Metropolitan Museum of Art (New York, 1975), no. 171, and cover; Bendis Painter, Museum of Fine Arts, Boston, 1983.553, *Münzen und Medaillen*, Auktion XVIII (1958), no. 147.

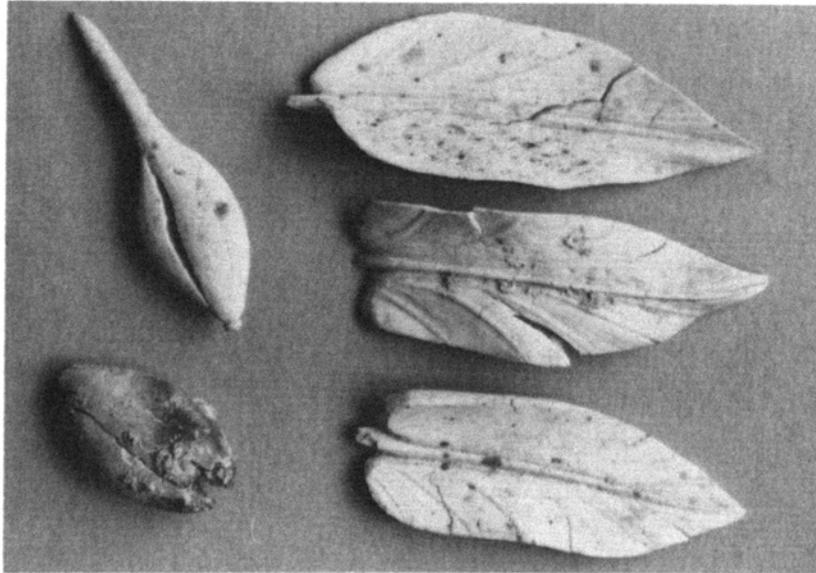
29. Examples of Corinthian hares and lizards in H. Payne, *Necrocorinthia* (Oxford, 1931), p. 74, note 9 ; cf. also Koch-Harnack, *Knabenliebe und Tiergeschenke*, figs. 91–93.
30. For acanthus growing beside a Corinthian capital see H. Baumann, *Die griechische Pflanzenwelt* (Munich, 1982), p. 187, fig. 378, *Acanthus mollis*. The long leaves resemble those on the silver bowls from Civita Castellana, P. Wullemmer, *Le Trésor de Tarente (Collection Edmond de Rothschild)* (Paris, 1930), p. 71, fig. 4, pl. 10.4. Acanthus on Corinthian molded bowls, C. M. Edwards, "Corinthian Moldmade Bowls: The 1926 Reservoir," *Hesperia* 55 (1986): 389–420, fig. 2J, pl. 89.53.
31. See D. B. Thompson, *Garden Lore of Ancient Athens* (Princeton, 1963), fig. 42. The leaves are thought of as olive in some gold crowns, e.g. H. Hoffmann and P. Davidson, *Greek Gold* (Boston, 1965), no. 118; no. 119 is called myrtle; both are from Amphipolis, fourth to third centuries B.C. The distinction in painted wreaths, M. Robertson, "Two Pelikai by the Pan Painter," *Greek Vases in the J. Paul Getty Museum*, vol. 3 (1986), pp. 71–90, passim.



a



b



c



d

Corinth, Carved Bones: (a, b) Acanthus Leaves, (c) Two Laurel or Bay Oval Berries and Three Myrtle, Laurel, or Olive Leaves, and (d) Acanthus Leaves.

designs.³² Even if they had been glued to strong wood they seem fragile for a support function. Pieces of similar shape but larger size are used on Roman beds.³³

- c) A plain set of twelve, with a raised rim on either side and a narrow relief band inside that, forming a long strip like ribbon candy. This set does not lie flat, but may only be warped; yet since the bones themselves are slightly concave it is hard to see how they could be applied to a flat backing (pl. 60, third row from bottom).
- d) Sets of thicker and thinner rims, both flat and curved, ornamented with leaf and tongue, or Lesbian cymation, pattern pendant from the rim. The thinnest are barely a millimeter across, the thickest half a centimeter. The leaves are pointed ovals with an internal relief tongue and overlapping plain pointed tongues (pl. 60, second row from bottom). There are good analogies to these designs in the wood and ivory and bone ornaments of Scythian sarcophagi and couches, but almost all are on a larger scale.³⁴
- e) Straight and curved rims ornamented with tongues, rectangular with slightly rounded bottoms and scraped out centers (pl. 60, bottom).
- f) Sets of flat and cup-shaped bones carved with a background of vertical curving lines over which lie acanthus leaves in low relief. Some of the plainer segments in (a) and (b) might be backing plates for these. Some of the acanthus reliefs are plain and probably had more leaf plates glued on top of them (pl. 60, top two rows).
- g) A group of five which have the background crisscrossed in diamond patterns; these might be the lower elements from which acanthus could spring. Three are in fairly high relief with the curving lower stalks of the plant rising beside them, one is simply incised, like the pattern later common for elephant hide (pl. 60, fourth row from bottom, left, and top row, right).
- h) Three pieces might possibly be figured busts, that is, the busts of draped women rising from the breast up from a supporting frame of acanthus leaves (pl. 59d), but since no heads of women appear in the group, perhaps these are simply ornamental systems of small acanthus leaves under the vertically striated stems of larger leaves.

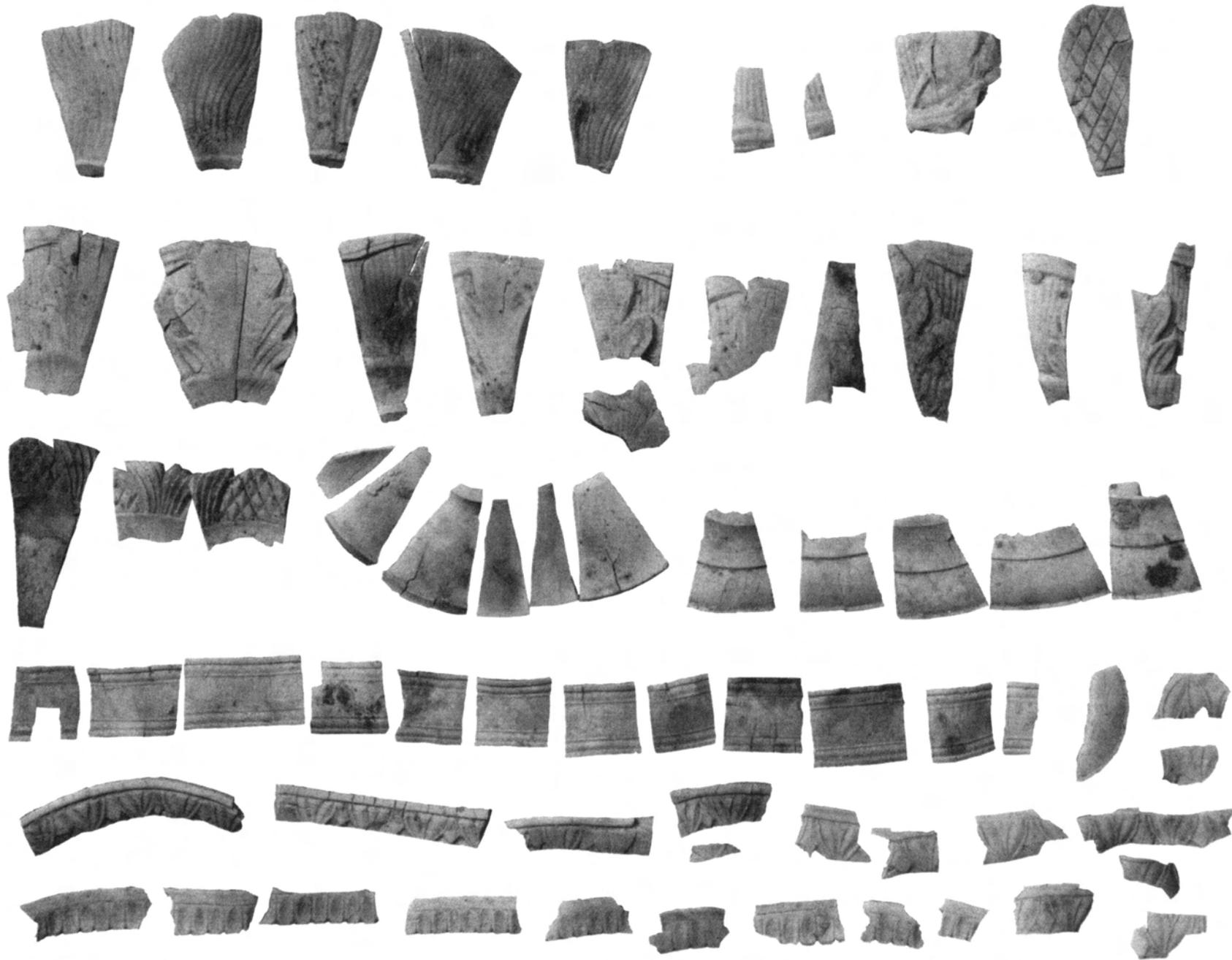
To find a date for this group of bone fragments is not quite as difficult as understanding the original composition (if there was one). The forms of the helmets, the shields, and the cuirass on the "trophy" look more Hellenistic than Roman, with parallels from the late fourth and third centuries. Analogies to other elements can be found in the period immediately following the death of Alexander the Great, like the leaves (of crowns), the horse hooves, the booted feet with the spur strap, possibly the forms of the acanthus. The wealth of design in the textiles and goldwork from the 'Tomb of King Philip' at Vergina demonstrate the skill of craftsmen in inserting small fine figures among leaves and garlands in surprising confections.³⁵ Early

32. P. Bernard, "Sièges et lits en ivoire d'époque Hellénistique en Asie Centrale," *Syria* 47 (1970): 327–43, fig. 2.

33. C. Letta, *Due letti funerari in osso dal centro Italico-Romano della Valle d'Ampiero (Abruzzo)*, pl. 8a; Nicholls, "A Roman Couch in Cambridge," pl. 3a.

34. M. Vaulina and A. Wasowicz, *Bois Grecs et Romains de l'Ermitage*, Académie Polonaise des Sciences (Warsaw, 1974), pls. 42, 47, 56, and 85.

35. E.g. M. Andronikos, *Vergina* (Athens, 1984), figs. 156–59.



Corinth: Carved Bones Used for Moldings.

“peopled scrolls” in sculpture and mosaic combine leaves, erotes, and animals in intricate profusion.³⁶ Wood and bone carvings preserved in Scythia can show a similar “confectionary” extravagance, although they are usually flatter and more functional.³⁷ A date might be proposed early in the third century B.C. for these fragments from Corinth, or at least before the city was sacked by Mummius in 146 B.C. These may be the battered and fragile relics of some ephemeral extravaganza like those recorded in richer and more durable materials in the famous Procession of Ptolemy II Philadelphos, 308–246 B.C.³⁸ but, perhaps, burned in mourning rather than celebration.³⁹

36. M. Robertson, *A History of Greek Art* (Cambridge, 1975), p. 581, pl. 185b; J. M. C. Toynbee and J. B. Ward Perkins, “Peopled Scrolls, A Hellenistic Motif in Imperial Art,” *Papers of the British School at Rome* 18 (1950): 1–43, pls. 1–26, especially pl. 1.2 and pl. 3; the mosaics of the period of Eumenes II at Pergamon, the Pompeian versions in the Villa of the Mysteries, the House of the Faun, and the third century relief sculpture in Boston from near Bari, cf. M. B. Comstock, C. C. Vermeule, *Sculpture in Stone* (Boston, 1976), no. 113 (10.160).
37. Vaulina and Wasowicz, *Bois Grecs et Romains de l’Ermitage*, note 34, pls. 15, 55, 59, and 70.
38. Athenaeus, *Deipnosophistai* V.196–203 (Loeb edition II.387–419).
39. An early date for the ivories may be suggested by comparison with a group of terracotta fragments with erotes, quadrigae, and various leaves and flowers that formed part of an ornamental composition which was found in a fourth century B.C. tomb on the via Salaria, *Enciclopedia dell’Arte Antica*, 1970 Supplement (Rome, 1973), p. 665, fig. 671.

Chapter 21

SOME FOREIGN PERSONAL NAMES AND LOAN-WORDS FROM THE DEIR EL-MEDINEH OSTRACA*

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I. INTRODUCTION

Some years ago, Jac. J. Janssen suggested that a closer look at the vocabulary used in Egyptian ostraca might prove useful in assessing the impact of foreign languages on the speech of the ordinary Egyptian.¹ During the Empire period, Egyptians came into contact with several foreign cultures and many studies have shown that the resulting interchange was cultural as well as commercial and military. It is axiomatic that, when different societies speaking different languages come together, there is an exchange of words in both directions. Biblical Hebrew is sprinkled with Egyptian words,² Minoan Linear A with Semitic words,³ and the impact of Hurrian on the northern Akkadian vocabulary was considerable.⁴ The influence of foreign languages on Egyptian of the Empire age is documented by many scholars. The literary texts of the period are full of foreign words and it takes little imagination to realize that there had to be a multi-lingual element in Egyptian society which could deal with other languages. Akkadian, for example, was the lingua franca of the day and Egyptians had to cope with that language as they dealt with an empire in western Asia. The el-Amarna archive is itself ample proof of this; not only did Egypt correspond with Canaanite and Mesopotamian rulers,

* My thanks go to Profs. Leonard H. Lesko and Cyrus H. Gordon who have offered useful comments on this paper.

1. Jac. J. Janssen, "Semitic Loan-words in Egyptian Ostraca," *JEOL* 19 (1965-66): 443-48.
2. T. O. Lambdin, "Egyptian Loan Words in the Old Testament," *JAOS* 73 (1953): 145-55; J. Vergote, *Joseph en Égypte* (Louvain, 1959), passim.
3. C. H. Gordon, *Evidence for the Minoan Language* (Ventnor, 1966); M. Pope, *Aegean Writing and Linear A* (Lund, 1964); J. G. P. Best, *Some Preliminary Remarks on the Decipherment of Linear A* (Amsterdam, 1972). While most scholars accept the existence of Semitic loan words in Linear A, the problem of what language these texts preserve is still hotly debated. For a recent survey, see R. A. Brown, *Evidence for Pre-Greek Speech on Crete from Greek Alphabetic Sources* (Amsterdam, 1985).
4. E. A. Speiser, "The Alalakh Tablets," *JAOS* 74 (1954): 18-25; C. H. Gordon, "The Dialect of the Nuzi Tablets," *Orientalia* NS 7 (1938): 32-63, 215-32, esp. pp. 51-63; M. Berkooz, *The Nuzi Dialect of Akkadian* (Philadelphia, 1934).

but the non-Semitic chancelleries of Egypt and Cyprus used Akkadian as a means of communication.⁵ At the level of well-trained, literate scribes and officials, then, foreign languages had to be learned out of practical necessity.

One result of multi-lingualism is that words tend to move easily from one language to another and slip into the speaking and writing habits of a foreign milieu simply because they are familiar. The oft-repeated charge that the budding scribes who filled the "school-boy texts" with foreign words out of snobbery or a desire to show off may not be entirely accurate. A certain amount of showing-off was certainly involved but these students were multi-lingual, or becoming so, by virtue of their education. They undoubtedly used foreign words in speaking to others of the same degree of literacy, so it is not surprising that their compositions should reflect a reality they lived daily.

In a society constantly in contact with languages other than its own, foreign terms tend to become part of its language out of long usage and familiarity. For example, Semitic *išpātu*, "quiver," came into Egyptian as *isp.t* in the 12th Dynasty⁶ at which time it would obviously have been recognized as foreign. But *isp.t* became part of the Egyptian military vocabulary so that its foreign origin must have been forgotten by Empire times. It was similar with the term *ssm.t*, "horse." In his study of a Ptolemaic relief from Tôd, Grenier suggests that one aspect of the innovation in this relief is the use of "foreign" words, one of which is *ssm.t*.⁷ Now while this word was indeed borrowed at the beginning of the 18th Dynasty, it came into very common use thereafter and it is hard to believe that the word would still have been considered "foreign" by those who prepared the Tôd relief some fifteen centuries later. The horse had long been part of Egyptian daily life and the word which designated this animal had become part of the native vocabulary.

The linguistic situation of the royal archives, schoolboy texts, and temple reliefs also existed among the workers and peasants of Egypt. They too used foreign words in their everyday speech, not because they were educated or had gone off to foreign places, but because people from foreign places came to them. They came as captives from military campaigns assigned to work in various temples⁸ and they came on their own to find jobs in many capacities. Thus we read of such individuals as "the Nubian stonemason *Trki*" working at Deir el Bahri⁹ and the "chief Gardener *Mrky*" (Canaanite *Milkiya*) at the Ramesseum.¹⁰ It is no surprise, then, to find "the Syrian *Basiya*" as a member of the work force at Deir el-Medineh (list A). Foreigners speaking their own languages were present among the work force there and it is in this manner that much of the foreign vocabulary must have come into the spoken and, ultimately, the written language of the town. This foreign vocabulary is to be found, of course, primarily in the numerous ostraca from the site.

5. J. A. Knudtson, *Die El-Amarna Tafeln* (Leipzig, 1915), nos. 33–40.

6. The term first appears in Pap. Kahun 19, 16; 20, 47.

7. J.-Cl. Grenier, "Une scene d'offrande à Astarte," in F. Geus and F. Thill, eds., *Mélanges offerts à Jean Vercoutter* (Paris, 1985), pp. 107–10.

8. G. Posener, "Une liste de noms propres étrangers sur deux ostraca hiéroglyphiques du nouvel empire," *Syria* 18 (1937): 183–87. For a discussion of the numbers of foreigners in Egypt as opposed to the figures given in the texts, see Jac. J. Janssen, "Eine Beuteliste von Amenophis II und das Problem der Sklaverei im alten Ägypten," *JEOL* 17 (1963): 141–47. Janssen argues that Egypt could not absorb masses of foreigners, that there was no need for slavery on a large scale, and that the often huge numbers of "prisoners" given in military records are rather census lists of newly conquered territories.

9. W. C. Hayes, "A Selection of Thutmosid Ostraca from Deir el-Bahri," *JEA* 46 (1960): 32.

10. W. Spiegelberg, "Bemerkungen zu den hieratischen Amphoreninschriften des Ramesseums," *ZÄS* 58 (1923): 33.

Defining which names and words in the Deir el-Medineh ostraca are foreign is somewhat difficult due to the scribal practices there. Janssen, Černý, and others have pointed out the numerous vagueries occurring in the ostraca, principally the varieties in the spelling of individual words, the frequent metathesis and omission of consonants, and use of group-writing for words which are demonstrably not of foreign origin.

The latter practice was far more extensive than realized. There is no question that foreign names and words often appear in group-writing, primarily in hieratic texts or hieroglyphic texts for which a hieratic original was first prepared. But the matter is far more complicated in that at least part of this phenomenon has to do with scribal habits that cannot always be explained. For example, the double-stroke, a dot or an indeterminant squiggle are frequently added above or below hieratic signs that do not fill the vertical "block" in a line and where the next sign would not fit; in other words, these "signs" most often act simply as space-fillers.¹¹ An extra 3-bird is almost consistently added after certain hieratic signs for no immediately apparent reason.¹² These and similar graphic habits appear in full force in the ostraca.

Another major problem is the large number of words in group-writing for which foreign cognates are not forthcoming. Are these native terms with no historic spelling which were first written down in Late Egyptian, or are they loan-words from an undetermined source? Here there is a drawback in the comparative material. While we have ample evidence from texts in the languages of western Asia, we have very little from the contemporary Nubian and Libyan languages. There were speakers of these languages resident in Egypt along with foreigners from the north so that Nubian and Libyan names and words must also be sprinkled through Egyptian texts, including the ostraca in question here. There is, however, no way of identifying these terms without corroborating evidence such as the statement that a particular product, hence its name, came from Libya or Nubia or a named individual can be shown to have come from these regions. Such cases are rare so that our knowledge of the extent to which these north African languages left their imprint on Egyptian will probably never be known.

The use of group-writing thus embraces many kinds of words and names: 1) those borrowed into Egyptian from the western Asiatic languages, 2) native Egyptian words with long histories within that language, 3) native Egyptian words belonging to the vernacular which were first written down in Late Egyptian, and 4) those borrowed from Libyan and Nubian languages which cannot be identified because of a lack of comparative material.

There is an important local factor that needs to be considered in the present context. We are dealing here with the *vocal* transmission of names and words from illiterate foreigners to illiterate Egyptians. The foreigners who came to Deir el-Medineh did not use the literary dialects of their languages as we know them from written sources, but their own spoken dialects. Nor would the Egyptians there have used the educated speech of the cities. The transmission of foreign words was thus subject to the uneducated speech habits of both foreigners and natives and the borrowed terms were then recorded by village scribes who were not particularly well trained.

This is a far different linguistic context from in the court, for example, where multi-lingual scribes could read and write the languages from which they consciously borrowed words. While there is always some

11. W. A. Ward, "The Semitic Biconsonantal Root *sp* and the Common Origin of Egyptian *šwf* and Hebrew *šûp*: 'Marsh(-plant)'," *VT* 24 (1974): 340.

12. W. A. Ward, "The Semitic Root HWY in Ugaritic and Derived Stems in Egyptian," *JNES* 28 (1969): 265; idem, "Lexicographical Miscellanies I," *SAK* 5 (1977): 287.

phonetic alteration when a word passes from one language to another, at the more educated scribal level we can expect more precision in the representation of foreign sounds. The context of the Deir el-Medineh ostraca is that of lesser scribes capable of recording village life, but hardly in the same class as their contemporaries across the river in Thebes. Precision was not their forte even in recording their own language so we can expect errors in transcribing foreign sounds. This will account for the apparent mistakes in the Egyptian spelling of foreign names and words in the ostraca, for example the use of Egyptian *b* for a foreign *p*, evidenced in both lists A and B, below.

II. SOME FOREIGN NAMES AT DEIR EL-MEDINEH (LIST A)

One should properly discuss "foreign names" rather than "foreigners" since a demonstrably foreign name does not automatically assume that the individual who bore it had himself come from abroad and was therefore a foreigner. One can argue, however, that native Egyptians were not likely to give non-Egyptian names to their children so that any individual with a foreign name can reasonably be supposed to be at least of foreign ancestry on his father's or mother's side, or both. Unfortunately, family connections among the lesser inhabitants of Deir el-Medineh are not often documented so it is not possible to state whether a given individual was actually a recent immigrant, hence foreign, or was the son or grandson of an immigrant who was given a foreign name out of honor for the family's origins. This poses no serious problems in the present context as the purpose here is to show that foreigners, or those of foreign extraction, did live in the village.¹³ It was these individuals, still speaking their native tongues, who brought foreign words into the local vocabulary.

There are several difficulties in distinguishing foreign from native names, primarily because of the extensive use of group-writing. Egyptian names in partial group-writing are not a problem,¹⁴ but the appearance in group-writing of single-word names like *Bs* "(the god) Bes,"¹⁵ *P3-sr*, "the official,"¹⁶ *Nh.t*,

13. I have excluded the names *P3-nḥsy*, *T3-nḥsy*, *P3-ḥr* and *T3-ḥr*, all of which appear at Deir el-Medineh, since such names do not always imply a foreign origin. All four were commonly used in the New Kingdom and, unless there is some exterior evidence to prove a foreign origin, we do not know if the person in question was a foreigner or a native Egyptian. There are cases, for example, where *P3-ḥr* is an alternate for an Egyptian name (Ranke, *Personennamen* II [Glückstadt, 1952], p. 175, quotes two examples) which indicates a Canaanite origin, though there is no such case at Deir el-Medineh. Of the reasons given by Vernus (*LÄ* IV, cols 327-30) as to why parents chose names for their children, the only one that could explain giving a foreign name to an Egyptian child is that it was a family name which the family wished to preserve. An Egyptian named *P3-ḥr* could thus have an ancestor who migrated from Canaan and need not himself be a foreigner.

Another explanation seems equally plausible. During the Empire, many Egyptians went off to war in Canaan and could have received the sobriquet "The Syrian" on their return to retire in their village. Their descendents would then use this "name" which had now become family property, so to speak. A modern analogy is the Arabic Muslim and Christian family name '*Al-Hajj*, "The Pilgrim," used by many who have never made the pilgrimage to Mecca or Jerusalem, but have ancestors who did. The honorary title '*Al-Hajj* has become a family name which bears no direct relationship to its literal meaning.

14. E.g.: '*Imn-nhs*, O. Cairo 25765, Vs. II, 2; '*Nh.t*, O. DM 681 Rt. 3, 4, cf. C. Andrews, "A Family for Anhai?," *JEA* 64 (1978): 88; '*Ḥ'y-m-tr*, O. DM 606, Rt. 10; '*T3-n.t-hnw*, O. DM 672, 2; etc.

15. Very common on the ostraca along with the related *P3-Bs* and *T3-Bs*, already recognized as Egyptian in spite of the group-writing by W. Spiegelberg, "Zu den semitischen Eigennamen in ägyptischer Umschrift aus der Zeit des 'neuen

“Sycamore,”¹⁷ *Rr.t*, “sow,”¹⁸ and *ḳrr*, “Frog,”¹⁹ indicate that this orthography may obscure numerous other native names.

Short names in group-writing are often considered foreign when they are really Egyptian. For example, Boreaux considered the names *Ḳḥ*, *Tnr*, *Tr*, and *Hy*, all spelled in group-writing, as foreign names, one indication that the family of Louvre stele C 86 had been brought to Egypt to work on royal projects.²⁰ But all are common Egyptian names: *Ḳḥ* (*Ḳ3ḥ3*) is derived from *ḳ3ḥ*, “earth, soil,”²¹ *Tnr* is from the common verb *tnr* (*tl*), “be strong,” itself always spelled in group-writing,²² *Tr* is from the old word for “willow tree,” this noun often in group-writing,²³ and *Hy* is a hypocoristicon for *’Imn-ḥtp*.²⁴ The problem here, of course, is that one can always find a comparable name, usually a hypocoristicon, in some foreign language or suggest that Libyan names are involved for which we have little comparative material.

Precisely this suggestion was made by Bruyère who proposed that a series of masculine and feminine names ending in *-nr* (*-l*) are of Libyan origin.²⁵ We may take the name *Wrnr* (*Wrl*) as representative of this group. While Bruyère thought it might be Libyan and Simpson suggests it could be Levantine,²⁶ according to Ranke, *Wrnr* is a hypocoristicon for *T3-wr.t*, a feminine name going back to the Middle Kingdom.²⁷ Of the three interpretations, only the latter has supporting evidence. Ranke quotes an example of a man named *B3k-t3-wr* and *B3k-t(3)-wrn* on the same stela, though a much clearer example is from Deir el-Medineh where the same woman is called both *T3-wr.t* and *Wrnr*.²⁸ The name *Wrnr* is thus a native Egyptian hypocoristicon and is neither Libyan nor Canaanite. The name *Hnr* (*Hl*) is similarly a hypocoristicon for the Egyptian name *Hḥr*, both referring to the same lady at Deir el-Medineh.²⁹

This leads to another difficult problem in identifying foreign names. A name may be spelled in group-writing and one can locate a suitable foreign cognate, but the name is really Egyptian. *P3-ṯrb*,

Reiches’ (um 1500–1000),” *Zeitschrift für Assyriologie* 13 (1898): 56, n. 1. *Bs* appears in both normal spelling and group-writing for the same person in *LD, Text III*, p. 248.

16. *MIFAO* 54, Pt. 1, p. 33; O. DM 120, 3; 558, Rt. 7; 649, 2.

17. O. DM 681, Rt. 3; cf. Andrews, “A Family for Anhai?,” p. 88.

18. *MIFAO* 69, p. 40; J. Černý, *Répertoire onomastique de Deir el-Médineh*, IFAO Doc. et Fouilles XII (Cairo, 1949), p. 54. Both references are to the son of the owner of tomb 5.

19. O. DM 222, IV, 5.

20. Ch. Boreaux, “Le Stèle C 86 du Musée du Louvre et les stèles similaires,” *Mélanges Dussaud* II, pp. 673–87. See now B. Letellier, “Autour de la stèle de Qadech: une famille de Deir el-Médineh,” *RevEg* 27 (1975): 150–63.

21. *Wb.* V, 12, 9–12. The name *Ḳḥ* (always *Ḳ3ḥ3*) is normally spelled with the land-determinative.

22. *Wb.* V, 382–83. The word is Egyptian, contra W.F. Albright, *The Vocalization of the Egyptian Syllabic Orthography* (New Haven, 1934), no. XIX, A, 15.

23. E.g., Pap. Anastasi III, Vs. 1, 8; O. Cairo 25680, Rt. 1.

24. E.g., *Hieroglyphic Texts from Egyptian Stelae etc., Part 9*, T. G. H. James, ed., The British Museum (London, 1970), pl. 22 (BM 166).

25. B. Bruyère, *Tombes thébaines de Deir el-Médineh à décoration monochrome*. *MIFAO* 86, p. 52.

26. W. K. Simpson, “The Chief Coppersmith Ahmose,” in Geus and Thill, eds., *Mélanges Vercoutter*, p. 316.

27. Ranke, *Personennamen* I (Glückstadt, 1935), 355, 12 (*T3-wr.t*), perhaps the earliest use of the definite article in Egyptian.

28. *FIFAO* VII/2, pp. 74, 80.

29. *FIFAO* IV/3, p. 16.

always represent shortened forms of normal birth-names is difficult to tell since at Deir el-Medineh there are only rare cases of double names, that is, a person identified by both a birth-name and a nick-name or hypocoristicon.³⁹

III. SOME FOREIGN WORDS AT DEIR EL-MEDINEH (LIST B)

List B includes only terms which appear on the ostraca since the purpose here is to determine the extent of foreign influence in the spoken language at Deir el-Medineh. Foreign words are frequent in the literary texts from the village, including those written on ostraca, which reflects the overall pattern of Egyptian literary works in general. As noted in the Introduction, higher Egyptian scribal training included the study of foreign languages so it was natural for well-educated scribes to use foreign terms in their compositions. Since the Chester Beatty Papyri originated at Deir el-Medineh⁴⁰ and the ostraca contain numerous excerpts from many well-known literary pieces,⁴¹ it is evident that at least some well-educated, competent scribes may have lived in the village.

The same cannot be said for the scribes who penned the lists of rations, sales transactions, attendance lists, etc. The variety of spellings, even of common words, the frequent metathesis, and plain errors indicate not carelessness, but ineptitude. As already noted, it is apparent that those to whom were entrusted the daily tasks of recording ordinary things were not especially well trained. The same can be said for many of the letters they wrote for their neighbors. But it is in these humble documents that we come as close as is possible to the vocabulary of the uneducated who comprised the bulk of the population. Many learned enough to scratch their names in the rocks of the nearby mountains, answering the universal need for an individual to leave some tangible hint that he exists. But beyond this, it was the scribes of the village who recorded the words they used, even if in bad spelling and often very bad handwriting.

In trying to identify foreign words used at Deir el-Medineh, we face the same difficulties as in identifying foreign personal names, mainly caused by the use of group-writing. Here there is an interesting difference between the use of foreign words in the literary ostraca and in their non-literary counterparts. Foreign terms abound in the papyri, products of the better-trained scribes. Such words were carried over into the literary ostraca, a good part of which are practise copies of the standard literary works. But beyond this, foreign words are found in other kinds of works which in large part are not practice copies but still belong to the literary tradition. Several foreign terms appear in the "Poem on the King's Chariot" known on two ostraca from the village.⁴² Among foreign words in other types of documents from Deir el-Medineh the

39. *FIFAO* VIII/2, pp. 46, 58: "In-hr-h'wy, who is called Yw," and his grandson "In-hr-h'wy, who is called P3- tr"; Louvre stela C 218: "Mn-ms, who is called Knr."

40. P. W. Pestman, "Who were the Owners, in the 'Community of Workmen' of the Chester Beatty Papyri," in R. J. Demarée and Jac. J. Janssen, eds., *Gleanings from Deir el-Médineh* (Leiden, 1982), pp. 155-72.

41. 74 ostraca with excerpts from Pap. Anastasi I are listed by H.-W. Fischer-Elfert, *Die satirische Streitschrift des Papyrus Anastasi I. Textsammlung* (Wiesbaden, 1983), pp. 1-2.

42. O. Edinburgh 916 is "almost certainly of Theban origin"; W. R. Dawson and T. E. Peet, "The So-called Poem on the King's Chariot," *JEA* 19 (1933): 167. O. Turin 9588 was found in the early Italian excavations at Deir el-Medineh; J. Černý, "Deux nouveaux fragments de textes littéraires connus depuis longtemps," *Rev. de l'Égypte Ancienne* 1 (1927): 221. The latest translation is by W. Guglielmi, "Zu einigen literarischen Funktionen des Wortspiels," in F. Junge, ed., *Studien zur Sprache und Religion Ägyptens* (Göttingen, 1984), I, pp. 495-96.

following may be noted: *lmr* = Akkadian *imeru*, “donkey”;⁴³ *l̄t* = Hebrew *’ey zeh*, “which”;⁴⁴ *mrkb.t* = Semitic *markabtu*, “chariot”;⁴⁵ *nhr* = Semitic *nhr*, “flow, wander”;⁴⁶ *n̄t̄* = Semitic *ns̄* “leave, depart”;⁴⁷ and *kr̄* = Semitic *ql̄*, “shield.”⁴⁸

In this literary tradition there seems to be a conscious attempt to use foreign words in place of Egyptian ones: *lmr* rather than *ʿ3*, “donkey”; *nhr* rather than *šm3*, “wander”; *n̄t̄* rather than *wḏ3* or *rwt*, “depart”; etc. None of these foreign words was commonly used in Egyptian so it would appear that in literary compositions, authors or copyists tended to use them to lend an air of literary finesse to their work.

On the other hand, in the records of everyday life, the foreign words designate items of everyday use (List B). In the realm of building and stone-working, the major occupation of the village, foreign words were used for sticks, carrying-poles, tree-trunks, chisels, hose, and plaster. In the home, foreign words were used for folding-chairs, combs, beds, metal cups, jars, boxes, and baskets. In the kitchen and in the fields around the village, foreign words designated lentils, wheat, beans, must, dung, papyrus, and grain. These were the ordinary things of village life, not rare or exotic items one might hear about from their own languages and these foreign terms caught on, so to speak, among their Egyptian neighbors.

These borrowed terms are all spelled in partial or full group-writing. But group-writing was also extensively used on the ostraca as elsewhere for native words. A few of these from the non-literary ostraca are: *lwry.t*, “lubyah bean”; *r*, “pebble”; *ps*, a kind of bread; *nb3*, “carrying pole”; *nh.t*, “sycamore”; *nkr*, “seive”; *sp3.t*, “lotus leaf”; *sḏ*, “loin-cloth”; *lr̄.t*, “willow tree”; and *ḏ3r̄.t*, “scorpion.” These were not rare or unfamiliar words but were part of the everyday vocabulary and each has a demonstrable historic spelling going back to the earlier periods of the Egyptian language.

This raises the question of the origin of a large number of words in the ostraca, many of common use, spelled in group-writing which have neither a known foreign origin nor a long history in Egyptian. With the introduction of the vernacular as a written language in the fourteenth century B.C., a whole new vocabulary and grammatical structure appears.⁴⁹ Much of this new vocabulary is spelled in group-writing, partial or complete, which presents a major problem. If, as we have seen, both foreign and native words were regularly spelled in group-writing, how much of this new vocabulary is foreign and how much is native? Some of these late Egyptian terms used in the ostraca are: *l̄nr*, “plate”;⁵⁰ *l̄rr*, a bronze vessel;⁵¹ *lp*, a red

43. *HO*, pl. 3, 3, 1, a text in which a schoolboy addresses his teacher; W. A. Ward, “Notes on Some Semitic Loan-words and Personal Names in Late Egyptian,” *Orientalia* NS 32 (1961): 417. A newly published fragment (O. DM 1254, 1–2) may show a reading *hmr* = Hebrew *h^amōr*, as Helck, *Beziehungen*, 2nd. ed., p. 518, no. 167.

44. Pap. DM I, Rt. 3, 6.

45. *HO*, pl. 75, Vs. 6, a legal dispute.

46. O. OrInst Chicago 12074, Rt. 6: Ward, “Notes on Some Semitic Loan-words,” pp. 420–23. This text has now been fully studied by J. Foster, “Oriental Institute Ostrakon 12074: ‘Menna’s Lament’ or ‘Letter to a Wayward Son’,” *JSSEA* 14 (1984): 88–99.

47. *HO*, pl. 64, Rt. 3, a legal agreement; Ward, “Notes on Some Semitic Loan-words,” pp. 430–32.

48. O. Michaelides 17, Rt. 5.

49. The extensive new vocabulary may be, in part, an illusion caused by much better documentation in New Kingdom times. As earlier textual evidence increases, words thought to be found first in Late Egyptian appear in older contexts. For example, *sk3.t*, “donkey foal,” has been considered a Late Egyptian term but has now shown up in an Old Kingdom context; G. Roquet, “Le nom de l’ânon en égyptien et en copte,” *BIFAO* 76 (1976): 37–63.

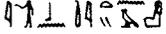
50. J. Černý, “Restitution of, and Penalty Attaching to, Stolen Property in Ramesside Times,” *JEA* 23 (1939): 61, n. 1.

51. Common; Janssen, “Semitic Loan-words,” pp. 445–46, notes several variant spellings.

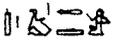
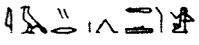
pigment;⁵² *bnš*, “door-post”;⁵³ *bry*, “grey mullet”;⁵⁴ *bš*, “chisel”;⁵⁵ *pry*, “cloth strip”;⁵⁶ and *mhn*, a wooden container.⁵⁷ While these and many other words have neither a foreign cognate nor a pre-fourteenth century B.C. history, I consider them all native words which happen to be first attested in Late Egyptian, part of the new vocabulary introduced with that dialect. Note that some of these new words are regularly spelled in the normal orthography with only rare examples in group-writing.⁵⁸

LIST A

SOME FOREIGN PERSONAL NAMES AT DEIR EL-MEDINEH

1.  'Ibnt(t)n, found with the name *Tnhm.t* (see infra) on a wooden statuette dating to the beginning of the 18th Dynasty: *FIFAO XV*, p. 171; D. Valbelle, “*Les Ouvriers de la tombe.*” *Deir el-Médineh à l'époque ramesside*. IFAO Bibl. d'Étude 96 (Cairo, 1985), p. 24, n. 3.

The obvious non-Egyptian consonantal structure suggests a Semitic name of the type *Ibne-X*, “(the god) X has created,” or perhaps Hurrian *Abenatal*, *Abinadal*: I. J. Gelb, P. M. Purvis, A. M. MacRae, *Nuzi Personal Names*, OIP 57 (Chicago, 1943), p. 23; F. Gröndahl, *Die Personennamen der Texte aus Ugarit*. *Studia Pohl* 1 (Rome, 1967), pp. 218, 221.

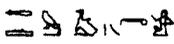
2.  'Int', a workman; O. Cairo 25576, 16. The consonantal structure suggests Semitic *ns'*, “leave, depart,” which appears as a verb in a Deir el-Medineh legal agreement: *HO* pl. 64, 2, Rt. 3; Ward, “Some Semitic Loan-words,” p. 430.
3.  'Ir', a workman; O. DM 652, 4. While no exact Semitic original is forthcoming, the element 'Ir-, spelled precisely this way and with the reversed walking-legs determinative, is an element in several transcriptions of Canaanite place-names in which it represents 'ilu, 'el, “god”: Albright, *Vocalization*, nos. III, B, 5, 8, 9; W. F. Albright and T. O. Lambdin, “New Material for the Egyptian Syllabic Orthography,” *JSS* 3 (1957): 117, n. 2. The determinative is explained by Albright as deriving from the Canaanite homonym 'il, “to, toward,” and while later writers have generally accepted this, it is far from satisfactory. Cf. H.-W. Fischer-Elfert, *Die satirische Streitschrift des Papyrus Anastasi I. Übersetzung und Kommentar* (Wiesbaden, 1986), p. 180, and literature quoted there. R. Givéon remains rightly dubious in *Actes du premier congrès international de linguistique sémitique et chamito-sémitique*, Paris, 16–19 Juillet 1986. *Janus Linguarum*, Series Practica 159, pp. 57–58.

52. *Wb.* I, 68, 14; O. Cairo 25596, 7; *HO*, pl. 29, 3, Rt. 4. V. Loret's attempt in “*Deux racines tinctoriales de l'Égypte ancienne.*” *Kémi* 2 (1930): 30–31, to derive this term from Semitic is highly unconvincing.
53. *Wb.* I, 464, 3; *HO*, pl. 17, 1, 11–12.
54. *Wb.* I, 465, 10; common on the ostraca. Arabic *būrî* via Coptic *bôre*.
55. *Wb.* I, 478, 12–13; *HO*, pl. 17, 1, 2. Common in literary texts.
56. Jac. J. Janssen, *Commodity Prices from the Ramessid Period* (Leiden, 1975), p. 207.
57. Janssen, *Commodity Prices*, p. 207.
58. E.g., the common *lnh* “large pottery jar”; Janssen, *Commodity Prices*, p. 434. It appears in group-writing in *HO*, pl. 57, 4, 2–3.

It is tempting to see in this name a partial translation of the Ugaritic name *ilrb*, “Il is the Great one” (Gröndahl, *Personennamen*, p. 44), which would yield *’Ir-’3* in Egyptian.

4.  ‘*bd*, named on a stela fragment of the 18th Dynasty with only the end of the upper text preserved: . . . *n k3 n . . . lry n* ‘*bd*, making him the father of the owner. *FIFAO* XX/2, pl. II, fig. 103; on p. 89 there is a printer’s error, *lry d* for *lry n*. Another ‘*bd* is known from a Second Intermediate Period coffin; P. Lacau, *Sarcophages antérieure au nouvel empire II* (Cairo, 1906), no. 28109.

The name is a west Semitic hypocoristicon from ‘*bd*, “to serve”: Hebrew ‘*Ēbēd*, ‘*Abdāh*; Amorite *Ḥabdiya*; Ugaritic ‘*bdu*. H. B. Huffmon, *Amorite Personal Names in the Mari Texts* (Baltimore, 1965), p. 189; Gröndahl, *Personennamen*, p. 50; M. Burchardt, *Die altkanaanäischen Fremdworte und Eigennamen im Aegyptischen* (Leipzig, 1910), no. 251.

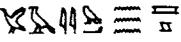
5.  ‘*mL*, a workman; *HO*, pl. 69, 1, Vs. 4. The masculine form of this name appears elsewhere in Egyptian only as  , an alternative name for the Vizier *’I’ḥms* of the earlier 18th Dynasty. The latter was explained by Sethe and Gardiner as a phonetic rendering of *’I’ḥms* in syllabic spelling, anticipating the Greek form *Amasis*, *Amosis*: K. Sethe, “Über einige Kurznamen aus den neuen Reiches,” *ZÄS* 44 (1907): 91–92; N. DeG. Davies and A. H. Gardiner, *The Tomb of Amenemhet* (no. 82) (London, 1915), p. 32. However, while Egyptian *L* was regularly used to transcribe Semitic *samekh*, an Egyptian scribe would hardly use it for Egyptian *s*, nor would the *h* have disappeared from the name this early. The New Kingdom pronunciation was *’Iah-mase*; W. F. Albright, “Cuneiform Material for Egyptian Prosopography 1500–1200 B.C.,” *JNES* 5 (1946): 13, no. 15.

The wife of ‘*mL’I’ḥms* was named  ; references in N. DeG. Davies, *The Tomb of Rekh-mi-Re at Thebes* (New York, 1943) I, p. 101. This name is also found as  in an early 18th Dynasty list of Canaanites; *Urk.* IV, 11, 9. This reference is important as evidence for the foreign origin of both the masculine and feminine forms.

= west Semitic ‘*ms*, “to carry”: Hebrew ‘*Amōs*, ‘*amasyāh*, ‘*Amasāh*, ‘*amāsay*; Akkadian *Yahmus-AN*; Ugaritic *bn* ‘*ms*. Cf. M. Noth, *Die israelitischen Personennamen in Rahmen der gemeinsemitischen Namengebung* (Stuttgart, 1928), p. 178; idem, “Remarks on the Sixth Volume of Mari Texts,” *JSS* 1 (1956): 325; Gröndahl, *Personennamen*, p. 109. *T’ mL* would represent Semitic **Taḥmus*. Both names were considered Semitic by Burchardt, *Fremdworte*, nos. 262, 1078.

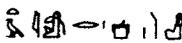
6.  ‘*dr*, a workman; O. Cairo 25574, 26; 25575, 14; 25576, 10; 25577, 7. The same person may be mentioned in a graffito, in a letter as one of nine “men of the necropolis,” and as being “of the temple of Montu” in the tomb robbery records: J. Černý, *Graffiti hiéroglyphiques et hiératiques de la nécropole thébaine*. IFAO Doc. et Fouilles IX (Cairo, 1956), no. 1301b; idem, *Late Ramesside Letters*. *Bibl. Aeg.* 9 (Brussels, 1939), p. 24, 3 (Pap. Berlin 10494); T. E. Peet, *The Great Tomb-robberies in the Twentieth Egyptian Dynasty* (Oxford, 1930), pl. 30, 13.

The name is from west Semitic ‘*zr*, “to help”: Hebrew ‘*Ēzer*, ‘*Azūr*, Amorite *Ḥazirum*, Amarna *Aziru*, Ugaritic *Y’dr*; Huffmon, *Amorite Personal Names*, p. 193; Gröndahl, *Personennamen*, p. 113.

7.  *br Bsy*, "The Syrian *Bsy*"; O. Cairo 25543, Rt. 2. Cf. Akkadian *Basi*, *Basiya*, Amorite *Yabasi-Dagan*, apparently from the same root. K. L. Tallqvist, *Assyrian Personal Names* (Helsingfors, 1914), p. 53; Huffmon, *Amorite Personal Names*, p. 177.
8.  *P3-Ilr (P3-il)*, a workman; O. Cairo 25820, 3. The element *-il* with the reversed walking-legs determinative must be a variant for the *lr* of '*Ir*' (supra, no. 3).
9.  *P3-Ym*, a workman appearing some thirty times in papyri, ostraca and graffiti from the reign of Seti II (O. Cairo 25510) to year 24 of Ramesses III (O. Turin 57028), a period of over forty years. Though frequently mentioned, little is known of him. His father was *Pnbwy*, his wife was *Swt* and an unnamed married daughter was involved in a case of adultery: *FIFAO* XXVI, p. 133; *HO*, pl. 35, 1, II, 9; Pap. DM XXVII. Otherwise, he appears mostly in lists of workmen and rations.

The element *-ym* is west Semitic *ym(m)*, "sea; the deity Yamm," not generally used in Semitic as a personal name except in Ugaritic: '*bd-ym*, *Ym-il* and the hypocoristicon *Ymy*; Gröndahl, *Personennamen*, p. 144. In Egyptian, *ym* is frequently found as a literary substitute for *w3d-wr*, "sea," and *P3-Ym* as a divine being appears as the adversary in the Legend of Astarte, an Egyptian version of a Canaanite myth. See A. Gardiner, "The Astarte Papyrus," in *Griffith Studies*, pp. 74–85; O. Kaiser, *Die mythische Bedeutung des Meeres in Ägypten, Ugarit und Israel* (Berlin, 1959), pp. 81–91. Another reference to this Canaanite deity may be in O. OrInst Chicago 12074: Ward, "Notes on Some Semitic Loan-words," p. 422, though Foster "Oriental Institute Ostrakon," p. 92, prefers a different interpretation which retains the more general sense "sea." This deity can be none other than *zbl Ym*, "Prince Sea," the prominent adversary of Baal in Ugaritic mythology: Kaiser, *Die mythische Bedeutung*, pp. 44–77; A. Caquot and M. Sznycer, *Textes Ougaritiques I. Mythes et légendes* (Paris, 1974), pp. 105–39. The deity appears again in other rare personal names of the New Kingdom simply as *Ym* (Ranke, *Personennamen* I, 56, 4) or in '*Imn-p3-Ym* which would seem to indicate that the Canaanite Yamm, like other Semitic deities, gained a minor place in popular beliefs of the period; Jac. J. Janssen, *Two Ancient Egyptian Ships' Logs* (Leiden, 1961), Pap. Turin 2000+2016, Rt. III, 28. Ranke, *Personennamen* I, 415, 6, and II, 402 (415, 6), gives rare late occurrences of this name.

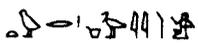
Since the father of the workman *P3-Ym* has what appears to be an Egyptian name, this would either be a case where the mother was foreign, or a case of a foreign name given to a child born in Egypt in memory of the family's origins.

10.  *Prs*, a workman; O. Cairo 25532, Vs. 2. From west Semitic *pls*, "view, observe": Amorite *Pilsu*, Ugaritic *Pls*: Huffmon, *Amorite Personal Names*, p. 255; Gröndahl, *Personennamen*, p. 173.
11.  *T3-irs*, a woman known from one complete shabti and almost 300 fragments of others found in a room under tomb 1028 connecting with tomb 212: *FIFAO* III/3, pp. 49–50; D. Valbelle, *Ouchabtis de Deir el-Médineh*. IFAO Doc. et Fouilles XV (Cairo, 1972), p. 64. The name means "The Cypriote"; Egyptian *irs (ils)* is Akkadian *Alašiya*. The identification of this term with Cyprus has been

questioned by some, but the evidence seems clear enough: W. Helck, in *LÄ* VI, cols. 1452–53; Y. L. Holmes, “The Location of Alashiya,” *JAOS* 91 (1971): 426–29.

12.  *Tnhm.t*, on a wooden statuette with the name *'Ibnt(t)n* (supra, no. 1): *FIFAO* XV, p. 171, tomb 1379. The element *-nhm-* is spelled as the Egyptian verb *nhm*, “to seize.” While no feminine form is forthcoming, this must be from the same root as west Semitic *Ynhm*, *Yanhamu* of Ugarit and the Amarna Letters which likewise appears in Egyptian spelled with Egyptian *nhm* “to seize”: J. Monnet Saleh, *Les Antiquités égyptiennes de Zagreb* (Paris, 1970), no. 14; G. Steindorff, “Eine ägyptische Liste syrische Sklaven,” *ZÄS* 38 (1900): 17–18; W. Max Müller, “Eine ägyptische Liste Kanaanäische Eigennamen,” *OLZ* 5 (1902): 228. Note also Amorite *'Nihmatu* from a root *n'm* or *nhm*; Huffman, *Amorite Personal Names*, pp. 237–39.

From the same root *nhm* comes Hebrew *Tanhumet*, the father of Sisera mentioned in II Kings 25:23 and Jeremiah 40:8. While this is masculine, it preserves the consonantal structure of the Egyptian name; J. J. Stamm, *Beiträge zur Hebräischen und altorientalischen Namenkunde* (Göttingen, 1980), p. 75. Another masculine form is *Tnhm*; J. B. Pritchard, *Hebrew Inscriptions and Stamps from Gibeon* (Philadelphia, 1959), p. 28 no. 3, with references quoted there.

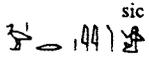
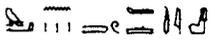
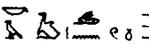
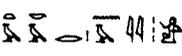
13.  *Trby*, a workman and owner of TT 327. Two pyramidions of his are known, one in the Hermitage Museum, the other now in Warsaw: E. S. Boglowski, “Monuments and Documents from Dêr el-Medina in the Museums of the USSR IV,” *VDI* No. 122 (1972): 71–72; *FIFAO* XIV, p. 28. One of his shabtis is in Berlin (7595) and a broken offering-table with his name partially preserved was found in tomb 1131: *FIFAO* XIV, p. 28. He is mentioned once on an ostrakon as one of several sharing in an inheritance of leather; *HO*, pl. 60, 1, Rt. 5. Helck, *Beziehungen*, 2nd ed., p. 357, makes the plausible equation with Hurrian *Tulpiya*. Cf. Gelb, Purvis, and MacRae, *Nuzi Personal Names*, pp. 157, 268; D. J. Wiseman, *The Alalakh Tablets* (London, 1963), p. 150; E. Laroche, *Les Noms des hittites* (Paris, 1966), p. 188.
14.  *Dmr*, owner of an offering-table and a shabti: Cairo 43586, *FIFAO* XX/2, p. 6; BM 8652, E. A. W. Budge, *A Guide to the Fourth, Fifth and Sixth Egyptian Rooms . . .* (London, 1922), p. 8. From west Semitic *zmr*, “to protect”: Hebrew *Zimrî*, *Zimrân*, Amorite *Zimran*, *Zimriya*; Huffman, *Amorite Personal Names*, pp. 187–89. Ugaritic *qmr*; Gröndahl, *Personennamen*, p. 197.

LIST A APPENDIX

There are other personal names in the Deir el-Medineh material which are probably foreign since they have non-Egyptian consonantal structures and no Egyptian etymologies are forthcoming. The foreign cognates, however, are not always clear. Some of these names are as follows.

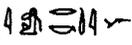
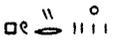
15.  *'Inrn ('lln)*; O. Cairo 25605, 2. In spite of the different spelling of the initial consonants, this must be the same as *lnrn (lln)*, “oak tree” (*Wb.* I, 98, 12), borrowed from Semitic: Hebrew *'alōn*, Akkadian *alānu*, with the same meaning. As a Semitic personal name: Hebrew *'Ēlōn*, *'Allōn*, Akkadian *Iluni*, *Ilāni*: Tallqvist, *Assyrian Personal Names*, p. 95; A. Ugnad, *Babylonian Letters*

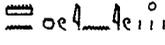
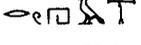
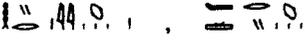
of the *Hammurapi Period* (Philadelphia, 1915), p. 37; J. J. Finkelstein, *Late Old Babylonian Documents and Letters* (New Haven, 1972), p. 59. See also Ugaritic *iln*, Gröndahl, *Personennamen*, p. 52, who treats this rather as *il* + *n*-suffix.

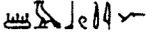
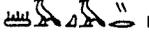
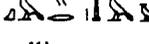
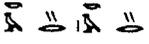
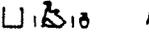
16.  *Ybhy*; O. Cairo 25757, 3. Names with an initial *Y*- almost always represent Semitic imperfect forms. Cf. Amarna *Yapahi*, Babylonian *Yapaḥum*, with a shift of *p* to *b* in Egyptian; S. D. Simmons, *Early Old Babylonian Documents* (New Haven, 1978), p. 85. Alternatively, this could be an Amorite hypocoristicon in *-iya* (Huffmon, *Amorite Personal Names*, pp. 134–35): **Yabḥiya*, from a name such as *Yabḥar-^dIM*.
17.  ^{sic}
Bry (fem.); O. DM 60, 8, a female servant (*ḥm.t*) attached to a work-gang. The same name as a masculine appears in *HO*, pl. 20, 6, 5. Spiegelberg, "Zu den semitischen Eigennamen," p. 51, suggests a derivation from Hebrew/Phoenician *Bry*. See also Akkadian *Bariya*, *Biria*: A. Clay, *Personal Names from the Cuneiform Inscriptions of the Cassite Period* (New Haven, 1912), p. 63. However, this name could derive from the common Egyptian "bry-fish."
18.  *Mnḥ.t*, a "citizeness" (**nḥ.t n.t nīw.t*), mentioned in *HO*, pl. 86, 1, Vs. 4. Only this example is noted by Burchardt, *Fremdworte*, no. 459, who gives no foreign cognate. The name is certainly not Egyptian, though I can find no parallel. Several possibilities suggest themselves: 1) a Semitic name of participial formation, 2) an Akkadian name beginning with *Mannu-*, "who?," 3) perhaps Hurrian ^f*Melisah*, ^m*Melenzah*/*Milezah*: Clay, *Personal Names . . . Cassite Period*, p. 107; Gelb, Purvis, and MacRae, *Nuzi Personal Names*, p. 97. None of these is particularly inviting.
19.  *Kṭwn*(?); J. Černý, *Graffiti de la montagne thébaine*, no. 2141, which lists the Deir el-Medineh scribe Pentaweret and his three sons Amonnakht, Amenhotep, and *Kṭwn*. This name does not appear elsewhere and has no Egyptian etymology, though it remains obscure why Pentaweret would have a son with a foreign name. The scribe may have been attempting to transcribe a name like Amarna *Kuzuna* or Hittite *Kizzuwa*.
20.  *Tkrny*; O. Cairo 25576, 34. Since the name is masculine, the initial *T*- is not the definite article; it cannot be related to *K-r-n*, as Ranke, *Personennamen* I, 431, 12. The latter represents Ugaritic *krny*, Gröndahl, *Personennamen*, p. 30, from *krn*, "grapevine." *Tkrny* seems best explained as **Takilayu*, a hypocoristic form based on Akkadian *Takil-*, "trust." If the *-rn-* can stand for *r*, cf. Hurrian *Takkaraya*; Gelb, Purvis, and MacRae, *Nuzi Personal Names*, p. 145.
22.  *Ir*; *FIFAO* VI/2, p. 133, from TT 1 (Senedjem). The name occurs elsewhere only in Pap. Anastasi III, Vs. 5, 1, the father of Nakhtamun, the latter a minor official in an Egyptian garrison in Syria; Caminos, *Late Egyptian Miscellanies*, p. 112. This *Ir* was thus a foreigner whose son took an Egyptian name. Cf. Gelb, Purvis, and MacRae, *Nuzi Personal Names*, p. 177; Wiseman, *Alalakh Tablets*, p. 153; Hurrian *Zilli*.

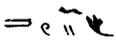
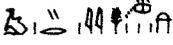
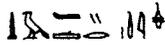
LIST B

SOME FOREIGN LOAN WORDS AT DEIR EL-MEDINEH

1.  *irk.t*, "trunk" of a tree (*Wb.* I, 116, 5): Helck, *Beziehungen*, 2nd ed., p. 508, no. 10a; Janssen, *Commodity Prices*, p. 378, who proposes the meaning "trunk."
= Akkadian *ariktu*, "spear, long flute" (root 'rk, "be long"), which preserves the sense (a long, wooden object) if not the precise meaning of Egyptian *irk.t*.
2.  *isb.t*, "throne, shelter" (*Wb.* I, 132, 2-8), common at Deir el-Medineh meaning "folding chair"; Janssen, *Commodity Prices*, p. 191. The word is also spelled *isp.t*, and once *ispb* (O. DM 239), perhaps influenced by *isp.t*, "quiver," or through the b/p interchange; W. A. Ward, "The Biconsonantal Root *B3 and Remarks on Bilabial Exchange in Egyptian," *ZÄS* 102 (1975): 60-67.
= Akkadian *ušbu*, "seat, throne"; Ward, "Notes on Some Semitic Loan-words," p. 418.
3.  'ršn, "lentils" (*Wb.* I, 211, 15, Demotic 'ršn, Coptic *aršin*: O. DM 454, Rt. 9; O. Turin 57106, Rt. 1; 57383, Vs. 4).
= Akkadian *arsanu*, *aršanu*, "pearl barley." There is some difficulty over the equation of this word with Hebrew 'adasah, Arabic 'adas, "lentils." A. Loret, "Pour transformer un vieillard en jeune homme," *Mélanges Maspero* I, p. 869, felt it was the result of the "frequent exchange between d and r" though there is nothing to support this. Helck, *Beziehungen*, 2nd ed., p. 501, no 36, postulates an unknown common source for all these terms. It is quite possible that while Coptic *aršin* and Arabic 'adas are used for the same vegetable, two different words are ultimately involved.
4.  'dr, "helper" (*Wb.* I, 242, 5-7): O. Michaelidis 96, Vs. 5; *HO*, pl. 7, 3, 2, in which text the god Amon is also given the epithet p3 'dr.
= Hebrew 'ōzēr, Akkadian *hāziru*, "helper."
5.  br, "wheat" (*Wb.* I, 465, 11): *HO*, pl. 31, 1, Rt. 7; O. Cairo 25553, Vs. 2; O. DM 183, 6.
= Hebrew *bâr*, Akkadian *burru*, "wheat"; Ward, "Notes on Some Semitic Loan-words," p. 433.
6.  pr, "bean" (*Wb.* I, 531, 12): O. DM 222, I, 6; O. Turin 57146, Rt. 7; *HO*, pls. 31, 1, Rt. 1, Vs. 2; 88, 1, Rt. 11.
= Hebrew *pûl*, Arabic *fûl*, "broad-bean." L. Keimer, "Sur quelques petits fruits en faïnce émaillée datant du moyen empire," *BIFAO* 28 (1929): 80, adds Akkadian *pulilu*, "bean." However, while this word appears in the older literature, it has now been corrected to *abulilu* (*bulîlu*), "boxthorn berry" (*CAD* Vol. A, p. 82) so may not be related here.
7.  *mwd*, "carrying-pole" (*Wb.* II, 28, 24, *m3wd*). Common on the ostraca; Janssen, *Commodity Prices*, p. 385. As Helck, *Beziehungen*, 2nd ed., p. 513, no. 86, observes, the sign *wđ* should be read *wd* as in Late Egyptian. The same word appears once as *mwt.w* (pl.) in Pap. Anastasi IV, 16, 11, translated "spokes" of a wheel by Caminos, *Late Egyptian Miscellanies*, p. 214.
= Hebrew *môt*, "carrying-pole," *maṭṭeh*, "staff," Ugaritic *mṭ*, "staff."

8.  *mn*, “weight” for gold (*Wb.* II, 82, 1); *Inscr. Hier. Char.* XVIII, 5631, 7 = *HO*, pl. 88, 7.
= Hebrew *māneh*, Akkadian *manû*, “mina weight.”
9.  *mrs*, “new wine, must” (*Wb.* II, 112, 15); D. Valbelle, *Catalogue des poids à inscriptions hiératiques de Deir el-Médineh*. IFAO Doc. et Fouilles XVI (Cairo, 1972), p. 18; A. H. Gardiner, *Ancient Egyptian Onomastica* (Oxford, 1948) II, p. 235, no. 565, Coptic *mrīs*.
= Ugaritic *mrt*, “wine product,” Akkadian *marāsu*, “to stir into a liquid”; W. A. Ward, “Comparative Studies in Egyptian and Ugaritic,” *JNES* 20 (1961): 40, no. 27.
10.  *mšdd*, “comb,” Coptic *mštôte*; L. M. J. Zonhoven, “The Inspection of a Tomb at Deir el-Medīna (O. Wien Aeg. 1),” *JEA* 65 (1979): 196–97.
= derived from Akkadian *mašādu*, “to comb out hair, wool.”
11.  *rwh*, “evening, evening breeze” (*Wb.* II, 409, 4–6); O. Cairo 25539, I, 4, 5.
= Hebrew *rūʿh*, Ugaritic *rh*, Arabic *rawāḥ*, “evening breeze”; Ward, “Lexicographical Miscellanies I,” pp. 284–88, where it is shown that Semitic *h* = Egyptian *h* is acceptable.
12.  *rhb*, “jar, flagon” (*Wb.* II, 442, 2); O. Cairo 25594, 6.
= Ugaritic *rhb*, “wine jar,” Akkadian *raʿabu*, a jar for storing liquids; Ward, “Lexicographical Miscellanies I,” p. 289; J. de Moor, *The Seasonal Pattern in the Ugaritic Myth of Baʿlu* (Neukirchen-Vluyn, 1971), p. 204. C. H. Gordon points out that the *a*-vowel of the Akkadian word suggests a loan from west Semitic since a true Akkadian cognate would have an *e*-vowel due to the original *h*.
13.  *hdm*, “footstool” (*Wb.* II, 503, 17–19), frequent at Deir el-Medineh meaning “box”; Janssen, *Commodity Prices*, p. 188. At Deir el-Medineh, *hdm rd.wy* was used for “footstool.”
It is equivalent to Hebrew *hādōm*, Ugaritic *hdm*, “footstool.” J. H. Hayes, “The Usage of Oracles Against Foreign Nations in Ancient Israel,” *JBL* 57 (1968): 90, asserts that *hdm* is “non-Semitic,” hence must be an Egyptian loan into Hebrew and Ugaritic. This view is adopted by W. Wifall, “The Foreign Nations — Israel’s ‘Nine Bows’,” *BES* 3 (1981): 119. Whatever the origin of the term — Gordon, *Ugaritic Textbook*, Glossary, no. 711, calls it East Mediterranean— it was *not* originally Egyptian and came into that language from Canaan. Its earliest attested occurrence in Egyptian is from the reign of Thutmose III where six *hdmw* are among the furniture in the long list of booty brought back by that king after his victory at Megiddo; *Urk.* IV, 666, 17. This argues in favor of a borrowing of the word designating the object from a Canaanite dialect. Furthermore, *hdm* is used in Ugaritic mythological texts which must certainly go back at least to Middle Bronze times even though the extant documents belong to the Late Bronze Age. The use of this term in Semitic would thus be far earlier than its appearance in Egyptian. While neither point is conclusive, they bear more weight than the fact that *hdm* is thought to be non-Semitic.
14.  *hry*, “dung,” Demotic *hr.t*, Coptic *hoire*. Frequent on the ostraca; J. Černý, “Some Coptic Etymologies,” in O. Firchow (ed.), *Ägyptologische Studien* (Berlin, 1955), p. 36.
= Hebrew *hereʿ*, “dung,” Ugaritic *hrʿ*, “to defecate.”

15.  *hnr* (*hl*), “chisel”; Valbelle, *Catalogue des poids*, pp. 12–14, who notes the many variant spellings and two passages which define the use of this tool for cutting and breaking stone.
= Semitic *hll*, “to pierce, bore,” Akkadian *halilu*, iron “drill”; Ward, “Notes on Some Semitic Loan-words,” p. 434.
16.  *sbt*, “scepter, stick” (*Wb.* IV, 442, 13), Demotic *šbt*, Coptic *šbôt*: O. Turin 57387, Rt. 10; O. OrInst Chicago 110, Vs. 1, from Deir el-Medineh as it mentions the Chief Workman Hay. On the latter, see Černý, “Stolen Property in Ramesside Times,” p. 188.
= Hebrew *šebet*, Aramaic *šabta*, “staff.”
17.  *škr/šgr*, a kind of box (*Wb.* IV, 550, 1). Very common at Deir el-Medineh: Janssen, *Commodity Prices*, p. 200; J. Černý, “The Will of Naunakhte and the Related Documents,” *JEA* 31 (1945): 39.
= Akkadian *s/šigaru*, Hebrew *sūgar* (loan from Akkadian), “cage.”
18.  *krdn*, “axe, hoe” (*Wb.* V, 66, 7). Common at Deir el-Medineh in a variety of spellings, meaning a heavy “hoe”: Janssen, *Commodity Prices*, p. 318; J. Černý, “Papyrus Salt 124,” *JEA* 15 (1929), 249. The earliest occurrence is from the annals of Thutmosis III; *Urk.* IV, 669, 5.
= Hebrew *garzen*, “axe, hoe,” probably a dissimilated form of Old Akkadian *haššinu*, “axe, hoe” (*CAD* Vol. H, p. 133); Albright, *Vocalization*, no. X, D, 14. The term has not yet been found in Ugaritic, contra Koehler and Baumgartner, *Lexikon in Veteris Testamentum* (ed. 1967), p. 195, who quote Ugaritic *hršn*. The latter appears only in a short text engraved on a hoe-blade, *hršn rb khnm*, which could be translated “hoe-blade of the Chief Priest”; Cl. Schaeffer, “Les Fouilles de Minet-el-Beida et de Ras Shamra (Campagne du printemps 1929),” *Syria* 10 (1929): pl. 60, 2. However, this is now treated as a personal name related to *hrš*, “gold”; C.H. Gordon, *Ugaritic Textbook* (Rome, 1965), Glossary, no. 1016.
19.  *kd*, “gypsum, plaster” (*Wb.* V, 82, 7); very frequent on the ostraca. The meaning is confirmed by notations on two lumps of gypsum labeled *kd*; W. Spiegelberg, “Gypsproben aus Tell el Amarna mit hieratische Aufschriften,” *ZÄS* 58 (1923): 51–52. The word appears in Egyptian first in the reign of Hatshepsut; Hayes, *Ostraca and Name Stones*, nos. 63, 65.
= Akkadian *gašsu*, “gypsum, whitewash.”
20.  *krkr*, a foreign type of bed (*Wb.* V, 136, 6; *Belegst.*, read “bed” instead of “staff”); Janssen, *Commodity Prices*, p. 185, who notes that since the bed is foreign, the word is probably foreign.
= Akkadian *kalakku*, “chest”; J. Osing, review of J. Černý, *Coptic Etymological Dictionary*, *JEA* 64 (1978): 188, quoting only O. Vienna 1, 5.
21.  *kt*, “metal cup” (*Wb.* V, 148, 8–10); several examples at Deir el-Medineh, Janssen, *Commodity Prices*, p. 408.
= Akkadian *kasu*, Ugaritic *ks*, Hebrew *kôs*, “cup”: Albright and Lambdin, “New Material,” p. 123; Ward, “Comparative Studies in Egyptian and Ugaritic,” p. 39.

22.  *ḥwḥ*, "papyrus(-marsh)" (*Wb.* V, 359, 6–10): *HO*, pl. 55, 3, Rt. 6, part of a delivery of vegetables. The word is very common in literary texts.
= Canaanite **sawp*, "pool" > Hebrew *sûp*, "marsh(-plant)," also common in the later Semitic dialects; Ward, "The Semitic Biconsonantal Root *sp*," pp. 339–49.
23.  *ḥry*, "seed"; *HO*, pl. 59, 1, Rt. 1, with the collective plural ending -y.
= Akkadian *zēru*, Hebrew *zera'*, "seed." The roots *zr'*, "to sow," ; and *zr'*, "to winnow," fell together in Akkadian as *zarû* so the final 'ayin was not pronounced; the word thus came into Egyptian via Akkadian. Ward, "Notes on Some Semitic Loan-words," p. 435.
24.  *ḥr.t*, a kind of vessel; O. DM 318, Vs. 8.
= Hebrew *ṣalahat*, Amarna *zilahda*, "bowl"; metathesis in the Egyptian form. While the Akkadian word appears in Amarna Letter no. 14 written from Egypt and full of Egyptian terms, this is not an Egyptian word; T. O. Lambdin, "Egyptian Words in Tell el Amarna Letter no. 14," *Orientalia* NS 22 (1953): 369.

Chapter 22

AN EARLY POTTERY JAR WITH INCISED DECORATION FROM EGYPT

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In 1922, William F. Edgerton published a photograph and a drawing of some figures incised on a simple jar from the "Predynastic" period.¹ The figures he published included a river-galley with a crescent-shaped hull and an animal. However, the decoration is much more extensive (fig. 41 and pl. 61), for it continues around the vessel and its combination of figures and symbols makes it a key document for our understanding of early art in Egypt.

The jar was shaped by hand from Nile alluvium mixed with large amounts of straw. This straw was rather coarse; impressions show the full width of the stalk and they are sometimes several millimeters in length. Its shape is simple, with convex sides, a flattened base, and a low, upturned rim. In the old Petrie corpus, it can be compared to Rough 83b (S.D. 33), the long-lasting 43b (S.D. 43-78), and Red Polished 34a (S.D. 50).² The upper fifth of the jar was smoothed, but the operation did not remove all of the irregularities in its contour. A rather irregular area near the bottom is pitted as though the surface had been exposed to destructive conditions in that area. The surface was lightly polished, perhaps with a piece of leather or other soft material, to a very low luster, but neither smoothing nor polishing was sufficient to force the pieces of chaff below the surface. The jar was coated red, and a white filling was added after firing, which was just sufficient to harden the vessel.³ The vessel was broken, possibly in antiquity, and repaired in modern times with plaster that fills open breaks. After the repair, the surface was given additional coatings of red and white which obscure its condition somewhat. However, the original surface appears unaltered in an area around the

1. "Ancient Egyptian Ships and Shipping," *AJSLL* 39 (1922): 109-35; figs. 1-2.
2. William M. F. Petrie, *Prehistoric Egypt Corpus*, BSAE and ERA, vol. 32 (London, 1921).
3. For a discussion of firing temperatures in Egyptian pottery derived in part from refiring experiments, see Hans-Åke Nordström, *Neolithic and A-Group Sites*, The Scandinavian Joint Expedition to Sudanese Nubia, vol. 3:1 (Copenhagen, Oslo, and Stockholm, 1972), pp. 43-44. See also *idem*, "Ton," *LÄ* 6, col. 629, and Janine Bourriau, *Umm el G'āb. Pottery from the Nile Valley before the Arab Conquest* (Cambridge, 1981), p. 17 and works cited. The temperatures indicated for coarse pottery are very approximate and judging from the varying hardness and color of the vessels, it varied from era to era.

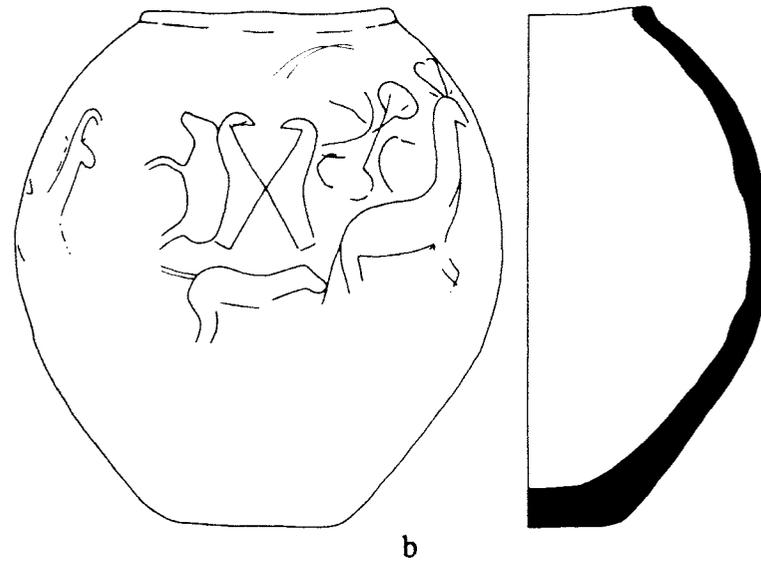
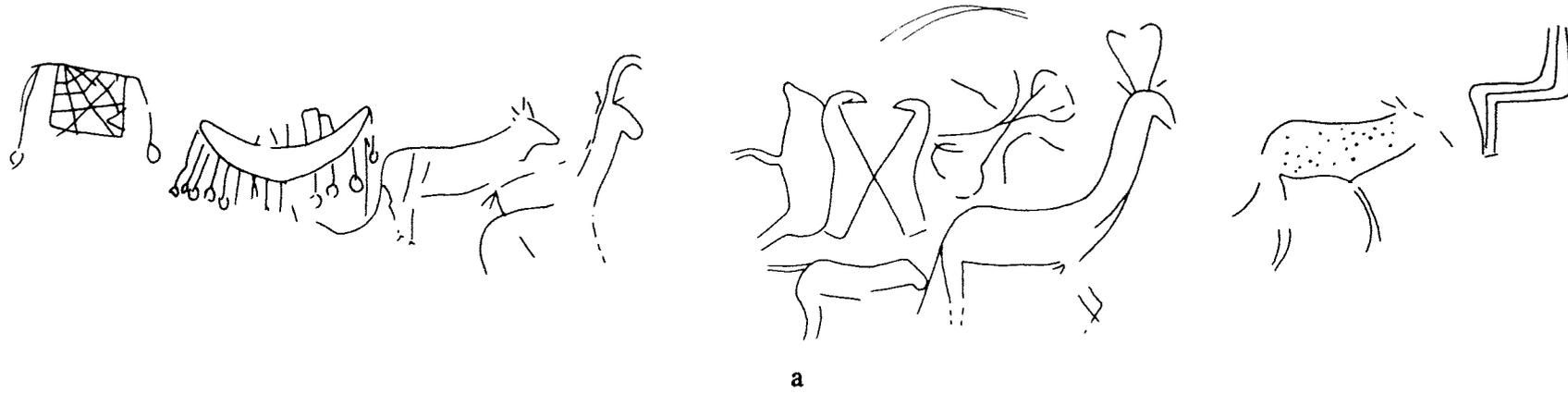
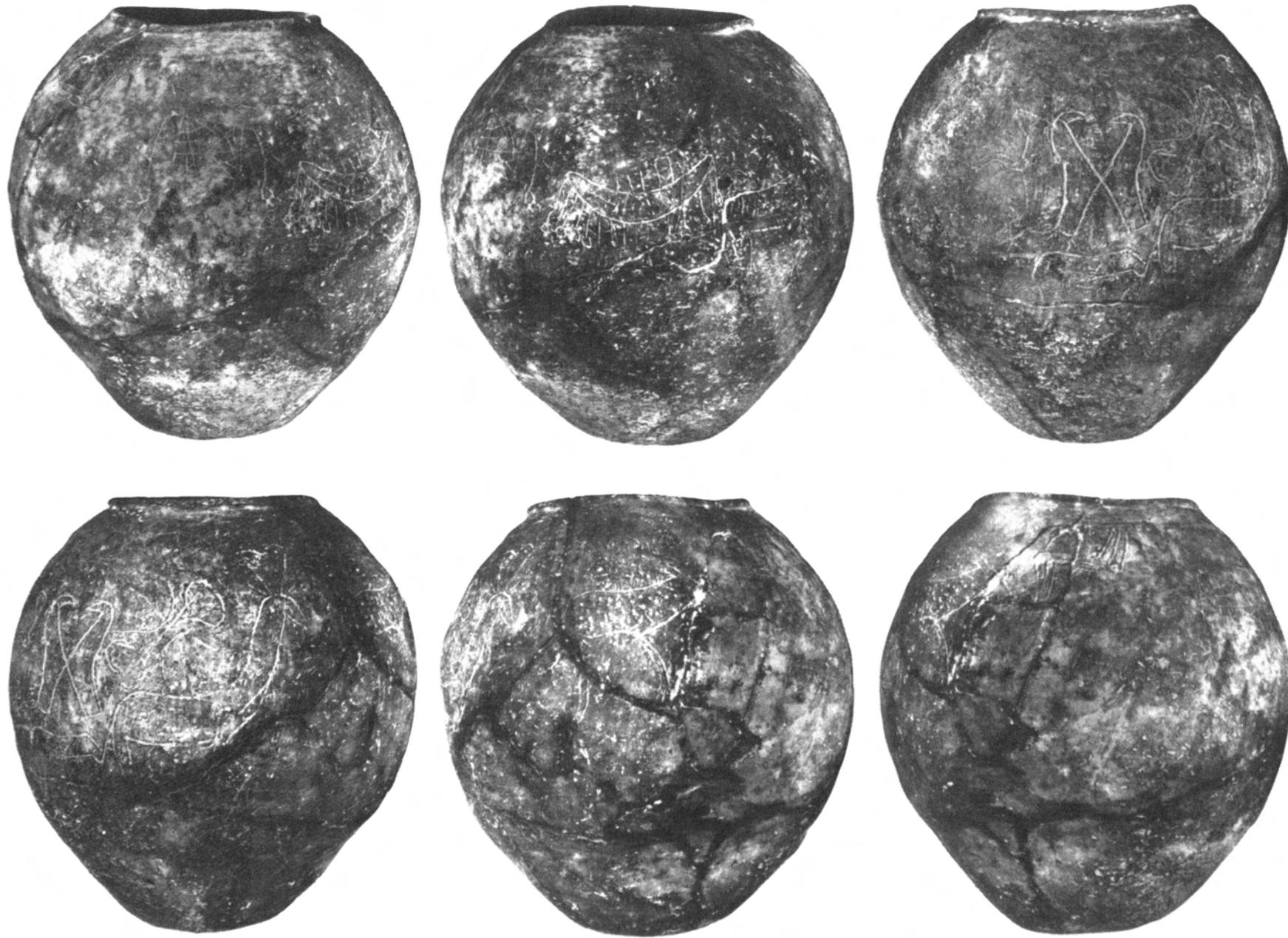


Fig. 41. Drawings of an Early Pottery Jar and Expanded View of Incised Decoration on the Jar, OIM 10542, from Egypt.



Photographs of Early Pottery Jar, OIM 10542, from Egypt with Incised Decoration Around the Shoulder.

central group of the decoration, especially the antelope. The color combination is typical of Amratian/Naqada I painted pottery (the surface is now 2.5YR 5/6-10R 4-5/6 in Munsell notation).⁴

THE DECORATION

The waist area of OIM 10542 is occupied by a series of symbols and figures which were incised in the clay before it hardened.⁵ Small ridges can be seen at the edges of incisions that make up each shape shown in figure 41a except the square panel at the far left. If this panel was the last shape added, the figures were incised roughly in the order indicated by the drawing, from right to left. To the right, the decoration begins with an outlined zigzag divided in the middle. Slightly below and to its left, is a series of six animals. In the middle of the row, they extend upward and partly enclose a central group made up of a complex curvilinear symbol and a pair of opposed falcons. To the left, a last pair of animals is followed immediately by the river galley and the panel.

Although the scheme can be compared to painted pottery and parts of larger painted compositions, notably a linen from Gebelein and Tomb 100 at Hierakonpolis, details resemble incised palettes and rock drawings more closely. For example, subordinate motifs, such as plants, small animals, and geometric shapes that occur on almost all Amratian/Naqada I and virtually all Gerzean/Naqada II painted vessels are not present. The drawing of the figures was rapid and summary. The bodies and heads of the animals were outlined, while most of the appendages and details were indicated only by single lines or slashes. No attempt was made to make either the figures or the ensemble graceful or pleasing.

THE ANIMALS

The leading animal, a carnivore, is spotted; its tail is indicated by a single line, as are the short, swept-back ears. Spotted carnivores are not common in early art, but one is shown on a white-painted red-polished bowl from Mahasna.⁶ Behind it is a group of three animals arranged around two signs or symbols. The first, an antelope, is shown with a very long, heavy neck, opposed, incurved horns, and a long tail. Antelopes of this kind are not found in the repertoire of painted pottery, but they do occur in rock drawings and as incised marks.⁷ The antelope is worried from behind by a small carnivore. Unlike the other animals, this carnivore's

4. Dates will be given in the archaeological designations used by Kaiser (Naqada I-IIIb), and those used by Kantor in the forthcoming edition of *COWA* as follows: Amratian/Naqada I; Naqada II/Gerzean; Late Gerzean-Early Dynasty 0/Naqada IIIa; Dynasty 0/Naqada IIIb. Naqada IIIa continues from Prof. Kantor's Late Gerzean into Dynasty 0. The present correlations modify those presented in Bruce Williams and Thomas J. Logan, "The Metropolitan Museum Knife Handle and Aspects of Pharaonic Imagery before Narmer," *JNES* 46 (1987): 280 (Appendix A).
5. Because coatings were added when the jar was restored, it is uncertain whether the original red coat was applied before or after the vessel was incised.
6. John Garstang, *Mahasna and Beit Khallaf*, ERA, vol. 7 (London, 1903), pl. XIV: 3-4.
7. W. M. F. Petrie and J. E. Quibell, *Naqada and Ballas*, ERA, vol. 1 (London, 1896), pl. LI: 24 (1805--). However, the horns are recurved to a vertical position at the tip. Closely comparable animals are found in some rock drawings. See Martín Almagro Basch and Martín Almagro Gorbea, *Estudios de Arte Rupestre Nubio, I. Yacimientos situados en la Orilla Oriental del Nilo, entre Nag Kolorodna y Kars (sic) Ibrim (Nubia Egipcia)* (Madrid, 1968), figs. 266, 283-85. Other rock drawings in Sudanese Nubia of the same animal are somewhat different. See Pontus Hellström and Hans Langballe, *The Rock Drawings*, SJESN, vol. 1:2 (Copenhagen, Oslo, and Stockholm, 1970), Corpus L, ca. 188-206.

tail is indicated by a double line. Although no ears are obvious, the tail is an important feature that may identify this animal as a canine that appears frequently and prominently on carved slate palettes.⁸ Above and behind this tail, shown vertically, is an unidentifiable quadruped. It is shown back-to-back with one of a pair of opposed falcons. Despite its vertical position, it appears in a running posture.⁹ To the left, after a space, is the last group of two animals. A herbivore with forward-curving horns and a short, splayed tail,¹⁰ possibly a gerenuk, is attacked by a large carnivore with a long, curved tail (lion?) that leaps upon its back. The front legs of this carnivore are not shown, but the hind paws are indicated and other lines may indicate muscle masses of its pelvic area.¹¹

Although the animals are separated into groups of one, three, and two by some space, they are all clearly attacking or fleeing,¹² as they are when pictured on incised palettes and on the earlier series of carved palettes. Activity of this kind also can be found on some of the best-known knife handles, notably the Gebel el Arak, the Gebel Tarif, the Carnarvon, and two other, unnamed, ivory knife handles. Thomas Logan and I have argued elsewhere that these carvings are representations of ritualized hunts, whether they appear formally organized, in riotous disarray, or even sharply abbreviated.¹³

SYMBOLIC FIGURES WITH THE ANIMALS

The animals are accompanied by three figures placed slightly above the level of the action at the beginning and the middle of the row. These can hardly be literal representations; they should be considered symbolic substitutes for other figures or labels.

The Central Group: The Opposed Falcons

A pair of falcons are connected at their breasts. The head and back of each bird is shown by a single curved line, while the beaks, bodies, and tails are indicated by angular strokes. Opposed falcons of this type

8. For a detailed discussion of canines with thick tails in early art, see H. G. Fischer, "A Fragment of Late Predynastic Egyptian Relief from the Eastern Delta," *Artibus Asiae* 21 (1959): 64-86.
9. Active animals in rock drawings and on incised palettes are often shown upside down or at angles to the horizon. See Basch and Gorbea, *Estudios de Arte Rupestre Nubio, I*, pls. VI-VII, the Stockholm palette (Henri Asselberghs, *Chaos en Beheersing: Documenten uit aeneolithisch Egypte*, Documenta et Monumenta Oriens Antiqui, vol. 8 [Leiden, 1961], afb. 69-70) and the incised palette (*ibid.*, afb. 67-68).
10. Several examples of horned animals with horns curving forward occur in the painted T. 100, especially in the trap. J. E. Quibell and F. W. Green, *Hierakonpolis Part II*, ERA, vol. 5 (London, 1902), pl. LXXV. See also the Stockholm palette, Asselberghs, *Chaos en Beheersing*, afb. 70; and a Naqada II painted casket, Kazimierz Michalowski, *The Art of Ancient Egypt* (London, 1969), doc. phot. 167. The crescentic boat is actually of Gerzean/Naqada II type.
11. Quibell and Green, *Hierakonpolis II*, pl. LXXVI, below, the lions flanking the man. Note also the animals that confront the smiting figure above.
12. This occurs on the Stockholm palette (Asselberghs, *Chaos en Beheersing*, afb. 69-70); see also W. M. F. Petrie, *Diospolis Parva*, EEF, Mem. 20 (London, 1901), pl. XX, 16 (V8-66), also 19 (same), although shapes differ.
13. Knife handles include the Gebel el Arak (Georges Bénédite, "Le Couteau de Gebel el-Arak," *Fondation Eugene Piot. Monuments et Memoires* 22 (Paris, 1916), figs. 9, 16, pl. I; Asselberghs, *Chaos en Beheersing*, afb. 55-58), the Carnarvon, (Bénédite, "The Carnarvon Ivory," *JEA* 5 (1918): pl. I and II; Asselberghs, *Chaos en Beheersing*, afb. 43-45), the Gebel Tarif (Helene J. Kantor, "Ägypten," pp. 227-38 in Machteld Mellink and Jan Filip, eds., *Frühe Stufen der Kunst*, Propylaen Kunstgeschichte, 13 (Berlin, 1974), fig. 24; Asselberghs, *Chaos en Beheersing*, afb. 47-48), and two unnamed knife handles (*ibid.*, afb. 49-50). See Williams and Logan, *JNES* 46 (1987): 260, 266.

also appear incised on pottery as single marks, ranging in date from Amratian/Naqada I to Late Gerzean/Naqada IIIa.¹⁴

The falcon is one of the few common symbols of pharaonic civilization to occur throughout its history in almost every kind of situation that refers to the pharaohs or the other gods. Paired falcon-standards which indicate paired gods or twin powers also occur, for example, as the theophoric element in the name Khasekhemwy. Before the First Dynasty, pairs of falcon standards were depicted in victorious activities and the hunt, and symmetrically opposed falcons perched on the upper corners of serekhs were incised on pottery.¹⁵

Some representations show the falcon associated with rampaging, hunted animals in a special way. On the Metropolitan Museum palette, animals and monsters scramble about a falcon perched on a serekh which rests on the body of a serpent that encloses the eyepaint dish.¹⁶ The Qustul incense burner, on the other hand, reduces the number of animals to two and gives them a subordinate role as attributes in a more elaborate procession.¹⁷ In some cases a palm tree, which is often flanked by long-necked animals,¹⁸ replaces the falcon (or serekh) as the central figure. On the Narmer palette, the pharaoh is a central figure; and one may detect a progression in which figure is chosen as the central one on several objects (table 1).

14. Petrie and Quibell, *Naqada and Ballas*, pl. LIII: 134 (1626-34-48); possibly Petrie, *Diospolis Parva*, pl. XXI no. 821; Nordström, *Neolithic and A-Group Sites*, pl. 26 no. 7.
15. Werner Kaiser, "Einige Bemerkungen zur ägyptischen Frühzeit III," *ZÄS* 86 (1964): fig. 7a-b. Kaiser and Günter Dreyer, 1982 "Umm el Qaab; Nachuntersuchungen im frühzeitlichen Königsfriedhof. 2. Vorbericht," *MDAIK* 38 (1982): fig. 14, 1-5. See W. M. F. Petrie, *The Royal Tombs of the Earliest Dynasties 1901. Part II*, EEF, Mem. 21 (London, 1901), pl. 23: 191-97.
16. Fischer, *Artibus Asiae* 21, fig. 20; Asselberghs, *Chaos en Beheersing*, afb. 26.
17. B. Williams, *The A-Group Royal Cemetery at Qustul: Cemetery L*, Oriental Institute Nubian Expedition, vol. III (Chicago, 1986) (hereafter OINE III), pl. 34, see pp. 138-45. A leaping antelope and a scrambling dog are placed in front of the bow and behind the stern of a sacred bark which contains the ruler himself with his falcon-label, which may have been on a serekh.
18. I have argued in a forthcoming work that the palm trees found at the center of many compositions, carved hunts, victories, and ceremonies play a role very closely related to the ruler's figure or year sign elsewhere (*Decorated Pottery and the Art of Naqada III: A Documentary Essay*) *MÄS*, vol. 45 (forthcoming, 1988). Several aspects of the palm's significance are discussed by Peter Kaplony, *Die Inschriften der ägyptischen Frühzeit*, *Ägyptologische Abhandlungen* 8 (Wiesbaden, 1963), note 1586; *Die Inschriften der ägyptischen Frühzeit, Supplement*, *Ägyptologische Abhandlungen* 9 (Wiesbaden, 1964), p. 161, note 1; *Kleine Beiträge zu den Inschriften der ägyptischen Frühzeit*, *Ägyptologische Abhandlungen* 15 (Wiesbaden, 1966), pp. 254, 259 (afterwords).

Table 1. The Falcon, Palm, and Royal Image as Central Figures on Selected Objects

<i>Object</i>	<i>Central Figure</i>
Incised Palette	Falcon heads flank incised serekh ¹⁹
Qustul incense burner	Bark with pharaoh, falcon, and animals
Hunters' palette	Doubled falcon standards flank animals ²⁰
Metropolitan Museum palette	Falcon on serekh at center of hunt ²¹ (the serekh is on a serpent)
Tarkhan spoon	Palm-Crown at center of the hunt, ²² cf. Carnarvon Knife Handle
Louvre palette	Palm opposite center of hunt (dish) ²³
Qustul bowl L23-38	Palm with hunt fragment to left, shrine to right ²⁴
Qustul bowl L19-21	Palm with victory as crown ²⁵
Lion palette	Palm opposite center of victory (dish) ²⁶
Narmer palette	Pharaoh's figure opposite victory and hunt ²⁷

The Central Group: The Neith Emblem

Like the falcons, the complex curvilinear symbol to the right can be traced through a sequence of identifiable representations (table 2). By the First Dynasty, it occurs primarily as a vertical bilobate object with a pair of crossed arrows as the standard of Neith.²⁸ Other forms also appear, however, including crossed arrows, and the package with two bows protruding from it. Still later, two bows are shown superimposed, with their tips protruding. In the sun temple of Niuserre, the combined bilobe and arrows alone appear as

19. Asselberghs, *Chaos en Beheersing*, fig. 83. The situation of the simple incised panel at the top of the palette between two falcon heads is a counterpart of the Narmer palette. For a series of palettes with various forms of this arrangement, see Kaiser, *ZÄS* 86, fig. 6.
20. W. M. F. Petrie, *Corpus of Slate Palettes and Corpus of Proto-Dynastic Pottery*, BSEA 66 (London, 1953), pl. A; Asselberghs, *Chaos en Beheersing*, afb. 122-24; Siegfried Schott, *Hieroglyphen: Untersuchungen zum Ursprung der Schrift*, Akademie der Wissenschaften und der Literatur: Abhandlungen der Geistes- und Sozialwissenschaftlichen Klasse, Nr. 24 (Wiesbaden, 1950), fig. 3; J. Vandier, *Manuel d'archéologie égyptienne. Tome premier: Les Époques de formation; la préhistoire*, (Paris, 1952), fig. 380.
21. Asselberghs, *Chaos en Beheersing*, afb. 170, fig. 26 (restoration); Fischer, *Artibus Asiae* 21, figs. 19-20.
22. For the Tarkhan spoon see Petrie, *Tarkhan II. 1913*, BSAE and ERA, vol. 26 (London, 1914), pl. I, 1925; II, 5, 14; Vandier, *Manuel*, vol. 1 pt. 2, fig. 537, 5; for the Carnarvon knife handle, see Asselberghs, *Chaos en Beheersing*, afb. 43-45, fig. 17; Bénédite, "The Carnarvon Ivory," Pls. I and II; Vandier, *Manuel*, vol. 1 pt. 1, figs. 361-62.
23. Petrie, *Corpus of Slate Palettes*, pl. B, no. 8 and C, no. 9; Asselberghs, *Chaos en Beheersing*, afb. 129-30; Vandier, *Manuel*, vol. 1 pt. 1, fig. 383.
24. OINE III, pp. 152-54, pl. 84.
25. OINE III, pp. 154-55, pls. 88-92.
26. Petrie, *Corpus of Slate Palettes*, pl. D, 13, E, 14; Asselberghs, *Chaos en Beheersing*, afb. 151-54; Schott, *Hieroglyphen*, fig. 4 (recto only); Vandier, *Manuel*, vol. 1 pt. 1, figs. 384-85; Kantor, "Ägypten," pl. 212.
27. Petrie, *Corpus of Slate Palettes*, pls. J, no. 25, K, no. 26; Asselberghs, *Chaos en Beheersing*, afb. 168-69; Schott, *Hieroglyphen*, figs. 10-11; Vandier, *Manuel*, vol. 1 pt. 1, figs. 391-92.
28. See Petrie, *Prehistoric Egypt*, BSAE and ERA, vol. 31 (London, 1920), pl. XXIII, nos. 7-8. In Petrie's scheme, *Diospolis Parva*, pl. IV, below, the long shape with curves at the ends and the middle of the sides begins before S. D. 40 and continues to almost 50. It may be replaced in later Gerzean by crossed arrows or nested horns or horns on circle, but this is doubtful. In Naqada I, it is probably a sign (*ibid.*, pl. XIV, 93 C). It is not Min, in any case, which has lines angled inward at the ends.

standards, while the bow- package appears as a sign.²⁹ The sequence of Neith standards is followed here in reverse order (table 2).

Table 2. The Development of the Neith Standard

<i>Object/Stage</i>	<i>Remarks</i>	<i>Date</i>
Superimposed bows	Two bows, bound?, ends protruding ³⁰	O. K. (+)
Bow package	Two bows, curves protruding, wrapped around the center; horizontal or vertical ³¹	O. K. (+)
Combined, package and arrows	Bows entirely covered, crossed arrows; vertical ³²	Dyn. 0-I, Later Dynastic
Crossed arrows	Horizontal ³³	Late Gerzean/ Later Naq. II; O. K. (+)
Complex bound bows	Two open curves at the ends, wrapped in the middle, two curves at the center; horizontal ³⁴	Early Gerzean/ Naq. II
Complex bound bows and crossed arrows	Same, more regular, mark ³⁵ Open curves at the ends, arrow shafts crossed in the center extend into the curves, curved lines above and below; horizontal (OIM 10542)	Naq. period Amratian/ Naq. I

The Zigzag

Just above and in front of the row of animals is an outlined zigzag bisected by a center line. All but one of the angles are slightly curved and the ends are tapered, the lower one almost to a point.

Of the three symbolic shapes associated with the animals, this one is the most difficult to identify. Zigzags appear, both alone and with other figures, as early as Amratian/Naqada I. In some cases, they are clearly serpents, with elongated, ovoid, or lozenge shaped heads and undulating bodies, often straight tails.³⁶ Zigzags also appear as standards, probably all of Min, both with the ends at obtuse and acute angles to the

29. S. Schott, "Ein Kult der Göttin Neith," in H. Ricke, *Das Sonnenheiligtum des Königs Userkaf Band II*, Beiträge zur Ägyptischen Bauforschung und Altertumskunde, vol. 8 (Wiesbaden, 1969), pp. 123-38, see figs. 15-17.

30. Schott, "Ein Kult der Göttin Neith," fig. 16b.

31. Sir Alan H. Gardiner, *Egyptian Grammar*, 2nd ed. (London, 1950), p. 503, sign R24. He describes the sign as two bows in a package. See Schott, "Ein Kult der Göttin Neith," figs. 15, 16a.

32. Asselberghs, *Chaos en Beheersing*, afb. 106; Schott, "Ein Kult der Göttin Neith," fig. 17, above left.

33. Petrie, *Prehistoric Egypt*, pl. XXIII, no. 28; see also idem, *Diospolis Parva*, pl. IV, below; Schott, "Ein Kult der Göttin Neith," fig. 17, above, second from left.

34. Petrie, *Prehistoric Egypt*, pl. XXIII, standards nos. 7-8.

35. Guy Brunton, *Matmar*, British Museum Expedition to Middle Egypt, vol. 2 (London, 1948), pl. XXII, no. 4.

36. Brunton, *Mostagedda and the Tasian Culture*, pl. XXXVIII no. 6. This is definitely a serpent, as are some in Petrie, *Diospolis Parva*, pl. XXI: numbers 36-45. See also Petrie and Quibell, *Naqada and Ballas*, pl. LIV, nos. 242-44, Brunton, *Matmar*, pl. XXII, no. 13, and possibly D. Randall-MacIver and A. C. Mace, *El Amrah and Abydos 1899-1901*, EEF, Mem. 23 (London, 1902) pl. XVII, nos. 30 and 42. See Petrie, *Prehistoric Slate Palettes*, no. 91 M.

central shaft.³⁷ Early zigzags appear made with three lines, some with claw-like appendages at one or both ends.³⁸

Although this figure may be an early form of the Min-sign, a second interpretation may better account for certain aspects of its shape and position. Its pointed lower end and general shape resemble serpents being slain or devoured by vultures in representations dating to Late Gerzean-Dynasty 0/Naqada IIIa.³⁹ The combined figure is used in much the same way on a jar in the British Museum and another from Shem Nishei in Nubia, where it precedes animals.⁴⁰

THE END GROUP

At the end of the file of animals are a river galley and a square panel with two appendages, a combination that compares closely with representations of high-ended barks approaching a paneled structure.⁴¹

The Galley

The ends of the river galley are pointed and the hull, which is much deeper amidships than at the ends is sharply tapered. It has a continuous row of oars from end to end. It also has two cabins amidships, one to the left incomplete, the other, to the right, with a high facade and a lower room behind it.

River vessels with crescent-shaped hulls and long banks of oars are a common and typical feature of early art in Egypt. This was the typical hull shape of ordinary Egyptian vessels and others in the ancient Nile Valley.⁴² In most cases, Amratian/Naqada I and Gerzean/Naqada II vessels have hulls of almost an even

37. Petrie, *Prehistoric Egypt*, pl. XXIII. The standard is not a harpoon, which has a separate development. That the zigzag and Min standards on shafts are the same is shown by a standard on a boat in Hierakonpolis T. 100 which has a zigzag shaft with at least one doubled end (Quibell and Green, *Hierakonpolis II*, pl. LXXVI, below right).
38. G. A. Reisner, *The Archaeological Survey of Nubia, Report for 1907-1908 I*, vol. I (Cairo, 1909), fig. 278 b, 61-62. One of these has a second pair of angled barb-like appendages behind the first. An outlined zigzag also appears on a blue glazed plaque from Hierakonpolis (Petrie, *Prehistoric Egypt*, pl. XXIII. see p. 42). One also appears on an Amratian/Naqada I palette (idem, *Diospolis Parva*, pl. V: B102 and Asselberghs, *Chaos en Beheersing*,afb. 64-65). See idem, *Naqada and Ballas*, potmarks 235 (1869, S. D. 38), 237 (1661), 236 (imp. 1649), 238 (206, S. D. 34), 240 (1892), 241 (320, S. D. 31-37), 242 (1481), 243 (1485), and 247 (1783, S. D. 34). Several others on the plate do not resemble the present shape closely, 244-46, and 248-253. See also LV: 407 (805), and 417 (1609, S. D. 34-38); less obvious, pl. LIII: 114 (1783, S. D. 34).
39. For a discussion of this motif, see H. J. Kantor, "The Final Phase of Predynastic Culture in Egypt, Gerzean or Semainean?", *JNES* 3 (1944): note 107 and fig. 9 F-K. See also Williams and Logan, *JNES* 46, p. 266; Williams, *Decorated Pottery and the Art of Naqada III* (forthcoming).
40. Henri Frankfort, *Studies in Early Pottery of the Near East. I. Mesopotamia, Syria, and Egypt and their Earliest Interrelations*, Royal Anthropological Institute Occasional Papers No. 6 (London, 1924), pl. XIII, 1; Kantor, *JNES* 3, p. 116; Asselberghs, *Chaos en Beheersing*,afb. 19-23; and Reisner, *The Archaeological Survey of Nubia, Report for 1907-1908 I*, vol. 1, p. 272. The position would indicate it was some kind of scene-label.
41. OINE III, pl. 34; Kaiser, *ZÄS* 86, fig. 7e; Kaiser and Dreyer, *MDAIK* 38, fig. 14, no. 12.
42. Most Egyptian vessels were made with crescent-shaped hulls if they were constructed of wood. This was true even in cases where umbels were added to give them profiles like papyrus-skiffs. See generally Bjorn Landström, *Ships of the Pharaohs* (Garden City, New York, 1971). For light war vessels with this hull shape but without the cabins, see Manfred Bietak, "Zu den Nubian Bogenschützen aus Assiut," in *Melanges Gamal eddin Mokhtar, Bd'E 97/1* (1985): 90, fig. 1.

thickness or depth from end to end and Gerzean/Naqada II vessels have rounded, sometimes “clubbed” ends. The oars are usually, though not always, arranged in two groups, forward and aft of the cabins amidships.⁴³

Although rock drawings of vessels with tapered hulls and pointed ends are not easy to date,⁴⁴ two representations of this type of vessel can be dated to the Amratian/Naqada I and the end of the Amratian/Naqada I, respectively. A small boat with a folded stern depicted on a rhomboid slate palette in Stockholm has a pointed bow and tapered hull.⁴⁵ The large river galley shown on the linen textile from Gebelein in Turin has a pointed end and tapered hull and its cabin has a high facade and a low chamber.⁴⁶

The Harpoon

Between the galley and the last animal is a vertical line with a short, angled line at the tip which can be identified as a harpoon with a single barb. A series of harpoon depictions can be traced from Amratian/Naqada I to the harpoon labels found on the Narmer Palette.⁴⁷ In the present case, the harpoon is clearly oversized, because harpoons shown in actual use with vessels are much smaller. This harpoon’s position before the vessel is remarkable, and its size and position are comparable to the harpoon on the Qustul incense burner, where it labels the pharaoh’s bark.⁴⁸ The harpoon also forms part of the label for the pharaoh’s bark on the Narmer palette,⁴⁹ it appears above painted ship processions in Gerzean/Naqada II or scattered across the background.⁵⁰ A simple harpoon without a rope is held by a man seated in the stern of a probably royal galley depicted in Hierakonpolis T. 100.⁵¹ In Amratian/Naqada I, apart from its use in hunting scenes, the harpoon appears above a bark on a box from el-Amra.⁵² It is reasonable to infer from these occurrences that the harpoon in front of or above a boat is a label for the vessel.⁵³

43. Asselberghs, *Chaos en Beheersing*, afb. 7-8 (Gerzean/Naqada II painting in white on a red Amratian/Naqada I-type jar) show an undivided bank of oars. Petrie, *Prehistoric Egypt*, pls. XX (divided bank of oars), XIX, 40 M, 41 D, 41, J, 41 N, 41 S (divided banks), and 41 U (undivided bank).
44. Winckler, *The Rock Drawings of Southern Upper Egypt, I*, The Archaeological Survey of Egypt, vol. 20 (London, 1938), pl. XXXIII: 10. M81b, 12b; Hellström and Langballe, *The Rock Drawings*, V64, V65. The latter is probably late.
45. Torgny Sève-Söderbergh, *On Egyptian Representations of Hippopotamus Hunting as a Religious Motive*, Horae Soderblomianae 3 (Uppsala, 1953), fig. 8. See also Asselberghs, *Chaos en Beheersing*, afb. 69-70. The vessel is actually a bark.
46. Giuseppe Galassi, *L'Arte del più antico Egitto nel Museo di Torino*, Revista dell'Instituto Nazionale d'Archeologia e Storia dell'Arte, Nuova Serie A. IV (Rome, 1955), pl. 1 below. The cabin of the bark above may also have a high facade and a low chamber.
47. Peter Kaplony, “Zu den beiden Harpunenzeichen der Narmerpalette,” *ZÄS* 83 (1958): 76-78.
48. OINE III, pl. 34.
49. Petrie, *Corpus of Slate Palettes*, pls. J, no. 25 and K, no. 26; Asselberghs, *Chaos en Beheersing*, afb. 168-69; Schott, *Hieroglyphen*, figs. 10-11; and Vandier, *Manuel*, vol. 1, pt. 1, figs. 391-92. The harpoon is also part of the label for the victim on the other side of the palette.
50. Petrie, *Prehistoric Egypt*, pl. XXI, 45M. A clear distinction must be made between the harpoon, which has the barb at one end, and the acute zigzag of the Min-sign. For example, see pl. XX, 43G, 44D, and 44P.
51. Quibell and Green, *Hierakonpolis II*, pl. LXXVI; Williams and Logan, *JNES* 46, pp. 251-57.
52. Randall-MacIver and Mace, *El Amrah and Abydos*, pl. XII, 10-13 (drawn in charcoal).
53. Elsewhere it labels or indicates an action that can be applied to both men and animals. See, for an example of another possible label, the panel with zigzags (hide?) attached to a palm tree, Asselbergh, *Chaos en Beheersing*, afb. 9.

The Building

At the end of the file is a square panel enclosed by two appendages that curve downward from the line that forms its top. With or without appendages, square panels of the kind found on this vessel do not occur in the painted pottery of this period.⁵⁴ Marks on pottery dating to Amratian-Gerzean/Naqada I-II depict the panel and the appendages together or separately; they can be considered both as individual objects and as an ensemble.

The Panel. The panels of this kind that appear as potmarks are squares or vertical rectangles filled with horizontal lines, hatching, or crosshatching, some of it quite irregular.⁵⁵ The patterns inside these panels strongly suggest matting, and they can be compared with mat-covered buildings that appear often in early art. Two kinds of buildings appear in painted decoration and potmarks that are most likely to be successors of this structure or the building of which it was a part:⁵⁶

1) The "pole shrine." A shrine depicted on Amratian–Dynasty 0/Naqada I–IIIa painted pottery⁵⁷ is shown as a construction of poles. The vertical poles protrude above the horizontals, and they often have shapes at the tops, such as animals' heads, or even standards.⁵⁸ Marks on pottery from Naqada and from Sudanese Nubia also depict such shrines.⁵⁹ It may be that these shrines continue in monumental art as the shrine complexes shown on the Narmer macehead⁶⁰ and a first Dynasty label.⁶¹

2) The serekh. The simplest potmarks show the serekh as a rectangular or square structure with vertical lines that are contained within the building. Where the building is depicted in detail, especially on a large scale, it is clear that these vertical lines indicate the edges of mats, poles, or reed bundles that make up the facade of the structure and mat-patterns appear even in small scale or summary representations.

The later career of the serekh as an important structure has been traced in some detail.⁶² It can also be traced in earlier representations, in forms that include both complete and partial depictions (table 3). The present panel-structure (F2) would date to an early phase in the Amratian-Gerzean/Naqada period sequence (table 4).

54. Some elements painted on pottery may ultimately be related to them, but the single panel attached to the frond of a palm tree (note 53) is probably a hide.
55. Petrie and Quibell, *Naqada and Ballas*, pl. LII: 78 (1497, S. D. 33), 79 (1780), 80 (180), 82, 83 (414, S. D. 51), and 91 (upside down, 1257, S. D. 42); different hatching, etc: 84 (295), 85 (180), 87 (with hands, 185, S. D. 47), and 88 (224). None were published from Abadiya and Hu.
56. For a discussion of various early shrines, most probably made with mats and poles, see Vandier, *Manuel d'archéologie égyptienne. Tome II. Les Grandes Époques; l'Architecture religieuse et civile* (Paris, 1955), pp. 554-74. See also H. Ricke, *Bemerkungen zur Ägyptischen Baukunst des Alten Reichs I (1944)*, Beiträge zur Ägyptischen Bauforschung und Altertumskunde, vol. 4 (Zurich, 1944), especially pp. 27-38.
57. OINE III, pls. 84-85.
58. Ibid., pls 84-85; Randall-MacIver and Mace, *El-Amrah and Abydos*, pl. XII, no. 13.
59. Nordström, *Neolithic and A-Group Sites*, pl. 26, 7.332/53B:11; Petrie and Quibell, *Naqada and Ballas*, pl. LII, nos. 77-78.
60. Quibell, *Hierakonpolis I*, pl. XXVI A and B; Vandier, *Manuel*, vol. 1, pt. 1, fig. 394.
61. Petrie, *Royal Tombs II*, pl. X, no. 2; Vandier, *Manuel*, vol. 1, pt. 2, fig. 560.
62. Kaiser and Dreyer, *MDAIK* 38, fig. 14. See generally Kaiser, "Zu Entwicklung und Vorformen der frühzeitlichen Gräber mit reich gegliederter Oberbaufassade," *Melanges Gamal eddin Mokhtar, Bd'E* 97/2 (1985): 25-37. For additional examples and some discussion of the context of the serekh, see R. H. Wilkinson, "The Horus Name and the Formal Significance of the Serekh in the Royal Egyptian Titulary," *The SSEA Journal* 13 (1985): 98-104.

Of the groups indicated on table 3, A-E and F3 are all definitely representations of serekhs. F1 and 2, and G, are more conjectural, but they are connected to the other groups but by the way they were used in compositions and not merely by their general appearance.

Table 3. Forms of the Serekh and Illustrative Material

<i>Form of the Serekh</i>	<i>Illustrative Material</i>
A. Nested frames	
1. Inverted W	White on red bowl ⁶³
2. Inverted U	Hierakonpolis T. 100 on bark ⁶⁴
3. Transitional	Siali sealings ⁶⁵
4. Rectangular	Qustul incense burner ⁶⁶ Faras Seal ⁶⁷ A-Group painting ⁶⁸
B. Vertical lines	Scratched at top of palette, between falcons ⁶⁹
C. Framed vertical lines	
1. Lines, sometimes simple matting	Early potmarks, possibly Naq. I ⁷⁰ Maadi potmarks ⁷¹ Incense burners ⁷² Horizon A-C without upper panel ⁷³
2. Horizon A, upper panel inverted V-top or straight ⁷⁴	
3. Horizon B, upper panel with concave top or straight ⁷⁵	
4. Horizon C ⁷⁶	

63. Petrie, *Prehistoric Egypt*, pl. XXIII, no. 1.

64. Quibell and Green, *Hierakonpolis II*, pl. LXXVI. (The horizontal lines in the frame could be compared to the framed mat or part of a serekh on the Metropolitan Museum palette.)

65. OINE III, figs. 58a, 59.

66. OINE III, pl. 34.

67. OINE III, fig. 58d.

68. OINE III, fig. 17 d-e, motifs 147 and 149.

69. Asselberghs, *Chaos en Beheersing*, fig. 83.

70. Petrie and Quibell, *Naqada and Ballas*, pl. LII, nos. 98 and 105, for example.

71. Ibrahim Rizkana and Jurgen Seeher, *Maadi I: the Pottery of the Predynastic Settlement*, Deutsches Archäologisches Institut, Archäologische Veröffentlichungen 64 (Mainz am Rhein, 1987), pl. 78, nos. 15-7, probably 18. Marks are not common and they may well have been made by persons from Upper Egypt.

72. OINE III, pp. 145-47, pls. 30-32.

73. Kaiser and Dreyer, *MDAIK* 38, fig. 14, nos. 3-5, 9-10, 12, 45, 46, and 48-49.

74. *Ibid.*, fig. 14, nos. 1-3, 6-8, and 11.

75. *Ibid.*, fig. 14, nos. 29-44, various.

76. *Ibid.*, fig. 14, no. 50.

Table 3. Forms of the Serekh — *Continued*

<i>Form of the Serekh</i>	<i>Illustrative Material</i>
D. Recessed panels with pits	Gebel Sheikh Suleiman ⁷⁷ Abydos bracelet ⁷⁸ Hierakonpolis ivory ⁷⁹ (Djoser enclosure)
E. Building, with panels, matting, cornice, and base	Metropolitan knife ⁸⁰ (later full depictions)
F. Single panel	
1. Potmarks, with or without "arms"	Am.-Gerz./Naq. I-II vessels ⁸¹
2. With frame, falcon above, on serpent	Metropolitan Museum palette ⁸²
G. Tree or vegetation-like combinations with mats	
1. "Trees" alone	Turin linen (with base) ⁸³ glyptic ⁸⁴
2. Combined	Petrie Museum beaker ⁸⁵ glyptic ⁸⁶

77. William J. Murnane, "Appendix C," in Williams and Logan, "The Metropolitan Museum Knife Handle and Aspects of Pharaonic Imagery before Narmer," *JNES* 46 (1987): 282-85.

78. For a discussion of the Abydos bracelet, see OINE III, p. 165 and note 35. For the Gebel Sheikh Suleiman monument, see *ibid.*, pp. 171-72 and Murnane, "Appendix C."

79. Quibell, *Hierakonpolis I*, pl. XIV; Vandier, *Manuel*, vol. 1, pt. 1, fig. 373.

80. Williams and Logan, *JNES* 46, fig. 2.

81. See above, note 53.

82. H. G. Fischer, *Artibus Asiae* 21, figs. 19-20. See p. 85 for an interpretation of the pattern in the serekh. See also Asselberghs, *Chaos en Beheersing*, afb. 170.

83. See also Galassi, *L'Arte del più antico Egitto nel Museo di Torino*, figs. 8-9 and Williams and Logan's reconstruction, *JNES* 46, fig. 15.

84. See, for example, Nordström, *Neolithic and A-Group Sites*, pl. 55, 303 A2/46.

85. Petrie, *Prehistoric Egypt*, pl. XVIII, no. 74.

86. Nordström, *Neolithic and A-Group Sites*, pl. 55, 332/42:9; Kaplony, *Inschriften Supp.*, no. 885. As the "Per-Nuw" see *idem*, *Inschriften*, nos. 37 and 38. Seal 37 has fish in front of the building.

Table 4. The Chronology of Serekh Groups.

Date	Group ⁺	A	B	C	D	E	F	G	Remarks
Dynasty I			1,4						Unified
0			1,3						
Dyn. 0/Naq. IIIb			1,2						
L. Gerz./Naq. IIIa		4,3	x	1	x	x	3	1,2	Various
Gerz./Naq. II		2	x	1			2	1,2?	Traditions
Am./Naq. I		1					1,2	1,2	

⁺For an explanation of the group headings and the numbers in the columns, see table 3.

x = group present.

The appendages. Two lines that end in oval shapes curve downward from the line that forms the top of the serekh-panel. These are commonly found with such panels in potmarks, but they do not occur in other art. In one case without the panel, the shapes are marked with crosses. In others, the appendages end in splayed lines, like hands,⁸⁷ or they simply end.⁸⁸ These appendages could be considered stays used to hold a panel upright. Alternatively, they could be arms, in the conceptual combination that appears more precisely later, when the serekh is shown embraced by ka-arms, or maces, one of which is shown dangling from a boat's cabin on the Turin Linen.⁸⁹

THE DATE AND COMPOSITION OF OIM 10542

The figures and combinations of figures found on jar OIM 10542 occur in various guises from Amratian/Naqada I to Dynasty 0/Naqada III, and some appear even later. However, exclusively late features are absent and the close resemblance of the galley to counterparts in Amratian/Naqada I should be decisive; the jar dates no later than the beginning of Gerzean/Naqada II.

Most of the figures and shapes incised on this jar also occur alone as marks on pottery and it is their appearance in a composition that makes the present vessel significant. OIM 10542 belongs to a group of complex representations from the Naqada period that depict the essential activities required of the ruler.⁹⁰

The decoration may have been organized as a continuous band or as a band made up of groups of figures. However organized, the composition resembles the upper right corner of the great painted wall in T. 100 at

87. Petrie and Quibell, *Naqada and Ballas*, pl. LII, no. 87. Compare C. M. Firth, *The Archaeological Survey of Nubia, Report for 1910-1911* (Cairo, 1927), no. 33.1 (palm with arms).

88. Petrie and Quibell, *Naqada and Ballas*, pl. LII, 85, 88.

89. A combination perhaps also implied by the pharaonic name Ka in Dynasty 0 or the appearance of the ka-sign with the royal names of Iry-Hor at Abydos and Pe-Hor at Qustul (Kaiser and Dreyer, *MDAIK* 38, pp. 232-35; OINE III, pp. 149, 164, pls 76-77.). The effect of the combination may be clarified by the depiction of Aha's serekh smiting a prisoner with a mace (Vandier, *Manuel*, vol. 1, pt. 2, fig. 558), or Narmer's unenclosed name smiting prisoners with a cudgel (Quibell, *Hierakonpolis I*, pl. XV-7; Kaplony, *Inschriften*, no. 5).

90. See Williams and Logan, *JNES* 46, especially pp. 256-57 and 271-72.

Hierakonpolis, which combines a hunt and a waiting river galley.⁹¹ Sacred symbols are absent from this hunt (although boats in the painting have standards), but the painting as a whole contains numerous references to pharaonic activities and several pharaonic figures. To the left of the galley, the ruler dances before the god in the Heb-Sed dance.⁹² The essential sequence, the hunt, the galley, the ruler, or symbolic substitute, would be the same. If the zigzag shape at the head of the file is indeed a slain serpent, this hunt would be “labeled” much as animal-files are preceded by serpents torn by vultures, as shown in an expanded form on knife handles or abbreviated on painted pottery.⁹³

Other kinds of representation share important details with OIM 10542. Sacred symbols appear with the hunt or even have the hunt take place around them. Animals scramble about the serekh with its falcon⁹⁴ or the pharaonic bark.⁹⁵ Standards take part in the action, either carried, or acting on their own by holding the lasso rope that restrains the captive(s).⁹⁶ Simple labels accompany larger figures, even as early as Amratian/Naqada I.⁹⁷

Thus OIM 10542 is an expanded version of a pharaonic activity or activities that appear in abbreviated form or as single figures elsewhere. As pointed out above, its hasty execution resulted in a design that was not really decoration, but was still too elaborate to serve any mundane purpose. The thesis has been advanced in another work that figures found on early pottery in Egypt were intended to impart the positive power of the occasion depicted to the vessel, its contents, and ultimately, to the user, to help sustain the Egyptian universe.⁹⁸

Herein lies a great debt. Although early writers often acknowledged the existence of specific signs or symbols in very early ages, differences between this period and the Manethonic numbered dynasties were strongly emphasized. As a result, responsibility for Egypt’s historical personality was often assigned to foreign influence, incursion, or to powerful forces unleashed by a rapid growth of population and major centers just before the First Dynasty. Helene J. Kantor, on the other hand, while playing a fundamental role in laying the scholarly foundation for the study of foreign features in early Egypt also stresses the deep roots of pharaonic culture in the preceding periods. This emphasis on the early origins and unbroken continuity of

91. Quibell and Green, *Hierakonpolis II*, pl. LXXV, upper right quarter; Williams and Logan, *JNES* 46, pp. 251-57 and fig. 11.

92. Williams and Logan, *JNES* 46, pp. 251-57, 271-72, and fig. 13. Also Quibell and Green, *Hierakonpolis II*, pl. LXXVI.

93. See Williams, *Decorated Pottery and the Art of Naqada III*, for discussion of the victory theme.

94. Fischer, *Artibus Asiae* 21, figs. 19-20.

95. OINE III, pp. 141-44, pl. 34.

96. Petrie, *Corpus of Slate Palettes*, pls. A and G, nos. 17-18; Asselberghs, *Chaos en Beheersing*, afb. 166-67; Schott, *Hieroglyphen*, figs. 8-9; Vandier, *Manuel*, vol. 1, pt. 1, figs. 389-90.

97. Randall-MacIver and Mace, *El Amrah and Abydos*, pl. XII, no. 11.

98. This would offer an explanation for royal symbolism that appears on private objects. It would also explain the use of royal year dates that do not refer to the specific ruler, but tie the event or object dated to a phase of universal value. The implication is that this Egyptian value already existed as a fundamental principle. Specific institutions might wax or wane to fill specific needs “in their time,” but the principle activities that expressed the value of the pharaonic state already existed and can be read.

Egypt's formal culture has pointed the way toward tracing the development of Egypt's central institutions in a time before detailed records.

“ . . . the First Dynasty of Egypt was even deeper rooted in, and an even more direct descendent of, the long line of prehistoric Egyptian cultures than has been realized.”⁹⁹

99. Kantor, *JNES* 3, p. 135.

Chapter 23

NORTH SYRIAN IVORIES AND TELL HALAF RELIEFS: THE IMPACT OF LUXURY GOODS UPON “MAJOR” ARTS

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There are striking similarities in overall style, detail, and subject matter between certain of the early first millennium ivory carvings attributed to North Syrian manufacture and the reliefs from Tell Halaf (ancient Guzana), a site located in the Habur River basin. Ivories of North Syrian type have actually been found in fragments at Tell Halaf itself, as well as at various other sites: Nimrud, Hama, Zincirli, and Hasanlu, to name the most well known. These parallels led Helene Kantor to argue in 1956 that in fact the ivories, and possibly other minor arts, must have served as the models for the stone reliefs of what was essentially a provincial and culturally backward local center.¹ Such a scenario reverses the usual direction of influence from one medium to another — a direction generally understood as moving from the so-called major arts to so-called minor arts, with scale often determining what is considered “major.”² Nevertheless, I believe a number of factors can be adduced in support of the original hypothesis, and I should like to offer these brief notes as a tribute to the extraordinarily sensitive visual observations and historical perceptions of Helene Kantor, whose work on many aspects of the art of the early first millennium B.C. laid the foundations for much of my own.

Tell Halaf was intermittently excavated under the direction of the Baron Max von Oppenheim from 1899 to 1929.³ In a royal Aramaean inscription of the tenth to ninth centuries B.C., the site was referred to as

1. H. J. Kantor, “Syro-Palestinian Ivories,” *JNES* 15 (1956): 173, following a suggestion made by P. J. Riis, *Hama. Fouilles et recherches de la Fondation Carlsberg 1931–1938. II, 3: Les Cimitières à cremation* (Copenhagen, 1948), pp. 198f.
2. See, for example, the study of M.-Th. Barrelet, “Etude de glyptique akkadienne,” *Orientalia* 39 (1970): 213–51, in which she suggests that seal engravers of palace and temple workshops would have had direct access to the major monuments of the times, and that specifically cult statuary and reliefs provided the stimulus for certain imagery on Akkadian seals (cf. p. 217).
3. Cf. synopsis in B. Hrouda, “Halaf, Tell,” *RIA* 4 (Berlin, 1972–75), p. 54; cf. also M. von Oppenheim, *Tell Halaf, eine neue Kultur im ältesten Mesopotamien* (Leipzig, 1931), a popular, narrative account of the excavations and the history of the site; and the official excavation reports, *Tell Halaf, vols. I–IV* (Berlin, 1943–1962). Actual campaign seasons were 1899, 1911–1913, and 1927–1929.

the kingdom of Palië;⁴ however Assyrian texts make reference to Guzana (bibl. Gozan), capital of Bit Bahiani, which eventually was incorporated into the empire as the province of Guzana, extending from Ras al Ain to Nisibis on the modern Turkish-Syrian border.

In terms of archaeological assemblages, both Tell Halaf and the neighboring site of Tell Fakhariyeh, excavated briefly by McEwan for the Oriental Institute in 1940,⁵ show the same pattern as a number of other North Syrian sites in the early first millennium B.C.: a pre-Assyrian phase with definite affinities with the west, and then a subsequent eighth to seventh centuries phase with ties to Assyria.⁶

The picture is complicated somewhat by the complex history of the region during the second millennium, during which time a strong Middle Assyrian presence had been pushed back by the arrival and settlement of the Aramaeans in the late eleventh–early tenth centuries.⁷ Sometime in the reign of Adad Nirari II of Assyria (911–891 B.C.), however, Assyrian power had been re-established up to the Habur, and with the western campaigns of Tukulti Ninurta II (890–884), an Assyrian presence was felt between the Habur and the Euphrates — thus preparing the way for the move of his son, Assurnasirpal II (883–859) into Syria beyond the great river.

The region of Guzana/Bit Bahiani is mentioned in Neo-Assyrian texts of 894 (Adad-Nirari II), 882 and 867 B.C., prior to the specific campaign of Adad-Nirari III in 808 B.C., where the region is designated as a province in that year's eponym list.⁸ What is not certain is whether indeed Guzana had been incorporated into the Assyrian empire earlier and Adad-Nirari III was simply putting down a revolt, or whether provincial status was new at that time.⁹

It is within this historical context that the debates concerning the dating of the carving of the Tell Halaf reliefs and their inscription by a local ruler, Kapara, have been situated. Good summaries of the arguments are contained in the most recent studies of North Syrian and southeastern Anatolian reliefs by Orthmann and Genge,¹⁰ which take as their point of departure the publication of the reliefs by Opitz and Moortgat in 1955.¹¹

4. Cf. R. O'Callaghan, *Aram Nahrain*, *Analecta Orientalia* 26 (Rome, 1948), p. 130.
5. C. W. McEwan et al, *Soundings at Tell Fakhariyeh*, OIP 79 (Chicago, 1956).
6. One could only wish that the Tell Halaf material had been recorded with as much care as that from Tell Fakhariyeh; (cf. review of B. Hrouda, *Tell Halaf IV*, by J. V. Canby in *AJA* 68 (1964): 71–72. Nevertheless, Helene Kantor, in writing on the Fakhariyeh pottery, states that the orientation of the Habur area is clearly toward the west in the early part of the first millennium B.C. She notes that the Iron Age pottery at both sites is virtually identical to that from the Amuq plain, and similar to some Palestinian Iron Age pottery as well (H. J. Kantor, "The Pottery," in McEwan et al, *Soundings*, pp. 25–29).
7. See F. Dupont-Sommer, *Les Araméens* (Paris, 1949), p. 21; W. F. Albright, "The Date of the Kapara Period at Gozan (Tell Halaf)," *AnSt* 6 (1956): 75–85; O'Callaghan, *Aram Nahrain*, pp. 103–4.
8. See citations in K. Grayson, *Assyrian Royal Inscriptions, Pt. 2* (Wiesbaden, 1976), paragraphs 433, 553, 584; discussion in Unger, *RIA II*, 428 and review of historical issues as relevant to the reliefs in W. Orthmann, *Untersuchungen zur späthethitischen Kunst* (Bonn, 1971), pp. 178–82.
9. See discussion in S. A. Kaufman, "Reflections on the Assyrian-Aramaic Bilingual from Tell Fakhariyeh," *Maarav* 3/2 (1982): 140–42.
10. Orthmann, *Untersuchungen*, pp. 119–29; H. Genge, *Nordsyrisch-sudanatolische Reliefs: Eine archäologisch-historische Untersuchung Datierung und Bestimmung* (Copenhagen, 1979), pp. 125–42.
11. D. Opitz and A. Moortgat, *Tell Halaf, vol. III: Die Bildwerke* (Berlin, 1955), which was reviewed by Kantor, *JNES* 15 (1956); and see also summaries in Hrouda, *RIA IV*, p. 54 and J. V. Canby, "Guzana (Tell Halaf)," in H. Weiss, ed., *Ebla to Damascus: Art and Archaeology of Ancient Syria* (Washington, D.C., 1985), pp. 332–38.

The stone carvings from Tell Halaf consist of a series of small orthostat slabs (average height ca. 0.60 m), a series of large orthostats (ht. ca. 1.5 m), and several sculptures in the round. A number of the slabs bear an inscription in Akkadian, identifying the palace of one "Kapara, son of Hadiani," with which building they were associated (e.g., pls. 63c and 66b). Initially, von Oppenheim wished to date the entire group of works to the twelfth century B.C.;¹² however, it soon became clear that the work could not support this early date. Since that time, some scholars (for example, Albright and O'Callaghan) have argued for a date in the tenth century, on the basis of the "early" aspects of the cuneiform script used on the reliefs; while others (for example, Akurgal and Spycket) have called for a date after the establishment of Assyrian control in 808 B.C. — i.e., in the eighth century.¹³ In general, each of these positions is based upon consideration of either the inscriptional evidence or selected stylistic factors. None of them can be sustained, however, when the total picture of the stylistic, epigraphic, archaeological, and historical factors are taken together.

Moortgat, in his 1955 publication of the reliefs, opted for a date in the late ninth century;¹⁴ although an essential part of his argument was the necessity of exposure to "Assyrian influence" in certain aspects of the reliefs — a view now understood to be an over-simplification in the dynamic of Assyria's relations with the West, since in fact Assyria often borrowed from North Syria in that period.¹⁵ Nevertheless, Moortgat may well have been correct on other grounds. In the later publication of the small finds from Tell Halaf, Hrouda also argued for a ninth century date, based in parallels in the ceramic and other artifactual assemblage.¹⁶ More recently, Orthmann seems to prefer a ninth century date on stylistic grounds, although he has left the question of a tenth century date open, and assigns the Tell Halaf reliefs to his Sph. II period, 950–850 B.C.;¹⁷ while Genge convincingly marshals evidence for a date in the first half of the ninth century, and uses both parallels with works from other North Syrian sites and links to early Assyrian works.¹⁸

The arguments are complicated by indications that the orthostats are to be divided into two groups: the larger ones are later; the smaller ones, although stylistically very similar, are both cruder in execution and earlier.¹⁹ The smaller orthostats may not have been found in their original position, as Naumann noted that they were all arranged in a careless fashion in the palace, and had apparently been reused in a secondary context.²⁰ Although a number were inscribed by Kapara, some of them actually bear vestiges of an original inscription associating the carvings with a "Temple of the Weather God" (pls. 63a and 64d).²¹ Nevertheless, the two sub-groups clearly form a single stylistic unit. Moortgat himself states that there is no essential difference in style, just in execution, between the "pre-Kapara" reliefs and those of Kapara, and Mellink

12. M. von Oppenheim, *Tell Halaf, eine neue Kultur*, p. 266.

13. E.g., Albright, *AnSt* 6, p. 85; O'Callaghan, *Aram Nahrain*, pp. 114f.; E. Akurgal, *The Art of Greece: Its Origins* (New York, 1968), pp. 114–19; A. Spycket, *La Statuaire du proche orient ancien* (Leiden-Cologne, 1981), pp. 414–15.

14. *Tell Halaf III*, p. 31: ca. 830–810 B.C.

15. Cf. I. J. Winter, "Art as Evidence for Interaction: Relations between the Assyrian Empire and North Syria," in H.-J. Nissen and J. Renger, eds., *Mesopotamien und seine Nachbarn* (Berlin, 1982), pp. 355–82, esp. 369–70.

16. B. Hrouda, *Tell Halaf, vol. IV: Die Kleinfunde aus historischer Zeit* (Berlin, 1962), pp. 8 and 76ff; see discussion in the review by Canby, *AJA* 68, p. 72.

17. Orthmann, *Untersuchungen*, p. 160.

18. Genge, *Nordsyrisch-sudanatische Reliefs*, p. 130.

19. Cf. Moortgat, *Tell Halaf III*, p. 15ff; and followed by Orthmann, *Untersuchungen*, pp. 119–23.

20. F. Langenegger, K. Müller, and R. Naumann, *Tell Halaf II: Die Bauwerke* (Berlin, 1950), pp. 15ff.

21. Cf. M. J. Mellink, "Review of Opitz and Moortgat, *Tell Halaf III*," in *AJA* 62 (1958): 438.

points out the specific details which “tend to reduce the chronological range of the early and late groups.”²² Thus, Genge, too, would see the older reliefs dated shortly before or ca. 880 B.C. and the later ones dated ca. 860 B.C..²³

In support of this dating, Genge lists what he has called the “symptoms,” the individual elements that establish parallels between the Tell Halaf reliefs on the one hand, and the reliefs of Katuwas of Carchemish (ca. 900–880 B.C.) and Assurnasirpal II of Assyria on the other;²⁴ and his list echoes very closely that put forth in my own study of 1973, which formed the background for a study of the North Syrian ivories.²⁵ The particular mixture of Neo-Assyrian and North Syrian elements, superimposed upon a local tradition surviving from the second millennium, as well as a close relationship between the reliefs and small finds from the site, present an overall picture that would be most consistent with a date in the first millennium when the Habur had already been exposed to a Neo-Assyrian presence (i.e., after the campaigns of Adad-Nirari II), but before Shalmaneser III conquered Bit Adini in 855 B.C., which cut Tell Halaf off from Carchemish and the further West — in other words, some time in the first half of the ninth century.

It is indeed unfortunate that stratigraphic control of the excavations was not sufficient for the pottery to provide an independent date for either the Kapara or pre-Kapara levels;²⁶ and it is not impossible that the reign of Kapara might have occurred slightly after the mid-century, given the secondary nature of his inscriptions and the reuse of slabs. However, the stylistic and iconographic analysis should firmly place his rule within the ninth century.

This dating is now strongly supported by the discovery of an important basalt statue of a first millennium ruler of Guzana at the site of Tell Fakhariyeh, just 4 km to the northeast of Tell Halaf. The statue is that of a free-standing, bearded male, wearing a long, wrapped garment of Assyrian type, his hands clasped at the waist. A bilingual text in Aramaic and Neo-Assyrian cuneiform covers the skirt: Assyrian on the front, Aramaic on the back.

Studies to date concentrate upon the inscription, particularly as it is at present the earliest known Aramaic text.²⁷ Dating on purely paleographic grounds could fall anywhere from the early tenth through the middle of the eighth century,²⁸ but the cluster of evidence in both texts — based upon arguments of orthography, morphology, phonology, syntax, and vocabulary, as well as upon an assessment of the likely

22. Moortgat, *Tell Halaf III*, p. 24; Mellink, *AJA* 62, p. 439.

23. Genge, *Nordsyrisch-sudanatolische Reliefs*, p. 130.

24. Genge, *Nordsyrisch-sudanatolische Reliefs*, pp. 128–29.

25. I. J. Winter, “North Syria in the early first millennium B.C., with special reference to Ivory Carving” (Ph. D. dissertation, Columbia University, New York, 1973), pp. 164ff.

26. On this, see Canby, *AJA* 68, pp. 71–72.

27. The editio princeps is that by A. Abou-Assaf, P. Bordreuil, and A. R. Millard, *La Statue de Tell Fekherye et son inscription bilingue assyro-araméenne* (Paris, 1982), but see also S. Kaufman, *Maarav* 3/2 (1982): 137–75; R. Zadok, “Remarks on the Inscription of HDYS’Y from Tall Fakhariya,” *Tel Aviv* 9/2 (1982): 117–29; J. Naveh, “The Date of the Tell Fakhariye Inscription,” *Shnaton* V–VI (1982–83): 131–41 (in Hebrew); J. Greenfield and A. Shaffer, “Notes on the Akkadian-Aramean Bilingual Statue from Tell Fekheriye,” *Iraq* 45 (1983): 109–16; D. Pardee and R. D. Biggs, “Review of Abou-Assaf et al, *La Statue*,” in *JNES* 43 (1984): 253–57; and J. Greenfield and A. Shaffer, “Notes on the Curse Formulae of the Tell Fekherye Inscription,” *Revue Biblique* 92 (1985): 47–59.

28. See Abou-Assaf et al, *La Statue*, p. 97. J. Naveh (*Shnaton* V–VI, pp. 131–41) would even argue for the twelfth century.

historical context for the content — yields a date around the middle, or in the third quarter of the ninth century.²⁹

This is important for the dating of the Tell Halaf reliefs for several reasons. The editors enumerate several stylistic and iconographic parallels for the statue amongst Assyrian works of the ninth century, particularly those of Assurnasirpal II, and cite details such as coiffure, dress, and sandals.³⁰ In fact, I believe one could go even further, and argue that while the squat proportions, enlarged eyes, and abbreviated rendering of beard- and hair-curls betray the hand of a local stone-carver; and the conscious adoption of Assyrian court dress, shoes, clasped hands, and overall stance suggest a historical period in which Assyria was setting the standard, and providing the models, for major public works of Guzana. In particular, those models seem to be the free-standing royal statues preserved from the reigns of both Assurnasirpal II and his son, Shalmaneser III.³¹ As has been discussed with regard to the Assyrian dress and coiffure affected by Kilamuwa of Sam'al also in the mid-ninth century B.C., one would need to posit a phase of conscious emulation of, if not political association with, Assyria.³²

The stylistic evidence dovetails quite nicely with the picture preserved in the two texts on the statue. The Aramaic text refers to its subject as HDYS' Y, MLK GWZN, "King of Guzana"; but in the Assyrian text, he is referred to as Had-It' i, šakin ^{uru}Gu-za-ni, "Governor of (the city of) Guzana."³³ It is argued that such a discrepancy in titles could only pertain to a historical period in which the ruler would claim the highest possible status in his own language, but in fact had already become subject to Assyria with the status of provincial governor, not king. If it were certain just when Guzana was first incorporated into the Assyrian empire, one could then provide the statue with a specific terminus post quem; however, as noted above, there are serious questions about when between 894 and 808 B.C. that shift may have occurred.

Nevertheless, the sharp stylistic contrast between the Tell Fakhariyeh statue and the sculptures of Tell Halaf helps to situate the latter at a time *prior to*, rather than after, Assyrian domination.

The points of contact between the Tell Halaf reliefs and Assyrian art have been enumerated by Orthmann and by Genge,³⁴ and they are many. Nevertheless, the dominant aesthetic is overwhelmingly Neo-Hittite — in overall style, in details, such as dress, in content, and probably in placement and alternation of

29. Abou-Assaf et al, *La Statue*, pp. 87–102, 105–9, and 112; accepted by Zadok, *Tel Aviv* 9, Pardee and Biggs, *JNES* 43, and Greenfield and Shaffer, *Revue Biblique* 92; and supported with additional evidence by Kaufman, *Maarav* 3, pp. 140–41. Such a date is also argued by Millard, "Assyrians and Arameans," *Iraq* 45 (1983): 104–5, on the basis of parallels between the Akkadian text and known texts of Assurnasirpal II of Assyria.

30. Abou-Assaf et al, *La Statue*, pp. 9–13.

31. E.g., one of Assurnasirpal II from Nimrud (Spycket, *La Statuaire*, fig. 234; and two of Shalmaneser III from Nimrud (ibid., figs. 235a–b and 236) — especially the latter, with clasped hands. When compared with a slightly later statue of a divine attendant, from the time of Adad Nirari III (ibid., fig. 231), the stylistic parallels — particularly to proportion, hands, and the way in which the hair sits on the shoulders — are considerably closer to ninth century examples than to the eighth century figure.

32. For Kilamuwa, see Orthmann, *Untersuchungen*, pl. 66b, and discussion in Winter, *Mesopotamien und seine Nachbarn*, p. 365. For the Tell Fakhariyeh statue, it is part of the picture that the Assyrian text takes pride of place on the front of the statue, and was apparently executed first, the Aramean text then set on the back and spilling over onto the hem and front (cf. comments in Greenfield and Shaffer, *Iraq* 45, p. 109). This would further suggest that the statue was done after Assyrian domination.

33. Cf. Abou-Assaf et al, *La Statue*, p. 23, l. 6 and p. 15, l. 8; also Kaufman, *Maarav* 3/2, p. 159.

34. *Untersuchungen*, pp. 149ff; *Nordsyrisch-sudanatolische Reliefs*, p. 129; and see also Winter, *North Syria*, pp. 164–65.

basalt and limestone as well.³⁵ Closest of all are the reliefs of Carchemish, the major power to the west of Guzana, on the Euphrates. The dominant role of Carchemish in providing both craftsmen and artistic influence to surrounding states in the ninth century is laid out in detail elsewhere;³⁶ and the reliefs of Tell Halaf should be dated within the period of this floruit.

The use of cuneiform in Kapara's inscription, rather than Aramaic can certainly be accounted for, first, by the relative newness of the Aramaean settlements and, second, by the long history of exposure to Assyrians and the Assyrian language in the region preceding Aramaean settlement.³⁷

The style and iconography of the Kapara and pre-Kapara sculptures argue strongly for a date prior to both the Tell Fakhariyeh statue and incorporation as an Assyrian province. This fits well also with Kaufman's analysis of the ductus of the Kapara inscriptions as unquestionably earlier than that of the Tell Fakhariyeh text.³⁸ Thus, the Tell Fakhariyeh statue, with its argued date in the third quarter of the ninth century, helps to establish the relative date of the Tell Halaf reliefs as earlier. With the identification of the father of HDYS'Y, SSNWRY, with Šamaš-Nuri, also a governor of Guzana under the Assyrians, and an eponym for 866 B.C.,³⁹ Kapara would have to have preceded both, and Genge's date in the first half of the ninth century for the Tell Halaf sculpture, or even Orthmann's open door into the late tenth century, holds well.

All of the preceding sets the stage for a discussion of the relationship between the Tell Halaf reliefs and ivory carvings of North Syrian style. It is important to establish as closely as possible the grounds for dating the reliefs independent of the ivories, so as to avoid circularity. If the ivories are themselves dated by comparison to North Syrian reliefs, and then selected reliefs are dated by the ivories, we become mired in a self-reflexive (and self-serving) series of tautologies. However, before we pursue questions of chronology, it would be well to enumerate the extraordinary series of parallels between the reliefs and ivories.

Many of the salient features of the two sets are enumerated by Moortgat in *Tell Halaf III*, and then commented upon by Helene Kantor in her review article of that volume.⁴⁰ They are further discussed by both Orthmann and Genge.⁴¹ The parallels noted concentrate on the treatment of animal bodies, especially lions and sphinxes, and include identical stylized rendering of details such as tufted manes, braided hair along the line of the belly, hatched dorsal border, incised ribs and flame-shaped markings on rear flanks. To this list may be

35. Cf. Genge, *Nordsyrisch-sudanatolische Reliefs*, p. 138; Winter, *North Syria*, pp.163–65; and Mellink, *AJA* 62, p. 439.

36. Winter, "Carchemish *ša kišad puratti*," *AnSt* 33 (1983): 177–97.

37. In other words, the very cursory cuneiform inscriptions scratched onto the reliefs of Tell Halaf are a quite different phenomenon from the highly sophisticated and more carefully executed text on the Tell Fakhariyeh statue, and may well reflect superficial second millennium, or early first millennium, exposure to the language, not current cultural immersion. By the same token, there are also a number of traces of second millennium art in the reliefs, as discussed by Genge, *Nordsyrisch-sudanatolische Reliefs*, pp. 139–40.

38. Kaufman, *Maarav* 3/2, p. 140.

39. Cf. Abou-Assaf et al, *La Statue*, p. 103; Kaufman, *Maarav* 3/2, p. 141; and Millard, *Iraq* 45, pp. 104–5. The passage in which Šamaš-nuri is mentioned (Grayson, *Assyrian Royal Inscriptions* 2, paragraph 587) is one in which Assurnasirpal II records that in the eponym of Š-n, he campaigned up the Euphrates and received tribute from Kummuh — a state to the north of Carchemish. This in itself is suggestive; since no campaign in or tribute from Bit Bahiani is mentioned, it implies that the territory through which the Assyrian army would have passed to get to Kummuh was already under Assyrian control, thus strengthening the possibility that the eponym could indeed be identified with the father of the Assyria-oriented Had-It'i and also that Guzana was established as a province well before the status recorded by Adad-nirari III in 808 B.C.

40. Kantor, *JNES* 15, pp. 171–74.

41. Orthmann, *Untersuchungen*, pp. 165–67; Genge, *Nordsyrisch-sudanatolische Reliefs*, pp.134–42.

added the highly schematic segmented pattern at the joints of the hind legs, and markings on forepaws. These details are best seen in specific comparisons, for example, between a small ivory pyxis of the Loftus Group from the Burnt Palace at Nimrud and one of the large orthostats from Tell Halaf (pl. 62a and b).

Although the parallels are clearest with the large Tell Halaf lion, the care in rendering it and the stylization of the body mirrors exactly that of the lion on the ivory pyxis; the same details, executed in a more schematic fashion, are observable on the small orthostats as well (cf. pl. 63a). This would support Kantor's view that we are dealing not with a true stylistic evolution, but rather with developing refinements and increased skill on the part of the sculptors in the interval between the two sets of carving.⁴²

On the ivories, in addition to lions, these body-markings are found only on sphinxes and griffins, where the leonine component of the *mischwesen* makes their use appropriate; however, on the reliefs, they characterize, with varying degrees of competence, the rendering of sphinx, bull, caprid, and chimera alike (cf. pls. 63b, c, and 64b).⁴³ This indiscriminate application is an important part of the argument that details as well as motifs were transferred wholesale from the ivories to the reliefs.

A number of other parallels may be pointed out across the repertoire of North Syrian ivories and Tell Halaf reliefs. On an ivory panel showing a winged sphinx before a voluted tree, found in Room SW37 of Fort Shalmaneser at Nimrud, for example, we find a representation virtually identical to one of the small orthostats from Tell Halaf in the flexed haunches, double row of wing feathers, frontal face with long framing hair-curls, and raised forepaw (pl. 64a and b). The floppy cap traditionally worn by winged sphinxes on the ivory pyxides is the same as that worn by a kneeling spearman on one of the reliefs (pl. 64c and d); while his posture is identical with that of a bowman on a small fragment of a pyxis, where we see the same stock proportions, hind knee bent under and front leg extended, and the same belted kilt with hatched center panel.⁴⁴ Parallels also may be found in the violent confrontations between men and lions, or between lions and bulls.⁴⁵ The particular form of the North Syrian volute tree, with vertical, very leafy fronds issuing from the volutes, and a combination of both up- and down-turned volutes is also similar (pl. 65a and b). And finally, the motif of a chariot hunt, with a dog running beneath the belly of the horse, is shared in the repertoires of both ivories and orthostats, with close correspondence in the prancing posture of the horses and their shoulder ornaments (pl. 66a and b).⁴⁶

Such remarkably close correspondences would warrant speculation of a common source for both ivories and reliefs, even if the only ivories we knew were those from Nimrud. However, it is also the case that

42. See Kantor, *JNES* 15, p. 172, following Moortgat, *Tell Halaf III*, p. 24. In fact, one could even use this parity between large and small orthostats, divided only by competence, not style, as evidence for their contemporaneity. In the Hilani of Bar Rakib at Zincirli, as a parallel case, although the whole series of orthostats was conceived as a unit, better-skilled sculptors were reserved for the larger reliefs of the king and servants immediately adjacent to the doorways, while less-skilled carvers did the processions of additional servants that followed (see Orthmann, *Untersuchungen*, pl. 63b, c and f, as compared with pl. 64a and c).

43. Cf. Orthmann, *Untersuchungen*, pls. 8f, 9b, c, 10b, 11e, f, g, 12a, c.

44. R. D. Barnett, *A Catalogue of the Nimrud Ivories*, 2nd ed., London 1975, pl. 39: S.65z.

45. E.g., Orthmann, *Untersuchungen*, pls. 9b and 11e, compared with Barnett, *Catalogue*, pyxides S.2, 20 and S.5, 74, 158c.

46. Although, of course, this theme is also found in the ninth century reliefs of Carchemish (Orthmann, *Untersuchungen*, pl. 37b), the parallels between the ivory and Tell Halaf carving are far closer than either to Carchemish, especially in the position of the horses, and presence of shoulder ornaments, as well as in the absence of a yoke-pole strap, visible at Carchemish and on contemporary reliefs of Assurnasirpal II from Nimrud.

several fragments of ivory, which are in this same North Syrian style, were found at Tell Halaf itself. They include parts of lion bodies with identical markings to the Nimrud pieces and to the reliefs; pieces of a pyxis with goats' feet, that have the same delicate striated markings as on an inlaid pyxis from Nimrud and can also be related to a relief from Tell Halaf with an identical pair of goats flanking a tree; and finally, on the same pyxis, fragments of parts of the lower trunk of a volute tree with down-turned curls at the base, as on many of the ivories and reliefs.⁴⁷ Thus, despite the very fragmentary condition of the ivories from Tell Halaf, they provide a crucial link between the more complete works from Nimrud and the reliefs, which demonstrate access at the site to the style and motifs of the larger ivory corpus.

The correspondences are so close as to preclude vague notions of membership in a general "North Syrian *koine*." Although the reliefs of Tell Halaf have been shown to share many elements of style (facial physiognomy and proportions) and iconography (chimerae, "Humbaba" combats, and chariot hunts) with reliefs of other ninth century states of North Syria and southeastern Anatolia, none of the other groups of reliefs comes so close to the ivories, nor to each other. Each can be demonstrated to be a coherent local manifestation, with its own properties that distinguish the sub-group and set it apart from the others.

Since this is not the case in the relationship apparent between the Tell Halaf reliefs and the ivories, however, one must seek another explanation for the phenomenon. The confluence of reliefs and ivories at the same site could certainly give rise to the hypothesis that the ivories were manufactured at Tell Halaf, and distributed from there to other parts of the ancient Near East, with the fixed monuments, the reliefs, providing the "local" style from which the ivories were copied, or to which the ivories also belonged.⁴⁸

Against this is generally marshaled the evidence of the extreme crudity of the reliefs when compared to the subtle, modeled carving of the ivories.⁴⁹ It is certainly conceivable that the Tell Halaf reliefs are crude because they are *earlier* than the ivories. It is also conceivable that the discrepancy in quality is due rather to differing degrees of excellence in two different but contemporary media. For example, to take a case in reverse, with all of the delicacy of modeling and plasticity achieved in Neo-Assyrian reliefs of the ninth century, it would appear that Assyrian ivory carving was confined to incision.⁵⁰ Drawing is comparable, but not mastery of technique. So it could be the case that the region of Tell Halaf simply excelled in the carving of ivory and was undeveloped in the carving of stone. After all, we know that elephants were ranging in the Habur area,

47. See Hrouda, *Tell Halaf IV*, pl. 9 bottom, as compared with our pls. 62a, b, and 63a; pl. 10 bottom, as compared with Opitz and Moorgat, *Tell Halaf III*, pl. 86a and Barnett, *Catalogue*, S.48; and *Tell Halaf IV*, pl. 10 bottom, again, as compared with our pl. 65b (or, even better, *Tell Halaf III*, pls. 71–76) and Barnett, *Catalogue*, S.31 a–c. In addition, several female heads in the round, with high polos and long hair curls, were found in the same grave as the animal-body fragments, and appear identical to examples from Nimrud: cf. *Tell Halaf III*, pl. 9 above, compared to Barnett, *Catalogue*, pls. 70–73.

48. This argument has in fact been used by the present author as a general rule (see *AnSt* 33, p. 185). Its application, however, is contingent upon demonstration that there is no reason not to apply it. Suggestions why Tell Halaf should not conform to this rule are developed below.

49. Mellink, *AJA* 62, p. 439: "The poor quality of the small orthostats belies the lack of a local sculptural tradition at Halaf."

50. See M. E. L. Mallowan and L. G. Davies, *Ivories in Assyrian Style*, Ivories from Nimrud, 1949–1963, fasc. 2 (Aberdeen, 1970).

since Assyrian kings Tiglath-pileser I and Assurnasirpal II hunt them there; and the second millennium ivories from Tell Fakhariyeh provide a historical precedent for ivory work in the area.⁵¹

Nevertheless, at Tell Halaf, the ivories surpass the reliefs by such a distance, not only in technique, but also in drawing, composition, and overall conception, that it is difficult to conceive of them as co-products of a contemporary culture. In the case of the Assyrian reliefs and ivories, the same mastery of drawing is evident; it is only in technique that the two sets differ. At Tell Halaf, by contrast, quality of drawing as well as execution separates the two media.

The solutions of Riis, Moortgat, and Kantor are clearly that imported ivories provided not only the stimulus, but the models for the reliefs; and this is amplified by Kantor's observation that the closer the Tell Halaf reliefs are to known ivories, the better their overall composition; when they diverge, it is always to the loss of the coherence of the scene (as with our plate 63a, where the bowman seems to stand on the back of the animal he is hunting.)

The ivories surpass the sculptures, suggesting that the stone-cutters at Tell Halaf, when suddenly called upon to produce large-scale sculptures, had at hand a well-established tradition for the representation of animals, but for more elaborate compositions, had to eke out their own clumsy inventions . . .⁵²

In the end, any discussion of which medium may have provided the model for the artisans must be predicated at least to some extent upon chronology. Unless we can demonstrate that North Syrian ivories of this type were contemporary with, or better yet, existed prior to, the suggested dates for the carving of the Tell Halaf reliefs, we cannot hope to establish the directionality of the stimulus.

We may now return, therefore, to the dating of the ivories. Circumstantial evidence supporting the presence of quantities of finished ivory goods of high quality in the possession of North Syrian states during the ninth century B.C. is provided by references in Assyrian tribute lists and visual records of Assurnasirpal II and Shalmaneser III.⁵³ Unfortunately, however, only Hasanlu provides a secure archaeological context within the ninth century for ivory fragments of the identical stylistic group we are discussing;⁵⁴ and that date is merely a terminus ante quem, corresponding to the destruction of Hasanlu toward the end of the century. It does not place the ivories at the 880/860 B.C. date suggested by Genge for the reliefs.

The best, if not wholly secure, evidence comes from Tell Halaf itself. At least some ivory fragments belonging to the North Syrian animal style were found in a grave below a statue of a seated female.⁵⁵ It is

51. Grayson, *Assyrian Royal Inscriptions 2*, paragraphs 44 and 681; H. J. Kantor, in D. McEwan et al, *Soundings at Tell Fakhariyah*, pp. 57–68 (although the lack of any Mitannian elements on the Fakhariyah ivories, as noted by Kantor, calls into question their origin in the region, it is possible that they, too, were imports from elsewhere in the 2nd millennium).
52. Kantor, *JNES* 15, p. 173; see also on this the comments of Canby, in *Ebla to Damascus*, p. 338.
53. Grayson, *Assyrian Royal Inscriptions 2*, paragraphs 584, 602; Luckenbill, *ARAB I*, paragraphs 475, 476, 585, 593; L. W. King, *The Bronze Reliefs from the Gates of Shalmaneser, King of Assyria* (London, 1915), pls. 28 and 33, and discussion in Winter, "Carved Ivory Furniture Panels from Nimrud: A Coherent Subgroup of the North Syrian Style," *Metropolitan Museum Journal* 11 (1976): 53.
54. For example, sphinxes with identical body-markings and pointed caps as our pl. 64c and d: cf. O. W. Muscarella, *Catalogue of Ivories from Hasanlu, Iran*, University Museum Monographs, vol. 40 (Philadelphia, 1980). See the discussion on chronology, pp. 218–20, and especially catalogue nos. 226, 227, 229. Also see the discussion in Winter, "Phoenician and North Syrian Ivory Carving in Historical Context," *Iraq* 38 (1976): 15.
55. See discussion in Genge, *Nordsyrisch-sudanatische Reliefs*, p. 134, and references in Orthmann, *Untersuchungen*, p. 552: X/1. The ivories, fragments of animal bodies, are illustrated in Opitz and Moortgat, *Tell Halaf III*, fig. 10 and Hrouda, *Tell Halaf IV*, pl. 9 bottom (and discussed, pp. 9–10, 21, and 117). Orthmann notes that it is not certain

unfortunate that the stratigraphic control of the early Halaf excavations is not better, for one simply cannot be certain that this grave was not sunk from a later period; however, the style of the associated sculpture argues for its placement no later than the Kapara palace period,⁵⁶ which would thus put the ivory work in direct contemporaneity with at least the later phase of carving at the site.

In summary, then, the arguments that support the view that ivory carvings of North Syrian style were the source for (at least some of⁵⁷) the reliefs from Tell Halaf include: 1) the known mobility of these ivories in this period; 2) the identity, not just similarity, of specific stylizations and motifs; 3) the wholesale transfer of certain stylizations, like the flame-shaped markings on haunches, to animals where they do not belong, thus suggesting “copying” on the reliefs; and finally, 4) the shared general chronological range for the two media.

I would emphasize that the above in no way confirms that the ivories preceded and were used as models for the reliefs; rather, the evidence at present merely *does not disconfirm* such a reconstruction. The ivory objects themselves, especially the small pyxides, no larger than 6–8 cm in height and easily held in hand, would then have served in a manner no different from the “pattern books” so often hypothesized in the absence of alternatives as the means of transferring motifs and styles.

The present article is not the forum in which to discuss the likely place of origin of this particular group of ivories within North Syria. I would simply point out that I do not find the suggestions of Riis and others that Hama (ancient Hamath) was the center of production to be convincing, simply because two fragments of carved plaques in this style were found there,⁵⁸ any more than the presence of a clay plaque in the same style from Zincirli is sufficient to prove that it originated in Sam'al.⁵⁹ Given the mobility of the ivories through commercial exchange, booty, tribute, or gifting — all of which can be demonstrated in our period,⁶⁰ without considerably more evidence for workshops, or for shared traditions with other media at a particular center, one cannot argue for one candidate over another.

whether other fragments were found with these or not. Although in the catalog Hrouda gives the same provenance for the female heads in the round and the goat-and-tree pyxis fragments (*Tell Halaf IV*, p. 21), in the discussion (p. 9) he is only certain about the association of the female heads and the animal bodies.

56. Genge, *Nordsyrisch- sudanatolische Reliefs*, p. 134.

57. I do not wish to oversimplify the issue. Both Kantor and Genge outline the evidence for continuity within the Habur region from the Mitannian period (*JNES* 15, p. 108; *Nordsyrisch-sudanatolische Reliefs*, pp. 131–33); connections to sculpture from Carchemish on the one hand and Assyria on the other have been referred to at various points above; and it is not impossible that other portable objects, in addition to the ivories, could have been used as models for the Halaf reliefs. In particular, one may cite a group of chased and inlaid gold plaques, possibly part of a scabbard, found in a grave below the level of Kapara's palace (Hrouda, *Tell Halaf IV*, pl. 1: 1–7). They represent two goats opposite a tree and a bull with forward horns and legs that seem to hang from the body without supporting weight. The motifs and the style can be compared directly to the reliefs (cf. Moortgat, *Tell Halaf III*, pl. 86a, Orthmann, *Untersuchungen*, pl. 8c, for example). However, none of these additional possible sources for the reliefs takes away from the equally important, even dominant, role of the ivories — particularly as the motif of two goats opposite a tree occurs in ivory as well as in the gold.

58. As first argued by Riis, and Barnett, and as followed by Genge (cf. discussion, with bibliography, in Genge, *Nordsyrisch- sudanatolische Reliefs*, pp. 135ff).

59. Illustrated in F. von Luschan, *Ausgrabungen in Sindschirli V* (Berlin, 1943), pl. 9: i; and discussed in Winter, *North Syria*, pp. 362–63.

60. See discussion in Winter, *North Syria*, pp. 407–29.

This does not preclude our construct that the ivories were indeed imports into Tell Halaf, however. If the Hama hypothesis is not convincing, neither is the suggestion that the ivories came from Tell Halaf itself. The absolute identity between ivories and reliefs in stylistic details and their dissimilarity in quality and conception argue against both being of local manufacture. So does the circumstantial evidence preserved in the important, Ninurta Temple inscription of Assurnasirpal II in which Bit Bahiani is mentioned.⁶¹ Tribute from the state is itemized as chariots, horses, silver, gold, tin, bronze, and bronze cauldrons. Directly following this account, as part of the same march, we are given the tribute coming first from Bit Adini, immediately to the west, and then from Carchemish, across the Euphrates. In both of the latter cases, the same chariots, horses, and precious metals are listed; however to this list is also added a considerable assortment of finished goods, including quantities of ivory dishes, couches, chests, and thrones.⁶² The implications to be read from such detailed accounts is that Bit Bahiani was not as wealthy as either Bit Adini or Carchemish, and that it had nowhere near the same degree of luxury goods at its disposal. Specifically, the omission of ivory at least serves to support our hypothesis that Tell Halaf was not an important center of ivory production, or even accumulation.

What remains is to provide some explanation of the cultural and historical context in which such a dynamic of imported goods as stimulus for large-scale sculpture could have been operative; and in fact there is only one way in which all of the historical factors known for the period plus the peculiar turn-about of inspiration from minor to major scale may be understood. That is that the ivory was deemed important in the Habur — not only economically valuable, but sufficiently valuable in cultural terms that its use as a prime model was acceptable, if not desirable.⁶³

I believe the key to the Tell Halaf scenario lies in the fact of the presence of elephants, and hence of ivory as a raw material, in the Habur; followed by the hypothesis that ivory was not actually worked there. Rather, the tusks would have been shipped out to be worked elsewhere — to a place with a class of highly skilled artisans producing for a luxury tradition, and sufficient market for the luxury goods to sustain the industry (the most likely place in this case being Carchemish, a commercial center very near by, with which Tell Halaf had connections in the ninth century, as demonstrable through common elements in their reliefs). And since the ivory would have been not only a local resource, but possibly also a source of livelihood for the provincial Habur capital, the finished ivory carvings — some of which would then have been shipped back to Tell Halaf — took on sufficient importance to become the models for the reliefs.

61. Grayson, *Assyrian Royal Inscriptions* 2, paragraph 584.

62. *Ibid.*, paragraph 584.

63. There is one other case known to me in the art-historical record in which a close relationship existed between the work of ivory carvers and sculpture in stone, and that is at the Buddhist site of Sānchī in central India. On one of the jambs of the Southern Gateway of the Great Stupa, an inscription records that the carving itself was done by the “ivory-workers of Vidiśā” (cf. Sir J. H. Marshall, *Monuments of Sānchī*, Calcutta, 1940, pp. 117, 342). It is an interesting case, but significantly different from what we find at Tell Halaf, for at Sānchī, Marshall observes how perfectly the craftsmen adapted their technique to stone, at the same time preserving the refinement and delicate modeling characteristic of ivory carving (*ibid.*, pp. 120–21). He suggests that the explanation for this is to be found in the absence of a developed stone-carving tradition in Vidiśā, so that when it came time for the wealthy patrons of that town, amongst others of the area, to commission work for the temple, they called upon local craftsmen “accustomed to work in other materials” (*ibid.*, p. 153). In the Sānchī case, then, it is the skilled ivory workers themselves who execute work in stone. At Tell Halaf, we would argue, it is relatively unskilled local carvers who use the work of skilled ivory carvers as models for their stone reliefs.

To the extent that we can recognize coherent sub-groups of the North Syrian style, I discuss the evidence for their association with multiple centers of production within the North Syrian region on other occasions, as well as the likelihood that Carchemish in particular would have been exporting influence, craftsmen, and goods.⁶⁴ An essential perspective comes from the broader evidence provided by modern economic geography, which deals with the importance of such centers not only in terms of the control of resources sufficient for production, but also in terms of the importance of subsequent means of distribution. Christaller, for example, notes that while raw materials are collected from the periphery of "central places," luxury goods are most economically manufactured at or around urban centers where consumers congregate, or from which travel sets out.⁶⁵ Haggitt specifies that industrial activities are more likely to be located near the place from which the goods will be distributed as merchandise than near the sources of the raw material.⁶⁶ And to this may be added the frequently attested practice of shipping finished goods as partial payment back to the original source of the material, as with Greek metal vases distributed within the Halstatt mining complex, from which the Greeks were getting some of their metals.⁶⁷

All of these factors provide the framework in which to see the specific situation of Tell Halaf/Guzana in the ninth century B.C. Once we posit that the ivories found at Tell Halaf were not manufactured there, and that the similarities in style and content between the reliefs of Tell Halaf and the ivories were the result of copying from the ivories into stone and not vice-versa, we must seek for the particular socio-economic dynamics that would explain this unusual direction of the artistic process. Such dynamics are best understood in terms of the situation of Tell Halaf within the Habur basin, near presumed sources of ivory; of the shipment of tusks to and manufacture of ivories at nearby centers, such as Carchemish, which were considerably more developed in the period than the relatively recent Aramean settlements in the Habur; of the reshipment of a portion of the finished pieces as luxury goods back to Tell Halaf; and then the use of the ivories, which would have had importance as a local resource, and possibly also as a source of the site's income, as appropriate inspiration for the reliefs. We would thus see the Tell Halaf reliefs as not merely manifesting a dependence upon the ivories in the absence of a developed artistic tradition of its own, but as purposefully absorbing, emulating even, the "high-class" artistic production of important centers to the West, via a medium of particular cultural and economic importance to the local region, and at a time when historically the state was oriented toward its sister Aramean and Luwian states in the West, not toward Assyria.

64. Winter, *Metropolitan Museum Journal* 11, esp. p. 53; idem, *AnSt* 33, esp. pp. 186, 196. The exclusion of Tell Halaf from this production must be viewed in terms of the relatively recent settlement by Arameans at the site, as distinct from the more established Luwian urban centers, such as Carchemish or Patina, or even those places, like Bit Adini or Sam'al, where an Aramean population simply replaced, or integrated, with the previous Luwian residents.

65. W. Christaller, *Central Places in Southern Germany* (Englewood Cliffs, NJ, 1966 [originally published Jena, 1933]), p. 20.

66. P. Haggitt, *Locational Analysis in Human Geography* (London, 1965), p. 136.

67. See D. Clarke, *Analytical Archaeology* (London, 1968), p. 420.



(a) Nimrud: Ivory Pyxis. Lion Combat.
Ht. 8.5 cm. Burnt Palace



(b) Tell Halaf: Large Orthostat, Basalt. Walking Lion.
Ht. 1.5 m. Formerly in the Tell Halaf Museum, Berlin.

Plate 63



(a) Tell Halaf: Small Orthostat, Basalt.
Bowman and Lion. Ht. 0.61 m.



(c) Tell Halaf: Small Orthostat, Limestone.
Rampant Goat. Ht. 0.62 m.



(b) Nimrud: Ivory Pyxis. Griffin Slayer.
Ht. 5.8 cm. Burnt Palace.



(a) Nimrud: Ivory Plaque.
Winged Sphinx. Ht. 8.8
cm. Fort Shalmaneser.



(c) Nimrud: Ivory Pyxis. Winged Sphinx.
Ht. 7 cm. Burnt Palace.



(b) Tell Halaf: Small Orthostat, Basalt.
Winged Male Sphinx.
Ht. 0.64 m.



(d) Tell Halaf: Small Orthostat, Basalt.
Kneeling Spearman. Ht. 0.57 m.

Plate 65



(a) Nimrud: Ivory Pyxis Fragment. Sphinxes Opposite Tree. Ht. 6 cm. Burnt Palace.



(b) Tell Halaf: Small Orthostat, Limestone.
Volute Tree. Ht. 0.67 m.



(a) Nimrud: Ivory Pyxis (same as pl. 62a). Chariot Hunt.



(b) Tell Halaf: Small Orthostat, Basalt. Chariot Hunt. Ht. 0.53 m.

Chapter 24

ANCIENT EGYPT AND THE RED SEA TRADE: THE CASE FOR OBSIDIAN IN THE PREDYNASTIC AND ARCHAIC PERIODS

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FOREWORD

It is indeed a pleasure to dedicate this contribution to Professor Helene Kantor who long ago demonstrated the importance of Egypt's early foreign relations. In a series of studies she pointed out the close relationship between Egypt and southwestern Asia which began in the fourth millennium B.C.¹ While recent work in the Negev/Sinai and Lower Egypt has shed new light on this relationship,² her initial observations remain sound and the basis for all recent and on-going work.

A number of people have made this paper possible. The author would especially like to thank the staff at IsMEO in Rome, and particularly M. Tosi, A. DeMaigret, and R. Fattovich. F. Di Mario and A. Zarattini supplied additional data from Yemen and Sudan. J. Whitney and D. Clark of the U.S.G.S. provided additional information on Arabian obsidian sources. C. van Siclen, B. Williams, M. Hoffman, and F. Hassan provided additional information and obsidian samples from Egypt. W. Isenberger drafted the maps and plates for this study. Finally, this study could not have been possible without the dedicated effort of V. Francaviglia of Rome who supplied complete analyses and printouts for obsidian samples from the Arabian peninsula.

1. Helene J. Kantor, "The Early Relations of Egypt with Asia," *JNES* 1 (1942): 174–213; idem, "The Final Phase of Predynastic Culture, Gerzean or Semainean?," *JNES* 3 (1944): 110–36; idem, "Further Evidence for Early Mesopotamian Relations With Egypt," *JNES* 11 (1952): 239–50; idem, "The Chronology of Egypt," in R. Ehrich, ed., *Relative Chronologies in Old World Archaeology* (Chicago, 1954), pp. 1–27; idem, "The Relative Chronology of Egypt and Its Foreign Correlations before the Late Bronze Age," in R. Ehrich, ed., *Chronologies in Old World Archaeology*, Second Edition (Chicago, 1965), pp. 1–46.
2. I. Beit-Arieh, "Two Cultures in Southern Sinai in the Third Millennium B.C.," *BASOR* 263 (1986): 27–54; O. Bar-Yosef et al, "Nawamis and Habitation Sites near Gebel Gunna, Southern Sinai," *IEJ* 36 (1986): 121–67; Ibrahim Rizkana and Jurgen Seeher, "New Light on the Relation of Maadi to the Upper Egyptian Cultural Sequence," *MDAIK* 40 (1984): 237–52; idem, "The Chipped Stones at Maadi: Preliminary Reassessment of a Pre-dynastic Industry and its Long-Distance Relations," *MDAIK* 41 (1985): 235–55.

INTRODUCTION

In this paper, the focus is on a small aspect of early foreign trade which involved Egypt and her neighbors to the far south. While the analysis of obsidian itself may appear to be rather insignificant at first glance, the implications for long distance trade to the south, the location of the land of Punt, and the techniques of ship building and shipping will all arise in this discussion. While in specific cases, I will refer to obsidian samples from the Old Kingdom and later, the thrust of the study will focus on the Predynastic–Archaic periods. For it is in these periods that the underlying pattern of Egyptian trade into the Red Sea was established.

Obsidian, as a natural glass of volcanic origin, can be studied by classical petrochemical methods,³ but, in terms of archaeological investigations, trace element analyses were discovered as a means for identifying the trade route patterns. Obsidian became an ideal object to research due to its homogeneous nature and the apparent ease with which different sources could be identified based on trace elements. Additionally, since early obsidians were prized for their flaking ability and their extremely sharp edges, and archaeologists could recover their remains very systematically, the study of obsidian distribution became rather popular. Initial work by optical emission spectroscopy helped determine Neolithic and Bronze Age distribution patterns in the Aegean, Mediterranean, and Anatolia (fig. 42).⁴ Subsequent techniques have refined the process of identification and more precise trade patterns have been identified.⁵ Simultaneously, more sophisticated models and interpretation techniques have been set up to deal with obsidian trade and distribution.

In terms of understanding Near Eastern Neolithic obsidians, perhaps the Anatolian sources are the best known, as they are identified as the primary sources for obsidian trade into Anatolia, the Levant, Mesopotamia, Iran, and as far south as eastern Arabia.⁶ Anatolian obsidian was recovered along the Levantine coast as far south as Beidha in Pre-Pottery Neolithic context,⁷ and more recently in the Negev at Nahal Lavan

3. V. Francaviglia, "Characterization of Mediterranean Obsidian Sources by Classical Petrochemical Methods," *Preistoria Alpina* 20 (1984): 311.
4. J. R. Cann and C. Renfrew, "The Characterization of Obsidian and its Application to the Mediterranean Region," *Prehistoric Society Proceedings* 30 (1964): 111–30; C. Renfrew, J. R. Cann, and J. Dixon, "Obsidian in the Aegean," *Ann. Brit. Sch. Athens* 60 (1964): 225–47; B. R. Hallam, S. E. Warren, and C. Renfrew, "Obsidian in the Western Mediterranean: Characterization by Neutron Activation Analysis and Optical Emission Spectroscopy," *Prehistoric Society Proceedings* 42 (1976): 85–110; J. R. Cann, J. E. Dixon, and C. Renfrew "Obsidian Analysis and the Obsidian Trade," in D. Brothwell and E. Higgs, eds., *Science and Archaeology* (London, 1971), pp. 578–91; J. E. Dixon, "Obsidian Characterization Studies in the Mediterranean and Near East," in R. Taylor, ed., *Advances in Obsidian Glass Studies* (Park Ridge, New York, 1976), pp. 288–333.
5. C. Renfrew, "Trade as Action at a Distance: Questions of Integration and Communication," in J. Sabloff and C. C. Lamberg-Karlovsky, eds., *Ancient Civilization and Trade* (Albuquerque, 1975), pp. 3–60; idem, "Alternative Models for Exchange and Spatial Distribution," in T. K. Earle and J. Ericson, eds., *Exchange Systems in Prehistory* (New York, 1977), pp. 71–90; R. Torrence, *Production and Exchange of Stone Tools. Prehistoric Obsidian in the Aegean* (Cambridge, 1986), pp. 94–96.
6. Mellaart, *The Neolithic of the Near East* (London, 1975); Dixon, "Obsidian Characterization Studies in the Mediterranean and Near East," figs. 15.8, 15.13.
7. Mellaart, *The Neolithic of the Near East*.

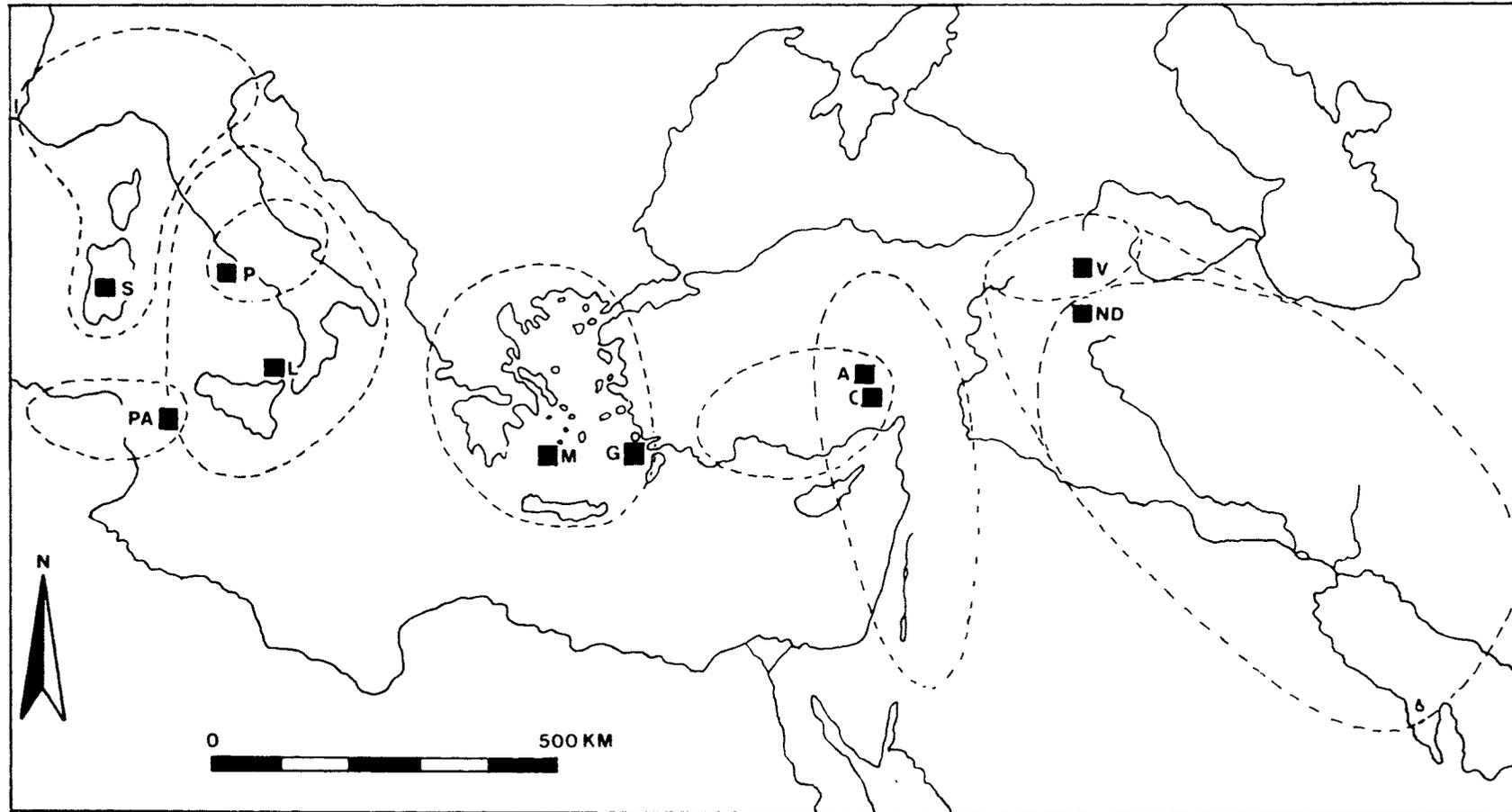


Fig. 42. Distribution Patterns of Obsidian from Recognized Sources in the Mediterranean and Asia Minor. Key: A = Äcigol, C = Çiftlik, G = Giali, L = Lipari, M = Melos, ND = Nemrut Dagh, P = Pontine Islands, PA = Pantellaria, S = Sardinia, V = Lake Van.

109.⁸ However, as Mellaart noted long ago, Egyptian populations of the eighth-sixth millennia B.C. did not participate in this trade.⁹ This is clearly affirmed by the lack of obsidian at Sinai and Jordanian Pre-Pottery Neolithic/Pottery Neolithic sites.¹⁰

For subsequent periods, beginning with the fifth millennium B.C. and ending with the large-scale introduction of metal ca. 2300 B.C., Anatolian obsidians again have a wide distribution in the Levant, Iran, Iraq, and into the Persian Gulf perhaps as far as the U. A. E.¹¹ Anatolian obsidian has been identified as far south as southern Israel¹² but not in the south Negev or Sinai, the traditional route for close contacts with Lower Egypt.

During this later period, the nature of the obsidian exchange network may have changed dramatically. During the earlier periods, the trade was conducted by either hunter-gatherer bands or small-scale tribal groups. By the later periods, ranked chiefdoms or expanding empires handled the trade. This question of trade exchange mechanism also goes hand in hand with other ideas of related nature. Was obsidian merely a critical utilitarian resource or was it a prestige/luxury item available only to elites?¹³ Finally, the study of obsidian trade also involves ideas concerning the movement of obsidian within the network. Here we can mention Renfrew's ideas of direct exchange, down-the-line exchange, and balanced reciprocity as well as the importance of commercial exchange.¹⁴

8. I. Perlman and J. Yellin, "The Provenience of Obsidian from Neolithic Sites in Israel," *IEJ* 30 (1980): 83–88: 85–86; recent work at Abu Neikheileh south of Beidha (D. Kirkbride, "The Neolithic in Wadi Rumm: Ain Abu Nekheileh," in P. R. S. Moorey and P. Parr, eds., *Archaeology in the Levant* [Warminster, 1978], pp. 1–10) and at Al Aynah, 200–104, near Tabuk may extend this range southward (Ingraham et al, "Saudi Arabian Comprehensive Survey Program: c. Preliminary Report on a Reconnaissance Survey of the Northwestern Province [With a note on a Brief Survey of the Northern Province]," *Atlat* 5 [1981]: 67–68).
9. J. Mellaart, "Comment," in A. J. Arkell and P. J. Ucko, "Review of Predynastic Development in the Nile Valley," *Current Anthropology* 6 (1965): 161.
10. O. Bar-Yosef "Neolithic Sites in Sinai," in W. Frey and H.-P. Uerpmann, eds., *Beitrage zur Umweltgeschichte des Vorderen Orients*, Beihefte TAVO Reihe A/Nr. 8 (Wiesbaden, 1981), pp. 217–35; idem, "The Pre-Pottery Neolithic Period in the Southern Levant," in J. Cauvin and P. Sanlaville, eds., *Prehistoire du Levant*, C. N. R. S. 598 (Paris, 1981), pp. 555–69; D. Henry, "The Prehistory of Southern Jordan and Relationships with the Levant," *Journal of Field Archaeology* 9 (1982): 417–44; Henry et al, "An Investigation of the Prehistory of Southern Jordan," *PEQ* (1983): 1–24.
11. C. Renfrew and J. Dixon, "Obsidian in Western Asia: A Review," in G. Sieveking, I. Longworth, and K. Wilson, eds., *Problems in Economic and Social Anthropology* (London, 1976), pp. 137–50; C. Renfrew, "The Later Obsidian of Deh Luran — The Evidence of Chagha Sefid," in *Studies in the Archaeological History of the Deh Luran Plain* (Ann Arbor, 1977), pp. 289–311; R. McC. Adams and H. Nissen, *The Uruk Countryside* (Chicago, 1972), p. 233; Adams, *The Heartland of Cities* (Chicago, 1981), pp. 79, 271–72; Dixon, "Obsidian Characterization Studies in the Mediterranean and Near East," fig.15.14.
12. Perlman and Yellin, *IEJ* 30, p. 87.
13. Torrence, *Production and Exchange of Stone Tools*, pp. 96ff.
14. Renfrew, "Trade as Action at a Distance"; idem, "Alternative Models for Exchange and Spatial Distribution"; Torrence, *Production and Exchange of Stone Tools*, pp. 102ff.

THE ORIGIN OF EGYPTIAN OBSIDIAN AND RED SEA SOURCES

Early speculation concerning the origin of Egyptian obsidian centered principally on work carried out in Anatolia and the Mediterranean. Analysis and opinion were based on external color, specific gravity, and refractivity. Speculation concerning the origin of this obsidian began in the early twentieth century but a lack of precise analysis precluded any firm conclusions. Scharff suggested that the Abusir el Meleq specimens came from Samos.¹⁵ Frankfort analyzed a piece from Abydos and he concluded that Melos was the most likely source.¹⁶ In the same year, Wainwright, after briefly summarizing a number of different locales for obsidian, suggested that Egyptian specimens came from Armenia.¹⁷ Von Bissing was the first to suggest that Egyptian obsidian came from the south, probably Abyssinia.¹⁸ Lucas supported von Bissing and also added that sources in Arabia could have been utilized.¹⁹ Massoulard seemed to support Scharff in claiming that Samos was the source for many Egyptian pieces.²⁰ In a later work, Lucas thought that the majority of specimens came from Abyssinia and a minor group from Greece.²¹ In a 1947 review, Lucas reiterated that, based on the standards set up by Frankfort in 1927, the majority of Egyptian obsidian came from Abyssinia.²² Others have generally followed this idea.²³ A number of recent authorities, however, still suggest that Egyptian obsidian came from Anatolia.²⁴

The first advance in the analysis of Egyptian obsidians began in 1960 when researchers working on obsidian hydration rates for dating purposes noted that two different Egyptian groups were present.²⁵ They suggested one type was "trachytic," i.e. low in silica, high in iron and soda and the other a more "normal" rhyolitic type.²⁶ Based on current terminology in the field, we would now regard the trachytic, brown Egyptian obsidian found by Friedman and Smith at Deir el Bersheh and Lisht as "pantelleritic trachytes."²⁷

15. A. Scharff, *Das Vorgeschichtliche Graberfeld von Abusir el-Meleq* (Leipzig, 1926), p. 80.
16. H. Frankfort, "Appendix II. Obsidian," in *Studies in Early Pottery of the Near East* (London, 1927), p. 192.
17. G. Wainwright, "Obsidian," *Ancient Egypt* (1927) pp. 77-93; esp. pp. 84, 87.
18. W. von Bissing, "Probleme der agyptischen Vorgeschichte," *Afo* 5 (1929): 75, note.
19. A. Lucas, *Ancient Egyptian Materials and Industries*, Second Edition (London, 1934), p. 368.
20. M. Massoulard, "Lances, fourchues et Peseshkaf," *RdE* 2 (1936): 159.
21. A. Lucas, "Obsidian," *ASAE* 41 (1942): 275.
22. Idem, "Obsidian," *ASAE* 47 (1947): 122-23.
23. G. Mokhtar, "Introduction," in G. Mokhtar, ed., *General History of Africa II. Ancient Civilizations of Africa* (Paris, 1981), p. 22; S. Adam, "Chapter 8. The Importance of Nubia: A Link between Central Africa and the Mediterranean," in *General History of Africa II. Ancient Civilizations of Africa*, p. 233.
24. W. B. Emery, *Archaic Egypt* (Baltimore, 1961), p. 204; J. Mellaart, "Mesopotamian Relations with the West, Including Anatolia," in H. J. Nissen and J. Renger, eds., *Mesopotamien und Seine Nachbarn* (Berlin, 1982), p. 8; B. G. Trigger, "The Rise of Civilization in Egypt" in *The Cambridge History of Africa, Vol. I*, ed., J. Desmond Clark (Cambridge, 1982), p. 537.
25. I. Friedman and R. L. Smith, "A New Dating Method Using Obsidian: Part I, The Development of the Method," *American Antiquity* 25 (1960): 485.
26. *Ibid.*, p. 485.
27. R. MacDonald and D. K. Bailey, *The Chemistry of the Peralkaline Oversaturated Obsidians*, Geological Survey Professional Paper 440-N-1. (Washington, D.C., 1973), N14, N16; Francaviglia, "Le Fonti di Ossidiana nell'Antico Yemen," in A. DeMaigret, ed., *In Search of Pre-Proto-History of North Yemen 1981-1986* (Rome, in press 1988), p. 11.

These, in turn, are classed within a larger group known as "peralkaline, quartz-normative, extrusive rocks."²⁸ These pantelleritic trachytes are very characteristic of Red Sea obsidian.

However, the first major breakthrough in pinpointing the actual sources for Egyptian obsidian involved the analysis of trace elements. These comprise the "fingerprint" of the obsidian flow from which the specimens were taken. Based on procedures such as spectographic analysis, fission track, magnetic analysis, strontium isotope, XRF, PIXE, NAA, and TLGCC, at least ten major sources in Anatolia and the Mediterranean were found (fig. 42). The study of these sources proceeded over the last two decades with impressive results, but concern with other sources such as those in the Red Sea region is lacking.

The first step in the analysis of obsidians, other than those found in Anatolia or the Mediterranean by spectographic analysis, was first done in the early 1960s. For our purposes, Cann and Renfrew identified five obsidian sources in Ethiopia/Djibouti, and one each in Kenya, Tibesti, and southwestern Arabia.²⁹ Based on a graph plotting Ba and Zr, the authors suggested a division into groups. Group 4 was subdivided into 4a, 4b, 4c, and 4d.³⁰ This group was further delineated by additionally plotting Nb and Y.³¹ Based on these results, the researchers concluded that group 4d included the obsidian sources from Ethiopia, Arabia, and Tibesti and 4c was a Lake Van source. Both 4c and 4d were considered peralkaline types.³² A single specimen from Eritrea was classed as group 6.³³ This initial report was based on single source determinations from Abasurin, Medje (Mojjo), and Waldia (=group 4d), and Arafali (=group 6) in Ethiopia. Artifacts from Hureidha in the Arabian Hadhramaut also were lumped with group 4d. Based on these results, the authors concluded that it appeared likely that obsidian was traded into Egypt from at least two different southern Red Sea sources.³⁴ Further work by trace analysis suggested that 4c was obsidian obtained from at least two sources in Armenia,³⁵ and 4d was characterized by very high Zr and very low Ba content.³⁶

The most recent work on Red Sea obsidians by the Renfrew School defined a source specimen from Jebel Abyad north of Khaiber in Saudi Arabia and assigned it to the general 4d group.³⁷ Three archaeological specimens from the Dahlak Islands in the southern Red Sea were examined and were assigned to two different sources. One artifact (no. 384) was considered peralkaline and classed as 4d³⁸ but the two others (nos. 383 and 385) had a different element composition and were considered to come from a distinct but unknown source. These two specimens were classed into a new group 1j and thought to have come from Arabia or Ethiopia.³⁹

28. F. Barberi et al, "A Transitional Basalt-Pantellerite Sequence of Fractional Crystallization, the Boina Centre (Afar Rift, Ethiopia)," *Journal of Petrology* 16 (1975): 22-56.

29. Cann and Renfrew, *Prehistoric Society Proceedings* 30, fig. 1.

30. *Ibid.*, fig. 2.

31. *Ibid.*, fig. 3.

32. *Ibid.*, p. 119.

33. *Ibid.*, p. 124.

34. *Ibid.*, p. 124.

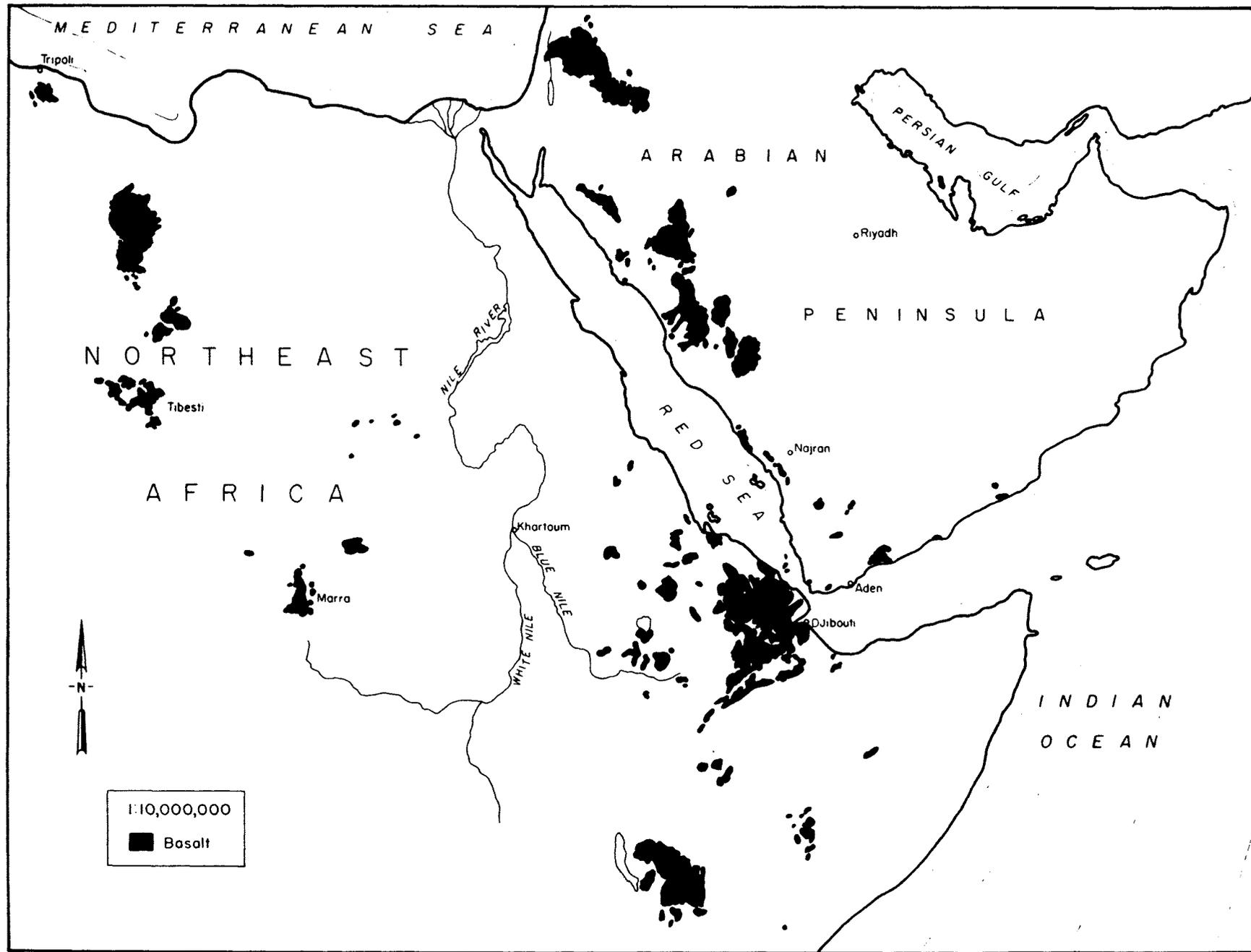
35. C. Renfrew, J. Dixon, and J. R. Cann, "Further Analysis of Near Eastern Obsidian," *Prehistoric Society Proceedings* 34 (1968): 320.

36. C. Renfrew, J. Dixon, and J. R. Cann, "Obsidian and Early Cultural Contact in the Near East," *Prehistoric Society Proceedings* 32 (1966): 34-35.

37. Renfrew and Dixon, "Obsidian in Western Asia," p. 139.

38. *Ibid.*, p. 141.

39. Renfrew and Dixon, "Obsidian in Western Asia," pp. 140, table 1, 141, and 144.



ANCIENT EGYPT AND THE RED SEA TRADE

Fig. 43. Tertiary and Quaternary Basalt Outcrops in the Red Sea Region.

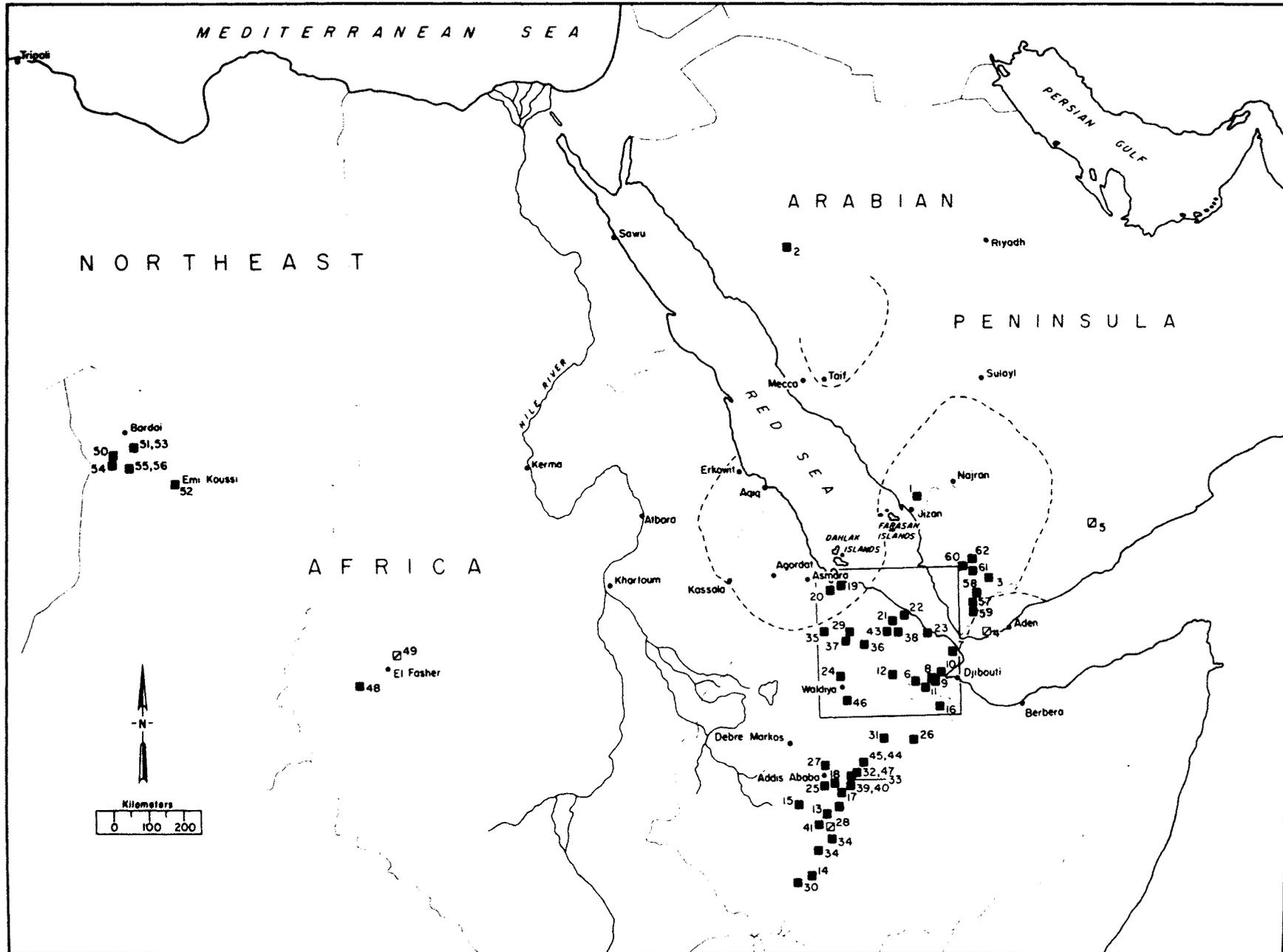


Fig. 44. Reported Obsidian Sources in the Southern Red Sea. (■ verified, □ unverified).

RECENT STUDIES ON OBSIDIAN SOURCES IN THE RED SEA REGION

Contemporary geological and archaeological work in the Red Sea countries has expanded our knowledge on the potential sources for the obsidian trade (fig. 43). Recent advances in trace element analysis also promise to assist in determining the nature and extent of obsidian trade in the Red Sea. However, before we can effectively deal with the archaeological trade patterns based on obsidian, we need to locate as many sources for obsidian as possible and verify or modify the conclusions the Renfrew School has proposed. Abbate and Sagri defined seven major basalt provinces in the East African Rift system alone.⁴⁰ Of particular interest for this paper are the Afar Volcanites and the Northern Ethiopia Group. In the Arabian peninsula, the number of reported sources is significantly smaller and they are found within the Aden Volcanic Series, the Arabian Shield Pliocene-Pleistocene volcanics, and the extrusives of the Tihama Coastal Plain (Baidh Formation).

From this general Red Sea region, nine specific obsidian source localities are identified in the Arabian peninsula. These include Jebel Abyad, located near Khayber in Saudi Arabia,⁴¹ and the now-buried Tertiary obsidian deposit in Wadi Jizan.⁴² However, the bulk of the sources are identified in highland Yemen. The Dhamar-Reda field is the best known.⁴³ At least five distinct locales are sampled here, principally from Jebels Lisi, Isbil, and TKY-5.⁴⁴ All belong to the Aden Trap Series. At least six, smaller, obsidian localities within the Aden Trap Series in Yemen were reported by the 1936 Egyptian Expedition.⁴⁵ The majority are described as rhyolitic, but none are analyzed. Three cited locations cluster around Sanaa (Ubal, Jebel ash Sharq, and Manakhah/Wessil), and three in the south around Taiz (Al Qada'a, Taiz, and Jebel Gubah). Reputed obsidian sources in the P.D.R.Y. such as Jebel Khariz and Meshed⁴⁶ appear, on further examination, to be highly unlikely.⁴⁷

40. E. Abbate and M. Sagri, "Chapter 7. The Volcanites," in G. Merla, E. Abbate, A. Azzaroli, P. Bruni, P. Canuti, M. Fazzuoli, M. Sagri, and P. Tacconi, *A Geologic Map of Ethiopia and Somalia* (Florence, 1979), p. 63 and fig. 11.
41. P. E. Baker, R. Brosset, I. G. Gass and C. R. Neary, "Jebel El Abyad: A Recent Alkalic Volcanic Complex in Western Saudi Arabia," *Lithos* 6 (1973): 299; Renfrew and Dixon, "Obsidian in Western Asia," p. 139; J. C. Baubron and R. C. Maury, "Age and Petrology of the Jabal al Abyad Volcanic Chain (Khaybar Plateau, Saudi Arabia)," *Bulletin volcanologique* 43 (1979): 660.
42. M. Gillman, "Primary Results of a Geological and Geophysical Reconnaissance of the Jizan Coastal Plain in Saudi Arabia," *Society of Petroleum Engineers, Second Regional Technical Symposium* (Dhahran, Saudi Arabia, 1968), p. 200; E. Muller, "2.4 South Tihamah and Farasan Islands," in A. R. Jado and J. G. Zol, eds., *Quaternary Period in Saudi Arabia*, vol. 2 (Vienna, 1984), p. 146.
43. P. Lamare, "Les Manifestations volcaniques post-Cretaces de la Mer Rouge et des pays limitrophes," *Mémoires de la Société géologique de France* 6 (1930): 21-48; M. Kabesh, A. Refaat, and Z. Abdallah, "Geochemistry of Quaternary Volcanic Rocks, Dhamar Rad'a Field, Yemen Arab Republic," *N. Jhrb. Miner. Abh* 138 (1980), 292-311; S. Chiessa et al, "Geology of the Dhamar-Rada' Volcanic Field, Yemen Arab Republic," *Neues Jahrbuch für Geologie und Paläontologie, Monatshefte* 8 (1983): 481-94.
44. Francaviglia, "Le Fonti di Ossidiana nell' Antico Yemen."
45. N. M. Shukri and E. Z. Basta, "Petrography of the Alkaline Volcano Rocks of Yaman. Egyptian University Scientific Expedition to S. W. Arabia," *BdE* 36 (1954): 130-64.
46. Lucas, *ASAE* 47: 114.
47. E. Manasse, "Rocce Eritree e di Aden della Collezione Issel," *Società toscana di scienze naturali, Atti. Processi verbali e memorie*, vol. 24 (1908): 153-207; Shukri and Basta, *BdE* 36, pp. 130-64; K. G. Cox, I. Gass, and D. Mallick, "The Evolution of the Volcanoes of Aden and Little Aden, South Arabia," *The Quarterly Journal of the Geological Society of London* 124 (1969): 283-308; idem, "The Peralkaline Volcanic Suite of Aden and Little Aden, South Arabia," *Journal of Petrology* 11 (1970): 433-62; Gass and Mallick, "Acid Volcanism on the South Arabian

Along the African side of the Red Sea, the Afar Volcanites appear to be the most attractive in defining obsidian sources which were involved in the Egyptian trade. We define nineteen such sources from this region and an additional two from the northern Ethiopian Plateau Volcanics.⁴⁸ From these twenty-one sources, we have obsidian samples for analysis from fifteen. The second major group of obsidian sources in Africa falls within the East African Rift system. These sources probably were not utilized for trade in the Red Sea and thus are not of direct concern here.⁴⁹

The most intriguing locales are those centered on the Buri peninsula. In 1809, Salt, in describing his voyage down the Red Sea coast, mentioned the discovery of obsidian at Howakil Bay near a small village called Arena.⁵⁰ Small, highly polished pieces lay scattered about near the sea, and according to local informants, much larger pieces could be found in the interior a few miles distant.⁵¹ Since researchers are familiar with the geology of the Buri peninsula, it would appear that Salt is describing prepared cores for shipment at the Arena location and not a natural flow. Current maps of the area show only dune and beach deposits for the area described by Salt. A parallel example is known from the Melos quarries in the Aegean. There the principal object was to produce macrocores and bifaces.⁵² The *Periplus*, written in the second century A.D., supports this reasoning. The writer apparently describes the location on Howakil Bay and says that this is the only place where obsidian is to be found and produced.⁵³ According to twentieth century investigations of the Buri peninsula, there are two reported sources for obsidian. The first centers on Miailo in the south-central portion of the peninsula. This may be the source cited by Salt. Also called Amoer-ale or Jalua, this large cone (733 m) is found in the vicinity of numerous other smaller vents (Darcot, Surrisan, and Carallumto).⁵⁴ Manasse reported lipari-like obsidian from the area in 1909.⁵⁵ Apparently, the other reported center is Alid (910 m), southeast of Arafali. Here also, numerous other smaller cones are known, including Degherta, Deri, Mt. Daggaro, Solle, and Maraho.⁵⁶ Rhyolite obsidian was reported from Alid as early as 1907.⁵⁷ Other reported cones from the Buri peninsula such as Odmat, Galala, and Follocle may yet reveal additional sources.

Based on this brief analysis, we list in table 5 only those obsidian sources which the Egyptians may have utilized. Thus, we summarize eleven, reported Arabian sources and twenty-one from Africa (fig. 44).

Coast," *Bulletin volcanologique* 29 (1966): 449–52; idem, "Jebel Khariz — An Upper Miocene Strato-volcano of Commenditic Affinity on the South Arabian Coast," *Bulletin volcanologique* 32 (1968): 33–89. None of the volcanic islands in the southern Red Sea apparently have obsidian sources, see W. A. MacFayden, "On the Volcanic Zebayr Islands, Red Sea," *Geological Magazine* 69 (1932): 63–66; I. Gass, D. Mallick, and K. Cox, "Volcanic Islands of the Red Sea," *The Quarterly Journal of the Geological Society of London* 129 (1973): 275–310.

48. Abbate and Sagri, "Chapter 7. The Volcanites," p. 57, fig. 8.

49. For the entire listing of sources, see Zarins, "Obsidian and the Red Sea Trade, Prehistoric Aspects," *Proceedings of the Ninth International Conference of the Association of South Asian Archaeologists in Western Europe* (Venice and Naples, in press 1988), table 1.

50. H. Salt, *A Voyage to Abyssinia and Travels . . .* (London, 1814), pp. 190–94.

51. H. Salt, *Voyage en Abyssinie* (Paris, 1816), pp. 245–46.

52. Torrence, *Production and Exchange of Stone Tools*, pp. 186ff.

53. W. H. Schoff, *The Periplus of the Erythraean Sea* (New York, 1912), p. 23; G. Huntingford, *The Periplus of the Erythraean Sea* (London, 1980), p. 21.

54. Great Britain, *Red Sea Pilot* 1980: 138–39; P. A. Mohr, *The Geology of Ethiopia* (Addis Ababa, 1962), p. 220; G. Dainelli, *Geologia dell' Africa Orientale III*, La Successione Terziaria e i Fenomeni del Quaternario (Roma, 1943), p. 578.

55. Dainelli, *Geologia dell' Africa Orientale III*, p. 605.

56. Mohr, *The Geology of Ethiopia*, p. 210.

57. Dainelli, *Geologia dell' Africa Orientale III*, pp. 578 and 605–6; Mohr, *The Geology of Ethiopia*, p. 210.

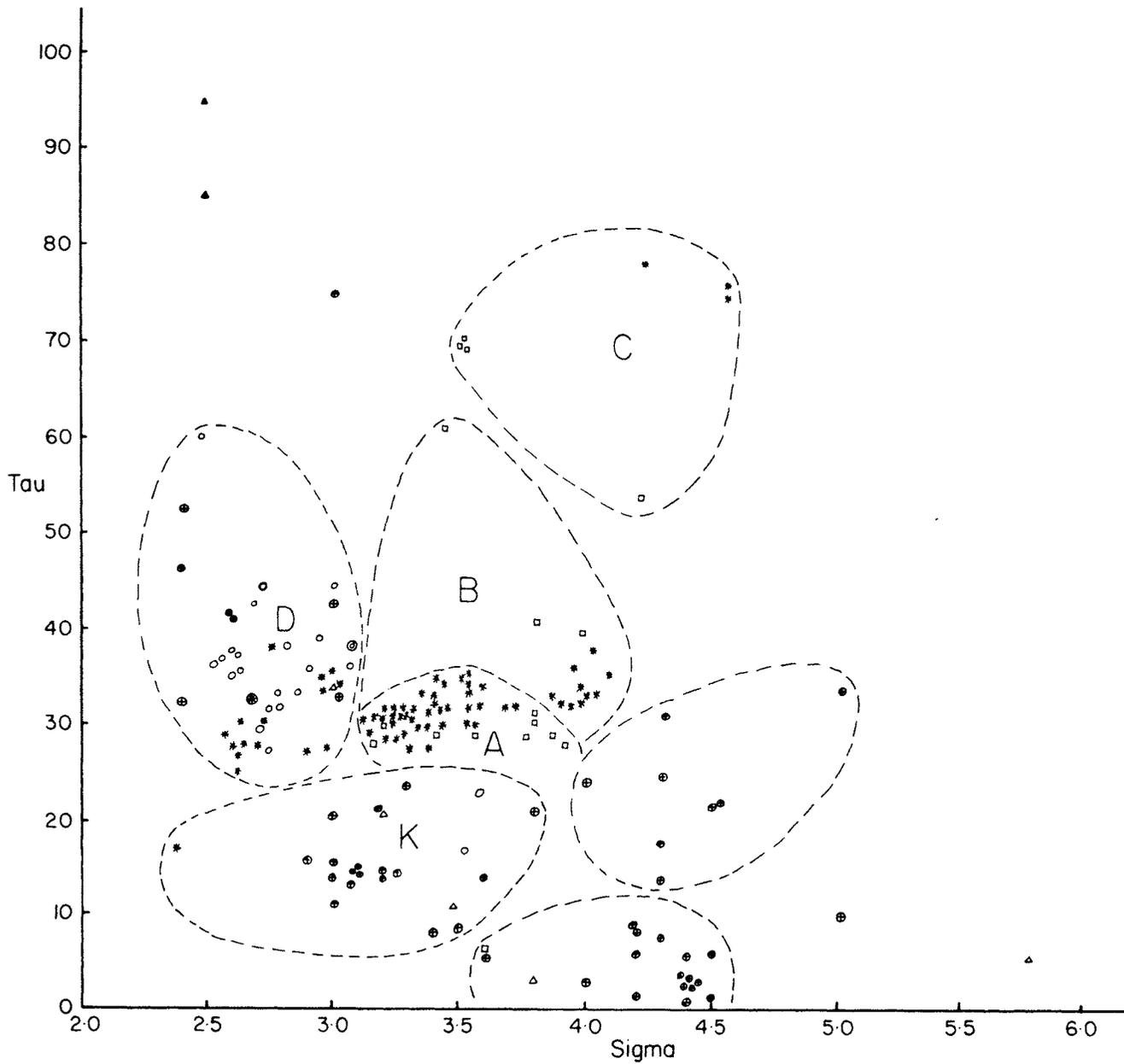


Fig. 45. Source and Artifactual Obsidian Clusters Based on Rittmann's Sigma and Tau.

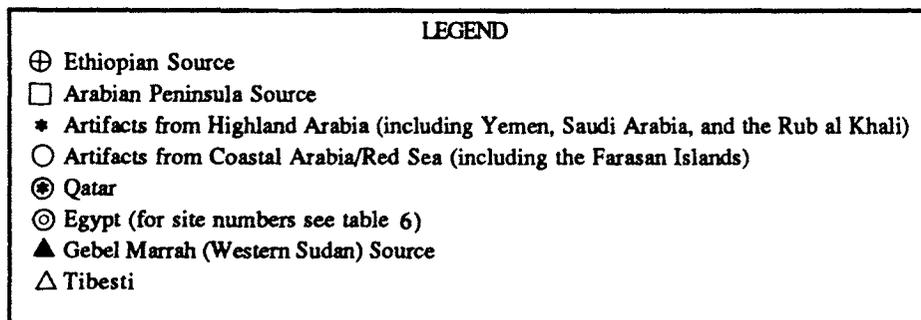


TABLE 5. Selected, Reported Obsidian Sources in the Southern Red Sea Region

<i>Source</i>	<i>Samples Reported</i>	<i>Reference</i>
SAUDI ARABIA		
1. Jizan	No	n. 42
2. Jebel Abyad	Yes	n. 41
YEMEN		
3. Dhamar-Reda (Jebel Isbil, Jebel al Lisi, TKY-5)	Yes	n. 3, 43
57. Ta'iz	No	n. 45, samples 5203, 5246, 5271, and 5275
58. al Qa-ada	No	n. 45, samples 5315, 5316, and 5317
59. Jebel Gubah	No	n.45, sample 5321
60. Ubal	No	n. 45, sample 5498
61. Jebel al Sharq	No	n. 45, samples 5517, 5521, and 5548
62. Manakha/Wessil	No	n. 45, sample 5888
P. D. R. Y.		
4. Jebel Kharaz	No	n. 46, 47
5. Meshed	No	n. 46, 47
DJIBOUTI		
6. Hanleh (Jebel Yaqueri)	No	see E. Aubert de la Rue, "Le Volcanisme en côte française des Somalis," <i>Bulletin volcanologique</i> 5 (1939):81, 86, and fig. 1
7. Ado-Ale (Dergoli)	No	ditto
8. Aiboli (Assahara)	No	ditto
9. Wadi Magaleh	No	ditto
10. Bate-Ero (Mabla)	No	ditto
11. Ali Sabieh (Damerkadda)	two samples dated: RC 13 - 13.8 my GE 3 - 10.8 my	n. 40, p. 72; Chessex et al., "Evolution of the Volcanic Region of Ali Sabieh (T. F. A. I.) in the Light of K-Ar Age Determinations," in <i>Afar Depression of Ethiopia</i> , eds. A. Pilger and A. Rösler (Stuttgart, 1975), p. 224
ETHIOPIA		
12. Sardo	Yes	Hieke Merlin, "Le Vulcaniti acide dell'Africa orientale," <i>Memorie delgi Istituti di Geologia e Mineralogia dell'Università di Padova</i> 18 (1953); el-Hinnawi, "Petrochemical Characters of African Volcanic Rocks, Part 1: Ethiopia and the Red Sea Region (including Yaman and Aden)," <i>Neues Jahrbuch für Mineralogie</i> 3 (1964), table 1; Abbate, Zannetin, Azzaroli, and Visentin, "A Geologic Petrographic Mission of the 'Consiglio Nazionale delle Ricerche' to Ethiopia, 1967-68. Preliminary Results," <i>Bollettino della Società Geologica Italiana</i> 87 (1968); MacDonald and Bailey, <i>The Chemistry of the Peralkaline Oversaturated Obsidians</i> . Geological Survey Professional Paper 440-N-1 (Washington, D. C., 1973)
16. Abasurin	Yes	n. 4, p. 129
19. Hawakil	Yes	n. 23; 50; 54; p. 604; 4, p. 130; Rüppell, <i>Reise in Abyssienien</i> , 2 vols. (Frankfurt am Main, 1838), pp. 264, 315; n. 54, pp. 594, 606; 54, p. 210
20. Alid	Yes	n. 54, pp. 594, 606; n. 56, p. 210; el-Hinnawi, "Petrochemical Characters"

TABLE 5. Selected, Reported Obsidian Sources in the Southern Red Sea Region

Source	Samples Reported	Reference
21. Asa Ale	Yes sample dated: B 705 WR 19+.4 my	L. Civetta, De Fino, Gasperini, Ghiara, La Volpe, and Lirer, "Geology of Central-Eastern Afar (Ethiopia)," in <i>Afar Depression of Ethiopia</i> , eds. A. Pilger and A. Rösler (Stuttgart, 1975), p. 203; n. 40, p. 71
22. Dubbi	Yes	n. 54., pp. 579, 592, and 613
23. Ado Ale	No	Barberi, Santacroce, and Varet, "Silicic Peralkaline Volcanic Rocks of the Afar Depression (Ethiopia)," <i>Bulletin volcanologique</i> 38 (1974):784-85
24. Waldia	Yes	n. 4, p. 129
29. Erta Ale	Yes	same as #23, Barberi et al., "Silicic Peralkaline," pp. 761ff; Bizouard, Barberi, and Varet, "Mineralogy and Petrology of Erta Ale and Boina Volcanic Series, Afar Rift, Ethiopia," <i>Journal of Petrology</i> 21 (1980):401-36
35. Ma'alalta (Mussa Ali)	Yes sample dated G15 120,000 BP	Barberi, Borsi, Ferrara, Marinelli, Santacroce, Tzieff, and Varet, "Evolution of the Danakil Depression (Afar, Ethiopia) in Light of Radiometric Age Determinations," <i>Journal of Geology</i> 80 (1972):720-29; same as #23, p. 775; La Volpe, Lirer, and Varet, <i>Geological Map of Manda-Inakir Range and Musa Alli Volcano (Central Eastern Afar, Ethiopia, and TFAI)</i> (Bari, 1974); n. 40, p. 56
36. Gad Elu	Yes sample dated G432 370,000 BP	Barberi et al., "Evolution of the Danakil Depression," pp. 720-29; #23, pp. 784-85; n. 40, p. 72
37. Boina	Yes	#23, p. 766; #29, p. 24; n. 40, p. 56; #29, p. 406
38. Borawli	Yes	n. 40, p. 56
43. Bidu	Yes	#37 and #36, pp. 776-77
46. Dessie (Amba Sel)	No	Gregnanin, Piccirillo, and Abebaw, "The Subdivision of Volcanic Series in the Ethiopian Plateau: New Geologic Interpretation of the Dessie-Kombolcha Area," <i>Bollettino della Società Geologica Italiana</i> 92 (1973):309

OBSIDIAN SOURCE CHARACTERIZATION IN THE RED SEA

Francaviglia rightly suggests that to assess source area characterizations for obsidian several different approaches are necessary. First, *both* standard chemical and trace element analyses are important and both should be published since differentiating obsidian groups solely on the basis of trace elements remains complex and elusive. In addition, as many samples as possible should be run to establish patterns and ranges of variation.⁵⁸ In evaluating our Red Sea sources, the lack of standardization is especially hard felt. Of our thirty-two reported sites, we have standard chemical sample reports only from ten. Sites with more than one sample analyzed number only five. Trace element analysis is available from only four sites and the number of sites which have both standard chemical and trace element analyses is confined to the two major sites from Arabia (Jebel Abyad and Dhamar-Reda).

58. Francaviglia, *Preistoria Alpina* 20, pp. 311-32.

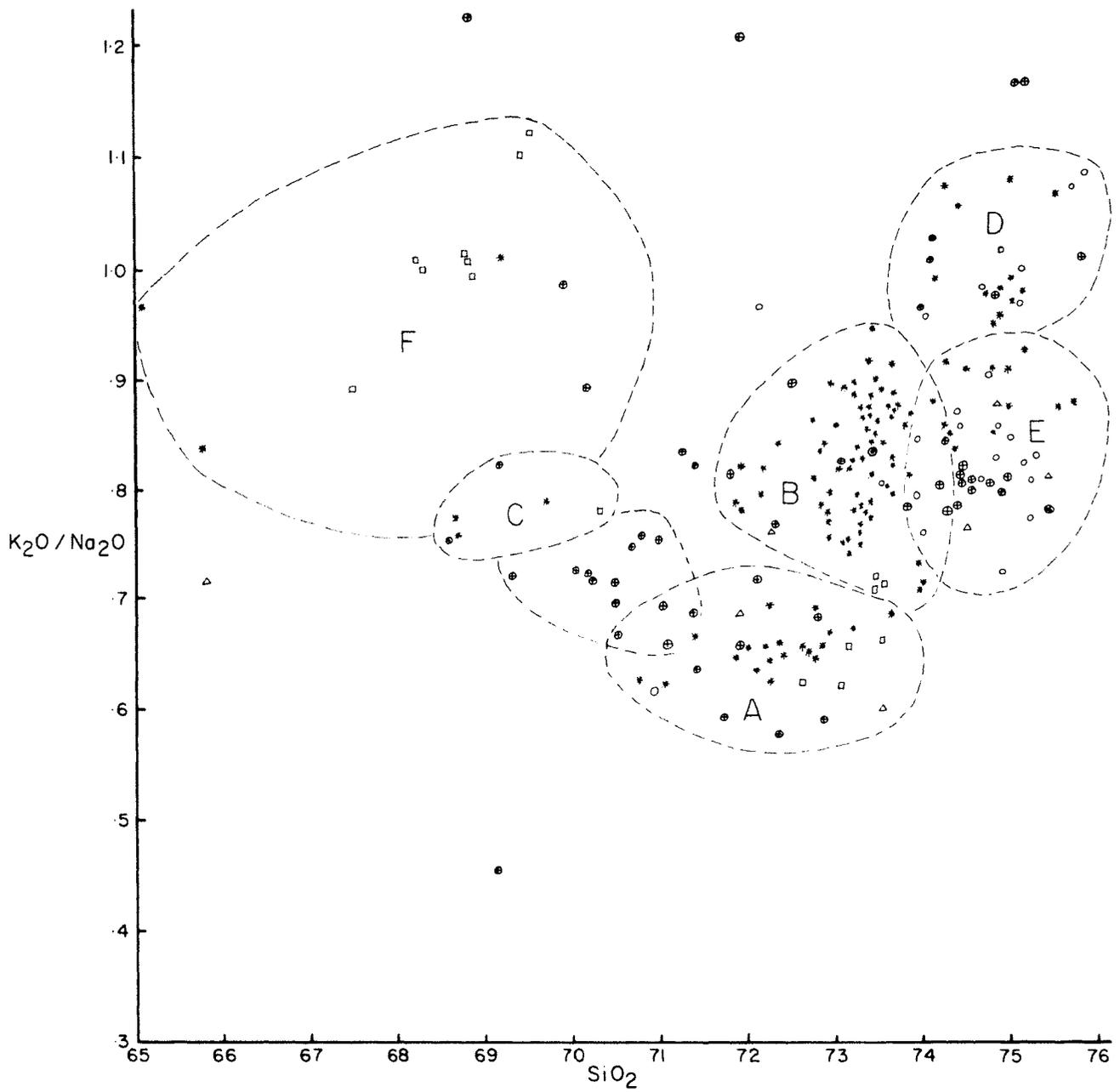


Fig. 46. Source and Artifactual Obsidian Clusters Based on SiO_2 and K_2O/Na_2O .

LEGEND	
⊕	Ethiopian Source
□	Arabian Peninsula Source
*	Artifacts from Highland Arabia (including Yemen, Saudi Arabia, and the Rub al Khali)
○	Artifacts from Coastal Arabia/Red Sea (including the Farasan Islands)
⊙	Qatar
⊖	Egypt (for site numbers see table 6)
△	Tibesti

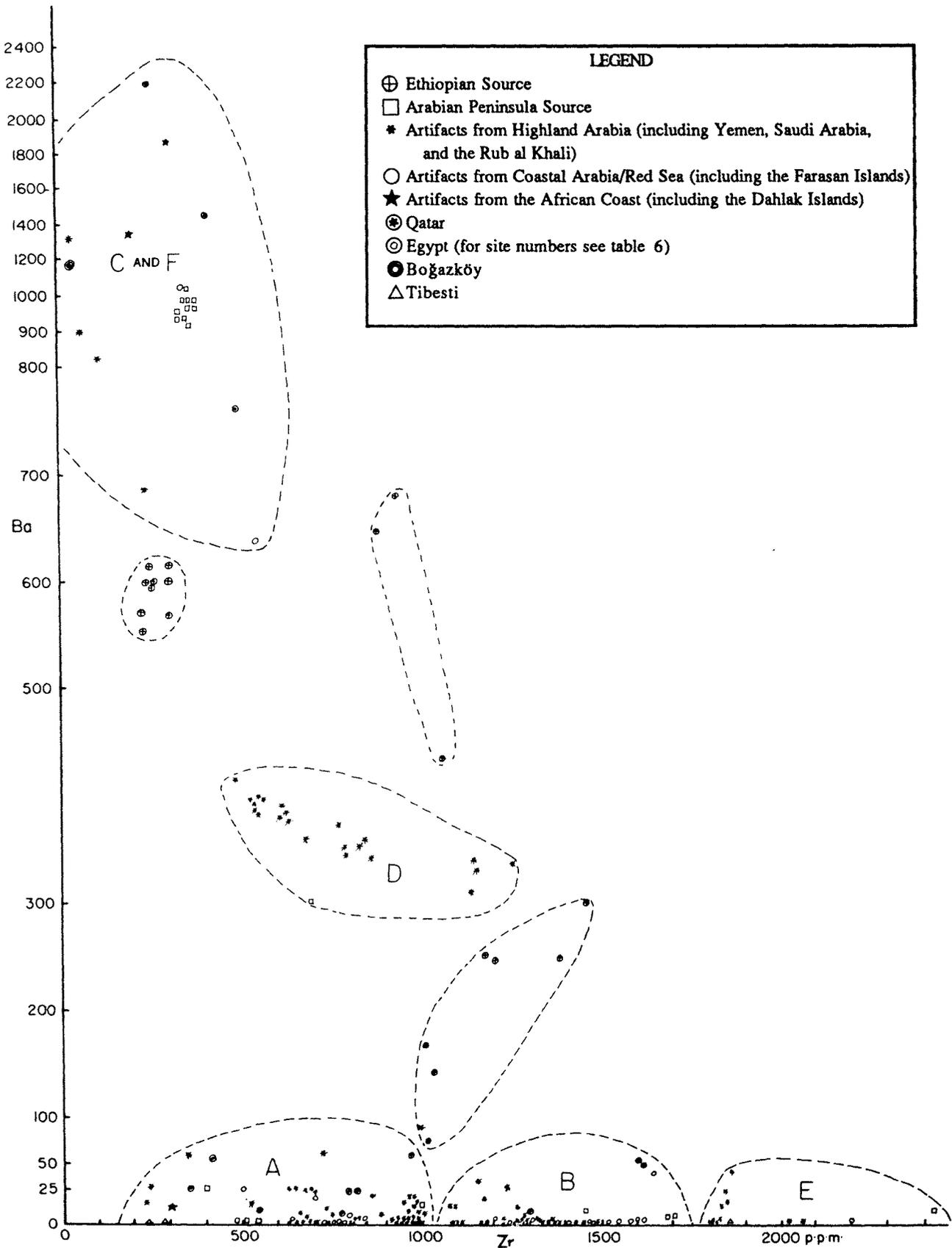


Fig. 47. Source and Artifactual Obsidian Clusters Based on Barium and Zirconium (p.p.m.).

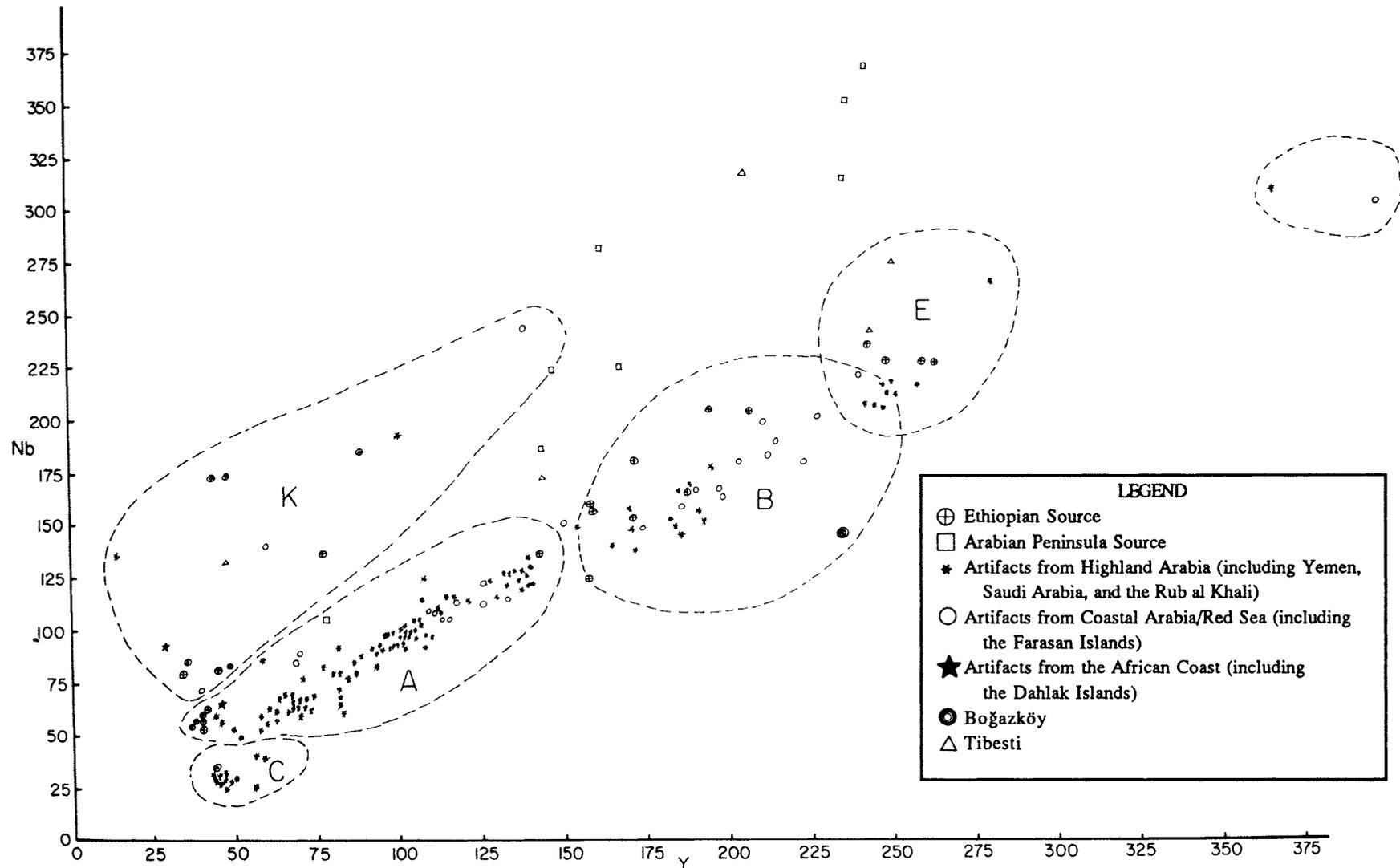


Fig. 48. Source and Artifactual Obsidian Clusters Based on Yttrium and Niobium (p.p.m.).

Source analysis in this paper is confined to diagrams showing four major variables (figs. 45–48). The first two involve the manipulation of standard chemical analyses. Figure 45 plots the variation between Rittmann's Tau and Sigma. The results here appear encouraging as we can distinguish between perhaps five different Ethiopian clusters and one major Arabian one. Unfortunately, the Jebel Abyad sample from Arabia does not fall where expected. Figure 46, plotting K_2O/Na_2O against SiO_2 , does not appear as promising. The five or six major groups do not discriminate well. However, a major Arabian group (Dhamar-Reda) does ally itself with the Abyad sample. In figure 47, we see four major clusters based on the standard plot of Ba and Zr. It would appear here that the Arabian source areas discriminate rather well from the few African sites sampled, but also we do have several African sites thrown into the Arabian cluster. In the final diagram, figure 48, Y and Nb are plotted. Five groups may be found in our plot and again Arabian sites may contrast with African ones.

This cluster analysis of source areas must be compared to the results generated by the Renfrew School. Unfortunately, only the trace element results are available and the majority of them from artifacts not source areas. As we indicated above, the Renfrew School group 4c/4d clustered a large number of diverse obsidians from Lake Van, Ethiopia, Arabia, Tibesti, Auvergne, and Kenya.⁵⁹ A further division between 4d and 4c was obtained by plotting Y and Nb. The overlay of group 4d onto our source plot (fig. 47) suggests broad agreement based on a high Zr and low Ba content. Here we see the clustering of both Yemeni and Saudi Arabian obsidians. However, we must also add the following Ethiopian obsidian sources which fall within the 4d group: Abasurin, Mojjo, Waldija, and possibly Chabbi.⁶⁰ One specimen from Eritrea (Arafali) was assigned initially to Group 6 (1j) as defined by high Ba and low Zr content. One source in Yemen (TKY-5) may also belong to this group. In summary, two discrete groups can be seen in Renfrew School data and these fit reasonably well into our larger, six, source groups. In plotting Y and Nb, the picture is far less clear. The earlier Group 4d crosses too many subgroups to be a viable classification (fig. 48). Here we can see a cluster of sources from Arafali, Abasurin, and Melka Konture as well as TKY-5 in Yemen. However, Group 6 (1j) seems to reflect the Ba-Zr plot (fig. 47) more accurately.

THE ARCHAEOLOGICAL TRADE IN OBSIDIAN

ARABIA

The first step in analyzing the obsidian trade in the Red Sea involves a description of the archaeological sites in the general Red Sea region. As the result of recent work along both sides of the Red Sea, we are in a better position to assess the importance of obsidian and its role in long-distance trade. Turning first to the Arabian side, sites with obsidian were recovered in Saudi Arabia, Yemen, and the People's Democratic Republic of Yemen. The obsidian distribution is centered on the southwestern portion of the peninsula and sources appear to be located in the upland area of southwest Saudi Arabia (Asir) and highland Yemen. In terms of geographical distribution, sites with obsidian were found in the Rub al Khali, the Asir foothills (piedmont), the high Asir plateau, the Hadhramaut, and the Red Sea coast (Tihama). Chronologically, sites

59. Carn and Renfrew, *Prehistoric Society Proceedings* 30, fig. 2.

60. Zarins, "Obsidian and the Red Sea Trade, Prehistoric Aspects."

which belong to the Arabian Neolithic appear to be the earliest examples of obsidian trade. Site WTHiii in Yemen may date perhaps to the early sixth millennium B.C.⁶¹ Sites with obsidian, such as Jabal Qutran in highland Yemen⁶² and a selected series in the Asir of Saudi Arabia⁶³ should be dated to the sixth-fifth millennia B.C. Rub al Khali sites with obsidian found both in Saudi Arabia⁶⁴ and Yemen⁶⁵ should date to the fifth millennium B.C. Chalcolithic and Bronze Age sites are known both from Saudi Arabia⁶⁶ and, more recently, Yemen.⁶⁷ These sites should, in general, be bracketed between the fourth and early second millennia B.C. Upland sites of the later second millennium B.C. are still rare, but obsidian is well known from the Sabaean and Himyaritic period sites.⁶⁸

Trace element analysis of these obsidians was carried out by Francaviglia.⁶⁹ Here we would like briefly to summarize the results utilizing the same four graph plots discussed above. It appears that four or five subgroups which represent utilized sources can be identified. The largest are group A (TKY-5 source) and group B (Jebel Lisi). A smaller cluster associated with Jebel Lisi is found in group C. All of these subgroups can be identified with the Dhamar-Reda field. However, subgroup D suggests that the artifacts come from an unidentified source, perhaps one of the centers listed in table 1 for which we have no analysis. If we overlay our results onto the Renfrew School's Ba-Zr plot (fig. 47), we see the five basic subgroups. A, B, and E subgroups correspond to the earlier group 4d defined by the Renfrew School. It appears that the utilized sources include both Jebel Abyad in Saudi Arabia and the Dhamar-Reda field.⁷⁰ Our subgroup C corresponds to the Renfrew School's group 6 (or lj) which is characterized by a low Zr and extremely high Ba (<750 ppm). An additional group K is discussed below. In sum, it appears that upland artifactual materials can be segregated into four or five subgroups. However, it is much more difficult to answer the question of which sources were used. Certainly, the Dhamar-Reda complex was involved, but we know of at least five other

61. F. G. Fedele, "Yemen Arab Republic: Neolithic Archaeology and Related Studies. Report of Activities, 1986," *East and West* 37 (in press 1987).
62. A. DeMaigret, "Activities of the Italian Archaeological Mission in the Yemen Arab Republic (1983) Campaign," *East and West* 33 (1983): 342.
63. J. Zarins, A. Murad, and K. al-Yish, "The Second Preliminary Report on the Southwestern Province," *Atlat* 5 (1981): 20-21 and pl. 4.
64. Zarins, Murad, and al-Yish, *Atlat* 5, p. 20.
65. F. DiMario, "The Western ar-Rub' al-Khali 'Neolithic': New Data from the Ramlat Sab'atayn (Yemen Arab Republic)," *Annali Istituto universitario orientale di Napoli* (in press, 1988).
66. Zarins et al, "Preliminary Report on the Central and Southwestern Provinces," *Atlat* 4 (1980): 9-36.
67. A. DeMaigret, "Two Prehistoric Cultures and a New Sabaean Site in the Eastern Highlands of North Yemen," *Raydan* 4 (1981): 191-204; idem, "Ricerche archeologiche Italiane nella Repubblica Araba Yemenita, Notizia di una seconda Ricognizione (1981)," *OrAnt* 21 (1982): 237-53; idem, "A Bronze Age for Southern Arabia," *East and West* 34 (1984): 75-125; F. DiMario, "A New Lithic Inventory from the Arabian Peninsula: The North Yemen Industry in the Bronze Age," *OrAnt* 26 (1987): 89-107.
68. D. B. Doe, *Southern Arabia* (London, 1971); G. Caton-Thompson, *The Tombs and Moon Temple of Hureidha (Hadhramaut)* (Oxford, 1944); J. Zarins, A. R. Kabawi, and A. Murad, "Preliminary Report on the Najran/Ukhudud Survey and Excavations 1982/1402 A. H.," *Atlat* 7 (1983): 35; Francaviglia, "Le Fonti di Ossidiana nell'Antico Yemen," p. 8.
69. Francaviglia, "Le Fonti di Ossidiana nell'Antico Yemen"; Zarins, "Obsidian and the Red Sea Trade, Prehistoric Aspects."
70. Zarins, "Obsidian and the Red Sea Trade, Prehistoric Aspects."

untested sources in Yemen and at least one in Saudi Arabia. The degree of involvement and the identification of the Jebel Abyad source in western Saudi Arabia also remains unclear.

Of primary interest are the coastal and island sites of the Red Sea and their relationship to the obsidian source areas discussed above. Over twenty-two coastal sites with obsidian, many of them shell middens, have been reported from both Saudi Arabia and Yemen. They range in date from the late sixth millennium B.C. to the early first millennium A.D.⁷¹ Our plot of these archaeological samples provides two rather tight clusters, subgroups D and K. Unfortunately, they do not correlate with the known Arabian source centers. More specifically, they do not correlate with the main Dhamar-Reda source center. Subgroup D has parallels with Ethiopian sources such as Dubbi, Melka-Konture, Ado-ele, and Gad-elu. Subgroup K also suggests Ethiopian sources such as Chabbi, Mojjo, Boina, Sardo, Meheso, and Alid.⁷² Utilizing the trace elements Ba and Zr, there does appear to be a good correlation with the Renfrew School's group 4d (A, B, and E) or group 1j (C). This plot suggests that the coastal sites could have a correlation with the upland Dhamar-Reda field or, equally plausible, that there is a very low level of discrimination between African and Arabian sources. In fact, with the exception of the Ba-Zr plot, the other plots suggest that there is little or no correlation with the upland Arabian sources. Based on this brief analysis, it would appear that coastal sites utilized African and/or Arabian sources. Certainly, the Renfrew School's group 4d does not fully separate African and Arabian sources.

Finally, several other relevant observations can be made from the data presented here. A preliminary geographical sorting of archaeological specimens from southwestern Saudi Arabia⁷³ indicates that there should be a major obsidian source in the Saudi Arabian Asir southwest of Abha and north of Najran. This is suggested by the number of specimens located in this region and by applying the Renfrew idea of step fall-off from source distance.⁷⁴ Rub al Khali, Bir Hima, and Asir neolithic specimens cluster in the Red Sea coastal group (figs. 45 and 46). They should derive from this projected but hitherto unreported source. Even more interesting is the recovery of seven obsidian beads which were found in two tombs (C and H) in eastern Qatar, perhaps roughly dated to the fifth millennium B.C.⁷⁵ While the Ubaid obsidian from eastern Arabia and Bahrain is consistently identified as coming from the eastern Anatolian sources,⁷⁶ it appears that Midant-Reynes is not correct in assuming that the unique Qatar samples represent the southern terminus of this source.

71. Zarins, Murad, and al-Yish, *Atlat* 5, pp. 21–23; J. Zarins and A. Zahrani, "Recent Archaeological Investigations in the Southern Tihama Plain (including Athar, 217–108 and Sihi, 217–107) 1404/1984," *Atlat* 9 (in press, 1985); J. Zarins and H. al-Badr, "Archaeological Investigations in the Southern Tihama Plain II (including Sihi, 217–107 and Sharja, 217–172), 1405/1985," *Atlat* 10 (in press, 1986); M. Tosi "Tihamah Coastal Archaeology Survey, Preliminary Report 1985," *East and West* 35 (1987): 363–69; idem, "Tihama Archaeological Survey 1986: A Short Note," *East and West* 37 (in press, 1988).

72. Zarins, "Obsidian and the Red Sea Trade, Prehistoric Aspects."

73. Zarins, Murad, and al-Yish, *Atlat* 5, pl. 5C.

74. Renfrew, Dixon, and Cann, *Prehistoric Society Proceedings* 34, pp. 326–30; Renfrew and Dixon, "Obsidian in Western Asia," pp. 148–49; Renfrew, "Alternative Models for Exchange and Spatial Distribution"; idem, "The Later Obsidian of Deh Luran — The Evidence of Chagha Sefid"; Torrence, *Production and Exchange of Stone Tools*, pp. 115ff.

75. B. Midant-Reynes, "Un Ensemble de sépultures en fosses sous cairn a Khor (Qatar): Étude des rites funéraires," *Paléorient* 11/1 (1985): 129–139.

76. Renfrew and Dixon, "Obsidian in Western Asia," fig. 3 and p. 148.

The neutron activation analysis of one bead was compared to a source sample only from Kenya⁷⁷ and no standard chemical or trace element analysis was reported. Baherze's microanalysis of chemical composition⁷⁸ was converted to the standard chemical composition by Francaviglia and the Qatar bead sample appears to be identical to samples from Bir Hima (217-19, 217-57) and fits within the projected Asir source. Based on strong correlations with Red Sea coastal obsidian artifacts, it is possible that obsidian from the Asir center was traded both east and west or was obtained in Qatar by direct sea trade.

Sea trade in obsidian is well established in the study of Aegean obsidian.⁷⁹ In examining the Arabian obsidian, we noted that a subgroup K was proposed which consisted of obsidian found in western Saudi Arabia (211-30), the Farasan Islands of the Red Sea (217-91), the coastal midden Sihi (217-107), Dahlak Island specimens from offshore Africa, the Yemeni coastal site ABD, and specimens from Hureidha in the Hadhramaut (figs. 45-48). With the addition of obsidian from Subr (People's Democratic Republic of Yemen) on the Indian Ocean littoral,⁸⁰ it would appear that either an entirely unknown Arabian source or Mojjo, Abbasurin, Arafali, Sardo or Meheso from Ethiopia was used. This, in turn, suggests the development of an extensive sea trade beginning in the early second millennium B.C. and continuing well into the Sabaeen period.⁸¹

AFRICA

In an earlier study, we found forty-two reported obsidian source areas for the larger Ethiopian region and this most assuredly does not represent the total number present.⁸² However, in terms of our interests in this paper, one could speculate that the reported obsidian sources from the East African rift valley proper are the least likely to have been involved in the Red Sea trade. Thus, a more detailed examination of the reported sources should concentrate on Eritrea and Djibouti (table 5 and fig. 44). Our major problem, however, is the lack of analyzed artifacts from reported sites. Archaeological work in the past was extremely skimpy along the African side of the Red Sea coast and current political problems compound the problem. Thus the bulk of our recent information comes from work to the north of the reported source areas in the Gash delta⁸³ and the Atbara/Butana plains.⁸⁴ The principal investigators in the region suggest that an Atbai Ceramic Tradition

77. B. Piriou, "Perle en obsidienne de Khor I," *Paléorient* 11/1 (1985): 140.

78. C. Bahezre, "Perle en obsidienne de Khor," *Paléorient* 11/1 (1985): 140.

79. Torrence, *Production and Exchange of Stone Tools*, pp. 93ff and 121 ff.

80. D. B. Doe, "Pottery Sites Near Aden," *JRAS* 63 (1963): 160.

81. Zarins, "Obsidian and the Red Sea Trade, Prehistoric Aspects."

82. Zarins, "Obsidian and the Red Sea Trade, Prehistoric Aspects."

83. R. Fattovich and M. Piperno, "Archaeological Researches in the Gash Delta, Kassala Province (1980-1981 Field Season)," in M. Krause, ed., *Nubische Studien*, Fifth International Conference of the Society for Nubian Studies (Mainz, 1985), pp. 47-53.

84. R. Fattovich, A. E. Marks, and A. Mohammad-Ali, "The Archaeology of the Eastern Sahel, Sudan: Preliminary Results," *The African Archaeological Review* 2 (1984): 173-88; Fattovich, "Data for the History of the Ancient Peopling of the Northern Ethiopian-Sudanese Borderland," in S. Rubenson, ed., *Proceedings of the Seventh International Conference of Ethiopian Studies* (Uppsala, 1984), pp. 177-86; Fattovich "The Problems of Punt in Light of Recent Field Work in the Eastern Sudan," *Fourth International Congress of Egyptology* (Munich, 1985 in press); A. Marks, A. Mohammad-Ali, and R. Fattovich, "The Archaeology of the Eastern Sudan: A First Look," *Archaeology* 17 (1986): 44-50.

developed in the early fifth millennium B.C. and persisted into the early first millennium A.D. In terms of our more specific interests, we have focused on the Kassala Phase ranging from ca. 3500 B.C. to 1000 B.C.

Within the context of this framework, Fattovich and others suggest that the sites of Kokan and Ntanei in the Agordat area which yielded numerous flakes and cores of obsidian as well as crescentic microliths may belong to the Jebel Mokram Group and date to the mid-second millennium B.C.⁸⁵ The Agordat sites in the coastal area of Eritrea lie 100 km to the northwest of the closest reported obsidian sources (sites no. 19 and 20), yet obsidian is reported as "particularly numerous."

The port site of Adulis lies within the proximity of coastal volcanoes.⁸⁶ Excavations in the deep sounding in the city yielded abundant obsidian flakes and microliths.⁸⁷ While Fattovich suggests a date of the first millennium B.C. for the deep assemblage,⁸⁸ we would prefer an earlier date in the second millennium B.C. based on examination of the ceramics from this excavation at Adulis and their parallels to the Sihi, Subr, and SLF-1 assemblages in Arabia.⁸⁹

At Mahal Taglinos, near Kassala, several obsidian fragments are reported from perhaps early second millennium B.C. levels.⁹⁰ To the north at Erkowit, still perhaps within the context of the Atbai Ceramic Tradition, survey and limited soundings revealed a large site complex in a fossil lake deposit. Obsidian tools in the microlithic tradition were noted and, based on accompanying ceramics, a date in the third millennium B.C. was suggested.⁹¹

In summary, it appears that microlithic obsidian materials are reported from the Eritrean coast and somewhat inland at such sites as Adulis, Agordat, Erkowit, Er Rih island,⁹² Aqiq,⁹³ and the Dahlak group.⁹⁴ Similar material was recovered from the Farasan Islands, Sihi, and other Neolithic period sites on the Arabian side of the Red Sea. Unfortunately, the archaeological record suggests that the microlithic tradition persisted across an extremely long time period in the southern Red Sea. The Late Paleolithic techniques may have continued well into the first millennium B.C. However, it may be possible to suggest a shorter time span for more specific knapping techniques within this larger tradition. This could be confirmed by an early Holocene

85. A. J. Arkell, "Four Occupation Sites at Agordat" *Kush* 2 (1954): 51; Fattovich, *Proceedings of the Seventh International Conference of Ethiopian Studies*, p. 181; Fattovich, Marks, and Mohammad-Ali, *The African Archaeological Review* 2 (1984): 185.

86. S. Munro-Hay, "The Foreign Trade of the Aksumite Port of Adulis," *Azania* 17 (1982): 107-25.

87. R. Paribeni, "Ricerche nel Luogo dell'Antica Adulis (Colonia Eritrea)," *Monumenti Antichi* 18 (1907): 445-51, esp. 450.

88. R. Fattovich, "Elementi per la Preistoria del Sudan Orientale e dell'Etiopia Settentrionale," in *Studi di Pal. in Onore di Salvatore M. Puglisi* (Rome, 1985), p. 459.

89. Paribeni, *Monumenti Antichi* 18, pls. III-VI; Zarins and Badr, *Atlatl* 10; Tosi, *East and West* 37.

90. Fattovich and Piperno, "Archaeological Researches in the Gash Delta," pp. 47-53; L. Costantini et al, "Preliminary Report of Archaeological Investigations at the Site of Mahal Taglinos (Kassala) November 1981," *Nyame Akuma* 21 (1982): 32.

91. P. Callow and G. Wahida, "Fieldwork in Northern and Eastern Sudan," *Nyame Akuma* 18 (1981): 36.

92. *Ibid.*, p. 36.

93. C. Conti Rossini, *Storia d'Etiopia* (Bergamo, 1928), p. 75; Fattovich, *Proceedings of the Seventh International Conference of Ethiopian Studies*, p. 182.

94. A.-C. Blanc, "L'Industrie sur obsidienne des îles Dahlac (Mer Rouge)," *Actes du II Congrès Panafricain de Préhistoire (Algiers, 1952)* (Algiers, 1955), pp. 355-57; A. Teti, "Industrie litiche delle isole Dahlac," (baccalaureate dissertation, Rome University, 1959).

emphasis on microliths in the Sudanese Nile Valley.⁹⁵ A fourth millennium B.C. revival is reported from the desert fringes of southern Israel.⁹⁶ Therefore, obsidian, in part, would support the larger concept of trans-Red Sea trade, a phenomenon well established in the first millennium B.C.⁹⁷ and undoubtedly going back to the early Holocene.⁹⁸

In light of these studies from the African sites, we need to locate the sources for the obsidian artifacts. We can begin with Adulis. The site lies on Zula Bay and the obsidian from the site, in all probability, comes from the Alid volcano (source 20) located in the vicinity. Since the site was a port of considerable fame in the classical world,⁹⁹ it would appear probable that its deep levels represented a port of equal importance in the third or second millennium B.C. It would not be unreasonable to suppose that Adulis was one port from which obsidian was exported. The *Periplus* states that another obsidian location could be found 800 stadia beyond Adulis on a deep bay as we noted above. Several attempts to trace the route of the *Periplus* in the early nineteenth century led Salt to suggest that this locale was found on the Bay of Howakil near Ras Hanfilah.¹⁰⁰ While we speculated that the volcano Miailo may represent the Arafali source, it appears likely that obsidian from both source 19 and 20 were exploited by coastal populations for trans-shipment.

Trace and chemical analyses for African artifact obsidians are not published in any detail. The original Renfrew School article reported on a single geological specimen from Arafali (= Miailo?, our site 19?) and assigned it to a new group 6 (1j). Analysis of artifacts and sources suggests that group 1j is composed of a rather complex set of materials. Source 19 (Arafali) matches up with two specimens from the Dahlak Islands as well as one specimen from the Farasan Islands. However, in Yemen source 3 (TKY-5) as well as artifacts from Hureidha (fig. 47, subgroup C and F) also match this group. It would appear that either sources from both sides of the Red Sea are indistinguishable or that the artifacts were part of a large-scale, cross-Red Sea trade network already established in the second millennium B.C.

Another specimen from the Dahlak Islands, however, matches Group 4d and this suggests that the source could be one of the multiple highland Yemen sources analyzed to date (fig. 47, subgroup A) or that the artifact comes from Abasurin and Mojo in Ethiopia. If we consider the Nb-Y plot, the picture is less clear. Here it appears that Arafali (source 19), Abasurin (no. 16), and Melka Konture (no. 15) could have been the sources for the Dahlak Islands' obsidian. On the other hand, this cluster also includes samples from neolithic western Arabia (211–30), Sihi (217–107), the Farasan Islands (217–91), and others in subgroup K (see above, fig. 48).

95. I. Caneva and A. Zarattini, "Microlithism and Functionality in the Saggai 1 Industry," *Origini* 12 (1983): 209–33; J. Nowakowski, "The typology of lithic implements from the Neolithic settlement at Kadero (Central Sudan)," in L. Krzyzaniak and M. Kobusiewicz, eds., *Origin and Early Development of Food-Producing Cultures in North-Eastern Africa* (Poznan, 1984), pp. 343–51.

96. S. A. Rosen, "The Microlithic Lunate: An Old-New Tool Type from the Negev, Israel," *Paléorient* 9 (1983): 81–83. We should also note that in tomb 836 at Nagada of Nagada II date, the tomb inventory lists, in addition to lapis lazuli and resin, varied-color agate lunates (see E. J. Baumgartel, *Petrie's Nagada Excavation: A Supplement* [London, 1970], pl. xxxi).

97. Munro-Hay, *Azania* 17: 107–25.

98. M. Tosi, "The Emerging Picture of Prehistoric Arabia," *Annual Review of Anthropology* 15 (1986): 476–77.

99. Munro-Hay, *Azania* 17: 107–25; L. P. Kirwan, "A Roman Shipmaster's Handbook," *The Geographical Journal* 147 (1981): 80–85.

100. Salt, *A Voyage to Abyssinia and Travels . . .*, p. 194.

We can conclude that several outstanding problems need to be solved before we can define with some confidence the inter-regional trade in obsidian along the northeastern African margin. First, very few obsidian samples from proper context have been submitted for analysis.¹⁰¹ This makes it extremely difficult to suggest which sources were utilized. Second, on a theoretical basis, could we distinguish *all* of our distinct sources based on a sample of archaeological specimens alone? (So far 42 sources are known.) Third, will there be a one-to-one correspondence such as suggested by the Anatolian and Mediterranean sources? In other words, will each specimen analyzed slot into only one possible source? For example, it now appears that analyzed archaeological Arabian samples correspond with highland Ethiopian sources (figs. 45–48), surely a very remote possibility.

THE INTRODUCTION OF OBSIDIAN INTO EGYPT

The number of objects and fragments from Egypt cataloged in 1927 was extremely low, numbering no more than 108 objects from the Predynastic through Roman periods.¹⁰² While a number of excavations have occurred since this time, the amount of reported obsidian pieces has not increased dramatically. For this report, we restrict ourselves to a listing of only Predynastic-Archaic pieces (table 6) with reference to other materials where appropriate.

TABLE 6. Obsidian Occurrences in Egypt

<i>Site</i>	<i>Locus</i>	<i>Object</i>	<i>Period</i>	<i>Museum</i>	<i>Reference</i>
<i>PREDYNASTIC (NAGADA I–III)</i>					
1. Hierakonpolis	HK-29, sq. 17L13 structure II	several pieces	Nagada I		W. P. McHugh, "2. The Stone Artifacts from Structure II, Locality 29," in M. A. Hoffman, <i>The Predynastic of Hierakonpolis</i> (Cairo, 1982), 91 and 91*.
2. Hierakonpolis	HK-6, tomb 11	five blades set in a sickle	Nagada III		Hoffmann, per. com.
3. Nagada (Zuwaydah)	Tomb N 1260	flake/blade	SD 34	UC 5427	W. M. F. Petrie and J. E. Quibell, <i>Nagada and Ballas</i> (London, 1896), p. 45; E. Baumgartel, <i>Petrie's Nagada Excavation: A Supplement</i> (London, 1970), pl. xxxvii
4. Nagada (Zuwaydah)	Tomb N 743	pierced & serrated flake/blade	SD 60	UC 4385	Petrie & Quibell, <i>Nagada and Ballas</i> , pp. 27, and 45; Petrie 1920: 46; Baumgartel, <i>Petrie's Nagada Excavation: A Supplement</i> , pl. xxix; G. Wainwright, "Obsidian," <i>Ancient Egypt</i> (1927): 88.

101. V. Francaviglia, R. Fattovich, and J. Michels, per. com.

102. G. Wainwright, "Obsidian," pp. 88–92; Lucas, *ASAE* 41: 274.

TABLE 6 — Continued

Site	Locus	Object	Period	Museum	Reference
5. Nagada (Zuwaydah)	Tomb N 499	12 chipped beads	SD 53-77	UC 4267	W. M. F. Petrie, <i>Prehistoric Egypt</i> (London, 1920), p. 44; M. Massouard, "Lances, fourchues et Peseshkaf," <i>Rev. d'Egyptologie</i> 2(1936): 159; Baumgartel, <i>Petrie's Nagada Excavation: A Supplement</i> , pl. xxi.
6. Nagada (Zuwaydah)	Tomb N 140	obsidian flakes	Nagada II?		Unpublished Petrie notebooks; Baumgartel, <i>Petrie's Nagada Excavation: A Supplement</i> , pl. vi
7. Nagada (Zuwaydah)	South Town surface debris	tip of a leaf- shaped knife and small flakes	Nagada II?	AM 95.1146	F. Spurrell, "The Flint Implements of Nagada," in Petrie and Quibell, <i>Nagada and Ballas</i> , p. 57; Baumgartel, <i>Petrie's Nagada Excavation: A Supplement</i> , pl. lxxii.
8. Abydos	Grave 1606	blade	Nagada III		H. Frankfort, "Appendix II. Obsidian," in <i>Studies in Early Pottery of the Near East</i> (London, 1927), pp. 190-91; idem, "The Cemeteries of Abydos: Work of the Season 1925-26," <i>JEA</i> 16 (1930): 214 and pl. xxxi:1
9. Abydos	Cemetery U, tomb 2	small flake	Nagada II?		T. E. Peet, <i>The Cemeteries of Abydos, Part II. 1911-1912</i> (London, 1914), p. 15
10. Abadiyeh	Cemetery U U207	blade	SD 43		W. M. F. Petrie, <i>Diospolis Parva</i> (London, 1901), pl. x:33
11. Hu	Cemetery	disc beads	SD 57		Petrie, <i>Diospolis Parva</i> , p. 27 and pl. IV; Wainwright, "Obsidian," p. 89.
12. Hemamieh Qau?	Tomb 1629	pierced flake pendant	SD 44-60		Wainwright, "Obsidian," p. 88; G. Brunton, <i>Qau and Badari</i> (London, 1927), p. 3 and pl. L:89
13. Gerzeh	Predynastic cemetery, tomb 185	small blade	SD 43-70		G. Wainwright, "Chapter," in F. Petrie, G. Wainwright, and E. Mackay, <i>The Labyrinth, Gerzeh, and Mazghuneh</i> (London, 1912), p. 24; Massouard, <i>Rev. d'Egyptologie</i> 2, p. 159
14. Abusir el Meleq	Tomb 13 A 2	blade No. 18 680	Nagada II/III		A. Scharff, <i>Das Vorgeschichtliche Graberfeld von Abusir el-Meleq</i> (Leipzig, 1926), pp. 47-48; Massouard, <i>Rev. d'Egyptologie</i> 2, p. 159

TABLE 6 — *Continued*

<i>Site</i>	<i>Locus</i>	<i>Object</i>	<i>Period</i>	<i>Museum</i>	<i>Reference</i>
15. Abusir el Meleq	Tomb 60 A 1	two blades No. 18 690	Nagada II/III		<i>Ibid.</i>
16. Abusir el Meleq	Tomb 36 A 2	two blades	<i>Ibid.</i>		Scharff, pp. 47–8, 133
17. Abusir el Meleq	Tomb 1017	one blade No. 19 134	Nagada I?		<i>Ibid.</i> , p. 151
18. Abusir el Meleq	Tomb 46 C 1	two blades	Nagada II/III		<i>Ibid.</i>
19. Abusir el Meleq	Tomb 1036	one blade No. 19 310	Nagada II/III		<i>Ibid.</i> , p. 153
20. Abusir el Meleq	Tomb 56 C 7	two blades No. 38 188	Nagada II/III		<i>Ibid.</i>
21. Abusir el Meleq	Tomb 1070	one blade	Nagada II/III		<i>Ibid.</i>
22. Abusir el Meleq	Tomb 1035	four blades	Nagada II/III		<i>Ibid.</i>
23. Abusir el Meleq	Tomb 1066	one blade	Nagada II/III		<i>Ibid.</i>
24. unknown		large flake	prehistoric?		Wainwright, "Obsidian," p. 88
25. unknown		blade/flake	prehistoric?		E. Feucht, <i>Vom Nil zum Neckar</i> (Berlin, 1986), v; the entry by K. Schmidt, "Steingerate von der Jungsteinzeit (Neolithikum) bis zum Mittleren Reich," pp. 9–13, see p. 13, no. 16
Note *					
26. Akhmim		fragmentary fish-tail knife	SD 55	Berlin 15772	Wainwright, "Obsidian," pp. 88–89; W. Needler, <i>Predynastic and Archaic Egypt in the Brooklyn Museum</i> (New York, 1980), p. 274
27. Akhmim		fragmentary fish-tail knife	SD 55	Berlin 15773	Needler, p. 274
28. Akhmim		fragmentary fish-tail knife	SD 55	Louvre E14278	Massoulard, <i>Rev. d'Egyptologie</i> 2, pp. 158ff. and pl. 1–2
29. Akhmim		fragmentary fish-tail knife	SD 55	Louvre E14279	<i>Ibid.</i>

TABLE 6 — *Continued*

<i>Site</i>	<i>Locus</i>	<i>Object</i>	<i>Period</i>	<i>Museum</i>	<i>Reference</i>
30. Akhmim		fragmentary fish-tail knife	SD 55	Cairo JE56605	A. Lucas, <i>Ancient Egyptian Materials and Industries</i> (2nd ed.) (London, 1934), p. 368, n. 1; idem, "Obsidian," <i>ASAE</i> 47 (1947): 120
31. Akhmim		fragmentary fish-tail knife	SD 55	Cairo JE56606	<i>Ibid.</i>
32. Akhmim		fish-tail knife	SD 55	Brooklyn 35.L445	Needler, <i>Predynastic and Archaic Egypt in the Brooklyn Museum</i> , pp. 274–5
<i>ARCHAIC EGYPT (Dynasties 0–II)</i>					
33. Nagada	mastaba chamber C	3 small vases	Dynasty I		J. De Morgan, "Ch. IV. Le tombeau royal de Negadah," in <i>Recherches sur les Origines de l'Égypte</i> (Paris, 1897), p. 163 and figs. 625-27; Wainwright, "Obsidian," p. 89
34. Abydos	mastaba B-5	"comb"	"Menes period"		W. M. F. Petrie, <i>The Royal Tombs of the Earliest Dynasties, Part II</i> (London, 1901), pl. XXXII: 10
35. Abydos	mastaba O-87	vase	Djer		<i>Ibid.</i> , pl. XLVIII
36. Abydos	mastaba X-106	vase	'Adjib		<i>Ibid.</i> , pl. XLVIII
37. Abydos	mastaba W-38	vase fragments	'Adjib		Petrie, <i>Prehistoric Egypt</i> , p. 88
Note **					
38. Hierakonpolis	temple area? "main deposit"	disc beads	"proto-dynastic"		J. E. Quibell and F. W. Green, <i>Hierakonpolis, Part 2</i> (London, 1902), p. 52.
39. Nubia	Aswan	flakes	"proto-dynastic"		Wainwright, "Obsidian," p. 88
Note ***					
40. Hierakonpolis		bead		UC 14877	B. Adams, <i>Ancient Hierakonpolis</i> (Warminster, 1974), p. 30, cat. no. 149/31; idem, <i>Ancient Hierakonpolis, Supplement</i> (Warminster, 1974)
41. Hierakonpolis	Area NN, top of revetment	rough beads			<i>Ibid.</i> , p. 18
42. Hierakonpolis	Area NN, under the great platform and temple	chipped beads			<i>Ibid.</i> , p. 52
43. Hierakonpolis	east angle of temple	one or two flakes			Quibell and Green, <i>Hierakonpolis, Part 2</i> , p. 12 and section 31
Note ****					

* The following obsidian bifacial "fish-tailed knives" were all obtained from illicit sources and cannot be checked for authenticity. All are reputed to have come from Akhmim, a Predynastic site north of Abydos in Upper Egypt. The use of ripple flaking and the forked shape have parallels in the Predynastic flint industry and thus Wainwright and Massouard have suggested an SD date in the SD 47-63 range (Wainwright, "Obsidian," p. 89; Massouard, *Rev. d'Égyptologie* 2, pp. 158ff.).

** From mastaba O-87, X-106, or W-38 a vase fragment was sent to Berlin, No. 15456, see Scharff in Wainwright, "Obsidian," p. 89; from the Nagada mastaba, a vase fragment was sent to the Liverpool Institute of Archaeology, see Newberry in Wainwright, "Obsidian," p. 89.

*** The following series of beads and bead fragments from Hierakonpolis is judged to belong to the Nagada I-III periods or as late as the Old Kingdom. Most of this material may, in fact, belong to a bead maker's shop of the Old Kingdom (Quibell and Green, *Hierakonpolis, Part 2*, p. 12).

**** For Old Kingdom examples from Saqqara and Hierakonpolis, see Quibell and Green, *Hierakonpolis, Part 2*, pp. 33, 45-46; Wainwright, "Obsidian," p. 88; G. Brunton, "The Burial of Prince Ptah-shepses at Saqqara," *ASAE* 47 (1947):128; Lucas 1962:109; Adams, *Ancient Hierakonpolis* (Warminster, 1974), p. 16 and *Supplement* (Warminster, 1974), pp. 15, 18; a small obsidian conical vase from Denderah is attributed to the VI Dynasty, W. M. F. Petrie, *The Funeral Furniture of Egypt with Stone and Metal Vases*, vol. 59, British School of Archaeology in Egypt (London, 1937), p. 7.

The introduction of obsidian into Egypt may have taken place initially during Nagada I times. However, those examples present problems. At Hierakonpolis, the excavators report that the 1978 excavation of structure II at HK-29 yielded several pieces of "obsidian-like material." This structure is dated to the Amratian or Nagada I period, ca. 3700-3500 B.C.¹⁰³ Unfortunately, this material has not been subjected to analysis and no other obsidian from the site is reported from Nagada I context. These artifacts may not be true obsidian based on the assertion that they could have come from Nilotic gravels,¹⁰⁴ since no obsidian occurs within the geographical borders of modern or ancient Egypt. Other reported obsidian from Hierakonpolis belongs to the later periods (table 6). From Nagada (Zuwaydah), tomb N1260 is attributed to SD 34 and may belong to the Nagada I period. Other "exotica" reported from Nagada I context at Zuwaydah such as silver and lapis lazuli may strengthen the idea that obsidian was already being traded by Nagada I times. From Abusir el Meleq, tomb 1017 may belong to the Nagada I period.¹⁰⁵ All of the other obsidian reported from prehistoric context can be attributed to Nagada II or III context. Of special interest is tomb 1035 at Abusir el Meleq. Found in direct association with the four obsidian blades was an ivory cylinder seal. It appears to be a Jemdet Nasr/Early Dynastic I Mesopotamian "Brocade Style" type.¹⁰⁶ The grave may date to the Nagada III period.

In prehistoric context, the obsidian objects tend to be either blades/ flakes or beads, which suggest that only small amounts were traded. From Hierakonpolis tomb no. 11 in HK-6, five blades were found presumably inset into a sickle. From Abusir el Meleq, four blades from tomb 1035 may have served the same purpose. The Akhmim illicit finds represent the largest implements made from obsidian, but their authenticity remains dubious. During the Archaic period, small obsidian bowls and vases appear in "royal mastaba tombs" at Abydos and Nagada. This suggests larger amounts were used. During the succeeding periods

103. W. P. McHugh, "2. The Stone Artifacts from Structure II, Locality 29," in M. A. Hoffman, *The Predynastic of Hierakonpolis* (Cairo, 1982), pp. 85-92, esp. 91 and 91*.

104. McHugh, "2. The Stone Artifacts from Structure II, Locality 29," p. 91.

105. Scharff, *Das Vorgeschichtliche Graberfeld von Abusir el-Meleq*, p. 151.

106. Scharff, *Das Vorgeschichtliche Graberfeld von Abusir el-Meleq*, fig. 22 and p. 58.

through the New Kingdom, obsidian was principally used in pupil eye inlay, for scarabs, and rarely for small vessels and sculpture.¹⁰⁷

The distribution of obsidian in Egypt goes hand in hand with other rare objects and materials found principally in funerary context. While some object to the idea that initial Mesopotamian elements found their way into Upper Egypt via the Wadi Hammamat,¹⁰⁸ it appears that obsidian did follow this route. Of some sixteen known sites with reported obsidian, only five are located in Lower Egypt. This also appears to confirm the suggestion that obsidian did not reach Egypt via the Negev/Sinai. If we restrict our observations only to the Predynastic and Archaic periods, we see that of ten sites in which obsidian was found, only two sites (Gerzeh and Abusir el Meleq) are in Lower Egypt. (We should note, however, that the latter site has a very large number, seventeen, of reported pieces from Nagada II/III context, table 6.) The bulk of the obsidian comes from three sites, Hierakonpolis, Nagada (Zuwaydah), and Abydos. Of final interest is the observation that of the unprovenanced pieces, many come from Coptos, the traditional ship-building yard of Upper Egypt and the terminus of the later historical Red Sea trade.¹⁰⁹

Based on our analysis of some thirty-two reported Red Sea sources, and the current developments in archaeological exploration in the region,¹¹⁰ we are in a position to make some preliminary comments on the origin of Egyptian obsidian. However, since the bulk of the reported Egyptian samples was analyzed by the Renfrew School, we have only the trace element analyses at our disposal. In addition, more recent studies of Egyptian obsidian, while reported as being underway by the Renfrew School, were not completed due to the inherent destructive process involving the objects.¹¹¹

The initial study of the Renfrew School analyzed only three Predynastic specimens (table 6, nos. 5, 8, and 13) — two from Upper Egypt (Nagada, Abydos) and one from the Delta (Gerzeh). All three pieces appear to come from Nagada II context. All were classed in the 4c/d group and thought to have come from Ethiopia or Arabia.¹¹² Twelve additional pieces were examined according to color analysis alone and they also were thought to belong to this group.¹¹³ The sample size thus is extremely low if we examine the specimens which are available for analysis (table 6). Our plot of these specimens on the Ba-Zr graph confirms that all three come from the 4d group. Moreover, since they cluster within our subgroup A, it appears that they could be derived from the Dhamar-Reda field (fig. 47) and more specifically from Jebel Isbil. The Egyptian examples tie in nicely with archaeological specimens from highland Yemen, the Arabian Red Sea coast, and the Dahlak Islands. Some of the Arabian specimens are contemporary in date to the Egyptian pieces while others range in date from the third millennium to the first millennium B.C. Our plot of Y and Nb presents a better interpretation. The specimen from Gerzeh clusters with nine source samples from TKY-5 in the Dhamar-Reda field and several highland Yemeni archaeological samples of Bronze Age date (fig. 48). This grouping we label

107. Wainwright, "Obsidian," pp. 88 and 91.

108. W. Helck, *Die Beziehungen Agyptens zu Vorderasien im 3. und 2. Jahrtausend v. Christ* (Wiesbaden, 1962); S. P. Tutundzič, "Ways of Relations between Upper Egypt and Palestine during the Late Chalcolithic Period," in W. F. Reineke, ed., *First International Congress of Egyptology, Acts* (Berlin, 1979), pp. 651–59; see the summary in Kantor "The Relative Chronology of Egypt," pp. 11–13.

109. Wainwright, "Obsidian," p. 91.

110. Zarins, "Obsidian and the Red Sea Trade, Prehistoric Aspects."

111. Renfrew, *per. com.*

112. Cann and Renfrew, *Prehistoric Society Proceedings* 30, p. 124.

113. *Ibid.*, p. 124.

subgroup C (see above). Thus, using the Y-Nb plot, we may be able to distinguish between the bulk of the samples (Subgroup A) and the Egyptian samples which cluster as subgroup C. The other two specimens from Abydos and Nagada belong to our enigmatic subgroup K (see above) which ties in archaeological specimens from the Dahlak Islands, the Farasan Islands, coastal Arabian shell middens, upland Saudi Arabian sites, and specimens from the Hadhramaut. These again range in date from the fourth millennium B.C. to the first millennium B.C. The source for subgroup K most likely is Arafali on the Buri peninsula although Mojjo and Abasurin in inland Ethiopia are also possibilities. Of course, we are aware of the deficiencies in the data utilized to date which involves the lack of African archaeological samples and the scarcity of analyzed Egyptian samples, but it does appear that we are seeing the utilization of at least two distinct obsidian sources during the Nagada II/III period. The first involves the upland Yemeni source in the Dhamar-Reda complex and the second the coastal source in Eritrea at Arafali (=Adulis?).

From Archaic Egypt context we have five provenanced obsidian pieces (from a total of seven) and only one was run by the Renfrew School (table 6, no. 37, attributed to the late First Dynasty). In our Ba-Zr plot (fig. 47), this object allies itself with the low end cluster of the 4d group (Subgroup A) and this suggests the same source was used as in the Predynastic period. The Y-Nb plot (fig. 48), however, ties the object into our subgroup K which suggests that the Arafali source in Eritrea was the actual source used. Since we are more confident in our ability to distinguish subgroups on the basis of the Y-Nb plot, we would suggest that the piece more likely came from Arafali.

While our analysis of obsidian ends with the Archaic period, we can point out some relevant observations from later periods. From the Old Kingdom, eleven obsidian pieces have been attributed to the period from several locales. Virtually all pieces where provenance can be assigned belong to the late Old Kingdom (Fifth and Sixth Dynasties) and there is a conspicuous gap between the First Dynasty examples and those from the Fifth and Sixth Dynasties.¹¹⁴ None have been analyzed. From the Middle Kingdom, we have a number of samples which again have not been analyzed.¹¹⁵ A small flake from the Hittite capital of Hattusas was removed from an obsidian bowl of the Hyksos Pharaoh Chian and was thus dated to the Second Intermediate Period.¹¹⁶ On the Ba-Zr plot (fig. 47), this specimen falls within group 1j (our subgroup C and F) and is allied with specimens from Hureidha, the Farasan Islands, the Dahlak Islands, and highland Yemen. Based on this plot, it appears the specimen could have come from either the Dhamar-Reda field in Yemen (TKY-5) or Arafali in Eritrea. On the Y-Nb plot, however, the specimen appears rather isolated in a far different cluster — our subgroup B. The only associations here are with archaeological specimens from the coastal Red Sea of Arabia and upland Yemen and Saudi Arabia (fig. 48). Our last two specimens belong to the New Kingdom. One unprovenanced piece was analyzed by the Renfrew School¹¹⁷ and another, attributed to the early Eighteenth Dynasty,¹¹⁸ was studied by Francaviglia.¹¹⁹ On the Ba-Zr plot, both belong to Renfrew's

114. For a similar pattern involving lapis lazuli, see J. Crowfoot Payne, "Lapis Lazuli in Early Egypt," *Iraq* 30 (1968): 58–9.

115. Wainwright, "Obsidian," pp. 88 and 91; A. Lucas (revised and enlarged by J. R. Harris), *Ancient Egyptian Materials and Industries*, Fourth Edition (London, 1962), p. 416 and notes 1–4; Friedman and Smith, *American Antiquity* 25.

116. Renfrew, Cann, and Dixon, *Prehistoric Society Proceedings* 32; J. E. Dixon, J. R. Cann, and C. Renfrew, "Obsidian and the Origins of Trade," *Scientific American* 218 (1968): 44.

117. Cann and Renfrew, *Prehistoric Society Proceedings* 30, table 1, no. 71.

118. Van Siclen, per. com.

119. Francaviglia, per. com.

group 1j and thus could derive from either Arafali in Eritrea or TKY-5 from Dhamar-Reda (fig. 47, subgroup C and F). Using the Y-Nb plot (fig. 48), the two specimens fit into our subgroup K which, as we have seen, suggests that the source was most likely Arafali.

In conclusion, several relevant points can be made. Egyptian obsidian was traded from Red Sea sources as early as the Nagada II period if not earlier. The analysis of current samples suggests that the Egyptians utilized both the Arabian sources (probably through coastal exchange) and Eritrean locales from the Predynastic through New Kingdom periods. However, it appears increasingly likely that both Ethiopian and Arabian source obsidians show very similar fingerprints. In addition, cross-Red Sea trading by local populations during the period 4000–1000 B.C. also may have caused significant confusion as to the proper source of the archaeological samples. Finally, it appears that the Egyptians used sources accessible from the Red Sea coast itself. Thus, there is very little doubt that they sailed down the Red Sea and exploited obsidian taken from either coastal areas or more distant upland regions. Refinements on this study are already being made as the result of continuing analysis both from newly discovered source areas and additional archaeological samples principally from the on-going Sudanese projects.

SUMMARY

Obsidian as a volcanic glass was deemed highly desirable for its inherent properties as early as the Predynastic (Nagada I/II) and Archaic periods. The sources which are tied into volcanic eruptions were examined only in a superficial way, but it appears that at least thirty-two different sources could have been utilized in the southern Red Sea region alone. The fingerprint pattern for these sources and their archaeological artifacts may be retrievable under proper chemical and laboratory examination. Currently, it appears that extensive Red Sea trade existed in obsidian from sources both in Arabia and Africa as early as 5000 B.C. This trade in obsidian can now be seen as merely a small part of a much larger trade pattern involving East Africa, Arabia, and the Indian subcontinent. Egypt (and Mesopotamia) began to participate in this trade in rather early prehistoric contexts and developed long distance networks. While we have suggested that such items as silver, lapis lazuli, and incense were traded, our focus is on obsidian. Trade from Egypt emanated from principal centers in Upper Egypt such as Nagada and Hierakonpolis and later Abydos. These centers controlled “port cities” on the eastern side of the Nile such as Coptos and El Kab and mounted necessary expeditions across the Eastern Desert to the Red Sea to obtain the desired “exotica.” Shipping in the Red Sea was considered necessary and appropriate shipbuilding techniques were developed apparently as early as the Nagada I period. Maritime travel was undertaken to obtain goods as far south as Punt and God’s Land and north to Bia (the Sinai/Arabia). The obsidian sources in both highland (and coastal) Arabia as well as along the African coast were utilized according to analysis described in this study. The pattern established continued throughout the Old, Middle, and New Kingdoms, with perhaps Papyrus Harris, written under Ramses III (1198–1166 B.C.), marking the end of a two and a half millennia old tradition.

Chapter 25

POTTERY PROFILES RECONSTRUCTED FROM JAR SEALINGS IN THE LOWER SEAL IMPRESSION STRATA (SIS 8–4) AT UR: NEW EVIDENCE FOR DATING¹

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From the time of their first publication² the exact dating of the sealings found in the lower Seal Impression Strata (SIS 8–4) at Ur has been a matter of controversy. Scholars argued and reargued the case; several scholars expressed opinions and later changed their thinking.³ Even after Donald P. Hansen argued, on the basis of strong stylistic comparisons with stratified sealings from the Inanna temple at Nippur, that the majority of the sealings from SIS 8–4 should be dated to the first phase of the Early Dynastic period,⁴ their dating continued to provoke comment.⁵ In a situation such as that of the SIS sealings, where fifty years of argumentation have failed to settle the question of dating, new tacks need to be taken and fresh evidence marshaled.

Recently, in connection with an on-going study of institutional administration in Mesopotamia,⁶ I sorted through the sealings from the Seal Impression Strata in The University Museum. Among the sealings

1. I would like to thank Robert H. Dyson, Jr., Director of The University Museum and Curator of the Near Eastern Section for permission to work on and publish the sealings from the Ur Seal Impression Strata in The Museum. I am wholly responsible for the photographs and drawings.

This article is an expanded version of a paper given at the 148th meeting of the American Oriental Society, Chicago, March, 1988.

2. C. Leonard Woolley, "Excavations at Ur, 1929–30," *The Antiquaries Journal* 10 (1930): 341–43; idem, "Report on the Excavations at Ur, 1932–3," *The Antiquaries Journal* 13 (1933): pl. 64/1; L. Legrain, *Archaic Seal Impressions, Ur Excavations*, vol. 3 (London and Philadelphia, 1936).
3. Norbert Karg, *Untersuchungen zur älteren frödynastischen Glyptik babyloniens*, Baghdader Forschungen, vol. 8 (Mainz am Rhein, 1984), pp. 6–9.
4. Donald P. Hansen, "Some Early Dynastic I Sealings from Nippur," in *Studies Presented to George M. A. Hanfmann*, eds. David Gordon Mitten, John Griffiths Pedley, and Jane Ayer Scott (Cambridge, Mass., 1971), pp. 47–54.
5. Karg, *Untersuchungen zur älteren frödynastischen Glyptik babyloniens*, pp. 15–38.
6. Richard Zettler, "The Ur III Inanna Temple at Nippur." (Ph. D. diss., University of Chicago, 1984); idem, "Sealings as Artifacts of Institutional Administration in Ancient Mesopotamia," *Journal of Cuneiform Studies* 39 (1987): 197–240; idem, "Administration of the Temple of Inanna at Nippur under the Third Dynasty of Ur: Archaeological and

about fifty had sealed pottery jars, all but one were from SIS 8–4. Certain of the sealings showed the profile of the upper portion (shoulder, neck, and rim) of the jar that they had sealed; others showed only one or two diagnostic features of the jar.⁷ The reconstructed jar profiles and diagnostic features provide data for comparisons with stratified ceramics and, therefore, new possibilities for the dating of the sealings from SIS 8–4.

In this study I review generally the archaeological context of the sealings from the Seal Impression Strata, describe the profiles reconstructed from the jar sealings in The University Museum, and discuss parallels with the ceramics of established sequences and the dating of the sealings from SIS 8–4. It is particularly appropriate for me to contribute this study to a volume in honor of Helene J. Kantor. In my years as a graduate student and later as a Research Associate at the University of Chicago I learned from her both in the classroom and in less formal settings to handle and describe artifacts and to deal critically with them. I can think of few scholars whose ability to deal with objects I respect more than Helene J. Kantor's, and I am pleased to offer this study to her on the occasion of her seventieth birthday.

ARCHAEOLOGICAL CONTEXT

The majority of the clay sealings were found in soundings (Pits D, W, X, Y, and Z) that Woolley made in the southern part of the Royal Cemetery area.⁸ The sealings were in stratified lenses or layers of

Documentary Evidence," in *The Organization of Power: Aspects of Bureaucracy in the Ancient Near East*, eds. McGuire Gibson and Robert D. Biggs (Chicago, 1987), pp. 117–31.

7. In order to determine what object a particular clay sealing had sealed I followed a consistent procedure. I made drawings of the base and reverse of the sealing and then reconstructed a section or sections through the sealing. I pressed clay against the base and reverse or latex the base and reverse, thus making a positive of the object off which the sealing had been broken. The process is time consuming, but it facilitates the comparison of sealings and the quick recognition of reverse patterns and profiles for further studies. For the initial recognition of the various objects sealed I owe much to the work of Enrica Fiandra of the University of Rome (Fiandra, "A che cosa servivano le cretule di Festos," in *Pepragmena tou B' Diethnous Kritologikon Synedriou*, vol. 1, 383–97 [Athens, 1968]; idem, "Ancora a proposito delle cretule de Festòs: connessione tra i sistemi amministrativi centralizzati e l'uso delle cretule nell'eta del bronzo," *Bollettino d'Arte*, ser. 5, 60 [1975]: 1–15; idem, "Attività a Kish di un mercante di Lagash in epoca presargonica," *Oriens Antiquus* 20 [1981]: 166–74; idem, "Porte e chiusure di sicurezza nell' antico oriente," *Bollettino d'Arte*, ser. 6, 67 [1982]: 1–18).
8. Woolley, *The Antiquaries Journal* 10: 325–28; idem, *The Antiquaries Journal* 13: 380–83; idem, "The Excavations at Ur, 1933–34," *The Antiquaries Journal* 14 (1934): 355–72; idem, *The Early Periods, Ur Excavations*, vol. 4 (London and Philadelphia, 1955), pp. 5–6, 32–33, 37, 55, and 75–80.

Woolley's description of the excavations of Pits D, W, X, Y, and Z is complicated by the fact that the location of the pits as shown in the final report on the excavations (Woolley, *The Early Periods*, pl. 1) is incorrect and by the fact that Woolley did not specifically state in either the preliminary reports or the final report which faces of the pits the sections (*ibid.*, pls. 77–78, 82) represented. Wolfgang Gockel has reconstructed the location of the pits and discussed the sections (Gockel, *Die Stratigraphie und Chronologie der Ausgrabungen des Diyala-Gebietes und der Stadt Ur in der Zeit von Uruk Eanna IV bis zur Dynastie von Akkad* [Rome, 1982], pp. 66–68). Gockel's work is solid but glosses over one particular problem. Gockel assumed that the published section of Pit W represented the southwestern face of that pit, and therefore showed the northwest to southeast slope of the various layers in the area between Pits Y and Z (though at a point to the northeast of those pits). In view of the fact that the sections for Pits X and Y and Z apparently represented the southwestern faces of those pits and in terms of one of Woolley's descriptions (Woolley, *The Early Periods*, p. 32) his assumption is a reasonable one. However, in his detailed discussion of the excavation of Pit W Woolley specifically described the right-hand side of the section as the southwestern half of the excavations (*ibid.*, p. 76). His description would seem to imply that the section represented

apparently dumped debris. The layers sloped down sharply to the southeast and less markedly to the northeast.⁹

In the course of excavation eight strata containing seal impressions were distinguished and labeled (SIS 8–1 from lowest to uppermost), but certain of the strata which at the start of their excavation were distinct layers merged in digging (as might be expected of sloping layers of dumped debris) and were, consequently, treated as a single Seal Impression Stratum. That was the case, for example, with SIS 5 and SIS 4 and with SIS 2 and SIS 1.¹⁰ The labeled strata or combinations of strata (again as might be expected) were separated, in some areas, by considerable accumulations, but in other areas the distinctions were not so marked. For example, in Pits Y and Z, SIS 7–6 were separated from SIS 5–4 by at least six distinct layers, whereas in Pit W, located just northeast of Pits Y and Z, the distinction between SIS 7–6 and SIS 5–4 was not so clear.¹¹ The amount of time represented by the accumulated Seal Impression Strata is uncertain, but evidence suggests that at least SIS 8–4 were deposited over a relatively short span of time.¹²

The internal evidence for the dating of the Seal Impression Strata is discussed again and again. It nevertheless bears repeating here. SIS 8, 7–6, and 5–4 were sandwiched between two groups of burials that provide a *terminus post quem* and a *terminus ante quem* for the strata (and the sealings recovered from them). The lower Seal Impression Strata sealed burials of the so-called Jemdet Nasr Cemetery, though at the southeast end of Pit W (see n. 3) and Pit X, SIS 7–6, were disturbed by the latest burials of that cemetery or by burials slightly later in date; in Pit Y, SIS 5–4 were disturbed by burials.¹³ The dating of the so-called Jemdet Nasr Cemetery is a complicated matter, but most scholars would argue that it extended later in time than the Jemdet Nasr period.¹⁴ SIS 8, 7–6, and 5–4 were sealed by debris into which were cut the graves of the Royal

the southeastern face of Pit W, and therefore showed the Seal Impression Strata sloping from southwest to northeast. I am unable to reconcile Woolley's conflicting indications except by assuming that Woolley confused directions.

9. Woolley, *The Early Periods*, p. 5.

10. Legrain, *Archaic Seal Impressions*, p. vii; Woolley, *The Early Periods*, p. 5.

11. Woolley, *The Early Periods*, pp. 77, 79, pls. 77 and 82.

12. Gockel, *Die Stratigraphie und Chronologie der Ausgrabungen des Diyala-Gebietes und der Stadt Ur*, p. 83.

13. Woolley, *The Early Periods*, pp. 5–6, 32–33, 76–77, and 79.

14. Pinhas Delougaz, *Pottery from the Diyala Region*, OIP 63 (Chicago, 1952), pp. 129–30, 138; Jean-Daniel Forest, *Le Pratiques funéraires en mésopotamie du 5e millénaire au début de 3e: étude de cas* (Paris, 1983), pp. 117–31; Gockel, *Die Stratigraphie und Chronologie der Ausgrabungen des Diyala-Gebietes und der Stadt Ur*, pp. 70–84 and 107–113; S. Kolbus, "Zur Chronologie des sog. Gamdat Nasr-Friedhofs in Ur," *Iraq* 45 (1983): 10–11; Karen L. Wilson, "Nippur: The Definition of a Mesopotamian Gamdat Nasr Assemblage," in *Gamdat Nasr Period or Regional Style*, ed. Uwe Finkbeiner and Wolfgang Röllig (Wiesbaden, 1986), p. 66 and fig. 12.

Scholarly thinking on the dating of the so-called Jemdet Nasr cemetery is not unanimous. Delougaz argues on the basis of comparisons with the Diyala sequence (and with only Woolley's preliminary reports at hand) that the graves of the cemetery extended into Early Dynastic I. By contrast Behnam Abu al-Soof argues that the Diyala sequence was a local or regional sequence and could not be relied upon in dating southern Mesopotamian sites. He suggests that pottery types characteristic of Early Dynastic I in the Diyala region were already in use at Ur in the Jemdet Nasr period, and that the so-called Jemdet Nasr cemetery was in fact Jemdet Nasr in date (Behnam Abu al-Soof, "The Relevance of the Diyala Sequence to South Mesopotamian Sites," *Iraq* 29 [1967]: 138–40). P. R. S. Moorey in his recent publication of sealings from the Seal Impression Strata in the British Museum follows Behnam Abu al-Soof's logic and accepts his dating of the cemetery (Moorey, "Unpublished Early Dynastic Sealings from Ur in the British Museum," *Iraq* 41 [1979]: 117). In recent re-analyses several scholars have returned, if with a degree of caution, to Delougaz' dating of the cemetery. Gockel, for example, argues that the cemetery extends from the Jemdet Nasr period into Early Dynastic I (Gockel, *Die Stratigraphie und Chronologie der Ausgrabungen des Diyala-Gebietes und der Stadt Ur*, pp. 70–84, 107–13). Jean-Daniel Forest and Susanne Kolbus argue that the latest graves perhaps extend

Cemetery of the late Early Dynastic Period. SIS 2–1 sealed the Royal Cemetery graves, which in turn was sealed by debris into which were cut graves of Woolley's Sargonid period.

As for chronologically significant finds from the Seal Impression Strata, solid-footed goblets were found in Pit Z, SIS 8, but, according to Woolley, not normally below or above it. Part of a tray with a raised ring on the bottom of the interior (Type RC 1) was also found in Pit Z, SIS 8.¹⁵ The solid-footed goblet is the hallmark of the first phase of the Early Dynastic period. At Nippur (Inanna temple) and at sites in the lower Diyala region it apparently occurred in greatest concentration before the end of that period.¹⁶ The tray found in SIS 8 has good parallels at Nippur in levels dating to the first phase of the Early Dynastic period.¹⁷ In Pit W, SIS 7–6, jars were found with a single upright, wing-shaped lug and incised decoration on the shoulder, as well as sherds of gray ware with pattern burnishing. In Pit W, SIS 7–6, and SIS 5–4 the tray described above (Type RC 1) is apparently common.¹⁸ Jars with a single upright, wing-shaped lug and incised decoration on the shoulder are characteristic of Early Dynastic I levels at Nippur and in the lower Diyala region; the gray ware sherds have good parallels in the same levels.¹⁹ In the uppermost of the Seal Impression Strata, SIS 2–1, were found sealings with impressions of seals with the name and title of Mesannipadda, according to the Kinglist, founder of the first dynasty of Ur.²⁰

As has long been recognized, the internal evidence indicates that SIS 8–4 (and presumably the sealings found in the strata) fall broadly into the time between the Jemdet Nasr and the late Early Dynastic periods. The established sequences for that range of time are those of the Inanna temple (hereafter IT) at Nippur and of sites (Khafajah, Tell Asmar, and Tell Agrab) in the lower Diyala region, as well as sites in the upper Diyala region (Hamrin dam salvage area), for example, Tell Gubba, a site with levels spanning the Jemdet Nasr and Early Dynastic I periods,²¹ and Tell Razuk, a site dated to the end of Early Dynastic I or Early Dynastic II.²² The pottery from Nippur and sites in the lower and upper Diyala is used in this study for purposes of comparison with the profiles reconstructed from the SIS 8–4 sealings.

into Early Dynastic II (Forest, *Le Pratiques funéraires en mésopotamie*, pp. 117–31; Kolbus, *Iraq* 45: 10–11). Perhaps more important in fixing the date of the cemetery is Karen L. Wilson's restudy of the material. Wilson's analysis, which is part of her dissertation on the Jemdet Nasr period, is based wholly on southern Mesopotamian evidence (most particularly, the Nippur Inanna temple sequence). She concludes that only a few of the graves in the cemetery are in fact Jemdet Nasr in date; the bulk of the graves extends into Early Dynastic I (Wilson, "Nippur: The Definition of a Mesopotamian Gamdat Nasr Assemblage," p. 66, fig. 12).

15. Woolley, *The Early Periods*, p. 79.
16. Delougaz, *Pottery from the Diyala Region*, p. 56; Hansen, "New Votive Plaques from Nippur," *JNES* 22 (1963): n. 54; Wilson, "Nippur: The Definition of a Mesopotamian Gamdat Nasr Assemblage," p. 63.
17. Hansen, *JNES* 22: n. 54; Wilson, "Nippur: The Definition of a Mesopotamian Gamdat Nasr Assemblage," p. 63.
18. Woolley, *The Early Periods*, p. 76.
19. Delougaz, *Pottery from the Diyala Region*, pp. 57–8; Hansen, *JNES* 22: n. 54; Wilson, "Nippur: The Definition of a Mesopotamian Gamdat Nasr Assemblage," p. 63.
20. Woolley, *The Antiquaries Journal* 10: 325–26; idem, *The Early Periods*, p. 5.
21. Hideo Fujii, "Preliminary Report on Excavations at Gubba and Songor," *al-Rafidan* 2 (1981): 141.
22. McGuire Gibson, ed., *Uch Tepe I* (Chicago and Copenhagen, 1981), pp. 138–43.

CERAMIC PROFILES RECONSTRUCTED FROM SIS SEALINGS

Appended to this study is a listing (organized by field number) of the SIS jar sealings in The University Museum's Near Eastern collection; only those jar sealings for which specific findspots exist are included. The list comprises forty-eight sealings: two from SIS 8, one from SIS 7, four from SIS 7-6, ten from SIS 4, twenty-nine from SIS 5-4, one from SIS 8-4, and one from SIS 2-1. As an artifact category, "sealings" from the Seal Impression Strata include both sealed jar stoppers, that is clay pushed into the mouth of a jar and then sealed, and sealings proper, that is, clay placed on the shoulder and neck of a jar (frequently, though, as will be seen below, not invariably, against cloth or leather stretched over the mouth of a jar and secured by tying a cord or leather thong around the neck) and then sealed. By their very nature jar stoppers give little evidence of the profiles of the jars that they sealed, but they do provide information on the diameters of the mouths of the jars; therefore, the jar stoppers are discussed briefly before turning to the clay sealings.

JAR STOPPERS

Jar stoppers from the Seal Impression Strata can be divided into three groups based on shape: conical stoppers, discoids, and mushroom-shaped stoppers. Of the twelve jar stoppers in The University Museum's collection six are conical in shape, three are discoids, and three mushroom-shaped.²³ The descriptive terms conical and discoid are self-explanatory. One of the more completely preserved conical stoppers is shown on plate 67a; a discoid stopper is shown on plate 67b. The illustrations show that conical stoppers were pushed only a centimeter or so into the mouth of a jar; discoid stoppers fitted wholly into the mouth, only the convex upper surface perhaps remained above the level of the rim. The diameter of the base of three of the six conical jar stoppers and all three discoid stoppers can be determined. The conical stoppers sealed jars with diameters in the range of eight to nine centimeters. The discoid stoppers sealed jars with diameters of seven to nine centimeters, eight centimeters, and ten to eleven centimeters.

One of the mushroom-shaped stoppers is shown on plate 67c and d. The illustration shows that the center of the flattened portion of a plano-convex lump of clay was positioned over the mouth of a jar, and then pushed down into the mouth; the rest of the clay extended out and over the rim of the jar (which gives the sealing the shape of a mushroom with large cap and short stalk). Because the clay had extended over the rim, the mushroom-shaped stoppers provide some information on the profile of the jars sealed. Two of the three mushroom-shaped stoppers were on jars with a plain, flattened rim, one with a diameter of nine centimeters and one with a diameter of eleven centimeters (pl. 67e and f); the third mushroom-shaped stopper is not sufficiently well preserved for the rim type to be determined, but the jar had a diameter of roughly eight centimeters.

23. U. 14589 (31-16-646), U. 18395 (185), U. 18395 (788), U. 18395 (789), U. 18395 (792), and U. 18395 (885) are conical stoppers; U. 14878 (31-16-680), U. 18394 (834, 838), and U. 18399 (883) are discoids; and U. 14589, U. 18394 (894), and U. 18395 (786) are mushroom-shaped stoppers.

JAR SEALINGS

The jar sealings from the Seal Impression Strata in The University Museum's collection provide evidence for two ways of securing jars.²⁴ The reverses of sealings in one group show that the clay was pressed directly against the shoulder and neck of a jar and just over its rim. Plate 68a shows a photograph of the reverse of one such sealing. I would suggest that the sealings attest a method of securing a jar that involved placing a stopper in its mouth and pressing clay against the shoulder and neck and just over the rim to hold the stopper in place (note that sections through the sealings given to the right of the reconstructed profiles on fig. 49 illustrate how the sealings fitted over the rim). Most of the sealings which had secured jars in this way are broken at the point where the clay went over the rim, and therefore provide no evidence of the sort of stopper used. However, a discoid stopper of unbaked clay such as the three described above or the sort of hollow, top-shaped stoppers common in the Early Dynastic period²⁵ would have functioned well. Because a sealing broken off a jar sealed with a stopper in its mouth retains the impression of the shoulder, neck, and rim of the jar, it presents few problems in terms of reconstructing the profile of the jar.

The reverses of sealings in a second group show that the clay was pressed against leather (less frequently, cloth) around which a cord or leather thong had been wound and tied. Plate 68b is a photograph of the reverse of one such sealing. The reverses attest a frequently described method of securing jars. The method involved stretching leather (or cloth) over the mouth and neck of the jar and securing it by tying a cord or leather thong around the neck.²⁶ The clay was then pressed against the shoulder and neck. The evidence of complete sealings indicates that clay was pressed against the shoulder and neck usually in the area of the knot(s) securing the cord or thong, but not completely around the neck. A sealing broken off a jar sealed with cloth or leather secured over its mouth does not show clearly the imprint of the shoulder, neck, and rim of the jar. The cloth or leather (as well as the cord or thong) obscures the profile of the jar. In addition, the sealing clay, though it may have been pressed against the edge of the rim, was seldom put over the rim, and therefore shows no clear impression of it. Reconstructing the profile from a sealing broken off a jar with cloth or leather secured over its mouth involves, as seen below, more than a little guesswork.

I assume that a reason existed for sealing jars in one way as opposed to another; consequently, I here describe, first, the profiles reconstructed from sealings broken off jars sealed with a stopper in the mouth, and then the profiles reconstructed from sealings broken off jars with cloth or leather secured over the mouth. I can only speculate, however, about why a jar was sealed in one way as opposed to the other. Perhaps the sealing method was a function of the contents of the jar. A jar, for example, containing a solid might have been sealed in one way; a jar containing a liquid in another way.

24. The reverses of two jar sealings are not well preserved and are not dealt with for purposes of this study. The two sealings are U. 18399 (884) and U. 18413 (911).

25. Delougaz, *Pottery from the Diyala Region*, pp. 60, 81; Wilson, "Nippur: The Definition of a Mesopotamian Gamdat Nasr Assemblage," p. 63.

26. Fiandra, *Oriens Antiquus* 20: 169–70.

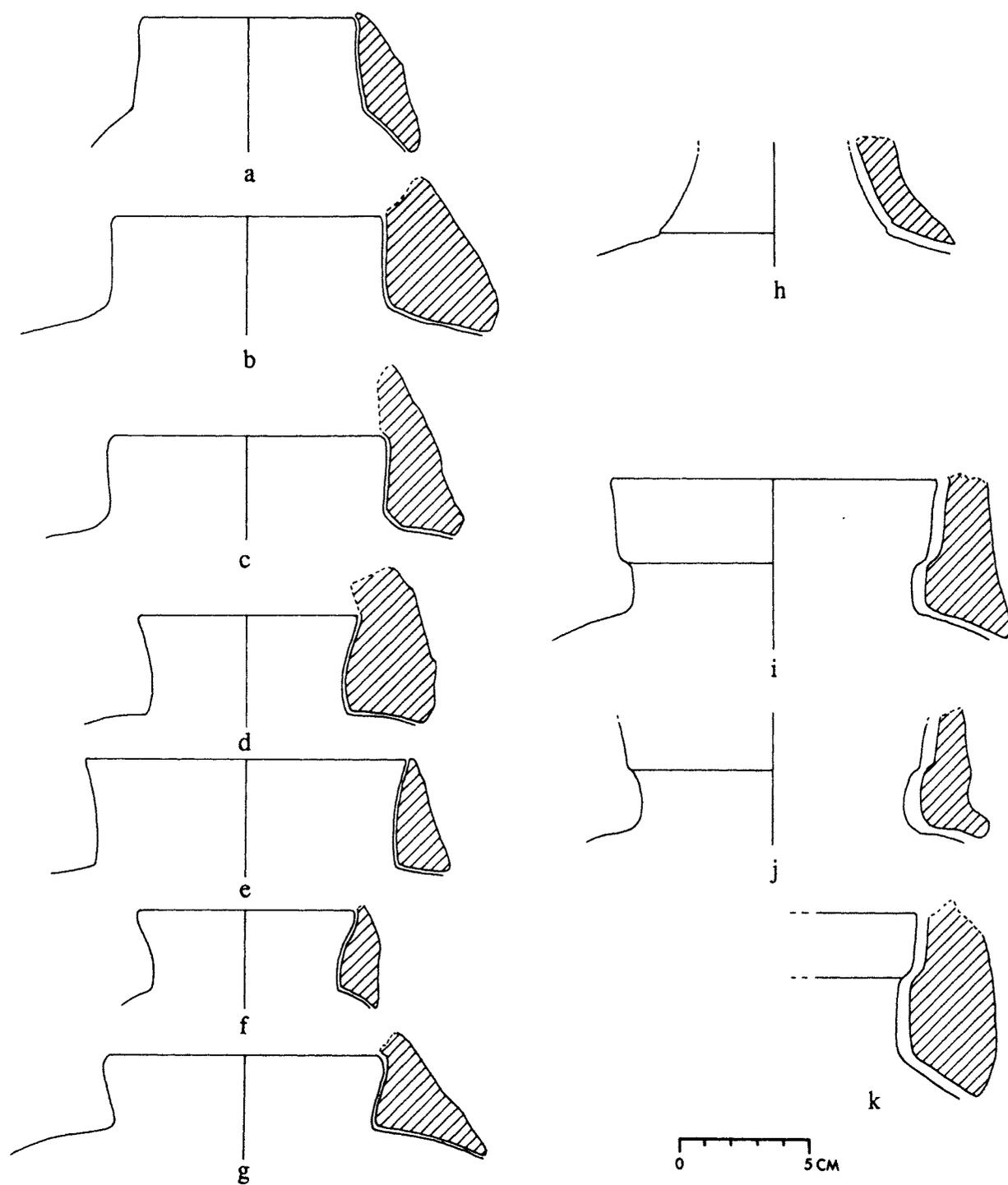


Fig. 49. Ur: Profiles Reconstructed from (a) U. 18413 (784), (b) U. 18407 (812), (c) U. 18395 (878), (d) U. 18401 (824), (e) U. 20083, (f) U. 18401 (830), (g) U. 18413 (905), (h) U. 14136 (31-16-632), (i) U. 18399 (880), (j) U. 20083h (222), and (k) U. 14688 (31-16-605).

SEALINGS FROM JARS WITH STOPPERED MOUTHS

In total, fourteen sealings had been broken off jars with stoppers in their mouth. Positives made from the fourteen sealings show two types of jars sealed in that way: jars with a plain, rounded rim (pl. 68c, d) and jars with a vertical band rim (pl. 68e). Nine sealings were with certainty broken off jars with a plain, rounded rim.²⁷ Figure 49a–g shows reconstructed profiles of seven of the nine jars. One of the jars had a neck which tapered slightly to the mouth, two had a vertical neck, two a flaring neck, and two a somewhat curved (roughly ogee-shaped) neck. The diameters of the jars ranged from eight to twelve centimeters.

One sealing, U. 14136 (31-16-632), was broken off a jar with an off-set between shoulder and neck and a markedly incurved neck (fig. 49h). The sealing is broken at the top and it provides no indication as to the character of the rim or its diameter (the diameter of the neck of the jar could be measured from the sealing). Because of the incurved (narrowing) character of the neck, the jar may have had a plain, rounded rim.

Four sealings were broken off jars with a vertical band rim. Figure 49i–k are the reconstructed profiles of three of the sealings. One of the jars had a relatively high neck, and two had a relatively short neck and wide band rim. The sealing U. 18399 (880) on a jar with a diameter of twelve and one-half centimeters; the diameter of the jar off which U. 20083h (222) was broken was roughly the same. The sealing U. 14688 (31-16-605) was too small to permit accurate measurement of the jar's diameter.

Like the three sealings just discussed, the sealing U. 18407 (818) also was broken off a jar with a vertical band rim, but a positive made from the sealing (pl. 69a and b) shows a puzzling feature. On the shoulder is a ridge. As is clear from the positive (pl. 69b), the ridge, 1.2 centimeters high at the left, appears to taper away to the right. It is possible that the sealing clay was not pressed down firmly against the shoulder of the jar all along its length. Therefore, the ridge may have run entirely around the circumference of the neck. The ridge would appear to be too high and too close to the neck of the jar to identify it with the sort of shoulder ridge common on jars of the Jemdet Nasr period and the first phase of the Early Dynastic period. Otherwise, I am unable to suggest an alternative explanation for the ridge.

SEALINGS FROM JARS WITH COVERED MOUTHS

Twenty-two of the SIS sealings were broken off of jars with cloth or leather secured over the mouth. I reconstructed jar profiles from eight typical sealings which had some particular diagnostic feature. I was able to reconstruct just three complete profiles from the eight sealings. In these three cases the clay had been pressed firmly against the rim of the jar, and despite the leather covering the mouth and rim, the sealing retained enough of the outline of the rim to make its character reasonably certain.

Five of the reconstructed profiles are "partial profiles." In some instances the sealing clay was not pressed against the rim. In other instances, the clay was pressed against the rim and showed the impression of the leather at the point it was stretched over the rim, but the clay did not retain an impression of the rim that was sufficiently distinct to permit its reconstruction. In presenting jar profiles reconstructed from such sealings a consistent practice was followed: I first illustrate what can be reconstructed with certainty of the profile of the jar; in subsequent illustrations I show the line of the leather covering the mouth and rim and

27. U. 18395 (878), U. 18401 (824), U. 18401 (830), U. 18407 (812), U. 18413 (784), U. 18413 (799), U. 18413 (866), U. 18413 (905), and U. 20083.

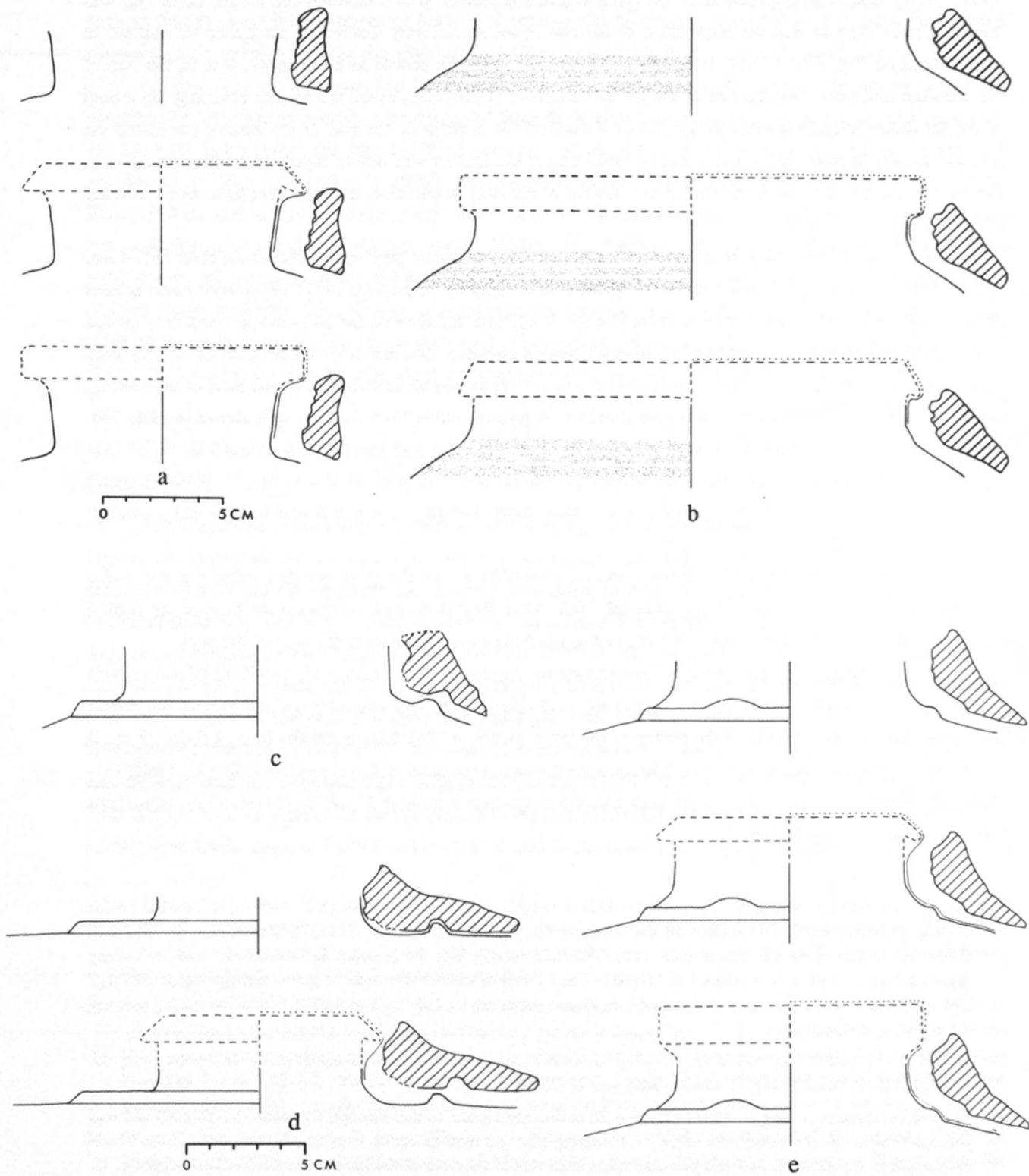


Fig. 50. Ur: Profiles Reconstructed from (a) U. 14852 (31-16-633), (b) U.18413 (913), (c) U. 18413 (868), (d) U. 18550 (709), and (e) U. 14594 (31-16-640).

present possible restorations of the rim (the restorations are based on preserved contours and on rim types common in the Jemdet Nasr and Early Dynastic periods). For example, the upper portion of the reverse of U. 18413 (913) retains an impression of the point where the leather which covered the mouth of the jar was stretched over the rim, but the impression of the rim is not sufficiently distinct to determine its outline. In one illustration (fig. 50a) I show what can be reconstructed of the profile with certainty, that is, the line of the shoulder and neck. For the rim of the jar two alternate possibilities exist: the leather covering the mouth of the jar either roughly contoured the rim or it masked the contour of the rim. If the leather contoured the rim, the jar would have had a rather narrow band rim. If the leather was drawn tightly over the rim and onto the neck of the jar, it could have masked the contour of the rim. In that case, the jar *might have had* a beveled ledge rim.

Reverses of two sealings from which I reconstructed complete profiles are shown on plate 69c, d and e, f. The reconstructed profiles are shown on plate 70b, c. Another sealing U. 14571 (31-16-668) was broken off a jar with a low neck and a type of band rim (pl. 70a). The diameter of the jar was approximately eleven centimeters.²⁸ The sealing U. 14684 (31-16-608), shown on plate 70b, had sealed a jar with an overhanging beveled ledge rim (diameter roughly nine centimeters). As evidenced by impressions on the base of the sealing, the jar had a single wavy line incised on the shoulder. A positive made from the sealing is shown in plate 70d. Sections through nine other SIS sealings are roughly identical in size and shape to that through U. 14684 (31-16-608), perhaps indicating that they were broken off similar jars.²⁹ One of those sealings, U. 18404 (Legrain no. 736), has impressions of punctate decoration on its base. The jar off which it was broken had a band of notches on its shoulder.³⁰

The sealing U. 14758 (31-16-650) was on a jar with an overhanging beveled ledge rim and had a diameter of eighteen to nineteen centimeters (pl. 70c). As is clear from impressions on the base of the sealing (pl. 69e, f), the jar had punctate decoration (a band of notches) on the shoulder at the base of the neck.

Reconstructed "partial profiles" are shown on figure 50. The sealing U. 14852 (31-16-633) was broken off a jar with a relatively high, flaring neck (fig. 50a). The character of the rim is uncertain; accordingly, the exact diameter of the mouth of the jar is uncertain. The diameter at the base of the neck could be measured from the sealing, however. The sections through three other SIS sealings, including U. 13687 (31-16-610) from SIS 2-1, are almost identical in size and shape to that through U. 14852 (31-16-633) and perhaps had been broken off similar jars.³¹

28. The section through sealing U. 13872 (31-16-622) is roughly similar to that through U. 14571 (31-16-668), which perhaps indicates that it was broken off the same type of jar. The findspot of U. 13872 is published as "SIS 4 ?" (Legrain, *Archaic Seal Impressions*, no. 261). The field catalog lists the findspot as "As 13871," and the sealing registered as U. 13871 is described as "On level and 1 m NE of PG 1556 (early grave sealing maybe SIS 4)." Because of the uncertainty of its findspot I have not included U. 13872 (31-16-622) in the list of jar sealings appended to this study.

29. U. 13954 (31-16-679), U. 14163 (31-16-672), U. 14732 (31-16-649), U. 14755 (31-16-656), U. 18404 (736), U. 18550 (733), U. 18550 (741), U. 18550 (745), and U. 20083i.

30. The section through sealing U. 13072 (31-16-626) is roughly similar to that through U. 14684 (31-16-608) and was perhaps broken off the same type of jar. The sealing has impressions on its base of punctate decoration, which indicates that the jar it secured had punctate decoration on the shoulder at the base of the neck. The findspot of U. 13072 (31-16-626), however, is listed as "PG/1332 and vicinity" (Legrain, *Archaic Seal Impressions*, no. 6). Because the findspot is not specific I have not included it in the listing of jar sealings appended to this study.

31. In addition to U. 13687 (31-16-610), U. 14643 (31-16-673), and U. 18413 (783).

The sealing U. 18413 (913) had sealed a jar with a low neck (fig. 50b). The most interesting feature of the sealing is a series of shallow horizontal grooves (less than one half centimeter apart) on its base. I would suggest that the base retains traces of horizontal reserve slip decoration (the grooves represent the original slipped surface; the area between the grooves is the space from which the slip had been pared away).

Three sealings from the Seal Impression Strata had been broken off jars with applied ridges on the shoulders.³² The "partial profiles" reconstructed from the sealings are shown on figure 50c–e. The sealing U. 18413 (868) is broken at the top, but the impression of the ridge on the shoulder is well preserved (see drawing on fig. 50c). The sealing U. 18550 (709) had been broken off a jar with a relatively low neck (fig. 50d). Because of the size and angle of the upper part of the sealing (see the section through the sealing to the right of the profile) I ruled out the possibility that the leather over the mouth of the jar contoured the rim; I have restored only an overhanging beveled ledge rim. The sealing U. 14594 (31-16-640) was broken off a jar with a relatively high neck (fig. 50e). The applied ridge on the shoulder had ornamental tabs (the impression of the ridge on the base of the sealing shows only one). The reverses of two sealings U. 18550 (709) and U. 14594 (31-16-640) and positives made from those sealings are shown on plate 71a–d.

COMPARISONS AND DATING

As described in the foregoing sections of this study, the sealings (stoppers and sealings) from the Seal Impression Strata secured the following jars or types of jars: jars with a plain, flattened rim (measureable diameters of nine and eleven centimeters); jars with a plain, rounded rim (diameters in the range of eight to twelve centimeters); jars with a vertical band rim (measureable diameters of 11 and 12.5 centimeters); jars with an overhanging beveled ledge rim (measureable diameters of nine and eighteen to nineteen centimeters), one with a single wavy line incised on the shoulder and perhaps two with punctate decoration on the shoulder; a jar with horizontal reserved-slip decoration; and jars with either a vertical band rim or an overhanging beveled ledge rim and a plastic ridge (one with tabs) on the shoulder. As an "assemblage," the reconstructed jars fit well with the ceramics from Nippur, IT Levels XI–IX (and corresponding levels of the Inanna Sounding),³³ which are dated by the excavators to the first phase of the Early Dynastic period,³⁴ and with the pottery from levels dated to Early Dynastic I–II at sites in the lower and upper Diyala.³⁵

32. The sealing registered as 31-16-611 also had been broken off a jar with an applied ridge on the shoulder. The sealing has a "U." written on it in black ink. It is listed on the registration card only as from the eighth season of excavations. I have not included it in the listing of sealings appended to this study.
33. For a discussion of the relationship between the Inanna temple excavations and the Inanna Sounding, see Wilson, "Nippur: The Definition of a Mesopotamian Gamdat Nasr Assemblage," pp. 57–58. Inanna Sounding, Levels XVIII–XIV, correspond roughly to Inanna temple, Levels XIV–XII, which are dated to the Jemdet Nasr period; Inanna Sounding, Levels XIII–VI, correlate roughly with Inanna temple, Levels XI–IX, which belong to the first phase of the Early Dynastic period. For a discussion of the limitations of the Inanna temple ceramic sequence, see *ibid.*, p. 59.
34. Donald P. Hansen and George F. Dales, "The Temple of Inanna Queen of Heaven at Nippur," *Archaeology* 15 (1962): 75–84; Hansen, "The Relative Chronology of Mesopotamia. Part II. The Pottery Sequence at Nippur from the Middle Uruk to the End of the Old Babylonian Period (3400–1600 B.C.)," in *Chronologies in Old World Archaeology*, ed. Robert W. Ehrich (Chicago, 1965): 201–13; Wilson, "Nippur: The Definition of a Mesopotamian Gamdat Nasr Assemblage."
35. Delougaz, *Pottery from the Diyala Region*; Fujii, *al-Rafidan 2*; Gibson, *Uch Tepe I*.

For the jars with a flattened rim reconstructed from the mushroom-shaped stoppers U. 14589 and U. 18395 (786) the best parallel is perhaps 7 N 668 (pl. 71e), a spouted jar from Nippur, IT Level XII, which is the latest level of the Jemdet Nasr period. Jars with a distinctly flattened rim from IT Levels XI–IX invariably have rim lugs.³⁶ The almost complete mushroom-shaped stoppers do not show traces of such lugs.

Jars with a plain, rounded rim were found in IT Levels XI–IX (fig. 51) and were common in Early Dynastic I–II levels at sites in the lower Diyala.³⁷ The tapered neck (fig. 49a) reconstructed from U. 18413 (784) is closely paralleled by a sherd from the Inanna Sounding (fig. 51d); the vertical neck and plain, rounded rim reconstructed from U. 18395 (878) and U. 18407 (812) is paralleled by Diyala examples such as C.526.262b; the flared neck reconstructed from U. 18401 (824) and U. 20083 is paralleled by 7 NP 79, an uncataloged sherd from Level IXA, 7 N 558, and 7 N 554 (fig. 51e–h, respectively), though these examples are somewhat different in proportions, and by jars such as C.525.262c; the curved (ogee-shaped) neck reconstructed from U. 18401 (830) and U. 18413 (905) by 7 N 555 and C.596.362. The incurved neck reconstructed from U. 14136 (31-16-632) is perhaps best paralleled by Diyala examples such as C.514.362, C.515.362, and C.525.262b. Two examples of jars with a plain, rounded rim are illustrated in the report on Tell Gubba, one from the Jemdet Nasr period (Level VII) and one from Early Dynastic I.³⁸ Plain, rounded rims were common at Tell Razuk in the upper Diyala region.³⁹ Interestingly, nearly all of the jars with a plain, rounded rim from Nippur and the Diyala region sites are spouted, which suggests that the jars sealed by the SIS sealings were spouted as well.

Jars with a vertical band rim occurred in IT Levels X–IX (fig. 52). The example 7 NP 84 (fig. 52a) with its short neck and wide band rim is a close parallel for the jar (fig. 49i) reconstructed from U. 18399 (880); 7 NP 107 (fig. 52c) with its high neck is closer to the jar (fig. 49k) reconstructed from U. 14688 (31-16-605). Various types of jars with a vertical band rim (or variations on a vertical band rim) were found in Early Dynastic I–II levels at sites in the lower Diyala. For example, C.545.242 and C.556.242 are ovoid jars with a low neck and a spout on the shoulder; C.515.370b is a jar with a high neck and an applied ridge on the shoulder; D.516.371 is a jar with an upright handle on the shoulder and a groove around the exterior of the rim; and D.566.370 is a jar with a high neck and wide band rim. Large spouted jars with a vertical band rim and interior ledge, for example, D.535.542 and D.545.542, also were found in Early Dynastic I–II levels.⁴⁰ The jar reconstructed from U. 14576 (31-16-668) is roughly comparable to C.545.242 and C.556.242 noted above. Jars

36. For 7 N 668, see Wilson, "Nippur: The Definition of a Mesopotamian Gamdat Nasr Assemblage," fig. 8: 14; for jars with a flattened rim and rim lugs from IT Levels XI–IX, *ibid.*, p. 63 and fig 11: 3.

37. Nippur: 7 N 609 (IT XI), 7 NP 105 (IT X), 7 NP 65 (IT IXB), and 7 NP 77 (IT IX), jars with a low neck and everted rim; 7 NP 79 (IT X–IXB), 7 NP 81 (IT IXB), an uncataloged sherd with horizontal reserved slip and punctate decoration at the base of the neck from IT IXA (fig. 51f), and 7 N 553–58 (IT IXA and IX), jars with a high, flared neck.

Diyala: B.533.252, C.514.362, C.515.362, C.516.362, C.524.362, C.525.262a–c, C.526.262a–b, C.526.362a–b, D.515.362, and D.535.322, Early Dynastic I examples; C.516.362, C.525.362b, C.526.262c, C.526.362b, C.596.362, D.515.362, and D.525.362, Early Dynastic II examples.

38. Fujii, *al-Rafidan*, fig. 19/6 and 12.

39. Gibson, *Uch Tepe I*, pls. 64–68/14.

40. Note, in addition to the examples cited, jars with a vertical band rim from the D 15: 3 and H 18: 14 soundings at Tell Asmar (Delougaz, *Pottery from the Diyala Region*, pl. 63/ 23–4 and pl. 64/ 55).

with a vertical band rim are illustrated in the reports on Tell Gubba and Tell Razuk in the upper Diyala region.⁴¹

Jars with an overhanging beveled ledge rim are common in Jemdet Nasr and Early Dynastic I levels at Nippur (IT Levels XIV–XII are the Jemdet Nasr period levels) and at sites in the lower and upper Diyala regions; in the Diyala region sites the rim type also occurs in levels dated to Early Dynastic II.⁴² In both the Jemdet Nasr and Early Dynastic I–II periods jars with an overhanging beveled ledge rim were a common painted type. One particular type of jar with an overhanging beveled ledge rim, a jar with a wing-shaped lug on the shoulder, is particularly characteristic of Early Dynastic I levels at Nippur and in the lower Diyala region.⁴³ Both painted and unpainted examples occur. According to Delougaz, in the lower Diyala scarlet ware is very largely confined to the type.⁴⁴ The unpainted examples are characterized not only by the rim and wing-shaped lug, but also by incised or punctate decoration on the shoulder at the base of the neck. Sealings such as U.14684 (31-16-608) (pl. 69c and d), U. 14758 (31-16-650) (pl. 69e and f), and U. 18404 (736) were perhaps broken off jars with a wing-shaped lug on the shoulder. The punctate decoration on the shoulder reconstructed from the latter two sealings at least would not be unusual on such jars.⁴⁵

Incised or punctate decoration on the shoulder of jars with various types of rims is common in Early Dynastic I levels at Nippur (pl. 72a–f) and in the lower and upper Diyala regions.⁴⁶ The only convincing parallel which I can elicit for the wavy line incised on the shoulder of the jar reconstructed from U. 14684 (31-16-608) is a jar (C.506.371) with a band rim and an upright handle on the shoulder from Khafajah, Houses 4, dated by the excavators to Early Dynastic II.⁴⁷

The horizontal reserved-slip (fig. 50b) on the jar reconstructed from U. 18413 (913) is perhaps of importance in narrowing the dating of the sealings from SIS 8–4. Reserved slip was used as a surface treatment

41. For Tell Gubba, see Fujii, *al-Rafidan 2*: figs. 13/1, 14/6, 18/1, 19/14, and 20/7; for Tell Razuk, see Gibson, *Uch Tepe I*, pls. 68/15–70/11.
42. For Nippur, see Wilson, "Nippur: The Definition of a Mesopotamian Gamdat Nasr Assemblage," pp. 60–63.
For the lower Diyala, see the following examples: B.513.170, C.515.370, C.516.270, C.535.240, C.536.270, C.603.340, C.604.370, and C.605.340 from Protoliterate c–d levels; C.514.370b, C.515.373, C.516.373, C.517.273, C.526.373, C.526.373a, D.514.370a–b, D.515.370, D.526.371, and D.544.240 from Early Dynastic I levels; C.515.371, C.516.371b, C.526.371, C.526.371a, C.604.370, D.515.370, D.524.370, and D.525.370 from Early Dynastic II levels.
For the upper Diyala region, compare Fujii, *al-Rafidan 2*: figs. 11/1–3 and 6–7, 12/1, 3 and 5–7 (all from Tell Gubba, Level VII, or the the Jemdet Nasr period); 14/1, 3–5 and 7, 15/1–3, 16, 17/1, 4 and 6, 18/2, and 19/13 (all from Tell Gubba, Levels VI–IV, or Early Dynastic I). See also Gibson, *Uch Tepe I*, pls. 70/12–71/10.
43. Wilson, "Nippur: The Definition of a Mesopotamian Gamdat Nasr Assemblage," p. 63; Delougaz, *Pottery from the Diyala Region*, pp. 57–58.
44. Delougaz, *Pottery from the Diyala Region*, p. 65.
45. Note especially *ibid.*, pl. 64: 12, a jar from the H 18: 14 sounding at Tell Asmar.
46. For sites in the lower Diyala region, see, for example, *ibid.*, pp. 52 (pl. 37a–c), 54 (pl. 43e–f), 57 (pls. 2 and 47), and 83 (pls. 76a and 80a); for sites in the upper Diyala, see Gibson, *Uch Tepe I*, pls. 65/1, 66/1, 67/1, 82/4, and 83/4–7 and 9.
47. Delougaz, *Pottery from the Diyala Region*, pls. 77a and 177. Note also a parallel in the University Museum (33-13-266) from Schmidt's 1931 excavations at Fara. The jar has a ring base, a vertical band rim, notches at the juncture of body and shoulder, and a single incised wavy line on the shoulder. It is 19.9 cm high and has a rim diameter of 14 cm. The findspot is given as Level II, FG 43–42, S 2, –40. See Harriet P. Martin, *Fara* (Birmingham, 1988), p. 183 (no. 88). Martin dates the jar to Early Dynastic II based on Diyala parallels.

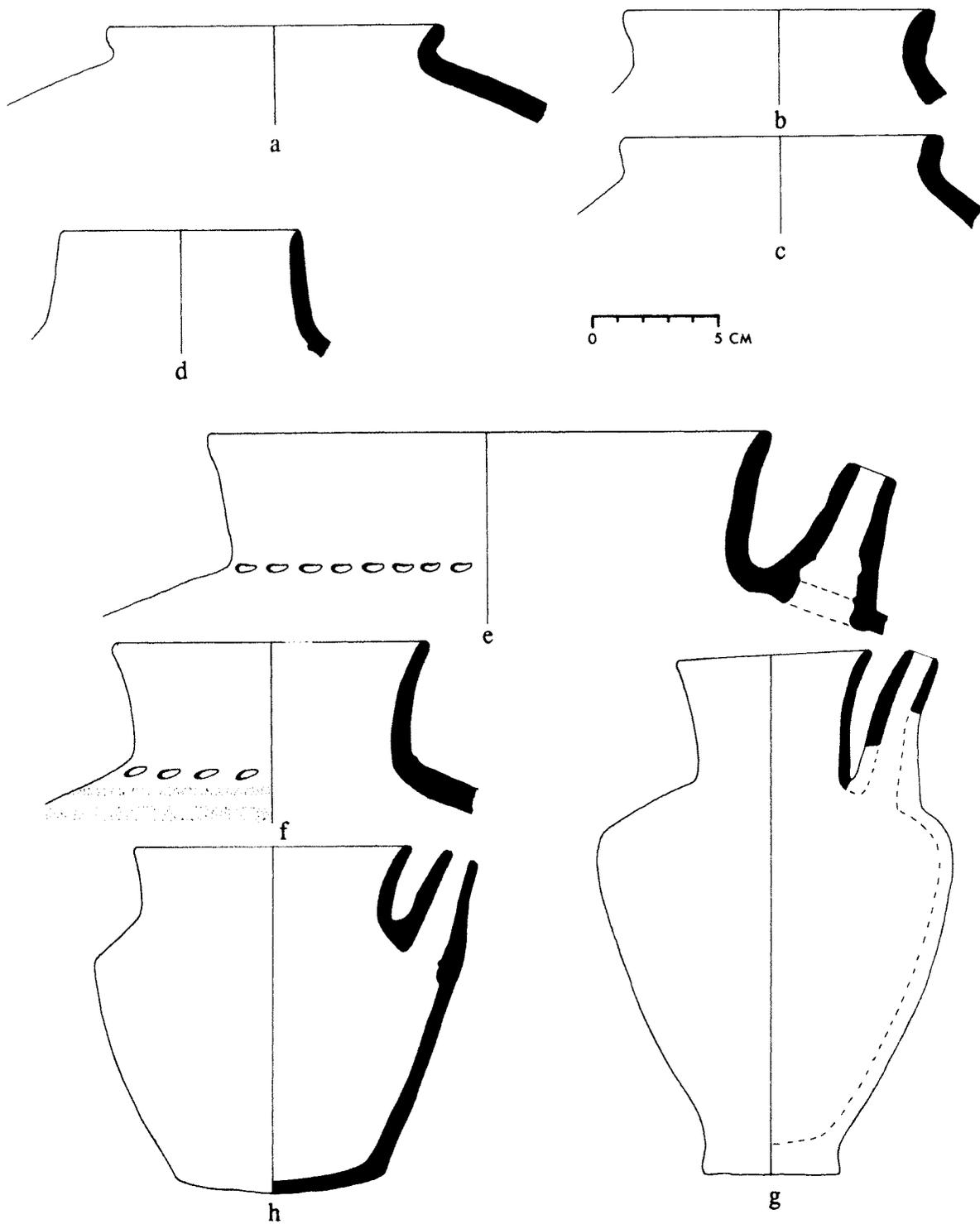


Fig. 51. Nippur: Jars with Plain Rounded Rims from Inanna Temple and Inanna Sounding. (a) 7 NP 77 (Inanna Temple, Level IX, loc. 236, floor); (b) Uncataloged Sherd from Inanna Temple, Level X, loc. 283; (c) 7 NP 105 (Inanna Temple, Level X, loc. 272); (d) Uncataloged Sherd from Inanna Sounding, Floors below Level XII, 1; (e) 7 NP 79 (Inanna Temple, Levels X-IXB, loc. 271); (f) Uncataloged Sherd from Inanna Temple, Level IXA, loc. 236; (g) 7 N 558 (Inanna Temple, Level IX, loc. 283); and (h) 7 N 554 (Inanna Temple, Level IXA, loc. 253).

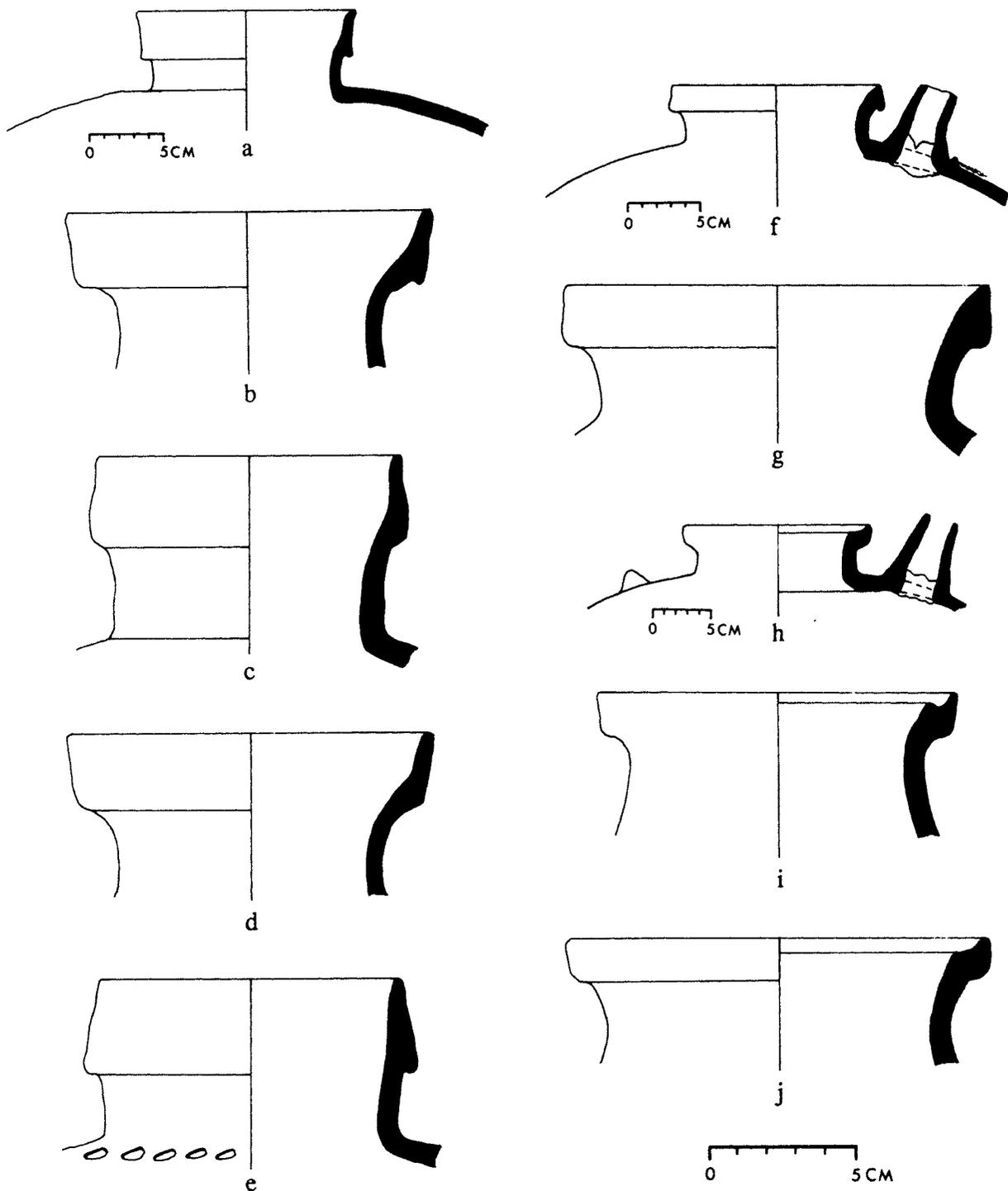


Fig. 52. Nippur: Jars with Vertical Band Rims from Inanna Temple and Inanna Sounding. (a) 7 NP 84 (Inanna Temple, Level IX, loc. 240); (b) 7 NP 71 (Inanna Temple, Level IXB, loc. 260); (c) 7 NP 107 (Inanna Temple, Level X, loc. 283); (d) Uncataloged Sherd from Inanna Temple, Level IXA, loc. 246, drain; (e) 7 NPX 87 (Inanna Temple, Level IXB, loc. 262); (f) 7 NP 157 (Inanna Temple, Level XII-XI, loc. 302); (g) Uncataloged Sherd from Inanna Temple, Level X, loc. 279; (h) Uncataloged Sherd from Inanna Sounding, Level X, 1 fill; (i) 7 NP 129 (Inanna Temple, Level IX); and (j) Uncataloged Sherd from Inanna Sounding, Level X, 1 fill.

for ceramics over a relatively long period of time at Nippur and in the lower Diyala region.⁴⁸ Horizontal reserved slip, however, was recorded only for Inanna temple Levels X–IX, though a few isolated sherds with horizontal reserved-slip were found in Level VII, and the published data for the lower Diyala region suggests that it may have been restricted to Early Dynastic I–II levels in that area as well.⁴⁹ Published examples of reserved-slip decoration on sherds or jars from earlier (Uruk and Jemdet Nasr) levels most commonly show an oblique or vertical pattern.⁵⁰ A few examples of horizontal reserved-slip are illustrated in the report on excavations at Tell Razuk.⁵¹ One jar⁵² would be a close parallel for the jar reconstructed from U. 18413 (913), if in fact that jar had a band rim.

Jars with an applied ridge on the shoulder such as those reconstructed from U. 18413 (868), U. 18550 (709), and U. 14594 (31-16-640) (fig. 50c–e) were found at Nippur in Jemdet Nasr and Early Dynastic I levels; in the lower Diyala region such jars were found in Jemdet Nasr and Early Dynastic I–II levels.⁵³ At Nippur and in the lower Diyala painted and unpainted examples occur. The few examples from Nippur that had the rim preserved have a beveled ledge rim; most of the Diyala examples also have a beveled ledge rim, but at least two exemplars (C.515.370b) have a vertical band rim. In both areas jars with plain ridge, notched ridges, and ridges with tabs occur. According to Delougaz, jars with an applied ridge with tabs are characteristic of the Jemdet Nasr period, though examples were found in Early Dynastic I levels and at least one illustrated example in Temple Oval I, dated to Early Dynastic II.⁵⁴ The jars 7 N 739, 7 NP 96, 7 NP 103, 7 NP 145, C.604.370,⁵⁵ D.514.370a (Delougaz 1952: pl. 52c), and D. 515.370⁵⁶ are examples of the sort of jar reconstructed from U. 14594 (31-16-640). A few jars with applied ridges on the shoulders are illustrated for sites in the upper Diyala region.⁵⁷ A painted example from Tell Gubba, Level V, has four tabs on the ridge⁵⁸ and is a good parallel for the jar reconstructed from U. 14594 (31-16-640) (fig. 50e).

48. Hansen, *Chronologies*: 202; Wilson, "Nippur: The Definition of a Mesopotamian Gamdat Nasr Assemblage," pp. 59–63; Delougaz, *Pottery from the Diyala Region*, pp. 53–4 and 143.
49. Wilson, personal communication. Among the examples with horizontal reserved slip decoration are an uncataloged sherd from IT X, 7 NP 81 (IT IXB), 7 NP 84 (IT IX), and an uncataloged sherd from IT IXA (fig. 51f). The published examples of reserved slip decoration on sherds or vessels from Protoliterate levels at sites in the lower Diyala all show oblique patterns (Delougaz, *Pottery from the Diyala Region*, pls. 17l, p. 37 and 19b–c, and pl. 31b and d).
50. For Nippur, see Wilson, "Nippur: The Definition of a Mesopotamian Gamdat Nasr Assemblage," p. 61. Published sherds or vessels with reserved slip from Uruk levels at Warka, Susa, and Habuba Kebira all have oblique or vertical decoration (Dietrich Sürenhagen, *Keramikproduktion in Habuba Kabira-Süd* [Berlin, 1978], pls. 35–37 and 39; idem, "Archaische Keramik aus Uruk-Warka. Erster Teil: Die Keramik der Schichten XVI–VI aus den Sondagen "Tiefschnitt" und "Sögegraben" in Eanna," *Baghdader Mitteilungen* 17 [1986]: Nos. 5/28, 94, 136, and 200; Alain LeBrun, "Le Niveau 17B de l'acropole de Suse (Campagne de 1972)," *Cahiers de la DAFI* 9 [1978]: fig. 26/1). Note also the examples from Protoliterate levels at sites in the lower Diyala cited in n. 16.
51. Gibson, *Uch Tepe I*, p. 117 and pls. 69/2, 80/14, and 82/1–4.
52. *Ibid.*, pl. 69: 2.
53. Nippur: 7 NP 219 (IT XIV), 7 N 739 (IT XIII), 7 NP 210 (IT XIII), 7 NP 212b (IT XIII), 7 NP 145 (IT XI), 7 NP 96 (IT X), 7 NP 103 (IT X), and an uncataloged sherd from IT IX; note also an isolated uncataloged sherd from IT VIIB.
Diyala: D.515.370 and D.524.370 from Protoliterate d, D.514.370a–b and D.515.370 from Early Dynastic I, and C.604.370, D.515.370, D.524.370, and D.525.370 from Early Dynastic II.
54. Delougaz, *Pottery from the Diyala Region*, p. 61.
55. *Ibid.*, pl. 33.
56. *Ibid.*, pl. 34.
57. Fujii, *al-Rafidan 2*: figs. 14/4, 15/4, 16 and 19/13; Gibson, *Uch Tepe I*, pls. 70/20–21 and 80/1.

In conclusion, the parallels set out for the jars or types of jars reconstructed from the SIS 8–4 sealings suggest that those sealings were contemporary with Nippur, Inanna temple, Levels XI–IX, levels dated to Early Dynastic I, and with levels at sites in the lower and upper Diyala regions dated to Early Dynastic I–II. Such a relative dating, though it may seem at first to present problems, in fact likely represents the chronological situation accurately. The local character of the sequence established by excavations in the lower Diyala region (and concomitantly the problems of its applicability to sites in southern Mesopotamia) has long been recognized.⁵⁹ Excavation of the Inanna temple at Nippur yielded a sequence that suggests, as Hansen has hinted, that in southern Mesopotamia the Early Dynastic period had only two major phases.⁶⁰ Even in the Diyala region Early Dynastic II was difficult to define.⁶¹ It was perhaps no more than a short transitional phase. The greatest part of the real time covered in the Diyala region by levels subsumed under the rubrics Early Dynastic I–II was likely covered in southern Mesopotamia at Nippur by IT Levels XI–IX,⁶² and the bulk of the SIS sealings is contemporary with that time range.

SUMMARY

The stated purpose of this study was to adduce new evidence to be used in solving a long standing chronological problem, namely the dating of the sealings from SIS 8–4. In reconstructing the profiles of jars from which the sealings were broken and comparing those profiles with dated ceramics, our study is relatively successful. It has shown that those sealings were contemporary with Inanna temple, Levels XI–IX, and therefore confirms the dating suggested by Hansen on the basis of seal style more than fifteen years ago. This study also has, however, one unstated purpose and that purpose is to single out the sealings from the Ur Seal Impression Strata as a “body of material” which deserves detailed analysis. The study of the reverses of the sealings, that is, the reconstruction of the various objects sealed, and the correlation of seals and objects sealed offers the prospect (despite the very real methodological problems involved) of insights into the administrative practices and patterns of authority of the urban institution or institutions, the remains of whose “records” they represent. Further, the comparison of the results of such a study with the analysis of contemporary sealings with good archaeological and architectural context, such as those from the Inanna temple (Levels XI–IX) at Nippur, might yield interesting results, at the very least a sounder outline of institutional administration in southern Mesopotamia in the third millennium B.C.

58. Fujii, *al-Rafidan 2*: fig. 16.

59. Behnam Abu al-Soof, *Iraq 29*: 133–42.

60. Hansen and Dales, *Archaeology 15*: 75–84; Hansen, *JNES 22*; idem, “Some Early Dynastic I Sealings from Nippur”; idem, “Frühsumerische und frühdynastische Rundplastik,” in *Der alte Orient*, ed. Winfried Orthmann, *Propyläen Kunstgeschichte 18* (Berlin, 1975), pp. 158–70.

61. Delougaz, *Pottery from the Diyala Region*, pp. 141–42.

62. Donald P. Hansen, personal communication. Hansen discusses the Early Dynastic period in Mesopotamia in detail in the forthcoming edition of *Chronologies in Old World Archaeology*.

APPENDIX

List of Jar Sealings from the Ur Seal Impression Strata in The University Museum*

<i>Illustration</i>	<i>Museum No.</i>	<i>Reg. No.</i>	<i>Legrain's Nos.</i>	<i>Loci</i>
	U. 13687	(31-16-610)	Legrain No. 496	SIS 2-1
	U. 13954	(31-16-679)	Legrain No. 210	SIS 4
Fig. 49h	U. 14136	(31-16-632)	Legrain No. 200	SIS 4
	U. 14163	(31-16-672)	Legrain No. 304	SIS 4
Pl. 70a	U. 14571	(31-16-668)	Legrain No. 329	SIS 5-4
	U. 14589	(31-16-646)	Legrain No. 134	SIS 4
Pl. 67f	U. 14589		Legrain No. 134	SIS 4
Fig. 50e, Pl. 71c, d	U. 14594	(31-16-640)	Legrain No. 417	SIS 4
	U. 14643	(31-16-673)	Legrain No. 43	SIS 7
Pls. 69c, d, 70b, d	U. 14684	(31-16-608)	Legrain No. 273	SIS 4
Fig. 49k	U. 14688	(31-16-605)	Legrain No. 462	SIS 4
	U. 14732	(31-16-649)	Legrain No. 14	SIS 8-4
	U. 14755	(31-16-656)	Legrain No. 10	SIS 8
Pls. 69e, f, 70c	U. 14758	(31-16-650)	Legrain No. 8	SIS 8
Fig. 50a, Pl. 68b	U. 14852	(31-16-633)	Legrain No. 448	SIS 4
	U. 14878	(31-16-680)	Legrain No. 80	SIS 4
Pl. 67b	U. 18394	(834, 838)	Legrain No. 79	SIS 5-4
	U. 18394	(894)	Legrain No. 89	
	U. 18395	(185)	Legrain No. 135	SIS 5-4
Pl. 67c, d, e	U. 18395	(786)	Legrain No. 135	SIS 5-4
Pl. 67a	U. 18395	(788)	Legrain No. 135	SIS 5-4
	U. 18395	(789)	Legrain No. 135	SIS 5-4
	U. 18395	(792)	Legrain No. 135	SIS 5-4
Fig. 49c	U. 18395	(878)		SIS 5-4
	U. 18395	(885)		SIS 5-4
Fig. 49i, Pl. 68e	U. 18399	(880)	Legrain No. 461	SIS 5-4
	U. 18399	(883)	Legrain No. 210	SIS 5-4
	U. 18399	(884)	Legrain No. 396	SIS 5-4
Fig. 49d, Pl. 68a, c	U. 18401	(824)	Legrain No. 374	SIS 5-4
Fig. 49f	U. 18401	(830)	Legrain No. 345	SIS 5-4
	U. 18404		Legrain No. 736	SIS 5-4
Fig. 49b	U. 18407	(812)	Legrain No. 257	SIS 5-4
Pl. 69a, b	U. 18407	(818)		SIS 5-4
	U. 18413	(783)	Legrain No. 142	SIS 5-4
Fig. 49a	U. 18413	(784)	Legrain No. 303	SIS 5-4
	U. 18413	(799)	Legrain No. 251	SIS 5-4
	U. 18413	(866)	Legrain No. 318	SIS 5-4
Fig. 50c	U. 18413	(868)	Legrain No. 319	SIS 5-4
Fig. 49g, Pl. 68d	U. 18413	(905)	Legrain No. 283	SIS 5-4
	U. 18413	(911)	Legrain No. 373	SIS 5-4
Fig. 50b	U. 18413	(913)	Legrain No. 393	SIS 5-4
Fig. 50d, Pl. 71a, b	U. 18550	(709)	Legrain No. 380	SIS 7-6
	U. 18550	(733)	Legrain No. 27	SIS 7-6

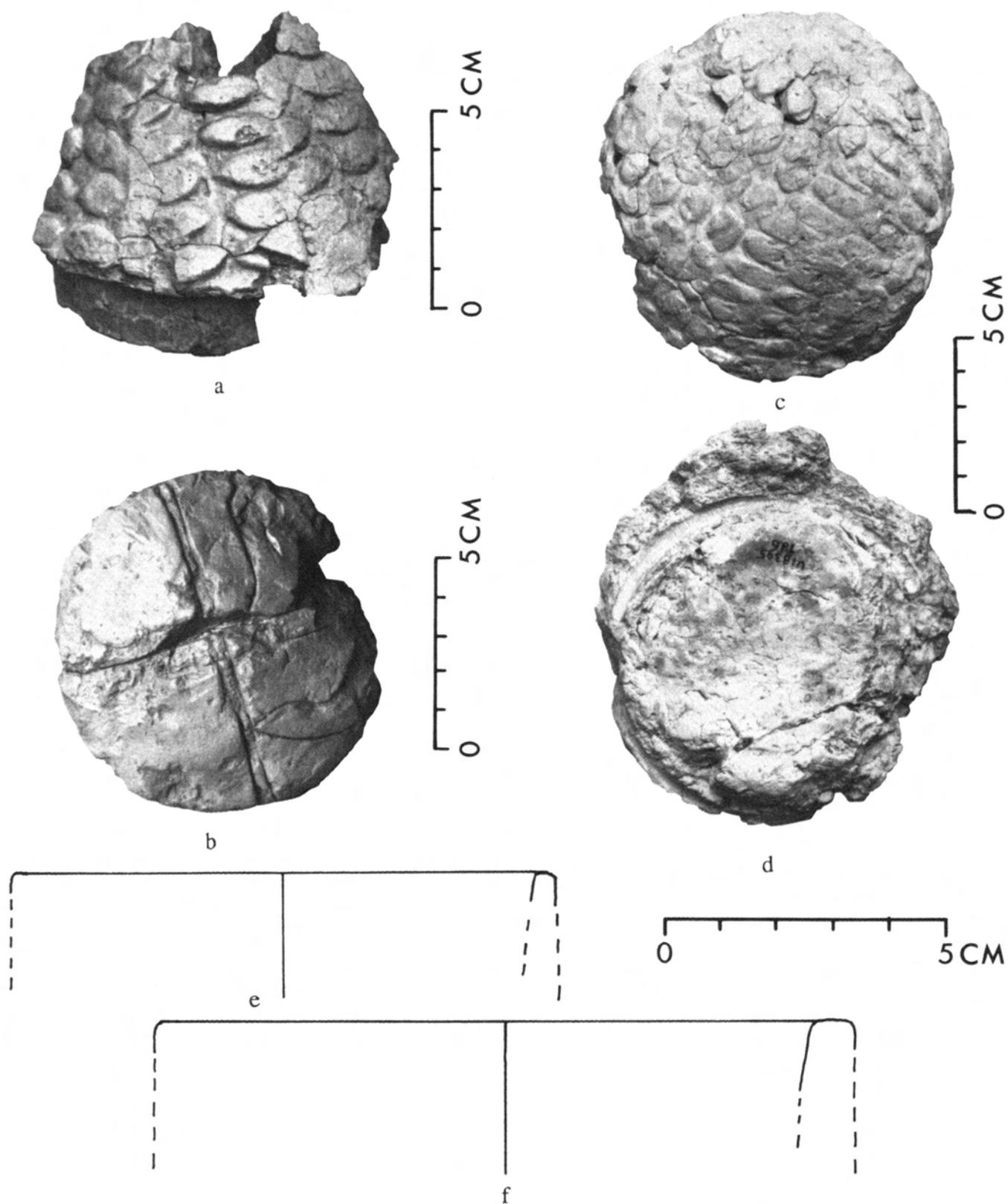
List of Jar Sealings — *Continued*

<i>Illustration</i>	<i>Museum No.</i>	<i>Reg. No.</i>	<i>Legrain's Nos.</i>	<i>Loci</i>
	U. 18550	(741)	Legrain No. 45	SIS 7-6
	U. 18550	(745)	Legrain No. 32	SIS 7-6
Fig. 49e	U. 20083			SIS 5-4
Fig. 49j	U. 20083h	(222)	Legrain No. 556	SIS 5-4
	U. 20083i		Legrain No. 42	SIS 5-4

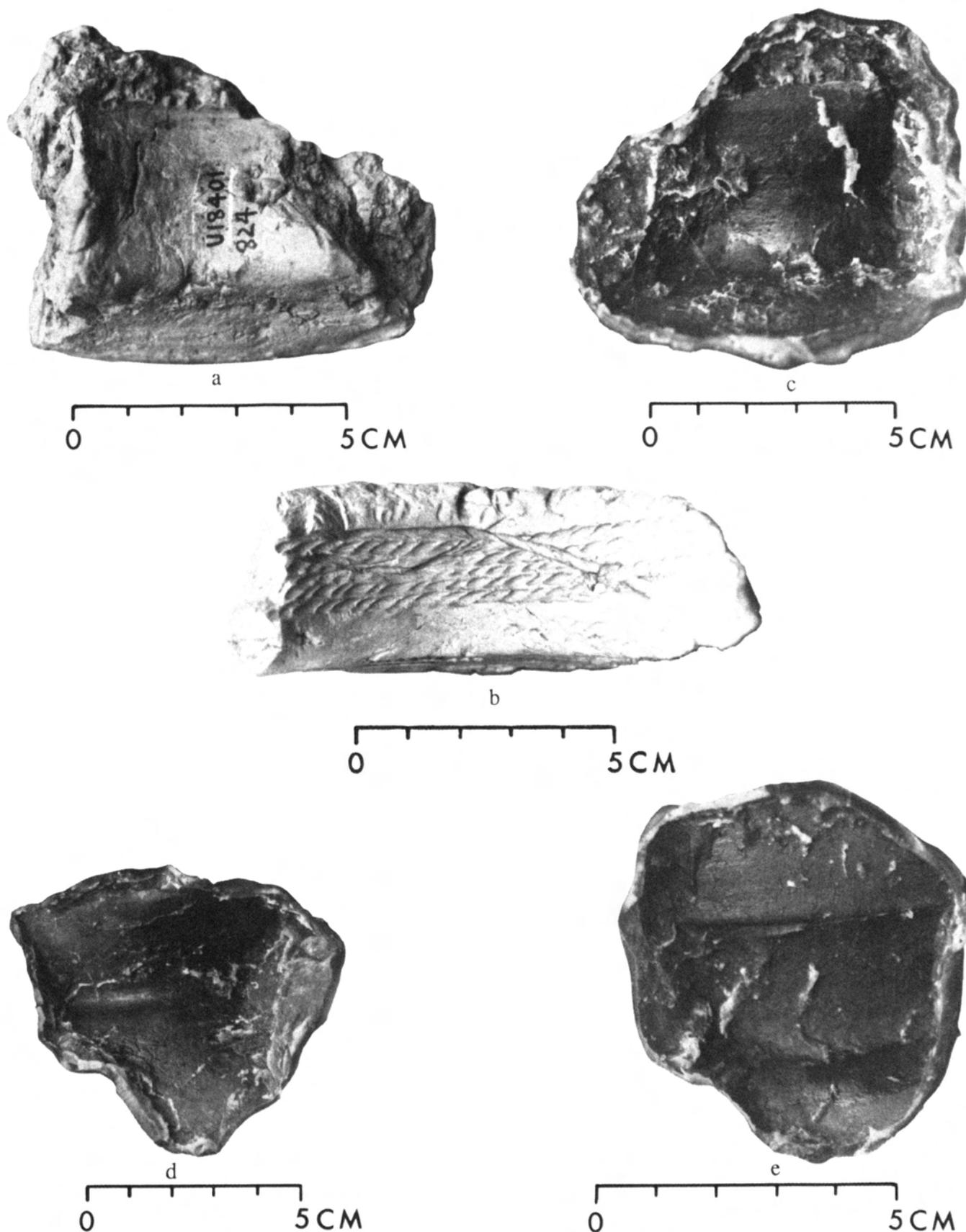
*For each sealing in the list I have given the information written on the sealing. That information includes the field number (the number prefaced by "U") and The University Museum's registration number (for example, 31-16-610) or what I take to be a preliminary catalogue number (the number given in parenthesis), as well as the number under which Legrain published the sealing in *Archaic Seal Impressions*. I have also included the findspot of the sealings.

The list is the product of a casual sorting of the Ur SIS sealings in The University Museum's Near Eastern Collection, and some jar sealings might well have been overlooked. The list includes only those jar sealings with established findspots. Three jar sealings with problematic findspots are not included. For the record those three sealings are U. 13072 (31-16-626) Legrain No. 6, U. 13872 (31-16-622) Legrain No. 261, and a sealing registered as 31-16-611 but not published in *Archaic Seal Impressions*.

Plate 67

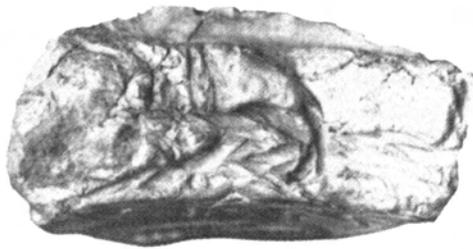
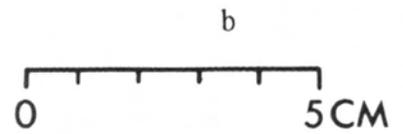
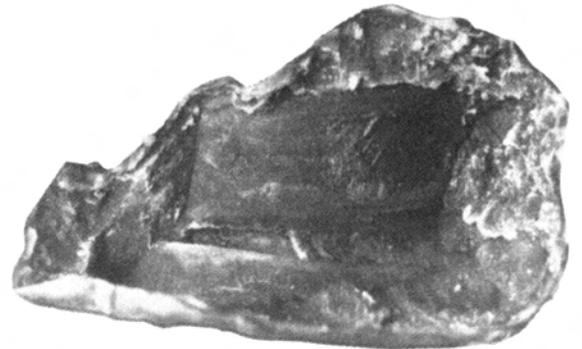
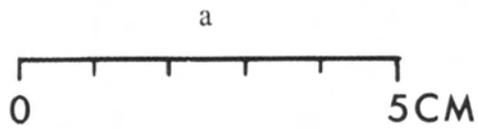


Ur: (a) Conical Jar Stopper U. 18395 (788), (b) Discoid Jar Stopper U. 18394 (834 and 838), (c, d) Mushroom-Shaped Jar Stopper U. 18395 (786) [Top (c) and Bottom (d)], and (e, f) Profiles Reconstructed from Mushroom-Shaped Stopper: (e) U. 18395 (786) and (f) U. 14589.

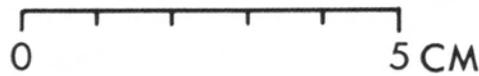


Ur: (a) Reverse of Sealing U. 18401 (824), (b) Reverse of Sealing U. 14852 (31-16-633), (c, d) Positives Made from Sealings Broken Off Jars with a Plain, Rounded Rim: (c) U. 18401 (824) and (d) U. 18413 (905), and (e) Positive Made from Sealing Broken Off Jar with a Vertical Band Rim, U. 18399 (880).

Plate 69



c



d

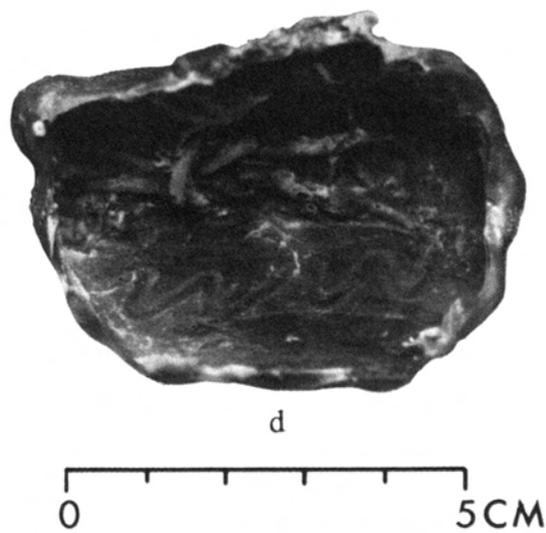
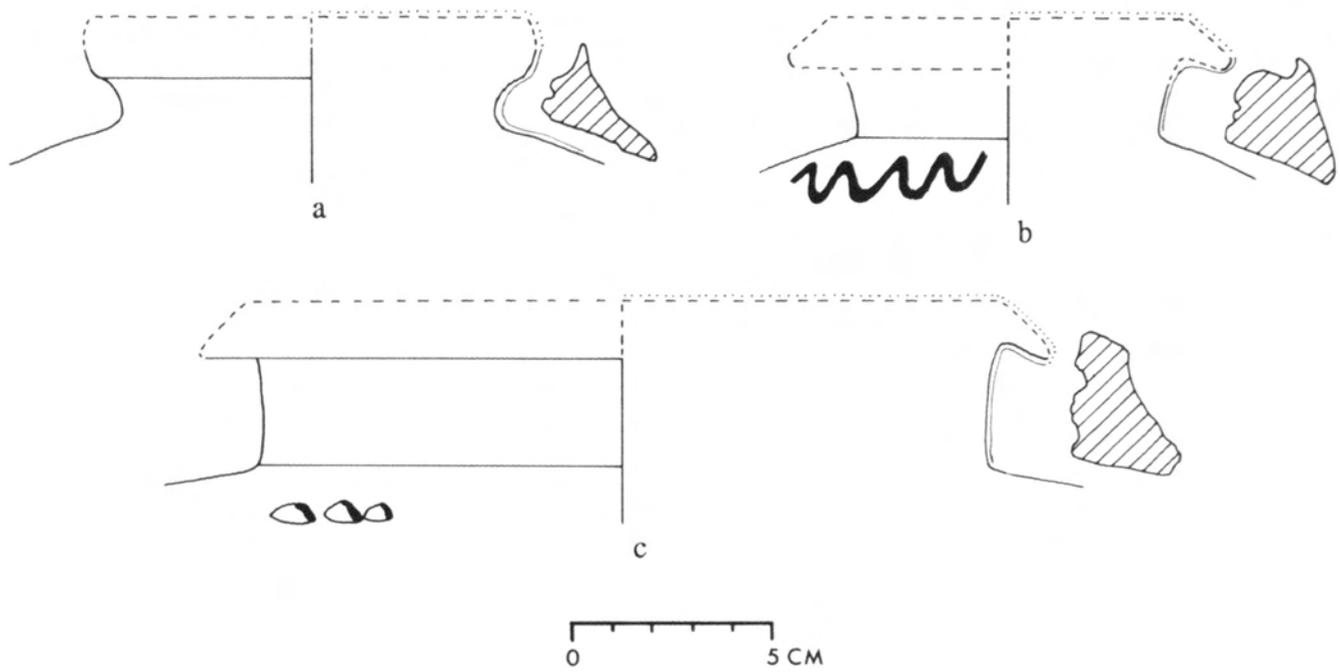


e



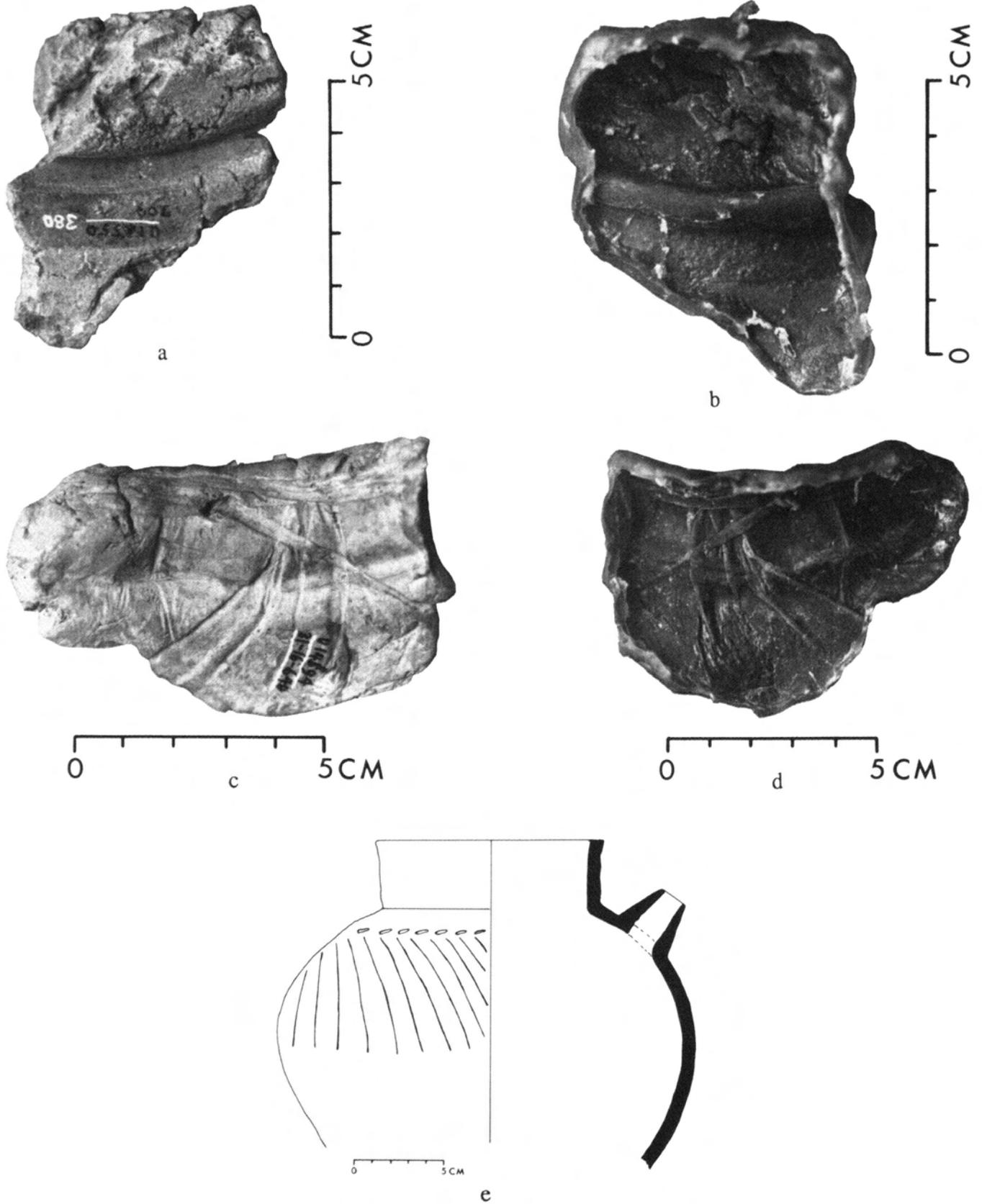
f

Ur: (a) Reverse and (b) Positive Made from Sealing U.18407 (818), (c, d) Reverse U. 14684 (31-16-608) [Back (c) and Base (d)], and (e, f) Reverse U. 14758 (31-16-650) [Back (e) and Base (f)].

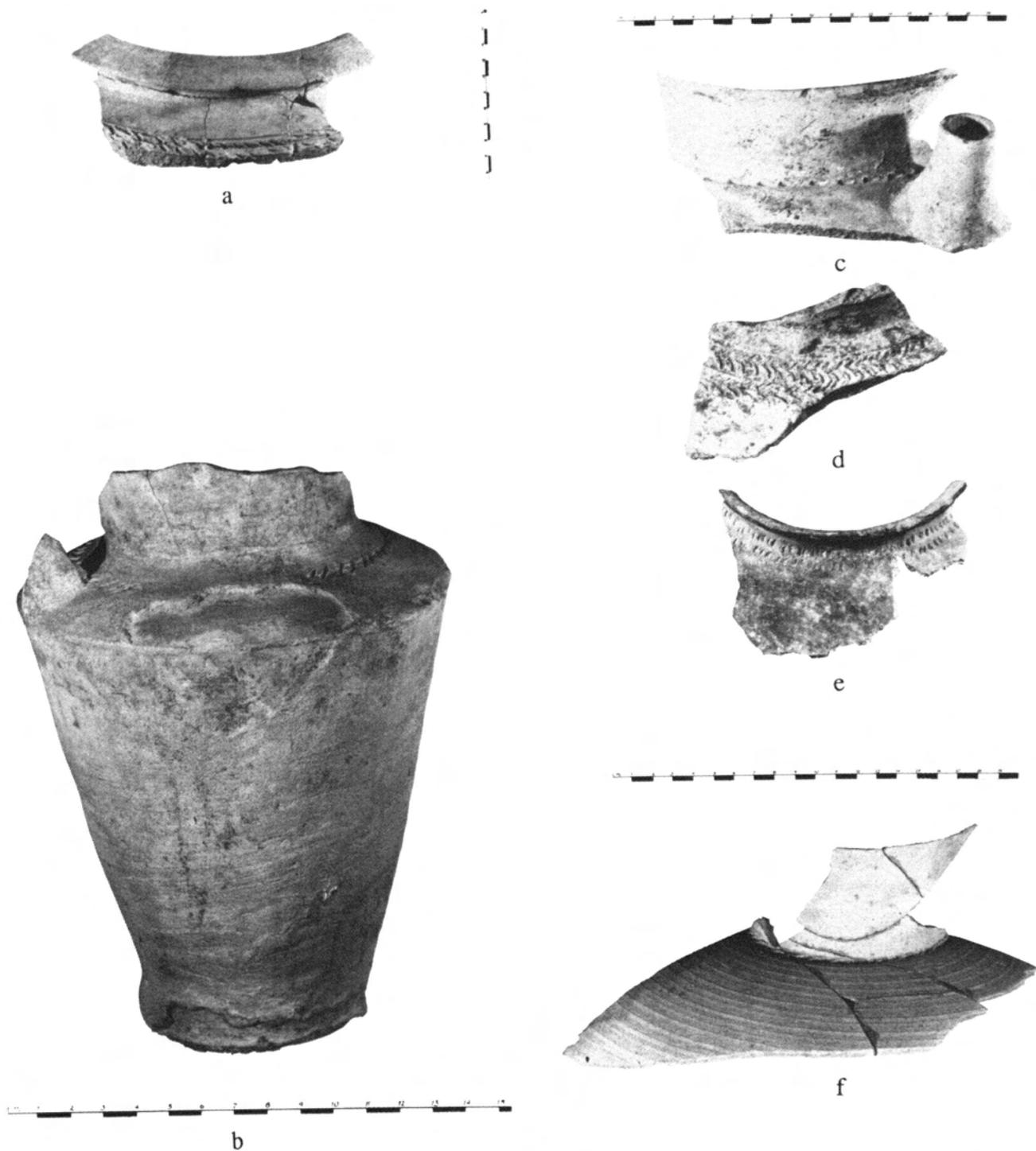


Ur: Profiles Reconstructed from (a) U. 14571 (31-16-668), (b) U. 14684 (31-16-608), (c) U. 14758 (31-16-650), and (d) Positive Made from Sealing U. 14684 (31-16-608).

Plate 71



Ur: (a) Reverse and (b) Positive Made from Sealing U. 18550 (709), (c) Reverse and (d) Positive Made from Sealing U. 14594 (31-16-640). Nippur: (e) Jar 7 N 668 (Inanna Temple, Level XII, loc. 314, floor).



Nippur: Sherds with Incised and Punctate Decoration from the Inanna Temple: (a) 7 NP 116 (Level X, loc. 279); (b) 7 N 589 (Level X, loc. 273); (c) 7 NP 79 (Level X-IXB, loc. 271); (d) 7 NP 73 (Level IXB, loc. 261); (e) 7 NP 65 (Level IXB, loc. 263); and (f) 7 NP 81 (Level IXB, loc. 260).

