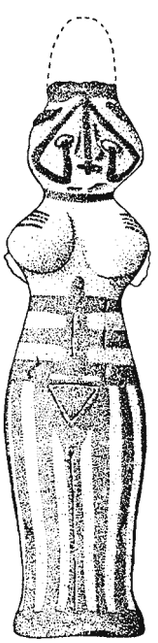
THE DEVELOPMENT OF A PREHISTORIC REGIONAL CENTER IN LOWLAND SUSIANA, SOUTHWESTERN IRAN



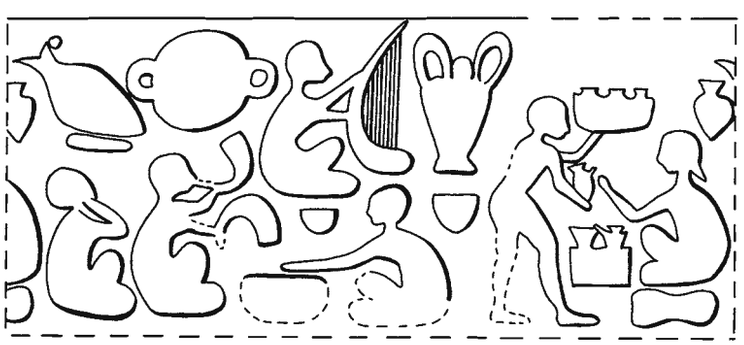
Possible Reconstruction of Female Figurine Composed from Several Fragments: *Chogha Mish* I, pl. 236:A; herein pls. 27:A, 28:A, C

CHOGHA MISH II

THE DEVELOPMENT OF A PREHISTORIC REGIONAL CENTER IN LOWLAND SUSIANA, SOUTHWESTERN IRAN

FINAL REPORT ON THE LAST SIX SEASONS OF EXCAVATIONS, 1972–1978

ABBAS ALIZADEH



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Spine Illustration

Reconstruction of decoration on Middle Susiana pottery vessel. Figure 42:F (B 1074)

Title Page Illustration

Sealing. *Chogha Mish* I: plate 155:A.

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This book is dedicated to the settled **Zalaghi Tribe** of the
Bakhtiyari, for their unwavering hospitality
and their contribution in the eleven seasons
of excavations in Khuzestan

این کتاب به طایفه‌ی زَلَقی از بختیاری در خوزستان تقدیم می‌شود.

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LIST OF ABBREVIATIONS

Ach.	Achaemenid
AMS	accelerator mass spectrometry
AS	Archaic Susiana
B	Chogha Bonut, seasons 1976/77, 1977/78
BF	Boneh Fazl Ali
B.P.	before present
BRB(S)	beveled-rim bowl(s)
B.S.	below surface (measured in meters unless otherwise noted)
ca.	circa
cf.	*confer*, compare
Ch.M.	Chogha Mish
Chogha Mish I	*Chogha Mish,* Volume I: *The First Five Seasons of Excavations, 1961–1971*. By Pinhas Delougaz and Helene J. Kantor. Edited by Abbas Alizadeh. Oriental Institute Publications 101. Chicago: The Oriental Institute, 1996.
cm	centimeter(s)
E	east
e.g.	*exempli gratia*, for example
EMS	early Middle Susiana
ES	Early Susiana
et al.	*et alii*, and others
etc.	*et cetera*, and so forth
fig(s).	figure(s)
f(f).	*fecerunt*, and following
ha	hectare(s)
ICHTO	Iranian Cultural Heritage and Tourism Organization
i.e.	*id est*, that is
INAA	instrumental neutron activation analysis
km	kilometer(s)
KS	Khuzestan Site
LMS	late Middle Susiana
LS	Late Susiana
M	middle
m	meter(s)
misc.	miscellaneous
mm	millimeter(s)
MS	Middle Susiana
N	north
N/A	not available
N.B.	*nota bene*, note carefully
no(s).	number(s)
NSF	National Science Foundation
PCA	Principle Components Analysis
PL	Protoliterate
pl(s).	plate(s)
p(p).	page(s)
ppm	parts per million
prob.	probably
reg.	registration
S	south
Sdg.	sounding
sq.	square
st.	stone
Tr.	trench
trans.	transitional
UTM	Universal Transverse Mercator
W	west

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PREFACE

The present publication is the second and final volume on the eleven seasons of excavations at Chogha Mish, in lowland Susiana, Iran. Excavations at the site were co-directed by Helene J. Kantor and Pinhas Delougaz from 1961 to 1975, the year Delougaz died. Helene Kantor directed the expedition for three more seasons from 1976 to 1978. Although both scholars worked for years to prepare the results of the first five seasons of excavations, they died before they could bring the results of their immense work to fruition. Based on the available evidence and on Kantor's and Delougaz's copious notes, the results of the first five seasons were published in 1996. In preparing the manuscript for that volume, I had greatly benefited from working for many years with Helene Kantor.

As is common with publications of this nature, there are inevitably gaps in the available date — information that only the original excavators could have possessed. In the course of preparing the results of the remaining six seasons of excavations, I realized that this problem is aggravated by the fact that several field notebooks, and even registration books of the objects found in the tenth through eleventh seasons, were destroyed along with the dig house nearly two decades ago. Although I have been able to present a number of objects from the last two seasons, notebooks on two trenches with Archaic and Middle Susiana occupation were not available and are perhaps lost forever. In addition, all the section drawings from the sixth through the eleventh seasons were lost in the dig house at the village of Qaleh Khalil, near Chogha Mish. The only one available in Chicago belongs to the Gully Cut, which, unfortunately, lacks the necessary stratigraphic data to link it to the top plans of the area.

A major problem that I could not solve with the available data relates to the assignment of the Protoliterate pottery types to the two major architectural phases of this period. Based on the pottery types found at the site, Chogha Mish seems to have been re-occupied in the second half of the fourth millennium B.C. It is nevertheless possible that the site was re-occupied even earlier, ca. 3600 B.C.; but in the absence of the necessary statistics for the various stratified ceramic types I am prevented us from establishing a more percise chronological position for the initial phase of the re-occupation of Chogha Mish.

In addition to the problems just cited, the reader will notice that analyses of the fauna and chipped stone objects are also absent from this volume. As explained in the first volume, James Phillips analyzed the flints and was to write a chapter on his results. That chapter was never produced and the lithic collection has since been lost. Furthermore, the available records do not allow for quantitative information regarding the finds and their spatial distribution in various contexts. The interpretion of the information gathered from all the available fauna and flora (from the eleven seasons of excavation) is limited to what was published in the first volume. This information has been culled from the first volume and used in the body of the text in *Chapter 1*.

During the first five seasons, Jane Wheeler Pires-Ferreira was the resident zooarchaeologist at Chogha Mish. Mrs. Wheeler Pires-Ferreira worked on the specimens both in the field and in Chicago. She then transferred her immense body of data onto computer punch cards. These cards included Mrs. Wheeler Pires-Ferreira's analysis and identification of some 40,000 bones representing various species with stratigraphic information. Under the supervision of Helene Kantor and occasionally Mrs. Wheeler Pires-Ferreira, Mr. James Lichtenstein, now the Director of Production Technology at the University of Chicago Networking Services and Information Technologies (NSIT), converted the data into a readable English database. On behalf of Helene Kantor, I would like to thank Mr. Lichtenstein for his aid and genuine interest in processing the Wheeler Pires-Ferreira records and for creating a comprehensive list of all the bones recovered from Chogha Mish.

Since a chapter on the fauna was not forthcoming, I decided to make the raw data available to the interested specialist. The detailed, comprehensive list of all the identified species from all the excavated loci can be found on the Internet by logging on to: http://oi.uchicago.edu/research/pubs/catalog/oip/oip130.html; see also *Appendix 3*.

The following is a short introduction to the Chogha Mish numbering system that was used to organize pottery, other objects, and excavated loci. When available, all illustrated objects are accompanied by their provenances, elevation (always above sea level), field registration, and Oriental Institute Museum numbers. In the object numbers, whether written as arabic or roman numerals, the first digit shows the season in which the item was found. The roman numeral prefix is usually reserved for whole objects, while the arabic numeral prefix indicates that the item is a sherd or an incomplete object. For example, VI-1 is the first complete object registered in the sixth season, and 6.001 the first sherd or fragmentary object cataloged in that season.

Findspot allocations consist of a letter followed by one or two digits, a colon, and three more digits. The letter and the first one or two digits indicate the specific square; the last three digits refer to the number of the locus in that

square. Again, the first number in the three digits that follow the colon indicates the season in which that locus was opened. Therefore, P26:601 indicates that it is the first locus opened in the sixth season in Square P26. Sometimes locus numbers are accompanied by the suffixes "W," "E," "N," "S," and "M," respectively representing west, east, north, south, and middle, indicating that the object or any feature was found west, east, etc., of that specific locus. Normally the first digit of the object number is the same as the first digit of the loci where they were found. Occasionally, when objects were found in an area opened in a previous season, the first digit of the field number differs from the first digit indicating the season.

A few words should also be mentioned on the terminology we have used in this and the first volume. This basic chronological terminology was developed in the 1970s by Delougaz and Kantor. The Susiana sequence as proposed by Le Breton is, in general, confirmed by the large quantities of stratified material from Chogha Mish and other sites. We think it both practical and fair, therefore, to retain Le Breton's term "Susiana" as the general name for all the prehistoric periods. In order to avoid any terminological confusion between the Susiana regional sequence and the phases at Susa itself (e.g., Susiana *e* = Susa A = Susa 1) and also to indicate which of Le Breton's divisions we consider to be subphases within a larger cultural period, Le Breton's lower-case letter designations are abandoned in favor of "Early," "Middle," and "Late," to which "Aceramic," "Formative," and "Archaic" phases are added. Our main deviation from Le Breton's classification involves his three middle phases, namely Susiana *b*, *c*, and *d*; these phases are considered here as subdivisions of the long Middle Susiana period. Our Early Susiana period and Late Susiana 2 phase correspond to Le Breton's Susiana *a* and *e* respectively. Here, as in the first volume, we have added another phase to Le Breton's sequence by subdividing his Susiana *d* into two separate phases. Le Breton's phase d (Le Breton 1957, fig. 7:8–10) includes some late Middle Susiana types (e.g. his fig. 7:8) that stratigraphically do not occur with the types he assigned to his phase d. Therefore without these earlier types, Le Breton's phase d equals our Late Susiana 1 phase (Farukh phase in Deh Luran). We thus consider any prehistoric archaeological deposits in southwestern Iran whose pottery assemblage includes "dot motif" as belonging to the Late Susiana 1 phase.

In addition, we have chosen Delougaz's terminology "Protoliterate" instead of the popular term "Late Uruk" to apply to the archaeological phase in Susiana dating to the second half of the fourth millennium B.C., even though Susiana and southern Mesopotamia share an almost identical repertoire of material culture. This choice of terminology is intended to make a crucial distinction between the two contemporary, but structually and socially different cultures in southwest Asia.

A number of scholars consider two earlier phases for the first half of the fourth millennium B.C., that is, Early and Middle Uruk. As we discuss in *Chapter 1*, at Chogha Mish we do not have any convincing evidence for this division of fourth-millennium archaeological materials. Nevertheless, it is obvious that the Protoliterate period followed an earlier phase in Susiana with related material that represents an early evolutionary stage of urban development in the region. But referring to the archaeological phases in Susiana prior to the second half of the fourth millennium B.C. as "Early and Middle Uruk" requires explanations of the role of southern Mesopotamia in the evolution of Susiana society in that period that have yet to be formulated. Therefore, to be consistent with our characterization of the Susiana internal development vis-à-vis that of southern Mesopotamia, we refer to the first half of the fourth millennium as the Early Susa 2 phase (Gregory Johnson's Early Uruk), identified but poorly known from Susa Acropole level 22. Our Middle Susa 2 phase (Johnson's Middle Uruk) corresponds to Susa Acropole levels 21–19.

The Protoliterate period at Chogha Mish is represented by two phases of architecture, Protoliterate 1 and 2. These phases represent the temporal dimension of the settlement, but changes in the material culture, especially pottery, do not seem to be present. The archaeological sequences from Chogha Bonut and Chogha Mish are delimited and defined primarily on the basis of specific classes of pottery that are characteristic of the major periods discussed in this study; that is, Archaic, Middle, and Late Susiana periods. The subdivision of these major periods (e.g., Early and Late Middle Susiana, Late Susiana 1 and 2) are based on the presence/absence of certain pottery shapes and decorative motifs within each period, as well as stratigraphy. When the available information permited, other artifacts such as spindle whorls, stone tools, and architectural components and features were also used as criteria for defining the various periods and phases, but inconsistently, as the available records for each period vary considerably. While we have not been able to quantify our ceramic diagnostics for each period/phase, we believe the resulting information can be used as a basis for assessing periodization of the surveyed sites in the region.

The contour map of Chogha Mish (fig. 6) extends only over those parts of the ancient site that are clearly discernible on the surface, but not over those presumably covered by wash from higher parts and now lying under cultivated fields. When I resurveyed the site in 1995, it became clear that the occupational deposit at Chogha Mish extends farther to the east and west than the map indicates. Therefore the adjusted 75 m contour map of 18.6 ha in table 3 seems an underestimation of the total area of occupation at Chogha Mish. This inference, of course, will have to be confirmed by test trenches at the site.

The High Mound, measuring about 200 × 150 m, is steepest toward the north and northwest, where it slopes about 23 m in 60 m, that is, an incline of nearly 1 in 3 m. Its western edge is fairly regular, but on its northeast, east, and southeast sides it has four irregularly shaped lobes separated by deeply eroded gullies. The terrace, about 400 × 300 m, has four less prominent peaks in Squares H14 (elevation 82–83 m), R16 (elevation 84–85 m), O25 (elevation 84–85 m), and H27 (elevation 82–83 m).

The summit of the High Mound is at elevation 100.54 m above sea level. It is about 27 m above the surrounding plain (at 73.50) and over 30 m above the riverbed of the Shur, to the east (elevation 70.30 m). The lowest elevation at Chogha Mish was reached at 71.70 m (Archaic 1 phase) in S22, putting the virgin soil here at 71.60 m. In other areas, the virgin soil was reached at higher elevations, about 72.00 m and even 73.50 m, indicating that in the seventh millennium B.C. and perhaps much later the plain looked very different than it does now. Approximately 5 km to the west, at Chogha Bonut, the present plain is at about 74 m above sea level, just 1.0 to 0.5 m higher than the area around Chogha Mish. The virgin soil at Chogha Bonut, however, was reached at 73.10 to 73.00 m, just 1 m below the present surface of the plain. In this part of the plain the pattern of alluvial deposition must have been very different from elsewhere in the region, indicating that the region around Chogha Mish was less susceptible to flooding. This observation should partly explain the high concentration of settlements, particularly those of the early Neolithic period, in this region.

Figure 88 (kindly produced by Nick Kouchoukos) is a computer-generated image that shows both the surface features and a cross section of this part of the plain. The image, as Kouchoukos noted, indicates that this area may have been the remnant of a bluff or even a ridge and thus higher than the lands on either side of the Shur and Sia Mansur rivers. As just noted, this is the area in Khuzestan where almost all the Archaic period sites, namely Chogha Mish, Chogha Bonut, and Boneh Fazl Ali are located. At the level of our present understanding of the geomorphology of the plain, it is facile to think that when the first farmers colonized the land they chose this higher part of the plain, away from the marshes and the parts of the plain that flood. One can further speculate that as the climate became gradually drier and the rivers started to cut down their beds, it became possible to occupy the regions on the west of Sia Mansur and east of the Shur. Whether or not the Shur started cutting its bed down to the present elevation, perhaps around the second millennium B.C., remains speculative until geomorphological analysis is conducted in that area.

To avoid repetition and to make this volume more manageable to use, only summaries of lengthy descriptions of pottery and objects are provided here. Therefore, the reader is invited to consult the first volume for detailed information not included here. In addition, we have included data obtained from the earlier site of Chogha Bonut, as well as from other sites in both Susiana and the nearby Deh Luran to fill in the missing data from Chogha Mish itself.

Chapter 1 is a rather lengthy summary of prehistoric cultural development in lowland Susiana, with Chogha Mish as the main source of information. We feel that by presenting this summary first, the reader is provided with a general landscape against which numerous technical data and analyses offered in the following chapters may be placed. This chapter mostly consists of a narrative, the fabric of which is woven from the available archaeological data. The narrative, however, is embellished with a certain number of assumptions, inferences, and even imagination. Nevertheless, we hope we have been able to lay out the facts clearly enough so that the reader can sift through what is fact and what is speculation. As a regional center for over two thousand years, Chogha Mish offers a unique opportunity to study prehistoric socioeconomic and crafts development at a single site. Since Chogha Mish did not develop in isolation, in *Chapter 1* we use the site as a focal point to discuss numerous lines of evidence that pertain to the cultural development in the region.

Chapter 2 deals with the architectural evidence from the Archaic to the Iron III/Achaemenid periods. It describes all the relevant excavation areas individually, namely the Gully Cut, Trench XXI, the High Mound, etc. When appropriate and possible, contemporary architectural remains in the various excavation areas are linked to provide a larger picture.

The pottery assemblages of all prehistoric and historical phases are described in *Chapter 3*. A much more detailed description of the various classes of pottery was offered in the first volume by Helene Kantor; in some respects *Chapter 3* is therefore an abbreviated version. For more information and a lengthier treatment of the pottery, the reader must consult the first volume.

Chapter 4 is a survey of the stylistic trends and mannerisms used by ancient potters to decorate various classes of prehistoric pottery. One of the objectives of this survey is to present a general picture of some aspects of the "grammar" governing the designs and compositions of Susiana prehistoric painted pottery. From the early Neolithic period, southwestern Iran was in close contact with Mesopotamia; so the first part of the chapter is devoted to a summary of the development and evolution of some components of material culture, especially pottery in that region. In our opinion, this was particularly necessary because the question of the origins of the Archaic 3 close-line ware

and its contemporary Chogha Mami Transitional pottery and the el-Oueili ware cannot be addressed without reference to the Samarran pottery and its characteristics. In addition, a general survey of the potteries of the early phases of Ubaid (Ubaid 1–2), possessing many shared features with those of the Early and Middle Susiana periods, is also provided in the same section to demonstrate change and continuity throughout the prehistoric sequence, as well as interregional stylistic trends.

The general description of Mesopotamian prehistoric pottery in the first part of *Chapter 4* provides a background for the second part, which deals primarily with the evolution of designs and shapes of the Susiana prehistoric painted pottery. It is in this section that the arguments for the special characters of the crucial Late Susiana 1 pottery assemblage and its highland connection are formulated.

A foundation of knowledge on the ecology of crafts in prehistoric Susiana is essential in making theoretical inferences on the evolution of pottery production in the region. But at present that knowledge is slim. I hope the analyses in *Chapters 1–4* make it clear that increasing sophistication of the Susiana prehistoric pottery form, decoration, and manufacture technique roughly corresponds with the growth of Chogha Mish as a regional center. The development of Chogha Mish as a regional center did not, of course, occur in isolation. The steady rise in regional population in the Archaic period and the sharp population rise of the Early and Middle Susiana periods seems to be associated with the fertility of the land, ample water supplies, improved agricultural practices and tools, and perhaps the reduction of the aggrading regime of the region's main water courses as well as population donation from the intermontane valleys of the Zagros.

Chapter 5 is devoted to the evidence of administrative technology throughout the prehistoric sequence and the Protoliterate period. In the first volume, Helene Kantor offered an extensive and detailed treatment of the Protoliterate glyptic art. Here we limited ourselves to the description and evaluation of some new types of sealings and some glyptic designs not addressed in the first volume.

Clay and stone figurines of all phases are presented and discussed in *Chapter 6*. *Chapter 7* deals with small objects, including metal and bone objects, as well as stone tools and stone vessels. The evidence of basketry is discussed at the end of this chapter. The similarities of the types of objects discussed in this chapter to those published in the first volume are the reason for the brevity of *Chapter 7*. The reader, therefore, is advised to consult the first volume for more details.

Appendix 1 deals with instrumental neutron activation analysis (INAA) of some Susiana sherds, which was provided by Royal Ghazal and Nick Kouchoukos of the University of Chicago's Department of Anthropology and their colleagues at the University of Missouri Research Reactor (MURR). The reader should bear in mind that the results of Ghazal's INAA and his present contribution must be considered a work in progress, since the final analysis and detailed discussions will appear in his doctoral thesis. The rationale for Ghazal's INAA of certain classes of pottery from the Late Susiana 2 and Protoliterate phases — in the course of which state organizations presumably developed in the region — is ultimately to test the validity of Johnson's (1973) and Wright and Johnson's (1975) hypothesis that sociopolitical and economic evolution affected the production of crafts, especially pottery. Judith Berman performed a similar analysis (1986, 1989) by dividing her samples of 1,021 sherds from 104 Susiana sites into compositionally similar groups, but her results were inconclusive (Berman 1989: 262). In his contribution, Ghazal discusses improved INAA techniques and argues that his initial analysis is promising in establishing a link between compositionally similar ceramic groups and hypothetical archaeological groups. The most interesting conclusion of this analysis was the possibility that, despite Johnson's hypothesis (Johnson 1973), Chogha Mish, Susa, and Abu Fandoweh were not the only centers of pottery manufacture.

Appendix 2 consists of a master list of all the available information on the excavated areas, various loci within these areas, their elevations, and the type of archaeological contexts that defined the loci or were found associated with them. The data provided in this list pertain primarily to the loci not depicted on the top plans, though some are included. Information about the loci missing from the list can easily be found on the top plans and in *Chapter 2*.

Appendix 3 presents the faunal information.

The text concludes with two indices, an *Index of Loci and Illustrated Finds* and an *Index of Geographical Names*.

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* * * * *

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Finally, some of the results of our archaeological excavations at Chogha Do Sar (KS-04) and KS-108 discussed in *Chapter 1* were obtained during our Joint ICHTO-Oriental Institute 2004/05 expedition to Khuzestan. The expedition was made possible by a grant from the National Science Foundation (B.C.S-0345988). We are grateful to Dr. John Yellen for his help and favorable consideration of our grant application. The National Science Foundation grant was supplemented by additional funds from the Oriental Institute. We thank Professor Gil Stein, Director of the Oriental Institute, for his encouragement and valuable assistance.

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CHAPTER ONE

THE STORY OF CHOGHA MISH AND ITS WIDER CONTEXT

INTRODUCTION

Chogha Mish (KS-01), 32˚13′ north, 48˚33′ east (3567887 N/269677 E, UTM 39N), in lowland Susiana (in modern-day Khuzestan province), is the largest pre-Sasanian settlement in northeastern Susiana. The site is located between the outlets of the large perennial rivers of Dez and Karun. Closer to the site are two important tributaries of the Dez River, the Sia Mansur River, about 8 km to the west, just west of Jundi Shapur; and the Shur River, slightly less than 1 km to the east of Chogha Mish (figs. 1–2, pls. 1:A, 31). As in most areas in northern Khuzestan, dry farming is possible but involves some risk. However, the seepage from the Karkheh, Shaur, Dez as well as the Sia Mansur, the Lure, and the Shur rivers considerably reduces the risk. It was perhaps this environmental feature that encouraged the early settlements (Chogha Bonut, Chogha Mish, and Boneh Fazl Ali [Boneh Fazili in the literature]) to be established in this part of Khuzestan. Moreover, this area is much closer to the mountains (see pl. 1:A) and one can reach the nearby hill without having to cross major water courses (for more details, see Adams 1962:109–10; Layard 1846; Lees and Falcon 1952).

Lowland Susiana is often referred to by archaeologists and historians as an extension of the Mesopotamian plain. This is, of course, true geologically and to some extent ecologically; both regions consist of flat alluvial fertile land with major rivers. Nevertheless, there are some fundamental differences between the two regions that must have contributed to their specific long-term trajectories of cultural development. Lowland Susiana is much closer to the mountains and the entire width of the plain can be crossed on foot in less than a day. This proximity provides easy access to stone and wood. Additional sources of stone are provided by the Dez and, especially, the Karkheh rivers that deposit on their banks in upper Susiana large to small size pebbles of many types of rocks. The banks of the rivers and major water channels have thick stands of reeds that are used for fuel and in a number of utilitarian objects.

Before the introduction of modern canal irrigation technology, the center of the plain was crisscrossed by many small natural streams that could be easily tapped for small-scale irrigation (Adams 1962). The difficulty involved in crossing numerous water channels for sheep and goats perhaps can account for the historical spatial distribution of the pastoralist tribes in the region, with the Dez as the borderline between the Bakhtiyari tribes who descend on the plain from the east and northeast and the Lurs and Arab-speaking tribes who come from the northeast.

In the upper Susiana plain, the pebbly soil is fed by underground springs and high water table from the seepage of the Karkheh and the Dez rivers that make the area ideal for both pasture and dry farming (Adams 1962: 110) — in fact the Shaur River originates some 20 km north of Susa from many small and large springs on the east bank of the Karkheh. In the eastern sector of the plain, before the area was cut by numerous wadis that today mark the landscape, seasonal floodwaters were distributed widely across the area, making the practice of recessional, or décrue, farming possible (Alizadeh et al. 2004). This is the heart of the winter pasture land of the Bakhtiyari tribes, and compared with the lands on the west bank of the Karun River, ancient villages here are rare, especially before the second millennium B.C., as are modern-day villages today. In 1961, when archaeological and geomorphological evidence from Khuzestan was much more limited, Adams (1962: 115) observed that "…Elamite military prowess did not derive from a large, densely settled peasantry occupying irrigated lowlands in what is often loosely considered the heart of Elam. Instead, the enclave around Susa must have been merely one component in a more heterogeneous and loosely structured grouping of forces."

Unlike southern Mesopotamia, dry farming is much less risky and major canal irrigation does not seem to have been practiced until the middle of the second millennium B.C. at the earliest (Alizadeh et al. 2004). If this was the case, then in lowland Susiana, unlike southern Mesopotamia, there could not have been a fierce competition between upstream and downstream irrigators, which Adams (1974) considers as a major source of conflict and perhaps a practical reason for the development of urban life and fortified cities as an adaptive measure against the uncertain conditions of farming.

The gradient in upper Susiana is much steeper than in lower Mesopotamia and therefore salinization, especially in the central and western part of the region, is not and may not have been a problem. No permanent or seasonal marshes exist in upper Susiana; but in the lower part, south of the Haft Tappeh anticline, vast areas become seasonally inundated and when dried in summer, a layer of salt covers the dried bottoms of these marshes.

Eleven seasons of excavations at the site have provided a long, almost uninterrupted prehistoric sequence of cultural development in southwest Asia.[1] Thus, Chogha Mish is uniquely qualified to demonstrate in a single location a series of major developments that took place during the entire prehistoric period in southwestern Asia. These developments include the gradual appearance of central places, increasing specialization and improvement in the production of material culture, changes in subsistence economy, integrated interaction in material culture and ideas, and the development of social complexity that resulted in the emergence of state society.

It was, nevertheless, at the small nearby site of Chogha Bonut (KS-428, 3567695 N/264950 E, UTM 39N) where the earliest episode of human colonization of lowland Susiana occurred (fig. 2). Therefore a better understanding of the prehistoric initial sociocultural development in the region must include the archaeological results obtained from this aceramic site (Alizadeh 2003a–b). The purpose of this chapter is to provide a narrative backdrop against which the reader may follow the myriad of archaeological data presented and discussed in this and the previous volumes.

The earliest cultural phase discovered at Chogha Mish, the Archaic Susiana 1 phase, dates to ca. 6800 B.C. Cultural phases much earlier than the basal levels of Chogha Mish were accidentally discovered in the nearby mound of Chogha Bonut in 1977.[2] Helene Kantor first investigated the mound, but her work at the site was postponed indefinitely in 1978. Eighteen years later I was able to secure a permit and resume Kantor's work at the site. To date, Chogha Bonut stands as the oldest lowland village in Susiana. It is a small mound; in its truncated and artificially rounded state, it has a diameter of about 50 m and is about 5 m high. The calibrated radiocarbon dates indicate that Chogha Bonut was first occupied sometime in the second half of the eighth millennium B.C., in the aceramic period. The site continued to be occupied until the beginning of the Archaic Susiana 1 phase (the earliest phase attested at Chogha Mish, some 6 km to the east) when it was deserted for at least one millennium. Then, sometime in the early fifth millennium B.C. (late Middle Susiana phase),[3] Chogha Bonut was re-occupied and remained inhabited for perhaps several generations. It was deserted once again sometime before the end of the beginning of the Late Susiana 1 phase (see tables 1–2).

The discovery of an early, aceramic phase of occupation at Chogha Bonut not only provided a wider context for the evolution of the Archaic period, but also indicated that farmers colonized the lowlands much earlier than we had anticipated. Except for Tappeh Ali Kosh, located in the Deh Luran plain north of Susiana, all aceramic Neolithic sites in Iran are situated in the highlands of the Zagros Mountains. These early Neolithic sites with a mixed economy of farming and hunting-gathering are informative about the beginning of village life in western Iran. Unlike Chogha Bonut and Ali Kosh, these early villages were located in the natural habitats of the early domesticates during the transitional period from hunting animals to herding and managing them (Zeder and Hesse 2000).

Before the 1996 investigations of the basal aceramic levels of Chogha Bonut, the Bus Mordeh phase at Tappeh Ali Kosh was the earliest lowland village thought to have been established at or soon after the initial phase of animal and plant domestication (Hole, Flannery, and Neely 1969). The location of Ali Kosh was considered special because it lay outside of the presumed natural realm of the major domesticated species of wheat, barley, sheep, and goats. Therefore, scholars interpreted the case of Ali Kosh as evidence for the early Holocene Agricultural Revolution. After initial steps toward domestication in the highlands, it is assumed that increases in population forced some communities to split and move to more marginal areas where their survival depended on an economic strategy of farming and herding animals mixed with hunting and gathering.

As we argue elsewhere (Alizadeh 2003a), radiocarbon dates reported from the early highland sites put all the early Neolithic aceramic sites in western Iran within the 8000–7000 B.C. brackets. However, considering the problems with radiocarbon dating, these dates alone are not sufficient as a definite criterion to establish chronological priority of any of these early sites. Some sites (e.g., Tappeh Asiab[4] and Tappeh Ganj Dareh[5]) yielded morphologi-

1. The only exception is the short interval during the Late Susiana 1 phase when Chogha Mish appears to have been temporarily abandoned. For more details on this phase, see *Chapter 3*.
2. See Alizadeh 1997, 2003a.
3. For a detailed discussion on the subdivision of the Middle and Late Susiana periods into Early Middle Susiana, Late Middle Susiana, Late Susiana 1, and Late Susiana 2 phases, see *Chapter 4*; Alizadeh 1992: 22–26; idem 1996; and *Chogha Mish* I, pp. 280–84, 298–300.
4. Braidwood 1960a, 1960b.
5. Smith 1976.

cally wild species of the plants and animals that at Tappeh Ali Kosh and Chogha Bonut are considered morphologically domesticated. Based on these remains, Ali Kosh and Chogha Bonut can be assigned a later date than Asiab and Ganj Dareh. Zeder's AMS analysis of bones also shows that Asiab and Ganj Dareh are earlier than Tappeh Guran and Ali Kosh (Zeder 1999; see also below).

The chronological position of the Chogha Bonut aceramic phase vis-à-vis the Bus Mordeh phase in Deh Luran has theoretical implications in terms of the occupation of the lowlands on the eve of domestication. However, the paucity of excavated materials dating to the initial phases of the Neolithic prevents us from proposing a chronological framework without the use of radiocarbon dates. Nevertheless, comparative analyses of the pottery sequences from the early villages in Susiana and Deh Luran indicate that, at least in southwestern Iran, pottery manufacture began earlier in Susiana than it did in Deh Luran and continued to influence Deh Luran for several millennia (Alizadeh 2003a: 43–48). Moreover, the T-shaped figurines, so characteristic of the early Neolithic sites in western and southwestern Iran (e.g., Tappeh Sarab,[6] Chogha Bonut,[7] Chogha Mish,[8] and Tappeh Ali Kosh[9]) and northeastern Iraq (e.g., Jarmo), occurred from the beginning of the occupation at Chogha Bonut but seem to have appeared later in the Ali Kosh and Mohammad Jafar phases in Deh Luran.[10] Admittedly, this observation is based on uncertain grounds and it is perfectly possible that the aceramic deposits at Chogha Bonut and Ali Kosh were contemporary.

New approaches and analyses shed more light on this problem. As mentioned above, using AMS technique, Zeder and Hesse (2000) dated four samples of charred barley and twelve bone collagen samples from all five levels at Tappeh Ganj Dareh and concluded that the site had a short period of occupation (100–200 years) sometime around 10,000 B.P. The same authors also provided some new AMS dates from Tappeh Ali Kosh that indicate a much shorter occupation there than previously thought, lasting some 500 years. These new dates put the initial occupation at Ali Kosh (Bus Mordeh phase) at about 8,900 B.P. and thus at least 500 years later than that of Ganj Dareh. The authors conclude that the initial domestication of goats must have taken place in the highlands, the natural habitat of the species. These new AMS dates support our claim that Chogha Bonut may have been occupied earlier than Ali Kosh. Samples from the basal levels at Chogha Bonut provided a date of 7505–7025 B.C. (Beta-104552), suggesting that Chogha Bonut was occupied at least 100 years before Ali Kosh.

An understanding of the environmental conditions suitable for practicing agriculture and animal husbandry is, of course, of great importance in interpreting the early stages of the development of domestication in the Near East. Unfortunately, comparatively little research in terms of post-Pleistocene/early Holocene climates has been conducted in Iran; prior to the 1996 excavations at Chogha Bonut, the environmental and climatic conditions of the early Neolithic period in lowland Susiana were extrapolated from the data pertinent to the Deh Luran region. Important evidence for the environmental conditions of lowland Susiana in the beginning of the early Neolithic period is provided by the results of the analysis of the flora, phytoliths, and fauna from Chogha Bonut. The results of these analyses indicated that in the eighth millennium B.C. Susiana was a wet grassland and perhaps contained a number of marshes with attending characteristic fauna and flora.[11]

In the *Preface* we briefly discuss the evidence indicating that the region between the Shur and Sia Mansur rivers, where most of the Archaic sites are located, is today higher than the surrounding areas (fig. 88). The shallow bases of both Chogha Mish and Chogha Bonut (only between 1.0 and 2.5 m below the level of the plain) also indicate that perhaps in the early Neolithic period vast stretches of marshes dotted the upper Susiana plain. The early inhabitants of the plain seem to have chosen to settle on higher ground away from marshes and from areas susceptible to flooding by the rivers and natural streams before they had started to cut down their beds much later. If further research supports this settlement pattern, then it is not surprising that, with the exception of Tappeh Tuleii, presumably a pastoral nomadic camp (see below), all the known Archaic period sites are located in the triangular region between the Sia Mansur and Shur rivers. Furthermore, this evidence also explains why site preservation is much higher here than elsewhere on the plain.[12]

6. Braidwood 1960a, 1960b, 1961.
7. Alizadeh 1997, 2003a.
8. *Chogha Mish* I.
9. Hole, Flannery, and Neely 1969.
10. At Tappeh Ali Kosh the earliest aceramic phase of Bus Mordeh did not produce any T-shaped figurines. The following phases of Ali Kosh and Mohammad Jafar produced respectively two and ten examples (Hole, Flannery, and Neely 1969: 226, fig. 98).
11. See Redding 2003 and Miller 2003b.
12. In our 2004–2005 research in central Khuzestan, we found on the east bank of Nahr-e Khalaf (an artificial irrigation canal issuing from the Ojirub River) remnants of an unreported small Early Susiana site some 100 m northwest of Chogha Do Sar (KS-04) that had been bulldozed, according to the local farmers, in the last two decades. Our test trench, located at what we thought to be the center of the mound, reached virgin soil 50 cm below the present level of the plain. The project was supported by NSF grant B.C. S-0345988.

INITIAL COLONIZATION OF LOWLAND SUSIANA (ACERAMIC PHASE)

The combined archaeological evidence from Chogha Bonut and Chogha Mish is now sufficient to revise the chronological sequence originally suggested by Kantor. Thus the earliest basal levels at Chogha Bonut that did not produce any ceramic vessels comprise the initial aceramic phase. In this phase, the early settlers of the Susiana plain chose to settle on top of a low natural hill surrounded by shallow marshes at an elevation where dry farming was possible — presumably Ali Kosh in the Deh Luran plain, too, was established on the edge of a swamp (Woosley and Hole 1978:64). Even today, when the region is much drier than it was in early Neolithic times, some farmers practice dry agriculture as a supplement. The early farmers of lowland Susiana cultivated wheat, barley, and lentils and kept domesticated sheep, goats, pigs, and dogs. Hunting and gathering supplemented this mixed subsistence economy.

During the initial aceramic phase, the chipped stone industry and the manufacture of stone vessels were highly developed. In the limited exposure of the 1996 excavations at Chogha Bonut, no traces of solid architecture were found, but fragmentary pieces of straw-tempered mudbricks suggest the existence of solid architecture. We assume that the inhabitants of this early site came from the highlands, for there is a great similarity of the Chogha Bonut chipped stone industry, clay and stone figurines, and tokens to those found at the early sites in the highlands.

FORMATIVE SUSIANA PHASE

Soon after the initial aceramic phase at Chogha Bonut, plain, crude pottery vessels of simple shapes appeared, marking the beginning of the Formative phase of the Archaic period. During this phase several classes of simple decorated pottery vessels, some with fugitive paint, appeared. The crude pottery of the Formative phase evolved into several outstanding classes of painted pottery, but the following Archaic Susiana 0 straw-tempered ware continued almost unchanged during the entire Archaic sequence.

The architectural evidence of the Formative phase consists of small rectangular houses with two or three rooms. Often, an open court with fire pits containing fire-cracked rocks accompanied these rooms. These simple nuclear-family residences were built with the characteristic long, cigar-shaped mudbricks that continued in use until the end of the Archaic period and even into the Early Susiana period. These architecturally awkward bricks have a surprisingly wide geographic distribution, from the Susiana plain to southern and central Mesopotamia (at Tell el-Oueili and Chogha Mami) and Central Asia.[13] In addition to these peculiar bricks, stone and T-shaped clay figurines and a simple coarse ware were alo shared by a number of early Neolithic cultures in southwest Asia. Exotic materials not native to the region consisted solely of obsidian blades and shells from the Persian Gulf. These non-local items were possibly procured by a trickle-down interregional exchange system, rather than any direct exchange mechanism.

Neither Chogha Mish nor Chogha Bonut yielded any evidence of burial until the Archaic 3 phase; it is thus difficult to assess social status solely on the basis of the distribution of other artifacts, which seem homogeneous in all the excavated areas. The evidence of architecture, however, points to some type of communal activities at this early stage of social development, though these social practices are not yet understood. Two partially preserved buildings are all that were excavated from this phase. As mentioned above, both buildings were made of long, cigar-shaped mudbricks mixed with bricks of smaller size. The better-preserved building may have had a non-domestic as well as domestic function.[14] The plan of the buildings and the presence of numerous fire pits suggest non-domestic character or special status of these buildings as well, the nature of which can only be speculated. The possibility that an extended family resided in this building cannot be ruled out, however.

13. Similar mudbricks (with and without finger impressions) seem to have been typical in various regions in the early Neolithic period; they are not, however, all of identical type or as similar to the Susiana examples as those found in Deh Luran. For examples, see Smith 1976: 14–15 (Tappeh Ganj Dareh, Level D, in the Zagros Mountains); Masuda 1974: 25 (Tappeh Sang-e Chakhmaq, Iranian Central Plateau); Malek-Shahmirzadi 1979: 184, fig. 3 (Tappeh Zagheh, Iranian Central Plateau); Oates 1969: 116, pl. 22:C (Chogha Mami, central Mesopotamia); el-Wailly and Abu es-Soof 1965: 21, fig. 56 (Tell es-Sawwan, central Mesopotamia); Lloyd and Safar 1948: 121 (Eridu, southern Mesopotamia); Vallet 1996: 113–15, figs. 2–5 (Tell el-Oueili, southern Mesopotamia); Masson and Sarianidi 1972 (Central Asia).
14. See Alizadeh 2003a.

ARCHAIC SUSIANA 0 PHASE

The appearance of the painted-burnished variant ware, a new class of painted pottery that provides an antecedent for the entire Archaic Susiana ceramic sequence, marks the transition from the Formative phase to the Archaic period. Another site, Tappeh Tuleii,[15] northwest of Chogha Bonut near the provincial town of Andimeshk (fig. 2), is the only other known site that was occupied during this phase. The fact that neither of these two early sites in lowland Susiana was located close to any detectable canal or source of water is another indication of sufficient precipitation for dry farming. Faunal, floral, and phytolith evidence from Chogha Bonut indicate the presence of marshes in upper Susiana during this phase.[16]

Evidence of gazelles, onagers, some unidentified large mammals, domesticated sheep, goats, and dogs, as well as that of wheat and barley shows that the mixed economy of farming, herding, and hunting continued in this phase. In addition to these species, the presence of bones of the giant Indian gerbil and of bears at Chogha Bonut also indicates the wetter climate in this region during the initial phases of the Archaic period.

The painted-burnished variant ware is well represented at Tappeh Tuleii but is rare in the nearby Deh Luran plain to the north. In contrast to this distinct class of early Neolithic Susiana pottery, the stone tools, chipped stone industry, and small objects such as T-shaped human figurines and animal figurines are almost indistinguishable among the two Susiana sites and the contemporary sites of Chogha Sefid and Tappeh Ali Kosh in the Deh Luran plain. The great similarity in the objects other than pottery suggests that, while the stone industry and the manufacture of small clay and stone objects found at these sites may have had a shared origin, the painted-burnished variant ware was developed in Susiana proper.

The excavated architecture of the Archaic Susiana 0 phase at Chogha Bonut consists of two separate buildings, the complete plan of which cannot be restored (Alizadeh 2003a: 33–40). A rather large rectangular structure is all that was left of one building that, based on its rather comparatively large size, must have been a hall or courtyard of a much larger structure. The three surviving walls are neatly made of long, cigar-shaped mudbricks laid as stretchers. Two platforms or buttresses made of the same construction material were built against the outer face of its southern wall. The western portion of this building, where presumably the living quarters were located, was entirely destroyed, but the presence of two rows of headers, one slightly higher than the other, suggests a doorway that may have provided access to the rooms on this side. The other, smaller building was better preserved. The building material was the same as that used for the larger structure, but the neat division of space and straightness of the walls indicates a degree of architectural sophistication, if not specialization, even in this early phase of architecture in Susiana.

No solid architecture was found at the contemporary site of Tappeh Tuleii. One interpretation of the archaeological evidence from Tuleii argues that the site might have been a mobile pastoralist camp (Hole 1974; Bernbeck 1992),[17] though this is by no means certain.[18] Bernbeck (1992) considers the evidence from Tuleii as indicative of the existence of village-based herders who moved seasonally between Susiana and Deh Luran, presumably in an effort to keep the herds away from cultivated fields. This speculation is not tenable given the extremely low population density of the plain during this phase.

Nevertheless, it is difficult — if not impossible — to assess the size of the initial settled farming population in lowland Susiana. Erosion, later occupation, and alluviation could cover or obliterate earlier deposits, complicating the interpretation of the remains of early Neolithic sites and their antecedents. Susiana's landscape and topographic features have changed from the early Holocene to such a dramatic degree that almost all surface surveys failed to reveal early Neolithic sites in Khuzestan. Even the three well-preserved sites of Chogha Bonut, Chogha Mish, and Boneh Fazl Ali did not reveal their earliest cultural components before they were excavated. At Boneh Fazl Ali, a porcupine digging deep into the base of the mound was responsible for the few early Archaic potsherds found in the heap of dirt next to its burrow. Early deposits at Tuleii and Chogha Bonut were also discovered accidentally.

Thus it is perfectly possible that there exist, or existed, other contemporary sites not yet discovered, or never to be discovered, for the reasons just cited. With this problem in mind, we have identified at least five sites with a total of perhaps 3–4 ha of occupation area that belong to the early phase of the Neolithic in the region. They include

15. Hole 1974, 1975 (Tuleii, pronounced *to-**le**-ee*, and spelled Tula'i in the original report, is the name of an edible tuber similar to truffles in northern Khuzestan and in Fars).
16. See Redding 2003 and Rosen Miller 2003.
17. See also Hole 1975, 1987: 39.
18. See Wheeler Pires-Ferreira 1976/77: 279, who considers Tappeh Tuleii to be "a village based fallow herd camp site."

Chogha Bonut, Tappeh Tuleii, Boneh Fazl Ali (KS-02, 3570599 N/269194 E, UTM 39N), Chogha Mish, and Boneh Rahimeh (KS-120, 3550616 N/270425 E, UTM 39N).[19]

ARCHAIC SUSIANA 1 PHASE

For unknown reasons, Chogha Bonut, Tuleii, and the other sites just mentioned were deserted during the Archaic 0 phase. Since these early sites in upper Susiana are close to one another, it is unlikely that environmental or climatic reasons were responsible for their abandonment, in which case, Chogha Mish, too, should have been abandoned. While admittedly we have no evidence for this early settlement development, it is possible that safety could be a tenable reason for scattered population to aggregate at a single site. If this were the case, we still cannot offer the source of insecurity in the region at this early stage of social development, but the possibility of tension between the early farmers and pastoralists cannot be ruled out. The continuation of the Archaic period thus will have to be sought at Chogha Mish and possibly at Boneh Fazl Ali (Kantor 1970/71), a small site just north of Chogha Mish on the eastern part of the plain (fig. 2).[20] The initial occupation of Chogha Mish is marked by the presence of the earlier painted-burnished variant of the Archaic 0 phase and its developed version, the standard painted-burnished ware. This phase, therefore, is primarily defined by its distinctive pottery style. Sometime during the Archaic Susiana 1 phase, the painted-burnished variant completely disappeared. The standard painted-burnished ware was associated with other artifacts, such as the tiny T-shaped figurines, which occur both in Susiana and Deh Luran to the north. As mentioned above, during this phase striking parallels can be found in the pottery and figurines from distant sites in the Iranian Central Plateau.[21] The T-shaped figurines are frequently interpreted as belonging to a Zagros complex,[22] but very similar material far to the northeast of Iran (Masuda 1972, 1974) may represent a wider sphere of cultural interaction.

The earliest inhabitants of Chogha Mish subsisted on domesticated goats and sheep and hunted gazelles, onagers, and aurochs. It was during the Archaic 3 phase and the Early Susiana period that cattle and pigs became important, comprising almost half of the assemblages at Chogha Mish and Jafarabad levels 6–4, while sheep and goats made up 40% of the total.

The question of the transition from the Archaic 0 to the Archaic 1 phase is difficult to address on the basis of the available material. While the flint industry and clay figurines of the previous phase continued into this phase with little change, the pottery had developed into a distinct style. Unfortunately, we have no intervening phase for the evolution of the standard painted-burnished ware from the earlier painted-burnished variant ware. In Susiana proper, Chogha Mish is the only site that yielded standard painted-burnished ware; to date, no intervening or overlapping style that can be considered transitional has been found. In any case, Chogha Mish and Boneh Fazl Ali seem today to be the only sites that were occupied during the Archaic Susiana 1 phase, though they were perhaps the only sites that existed on the plain.

Architectural remains of this phase at Chogha Mish (just above virgin soil at an elevation of 72.33 m above sea level) were inconclusive. They consist of poorly preserved pisé and mudbrick wall fragments, beaten earth surfaces, and several cooking installations. The use of long bricks (usually about $95/80 \times 12 \times 10$ cm) continued into this phase. As in the earlier and later phases, the floors of the cooking installations were covered with fire-cracked rocks, but no change in the subsistence economy from the previous phase was noted.

We believe that the close parallels cited for certain types of artifacts from widely separated sites in southern Turkmenistan (Jeitun),[23] the Zagros Mountains (Jarmo),[24] and Susiana can be interpreted as a regional variety of a single incipient cultural horizon, which can be taken as common ancestors of many later regional traditions in Iran. It should be noted, however, that the great problem in accepting such a proposal is that we do not have any representative of an analogous cultural phase in any of the intervening sites. For example, at Tappeh Sialk, the early straw-tempered pottery of levels 1 and 2 is quite different from the contemporary sites in southwestern Iran. At Tappeh

19. Boneh Rahimeh was identified from the Gremliza survey collection. See Alizadeh 1992.
20. Evidence from the limited excavation at this site was kept at the Chogha Mish dig house and was destroyed in 1978.
21. For examples, see Tappeh Sang-e Chakhmaq (Masuda 1972, 1974), Deh Kheir, Elikahi, and Tappeh Siah (Rezvani 1999).
22. Braidwood et al. 1983: 369–424; Broman Morales 1990.
23. For Jeitun, see Masson and Sarianidi 1972.
24. Braidwood et al. 1983.

Zagheh, northwest of Sialk, nothing has been published that antedates the Zagheh phase.[25] Recent surveys around Qazvin and Abyek (near Tehran) have identified a crude reddish straw-tempered pottery (Mehranabad) that seems to be earlier than both the basal levels at Sialk and Zagheh.[26] In the northwest, the Neolithic site of Haji Firuz has nothing similar, although it has produced a primitive pottery (Voigt 1983).

ARCHAIC SUSIANA 2 PHASE

The size of the small initial settlement of Chogha Mish increased in this phase, as is suggested by the presence of Archaic Susiana 2 sherds in the Trench XXI area and in Trench XXXVIII, some 15 m to the south (fig. 6).[27] Thus, a settlement of approximately 90 × 100 m can be established for the Archaic Susiana 2 village, but it may well have been larger, if we take as evidence a mixture of Archaic 2 and 3 sherds found in higher levels in Trenches XI and XIII. Thus, Trench XIII, about 90 m west of Trench XXXVIII, may quite possibly have been part of the continuous Archaic Susiana 2–3 settlement.[28] Taken together, the Archaic Susiana village at Chogha Mish may have been some 2 ha with about 200 to 300 inhabitants.

As with the preceding phase, the Archaic Susiana 2 phase at Chogha Mish is also poorly known. Based on the fragmentary architectural evidence, building materials and the general plan of the earlier Archaic Susiana 1 phase continued. Long, cigar-shaped mudbricks, bound together with an ashy mortar, continued to be used. A single incomplete building dates to this phase,[29] but enough was preserved to indicate the general plan of the building. The excavated portion measures 25 × 5 m, but the structure must have been larger. The building consists of at least three rectangular rooms with a storage bin. No hearth or kiln was found in the excavated area, but the presence of ashy patches protruding from under the unexcavated portion suggests cooking activities. Here we have clear evidence of mud plaster that covered the long bricks of the walls. Stone foundations for mudbrick walls were found in this phase. At Chogha Mish, mudbrick platforms of uncertain nature were also introduced during this phase and continued to be used throughout the sequence. Contact with the Hassuna/Samarran tradition of northern Iraq was perhaps established during this phase.

The chipped stone industry continued from the preceding phase without much change. Other artifacts, such as T-shaped figurines, bone tools, and stone tools also continued into this phase. A new class of highly stylized clay figurines appeared in this phase and were designated by Kantor as "chessman figurines" (*Chogha Mish* I, pl. 237:G, I–K). They are generally cylindrical in shape and were decorated with punctate and incised marks. This phase is further defined by the replacement of the standard painted-burnished ware with the distinct red-banded/line ware. Other types of plain wares continued into this phase.

Excavations at Chogha Sefid, in nearby Deh Luran, provided more information on this phase. Domesticated species, such as sheep, goats, wheat, and barley, were now morphologically fully developed and the emphasis on hunted animals decreased.

ARCHAIC SUSIANA 3 PHASE

Major changes took place in the Archaic Susiana 3 phase. A new class of pottery, the close-line ware, appeared; stone pavement in front of rooms and doorways was first used; cattle were introduced; non-domestic architecture appeared; and the settlement expanded to a minimum of about 2.5–3.0 ha. In addition, the group of regions that shared similarities in material culture now included southern Mesopotamia.

In Deh Luran, this final phase of the Archaic period is considered to have coincided with the introduction of canal irrigation agriculture. If this is in fact the case, there is no reason to think that this technique did not reach Susiana. This conclusion is based, however, not on geomorphology, but on the evidence of plant morphology de-

25. Negahban 1973, 1977; Malek-Shahmirzadi 1977, 1980. Recent investigations by Hasan Fazeli (pers. comm.) have indicated that Tappeh Zagheh was dated too early. The entire Zagheh sequence must date from the late sixth to the late fifth millennia B.C., ca. 4300 B.C., when Zagheh was deserted and Ghabrestan was occupied.
26. Malek-Shahmirzadi, personal communication.
27. Top plan and exact location of this trench on the contour map are missing.
28. At Chogha Mish, Archaic Susiana levels are below the present plain level and are not to be found weathered out on the surface. Although the Archaic Susiana levels at the small site of Boneh Fazl Ali, some 3 km northwest of Chogha Mish, are also below the present surface, sherds of all three phases of the period were found in the spoil heap of a deeply dug porcupine burrow. This suggests that small Archaic villages may have been more numerous than can be established on the basis of survey data.
29. See *Chogha Mish* I, pl. 271.

rived from measurements of flax seeds, which presumably grow larger when irrigated (Helbaek 1969). Hole (1977: 35–36) uses this indirect evidence to suggest that irrigation technology and the development of new crops allowed rapid expansion of population into marginal areas. Kouchoukos (1998: 67), arguing from geomorphic conditions and paleoclimatic evidence, suggests that the early inhabitants of the plain may have taken advantage of seasonally flooded fields along the major watercourses in the plain. It should be noted that in Susiana there is no physical evidence of large irrigation canals like in southern Mesopotamia. The earliest evidence for large-scale canal irrigation seems to date to the Elamite period in the second half of the second millennium B.C. (see Alizadeh et al. 2004). It is important to note that it was in the second millennium B.C. that southern Susiana (south of the Haft Tappeh anticline) was settled, most probably as the result of the adoption of large-scale canal irrigation technique.

If the new pottery represents an innovation brought to southwestern Iran as a result of outside cultural or technological influence or migration, the new immigrants did not replace the indigenous population. The interface between the Archaic Susiana 2 and 3 levels at Chogha Mish indicates no violence or sharp break. Except for the introduction of the new pottery, the close-line ware, other material objects of the Archaic Susiana 2 phase continued into the new phase and continued to develop. The close-line ware also occurred in Deh Luran and the Mandali region of central Mesopotamia, where it is known as Chogha Mami Transitional after the type site. Although the close-line ware, Chogha Mami Transitional, and Ubaid 0 pottery have close affinities with pottery of the Samarra period, they also exhibit considerable differences in style and the grammar of design (see *Chapter 4*).

No complete architectural plan of Archaic Susiana 3 domestic residences was discovered at Chogha Mish. Nevertheless, the remnants of the buildings dated to the Archaic Susiana 3 phase indicate no substantial change in layout from the preceding residential houses. People lived in multi-room houses with shared open yards in between. Some walls, presumably those exposed to the elements, had stone foundations. Long, cigar-shaped mudbricks were still in use. The walls of at least one building in Trench XXV[30] were thick enough to suggest an upper level, but this is by no means certain.

A large building excavated in the eighth and ninth seasons provides evidence for a possible non-domestic architecture in this early phase (fig. 13), though, as Dietler and Herbich (1998) caution, inferring organization and structure of an archaeological society requires much more successive evidence than has been found in the early phases at Chogha Mish. The preserved and excavated parts consist of at least two long halls with no traces of domestic installations such as hearths, fireplaces, and bins on its beaten earth floor. Similarly, no burials were found associated with this building, unlike other domestic buildings of this phase. The southern wall of this building has four buttresses made of headers and the wall itself is made of stretchers using long bricks, a building technique remarkably close to that found at Tell el-Oueili in southern Mesopotamia.[31] The unusually thick western wing of the building suggests an upper level, a landing area, or a foundation for a staircase. The huge horseshoe kiln/oven located in the open court next to the long hall may have been used for food preparation, for the only material remains found within it consist of some animal bones, bits and pieces of flint blades, and ash. The general layout of this structure was already anticipated in the Archaic Susiana 0 phase architecture at Chogha Bonut.[32]

The dead were buried under the floors of the houses and possibly in the adjacent open areas. Most graves were devoid of funerary gifts, even though they were found undisturbed. The possibility that perishable gifts had accompanied them should not be ruled out, however. The graves, as preserved here, are simple pits with no special features. Similar graves at Tappeh Ali Kosh in the Deh Luran plain indicate that some of the skeletons were wrapped in over-two, under-two twilled mat and were accompanied with simple stone beads and worked stone implements. Both extended and flexed positions were common (Hole, Flannery, and Neely 1969: 248–53). Similar burials were also found at Chogha Sefid, near Ali Kosh (Hole 1977: 91–94). Bones of the skeletons at both sites were covered with red ochre. Some of the skeletons had artificially elongated skulls, a tradition that continued until the Middle Susiana period in lowland Susiana (*Chogha Mish* I, pl. 69). However, the practice was by no means common, suggesting that it was limited to certain members — possibly the elite — of the society. If, as in Mesoamerica (Flannery 1998: 45), intentional deformation of the skull was an elite practice, then the last phase of the Archaic Susiana period may be considered a phase of social differentiation. Such elongated skulls that are represented in the Samarran clay figurines from Chogha Mami (Oates 1969, pls. 25–27) could be considered as precursors of the famous Ubaid figurines and perhaps of the Early Dynastic statuettes from Eridu (Safar, Mustafa, and Lloyd 1981, fig. 150).

30. See *Chogha Mish* I, pl. 272.
31. See Vallet 1996, figs. 2–4, pl. 2.
32. See Alizadeh 2003a.

The floral evidence from Chogha Mish is discussed extensively in the first volume.[33] It therefore suffices here to present an overview of the evidence. Carbonized remains of cereals and legumes collected from all the Archaic levels at Chogha Mish indicate a developing farming community.

Cereal remains include barley (*Hordeum*), bread wheat (*Triticum aestivum*), and oat (*Avena*). In addition, some species of wild grasses such as goat face grass (*Aegilops*), rye grass (*Lolium*), canary grass (*Phalaris*), and fescue (*Festuca*) also occurred with the domestic varieties. Wild and domestic legume species account for the majority of seeds recovered from the site, indicating that such plants were more cultivated/exploited by Chogha Mish farmers. The recovered seeds include *Alhagi*, milk vetch (*Astragalus*), medick (*Medicago*), clover (*Trifolium*), as well as screw beans (*Prosopis*), vetch (*Vicica*), pea (*Pisium*), and lentil (*Lens*); the latter two show morphological signs of domestication. Other carbonized seeds besides legumes, grasses, and flax were also present in the Archaic levels. The most frequent were rye grass, goat face grass, and plantain (*Plantago*). Less frequent seeds include rush (*Scripus*), bed straw (*Galium*), sea blite (*Suaeda*), caper (*Capparis*), members of the mint family (*Lamiaceace*), shepherd's purse (*Capsella-bursa-pastoris*), as well as seeds from the borage family (*Boraginaceace*), goosefoot family (*Chenopodiaceace*), lily family (*Liliaxeace*), mallow family (*Malvaceace*), poppy family (*Papaveraceace*), and nettle family (*Urticaceace*).

Based on the available carbonized seeds from the Archaic levels at Chogha Mish, Ann Woosley (1996: 316) tentatively concludes that the evidence from the site does not support the importance of cereals (primarily emmer, einkorn wheat, and barley) in the early stages of domestication. Rather, during the entire Archaic period, legume crops (namely, *Pisium*, *Lens*, and *Vicica*) seem to have been more significant in the subsistence economy. In fact, legumes comprise the largest portion of total seeds counted from Archaic through the end of the Susiana sequence. This picture changes in the Protoliterate phase, when cereals become dominant in the record. Nevertheless, since carbonized seeds come from animal-dung fuel, Woosley's results may be more of a reflection of the diet of domesticated animals than those of humans (see Miller 1996 and 2003a).

EARLY SUSIANA PERIOD

The cultural contact among several regions in southwest Asia, which was suggested above on the basis of the appearance of the Samarran-related pottery during the Archaic Susiana 3 phase, increased in the Early Susiana period in southwestern Iran and the Ubaid 1/Eridu phase in southern Mesopotamia. Although the ceramics of each region exhibit local characteristics, on the whole the pottery repertoires and other utilitarian objects in both regions share many common features. The one significant difference, however, is the total absence in Iran of any structure that can be considered a temple, while in Mesopotamia such buildings become the focal point at a number of sites. This trend continues in Iran until the Late Susiana 2 (Susa 1) phase, when presumably a substantial temple was erected on a huge platform surrounded by a communal cemetery at Susa.[34]

A number of small test areas between the west side and the southern part of the terrace at Chogha Mish show that the size of the settlement almost doubled in this period. It was at about 3.5 to 4.0 ha during the Early Susiana period, but it could have been much larger. The Early Susiana remains were found primarily on the southern and western sectors of the mound. If we assume that the unexcavated space between these areas also contains Early Susiana remains, then the size of the settlement can amount to about 5 ha, an assumption that is also supported by the presence of Early Susiana pottery on the southern part of the mound.

The analysis of the pottery from the Gremliza survey collection (Alizadeh 1992) indicates that the number of settlements increased to seven in the Early Susiana period, including Jafarabad, the earliest settlement on the western part of the plain.[35] Our examination of the survey materials collected by Robert Wenke, now in the National Museum in Tehran, indicates that to this list we can add Tappeh Washkara (KS-12, 358275 N/243257 E, UTM 39N), Tappeh Sharafabad (KS-36), and KS-277. Adams, however, reports that thirty-four villages were established during the Early Susiana period (Adams 1962: 112). While this huge increase in the population from the Archaic to the Early Susiana period is a strong possibility, Adams' estimate cannot be corroborated by the results of other surveys, as Adams did not publish examples of the pottery of the various phases he detected in his survey. The strong possibility that small, low mounds of the Archaic period are buried or have simply eroded can comparatively inflate the size of population for the Early Susiana period. A number of degenerate Archaic Susiana close-line ware sherds

33. For detailed analysis of the plant remains, see Woosley 1996.
34. See Hole 1990 for a detailed discussion of this cemetery.
35. See Alizadeh 1992, tables 4–9.

decorated on the outside with a series of connected Xs suggests that Jafarabad may have been occupied during a transitional phase between the Archaic 3 phase and Early Susiana period. The inhabitants of early Jafarabad, therefore, can be considered as the first colonizers of western Khuzestan.

In the absence of evidence of canal irrigation, one can safely assume that the development of the Dez into many small streams in central Khuzestan may have encouraged settlements away from marshes and immediate sources of water, a development that was paralleled in neighboring Deh Luran (Hole, Flannery, and Neely 1969: 354–55; Hole 1977: 7). Adams (1962: 110–12) notes, however, that not all Early Susiana settlements in Khuzestan practiced irrigation agriculture, suggesting that the new technology was initially adopted as an insurance against drought. Bread wheat, emmer, and six-row barley became the main staples, along with cattle, sheep, and goats. As a supplement to their diet, the inhabitants of Susiana in this period continued hunting, gathering, and fishing.

In our 2004/05 archaeological investigations in Susiana, we not only discovered Early Susiana sherds from Chogha Do Sar (KS-04), we also found a bulldozed site that was located next to Nahr-e Khalaf, an irrigation canal, 100 m northwest of Chogha Do Sar (Alizadeh 2005; Alizadeh and Mahfroozi 2005). We discovered the site (temporarily named KS-04b) because of the huge number of Early Susiana sherds scattered in an area about 1.0–1.5 ha. The bulldozed area of the site was under cultivation. However, in our test trench where we thought to be the center of the site, we reached virgin soil some 50 cm below the surface. The owner of the land confessed that the mound had been bulldozed two decades ago. Nevertheless, this Early Susiana site has never been reported even though the nearby site of Chogha Do Sar had been surveyed at least twice. One can only speculate that the site may have been very low or covered with dense vegetation, but the fact remains that the population of this early period is underestimated.

The Early Susiana pottery tradition was a direct continuation of the preceding phase; in both technology and decorative style, Susiana was in a lockstep development with southern Mesopotamia. In fact, the close similarities between the cultural assemblages of the two regions prefigure the shared interregional development in the second half of the fourth millennium B.C. While in the preceding Archaic Susiana 3 phase the pottery of southern Mesopotamia and Susiana show general similarities, the two traditions show closer and specific parallels during the succeeding Early Susiana period. It is difficult to determine whether the regional — as well as interregional — homogeneous character of the pottery of this period is an indication of socioeconomic transformations in pottery production, especially in times of specialization and close contact among the prehistoric potters. It should be noted, however, that no pottery kilns were found in this period. The development of agriculture and possibly irrigation technique, and population growth can be considered factors affecting the transition of pottery production from a cottage industry to a full-time activity (see Arnold 1985 for example).

A distinct class of Early Susiana pottery vessels (the so-called "flanged vessels" [fig. 64]) bears scratched and excised signs on their bases that are considered "potter's marks" (Dollfus and Encrevé 1982). Since only this class of pottery bears such marks, the following explanation may be valid. These highly specialized vessels, not reported from Mesopotamia, are undecorated and as such it is perfectly conceivable that the potters marked their vessels to distinguish their own in a bonfire, if that was indeed how they baked their vessels in the Early Susiana period. Nevertheless, the large number of individual signs (over 200 at Chogha Mish alone) argues against this interpretation. It is, however, possible that these marks indicated household or corporate groups[36] who either had their vessels baked in a common fire, or else identified their vessels in common storage facilities, of which there is no evidence.

A clear change both in the quality and technique of flint tools and stone industry occurred in the Early Susiana period. Flint blades were less carefully shaped and the fine bladelets of the Archaic period were no longer produced. A new type of stone tool, considered to be a hoe, appeared in this period both in Susiana and Deh Luran and continued throughout the prehistoric sequence and even into the Protoliterate phase.[37] Such hoes have a sharp crescent-shaped tip with an elongated narrow handle usually smeared with bitumen; in a few specimens the rope wrapped around the handle for a better grip was still preserved. Whether such tools were used to break the ground or to cut weeds, the task must have been a backbreaking job. Saddle-shaped stone mills continued from the previous phase.

If the Early Susiana period was a time of the development of local khans, the architecture provides the best evidence (fig. 12).[38] The most coherent architectural plan of the Early Susiana period was found in Trench XXI. Here,

36. See Kramer 1985 for a number of characteristics in ceramic production.
37. In Deh Luran they are reported from the earlier Ali Kosh-Mohammad Jafar phase, but the illustrated examples are dated to the later Sabz (Early Susiana) phase (Hole, Flannery, and Neely 1969: 189, fig. 81; Hole 1977: 209, pl. 49:h–j). In northern Mesopotamia they first appeared in Tell Hassuna level Ia (Lloyd and Safar 1945, figs. 19–20) and, as in Susiana, continued throughout the entire prehistoric sequence (see Stronach 1961).
38. See Flannery 1998 for a detailed discussion and comparison of chiefly residences.

a series of comparatively large multi-room structures was excavated during the sixth through eighth seasons of excavations (fig. 14). The ubiquitous long mudbricks continued to be used along with smaller rectangular bricks. The technique of paving the open spaces in front of rooms and entrances with cobbles also continued from the Archaic Susiana 3 phase.

At least two structures seem to have been residences of extended or chiefly families, while a third, with a series of long, parallel chambers with an open area in front, may have been used both as a residence and a warehouse. The large mudbrick platform in the southwestern part of the open court in front of architectural units 7 and 8 (fig. 14) is difficult to interpret, particularly in the absence of detailed information on the materials found there. The platform measures 7 × 5 m and is only one course high. Walls surround it on the south and east sides. Thus, it may have been another residential unit with paved floors. Though not common, such floors are found in two rooms in architectural unit 8 as well. No traces of walls were found that would have stood on the west and north sides of this platform, arguing against its reconstruction as an enclosed unit. Taken together with the other architectural features, this platform may have served as a preparation area or a "loading dock." The Early Susiana architectural layout consisting of an open central area and perhaps a warehouse surrounded by residential units provides an antecedent for the much later administrative quarters in Iran, particularly in Fars (Tall-e Bakun A)[39] and Sistan (Shahr-e Sokhteh).[40]

MIDDLE SUSIANA PERIOD

The transition from the Early to the Middle Susiana period was smooth and gradual. At Chogha Mish the areas of the village that were occupied during the preceding phase continued to be occupied in this period as well. Based on detailed analysis of pottery shapes and decorations, as well as changes in other components of the material culture and settlement patterns, this long period is divided into two phases, early and late. This is a pivotal phase in southwestern Iran. Primarily based on stylistic and formal analysis of the pottery and partially on stratigraphy, Middle Susiana is divided into early Middle and late Middle Susiana phases. In the early part of the period, contact with southern Mesopotamia (Ubaid 2 phase) is still strong. In the later phase this contact seems to be much reduced and Susiana shares many aspects of material culture with the highlands. Thus, the Middle Susiana period also marks the first major stage of social, economic, and demographic transformation in prehistoric Susiana; it also anticipates Susiana's long and presumably complex relationship with the highlands.

A detailed analysis by Kouchoukos (1998: 105ff.) of all the available survey data has shown that, of the sample of 264 prehistoric sites surveyed in lowland Susiana, only half can be dated with some certainty to the specific archaeological phases known from excavations. Kouchoukos further argues that this number represents less than half of the total sites founded on the plain in the prehistoric phases (Kouchoukos 1998: 105). Using various statistical and analytical techniques in reconstructing the survey data, Kouchoukos (1998: 20–57) suggests a rapid population growth during the Middle Susiana period. According to the same analysis (Kouchoukos 1998: 109), during the early phase of the Middle Susiana period, the estimated population in Susiana reached 8,700 people, a population threshold much higher than is necessary to develop and sustain a complex chiefdom.[41] In neighboring Deh Luran the population in this period was just over 2,000. Even though the population decrease in Deh Luran corresponds to the increase of population in lowland Susiana, Kouchoukos argues against migration, noting that the calculated rate of population growth of 0.0022% for the Middle Susiana period does not exceed that expected for the pre-industrial societies.[42]

The Middle Susiana period was a time of population increase in southwestern Iran, as indicated by a number of surveys (Adams 1962; Hole 1987; Dittmann 1984; Alizadeh 1992). By the second phase of the period, the number of sites in Susiana reached a maximum. Chogha Mish grew to be the largest settlement, a development paralleled in Deh Luran where at least two sites grew to more than 3 ha (Hole 1987: 37, 40). Although Middle Susiana settlements do not exhibit any particular pattern of clustering, sites in the eastern part of the plain seem to be much closer to one another. If the region's security was threatened by the contemporary pastoral nomads, loss of village independence to a regional khan, or a combination of these factors influenced the clustering of the northern and northeastern sites, they were not important in western and south-central Khuzestan.

39. Alizadeh 1988a, 1988b, 2005.
40. Fiandra 1981.
41. See Feinman 1998 for a detailed discussion of the demographic issues in the development of complex chiefdoms and early states.
42. See Johnson 1988/89: 597–600 for a discussion of this population estimate for his Uruk period; and Weiss 1977 for the problems associated with such estimates. See also Pollock 2001.

Diet did not change much from the previous phase. Wheat, six-row barley, lentils, vetch, and flax were the main cereals. Sheep and goats were common; cattle were also present. This diet was supplemented by fishing and hunting of onager and gazelle, though hunting was not as important as it was in the preceding phase. The pattern of spatial distribution of the bones of the hunted animals would have been helpful in speculating on the type of residence and associated objects, but that information is not available.

The dead, as before, were buried under the floors of residential units and in open spaces. Similarly, the orientation of the body seems to have depended on the availability of space rather than on any fixed spatial and ritual considerations. As in the previous periods, most of the graves were devoid of funerary objects. All the burials belong to the earlier phase of this period; no burial was found dating to the late Middle Susiana phase. Except for four burials dating to the Late Susiana 2 and, possibly, the Protoliterate phases, it seems that the practice of burying the dead within the residential areas was abandoned by the end of the early Middle Susiana phase.[43] That this situation may be an accident of discovery is suggested by the intramural graves found at other Middle Susiana sites in the region.

Houses were still made of mudbricks with occasional stone foundations. The Archaic long bricks were no longer used in this period. House floors were either of beaten earth or covered with a layer of twilled mat; pierced stones were used as door sockets. In Trench XXI, the architectural plan of the preceding Early Susiana period seems to have been preserved. The only Middle Susiana building that was excavated in this area is similar in plan to the Early Susiana architecture with rectangular multiple rooms, long storage magazines, and evidence of both domestic and industrial activities.

Microlithic and obsidian blades were absent in this period and the types of ground stone tools were limited, presumably because of the naked grain varieties that had been developed.[44] The prominent Early Susiana star-shaped spindle whorls continued into the early Middle Susiana phase along with a variety of new painted shapes; they disappeared in the following late Middle Susiana phase.

If pottery is any indication, contact (emulation, imitation, or movement of potters) between lowland Mesopotamia and Susiana reached its maximum during the early phase of the Middle Susiana period. As mentioned before, during the early Middle Susiana phase a strong shared interregional pottery tradition existed, as indicated by the close parallels between the ceramics of Susiana, Deh Luran ("Khazineh phase"), and southern Mesopotamia (Ubaid 2/Haji Mohammed and Eridu XII–IX).

The following late Middle Susiana phase is pivotal in the socioeconomic life of lowland Susiana. This phase corresponds to the Ubaid 3 phase and possibly the early stages of Ubaid 4. Whereas in the early Middle Susiana phase the pottery closely resembles that of Haji Mohammed/Ubaid 2, the ceramics of the late Middle Susiana diverge and share a number of features with the contemporary cultures of Tall-e Bakun B2 and Tall-e Gap in highland Fars and Tappeh Giyan V in the central Zagros Mountains, a dramatic shift of attention from lowland Mesopotamia to highland Iran, a trend that continued until the end of the Terminal Susa phase in the beginning of the fourth millennium B.C. The late Middle Susiana phase, therefore, represents the first phase of highland-lowland integration. Since the late Middle Susiana pottery forms and decorations are rooted in millennia-old tradition, and since there is hardly any antecedent to the Bakun B2 pottery in Fars, we have to conclude that the latter was inspired by the former. Whether this inspiration involved movement of people is difficult to say with the present knowledge of prehistoric Fars, but economic exchange and itinerant potters may have played a major role. A parallel development occurred in Mesopotamia when by the beginning of the Ubaid 3 phase the similarity between the material cultures of southern and northern Mesopotamia became strongest in the sequence.

The late Middle Susiana at Chogha Mish is also the most extensive occupation of the prehistoric period. Almost the entire 17 ha of the mound shows signs of occupation, though it is not absolutely certain whether the whole mound had been occupied at the same time. Chogha Mish was the largest settlement in the region, followed by Chogha Do Sar, about 8 km to the southeast. The rest of the sites ranged in sizes between 3 and 1 ha. After Chogha Mish was deserted in the beginning of the Late Susiana 1 phase, Chogha Do Sar remained the largest site east of the Dez River (see below for more details of our 2004/05 excavations at the site).

The archaeological materials and architectural remains from Chogha Mish that are dated to this phase may be taken as a reflection of the changing organization of the society. A major difference in the architecture from the previous phases is marked by the appearance of a large monumental building. Almost in the middle of the settlement,

43. See Flannery 1972 for an analysis of inter- and intramural burial practices.

44. *Chogha Mish* I, chapter 11; see also Hole, Flannery, and Neely 1969: 359.

toward the eastern edge of the mound, a substantial building was found in the ninth season (fig. 15). The excavated portion consists of four large parallel halls. The outer walls are furnished with buttresses. The substantial walls of this building, about 1.5 m thick, its plan of regularly aligned rooms, and the facade with symmetrical buttresses indicate its monumental and formal character. A back room on the north side of the building still contained numerous storage jars; another room had a stack of eighteen complete thin-walled bowls typical of the late Middle Susiana phase. Found on the floors of this building were numerous flint nodules for the manufacture of flint blades, some of which were also found in the rooms. The presence of this building indicates that a level of social differentiation was achieved by the late Middle Susiana phase. At the same time in the nearby site of Chogha Bonut, a comparatively large building in the middle of the site dominated the settlement.[45]

The destruction by fire of this monumental building marks the end of the Middle Susiana period at Chogha Mish. Whether the destruction was a sign of hostile contact or was accidental is impossible to say. Whatever the case may be, Chogha Mish and a number of its satellites were deserted. The desertion of Chogha Mish and some of its satellites may be an indication of hostile contact with the developing highland mobile pastoralist population. Or these sites may have been deserted as the result of a course change of the Dez River, which Veenenbos (1958) suggests had flowed much closer to Chogha Mish in this phase.[46] Although geomorphologic evidence is needed to further investigate this hypothesis, it need not be exclusive and a combination of social and environmental factors may have caused the abandonment of Chogha Mish and a number of other sites by the end of the late Middle Susiana.

The large size of the settlement and population of Chogha Mish around 5000 B.C., the presence of at least one monumental building, the evidence of craft and architectural specialization, a three-tiered settlement pattern on the plain, and possible competition with the highland pastoralists can be taken as indicative of the type of socioeconomic complexity that is necessary for the development of state organizations. In an article devoted to the discussion of the physical characteristics of Near Eastern chiefdom societies, Flannery (1998) uses ethnographic analogies of modern-day chiefly societies to argue that the White Room of Gawra level XII may have belonged to high-ranking chiefs and their retinue and as such was the specific target of hostilities, and that such buildings and not necessarily the whole settlement were routinely targeted for violence by the competing chiefs. The Burnt Building at Chogha Mish can be considered one of these chiefly residences. If that was the case by the end of the late Middle Susiana phase, the likeliest candidate for the aggression against Chogha Mish would have been the developing highland mobile pastoralist communities who may have been vying with the Chogha Mish elite to control the eastern Susiana plain.

Before we continue our discussion of the characteristics of the various archaeological phases discovered at Chogha Mish, we feel it is absolutely necessary to provide a wider context that includes ancient mobile pastoralists of the region for a better understanding of the developments that took place in the course of the fifth and fourth millennia B.C.

QUESTION OF REGIONAL SECURITY AND GROWTH OF CHOGHA MISH

The location of Chogha Mish in eastern Susiana is not of any particular strategic importance, nor has Chogha Mish yielded any physical evidence pertaining to its importance in the region as a religious center in prehistoric times, two important characteristics that can give rise to an increase in size and population. In the apparent absence of these two important criteria for growth, we are forced to look for other possibilities for the site's rapid growth.

While specific research design is needed to address the environmental and demographic imperatives that shaped different systems of settlement and growth of regional population centers in prehistoric Susiana, given our hypothetical Susiana demographic dichotomy (i.e., settled farmers and mobile pastoralists) it should not be too farfetched to consider the principle of safety in numbers as a major imperative for the growth of Chogha Mish into one of the largest prehistoric sites in southwest Asia.

The size of the settlement at Chogha Mish at least tripled by the beginning of the fifth millennium B.C., reaching ca. 17 ha. This unprecedented growth occurred at roughly the same time when we have strong archaeological evidence of hierarchically organized highland mobile pastoralists at the isolated cemeteries of Hakalān and Parchineh. Concern for safety, therefore, seems to have created the pressure against wide dispersal and the impetus for aggregation. Despite these security measures, Chogha Mish seems to have been invaded and its monumental building burned sometime in the first half of the fifth millennium B.C.

45. See Alizadeh 2003a.

46. See Kouchoukos 1998 for a detailed analysis.

The available archaeological evidence indicates that the violence at Chogha Mish was focused on the seat of its ranking population on the eastern sector of the settlement (see below for details). But it must have had profound impact on the entire community, for the entire settlement was deserted subsequent to the attack. Though we do not have solid evidence, we argue that the Chogha Mish diaspora chose the westernmost part of the plain and resettled at Susa. While this may not be the case, this simple model could explain the wholesale desertion of Chogha Mish and the meteoric rise of Susa on the opposite side of the plain, where mobile pastoralist presence was minimal and the area therefore safer.

LATE SUSIANA 1 PHASE

MOBILE PASTORALIST PRELUDE IN SUSIANA

The presence of mobile pastoralism as a parallel subsistence economy and way of life is assumed to have existed from the beginning of village life in southwest Asia (particularly in highland Iran) and elsewhere.[47] However, the evidence for interactions between the mobile pastoralist highlands and settled, agricultural lowlands in preliterate times has been elusive. There are now a few lines of evidence and clues available that can shed more light on this problem.

In the first volume of Chogha Mish and elsewhere,[48] we suggest a chronological gap between the time Chogha Mish and a number of its satellites were deserted and the time when Susa was founded, though the available data make it difficult to estimate the time lag. We propose the terms "Late Susiana 1" for the phase when Chogha Mish remained abandoned and "Late Susiana 2" for the phase known as Susa 1 (Acropole levels 27–25), during which Chogha Mish was re-occupied. The evidence for this proposal is presented in detail in *Chapter 4*.

Chogha Mish enjoyed a central status in the entire Susiana plain from the Archaic Susiana through the end of the Middle Susiana period, when, sometime around the beginning of the fifth millennium B.C.,[49] its monumental building (the Burnt Building) was destroyed by fire and the site, along with a number of its satellites, was subsequently deserted. As mentioned above, it is not at all certain whether hostile forces destroyed the monumental building or whether the fire was accidental, although a settlement as large as Chogha Mish could not have been abandoned because of a localized fire, intentional or accidental. However, this event coincided with others that, taken together, suggest a changing organization in the settlement pattern during the first half of the fifth millennium B.C. The destruction of the monumental Burnt Building coincided not only with the abandonment of Chogha Mish, but also with the abandonment of a number of sites in the eastern part of the plain and the appearance of rich communal cemeteries in the highlands with no associated settlement (Vanden Berghe 1973a, 1973b, 1975, 1987). A number of pottery shapes and decorative motifs we have considered specific to the Late Susiana 1 phase (see *Chapter 4*) are characteristic of the pottery found in these cemeteries.[50] What is more, the pottery assemblage from the graves is an amalgam of motifs and shapes specific to the contemporary cultures in Susiana and highland Fars (Tall-e Bakun B2 and Tall-e Gap) in Iran and in Mesopotamia (Ubaid 3/4), a collection that suggests the nomadic, interregional characteristics of the builders of the cemeteries.

On the basis of detailed reanalysis of all the survey materials, Kouchoukos (1998: 114–15) discerns little change in the distribution of settlements from the previous phase. According to the same analysis, there was a slight population increase in the regions south of Susa that clustered around Tappeh Abu Fanduweh (KS-59, 3553852 N/246852 E, UTM 39N). Based on our joint 2006/07 ICHTO-Oriental Institute excavations, the earliest levels at the site date back to the late Middle Susiana phase.

The shift in settlement pattern and the desertion of some Middle Susiana sites, however, seem to have been caused by interregional factors. Similar developments occurred in Deh Luran. Helbaek used botanical analysis to look for environmental factors in the termination of the Bayat phase (late Middle Susiana) in Deh Luran (Hole, Flannery, and Neely 1969: 364). He postulates that millennia of land-use in the area caused salinization, which forced the population to search for new lands.[51] Conversely, Kirkby (1977: 255) argues that the plain is not subject to drastic

47. For examples, see Adams 1974; Bernbeck 1992; Cribb 1991; Geddes 1983; Gilbert 1975, 1983; Levy 1983; and Smith 1983.
48. See Alizadeh 1996: xxiii–xxvii; *Chogha Mish* I: 155; Alizadeh 1992: 22–26.
49. For radiocarbon dates of this phase (mostly overlapping with Le Breton's Susiana *d*) and their analysis, see Weiss 1977.
50. Vanden Berghe 1975, fig. 5:6, fig. 6:7–8, 17, 20 (Late Ubaid style); fig. 5:13–15, 18, fig. 6:9, 13, 16, 18 (Late Susiana 1 style); fig. 6:11 (Central Plateau style); fig. 5:2, 12 (Fars style).
51. Salinization is not a problem in Susiana. Today, the region is heavily farmed and irrigated, thanks to the introduction of a modern canal system in the early 1960s. Yet, there is no sign of salinization in Khuzestan. In the areas primarily east of the Karun

salinization. Whatever the local causes for the desertion of some sites in eastern Susiana and Deh Luran may turn out to be, the possibility that such drastic interregional development could be attributed to some degree to the rise and development of the highland mobile pastoralist groups must be considered.

With Chogha Mish lying deserted during the Late Susiana 1 phase, it appears that no single site attained a central status in terms of size and population. Nevertheless, the results of our 2004/05 block survey and excavations at Chogha Do Sar ("two-headed mound," 3561127 N/263535 E, UTM 39N) indicate that the site, only about 8 km southwest of Chogha Mish, had an area of occupation of about 5–6 ha during the Late Susiana 1 phase (Alizadeh and Mahfroozi 2005). Our investigations also showed that the site was first occupied during the Early Susiana period and continued to be occupied until the end of Late Susiana 2, or just prior to the end of that phase, for we found no pottery at the site datable to the Terminal Susa phase (ca. 4000 B.C.).

In our stratigraphic trench at Chogha Do Sar, we found a slight erosion layer that separated a massive mudbrick work of Late Susiana 1 date from the late Middle Susiana deposits. While there must have been a hiatus between the two phases of occupation, the time between the abandonment of the site, perhaps linked to the events that led to the demise of Chogha Mish, could not have been long. Moreover, the presence of a mudbrick platform, about 50 × 50 m, suggests the importance of the site in this sector. Further, this platform was superimposed by another, larger mudbrick platform some 60 × 60 m dating to the following Late Susiana 2 phase, contemporary with the famous mudbrick platform of Susa Acropolis. While it is too early to make a definitive statement about our findings and their theoretical implications, it seems warranted to assume that Chogha Do Sar, previously ranking second in size to Chogha Mish, may have replaced Chogha Mish as the regional center in eastern Susiana; Susa was not the only large population center with evidence of social complexity in the late fifth millennium B.C. The apparent absence of materials datable to the Terminal Susa phase at Chogha Do Sar and the fact that there was evidence of fire-destroyed buildings, presumably located on the platform, may be linked to the violence at Susa (Acropole levels 26/25), thought to be the rival settlement in western Khuzestan. The abandonment of Chogha Do Sar and the destruction of Susa's high terrace may therefore be considered part of a much larger and more complex regional development that possibly involved the settled farmers and mobile pastoralists. Hole (1990) suggested several possibilities responsible for the destruction of Susa that include nomadic invasion, accidental fire, famine, and epidemics. While Hole entertains the possibility of a hostile rival in the region, the then available data precluded this conclusion. If the hostilities involved a regional rival, then Chogha Do Sar is a promising site to explore the idea.

Leaving the results from Chogha Do Sar aside, the settlement size for the Late Susiana 1 phase in the region is estimated to have been 94 ha (Weiss 1977). Data on the internal structure of the Susiana society during this phase primarily come from Tappeh Bandebal and Qabr-e Sheikheyn (in Susiana), and Farrukhabad (in the Deh Luran plain).[52] The observed westward movement of the settlements around 4800 B.C. and the appearance of the highland communal cemeteries provide a relevant context for the observation made by Hole (1987: 42), that "sites were often occupied for only short periods, then abandoned for a time and re-occupied. About half the sites changed status from occupied to unoccupied or vice versa, implying that settlements were unstable and that land was not particularly scarce and therefore not valuable." While Hole does not offer the details of how this observation was made in the field or what the cause of the assumed instability was, the westward movement continued until the region east of the Shur River became almost deserted until the mid-fourth millennium B.C. Even during the second half of the fourth millennium B.C., only six sites are reported from the area. We have attributed this development to the increasing presence of the highland mobile pastoralist in eastern Khuzestan.

The presumed correlation between the increased activities of the highland pastoralists and the westward shift of Susiana settlements at the end of the Middle Susiana period becomes more tenable when we note that the eastern part of the Susiana plain has traditionally been, and still is, the locus of the winter pasture for the mobile pastoralists of the region (pl. 31). Northeastern Khuzestan is ideal winter pasture for the highland pastoralists. The tribes can enter the plain either directly from the east or from the northeast without having to cross the Karun River. If this environmental niche was also used in antiquity, as one might expect, then the westward shift of the settled communities may also be taken as an indication of an increase in the population and activities of such mobile pastoralist groups in the area, and as an indication of the initial conflict of interest between the settled and mobile populations of the region, a dichotomy that remained the leitmotif of Iranian history throughout the ages.

River, where salt crystal can be formed, farmers solve this problem in less than six months by digging ditches along their farmed land to drain the salt with rainwater or even water from irrigation canals.

52. Dollfus 1983; Weiss 1976; Wright 1981a.

As noted above, Chogha Mish may have remained deserted for most of the Late Susiana 1 phase, though this may be an accident of discovery, even though I have searched the surface of the site several times since 1995 for any Late Susiana 1 diagnostic sherds, with no positive result.[53] The archaeological records pertaining to the Late Susiana 1 phase are found in other sites in Susiana and Deh Luran, however. The small exposure at Tappeh Bandebal, north of Susa, revealed an incomplete plan of domestic architecture with small rectangular rooms. The dead were still buried in residential areas; the chipped stone industry continued from the previous phase without much change; sheep, goats, and cattle, as well as wheat and barley, constituted the diet with some hunting and gathering as dietary supplement. Among the most interesting aspects of this phase are the architectural remains discovered at Qabr-e Sheikheyn (KS-168, 282337 N/3560949 E, UTM 39N), southeast of Chogha Mish, and Farrukhabad (in the Deh Luran plain). During this phase, a series of large mudbrick houses built on top of mudbrick platforms presumably dominated some settlements, including the newly discovered mudbrick platform at Chogha Do Sar.[54] Such single structures crowning the settlement are consistent with the residential patterns of the modern-day tribal headquarters in southwestern and southern Iran.[55] The relative abundance of gazelle bones in and around the monumental building at Farrukhabad is taken as a sign of ranking status of its residents (Wright 1981a: 64). The evidence of sealings and tokens also points to the administrative technology at Farrukhabad, a technology apparently developed to process information on bitumen exchange, most probably with southern Mesopotamia.

Sometime during or by the end of the Late Susiana 1 phase (ca. second half of the fifth millennium B.C.), Susa was founded and presumably replaced Chogha Mish as the largest site on the plain;[56] Susa retained this status for several millennia, save for a short interval during the Protoliterate phase when the settled area was estimated to have been about 9 ha (Johnson 1973: 21), while the entire 17 ha of Chogha Mish were re-occupied. A massive mudbrick platform, the *haute terrasse*, was constructed at Susa probably after the smaller platform, the *massif funéraire*, was destroyed or abandoned after a few generations.[57] The *haute terrasse* was presumably topped by a monumental building, but we remain uncertain of its nature. Whether this project was completed in the course of several generations or in one attempt is not known, but such an undertaking would have required a tremendous amount of labor and the attending organizations and ideology — a level of social complexity that could not have evolved so rapidly at Susa itself shortly after it was founded. The social complexity and regional status of Chogha Mish before it was deserted warrant the assumption that Chogha Mish could have been the early context for social development in western Susiana. Since we argue that Susa was founded earlier than what is generally accepted (see *Chapter 4*), the possibility that the site may have been settled by a diaspora from Chogha Mish is not too farfetched.

ISOLATED CEMETERIES OF PARCHINEH AND HAKALĀN

Not only are Parchineh and Hakalān the earliest tangible evidence of the existence of ancient mobile pastoralists, these two cemeteries also provide clues to the changing social environment of lowland Susiana in the first half of the fifth millennium B.C. The oldest nomadic cemeteries in Iran, and in fact in the entire ancient Near East, are found at these two neighboring sites. The cemeteries are located along the Meimeh River (also known as Mehmeh) in the Pusht-e Kuh region of Luristan in the southwestern piedmont of the Zagros Mountains. At an elevation of 930 m above sea level, Parchineh, the richer and better-preserved site, is situated on the east bank of the river, about 50 km north of the provincial town of Deh Luran and nearly 60 km east of the frontier town of Mehran, on the Iraqi border. About 20 km north of Parchineh, and at the higher elevation of 1,370 m above sea level, the second cemetery, Hakalān, is located on the west bank of the river. Both cemeteries have easy access to lowland Susiana through Deh Luran and to Mesopotamia and the inner Zagros Mountains through the Mehran plain.

53. When I was preparing a pottery workshop at the Oriental Institute in the fall of 2003, I found a few pieces of painted pot sherds from Chogha Mish decorated with the specific dot motif. This accidental discovery shows that the Late Susiana 1 phase did exist at Chogha Mish. Because the pottery is extremely rare and could have belonged to the ancient mobile pastoralists who (as today) may have used the site as a camp, the picture we have drawn of the fifth-millennium B.C. development remains the same.
54. In her commentary on Pollock's paper (Pollock 1989: 290), Dollfus rejects the idea of platforms crowning some sites in the region in mid-fifth millennium B.C.
55. See Flannery 1999 for a full discussion.
56. Weiss (1977) argues that Susa during the Late Susiana 2 phase was as large as 17 ha, but this is by no means clear and in fact the available evidence suggests that it might have been much smaller during its earlier phase of occupation and grew in size gradually (see Dollfus 1985: 18–19 and comments on Pollock's 1989 paper, p. 289; Stève and Gasche 1990).
57. See Le Brun 1971; Canal 1978; Hole 1990.

The sites are considered nomadic cemeteries because they are not associated with any known settlements. Moreover, the tombs are similar in location and construction to tombs of nomads of the later Bronze and Iron Age in the same region. Finally, the region is unsuitable for grain agriculture and is almost devoid of permanent villages — ancient as well as modern — with agriculture as the subsistence base.[58] Vanden Berghe (1973a, 1973b, 1975) led excavations at both cemeteries from 1971 to 1973, and Haerinck and Overlaet (1996) superbly published the final report.

PARCHINEH

Three excavation areas (A–C) were opened at this site. In Area A, sixty-four tombs were excavated; in Area B, ninety-eight; and in Area C, only three. The site had contained many more, but these have now been almost completely looted (my own observation). The tombs are rectangular in plan with varying width; they were lined on four sides with vertically set stone slabs, most of which were then covered by large, locally available fieldstones; this basic construction was used as the blueprint for the subsequent nomadic tombs in the region. Of the total 165 tombs excavated at Parchineh, only twenty-eight contained skeletal remains. Of these, only Tomb 72 in Area B contained an almost complete skeleton. No skeletal remains from either site seem to have been collected; it is possible that skeletal remains were lost subsequent to their excavation, but there are no records to validate this assumption. This is unfortunate because when, in the summer of 2001, I was permitted to study the collection at the National Museum of Iran, I was hoping to find enough bones to have them analyzed for age and sex determination.[59]

Many of the tombs, particularly the larger ones, were reused for multiple burials. Judging by the illustrated extant bones, it seems that only adults were buried in these cemeteries. The possibility remains that some of the tombs with no bones belonged to children, whose fragile bones had deteriorated entirely. The total lack of funerary deposits in some of the undisturbed tombs, together with the evidence of the varying quality and quantity of the deposits, indicates social differentiation. In Area B, for example, forty-six tombs contained no artifacts; nineteen had only one; two had two; ten had three; and eleven had three or more.

Because the pottery vessels found in the tombs of both cemeteries consist of several distinct regional styles (i.e., those of Mesopotamia, Susiana, and the inner Zagros valleys), the hypothesis (aside from the possibility of exchange in material goods) that such vessels found their way into these tombs as dowries through interregional marriages, so common among the ethnographic present, could be tested.

HAKALĀN

Thirty-six tombs were excavated in two areas at Hakalān. No plans of the excavated areas (designated A and B) are available. According to the final report (Haerinck and Overlaet 1996: 12), the orientation of the tombs varied from east–west to northeast–southwest, the latter similar to those from Parchineh Area B. Similar methods and materials as those used at Parchineh were used in the construction of the Hakalān tombs. Almost all the tombs here contained objects; six tombs had no objects; fourteen had only one; six had two; one had three; three had four; two had five; two had six; one had eight; and one had eleven objects. Of these, only eleven had some poorly preserved skeletal remains consisting mostly of skulls, long bones, and teeth.

The apparent absence of child burials at these cemeteries prevents us from speculating on the acquired versus hereditary status in the society. But the obvious continuum of the material richness of the tombs at both cemeteries is an indication of at least a level of socioeconomic differentiation. At this level of social evolution and military superiority over the settled farming communities by virtue of their mobility, it is not difficult to assume the mobile pastoralists' motivation to control lowland Susiana, for more pasture and arable land.[60]

In both cemeteries, pottery vessels were the most abundant funerary objects. Other funerary objects consisted of stone (34) and copper (1) mace-heads, stone vessels (7), stone hammers and axes, some stone beads, stamp

58. When I visited the sites in the summer of 2001, some small villages had been established in their vicinity, thanks to modern roads and technology.

59. I would like to thank Mr. Kargar, the Director of the National Museum, for giving me permission to see the collection; and Ms. Zahra Jafar-Mohammadi, Keeper of the Prehistoric Collection, for kindly and painstakingly locating and preparing the collection for my viewing.

60. See Flannery 1999 for a comparative study of the modern-day mobile pastoralist confederacy of Khamseh and chiefdom societies in the Middle East.

seals (17), clay figurines (2), and a number of flint blades, including one made of obsidian. In general, the tombs at Parchineh, particularly in Area B, seem to be richer than those excavated at Hakalān.

Based on a general comparison to the ceramics of the fifth millennium B.C. in the central Zagros Mountains (Henrickson 1985), Haerinck and Overlaet (1996) date the cemeteries in Area A at Parchineh to 4600–4200 B.C. Area B at Parchineh and all the tombs at Hakalān are dated to 4200–3600 B.C. (Haerinck and Overlaet 1996: 27). While the earlier date of the second half of the fifth millennium B.C. is supported by parallels, there is no reason to consider a later date for the entire assemblage at these two cemeteries.

Pottery vessels from both cemeteries show strong affinities with the pottery of the Ubaid 3 phase in Mesopotamia and Late Susiana 1 phase in lowland Susiana, with some very close parallels to the typical straight-sided Late Susiana 1 bowls decorated with thick bands and bold designs, as well as bowls with sinuous walls decorated with embellished concentric circles.[61] Vessels decorated with the typical Late Susiana 1 dot motif also occur in both cemeteries.[62] Others (especially simple bowls with wide zigzags bordered by two wide bands) have close parallels in Gawra levels XVII–XV.[63] Small jars decorated with the same motifs have exact parallels at Ras al-ʾAmiya.[64] In addition to the pottery vessels, some stone objects also have close and exact parallels from the same phase in Mesopotamia. Polished stone celts/adzes have exact parallels from Ur and Ur-Ubaid levels,[65] while close parallels for the Parchineh/Hakalān stone hammers are found at Gawra XV.[66]

The most interesting characteristic of the artifacts from the cemeteries, particularly the pottery vessels, is the specific regional styles they exhibit, representing Mesopotamia, lowland Susiana, and highland Iran. For example, while a number of shapes and painted decorations are specific to the Late Susiana 1 phase in lowland Susiana, others betray unmistakable Mesopotamian style. The style of pottery decoration of the mid-fifth-millennium B.C. highland Iran is reflected in the tall beakers decorated with stylized sheep/goat and upper bodies of horned animals rising from the baseline.[67] A combination of this design with the typical Mesopotamian motif of a series of chevrons bordered by narrow and wide horizontal bands also occurs.[68] The Mesopotamian component of the artifacts makes much more sense when we consider the intricate relationship Layard observed (1846: 46–47)[69] between the Iranian mobile pastoralist tribes of this region with those in the Diyala region of Iraq:

> During the summer the [Arab] tribes congregate near that river and on the borders of the vast inland marshes formed by its waters. In the winter and spring they usually encamp in the sandstone and gypsum hills running parallel to the great range [of the Zagros Mountains], or in the plains at the foot of the mountains. They mix with the [Luri] Feili tribes of the Pusht-i-Kuh, and pasture their flocks on their lands for which they yearly pay a small sum to the Wali Ali Khan [Luri chief]. They are usually on good terms with the inhabitants of the mountains, whose chiefs continually take refuge in their tents when opposed by the government, or expelled by their own tribes. The Arab Sheikhs at the same time frequently seek asylum among the I'hiyats [*sic*, Illiat = tribes] of the hills. Thus it is for their mutual interest to be on friendly terms.

If these cemeteries belonged to highland mobile pastoralist communities of the fifth millennium B.C. — and there is no compelling reason to believe otherwise — it is not unwarranted to assume that their mode of subsistence economy put them in a position of intermediary between lowland Susiana, Mesopotamia, and highland Iran. The question as to how the various types of non-perishable objects found at these cemeteries were acquired may involve several mechanisms. Exchange is an obvious mechanism that comes to mind; such objects (at least some of them) may have been part of the "dowries" acquired through interregional marriages, an important factor in forging interregional alliances through kinship. The hybrid style of some painted pottery vessels, not found elsewhere, may not only be attributed to the practice of interregional marriages; assuming women were active in pottery production, it also fits nicely with the mobile characteristic of the migratory tribes.

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61. For examples, see Haerinck and Overlaet 1996, figs. 11:A37 (2–3); 14:A17 (1); 15:A23 (2), A36 (1); 42; and 19:6.
62. Haerinck and Overlaet 1996, figs. 50–51; 78; 82–83.
63. Compare Haerinck and Overlaet 1996, fig. 42:1–3, with Tobler 1950, fig. 125:137.
64. Compare Haerinck and Overlaet 1996, fig. 47:5, with Safar, Mustafa, and Lloyd 1981, pl. 18:3.
65. Compare Haerinck and Overlaet 1996, fig. 87:1–7, with Woolley 1955, pl. 14.
66. Compare Haerinck and Overlaet 1996, fig. 58:3–5, with Tobler 1950, fig. 178:38–39.
67. Haerinck and Overlaet 1996, figs. 19:9–11; 21:5–6; 23:1, and passim.
68. Compare Haerinck and Overlaet 1996, fig. 25:3–4, with Woolley 1955, pl. 15:2070.
69. See also Stark 1934: 1–175 for a similar relationship among the Luri and Laki tribes of what is now Ilam province and those in the Iraqi Mandali area.

Admittedly, a portion of the materials found at these cemeteries do not have good and convincing parallels in other regions. But, given their proximity to the archaeologically almost unknown region of the Mehran plain, it is possible that future research in this region may shed more light on this problem. The Mehran plain, some 100 km north of Susiana on the modern-day Iran-Iraq border, is the most northerly lowland region in western Iran and for millennia was the major thoroughfare between Mesopotamia, lowland Susiana, and highland Iran. As such, the control of this territory would have been a strategic goal for the polities based in each of these regions.[70]

By the late Middle Susiana phase sheep and goats were dominant in Susiana, accounting for about 65% of faunal remains at Jafarabad, with sheep becoming more dominant in the later phases (Kouchoukos 1998: 68). If this development is an indication of the increasing importance of wool in Susiana, as well as in southern Mesopotamia,[71] then the concomitant appearance of large cemeteries may not be coincidental. Thus, the manifest development of highland mobile pastoralism by the end of the late Middle Susiana phase may have been in part related to the importance of wool in the economies of both Susiana and southern Mesopotamia. In an approach that favors ratios of NISP (number of identified specimens) values among taxa, Richard Redding (1981, 1993) has shown that, with the exception of Hassunan and Halafian sites in northern Mesopotamia and Syria, sheep/goat ratios were more or less uniformly low (> 0.5%) prior to 5500 B.C. By 4500 B.C. the ratios changed to 1.5–4.5%, indicating a changing trend in herding strategy from a subsistence economy to an economy where animal by-products were becoming important.[72] Analysis of the faunal remains from Qabr-e Sheykhein and Sharafabad also indicates low occurrence of cattle and the highest sheep/goat ratios (Redding 1985).

A number of positive-feedback mechanisms would have been involved in the assumed rapid development of the highland mobile pastoralist communities. One may envision that, as the population of the later urban centers in both lowland Susiana and southern Mesopotamia increased, the demand for pastoral productions such as meat, dairy products, and wool may also have increased (Sherratt 1983). The wetter climate during the sixth and fifth millennia and the increase in canal irrigation agriculture in southern Mesopotamia, according to Kouchoukos (1998), may have changed the landscape of southern Mesopotamia in such a way that it created a shortage of suitable pasture for sheep and goats in this region. Kouchoukos (1998) has argued that the demand for wool in such an environment may have led to an increasing investment in pastoralism by moving the herds seasonally to the Zagros piedmonts and northern Mesopotamia during the Uruk period. Prior to this period, such demand may have been met directly by the highland mobile pastoralist communities who, as a result, developed their own economic and social cohesion and strength, so much so that such communities may have become a force in the sociopolitical and economic life of southwestern Asia as early as the fifth millennium B.C. As the populations of both southern Mesopotamia and Susiana increased, more land was brought under cultivation. On the other hand, as demands for pastoral production increased, the size of herds increased and by extension the demands for more pasture. At one point, presumably by the beginning of the fifth millennium B.C., the equilibrium was upset and a conflict of interests between the pastoralists and farmers may have resulted in hostilities and violence that forced the abandonment of many settlements in eastern Khuzestan.

Further and more tangible information on the nature of some of the Late Susiana sites in eastern Khuzestan was provided during our 2001 joint ICHTO-Oriental Institute archaeological and geomorphological expedition in eastern Khuzestan. Here, some 30 km southeast of the provincial town of Shushtar, we chose the mound of Dar Khazineh (KS-1626) for investigation.[73] The mound dates to the entire course of the fifth millennium B.C. with both Late Susiana 1 and 2 phases represented.

In this part of the Susiana plain, both prehistoric and historical sites are buried under some 2 m of alluvial deposits; our geomorphological investigations hinted that the digging of the huge irrigation canal (now the Gargar River/irrigation canal) presumably during the Parthian/Sasanian period may have been responsible for this situation in the area. As a result, sites here are only visible in the exposed sections of the wadis. The wadi at Dar Khazineh had sliced the mound in such a way that an extensive section was exposed on its western part. This gave us an excellent opportunity to study its stratigraphy and collect archaeological, botanical, and faunal samples without having to excavate it for several seasons.

70. For some later historical references to strategically located Der, see Carter and Stolper 1984: 23, 38–39, 43–46, passim.
71. For the detailed study of the importance of wool in southern Mesopotamian economy during the Uruk period, see Kouchoukos 1998.
72. See Kouchoukos (1998: 294–301) for an extensive treatment of this subject.
73. See Alizadeh 2003b for a preliminary report; see also Alizadeh et al. 2004.

From the exposed sections, we could see that under the thick layers of alluvium the cultural layers continued down to the bed of the wadi. When we eventually cleared the sections to the wadi bed we realized that the depth of the mound ranged only from 30 cm to about 180 cm. In some parts of the mound there was no cultural deposit at all. Excavations in our main trench revealed a peculiar depositional pattern not reported before. Clayish and sandy sediments ranging from 5 to 10 cm thick were superimposed on thin lenses of cultural deposits. No solid architecture was found except for extremely badly preserved pisé partition walls whose faces were usually burnt; we also found postholes, traces of ash, and fireplaces. In fact, the "floors" on which these activities took place consisted of alluvial deposits. Thus, in the main area of excavation, when we factored out the alluvial levels from the cultural lenses, we were left with just over 30 cm of deposit for perhaps the entire duration of the fifth millennium B.C.

Marjan Mashkour of the Centre National de la Recherche Scientifique, Paris, analyzed the faunal samples. Although we collected every piece of bone, recovered faunal remains number some 400 fragmentary bones, of which only 45% could be identified. Sheep and goat bones dominate the assemblage but are more numerous in the Late Susiana 2 levels, the latest phase at the site (ca. 4350–4100 B.C.). Significantly, many of the caprine bones are from juvenile or newborn animals, possibly indicating occupation of Dar Khazineh (KS-1626) in February to April. Other fauna present include domestic cattle, pigs(?), onager (*Equus hemionus onager*), fallow deer (*Dama dama mesopotamica*), rodents, and marine mollusks. According to Mashkour, the high percentage of the bones of young animals also suggests butchering patterns of the mobile pastoralists (see tables 3–4).

Naomi Miller of the University of Pennsylvania Museum Applied Science Center for Archaeology (MASCA) analyzed the floral samples. Only a small volume of seeds was recovered, despite the fact that we wet-sieved huge quantities of dirt, especially from the fire pits. Of the exceedingly few (< 30) identifiable charred seeds recovered at Dar Khazineh, most are from wild grasses (*Poaceae*) and legumes (*Fabaceae*). Barley (*Hordeum*), the only cultivated plant in the assemblage, is present only as a few fragmentary seeds.

Based on these observations, we concluded that KS-1626 was occupied seasonally by the prehistoric mobile pastoralists of the region, a pattern that is still evident in eastern Khuzestan (pl. 31). The analyses of the fauna and flora samples from the site also does not rule out the strong possibility that Dar Khazineh was a mobile pastoralist camp. It is important to bear in mind that the primary occupation at Dar Khazineh coincides with the Late Susiana 1 phase, a period we consider the crystallization of mobile pastoralist mode of production in western and south-central Iran.

Another line of evidence is now available from the Central Plateau. This remarkable evidence for contact between lowland Susiana, highland Fars, and the Central Plateau comes from a series of surveys conducted by Mir Abedin Kaboli (2000) of Tehran ICHTO. The survey region is located northeast of the city of Qom, some 100 km south of Tehran. The unmistakable characteristic ceramics of the Late Susiana 1 phase were found on at least six mounds.[74] Although I have not had the opportunity to examine the actual pottery, the illustrations and descriptions of the ware leave no doubt that the published pieces represent genuine Susiana ceramics of the early fifth millennium B.C. Other surveys near the Qazvin plain also produced three pieces of the typical dot motif painted pattern both on typical Susiana cream-buff ware and on the typical late Cheshmeh Ali red ware.[75] Without excavations at these sites, it is difficult to draw tenable conclusions based on circumstances that led to the introduction of Susiana ceramics in the Central Plateau. Nevertheless, when one bears in mind that the fifth millennium B.C. ushered in a period of increasing occurrence of exotic material such as turquoise, lapis, and copper, all native to the Central Plateau and points east, then it is not unwarranted to assume that this specific style of pottery appeared in the Central Plateau as a result of exchange in raw material conducted by mobile pastoralists, the ideal medium of interregional exchange.

Although the socioeconomic spheres of the Susiana plain must certainly have been dominated by its sedentary population during the Late Susiana period, I have argued that control of socioeconomic affairs in Fars during the same period may have been exercised by its mobile pastoralist population, possibly with Tall-e Bakun A as its center.[76] If the isolated highland cemeteries of Parchineh and Hakalān are evidence of developed, organized mobile pastoralist groups in southwestern Iran, one can reasonably assume that the regional centers maintained their "contact" through these mobile groups who were well suited for long-distance trade as intermediaries as well as meeting the increasing demand for wool and other animal by-products. As mentioned above, this suggestion is helpful in describing the mechanism through which certain ceramic traits became widespread and common in Fars, Susiana, Deh

74. For examples, see Kaboli 2000, pls. 19:1; 29:1–3; 33:15–16; 36:10; 37:1–5; 39:11.

75. These surveys were conducted by Miss Lili Niakan of the ICHTO and Mr. Alireza Asgari of the Modares University in Tehran, as part of their masters and doctoral theses, to which I have been an advisor. I thank both of them for showing me their materials.

76. Alizadeh 1988a, 1988b, 2006.

Luran, Behbahan, and the central and eastern Zagros Mountains. The subsequent appearance of semiprecious stones and copper objects in Fars, Susiana, and the Zagros Mountains may also be linked to this mechanism and to the rise of sumptuary behavior.[77]

MOBILE PASTORALISM AND PRODUCTION OF POTTERY

Before we leave the question of ancient highland mobile pastoralist tribes as a major factor in the cultural development of lowland Susiana in the late fifth millennium B.C., a few words must be offered to describe the connection between the vast geographic distribution of certain classes of pottery and the prehistoric highland mobile pastoralism. While suggesting that less than 30% of mobile societies make and use pottery, Arnold (1985) argues that a number of practical, logistical, and economic (economies of scale) problems are involved in the production of pottery by groups with high residential mobility. However, in a series of articles, Jelmer Eerkens (2003) and her colleagues (Eerkens and Bettinger 2001; Eerkens, Neff, and Glascock 2002) discuss a number of strategies through which such obstacles were overcome by the highly mobile tribes of Paiute and Shoshone of the southwest Great Basin in North America. The pottery manufactured by these Native American tribes is basically simple, crude, and limited in shape and accessories (Eerkens, Neff, and Glascock 2002: 203–05). The same is true of the Negbite pottery of the Negev, which has been attributed to the nomadic groups of the region (Haiman and Goren 1992). These observations suggest that, even when mobile groups do manufacture pottery, their product is technologically and aesthetically inferior to those produced by sedentary peoples.

In the case of the vertical mobile pastoralists of the Zagros Mountains, this distinction need not be made. First, despite their mobile way of life, the Zagros pastoralists spend only a fraction of the year moving from their summer to winter pastures and vice versa. While in their summer pastures they occupy regions not suitable for grain agriculture and thus are lightly populated, in their winter pastures of Fars and lowland Khuzestan they stayed for several months in heavily populated and agriculturally rich areas. Some tribes even own villages with solid architecture or a mixture of tents and mudbrick or stone houses. If this situation was obtained in the fifth millennium B.C. and thereafter, to some extent attributing to the mobile pastoralist groups the manufacture and thus the spread of the very specific class of the fifth-millennium B.C. pottery in southwestern, south-central, and the Central Plateau of Iran is theoretically not farfetched (see Alizadeh 2004). Interregional and inter-tribal marriages, an important factor in forging interregional alliances through kinship, could also be considered as a contributing factor in the spread of some classes of pottery.

These and other examples suggest increasing contact between the lowland and the highland at the end of the Middle Susiana period. Based on an analysis of materials from Fars, I have attributed this unprecedented contact between the lowland and the highland to the development of mobile pastoralism in southwestern and southern Iran (Alizadeh 1988a, 1988b, 2006), a factor that may also have contributed to the gradual desertion and shifting of sites from the eastern part of the Susiana plain, traditionally the winter pasture of the mobile pastoralist groups, to the western sector of the plain.

LATE SUSIANA 2 PHASE

The Late Susiana 2 phase is poorly known at Chogha Mish. It is a phase when Susa had replaced Chogha Mish as the paramount settlement in the entire plain. Our 2005 investigation in central Khuzestan, however, indicates the possibility that Susa may have had to contend with at least one rival (Chogha Do Sar) situated between Susa and Chogha Mish on the east bank of the Ojirub River, an eastern branch of the Dez (see above). Next to Susa, with some 6–8 ha of occupation, Chogha Do Sar was the largest Late Susiana 2 phase site east of the Dez and a potential rival for the newly founded Susa.

77. The appearance in the central Zagros region (Tappeh Giyan, Tappeh Godin, and Se Gabi) of the unmistakable Central Plateau (Tappeh Sialk III) type of decorated pottery vessels by the end of the fifth millennium B.C. may also have been due to a similar desire and necessity for interregional alliances to facilitate the movement of goods. For examples, see Contenau and Ghirshman 1935, pls. 9:2; 58: top row, second from right in third row from top; Levine and Young 1987, figs. 17:1, 4; Young 1969, fig. 7:1–2. It is extremely puzzling why Young considered the genuine Central Plateau pottery of Sialk III:6–7 of Godin Period Vi as "Ubaid."

According to MASCA-corrected weighted average (Weiss 1977: 357) this phase spans from 4350 to 4190 B.C. The following phase, Terminal Susa, not attested at Chogha Mish or at Chogha Do Sar, lasted for 100 to 150 years. If we accept the 150-year estimate for this phase as suggested by Wright (2001, table 4.1), given the thin archaeological deposits dated to the Terminal Susa at Susa (Dyson 1966; Le Brun 1971), then the entire prehistoric sequence at Susa spans from 4350 to ca. 4000 B.C. The absence of the type of pottery known from Acropole 1, levels 24–23 (Terminal Susa) at Chogha Mish and possibly Jafarabad suggests that both sites were abandoned earlier.

The origins of the fourth-millennium B.C. societal transformations in Susiana, therefore, must be traced to yet another earlier period. During the Late Susiana 1 phase, a decrease in the size of the population in the eastern part of Susiana was balanced by an increased population in the western part of the plain, with Susa as the largest regional center. On the whole, however, there seems to have been a decrease from the previous phase in the size of the population on the entire plain (Wright et al. 1975: 137). In the Dimcheh region, just south of Chogha Mish, only four out of twenty-seven sites remained occupied. Although Veenenbos' hypothesis relating to major watercourse change in the region may have been a factor in the distribution and density of population centers in this region, geology is not sufficient to account for such major trends. This evidence, when taken together with the assumed increasing activities of the highland mobile pastoralist tribes in this part of the plain and the ensuing conflict of interest, provide a more balanced interpretation of the data. The westward movement of the population centers in eastern Susiana could lead to more available land for pasture and consequently to the increasing nomadic presence here, creating even more tension between the settled farmers and mobile herders of the region.

The available data from Chogha Mish are not sufficient to suggest an absolute date for the re-occupation of Chogha Mish during this phase. Unlike Susa, where examples of the dot motif were found in the basal levels of the Acropole, the almost total absence at Chogha Mish of any ceramic carryovers from the preceding phase in the excavated areas of the mound suggests that the site may have been re-occupied sometime during the Late Susiana 2 phase. The architectural remains of the Late Susiana 2 phase at Chogha Mish were fragmentary and are limited to the High Mound. Nevertheless, the presence in Trench XXI of sherds dating to this phase suggests that this area, too, may have either contained Late Susiana 2 architecture or was used to manufacture pottery. No direct evidence is available to support this inference, however.

Prior to the sixth season of excavations, a series of kilns and ashy floors mixed with stone blades, potsherds, and wasters were found in Square N10 of Trench XXIII on the High Mound. When excavations in the tenth season continued in the area, two superimposed architectural levels were found (see *Chapter 2* for details). The Late Susiana 2 architecture in Square N10 reveals only a partial plan of the building. The surviving and excavated portions exhibit multi-room structures with rectangular and square rooms. The open areas surrounding the rooms were filled with ashy and clayish layers. The millennia-old practice of paving open areas with cobbles continued into this phase.

The limited area of Late Susiana 2 occupation at Chogha Mish and the abundance of associated kilns and ashy deposits suggest that, as at Jafarabad, Chogha Mish may have been re-occupied during this phase as a small industrial center rather than a strictly residential one. Nevertheless, one should bear in mind the degree of destruction and leveling that Protoliterate and Old Elamite building activities caused the Late Susiana 2 remains on the High Mound.

Johnson (1973: 21) suggests that, toward the end of the Late Susiana period, known as the Terminal Susa phase, Susa shrank in size to about 5 ha, though this estimate is by no means certain. It has been suggested that the disappearance of the long tradition of Susiana painted pottery, marking a new era, should be explained by as-yet "unresolved problems of social organization rather than strictly economic or subsistence affairs."[78] Parallel transformations in Mesopotamia and Fars suggest interregional dynamic and causes that underlie these transformations by the early fourth millennium B.C. Any attempt to explain these transformations must take into account regional and interregional contributing factors. At present, insufficient archaeological evidence from the first half of the fourth millennium B.C. in Susiana prevents us from reaching an understanding of the dynamics of these changes.

As mentioned above, the founding of Susa, according to the pottery analysis presented in *Chapter 4*, occurred sometime during the latter part of the Late Susiana 1 phase, when contacts between the lowland and the highland increased rapidly and Chogha Mish lay deserted. This proposition is based partly on the similarities among regional ceramic traditions. These similarities may have been the result of an increased interaction between the lowlands and

78. Johnson 1987: 286. See also Nissen's (1988) functionalist approach, where he argues that a change in pottery technology — use of the wheel — is behind all the stylistic changes and the shift toward the use of unpainted and band-painted vessels that occurs toward the end of the Ubaid period.

highlands, which probably developed out of increasing demand for various local commodities and resources of both regions, as well as through forging interregional alliances in a much larger sphere of interaction. We may attribute this development to the growth of a regional elite in both the lowlands and the highlands, an elite who resided in the nascent urban centers and competed for supremacy through interregional kin alliances and perhaps through warfare, as suggested by the Burnt Building at Chogha Mish and the presumed burning of the buildings on the high terrace at Susa, as well as the burning of Chogha Do Sar sometime during the Late Susiana 2 phase. Nevertheless, Susa may have started off as a cluster of small population centers that became integrated and grew after its first phase of occupation.[79] That the much-discussed high terrace was constructed on over a meter of residential refuse is another indication that Susa attained its regional status sometime after its initial occupation, perhaps during Acropole levels 26–25.

PROTOLITERATE (LATE URUK) PHASE

Sometime before the end of the Late Susiana 2 phase, Chogha Mish was deserted again for at least half a millennium.[80] The paucity of information on the Late Susiana 2 occupation at Chogha Mish prevents us from speculating on the resurgence of the site and the high status it regained in the Protoliterate phase as the largest town in lowland Susiana. Susa, on the other hand, remained occupied after the Late Susiana 2 phase, but apparently went through substantial changes in settlement size and socioeconomic structure (Johnson 1973; Weiss 1977). Nevertheless, despite the limited nature of the materials from Susa Acropole levels 22–19, the change does not seem to have been either violent or abrupt, roughly paralleling similar artifactual changes in southern Mesopotamia.

It is speculated that during the poorly known Terminal Susa phase, Susa was reduced to only 5 ha (Johnson 1973). The settlement then presumably expanded to cover some 12 and 25 ha during the Early and Middle Susa 2 phases in the first half of the fourth millennium B.C., i.e., Early and Middle Uruk according to Johnson (1973: 71, table 18). Susa shrank in size again in the second half of the millennium to about 9 ha, and Tappeh Abu Fanduweh (KS-59) shrank from 9.56 to 8.16 ha, though it is by no means certain how the latter estimate was calculated. In our own 2006/07 joint ICHTO-Oriental Institute season at Abu Fanduweh we could not isolate a "Middle Uruk" phase as Johnson defines it. Nor did we find a substantial occupation of the site during the "Early Uruk" phase. The most extensive occupation (ca. 12 ha) belonged to the second half of the fourth millennium B.C., that is, the Protoliterate phase (Late Uruk). Surveys and excavations at Chogha Mish indicated that the entire 17–18 ha of the site were re-occupied at the beginning of Susa Acropole level 18, if not slightly earlier, contemporary with what we call the Protoliterate phase at Chogha Mish.

Prior to the excavations at Chogha Mish in 1961, the pottery of the earlier part of the Protoliterate phase (Late Uruk/Protoliterate a–b), as suggested by Delougaz (Delougaz and Lloyd 1942), was primarily known from Warka.[81] The latter part of the Protoliterate phase (c–d/Jemdet Nasr) was best known from the Diyala sites as well as from Jemdet Nasr, Kish, and Tell Uqair. Susa had also produced a considerable number of Protoliterate pottery types, which, on the basis of Mesopotamian comparisons, Le Breton attributed to phases termed Susa B (Susa 3) and C (Susa 4),[82] or the Protoliterate and proto-Elamite phases.

The pottery types of the Jemdet Nasr phase are well known from the Diyala region and other central Mesopotamian sites (Delougaz 1952). Despite extensive excavations at Chogha Mish, no pottery definitely datable to this phase has been found. The most noticeable include the total absence of the typical polychrome wares, the monochrome four-lugged jars, the slender red-washed spouted vessels, and the solid pottery stands. Thus, Chogha Mish

79. See Dollfus 1985 and Pollock 1989: 283.
80. According to Weiss (1977), this span of time corresponds with the Early Uruk (3700–3450 B.C.) and Middle Uruk (3450–3200 B.C.) phases. Based on the Syrian and Anatolian evidence and using the OxCal program in a Bayesian framework (Wright and Rupley 2001), Wright (2001: 130, table 4.1) suggests ca. 4150–3800 B.C., 3800–3350 B.C., and ca. 3350–3100 B.C., respectively, for the Early, Middle, and Late Uruk phases. In his table 4.1, Wright (2001: 130) assigns 150-, 300-, 350-, and 200-year estimates for the duration of the Terminal Susa, Early, Middle, and Late Uruk phases, respectively. These estimates are puzzling to me since they do not correspond to the OxCal dates for the three phases of the Uruk period suggested. For example, if we add all the estimated years beginning with the Late Uruk phase, we reach a date of ca. 4150 B.C. for the beginning of the Early Uruk phase in Susiana, clearly too early, given the calibrated date of the beginning of Late Susiana 2 (Susa 1) phase at 4350 B.C.
81. Von Haller 1932; for later pottery from Nippur, see the discussion in Hansen 1965.
82. Le Breton 1957, figs. 10–13.

does not seem to have been occupied during the latter part of the Protoliterate phase and lay deserted again until the Old Elamite (Sukkalmah) period.

Previously, the relative chronological position of the Protoliterate deposits at Chogha Mish was based on a comparative analysis of the materials from Nippur and the Eanna deep sounding at Uruk.[83] In using the data from the pit, the inevitable incompleteness of materials from a limited area is still a handicap.[84] At Warka, the final Ubaid level (level XIV) is superimposed by deposits with primarily unpainted pottery types, including long, slender, straight spouts with either rounded or cut-away tips (von Haller 1932, pl. 17 D:p–q [level XIII]), and narrow vessels with bodies sharply tapering toward the base (von Haller 1932, pl. 17 D:r [level XIII]). These types thus appear as diagnostic for the Uruk period, as Nissen (1986, 2001) defined it (Warka Deep Sounding XII–IX).

The most detailed periodization of fourth-millennium B.C. Susiana was suggested by Johnson (1973). Based on the poorly known and controversial sequences from Warka, Nippur, Tall-e Geser (Ghazir), and Susa (Acropole levels 22–17), as well as a detailed seriation of surface pottery, Johnson proposed three distinct phases for the fourth-millennium B.C. Susiana, namely, the Early, Middle, and Late Uruk phases. Johnson assigns sixteen types of pottery to his Early Uruk phase. Of these, only Types 13, 18 (impressed strip bowls), 44 (heavy lugs), and 45 (straight [upright] spouts) do not occur at Chogha Mish. Presumably, these three distinct types are primarily limited to level 22 of Susa Acropole 1. Perhaps these three types continued through the later levels 21–19 of Susa Acropole 1, but these levels are poorly known and not reliable references for establishing temporal distribution of the first half of the fourth-millennium B.C. ceramic types in Khuzestan. The rest of Johnson's Early Uruk types occur at Chogha Mish with no apparent spatial or temporal distribution. Johnson's Middle Uruk phase in Susiana is characterized by the appearance of nine new pottery types (Johnson 1973: 56–57), all of which occur at Chogha Mish with the characteristic types of the later phase, namely band-rim bottles, jars with drooping spouts, complex incised crosshatched decoration, and twisted handles. All these types are also known from Eanna levels VIII–IV, that is, Nissen's Late Uruk.

At Chogha Mish, for instance, specimens of distinctive types with rocker decoration, the miniature handled jars (fig. 32:D), and the slender ovoid jars (*Chogha Mish* I, pl. 121:A) occur both in pits and in primary deposits. The rather numerous representatives of another distinctive type, the trough-spouted bowl, appear in the East and West Areas in deposits of both higher and lower architectural levels.[85] The concentration of certain types may be taken as a chronological indication. For example, the "flowerpots" (Nissen 1970: 132–36), restricted to the Late Uruk phase in Mesopotamia and at Susa's Acropole to level 17, abound in Trench VI and in the northeasternmost part of the East Area but are very rare elsewhere. In both areas, however, these pots are associated with the types that are standard everywhere and thus cannot serve as chronological indicators for the dates of the two areas where they are so common. The uneven patterns of distribution seem to be correlated with variations in the activities carried out in different areas, rather than temporal distribution patterns.[86] Again, at Tappeh Abu Fanduweh (KS-59), we observed the same mixture of types in all the levels we excavated.

So far, the Protoliterate types from Acropole levels 18 and 17, Eanna VII–IV, and from Habuba Kabira South provide the closest parallels for the types discovered at Chogha Mish.[87] It should be noted, however, that most of the parallels from Warka come from Eanna VI and earlier, rather than from Eanna V or IV. On the other hand, tables 1–8 in *Chogha Mish* I (pp. 37–93) indicate that out of 130 Chogha Mish Protoliterate vessel types, over 25%, do not occur (or remain to be discovered) at Susa Acropole. It is therefore absolutely necessary that detailed analyses of form and style of the entire fourth-millennium pottery assemblages in Susiana will have to await more reliable and larger stratigraphic exposures than what is now available from Chogha Mish and Susa — we hope the results of our excavations of Tappeh Abu Fanduweh (KS-59) provide the framework. Without indisputable stratified sherds, the archaeologist remains handicapped in the interpretation of regional social, economic, and political changes that took place in the fourth millennium B.C.

83. Von Haller 1932. As Nissen (2001) clearly states, however, the pottery types from Levels XIII–IX of the deep sounding are not reliable comparative material. Materials from the more secure Levels VIII to VI may be relied on for comparative analysis.
84. The original Eanna pit in square Pc-XVI4 has since been supplemented by another stratigraphic test pit in K/L XII (Nissen 1970); see also Sürenhagen (1987, 1988) for additional new Late Uruk material and reanalysis of the published pottery from the deep sounding.
85. This type is the most distinct in Eanna VIII–VII; it appears at Chogha Mish with diagnostic shapes of the Protoliterate phase.
86. For a comprehensive list of the types attested at Chogha Mish and their parallels elsewhere, see *Chogha Mish* I, tables 1–9.
87. Most of Chogha Mish Protoliterate parallels seem to be with Susa 18, suggesting the maximum size for Chogha Mish during Susa level 18 and probably level 19. Both Algaze (1993: 129) and Dittmann (1986) believe that Chogha Mish had contracted by the time of Susa 17.

On the basis of the above types, Chogha Mish was re-occupied perhaps around 3600 B.C. But the available evidence of the pottery types and their stratigraphic distributions at Chogha Mish does not lend itself to be broken down into a middle and a late phase with two distinct classes of pottery forms and decorations, even though at least three architectural phases are recorded at Chogha Mish, indicating a long duration of the Protoliterate phase there. The architectural remains at Chogha Mish can be assigned to early and later phases, with a possibility of a third phase (see *Chapter 2*). If one agrees with Nissen (1986, 2001: 153) that the real break in the Uruk sequence at Warka is evident only between Levels IX and VIII, then the Chogha Mish Protoliterate pottery assemblage represents a long, uninterrupted period, assuming that both southern Mesopotamia and lowland Susiana had parallel temporal development in pottery types, an assumption that may not be valid. Almost 6 m of Protoliterate phase deposit at the northern complex of Tappeh Abu Fanduweh (KS-59) lends support to our assumption that the Late Uruk may have been much longer than thought.

SETTLEMENT PATTERNS AND POPULATION DENSITY

According to the results of Johnson's survey (1973: 87), only eighteen sites totaling 30 ha[88] were occupied during the Terminal Susa 1 phase. Most of the sites are located in the southwest and central part of the upper plain, with only two, widely dispersed sites — KS-182 and KS-190 — on the eastern sector. In the following Early Susa 2 phase (Early Uruk), the number of sites increased to forty-nine (a total of 95 ha),[89] but the spatial pattern remained the same. A three-level settlement hierarchy is detected in this phase (Johnson 1973: 90), with Susa (KS-00) and Tappeh Abu Fanduweh (KS-59) as the major centers of population. As in southern Mesopotamia,[90] in the following Middle Susa 2 phase (Middle Uruk), the number of settlements in lowland Susiana continued to increase from forty-nine to fifty-two sites, with a total of 127 ha of occupation. As in the previous two phases, sites are primarily located in the western and central sectors of the plain. According to Johnson (1973: 110), Chogha Mish was re-occupied in this phase and had a size of about 10 ha.[91] By this time, three major population centers co-existed in lowland Susiana: Susa, Chogha Mish, and Abu Fanduweh.

The Protoliterate (Late Uruk) phase was a period of a major change in settlement patterns in Susiana. During this phase, only thirteen sites totaling about 100 ha were occupied, with Chogha Mish the largest population center on the plain. The spatial distribution of sites is the same as the earlier phase, but this time only one site (KS-171; Johnson 1973: 143–47, fig. 14) remained occupied in the far side of the eastern portion of the plain. Whether the demographic trends of the Protoliterate phase were a continuation of the assumed similar trends that started after the Middle Susiana period is impossible to say. But if, as Wright and Johnson (1975) suggest, the demographic and social development of highland mobile pastoralist communities resulted in their interest in eastern Susiana (the traditional winter pasture of the modern-day Bakhtiyari tribes), then one might speculate that their renewed increasing presence in this part of the plain created tension and thus insecurity, hence the almost complete depopulation of this part of the lowlands by the late fourth millennium B.C. and well into the third.

The circumstances that resulted in the abandonment of Chogha Mish must have been operating at regional, if not interregional level, for by the end of the fourth and early third millennia B.C., the settled population of Susiana reached a minimum. Susa apparently was the sole large site in the region with more than half the settled population of the entire plain residing there (see, e.g., Alden 1987). It is true that the pottery of the early third millennium B.C. is difficult to recognize in Khuzestan, but this difficulty alone cannot possibly account for the low population estimate of the region in this period. Besides, our 2006/07 excavations at Tappeh Abu Fanduweh (KS-59) indicated at least 5–6 ha of occupation during the early Susa 3 phase. My study of the Geser (Ghazir in the literature) material at the Oriental Institute indicates that this early third-millennium B.C. pottery gradually replaced the typical Late Uruk ceramic repertoire. This specific ceramic that occurred at Abu Fanduweh, Geser and Susa (LeBrun 1978) preserved most of the major forms of the preceding phase, but it was tempered primarily with chaff and the vessels usually bear red, brown, and gray wash and are often decorated with horizontal bands of different colors. This early type is not reported from Deh Luran. Rare examples of the very scarce highland type of painted four-lugged vessel (figs. 29:G;

88. Compare Wright 2001, table 4.1, where using Dewar's model he estimates the total area of the occupation on the plain to be 21.5 ha, with a population of 2,150–4,300 for 100 and 200 people per hectare respectively.
89. See also Wright 2001 for different estimates.
90. See Adams and Nissen 1972; Adams 1981; Englund 1998: 43.
91. This is an arbitrary estimate by Johnson (1973: 73). In our opinion, the entire area of Chogha Mish was occupied during this phase.

33:D) seem to anticipate the following proto-Elamite phase. The same type of vessel also occurred in Susa Acropole level 17 (Le Brun 1971, fig. 53:17) and elsewhere.[92] Specific pottery stands/rings from Chogha Mish (*Chogha Mish* I, pl. 81:U–W) can also be considered as harbingers of the changes to come in the early third millennium B.C. These stands are rare at Chogha Mish and their closest parallels come from Susa Ville royale I (Carter 1980, fig. 33:9), from Tall-e Malyan Banesh (proto-Elamite) phase (Alden 1979, fig. 54:1–24), and from the contemporary Habuba Kabira South (Sürenhagen 1974/75, pls. 19:157, 32:1).

The archaeological phase that is characterized with this pottery and administrative tablets with pictographic signs is widely known as proto-Elamite with connection to Fars, Kerman, Sistan, the western Zagros Mountains, and the Central Plateau. During the early proto-Elamite phase most of the upper Susiana, especially the eastern part, the hypothetical winter pastures of the ancient mobile pastoralists, became completely devoid of any settlement, suggesting that the takeover of eastern Khuzestan by the mobile population had now been completed.

CHOGHA MISH URBAN DEVELOPMENT

With this brief account of Chogha Mish's regional position in lowland Susiana, we can now turn our attention to the structure of the urban center at the site. Eleven seasons of excavations at Chogha Mish have revealed a planned Protoliterate town with streets, side alleys, sewer and irrigation drains, water wells and cesspools, workshops, and public and private buildings. From the beginning, the town was divided into upper and lower quarters; the upper town was located on the High Mound and the lower town on the Terrace.

At least two distinct architectural phases are documented for this period: Protoliterate 1 and 2. Occupational remains of periods later than the Protoliterate (particularly the Old Elamite) had substantially damaged the remains of the upper town; nevertheless, enough survived to provide hints of its bygone glory. Most of the architectural remains of the period have been either destroyed or covered by the massive Old Elamite fortification walls and other buildings. What remains shows an incomplete plan of a large structure with rectangular rooms, cisterns, and a substantial drainage system (fig. 8). The presence of several pottery kilns, huge amounts of broken sherds and wasters, layers of ash, as well as mosaic cones, clay tokens, and sealings suggests that this area was the locus of administration and industrial activities. No fortification wall was found associated with the town or any other settlement in lowland Susiana in this period, but the substantial rectangular structure in front of this quarter may have served as a watch tower (see *Chapter 2*).

The lower town on the Terrace was much better preserved. Baked bricks were used almost exclusively for pavements, drains, wells, and cesspools. Riemchen mudbricks were used in domestic and public buildings. The residential units usually have mudbrick walls 30–50 cm thick. The mudbricks contained ash and sherds of earlier periods and thus the clay may have been taken from the numerous pits (some dug to Archaic levels) that dot the settlement. Frequently, stumps of earlier walls (primarily of Middle Susiana date) were used as foundations for the Protoliterate Phase 1 walls.[93] Rooms vary greatly in size and shape, from square to rather oblong rectangle. Sometimes, the shape of the available space and the position and orientation of earlier or contemporary walls may have been the reason for some trapezoidal rooms or storage bins. On the whole, the entire town has a general northeast–southwest orientation that it retained throughout the two main phases of occupation.

Some residential buildings have relatively large rectangular areas that can be interpreted as courtyards based on the fragmentary cobble pavements found in them. It is difficult to say with certainty if all residential buildings had their own open courts. The evidence suggests that several buildings shared the available open spaces. Some rooms were provided with a fireplace and a bench on which were placed (some still in situ) a number of beveled-rim bowls and small spouted jars. In contrast to the Diyala region, no burials were found under house floors, with the sole exception of a simple burial in the East Area (see *Chapter 2*, Q16:1101 in fig. 16), which may well be intrusive. Numerous kilns and fireplaces were found throughout the settlement. During the Protoliterate phase, as in the earlier phases, Chogha Mish was a major center for manufacturing pottery, as the numerous simple and complex pottery

92. This ware is also found at Tappeh Godin V (Weiss and Young 1975, fig. 3:2) and Warka, K/L XII Sounding, layer 42 (Nissen 1970, pl. 103:15).

93. A detailed record of the exact location of these early foundations would have allowed further reconstruction of the Middle Susiana settlement that no longer exists. But that information is not available.

kilns found on the Terrace attest.[94] Large numbers of clay sealings, impressed tablets, clay balls, clay bullae, and tokens indicate administrative activities at Chogha Mish during this phase as well.

The entire Protoliterate town at Chogha Mish was crisscrossed by both open and covered water and sewage channels. Such drains were made of both baked bricks and baked pottery pipes that fitted nicely together. Another indication of the planned architecture throughout the phase is the perpendicular angle at which buildings and drains cross one another. Subsidiary drains from narrow side alleys and even from some individual houses joined the main drains at right angles.

The available evidence does not allow us to make a distinction between the drains that were used to supply the town with freshwater and those that were used to lead sewage and wastewater to cesspools or out of the settlement. The closest freshwater source to Chogha Mish is the Shur River, about 1 km to the east. Today, this stream runs below the level of the plain. Based on his geomorphological observations, Kouchoukos (pers. comm.) believes that in the past the Shur River ran much higher, a view supported by the remnants of the river's ancient levies. Though it is feasible that an artificial canal brought water to the site, the problem of getting the water to the top of the mound would remain unresolved. However, a number of deep brick-lined wells that were often connected to the drainage system are more likely candidates for the source of freshwater at Chogha Mish. It must be noted, however, that none of these features was completely excavated. In addition, if some of the wells were actually dug to reach water, it is very odd that they had to be dug from some 20 meters above the plain. This can only make sense if siege warfare was practiced at the time, an unlikely event given the absence of fortification walls, the suggestion of some of the contemporary glyptic scenes notwithstanding.

Despite the presence of numerous mosaic cones, presumably typical of monumental buildings in southern Mesopotamia, no building was found in the first five seasons that can reasonably be called monumental. We have good evidence that the Protoliterate settlement at Chogha Mish was established as an administrative and production center with a number of secular and possibly religious monumental buildings, or a combination of both. In the course of the eighth to eleventh seasons, a large complex of buildings was partially excavated in the East Area. To the west of this major complex, in the West Area, a substantial polygonal mudbrick platform was erected, the function of which is not known.[95] Measuring about 350 sq. m, this platform was surrounded and abutted by subsidiary structures. If the platform supported a building, no traces of it remain. The surface of the platform, however, was littered — even imbedded — with potsherds of the Parthian period.

The tripartite monumental building that was found in the East Area dominated the settlement. It consists of a central court with recessed niches, and square and rectangular chambers surrounding it on two sides (fig. 16). The main entrance to the building leads to a long, mudbrick-paved antechamber, at one end of which a heap of gazelle bones was found (pl. 13:B). There is not a shred of evidence to indicate this central building was a temple, though its plan has general resemblance to temples at Uruk. All the evidence of early administrative technology in Susiana comes not from monumental or religious buildings, but from small to medium size domestic architectural units.

The relative dearth of objects in the various chambers of the monumental building and its subsidiaries suggests the possibility that at the end of the Protoliterate phase, Chogha Mish was deserted peacefully and left exposed to the elements for over 1,500 years. Subsequent occupations were concentrated on the High Mound, though parts of Squares P17–18 and Q17–18 were used during the Achaemenid period.

QUESTION OF "URUK EXPANSION" IN LOWLAND SUSIANA

As mentioned in the *Preface*, throughout this chapter we outline the evidence pertaining to the origins of fourth-millennium B.C. social complexity in Susiana. While this is a relatively easy task for the prehistoric sequence, it is less clear whether the development of state organizations in fourth-millennium Susiana was fundamentally affected and influenced by its southern Mesopotamian neighbors. The following is intended to briefly address this widely and intensely discussed issue.

State organizations developed regionally within geographic boundaries amid myriad socioeconomic interactions. Within these boundaries, sociopolitical and economic powers (polities) and their attendant institutions were concentrated in a particular center, usually the largest and presumably most populated. In periods with historical records, it is possible to reconstruct the boundaries of states with some certainty. In the absence of historical documents, either

94. For a detailed analysis of Chogha Mish Protoliterate pottery kilns, see *Chogha Mish* I: 29–30 and Alizadeh 1985.

95. See *Chogha Mish* I, pl. 265.

in prehistoric times or when records are mere numbers, tallies, and lists of professions and commodities,[96] spatial distribution of artifacts is used to determine the boundaries of prehistoric cultures, chiefdoms, and pristine states. Moreover, when materials attributed to a specific culture are found in regions outside the deemed boundaries of a given polity, that evidence is taken as indicative of cultural, political, and economic influence in that region.

While several prehistoric phases in Susiana exhibit material culture, primarily pottery, similar to contemporary phases in southern Mesopotamia, the material culture of fourth-millennium Susiana is almost entirely Mesopotamian in character, technique, and, presumably, function. This strong similarity in the material culture between the two regions has been the source of numerous speculations, ranging from "ethnic duality" to "colonialism" to inspired yet indigenous development. Moreover, the similarity of the archaeological materials from Susiana with definite geographical boundaries, as well as of those discovered in some Syrian and southeastern Anatolian sites, to the archaeological assemblage of the second half of the fourth-millennium southern Mesopotamia, is one factor many scholars have used the term "Greater Mesopotamia" to include not only lowland Susiana, but also the highland region of western Iran, eastern Syria, southeastern Anatolia, and even highland Fars as part of the integrated sphere of southern Mesopotamian political and economic influence. While this high degree of similarity between southern Mesopotamia and lowland Susiana's archaeological assemblages can safely be attributed to a sphere of socioeconomic and cultural interactions, there have been numerous efforts to interpret this development in terms of political and economic hegemony of one population center (Uruk) over others.

Sometime in the second half of the fourth millennium B.C., a number of sites in Syria, Anatolia, and one (Tappeh Godin) in the central Zagros Mountains exhibit a mixture of local tradition and a limited repertoire of the late fourth-millennium pottery vessels and artifacts related to administrative technology. This picture clearly shows that local communities/polities were not replaced by a wave of foreign entrepreneurs from the lowlands.[97] Some special sites, like Habuba Kabira South,[98] yielded nothing but genuine Uruk pottery and other artifacts.[99] But the majority of the so-called colonies outside of southern Mesopotamia exhibit a limited range of Uruk-related materials mixed with predominantly local artifacts.

The distribution of these "colonies" in the Near East offers a mosaic of sites in northern Mesopotamia, Syria, Anatolia, and highland Iran separated from Uruk, presumably the core, by vast stretches of land.[100] Lowland Susiana presents an entirely different problem. When Uruk materials appear on the Susiana plain, they cover the entire region and are hardly limited in space or type of materials.

There are, nevertheless, some differences. Detailed analysis of the glyptic art of the second half of the fourth millennium B.C. reveals both strong similarities in the basic iconography of southern Mesopotamia and lowland Susiana and major differences in the execution techniques and subject matters of the regions. While the glyptic art in both regions exhibits a general standard in the modeling and spacing of the figures, there are major differences in the subject matter and in the way details are rendered. The majority of the figures depicted on sealings from southern Mesopotamia show facial details (such as eyes, ears, and mouths); figures (both animals and humans) on sealings from lowland Susiana almost always lack such details. Amiet (1957: 126; 1972: 76) pointed out the rare occurrence in Mesopotamia (Lenzen 1964, pls. 26:g, 28:c) of the horizontal-winged griffin, popular both at Susa and Chogha Mish.

While a large number of glyptic scenes from Susa and Chogha Mish exactly parallel each other, they only show general similarities with those found at Uruk. The glyptic alone shows that the exchange of portable goods must have been within the confines of lowland Susiana rather than between this region and southern Mesopotamia. Absent from the Mesopotamian glyptic corpus are the scenes of men squatting in a row with animals. In general, scenes in which people are engaged in various activities are rare in southern Mesopotamia. Completely absent in Mesopotamia are men and women shown sitting with their legs crossed, just as many people still do in the Middle East.

The absence in Susiana of a number of scenes and individual elements so common in southern Mesopotamia is equally important. The popular Mesopotamian serpent-necked "panther" (Boehmer 1999, pl. 60) occurs only once

96. Falkenstein 1936; Englund 1998; Englund and Nissen 1993.
97. See Marro and Hauptmann 2000 and Rothman 2001 for the most recent analyses.
98. Strommenger and Sürenhagen 1970; Strommenger 1980.
99. Helwing (2000) notes about 10% of the pottery is of local material relating to the chaff-faced ware known from Arslan Tappeh and other sites in northern Syria.
100. See Marro and Hauptmann 2000 and Wright 2001 for a number of criticisms and re-evaluations of the nature of the late fourth-/early third-millennium north Syrian and southeastern Anatolian sites.

at Susa (Amiet 1972, nos. 475–76) but is completely absent from Chogha Mish. Scenes depicting animals emerging from a hut (Boehmer 1999, pl. 89:A–E; Brandes 1979, pl. 32) are completely unknown from Susiana;[101] extremely rare are scenes depicting the Inana symbol/standard with or without the associated animals (Boehmer 1999, pls. 10, 89:A–E), as well as the scenes depicting presumably the ruler/priest with animals and/or vegetation. Also rare are the scenes with the typical southern Mesopotamian high-prow boats (Boehmer 1999, pl. 91). The southern Mesopotamian hybrid creature, the "frog-headed" human, always depicted frontally (Boehmer 1999, pl. 66), as well as flying "eagles" spaced in a network of twisted cables (Boehmer 1999, pls. 67–68), are completely absent from lowland Susiana. While some of the scenes and motif elements may have been related to varying practical issues and style/convention in both regions, others (such as the Inana symbol, calves emerging from the hut, and ruler/priest engaged in feeding animals) are culture specific and underlie the differences in religious and ideological issues between the two regions, a difference that should not exist if southern Mesopotamians actually lived in Khuzestan and were responsible for the creation of the administrative technology there directly.

Algaze (1989, 1993) sees the similarity between the material cultures in several regions during the fourth millennium B.C. as an indication of Uruk centralized character and its political hegemony over its neighbors. Algaze used world-system theory as a model to explain the events of the fourth millennium B.C. in southwest Asia.[102] There is no question that during this period Susiana was heavily under the influence of its Mesopotamian neighbors. The question that remains to be addressed is whether there was any migration from southern Mesopotamia to lowland Susiana.

To address this question we need to consider Susiana in the fourth millennium in a much wider context. We know that by the mid-fifth millennium B.C. Susiana had already achieved a hierarchical society with monumental buildings and an advanced administrative technology that included door sealings. This was not a society that could easily be conquered by outside forces of presumably equal strength and social complexity without leaving any physical traces. Yet the archaeology of the region leaves no doubt that Susiana was indeed colonized by people from southern Mesopotamia. This contradiction will resolve once we consider the fact that by the end of the fifth millennium B.C. the society in Susiana had already collapsed and the region lost most of its settled population prior to the appearance of Uruk material culture there.

We have already proposed that the highlands and lowlands established close contact by the end of the late Middle Susiana phase around 5000 B.C. We also hypothesized about the causes of Chogha Mish's abandonment and the westward migration of the prehistoric settlements on the plain. Further, we attributed these events to the presumed conflict of interest between the highlanders and lowlanders and that the collapse of Susa by the end of the Late Susiana 2 phase (ca. 4000 B.C.) and the regions depopulation were taken as indicative of this presumed tension.

It is in this vacuum that farmers and entrepreneurs from southern Mesopotamia appeared on the scene to take advantage of the new opportunity in farming and trade. There is no question that some of the indigenous population remained in the region and most probably cooperated or peacefully co-existed with the new comers. If our assumptions about the highlanders are valid, then the affairs in the early fourth-millennium B.C. Susiana could not have taken place without their consent. As a primarily pastoral society, the highlanders would have welcomed the opportunity to tax the new farmers and traders in their newly acquired territories.

The new immigrants, however, grew in size and complexity and if the glyptic scenes are to be taken as representing some aspects of that society, competition seems to have resulted in intra-regional warfare. The insecure environment coupled with the growth of settlements in northern, and especially in northeastern Susiana, the primary winter territories of the highland pastoralists, may have rekindled the old conflict of interest with the colonizers and the outcome was once more a severe depopulation of the region. Just as previously during the first half of the fourth millennium B.C., one would expect that after some time the region would recover its lost population and bounce back. This did not happen. Until about 2700 B.C. Susiana seems to be an almost empty landscape that consisted of a much reduced Susa and a few small villages. Yet, it is precisely during this period (proto-Elamite) that we see the

101. One type of tapering pole with a single half-loop attached to its summit occurs both at Susa and Chogha Mish, though it is not common (Amiet 1972, nos. 456, 694; *Chogha Mish* I, pl. 154:A). This symbol, representing perhaps a temple or a deity (Englund 1998: 69), should not be confused with the specific Inana symbol.

102. For a criticism of the application of this model, see Stein 1999: 108–16; see also Kohl 1996.

continuation of the fourth-millennium B.C. administration and the establishment of a truly international trade network connecting Susiana to points in the Zagros, the Central Plateau, Kerman, Sistan, and Fars.

OLD ELAMITE PERIOD

During the second half of the fourth millennium B.C. Susa and Chogha Mish may have been competing for regional economic and political supremacy (Johnson 1973). By about 3100 B.C., Chogha Mish seems to have lost its millennia-old status to Susa permanently. The demise of Chogha Mish cannot be based solely on its loss to a rival regional center, for such rivalry was common among southern Mesopotamian polities without the disappearance of any major center. Although the available evidence from Chogha Mish does not allow speculation on the total demise of the site after the Protoliterate phase, the ever-present insecurity of the frontier northeastern part of Susiana may have been a contributing factor.

From ca. 3100 B.C. until the re-occupation by the Elamites in ca. 1800 B.C., Chogha Mish lay deserted. The occupation of Chogha Mish during the Sukkalmah period (ca. 1900–1600 B.C.) was part of the expansion of settlement pattern that started in the earlier Shimashki period (ca. 2100–1900 B.C.). The size of the settlement at Susa reached some 85 ha and twenty new villages were established on the plain during this phase (Carter and Stolper 1984: 150).

Sometime during the Old Elamite period, the High Mound was occupied again. A massive fortification wall was built on the highest point of the mound, roughly corresponding to the circumference of the High Mound. Within this enclosure wall, a number of individual buildings were erected, but none was preserved well enough to reveal a complete plan. From what remains one may speculate on the existence of at least one monumental, perhaps religious, building whose enclosure wall and gate are parallel to the massive enclosure wall of the complex. The inner and outer faces of this building's enclosure wall were plastered and decorated with alternate bands of red and white.

During the Old Elamite period, Chogha Mish may have served as a military post guarding the eastern flank of the Elamites' territory in Susiana. The archaeological records from Chogha Mish do not indicate exactly when the site was once again deserted, but it must have been sometime close to the end of the Old Elamite period. Again, whatever contributed to the abandonment of Chogha Mish around the seventh century B.C., it must have been deserted peacefully, as in the earlier Protoliterate phase, for no traces of fire or any other violence was discovered in the Old Elamite remains.

LATER HISTORICAL PERIODS

Chogha Mish was next occupied sometime during the final stages of the Iron III phase, and settlement continued into the Achaemenid period. The only solid architectural remains from this period consist of a circular mudbrick "silo" and a few fragmentary walls that were reported in *Chogha Mish* I. Even less is preserved from the next, Parthian, phase of occupation, from which nothing except some huge pits, some burials, hearths, and a kiln survived. The Parthian period was the last time Chogha Mish was used as a settlement. During the rest of its history, the site was used as a cemetery and a Bakhtiyari winter-spring camp.

Table 1. Relative Chronology of Prehistoric Sites in Iran and Mesopotamia

Date B.C.	Susiana		Deh Luran	Zagros Mountains	Fars		Central Plateau		Mesopotamia		
									Site		
	Period	Site			Period	Site	Period	Site	Period	North	South
3500	↑ Protoliterate	Chogha Mish (Terrace)							Early Uruk	Tepe Gawra XII	
		Susa Acropole 21–19	Zargarab			Lapui	Late Plateau	Ghabrestan III	Terminal Ubaid		Eridu V–IV
4000	Terminal Susa										
				Godin VI					Ubaid 4	Tepe Gawra XIV–XIV	
		Jafarabad 1–3									
		Susa Acropole 25–26			Late Fars						Eridu VII–VI
4200		Bandebal II (Level 10)						Ghabrestan I (Levels 13–11)			
		Susa Acropole									
4400	Late Susiana 2					Tall-e Bakun A		Hessar I–A			
		27(?) Bandebal II	Farrukhabad A23–31, B32–47		Middle Fars 2			Ghabrestan I (Levels 19–17)			
		(Levels 11–17)		Godin VII		Tall-e Gap					
4600							Middle Plateau		Ubaid 3		al-Ubaid
	Late Susiana 1	Qabr Sheikeyn									
					Middle Fars						
4800		Jafarabad 3m–n	Bayat Phase								
		Chogha Mish									
	Late Middle Susiana		Mehmeh Phase	Godin VIII				Tappeh Zagheh			
5000		Jawi I									
		Bandebal II								Arpachiyah H3–H4	
		Chogha Mish			Middle Fars 1	Tall-e Bakun B2					
5200	Early Middle Susiana		Khazineh Phase	Godin IX					Ubaid 2		Haji Mohammad
							Early Plateau	Cheshmeh Ali Upper			
5400											
					Early Fars	Tall-e Bakun B1/ Jari A					
5600	Early Susiana	Jafarabad 6–4 Chogha Mish	Sabz Phase							Arpachiyah H1	
				Godin X					Ubaid 1		Eridu XIX
5800											
					Archaic Fars 2			Cheshmeh Ali Lower/Sialk I			
5900						Jari B					
	Archaic Susiana 3	Chogha Mish	CMT						Ubaid 0		Tell el-Oueile 11–19
6100					Archaic Fars 1		Archaic Plateau			Samarra es-Sawwan I	
	Archaic Susiana 2	Chogha Mish	Surkh Phase	Haji Firuz		Mushki					
6300									Hassuna	Hassuna 1a	
	Archaic Susiana 1	Chogha Mish	Sefid Phase					Tappeh Deh Kheir			
6500											?
	Archaic Susiana 0	Chogha Bonut (Zone F)						Tappeh Sang-e Chakhmaq		Um Dabaghieh IV	
		Tuleii									
6700			Mohammad Jafar Phase	Abdul Husein/ Guron					Jarmo		
	Formative Susiana	Chogha Bonut (Zones B–E)	Ali Kosh Phase							Late Jarmo	
6900					Aceramic Fars	?	Aceramic Plateau	?		Early Jarmo	
			Buz Murdeh Phase								
7200	Aceramic Susiana	Chogha Bonut (Zone A)								Maghzalieh	
				Asiab							
				Ganj Dareh E							

Table 2. Cultural Phases Attested at the Sites Excavated in Susiana by the Oriental Institute

Period	*Sites*
Parthian	Chogha Mish High Mound, Terrace
Achaemenid	Chogha Mish Terrace
Neo-Elamite	Absent
Middle Elamite	Absent
Old Elamite (Sukkalmah)	Chogha Mish High Mound
Shimashki	Absent
Awan	Absent
Protoliterate (Late Uruk)	Chogha Mish High Mound, Terrace
Susa 2, levels 21–19	Chogha Mish Terrace(?)
Susa 2, level 22	Absent
Terminal Susa 1	Absent
Late Susiana 2 (Susa 1)	Chogha Mish High Mound
Late Susiana 1	Chogha Mish Terrace(?) (few sherds)
Late Middle Susiana	Chogha Mish High Mound, Terrace, Boneh Fazl Ali, and Chogha Bonut
Early Middle Susiana	Chogha Mish High Mound, Terrace, and Boneh Fazl Ali(?)
Early Susiana	Chogha Mish Terrace and Boneh Fazl Ali
Archaic Susiana 3	Chogha Mish Terrace and Boneh Fazl Ali
Archaic Susiana 2	Chogha Mish Terrace and Boneh Fazl Ali
Archaic Susiana 1	Chogha Mish Terrace, Boneh Fazl Ali, and Chogha Bonut(?)
Archaic Susiana 0	Chogha Bonut
Formative Susiana	Chogha Bonut
Aceramic Susiana	Chogha Bonut

CHAPTER TWO
ARCHITECTURE

HIGH MOUND

TRENCH XXIII, LATE SUSIANA 2 ARCHITECTURE, PHASE 2
(Figs. 6, 7)

The Late Susiana 2 phase on the High Mound has two phases of architecture. During the first five seasons, excavations in Trench XXIII revealed fragmentary walls and floors of the Protoliterate phase, which were heavily damaged by late (Achaemenid and Parthian) burials and building and possibly pitting activities. In the ninth and tenth seasons, the area of Trench XXIII was expanded to the west and north to clarify the nature of a few features that appeared to be tops of walls (fig. 6). After excavating a series of beaten earth floors at various depths, Late Susiana 2 deposits were reached and continued to a depth of 81.50 m above sea level, 6.0 m below the surface of the High Mound, where late Middle Susiana remains appeared. Here, about 10 m of Middle Susiana deposits lay on virgin soil.[103]

In the tenth season, the western extension of Trench XXIII revealed at least two architectural levels of the Late Susiana 2 phase — no traces of walls, floors, or any other features datable to the Late Susiana 1 have been encountered at Chogha Mish (fig. 7). The topmost layer on the southern part of the trench (N10:1001S) consisted of a large Parthian pit dug deep into a Middle Susiana deposit. On the north part of the trench, in N10:1002, the uppermost layer had a series of ashy layers (3–5 cm thick) alternating with a hard, clayish deposit. This deposit must be associated with two kilns. The walls of these kilns had been destroyed, but their burnt, reddish floors, which were covered with vitrified sherds and soot, had been preserved. A heap of ash had also been dumped against the northern wall of room N10:1003. Both the interior and exterior faces of this wall had several layers of mud plaster. Room N10:1005 also had mud-plastered walls and floors and a small hearth in its northwest corner. Apart from scattered sherds of Late Susiana 2 date, some bones and a stone pestle were also found here. Room N10:1004/1011 of Building 2 may have been part of Building 1, but there is no evidence for this reconstruction, therefore we consider it to be a room of a separate building. Except for a heap of round, clay "sling shots" in the northwest corner of the room, no special feature was found here.

In N10:1002, below the level of the kilns, was found a single grave. The burial pit was roughly rectangular, measuring 90 × 180 cm. The skeleton was oriented east–west, with the head turned toward the east; a single vessel had been placed at the feet.

TRENCH XXIII, LATE SUSIANA 2 ARCHITECTURE, PHASE 1
(Figs. 6, 7)

Below the walls of rooms N10:1003, 1004, and 1005 was found another structure. This structure had a similar floor plan and consisted of at least two rectangular rooms (fig. 7). Judging from the existing walls, rooms N10:1008/1009/1012/1014 and 1010 may have belonged to a much larger building, the rest of which remains unexcavated under the baulk of the trench. Building 1 (N10:1008/1009/1012/1014) consists of a small room with a mudbrick bench built against its walls. An ashy deposit mixed with flint blades and small sherds was scattered on the floor of this room. Building 2, to the south of this chamber, has a long room (N10:1010) that shares a common wall with Building 1. The walls of room N10:1010 were thinner than those of Building 1 but were plastered with mud as in the latter. No special features or objects are reported from this area or from the presumably open space to its north and south. An oval pit found next to the southern wall of room N10:1010 might have been a burial pit, but

103. No information as to the nature of the Middle Susiana deposit in the trench has been found in the records. The missing information, which may have been recorded separately, must have been lost in the dig house after 1979.

it had been damaged and only a few badly preserved bones, a stone hoe, and a complete vessel were found associated with it. A fragmentary wall projecting outward from the southern wall of room N10:1010 may have been the southern extension of this building, but this whole area was badly damaged by a huge Parthian pit.

TRENCH XXIV, PROTOLITERATE AND ELAMITE STRUCTURES AND FORT
(Figs. 8–10, Pls. 1:B–5)

The second major desertion of Chogha Mish occurred at the end of the Protoliterate phase around 3100 B.C. The site remained unoccupied until the Old Elamite (Sukkalmah, ca. 1900–1500 B.C.) period. Sometime during that period, Chogha Mish was re-occupied, apparently not as a residential place but as a military post, presumably to guard the eastern flank of lowland Susiana. No intermediate layers of debris or construction separated the earliest Old Elamite structures from the underlying Protoliterate ones. Rather, millennia of erosion had leveled the Protoliterate buildings here to such a degree that the Elamite construction was erected directly on their mudbrick detritus and occupational debris.

During the Old Elamite period, only the High Mound seems to have been occupied. Here, a polygonal brick structure, illustrated in *Chogha Mish* I, figures 1–2, was erected with a number of inner rooms and chambers. The baked-brick enclosure wall ranges in thickness from 8 to 11 m (fig. 8, pls. 1:B, 2:A–B). Along the western enclosure wall, remains of towers and buttresses, some bonded to the wall and some built against the wall's mud plaster, suggest a multi-phase construction. The outer face of the massive enclosure wall was fire blackened in several areas. No fire or cooking installations were found associated with these dark spots, but slight accumulations of ash and soot at the base of the wall were found.

TRENCH XXIV, OLD ELAMITE FORT

A major fortification system marks the beginning of Old Elamite occupation at Chogha Mish. The preserved tops of a massive brick wall running northwest–southeast were revealed in Squares N7, N8, N9, and O9. Excavation of the massive wall did not penetrate below the associated floors, so we cannot elaborate on the nature of the foundation of this wall. In places where the associated floors and surfaces were eroded or destroyed by later pitting and burials, the massive wall seems to rest on the mudbrick detritus of the architectural remains of the Protoliterate phase. No architectural remains outside the fortification wall could be assigned to this phase, but fragmentary patches of hard, mud-plastered surface, some running up to the exterior face of the wall, kilns, jar burials, and what appear to have been deep wells and cisterns were discovered.

An elaborate H-shaped gate found in Squares N9 and O8–9 gave access to the interior of the fort (figs. 8, 10). The gate room O8:1001 had a hard, plastered floor. The walls of the inner gate entrance, too, were mud plastered. A stepped niche in the northern wall of this inner gate chamber may have led either to a staircase leading to the top of the fortification wall, or to a higher chamber not preserved.

Just inside the fort, in Squares N8, O8–9, another fragmentary but substantial wall, about 1.5 m thick and with the same orientation as the massive fortification wall, was discovered. Bits and pieces of mud plaster on the wall and on the pavement bore vertical strips of paint of alternating red and white (see the diagram on the plan in fig. 8). In O8:1006 a partial pavement of square baked bricks leading to another structure, now destroyed, was found (fig. 8, pl. 5:A). The pavement itself consists of only one layer of bricks, but the threshold has two layers and is thus higher than the pavement.

About 10 m northeast of this brick pavement in Square O7 was found a 1.5 m thick wall with the same orientation as the massive fortification and the wall in O8. This baked-brick wall was preserved to only a few courses and the rest had been destroyed either by erosion, later pits, foundation trenches, or burials. A doorway about 2.5 m wide gave access to the interior of the building, of which nothing is preserved.

TRENCH XXIV, LATER ELAMITE OCCUPATION

If the fate of this fortification had any connection with the end of the Sukkalmah dynasty, or if hostile contact with Mesopotamia brought an end to this structure, there is no evidence of it. The fort must have laid in ruins for some time during the Old Elamite period before it was re-occupied as either a pottery manufacturing center, a small-scale settlement, or both. The evidence of occupation — the scattered fragmentary walls and hard surfaces, adult burial pits, child burials in large jars, pottery kilns, and a large pottery trough found in N9:1009 (but marked as

N8:1003) (fig. 8, pl. 3:A) — cannot be attributed to either the beginning or the terminal phase of Old Elamite occupation. It is possible that these scattered features mark the initial occupation of the Old Elamite period at Chogha Mish. No coherent plan can be reconstructed because later, particularly Parthian, activities and erosion had destroyed much of the area.

Two Old Elamite features, probably of a later phase of occupation, are the well-constructed water wells or cisterns made entirely of baked bricks and dug into the Protoliterate remains. One, N9:1003 (figs. 8, 9; pl. 4), was found outside the fortification wall in the northwest corner of the Protoliterate room N9:1002. This cistern has a corbeled oval mouth and widens as it descends. The shaft was filled with debris of Old Elamite and later periods; the bottom was not reached. The second well or cistern (fig. 8, N9:1002) was located in another Protoliterate room southeast of the first one. The construction of this cistern was almost the same as that of N9:1003, but it had a more regular oval rim. As in the other cistern, the shaft widens as it goes down. It too was filled with potsherds and wasters, presumably a by-product of the nearby kilns. In addition, a series of vertically stacked pottery pipes (a well?) was found in the same general area, but it was erroniously marked N9:1002 (pl. 3:B).

TRENCH XXIV, PROTOLITERATE REMAINS

As noted above, Old Elamite buildings were directly constructed on the remains of the Protoliterate phase in this area. A partial plan of one building was all that could be salvaged. The preserved building consists of several well-built rooms on a northeast–southwest axis. Features that belong to this building include: a circular hearth in O9:1004; two similarly constructed pottery kilns in O9:301 and O9:302, one under the Elamite fortification wall, and one just outside, to the southwest; a cistern made of baked bricks (25 × 12 × 8 cm) under the fortification wall in O9:1008; another pottery kiln made of square baked bricks in N9:1003W; and several clusters of beveled-rim bowls in room O9:1006/1007. In addition, a nicely built drain made of baked bricks and sloping from northeast to southwest, using gravity by following the slope of the mound, was also found in this area (fig. 8, pl. 5:B). A nicely constructed well lined with stone slabs was found associated with the drain to its southeast. Immediately north of this well the drain branches to the south and north to join other drains that are now completely destroyed.

The presence of this drain and, more importantly, what appears to have been a watch tower straddling the junction of Squares N9, N10, M9, and M10 suggests that this area was the locus of a monumental building during the Protoliterate phase. No doorway to the small inner chamber of the tower has been found. A carefully constructed pavement of baked bricks abutting the tower to its northeast may have provided a landing if the tower had a staircase. Southeast of the tower, remains of what may have been an enclosure wall to the complex were found. The base of the tower was not explored beyond the level of the brick pavement. The assignment of this and the pavement to the Protoliterate phase rests solely on the size of the bricks, which differed from those of the Old Elamite period. The bricks used in constructing the pavement, the tower, and the walls of the preserved rooms measured 28 × 12 × 8 cm. Those used in the architectural remains of the Old Elamite period varied, measuring 33 × 33 × 15 cm, 35 × 19 × 16 cm, and 26 × 12 × 7 cm in the fortification wall, 20 × 20 × 7 cm in the pavement in Square O8, and occasionally 50 × 30 × 12 cm.

The Protoliterate remains in this area are not contiguous with those on the Terrace and therefore it is impossible to determine to which architectural phases they belong. Specific pottery types found in this area could have been of some service, but the present data preclude a comparative analysis.

GULLY CUT

(Figs. 6, 11–13)

About 140 sq. m of this area were excavated during the first five seasons. The top strata consist of erosion layers deposited during the millennia between the Protoliterate and Achaemenid periods (ca. 3400–450 B.C.). Below this, pits and depositional layers dating to the Protoliterate phase were excavated. An erosion layer and the Protoliterate deposit had badly damaged the layers just below. Pits 802, 803/808, and 904 penetrated deep into even the Archaic levels (fig. 11). About 40 cm below the Protoliterate deposit, mudbricks measuring 40 × 12 × 10 cm with a central groove and six to eight finger imprints on a slightly convex surface were found (pl. 6:C). Although the surrounding debris was filled with Archaic 2–3 sherds, it cannot be used to date the bricks, especially the long, cigar-shaped mudbricks that were consistently used during the Archaic period and in combination with rectangular bricks during the Early Susiana period (pl. 16:C, E). Based on the general similarities of these bricks to those found at Tappeh

Sialk in Period 2 and at Eridu Level 15,[104] these bricks may date to the early Middle Susiana phase, though this is by no means certain. During the eighth and ninth seasons of excavations, the area of the Gully Cut was expanded northeast to Square S22 in the hope of finding stratified architecture of the earliest phases of occupation at Chogha Mish. Here, a series of buildings dating from the Archaic to the end of the Middle Susiana period were found.

PROTOLITERATE REMAINS

No architecture of this phase was found in the Gully Cut. The only Protoliterate deposit here consists of several pits (S22:802, 803/808, 904, and one unassigned in room S22:918) and a concentration of sherds in S22:801S (fig. 11). A mass of Protoliterate potsherds was found almost directly under the erosion layer at the elevation of 77.13 m. Some slabs of baked bricks were found among the sherds but do not appear to be part of a construction that once existed in the same area. The sherds were also mixed with numerous rocks and flint blades. Judging by the contents of the two Protoliterate pits in the area, this concentration may also have been part of a large pit adjacent to S22:803, the edge of which may not have been detected at the time of excavation. In the northwest corner of the Gully Cut, a cluster of stones was found. Some of these stones were clearly tools, others were broken rocks and pebbles in what turned out to be a partially preserved room of the early Middle Susiana phase (fig. 11, S22:918). Associated with these, a broken club-rim jar of the same phase was found leaning on the north face of the southwestern wall of room 918.

MIDDLE SUSIANA PERIOD LEVELS

No occupational or other types of debris from the Late Susiana period was found in the Gully Cut. The interface between the Protoliterate and Middle Susiana deposits is composed of a sloping layer of sandy mudbrick detritus. The preserved architecture below the Protoliterate deposit dates to the early and late Middle Susiana phase, as indicated by the stratigraphy, the pottery, and other objects. At least three architectural phases can be reconstructed on the stratigraphic positions of walls and floors. The top plan of the construction, in figure 11, seems somewhat confusing for two reasons. First, the area is heavily damaged by pitting activities of the Protoliterate phase. Moreover, the room designated as S22:811 could be dated to the Protoliterate phase, but the available data preclude the possibility of further investigation. If S22:811 does in fact belong to the late Middle Susiana period, as the pottery found in it indicates, then two architectural phases can be attributed to this period.

EARLY MIDDLE SUSIANA PHASE
(Fig. 11)

The first and earliest architectural phase of the Middle Susiana period in the Gully Cut consists of a series of rectangular rooms of possibly three separate units. The unit that consists of rooms S22:814, 815, 816, and 818 may have had an open court, S22:810. A circular hearth filled with small to medium fire-cracked rocks was found in S22:814. A doorway leads from room 814 to the open court 810, where the only feature preserved is a circular kiln with a thick burnt floor. A bin-like structure links room 814 to the rectangular room 818, which has no special features. To the southeast of room 818, a larger area, perhaps another room of this unit, contains a circular hearth with a thick burnt floor at an elevation of 76.71 m above sea level.

The second architectural unit consists of a single rectangular room, S22:918. A cluster of rocks mixed with flint blades and some pounders, mostly dating to the Protoliterate phase, was found in the southwest of this room. Northeast of this cluster, a Protoliterate pit (S22:804) was found; its lowest point was at 75.93 m above sea level.

A possible third architectural unit was excavated at the northwest extremity of the trench, in S22:819. It consists of an east–west wall and a partition wall that separates an area paved with pebbles and a partially preserved pottery kiln.

104. See Ghirshman 1938, pl. 10:4; Lloyd and Safar 1948: 121; Safar, Mustafa, and Lloyd 1981: 88–90, fig. 42:B.

LATE MIDDLE SUSIANA ARCHITECTURE, PHASE 1
(Fig. 11)

The only architectural unit that survived from this phase consists of two rectangular rooms, S22:806E and 809. Room 806E has only three rather thick walls, with a recess in the southwestern wall. A fireplace with a thick burnt floor was located in the southeastern corner. From the available plan, the room seems to have been open to a courtyard (S22:806) immediately in front. A large slab of stone surrounded by chipped stone debris as well as a large piece of kiln grate were found imbedded in the ashy layer of the court. The second room (S22:809) also has a fireplace filled with fire-cracked rocks on the floor. A partially preserved thick wall runs along the northwest–southeast axis. This wall may have been an enclosure wall of the unit. A small cubicle (S22:807) filled with ash and pottery wasters was constructed between a kiln and room 806E. Judging by the relatively thick size of the walls, this unit may have been much bigger than shown on the plan and possibly served as an industrial area during this phase.

LATE MIDDLE SUSIANA ARCHITECTURE, PHASE 2
(Fig. 11)

If this area was used in the late Middle Susiana, Phase 1, to manufacture pottery, stone tools, and perhaps other objects, it retained this function during the latter part of the late Middle Susiana. An irregularly shaped room (S22:811) with thick walls was constructed on the stumps of the walls of the earlier room 809 (fig. 11). As with the earlier room 806E, one side of the room is open to what seems to have been an open area. Here, an oval-shaped pottery kiln, an L-shaped partition wall, and a partially preserved mudbrick pavement were discovered surrounded by layers of ash and soot in S22:812 and 813. A partially preserved pavement made of potsherds was found immediately under the mudbrick pavement and the L-shaped partition wall.

The large amount of ash, potsherds, stone flakes, kilns, and fireplaces in the open areas that surround all the architectural units in this area suggest that this part of the mound may have been used as an industrial quarter from the beginning of the Middle Susiana period until the site, or this particular area, was abandoned.

EARLY SUSIANA ARCHITECTURAL PHASE
(Fig. 12, Pl. 6:A–B, D)

During the eighth and ninth excavation seasons, the northern part of the Gully Cut was extended to reveal the architectural remains of the Early Susiana period. Unlike those of the Middle Susiana period in this area, the architectural remains of this period are much better preserved. The whole complex consists of at least three architectural units, separated from one another by a narrow space and a large open area.

The largest unit consists of a long room (S22:825) with a southeast–northwest axis. Attached to the northwest wall of this room, a rectangular room (813) leads through a doorway to a narrow alley and another rectangular room (819) of which only the southern and eastern walls are preserved (see also pl. 16:A). No special features were found in rooms 819 and 825. Room 813, however, is furnished with a low rectangular bench and a small bin. An L-shaped wall marks the western extent of this unit. A partially preserved cobble floor in this area indicates that it was an open court.

Immediately south of the L-shaped structure and attached to its wall, a platform was found made of the typical long cigar-shaped mudbricks (fig. 12, pl. 6:B). The southwestern edge of this platform is marked by a low partition wall of rectangular mudbricks, joining what appears to be a pottery kiln, of which only the burnt floor is preserved. The base of this structure is built against a U-shaped enclosure of unknown function.

Immediately south of this U-shaped structure, a round feature (808), heavily damaged by the Protoliterate pit (803), was found with its base resting on a blackish dirt layer. The rectangular room 818 — the only room found of the second architectural unit — was excavated immediately south and almost adjacent to this round structure. A mudbrick bench was constructed on its northern corner. Clustered immediately to the southeast of this bench were a number of stone implements, finger-shaped clay tokens, rubbing stones, querns, pestles, pounders, and ten stone "balls," suggesting that this area may have been used as a workshop. A partially preserved hearth with fire-cracked rocks on its floor was also found in S22:823.

Only part of the third architectural unit was excavated in the southeastern part of the trench. It seems to have the same axis as the northern unit, but what appears to be the main room (822) is much larger than the rest. A narrow hall, perhaps a long bin, is constructed in the southern part of the main room. A hearth outside this structure, built

against the southwestern part of this long bin, may have belonged to either the second unit or to yet another architectural unit not yet uncovered.

An interesting feature of the Early Susiana architecture in the Gully Cut is the combined use of long, cigar-shaped, and rectangular mudbricks. Long mudbricks are typical of the Archaic period at both Chogha Mish and Chogha Bonut. They are also found in the Bus Mordeh and Tappeh Ali Kosh phases in Deh Luran, as well as in Ubaid 0 and Ubaid 1 deposits at Tell el-Oueili in southern Mesopotamia. The intermittent use of both types of mudbricks suggests a transitional phase during which both types of bricks were used simultaneously.

ARCHAIC SUSIANA 3 PHASE ARCHITECTURE
(Fig. 13)

A large, unusually constructed building is the only architecture dating to the Archaic 3 phase in the Gully Cut. Other features associated with this structure are a large burnt area (S22:831S), a partially preserved horseshoe-shaped hearth in 901, and a simple grave between 914 and 824 (fig. 18:T). The building consists of a rectangular "central hall" (S22:923/828/813/929) with four buttresses built into its southeastern wall. The northeastern flank of this hall leads directly to what was presumably an open space. A rectangular room northwest of and not connected to the central hall leads to perhaps another unit that remains unexcavated. The diagonal southwestern wall of this room has a similar construction to that of the southeastern wall of the central hall; one buttress is exposed. The northwestern corner of the central hall is constructed twice as thick as the rest, suggesting the existence of a bench or platform here.

The relatively large scale of the building, the carefully constructed walls, and the presence of buttresses suggest that this building may not have been a regular residential unit. But no other special feature in the excavated rooms exists to corroborate this assumption, nor do any artifacts other than the usual debris point to its assumed non-residential character. Similar and contemporary buildings have also been reported from Tell el-Oueili and later examples come from Tell Abada.

TRENCH XXI
(Fig. 14, Pls. 7–9)

During the third and fifth seasons of excavations at Chogha Mish, two building complexes and a substantial structure made of long mudbricks were discovered in Trench XXI and presented in *Chogha Mish* I (pp. 162–63, pl. 275). During the sixth through eighth seasons, the exposure was expanded to the north into Squares P22 and Q22, toward Trench XII, and to the east and south in Squares Q22–23, toward Trench XXXII, to reveal a more complete plan of the Early Susiana architectural complex. The new areas revealed a complex of large Early Susiana buildings, as well as traces of Archaic Susiana 3 architecture. These buildings are numbered and presented on a single plan in figure 14.

MIDDLE SUSIANA COMPLEX

Building 1 is the only Middle Susiana structure preserved in Trench XXI. Prior to the sixth season, only the southern part of the building had been excavated (see *Chogha Mish* I, pl. 275). We now have a complete plan of Building 1, which consists of at least five rooms (fig. 14, P22:602E, 603, 604; P23:504 and 505). Immediately east of room 504, a trapezoidal hearth/kiln was found encased within a square enclosure. The two southern rooms in P23:504–05 and the kiln are surrounded by a relatively thick east–west enclosure wall. The amount of scattered Early Susiana sherds found within the rectangular mudbricks of the walls of this building and the early Middle Susiana occupational deposits at the base of its walls form our basis for dating this building to the early Middle Susiana phase. Except for a dense layer of ash in P23:502, beaten earth was the norm for all the floors in this building. A small square bin in P23:505 and two long rectangular bins south of rooms 504 and 505 may have been used as storage facilities.

Two simple burials were found under the floors of rooms P22:604 and P22:603 (see plan, fig. 14). The bodies in both graves were deposited in simple oval pits dug into the remains of the Early Susiana period. The burial in room 603 may actually date to the Early Susiana period because part of the skeleton was found under the wall separating rooms 602E and 603. The orientation of the skeleton in 603 is north–south with the head turned toward the west.

The skeleton in 604 was oriented east–west with the head facing north. One simple vessel was found associated with the latter burial. Other burials, in P23:605 and P23:607 (figs. 14, 18:M, S), were found in what were presumably open areas.

EARLY SUSIANA COMPLEX, PHASE 1

At least two architectural phases can be assigned to the Early Susiana period. Of the earlier phase, Phase 1, we have almost complete plans of Buildings 2 and 3, at the north of the trench, and a partial plan of Building 4, straddling Squares P22 and 23 at the west of Trench XXI. Building 4 was heavily damaged by the construction of Buildings 1 and 5 of the later phase of the Early Susiana; the western part of Building 4 remains unexcavated. Although Early Susiana potsherds were found scattered around the various features of this building, none come from a primary context. The assignment of Building 4 to the Early Susiana period therefore rests on stratigraphic observations and the similarity of its plan to the rest of the Early Susiana buildings with long narrow magazines, presumably for storing goods. The trapezoidal kiln/oven in P22:601 and its rectangular enclosure are remarkably similar to the kiln discovered in the early Middle Susiana Building 1 (P23:502). On the other hand, the horseshoe-shaped kiln/oven built at the corner of a partially preserved room in P23:603 is similar to the one found in another Early Susiana room in Q23:508/819.

Building 2 is the best-preserved structure of this phase. This building is divided into eastern and western sections by a long narrow magazine (P22:610), much the same as the narrow magazine separating the northern and southern parts of Building 3. The eastern part of Building 2 consists of a small rectangular room (P22:612N) with a circular hearth built in its northwest corner. P22:612S, a relatively large rectangular area, may have been the courtyard of this architectural unit. Two short partition walls are built against the exterior of the southern wall of room 612N. The function of these partition walls is not clear, but scattered ashy layers, bits and pieces of chipped stone found there, and the presence of a hard brown surface between the partition walls suggest that this area accommodated a workshop. The western portion of Building 2 consists of a central court (P22:608M) surrounded on three sides by four small rectangular chambers. An open area may have been located in front of Buildings 2, 3, and 4, where the Early Susiana, Phase 2, Building 5 was excavated. This assumption is based on the fact that about a meter of occupational debris was encountered under the floors of the later houses with no architectural remains.

Two thin partition walls link Building 2 to Building 3, the third structure of the first architectural phase of the Early Susiana period. Building 3 of this phase is also well preserved. It is an elongated structure with two somewhat square back rooms (Q22:605N, 608W) and a large hall (606) leading to two small rectangular rooms (605, 606N). In this "central hall" were found two hearths filled with fire-cracked rocks (pls. 7:B, 15:B). No doorway was found leading from this hall to the southern part of the building, presumably a courtyard (602/607W). A long narrow bin separates this courtyard from the central hall. The eastern part of the building consists of two long chambers that seem to have been suitable only for storage, though no direct archaeological evidence can support this reconstruction (fig. 14, pl. 7:D). The entire building may have been enclosed by a relatively thick outer wall, of which only the eastern part has been preserved. It is also possible that Building 3 originally consisted of two separate units, built back to back. The two fragmentary walls straddling the junction of Squares Q22 and 23 originally may have belonged to a southern unit. Nevertheless, based on the plan of the adjacent Building 2, it is a stronger possibility that this building was one single unit.

A simple burial pit was found at the corner of the fragmentary T-shaped wall in P23:608 (fig. 18:I). On the basis of pottery, this burial is dated to the Early Susiana period, phase 1. The body is in stretched position, its head facing north.

EARLY SUSIANA COMPLEX, PHASE 2

At least four separate structures (Buildings 5–8) can be attributed to Phase 2 of the Early Susiana period on stratigraphic evidence. Building 6 has been published (*Chogha Mish* I: 162–63) and needs no introduction. Buildings 5, 7, and 8 were found during the sixth to eighth seasons of excavations. The end of Phase 1 architecture is marked by the leveling of the entire area of occupation in Trench XXI and Building 5 was erected in the presumed empty space between the buildings of Phase 1 (Buildings 2–4). In comparison with known sixth-millennium B.C. examples from Iran, Building 5 is a monumental structure with thick walls, numerous rooms, and long magazines (pl. 7:A). It is possible that Building 5 is actually composed of two separate structures erected side by side. Howev-

er, the nice alignment of the walls and the bond between the walls of the western and eastern flanks of the building suggest a single structure. The only suitable candidate for a courtyard, based on the difference in the debris, is the space P22:609/615/620.[105] This presumed courtyard and six rectangular rooms are located on the north of the building, while all the long, narrow magazines are located on the south, in front of which we envision the existence of an open area prior to the erection of the Middle Susiana Building 1. This makes sense if the long narrow chambers were indeed storage rooms used for depositing and withdrawing goods. The only entrance to the building was found in the well-preserved southern wall of P22:621E/801, but the available data do not permit a reconstruction of the communication system between the various units.

The vestibule P22:621E/801 must have had some significant character, as five burial pits were found within it. The two burials found at the northwest corner of the room belong to adults, while the other four seem to be those of children (fig. 18:G–H, L). The graves consist of simple pits dug into Archaic Susiana levels; except for some scattered stone blades, which may or may not have belonged to the burials, no funerary objects were found. All the skeletons were found in a stretched position with the exception of the burial next to the western wall of the vestibule, which was oriented north–south, facing up.

Building 7, which may in fact be the eastern flank of Building 6, consists of a large central courtyard with a low partition wall projecting from its western wall (Q23:504/703). Its northern wing consists of a square room with a low partition wall (Q23:511/806) and a trapezoidal enclosure (Q23:515/705, Q23:801), while on the south a relatively large rectangular room (Q23:501/805) shares a wall with Building 8 to the south. Immediately east of this room, another trapezoidal room (Q23:807) with a recess in its northern wall and a horseshoe-shaped hearth filled with fire-cracked stones forms the eastern flank of the building. It is possible that this latter enclosure actually belonged to Building 8, because the northern part of Building 8 was not preserved; the northern extension of the wall between Q23:821 and 824 might have enclosed the trapezoidal unit. Of all the courtyards assigned to various buildings in this area, Q23:504/703/818, is the most certain because the interpretation of these units as courtyards rests on the observation that throughout the Susiana sequence, open spaces were usually paved with pebbles.

Only the northern part of Building 8 has been excavated. This building also matches Buildings 6 and 7 in both orientation and floor plan. A partially excavated courtyard lies on the southwestern part of the building in Q23:820. Some of the relatively thick outer and inner walls suggest that Building 8, as Building 5, may have had an upper floor, particularly between rooms 827 and 828. Unlike other buildings of the same period in Trench XXI, two different sizes of mudbricks ($51 \times 51 \times 10$ cm and $41 \times 15 \times 8$ cm) were used to erect the walls of Building 8 (pl. 9:B).

Whereas beaten earth floors are the norm in all the buildings of this and the previous phase of architecture, room 803/813 on the northwest flank of Building 8 is provided with a partially preserved brick floor made of long, cigar-shaped mudbricks (fig. 14, pls. 8:B, 9:A). Immediately to the northeast of this room, two more areas have partially preserved brick floors that were made of the same type of long mudbricks. The only burial in this building was found in room 802. The body was found in a simple oval pit, lying on its back, facing south.

Immediately to the west of this building, a large "platform" made of long mudbricks was excavated (fig. 14, pl. 8:A). The west part of the platform is damaged, but there is no question that a corridor existed between it and the southwestern part of Building 6. This platform may have been enclosed on the west by a wall and a long magazine (P23:601). As was common in the Early Susiana buildings in the Gully Cut (see above), both rectangular and long bricks were used in the construction of this platform. The available evidence precludes functional reconstruction of this feature. However, taken together with the evidence of large buildings with storage facilities it may have served as some kind of drop-off zone for the distribution of agricultural products, or it might have been a threshing ground, though admittedly none of these hypothetical reconstructions can be supported by archaeological evidence. Several earlier but similar mudbrick platforms were found at Chogha Sefid in the Deh Luran plain, dated to the Surkh Phase (Hole 1977: 73, fig. 24). One (Hole 1977: 69) in Zone C was constructed of long mudbricks and another (Hole 1977, fig. 24) in Zone F was made of rectangular mudbricks.

ARCHAIC PERIOD REMAINS

All the structural features dating to the Archaic period belong to its final phase, Archaic 3. The best-preserved Archaic building comes from the southeast extension of the trench. Here, only a partial plan of Building 9 could be

105. Good parallels for Building 5 are reported from the Ubaid phase at Telul al-Thalathat (Fukaii, Horiuchi, and Matsutani 1970).

reconstructed. Within this building, a number of Archaic graves with various orientations were found (fig. 18). The eastern extension of Early Susiana building activity seems to have deliberately stopped at the edge of the eastern enclosure wall of Building 7, as if its inhabitants had stopped at the edge of a still-remembered cemetery of their ancestors.

The partial plan of the Archaic 3 Building indicates a structure with at least three rectangular rooms (Q23:808, 810N, and 810S) and a possible courtyard (Q23:807). Whether the cross walls between 803 and 814 at the eastern edge of the trench served as an enclosure wall to this building is not clear. A horseshoe-shaped kiln under the stump of the wall of room Q22:801 of Early Susiana Building 7, the circular hearth in Q23:804 (pl. 9:D) filled with fire-cracked rocks, a pebble pavement partially preserved in Q23:801N, and a fragmentary floor with mat impression at the northwest intersection of the cross wall are other features preserved from the Archaic 3 phase. A curious feature consisting of a line of rocks imbedded against the western face of the southern part of the cross wall may have been used to prevent the mudbrick wall from eroding.

EAST AREA

(Figs. 15–17)

HISTORICAL REMAINS

The East Area was the highest part of the Terrace south of the High Mound (see fig. 6) until the end of the Middle Susiana period and thus it is not surprising to find major Middle Susiana building complexes here. The latest archaeological remains and structures, reported in the first volume (*Chogha Mish* I: 10–11), belonged to the Achaemenid period. Except for a round brick structure (the Circular Structure) dug deep into the Protoliterate remains and a simple grave with some funerary objects from Trench XIII in the West Area (*Chogha Mish* I: 10–11, pl. 263), Achaemenid remains consist only of small objects. When the trenches in East Area were expanded in later seasons, no other structures datable to this period were uncovered, save for a fragmentary wall in Q17:807.

Extensive architectural remains of the Protoliterate phase were reported in the first volume (*Chogha Mish* I: 30–32, pl. 264) with a number of houses clustered around what seems to have been an open space.[106] The residential units in both East and West Areas had a northeast–southwest orientation. The extensive drainage system that crisscrossed the settlement in northeast–southwest and northwest–southeast directions (*Chogha Mish* I, pls. 264–65) suggests a planned settlement. Three meters of Protoliterate deposit (from an elevation of 84.50 m to 81.50 m above sea level) in this area consisted of at least three architectural phases (see *Chogha Mish* I: 30–32). With the exception of the High Mound, Protoliterate deposits here rest directly on the mudbrick detritus and occupational debris of the late Middle Susiana phase. No monumental building of the Protoliterate phase was discovered during the first five seasons of excavations at Chogha Mish. However, the huge, 20 × 20 m polygonal mudbrick platform found in the West Area (*Chogha Mish* I: 32–33, pl. 265) may have served as a foundation for such a building, though admittedly no direct evidence supports this reconstruction. During the seventh to ninth seasons, however, a huge Protoliterate architectural complex with unquestionably monumental character was discovered in the East Area.

THE LATE MIDDLE SUSIANA PHASE (THE BURNT BUILDING)

The earliest prehistoric monumental architecture in Iran is thought to have existed on the huge mudbrick platform that was discovered at Susa (KS-00), dated to the late fifth millennium B.C. The putative monumental buildings on top of Susa's mudbrick platform were destroyed, presumably as a result of hostile contact, accidental fire, or earthquake, thus, no coherent plan of Susa's prehistoric monumental buildings is available. Therefore, the discovery at Chogha Mish of a series of much earlier monumental buildings dating from the Early Susiana to the end of the Protoliterate phase provides an antecedent for later formal buildings, as well as evidence of increasing socioeconomic and political development in lowland Susiana, providing a historical context within which sociopolitical and cultural achievements at Susa could be addressed (see *Chapter 1*).

106. To visualize the layout of the complex better, some of the architectural units excavated during the first five seasons (not blackened) and published in the first volume are included on the plan in figure 17.

We have already discussed several such buildings, found in Trench XXI, dating back to the Early Susiana period. The level of Early Susiana socioeconomic and political complexity continued uninterruptedly during the following Middle Susiana period. A late Middle Susiana monumental building was found in Squares R17–18 and S18 during the ninth season of excavations. Although this area was heavily damaged by later Protoliterate construction and numerous pits dug deep into Middle Susiana and earlier architecture, enough had remained to allow the reconstruction of a complete plan.

The walls of the preserved parts of the building appeared just under the modern surface of the mound during the ninth season of excavations. The mudbrick walls, which were plastered and fire-hardened, were preserved to a height of 1.5 m (pls. 10–11). The fire that had destroyed the building also helped preserve imprints of reeds and beams of the building's ceiling. Mixed with burnt lumps of clay bearing reeds and beam impressions were fragments of charred wood and chunks of charcoal.

Only half the monumental building was excavated; the northern and western parts remain unexcavated. Based on the available evidence, the original plan of this building must have measured at least 20 × 20 m. This formal building, much larger and entirely different from the residential buildings of the same period, is made of mudbricks measuring 20 × 10 × 8 cm, with several layers of mud plaster applied to both interior and exterior surfaces of the walls. The building is oriented northwest–southeast and consists of a series of rectangular, elongated chambers. Four entrances with recessed doorways have been found on the southern and eastern sections of the building. Based on the available plan, the main entrance may have been located on the southeastern part of the building in S18:901. There is no direct evidence for this assumption except for the fact that this entrance is wider than the rest and leads to a wide rectangular antechamber. Nevertheless, any of the preserved entrances could lead to the entire complex. Several square meters of pebble pavement in front of the southern entrances indicate that this was an outdoor space. This is in sharp contrast with the northeast flank of the building where part of a mudbrick platform — only a small section of which was excavated — was built against the eastern wall of the building.

In general, almost all the rooms in the building contained abundant pottery vessels, tools, and intact small objects. Specifically, a number of typical late Middle Susiana jars with painted decoration on the shoulder were found stacked in the back room S18:905W (figs. 15, 46:E–F, 47:A–D). In the western recess of antechamber S18:902 four complete vessels, three intact pottery horns, over twenty flint blades, and a large quantity of flint cores were discovered. The large quantity of flint chips found in S18:902 indicates that the manufacture of flint blades may have taken place in this area. The only door socket found inside the building was located on the corner of the threshold between rooms S18:905W and S18:904. In the latter, two dozen clay "sling shots," flint blades and cores, and several intact vessels were also found.

The original, complete plan of the building, particularly its outer enclosure walls, may have been different from what we have suggested here. The doorway in S18:907, as the one in S18:901, leads to an antechamber (S18:902) with a niche in the east wall (fig. 15). This room itself leads to another rectangular room (S18:904), which in turn leads to the back rooms S18:905E and 905W. Two long halls, R18:915/916 and 921 represent the western flank of the building. One (R18:901) has a square mudbrick platform and the other only a recessed doorway. The northern and parts of the western flanks of the building remain unexcavated; most of the eastern flank has been destroyed by later building activities. There is little doubt that the western wall of the long room R18:921 cannot be the western enclosure wall of the building. Thus we may imagine a much thicker wall on the west side paralleling the eastern wall. Although this reconstruction solves the problem of the missing western enclosure wall, it raises the question of whether the thick eastern wall was indeed an enclosure wall to the whole complex. The problem with this reconstruction rests in the observation that a partially excavated 4 × 5 m area immediately outside rooms S18:902 and 903 (in S18:901N and 906) consists of a mudbrick pavement, or possibly platform, only one course high. It is possible that this feature was a foundation for a much more massive enclosure wall of the Burnt Building. Or it may have been a room with a mudbrick floor, known from other Early and Middle Susiana architectural examples. Thus, the reconstruction of the original plan of the building as shown here must remain tentative.

LATE MIDDLE SUSIANA DOMESTIC ARCHITECTURE

Fragmentary walls and rooms just south of the Burnt Building are the only evidence of what may have been domestic or auxiliary buildings in the East Area. As shown in figure 15, this area was heavily pitted during the Protoliterate phase. In Square R19, a partially preserved plan indicates two rectangular rooms built back to back with a partition wall projecting from the common wall to the south. The orientation of this and what remains in Square S19 is the same as the Burnt Building. A southwest–northeast wall with buttresses on both sides, an east–west wall per-

pendicular to the latter, and a fragment of a wall to the east (S19:901) are all that are preserved of the architecture of this area. The shared alignment of these fragmentary walls suggests that they all belonged to a single, much larger building. Two more fragmentary walls on the east side of Square S19 may also belong to the same phase of architecture, but the presence of Early Susiana and Archaic sherds on the base of these walls and the difference in the size of mudbricks used to erect them raise the possibility that they belong to the Early Susiana period or Archaic 3 phase.

PROTOLITERATE ARCHITECTURAL PHASE 1: MONUMENTAL BUILDING COMPLEX

Chogha Mish and Susa were the largest population centers in Susiana during the Protoliterate phase. But it was only during the ninth through eleventh seasons when major architecture of the period, commensurate with Chogha Mish's status as a regional center, was discovered. Excavations during the ninth–eleventh seasons provided the first substantial evidence of the presence of a monumental, formal building of the Protoliterate phase at Chogha Mish.

In the course of post-fifth season excavations, the East Area was expanded on all sides and the levels that had been reached in the fifth season were taken down to reveal earlier architectural phases. In the expanded northern, eastern, and western areas, under the remains of the Protoliterate buildings that were revealed during the first five seasons, a large complex of monumental buildings was discovered.

The largest building, unique in Iran, was found in Squares P16, Q16, R16, and Q17 (fig. 16). Only the southern half of this well-preserved building was excavated; the northern flank remains unexcavated under the northwestern baulk of the trench — the proposed reconstruction as indicated on the plan is based on the principle of symmetry. The thick walls of the building were made of bricks measuring $20 \times 10 \times 8$ cm and laid with a combined techniques of *stack* and *English*, as shown on the plan (fig. 16). This monumental building consists of a wide vestibule, the access to which is provided by a niched entrance from a wide alley paved with pebbles. Two niched entrances lead from this vestibule to a large courtyard. From here, other niched entrances lead to various chambers clustered around the courtyard.

It is unknown whether the area around which various chambers are built (Q16:1104 and 1105) was an open courtyard or a roofed central hall. The width of the area is 8.5 m. Even if timbers long enough for this purpose were available to the builders, several columns may have been required to bear the weight of the roof. No evidence for such architectural features has been reported. It is possible that such features originally existed and were later destroyed by Protoliterate building and pitting activities.

A row of ceramic pipes found under the floor of room Q16:1101 probably drained the courtyard. This and another pipe drain in the alley in front of the building, Q17:1106, may have led the excess water to the well/cistern in Q17:1109. The pipes average 16–17 cm wide × 39–41 cm long with the narrowest opening about 10 cm in diameter.

The only burial found in this building is a simple oval pit in Q16:1101. The body is laid on its side, facing southwest. The lower jaw and the lower legs of the skeleton are missing. No objects were found associated with this burial and its odd location suggests that it may have been dug into this room from a later, higher deposit. The available data do not allow further comment on the stratigraphic position of the burial pit, but it might be intrusive.

With the exception of the vestibule, all other floors in the building consist of beaten earth with no special treatment. The southwestern part of the vestibule's floor was paved with baked bricks measuring $25 \times 10 \times 8$ cm; the rest of the vestibule floor consisted of beaten earth. On this, more than thirty-five pieces of gazelle femurs were found with the concentration near the base of the southeastern wall of the building (pl. 13:B). Large patches of clay with wickerwork mat impressions were found on the floor of Q16:1106.

A wide alley (Q17:1108/1107/1106) that ran northeast–southwest gave access to the building (fig. 16, pls. 13:A, 14:A). The alley itself was paved with pebbles, a millennia-old tradition at Chogha Mish to prevent mud in rainy seasons. A rectangular trough of baked brick was found in the alley near the southwestern corner of the building. A large vat was embedded next to the pipeline, but there does not seem to exist any relation with the piping system and, in fact, the vat may belong to the upper, later phase of the Protoliterate phase. The partially preserved pipeline in the alley may have continued to the northeast, joining another fragmentary piece of the drainage system found in R16:1101. In this long room, two water sinks, linked together on the bottom by two holes (see the diagram in fig. 16), and a rectangular area paved with baked brick, may have been used for processing food or simply for washing. A large open spout, about 48 cm long × 9 cm wide at the narrow opening, was set next to the last row of the bricks, presumably to guide the water. Thus, the entire drainage system in the alley may have been originally connected to this area.

A second entrance to the monumental building was provided through a simple opening in Q16:1008, in front of which three intact vessels were found on the ground. From this entrance, a narrow corridor leads to a long hall with a recess on the southwest wall (1004/1108) and eventually to room 1106. Northeast of this entrance, another narrow corridor (1007) leads to a large chamber with a buttress built against its northern wall. The wall here is by far thicker than any other places in the building and it is possible that it served as a landing for a set of staircases leading to an upper floor; however, there is no direct evidence for this. Rooms Q16:1005 and R16:1103 might have led to the eastern flank of the building complex, but that part remains unexcavated.

South of alley 1008 and leading to the main building, fragments of straight, thick walls with clean corners were found. Later construction and pitting in this area (see *Chogha Mish* I, pl. 264) had destroyed much of this architectural feature, so it is impossible to integrate it functionally with the rest of the complex. Another long but much narrower chamber has been reconstructed immediately south of this unit. A well-preserved niched entrance with a raised doorway was found in the middle of the wall leading to a third long hall in R17:1111/1115. The southwestern extension of this hall is not preserved, but on the northeast it leads to a set of three communicating rectangular chambers. The first one, in R16:1107, is furnished with two circular hearths. The middle chamber, R16:1106, has no special features, but the last one (R16:1104) contained a number of copper/bronze pins in its western corner.

SUBSIDIARY BUILDINGS

The southeastern wall of room R16:1107 connects this part of the main complex to another, perhaps subsidiary, building to the east (fig. 16). The main entrance to this building must have been through the open alley 802, paved with the usual cobblestones. Only the southern part of this building has been excavated. Here, the only entrance seems to be the opening that links a long hall (R16:802) to an elongated narrow chamber R16:801. No special features were found here. The walls were plastered with mud and the floors consisted of beaten earth.

The third architectural unit of this complex straddles Squares P16, P17, and Q17. Again, this unit is badly damaged by construction and pitting activities of the later Protoliterate phase, as well as by those of the Achaemenid and Parthian periods. A narrow space in Q17 separates the southwestern enclosure wall of the monumental building from the northeastern wall of this unit. Judging by the surviving fragments of the thick enclosure wall of this smaller unit, it must have been larger than shown on the plan. This unit consists of a long rectangular central hall (P17:1103) with a niche built into its northwestern wall. This central hall is surrounded on three sides by long communicating chambers. Two narrow and, presumably, long magazines form the southwestern flank of this central hall (1101). The presence of a number of intact vessels on what seems to be the floors of these magazines suggests that the middle partition wall separating the two chambers may have only extended part way into the space.

A curious circular baked-brick construction (P17:1109) was found south of the building in perfect alignment with the pipe drains in the alley of the main building. It does not penetrate below the surface level here and most probably belongs to the later phase of Protoliterate occupation (pl. 6:B). The similarity of this brick-lined construction to those that were found in the later phase makes this assignment even more certain.

PROTOLITERATE ARCHITECTURAL PHASE 2: DOMESTIC BUILDINGS
(Pls. 12, 14, and 16:B)

Sometime during the Protoliterate phase all the monumental buildings in the East Area were abandoned. A thin layer of mudbrick detritus and occupational debris separates the remains of the monumental complex from the next architectural phase. The available data do not allow speculation about whether Chogha Mish was entirely abandoned for a short time or whether only this part of the settlement went out of use. Whatever the case may be, a new complex of what seem to be residential buildings and workshops was erected in the area. To facilitate the visualization of the entire plan, I have included in figure 17 some of the architectural units (shown in outline) that were published in the first volume (*Chogha Mish* I, pl. 264). If the outline is a continuation of a solid, blackened wall, then that outline represents reconstruction, as in House 5 in Squares S17 and S18.

A cluster of at least four separate buildings was found in Squares P17, Q17, and R17. Building 1 straddles Squares Q17 and R17.[107] The plan of the building and all the buildings of this later phase are similar to those found earlier. The entrance to Building 1, Q17:824, leads in from an open space, which is surrounded on three sides by

107. Numbered squares on figure 17 indicate building numbers.

buildings. The entrance is relatively wide and leads to what seems to be an antechamber (Q17:807) with a circular hearth and a row of intact vessels set against the southwestern enclosure wall of the building. Nicely built doorways between the various rooms of this unit help visualize communication between the rooms. Not all walls are preserved high enough to see how various rooms communicated, though some of the long, narrow magazines may have had short partition walls and no need for a doorway to access them.

Two large rectangular rooms with thin walls (most probably partition walls) were attached to the southern flank of this building. In R17:812 a low bench made of mudbricks and a circular pottery kiln are the only features. The room was filled with soft ash mixed with potsherds and some flint blades. Just to the right, the room R17:808 has only a circular hearth or kiln, but with similar floor composition as R17:812. Another pottery kiln was found just outside the southern wall (R17:702) and was published in *Chogha Mish* I (pl. 264). The concentration of hearths, kilns, and layers of ash and soot in this area suggests a workshop.

Building 2 is located just opposite Building 1 in Square Q17. It is a smaller unit; its northwestern part was destroyed by later activities. A long rectangular central hall (Q17:806/811/813) divides the unit into two separate wings. The southern wing consists of two long parallel chambers (Q17:819 and 820) and a square room 823 just northeast of 820. No doorways were found between these chambers. The northern wing of Building 2 consists of at least two square communicating rooms with a pivot stone located just next to the doorjamb of 808. The central hall is provided with a circular hearth and a thick burnt floor. Along the southern wall of this hall was found a row of several vessels in situ (pl. 14:C). Building 3 forms the northwestern border of this building complex. The only existing feature of this unit is a partially preserved rectangular room paved meticulously with bricks. The eastern and northern parts of this building, if preserved, remain unexcavated.

Building 4 (Q17:817) is also heavily damaged, but the preserved part consists of a square room with thick, nicely built walls. The only preserved feature in this room is a circular hearth built directly on the beaten earth floor. A large pottery kiln (Q17:822) may or may not have belonged to this building; a portion of a similarly constructed thick wall with a nice corner may have been part of the southeastern extension of this building.

The open area flanked by Buildings 1–3 has several features consistent with the industrial activities presumed to have been conducted here. The central feature (feature 1) consists of a baked-brick cistern and a similarly constructed square bin (feature 2) and a low platform built against its western wall. The available data preclude any speculation on the function of this assemblage. The fact that feature 1 is nicely aligned with the drain system in Square R18 (919) and that two rows of baked bricks form a channel leading to the cistern suggest that feature 1 was part of the drainage system or water supply of the settlement here. A third feature seems to be a water well made of baked bricks, but the bottom of the feature remains unexcavated. However, the fact that lower levels of this feature did not seem to have penetrated earlier levels suggests that it was not very deep. Features 4 and 5 are circular kilns or ovens, while feature 6 is a fragment of a wall dated to the Achaemenid period on the basis of sherds found at its base. This wall may have been part of an Achaemenid installation built around the circular structure, shown here in outline only. The Achaemenid circular structure and its attendant features cut into and destroyed a number of Protoliterate buildings here, of which only a combination of cobble and baked-brick pavement and a wall fragment survived.

The rest of the surviving architecture of the later Protoliterate phase of occupation is found in the eastern portion of the East Area in Squares R17, S17, R18, and S18. An almost complete plan of a relatively large building, Building 5, consists of a courtyard (S18:910) with partially preserved cobble pavement. A wide doorway leads to a rather large rectangular room (R18:904), which had no special features. A small, square magazine (R18:905), built against the southwestern corner of room 904, forms the southwestern corner of Building 5. The northern part of the building consists of three parallel rectangular rooms with beaten earth floors and no special features.

The final building of the Protoliterate phase in this area is Building 6, the entire plan of which cannot be projected on the basis of the surviving walls. The two buttresses built into the southwestern wall of this unit, in R18:919, suggest that this wall was an outer wall of this unit, but this is by no means certain. Although the baked-brick drain just to the northeast of Building 6 (published in *Chogha Mish* I, pl. 264) certainly belongs to this later phase of occupation, the drain just to the south seems out of phase and may have belonged to another, poorly understood phase. The same is probably true about the pottery kiln just to the south of this drain, for if the northeastern wall of Building 6 were projected, it would cover the kiln and hence not be contemporary with it. Just below the southwestern enclosure wall of Building 6, a large cluster of beveled-rim bowls was carefully stacked against a low partition wall made of baked bricks (R18:923), which is surrounded by a number of pottery kilns (R18:925, 921, 916, 902, and 906). Farther down, more pottery kilns and pits were discovered in R19:909 and R18:908 and 909.

The above-ground baked-brick drain running northeast–southwest in Squares S17 and R17 was discovered in the first five seasons and published in *Chogha Mish* I (pl. 264). Two fragments of the same type of drain were found, one between Buildings 5 and 6 and the other southwest of Building 6, in R18:919. Although the latter may have been part of the larger drainage system in this phase, originally linked with the straight drain in S17 and R17, the former, as mentioned above, may have belonged to a different drainage system now destroyed.

PREHISTORIC BURIALS

A number of graves were discovered in the course of the eleven seasons of excavations at Chogha Mish. Except for a large number of Islamic graves, as well as one Achaemenid and a few Parthian jar burials that were published in the first volume, no graves dating to the historical periods were found during the sixth–eleventh seasons. Burials were dated by either funerary objects or, in the absence of burial objects, by context.

The majority of prehistoric graves date to the Archaic and Early Susiana periods. Most of the graves that were discovered in the sixth–eleventh seasons and that contained more or less articulated skeletons are represented in figure 18. Of these twenty graves, ten date to the Archaic Susiana 3 phase (fig. 18:A, C, F, J, N–R, and T; pls. 17:A–D, 18:A–B and D), seven to the Early Susiana period (fig. 18:B, E, G–I, and K–L; pl. 17:E), and three to the Middle Susiana period (fig. 18:D, M, and S; pl. 18:C). No graves were found dating to the Archaic Susiana 1–2 phases. The two single burials that might belong to the Late Susiana 2 and the Protoliterate phases appear only on the architecture plans in figures 7 and 16.

Most of the Archaic burials were found in Trench XXI in an open space between the architectural remains of Early and Archaic Susiana 3; some burials were found under the floor of residential units in the area. Even though most of the burials represent single interments and were thus undisturbed, only a few contained funerary gifts (fig. 18:A, F, O, and R). No child burial was found in the area. A few of the skeletons found in the prehistoric burials were covered with red ochre (e.g., see fig. 18:A, D, L, and O).

CHAPTER THREE
POTTERY

INTRODUCTION

A detailed analysis of the pottery of all periods attested at Chogha Mish was published in the first volume. This chapter is therefore devoted to brief descriptions of various types of pottery in each assemblage. To avoid repetition and constant cross-referencing between this and the first volume, this chapter consists of a synopsis of the descriptions of all the known pottery wares and their characteristics. The following chapter deals with a synopsis of pottery stylistic development in southwest Asia, which in turn is followed by a discussion on specific stylistic change and continuity from one period to the next in lowland Susiana.

PARTHIAN PERIOD

(Fig. 19)

The Parthian period seems to be the latest occupation at Chogha Mish. Except for a number of torpedo-jar burials from the West Area, Trench XIII, and Sounding E, and a well-preserved pottery kiln in J15:301 (*Chogha Mish* I: 8–9, pl. 265), no architectural units from this period are preserved. Nevertheless, the Terrace may have been the locus of some residential units judging by the presence of some hearths and pebble pavements associated with Parthian pottery (*Chogha Mish* I: 8–9). Although the available data preclude any estimate of the size of the Parthian occupation at Chogha Mish, the original Parthian occupation at the site may have been scattered and confined to the High Mound and the western part of the Terrace.

The date of the occupation of Chogha Mish during the long Parthian period is equally uncertain. However, a large number of Parthian pottery vessels from Chogha Mish have good parallels from Level 2 of the Artaxerxes II palace on the Shaur River at Susa, dated to the late Parthian and Sasanian period (Boucharlat and Labrousse 1979; Labrousse and Boucharlat 1974).[108]

The examples of the Parthian pottery discussed and illustrated here come exclusively from secondary and tertiary contexts, primarily large pits. The pottery commonly has a buff paste mixed with both sand and grits (fig. 19). In finer examples (fig. 19:M), no inclusions are visible. The plain examples are sometimes buff slipped and the surface may vary from light to dark buff with occasionally a reddish tinge. One specific type of buff ware has a paste mixed with both grits and white particles, presumably crushed shells or some other type of calciferous rocks (fig. 19:L, O). The colors of the glazed specimens vary from green to greenish gray, greenish blue, and light grayish blue; the glaze is often cracked and somewhat thicker on the lower body and inner surface of the vessel.

Accessories are limited to simple loop handles, disc or ring bases, and sometimes complex, channeled rims. Surface decoration is usually limited to excised channels, molding, or scoring on the upper part of the vessel (fig. 19:A–B, D, and M). One example (fig. 19:D) seems to have a plastic or impressed decoration. It may belong to the latest stage of the Parthian period and is thus related to the later Sasanian stamped decoration. Another example (fig. 19:L) is reconstructed as a funnel on the basis of a more complete example found in the fourth season (*Chogha Mish* I, pl. 70:O). The dating of this specimen is based on the context and on the ware. The possibility exists that this particular shape may have belonged to the Achaemenid period or even late Iron Age because examples of the general shape have been reported from the Late Assyrian context at Nimrud (Oates 1959, pl. 39:109).

108. For a list of parallels, see *Chogha Mish* I: 10, n. 10.

IRON AGE III (NEO-ELAMITE)/ACHAEMENID PERIOD

(Figs. 20–24)

In the first volume of *Chogha Mish*, a group of pottery vessels and sherds associated with the circular building (*Chogha Mish* I: 10–16) and some graves were attributed to the Achaemenid period. Although some specimens, such as the tall pointed base jar in figure 22:A and most examples of the large open vessels in figure 20, are typical shapes of Achaemenid pottery from Susa, Persepolis, and Pasargadae,[109] the majority of the specimens and their wares have their closest parallels in the late Iron Age[110] and Neo-Elamite period. Therefore, in this volume the "Achaemenid" pottery is treated as a reflection of an Iron III/Neo-Elamite (mostly illustrated in fig. 21) presence at Chogha Mish and its continuance into the Achaemenid period.

The use of "Achaemenid" in this context does not mean that Chogha Mish was actually inhabited by the Persians themselves. If we are correct in our assumption that the Persian Achaemenids did not bury their dead directly in the ground in accordance with their religion, then the three graves found during the fourth and fifth seasons at Chogha Mish may well have belonged to a late Iron Age tribe. Settling in eastern Susiana perhaps in the late seventh and sixth centuries B.C., the late Iron Age tribes would have observed different burial practices from those of the Persian Achaemenids.

The pottery assemblage dated to this presumably transitional phase has been described in detail in *Chogha Mish* I (pp. 13–16). The following is a description of the major characteristics of the wares and surface treatment of the illustrated examples (figs. 20–24). As with most late Iron Age pottery assemblages in western and southwestern Iran, the quality and composition of the ware and surface treatments of the Chogha Mish assemblage have a wide range. The colors of the wares range from light to warm buff to grayish buff and gray. Sherds belonging to large vessels have multi-color grits, sometimes mixed with fine sand. Sherds that belong to medium and small vessels, particularly open vessels, have a much denser fabric mixed with sand; sometimes finer sherds do not show any sign of inclusions.

The surfaces of both common and fine wares are covered with either a creamy buff slip or a monochrome red wash. Thinner and finer sherds (usually of open bowls with sharp carination just below the rim) have highly polished surfaces, while the surface of some specimens of the common ware is smoothed and exhibits burnishing strokes.

Shapes range from open bowls with sharp carination, bowls with a sinuous curve and flat base, convex-sided bowls, bell-shaped bowls with thin walls, to cylindrical jars with usually ribbing just below the rim, and various types of closed forms with club or everted rims. Such examples may have one or two handles and sometimes are provided with open or trefoil spouts. Bowls with a single horizontal handle, typical of the Iron Age period, also occur. The only examples with painted decoration are a rim sherd and a complete cylindrical jar. The rim sherd (fig. 22:D) is a closed form decorated with a series of straight and wavy horizontal lines; the cylindrical jar (fig. 22:E) is decorated with four horizontal bands painted in black. The shape and ware of these decorated examples are typical of the period. The closest parallels are reported from Pasargadae (Stronach 1978).

Although most of the examples dated to the Achaemenid period include a number of long-lived types, three types are specific to the late Iron Age period. Two examples of the typical Iron Age gray ware with a channeled rim (fig. 20:G and I) have close parallels found at Ziwiye and Tappeh Godin.[111] Vessels with a bridged spout (fig. 22:M) are the second type. Similar vessels have been found at Susa in both Level 7 of the Ville royale II and Level I of the village perse-achemenide.[112] The third type, illustrated in *Chogha Mish* I (pl. 74:A), is a ring-based open bowl that was commonly found in late Assyrian context at Nimrud.[113] Numerous examples of a similar, related type were also found (fig. 24:H, J, and M–N).

109. See Ghirshman 1954; Stronach 1978; de Miroschedji 1978; and Schmidt 1957.
110. For examples, see Young and Levine 1974 (Tappeh Godin period II); Goff 1970 (Baba Jan, period 1); Stronach 1978 (Nushi Jan, Median).
111. For Ziwiye, see Young 1965: 58, fig. 3:4; for Tappeh Godin, see Young 1969: 119, fig. 43:11, fig. 44:12; Young and Levine 1974: 127, fig. 45:19.
112. Ghirshman 1954, pl. 29:G. S. 2242; de Miroschedji 1978: 223, fig. 54:7.
113. Oates 1959: 132, 141, pl. 36:31.

OLD ELAMITE (SUKKALMAH) PERIOD

(Fig. 25)

Excavations subsequent to the fifth season did not reveal any new Old Elamite pottery types or wares. As in the first five seasons, no specimens of true gray ware nor the so-called "Elamite flask" were discovered at Chogha Mish. A thick-walled shallow "plate" with three feet (fig. 25:C) is an exception. This object is dated to the earlier Shimashki phase (Carter and Stolper 1984, fig. 10:4), but at Chogha Mish it was found in a secure Old Elamite context.

The following is a short description of the illustrated examples. The Old Elamite pottery assemblage at Chogha Mish has a buff color fabric with a varying tinge of orange-yellow to brown-gray buff. The paste is usually tempered with grits and straw. In small vessels, grit is the main tempering agent, while in larger vessels straw is predominant. Some pieces exhibit an extremely thin, light buff layer on the exterior and interior, which may be interpreted as slip. Such an effect could also result from wet smoothing of the surface. The surface of most vessels is coarse and shows fast wheel striations, particularly on the interior.

Low ring-based bowls with an almost vertical upper body and a slight carination near the base are the most common (fig. 25:E).[114] Shouldered jars (fig. 25:Q–T) are the most dominant among the closed forms. Such jars are characterized by a relatively flaring high neck, narrow shoulder, sharp carination just below the shoulder, a low disc base or foot, and strong striation marks, particularly on the interior.[115] Less common are the globular jars without shoulder (fig. 25:H, M), while large vats with heavy rims and often a prominent ledge near the lip are more common at Chogha Mish (fig. 25:L, U). The two most common shapes at Chogha Mish include the storage jars with incurving walls and recumbent rim (fig. 25:L, U). The second type (fig. 25:P) includes large vats with almost vertical walls and pronounced overhanging rims.

PROTOLITERATE PHASE

(Figs. 26–34)

As discussed in detail in *Chogha Mish* I (pp. 37–102), the Protoliterate pottery assemblage found at Chogha Mish can be divided into six major groups on the basis of ware, tempering agent, and surface treatment: (1) coarse ware, (2) standard ware, (3) fine ware, (4) brittle ware, (5) gray ware, and (6) red ware. Detailed discussion of the major and minor characteristics of each ware is provided in the first volume. The following is a brief definition of each distinct group of the assemblage.

COARSE WARE

The predominant tempering agent of this group of pottery is straw, but in some cases grit and/or sand is also present. The clay is rough and does not seem to have been levigated. The color of the paste ranges from brownish buff to grayish brown to orange and red buff. Several classes of prominent Protoliterate pottery are made with this ware, namely, beveled-rim bowls, "flowerpots," some convex- and straight-sided bowls, trays, and pipes (figs. 26:D, G, K; 33:I, K–L). The low-neck jars with a painted base, illustrated in figure 28:E–F, are the only examples of jars made of coarse ware. Both handmade and wheel-made specimens are included in this group. The surface is usually untreated, but in some cases wet smoothing produced the appearance of a slip. In almost all the examples of this group, the core is darker than the surface.

STANDARD WARE

As with many pottery classifications, there is an overlap of the coarse and standard wares, the latter having a better quality of clay. The major difference between the two wares is the absence of vegetal tempering in the standard ware, which is primarily grit tempered, but in some cases fine sand and crumbled shell or some type of calcite particles are also present. The size and concentration of grits vary from small to large particles and from dense to

114. See Gasche 1973, pl. 3:10, 15, pl. 24:23.

115. For parallels from Susa, see Gasche 1973: 40–41, pl. 24:23; Carter 1979: 119; Carter 1980, figs. 45:79, 46:1–8, 47:1–3; Carter and Stolper 1984, fig. 10.

sporadic (see figs. 26–33). Vessels in this group are primarily buff in color, but shades of yellowish buff, pinkish buff, and reddish buff also occur. Some examples are fired to a greenish buff or greenish gray. In general, vessels were not baked at high temperatures and the reduced atmosphere in the kiln is apparently responsible for occasional gray cores.

While in most cases wheel striations are visible on the interior of the vessels, the exterior is usually smoothed, scraped, pared, or scratched in such a manner that all traces of striations are obliterated. The application of slip, usually creamy buff, is apparent in some examples, but whether all vessels in this group were slipped is not clear, as a false slip can be created by wet smoothing. A true slip can be seen on the vessels whose wet-smoothed surface is scraped with a blunt tool (reserved slip). This type of surface treatment is usually limited to some open forms and some spoutless closed forms. Reserved slip does not seem to occur on jars with handles, spouts, or on four-lugged vessels. The surface of the latter exhibits various forms of incision, excision, punctuation, rocker, imprints, as well as plastic decoration.

FINE WARE

The clay of fine wares at Chogha Mish seems to have been levigated and primarily tempered with fine sand; occasionally grains of grits are included, but they are rare enough to be considered accidental. The color of the clay ranges from creamy to pinkish and yellowish buff. In cases when the vessel was overheated, both the core and the surface display a greenish buff color.

Unlike standard wares, vessels of fine clay tend to be relatively small and exhibit a uniform, oxidized core. The entire surface is evenly smoothed and is usually covered with a creamy buff or yellowish buff slip. Although the upper body of the vessel is much smoother than that of the standard ware, the lower body, close to the base, remains comparatively rough.

The corpus of vessel shapes in this group is limited, as this type is obviously neither suitable nor economic for ordinary or cooking vessels. But rare specimens of strap-handled ovoid jars are made of fine clay. In addition, examples of four-lugged jars and bowls with pouring lips (usually made of standard ware) made of fine clay also occur.

BRITTLE WARE

Known also as “shatter ware” in *Chogha Mish* I (p. 38), the paste of brittle ware either has no visible inclusions or is tempered with sand so fine that cannot be seen with the naked eye. Whole brittle ware vessels are difficult to distinguish from those made of fine clay. Sherds of this group produce a clinky sound when gently hit against a solid surface and tend to shatter into small pieces under slight pressure. The color of the ware tends to be red or tan. Some small and miniature vessels are made from this ware, but they are rare.

GRAY WARE

Of all the types of Protoliterate ware, gray ware is the rarest at Chogha Mish. Vessels made of this ware have a dense, dark to light gray clay tempered with fine sand, occasionally mixed with some grit and even straw. The shapes of gray ware vessels are almost the same as those made of the standard buff ware. This, and the rarity of the type, suggests that perhaps the gray ware vessels were imitations of stone vessels.

RED WARE

Equally rare are vessels made of red clay (fig. 29:E). Although some examples have red-washed surface, it is not the red wash that defines this group, for such washes occur on standard buff and fine wares as well. In true red ware vessels, the paste of the ware itself is red and tempered with sand and occasional grits. Sometimes a bright red wash is applied to the surface, which may or may not be burnished. In burnished examples, burnishing strokes may be visible or the entire surface of the vessel is evenly polished.

LATE SUSIANA PERIOD

(Fig. 35)

In the first volume (*Chogha Mish* I: 284, 302–505) and elsewhere,[116] we argue for the existence of an intermediate phase between the Middle and Late Susiana periods. To be consistent with the terminology we adopted for the Susiana prehistoric sequence, we designated this phase "Late Susiana 1," to be followed by Late Susiana 2, best represented at Susa. Two major events mark the beginning of this period in lowland Susiana: (1) the abandonment of Chogha Mish and some of its satellite sites in eastern Susiana, and (2) the appearance of a new class of painted pottery.

After a hiatus of perhaps several hundred years (the Late Susiana 1 phase), Chogha Mish was re-occupied during the Late Susiana 2 phase. Unlike the preceding Middle Susiana, the Late Susiana 2 occupation of Chogha Mish seems to have been limited to the High Mound. The presence, however, of sherds typical of this phase on the Terrace, particularly in the East Area, suggests that Late Susiana 2 occupation must have been more extensive than previously thought, even though none of the sherds found outside the High Mound came from a primary context. This should not be surprising because during the following Protoliterate phase extensive leveling of the surface of the mound must have destroyed any architectural remains of this period on the Terrace.

The pottery assemblage of the Late Susiana 2 phase (fig. 35, pl. 19) can be divided into two major groups: (1) standard buff ware, and (2) red ware. In addition to these major wares, small quantities of gray ware and black-on-red ware also occur.

STANDARD BUFF WARE

Standard buff ware comes primarily in two varieties, common standard buff ware and fine buff ware; each class includes a number of sub-varieties. The clay of the fine ware is dense and often tempered with fine sand that is invisible to the naked eye. In examples of common ware, sand and occasional grits, as well as traces of chaff, are clearly visible. The color of the ware varies considerably, ranging from warm buff to yellow/cream buff to brownish buff to apricot or pink buff. Some over-fired pieces exhibit a greenish buff surface. The core of the buff ware is monochrome and completely oxidized. The vessels in this class are made on a slow wheel, and some irregular striations are visible. Horizontal wheel striations are often visible on the surface, particularly on the interior and on jar necks. The decorated specimens are painted with black, purple-black, or reddish brown paint. Both matte and glossy paint occur.

RED WARE

The manufacture of red ware continues from the Middle Susiana into the Late Susiana 2 phase. There is a wide range in the surface color from deep red to pinkish buff. The clay is dense and often has a metallic tone, due perhaps to high temperatures in the kiln. As with the fine buff ware, the clay of the red ware is tempered with fine sand, usually undetectable with the naked eye; sometimes scattered small grits and air pockets do occur.

The examples of the red ware at Chogha Mish can be divided into two categories depending on the color of the core. The first category has a monochrome core the same color as the surface (sometimes paler). The second category has a dark core that does not seem to have been the result of low firing, for even some examples of this category produce a metallic clink when struck. The dark core does not gradually turn red toward the surface; rather, two thick layers of red clay sandwich the black core.

The red ware can occur with or without a red wash, which is applied to the vessel either densely or in uneven smears. the color of the wash is sometimes plum or reddish brown. The surface may be matte or burnished with visible burnishing strokes.

Much less common is the red ware with an off-white surface wash, sometimes thick and dense and sometimes applied as a film so thin that the original red surface is visible under the white coating. The coarser variety of red ware comes with or without a surface wash. It has either a plain matte surface or is burnished.

116. See Alizadeh 1992: 21–25.

GRAY WARE

Compared with other classes of pottery, gray ware is extremely rare at Chogha Mish. The ware is dense and has no visible inclusions; horizontal burnishing strokes are often visible on both surfaces. Both open and closed vessels were made of this ware. Its rarity may indicate a desire to produce the appearance of stone vessels.

BLACK-ON-RED WARE

Black-on-red ware is the least common ware at Chogha Mish and is represented by only one example (*Chogha Mish* I: 170, fig. 21). Other examples, however, are reported from contemporary Jafarabad and Susa.[117] The Chogha Mish example, as well as those from Susa and Jafarabad, have their closest parallels in Luristan[118] and are most certainly foreign to the Susiana prehistoric pottery tradition. A finer version of this particular type is illustrated in figure 35:E. It is a handmade, painted, four-lug jar with a low neck. The clay is pink and both the interior and exterior surface have a pinkish buff slip; highly irregular striations are visible only on the interior. The decorative lines are carelessly applied to the overall design. The painted color changes from dark gray-brown to reddish brown as the lines extend away from the start of the brush strokes. This vessel and the one depicted in figure 21 in *Chogha Mish* I do not fit the Late Susiana 2 pottery assemblage of lowland Susiana and may well have come from the highlands.[119]

MIDDLE SUSIANA PERIOD

(Figs. 36–54)

The Middle Susiana pottery assemblage is characterized primarily by two major wares, buff and red, and their variations (figs. 36–52, pls. 19–20). In addition to these two wares, a specific type of gray ware appears during the second phase of the period, the late Middle Susiana phase. Examples of gray ware have the same shapes as the buff ware (e.g., fig. 45:J). Identical ware and shapes were also found in our 2004/05 joint ICHTO-Oriental Institute excavations at Chogha Do Sar, some 15 km southwest of Chogha Mish (Alizadeh 2005; Alizadeh and Mahfroozi 2005).

STANDARD BUFF WARE

As with most prehistoric pottery, Middle Susiana standard buff ware varies in color from brownish buff through creamy buff to a greenish or grayish buff. The clay is usually tempered to varying densities with sand and grits. Although the vessels are not as gritty as those of the Early Susiana period, those dating to the first phase of the Middle Susiana period still show a gritty face. As a result, the vessels made with a paste with high concentration of grits are coarser.

The entire pottery assemblage is handmade and the vessel surfaces often show shaping and scraping marks, particularly on the lower part, close to the base. In the latter phase of the period, the vessels' surface is comparatively smoother, but scoring marks are still seen on larger specimens. In some examples it is easy to see a thin buff slip, but since the majority of the vessels were wet smoothed, the dense surface often creates an illusion of a separate slip.

Dark paint, ranging from black to dark brown to (very rarely) dark maroon, was used for decoration. When the vessel was overheated, both the surface and the paint exhibit a greenish tinge. When the paint is thick, it is granular and tends to flake off, leaving a perfect impression. Due perhaps to the chemical components of the paint, the paint sometimes has eaten into the surface and is slightly sunken. This characteristic is more common during the second half of the period, a situation similar to the pottery of the Ubaid 3 and 4 periods.

FINE BUFF WARE

The fine version of buff ware has a comparatively dense, but thin (6 mm or less) paste and is tempered with fine sand; no grits were used as tempering agent. As a rule, the fine ware was used for small vessels, but sometimes larger vessels were made of this ware as well, particularly the plain, bell-shaped bowls. During the second phase of

117. Dollfus 1971: 47, fig. 12:16–24; de Mecquenem 1912, pl. 19:10, 25:2; Le Breton 1947: 212, fig. 52:10.

118. Vanden Berghe 1973a: 51–53, 58; Mortensen 1976: 56, fig. 5:b–c; Goff 1971: 141, fig. 5:3–5, 8–11, 51.

119. A very similar, perhaps identical, vessel fragment was found in Trench IV during the first season, but it was not published (registration number 1.236).

the Middle Susiana period, there was an increase in the proportion of the vessels made of fine ware, a development that continued into the Late Susiana 1 phase and tapered off in the succeeding Late Susiana 2 phase.

GRITTY BUFF WARE

A group of large buff ware vessels with thick walls has a comparatively larger amount of grit than others. Such vessels have a gritty face and are by far more abundant in the first phase of the Middle Susiana period, an Early Susiana tradition that continued into the Middle Susiana period. Large, deep, bell-shaped bowls, a continuation of the flanged vessels of the Early Susiana, are good examples of this ware. The surface treatment is limited to a very thin matte buff slip under which individual grits are visible.

STRAW-TEMPERED BUFF WARE

A very small group of utilitarian and domestic vessels are made with a buff and granular paste tempered with chaff and straw. Some grits occasionally occur, but they may be accidental. Other than wet smoothing and scraping, no special surface treatment is visible.

PLAIN RED WARE

(Fig. 53:B, C, L, N)

A limited number of varieties of plain red ware occur at Chogha Mish, primarily in the second phase of the Middle Susiana period. The paste is the same in all varieties; only the surface treatment differs from one variety to the other. The red ware has a dense granular paste tempered with fine sand and is often fired at such high temperatures that the sherds, when hit against a solid surface, produce a metallic sound. In some examples, the sand is mixed with mica and calcite particles. Because mica-bearing sand is not native to lowland Susiana but is very common in the highlands, it is highly possible that the increasing connection with the highlands in the Middle Susiana period led to the appearance of this type of inclusion in the lowlands. It is equally possible that such mica-bearing vessels are imports or an indication of movement of artisans.

The color of the paste of plain red ware is basically brick red with shades of reddish brown, light orange, or pink-red. In some rare examples, the reddish tone of one surface grades into orange-buff toward the other. Dark cores are uncommon but do occasionally occur; they certainly were not as common as in the succeeding Late Susiana period. Based on the surface treatment, the Middle Susiana red ware can be divided into three sub-groups of red-washed red ware, white film ware, and buff-slipped red ware.

Red-washed Red Ware

Red-washed ware is the most common variety of red ware. Vessels are distinguished by a thick wash, usually darker than the color of the paste. Open vessels in this group are covered with wash on both the interior and exterior.

White Film Ware

Infrequently, a plain red ware vessel was covered with a very thin, almost transparent, white wash. When moistened, the white film disappears and the actual color of the ware shows through, albeit darker. Whether this thin white coating was actually a separate layer of wash or the effect is produced through some chemical reaction in the clay or in the red wash underneath can only be determined through laboratory analysis.

Buff-slipped Red Ware

The surfaces of a small group of red ware vessels are covered with a buff slip. The color of the slip is so uniform and applied so evenly that in most complete examples it is difficult to distinguish between this ware and the buff ware.

GRAY WARE

During the second phase of the Middle Susiana period, some vessels appeared with a fine gray paste, tempered with sand and occasional grits. The surface is usually burnished and is used almost exclusively on simple convex bowls. This rare Middle Susiana ware has a relatively wide spatial distribution in lowland Susiana.[120]

EARLY SUSIANA PERIOD

(Figs. 55–65, Pl. 21:A–D, F–H)

The standardization of pottery manufacture that began with the Archaic Susiana 3 phase became established in the Early Susiana period. The overwhelming majority of Early Susiana pottery vessels are made of a buff ware tempered with multi-colored grits of various sizes and mixed with straw, chaff, sand, or a combination of these. Some of the decorated open forms have neither straw nor chaff mixed with grits. The color ranges from warm buff to brownish buff and sometimes to very pale pinkish buff. Among the various classes of the prehistoric Susiana pottery, the Early Susiana vessels have the grittiest face. Vessels are handmade but exquisitely formed. On larger vessels, scoring marks are sometimes visible on the lower body, near the base. Although the application of a slip is evident on some pieces, particularly the plain flanged vessels and open bowls with flaring rim, it is not always easy to detect a slip.

There is no difference in the manufacture and surface treatment between the decorated and plain vessels. The paint is predominantly black, but sometimes brown, olive-black, or reddish brown can be seen. A number of vessels (particularly those with heavy walls, such as the pedestaled bowls) are overheated, exhibiting a greenish black or greenish brown paint and greenish buff surface.

ARCHAIC SUSIANA PERIOD

(Figs. 66–75, Pls. 20:D–F, 21:E, I–K)

A number of prominent wares and various styles of decoration and manufacture mark the pottery assemblages of the Archaic Susiana phases. Some wares and surface treatments are specific to a phase and others continue along side new classes. Based on surface treatment and the type of tempering agents, Archaic Susiana pottery can be divided into a number of distinct wares.

STRAW-TEMPERED SMOOTHED WARE

The paste of straw-tempered smoothed ware ranges from warm buff to yellowish buff to reddish orange often with a gray core. Large amounts of straw in the clay make it porous. Thus, many pieces made of this paste were smeared with bitumen on the interior to decrease porosity.

The surface of the vessels made of this ware is usually mottled but carefully smoothed and feels soft to the touch. Some vessels were polished and exhibit a considerable sheen. A few examples have a thick white wash and were smoothed. Most of the vessels were manufactured by superimposing several layers (usually 3 mm) of clay (see *Chogha Mish* I: 227–28 for more details). This ware continued to be manufactured throughout the entire Archaic sequence. A coarser variety of this ware, designated as straw-tempered coarse ware, was considered in *Chogha Mish* I as a separate ware. But, except for a coarser surface, no other characteristic warrants a division between the two wares.

STRAW-TEMPERED STANDARD AND FINE RED-WASHED WARE

The standard red-washed ware is essentially the same as the straw-tempered smoothed ware except for the application of a red wash on the exterior. The red pigment is usually fugitive and matte in appearance. The fine variety of this ware is rare and the vessels comparatively smaller and thinner. The paste, too, is denser with less straw. As a

120. See Dollfus 1975, fig. 53:11–13 (Jafarabad, levels 3m–n); Dollfus 1983, figs. 68:3–4, 79:8, 83:3, 5 (Tappeh Bandebal, levels 16, 14–13); and Weiss 1976, fig. 11 (Qabr-e Sheikheyn). Presumably, a black burnished variety of this ware also occurs in Deh Luran; see Hole, Flannery, and Neely 1969: 168–69 (Tappeh Sabz, Bayat phase).

rule, both surfaces of open vessels are covered with a red wash. The color is deeper than that applied to the standard variety and ranges from red to brown to purple red. Often the red wash is burnished to a high sheen.

STRAW-TEMPERED RED-BANDED/LINE WARE

A hallmark of the Archaic Susiana 2 phase, the surface treatment of straw-tempered red-banded/line ware vessels distinguishes this group from the standard red-washed ware. In fact, the decorated examples of the straw-tempered smoothed ware fall into this category. The decoration usually, but not always, consists of a single band (but sometimes more complex patterns) applied to the exterior. The bands usually have jagged edges, which can result from smearing the pigment with fingers or a piece of cloth instead of a brush. A few examples of this decorated ware have bands with straight edges, presumably belonging to the end of the phase, and is transitional to the Archaic Susiana 3; we have no stratigraphic evidence to support this assumption.

A variant of this ware has more complex painted patterns. The exclusively geometric designs are drawn using at least two different types of brush. Again, it seems that by the middle of the Archaic Susiana 2 phase, this ware had developed out of the former.

STRAW-TEMPERED PAINTED-BURNISHED WARE

The appearance of this specific, handsome ware and its variants marks the beginning of the Archaic Susiana 1 phase.[121] The ware is the same as all the Archaic straw-tempered wares; it is the surface treatment and its specific and complex painted patterns that readily distinguish this class of pottery from the rest. The color of the paste varies, as usual, from light buff to yellowish tan, brown, or orange. The core is almost always gray or even black. The straw face of the fabric is carefully covered with a uniform slip, over which geometric designs of varying complexity are painted in dark brown and sometimes jet black, and then burnished, hence the designation.

STRAW-TEMPERED PAINTED-BURNISHED VARIANT

At Chogha Mish, straw-tempered painted-burnished variant ware occurs with the standard painted-burnished ware. Excavations at Chogha Bonut showed that the painted-burnished variant appeared earlier and the standard painted-burnished ware developed later during the Archaic Susiana 1 phase, when the site of Chogha Mish was first occupied.

The painted-burnished variant employs the same clay as the standard painted-burnished, but it is less burnished and the slip is not as uniform nor as thick. While the examples of the painted-burnished show a limited repertoire of designs that are usually confined to the upper part of the vessel, the painted-burnished variant exhibits a larger and freer repertoire of designs, sometimes covering the entire surface of the vessel. Rows of wavy horizontal and vertical lines are the most common element of design.

MATTE-PAINTED WARE

Archaic Susiana 3, the final phase of the Archaic Susiana period, was dominated by two distinct wares: (1) close-line ware, and (2) matte-painted ware. Apart from its distinct repertoires of shapes and painted patterns, this class of pottery is distinguished from other straw-tempered wares of the Archaic Susiana period by a comparatively much finer vegetal tempering agent. The ware is predominantly yellowish buff in color on the surface and brownish buff in the core, with occasional gray cores. The tan or yellowish buff surface is sometimes mottled orange or pinkish buff. The name of the ware is derived from the distinctly dull gray or black paint applied to the surface. A subtype of this ware (not as common) bears a surface decoration that combines a red wash on the lower body (sometimes on the lip) and the painted design above.

DENSE-SANDY WARE

Occurring first during the Archaic Susiana 2 phase, this distinct ware appears alongside the straw-tempered red-banded ware. The main characteristic of this ware is its fine mineral tempering agent that is almost invisible to

121. For Archaic 0 and Formative Susiana, see Alizadeh 2003a.

the naked eye. Based on the surface treatment, four subtypes of this ware can be distinguished as follows: (1) plain ware, (2) fugitive red-washed ware, (3) fugitive red-lined ware, and (4) dark-painted ware.

Some plain ware sherds have faint traces of a red wash and thus may have originally been red washed. Dark-painted ware is the rarest type and is distinguished by a fast pigment and simple "windowpane" decoration, which closely resembles some decorative designs of the Cheshmeh Ali period in the Central Plateau.[122] This ware also occurs in Deh Luran and is dated to the "Chogha Mami Transitional" phase (Hole 1977, figs. 52:A, 53:A, I). The context of this ware is uncertain at Chogha Mish, but in Deh Luran it is closely associated with the typical close-line ware, suggesting that this particular ware was part of the larger, more dominant repertoire of the close-line ware.

CLOSE-LINE WARE

Close-line ware is entirely different from all other Archaic wares. It appears suddenly in both Susiana and Deh Luran. If this ware was introduced into southwestern Iran from the Mandali region of Mesopotamia (Hole 1977: 12), then it may have entered Deh Luran and Susiana from the Mehran plain in the province of Ilam, north of Deh Luran. A regional survey in the Mehran plain and my own visits to a number of prehistoric sites in the region, however, failed to reveal any pottery similar to the close-line ware.

The paste ranges from buff to grayish and greenish buff and rarely orange buff. It is tempered with fine grits, sometimes sand. Some of the vessel shapes and decorations are similar to those of the following Early Susiana period and therefore the two wares may sometimes be confused with one another. In such cases, in the absence of stratigraphic information, particularly in surface surveys, one can distinguish the two by the difference in size and color of the tempering agents, as well as the absence of vegetal tempering in the close-line ware paste. The paint is black or dark brown and applied with such skill that even when lines are drawn close to one another (hence the appellation) the edges are crisp and never run or touch one another.

122. See Ghirshman 1938, pl. 54 A:2, B:4.

CHAPTER FOUR

DEVELOPMENT OF SHARED ARTISTIC TRADITIONS IN DECORATED POTTERY IN SOUTHWEST ASIA

PART 1: MESOPOTAMIAN PREHISTORIC ARTISTIC AND TECHNICAL DEVELOPMENT

INTRODUCTION

From the beginning of village life and the invention of pottery sometime in the late eighth millennium B.C. until the mid-sixth millennium B.C., prehistoric regional cultures in Iran and Mesopotamia shared a number of characteristics and artistic trends in material culture, especially in decorated pottery vessels. This chapter is devoted to an analysis of the technical and artistic development of Susiana prehistoric pottery and its differences and similarities to other pottery assemblages in the neighboring regions. This discussion, however, may be better understood against a general overview of the common trends in the artistic creation of material culture in early Mesopotamia.

The variety of individual cultures in the Near East matches that of its varied geographical areas. Mesopotamia is divided into two major parts, south and north, not because of any sharp natural boundaries, but because of the differences in material cultural assemblages these two regions display, as well as differences in the historical trajectory of both regions.

Early Neolithic farming villages seem to have begun earlier — during the Jarmo period — in the high altitudes of the Zagros Mountains in Iraqi Kurdestan (ca. 1,000 m above sea level) than those in the south. During the following Hassuna period, settlements were established at much lower altitudes (ca. 200–300 m above sea level) on the east and west banks of the Tigris. The sphere of cultural interactions in southwest Asia seems to have begun in the succeeding Samarran period, when the material culture of northeastern Mesopotamia exhibits links with that of early Susiana villages. Samarran culture overlapped with and was finally replaced by the Halaf culture, which was oriented westward with a probable diffusion center in the Habur area of eastern Syria. Halaf culture also diffused northward into eastern Anatolia. Unlike the south, there is not a continuous cultural development in the north. For example, all three cultural phases — Hassuna, Samarra, and Halaf — overlap for a time before they are completely replaced. Only in the south, in the sequence of the five phases of Ubaid (Ubaid 0–4, also known as el-Oueili, Eridu, Haji Mohammed, Middle and Late Ubaid), is there a continuous line of development. The Halaf culture in northern Mesopotamian overlapped with the Ubaid 2/Haji Mohammed culture and was finally replaced by that of Ubaid 3 culture from the south.[123]

NORTHERN MESOPOTAMIA

JARMO PHASE

The archaeological deposits at the highland village of Jarmo, in the foothills of the Zagros Mountains, primarily consist of two phases: aceramic and ceramic. The initial phase of pottery manufacture at Jarmo is considered too advanced and sophisticated to be the beginning.[124] The earliest painted pottery at Jarmo is a soft, straw-tempered buff ware with a limited range of decoration that consists of simple geometric lines, “blobs,” and the well-known “tadpoles.” This simple decorated ware has parallels in the Iranian Zagros Mountains at Tappeh Sarab near Kerman-

123. The presence at Tepe Gawra of the typical Ubaid 2/Haji Mohammed) tortoise vessels suggests that the southern cultural contact/influence in the north may have started even earlier.

124. See Adams 1983: 213.

shah,[125] but most important, at Chogha Bonut in lowland Susiana. In shape, type of ware, and painted decoration, the smear-painted ware of the Formative Susiana phase is similar to that of Jarmo, though unlike the latter, smear-painted ware was not the first class of pottery that appeared at Bonut.[126] This suggests a common ancestor for these geographically widely separated sites. Furthermore, the well-known T-shaped figurines, as well as the finger-shaped figurines, occur at all these early Neolithic sites.

HASSUNA PHASE

The Hassuna cultural phase of the north has pottery with painted and incised geometric decorations. There are also some animal and human figurines, but otherwise no other representations. The Hassuna pottery assemblage does not show any continuity from the preceding Jarmo phase and may have its origins in the central northern plain of Mesopotamia in the cultural phase represented by such early sites as Tell Maghzaliyah, Umm Dabaghiyah, and Tappeh Yarim.[127] Some of the cylindrical pottery vessels with slightly flaring rim from Tell Hassuna have close parallels in the Archaic Susiana 0 phase at Chogha Bonut and the Mohammad Jafar phase of Deh Luran.[128] Surprisingly, the typical late Archaic 3/Early Susiana stone hoes with a narrow tang, splayed blade, and bitumen coating occurred at the earlier level Ia at Tell Hassuna (Lloyd and Safar 1945, fig. 19:5). Otherwise, if there was a closer connection between northern Mesopotamia and southwestern Iran, it is not reflected in the material culture.

SAMARRAN PHASE

The next cultural phase, Samarra, overlapped with the Hassuna phase before replacing it. Nevertheless, Samarran artistic traditions do not seem to have evolved from Hassunan ones, even though the precursors of some of the geometric compositions of the Samarran pottery[129] are found in the Hassuna pottery assemblage. With the Samarran culture, we see a well-developed style of pottery decoration that is for the most part markedly tectonic in arrangement. The simplest composition is the superimposed goats on a sherd from Chogha Mami (Oates 1969, pl. 31:A). Graves at the type-site Samarra have yielded bowls that illustrate the different ways of decorating circular fields on the interiors of bowls (Herzfeld 1930). Frequently, the center of the circle is not emphasized but is framed by the linear bodies of two or four goats, whose long, curved horns emphasize the circumference of the circle and give a torsional feeling to the pattern. In other cases, the center is occupied by a square, to each corner of which is attached a triangle; long necks and horns together with little tails change the geometric triangles into goats. In another case, the center is marked by a swastika, and stylized birds with fish dangling from their beaks provide radial elements, a composition that later develops into complex patterns in Susiana and southern Mesopotamia. The arrangement of the painted, stylized figures of women with long flowing hair is analogous to the circle of goats. The representational motifs are set into a framework of geometric elements such as "pegs" and meanders that are densely arranged in sharply defined borders. Only one bowl, found at Tell es-Sawwan, bears on its interior surface many birds without any marked tectonic arrangement. It is far more "fussy" than the normal Samarran compositions.

Occasionally, a human face was painted on Samarran vessels. A fragmentary Samarran jar from level V at Tell Hassuna (fig. 3a:YY)[130] is the best-known example of the sophistication of Samarran artists. In its original, intact shape the entire vessel could be seen as a hollow statuette in the round representing a human with a bulbous body and thick neck. The hair, parted in the middle, is represented by a series of vertical chevrons. The face is detailed and highly decorated. The "coffee-bean" eyes (so characteristic of the later Ubaid figurines), eyebrows, tattooed cheeks, and hair anticipate the later Chogha Mami (Oates 1969, pl. 25:a–f) and Archaic Susiana 3 clay figurines, culminating in the late Ubaid clay figurines of southern Mesopotamia.

More surprising than the terra-cotta figures are those carved in stone from the contemporary graves at Tell es-Sawwan (el-Wailly and Abu es-Soof 1965). These female figures are rendered in a fashion that is neither markedly abstract nor markedly realistic. Some have their arms at their sides while others hold them crossed at the waist. The most elaborate element of these figurines is the inlaid eyes. The stone figurines have no contemporary parallels

125. See Braidwood and Howe 1960, pl. 15:12–17; Braidwood et al. 1983, fig. 105; and especially Lamberg-Karlovsky and Sabloff 1979, pl. 2.7; Mortensen 1964, fig. 17:a–c.
126. See Alizadeh 2003a.
127. Munchaev, Merpert, and Bader 1984; Kirkbride 1972, 1973a, 1973b, 1975; Bader 1993; Bader, Merpert, and Munchaev 1981.
128. Compare, for example, Lloyd and Safar 1945, fig. 3:5; and Hole, Flannery, and Neely 1969, fig. 44:D.
129. Namely the use of chevrons, zigzags, diagonal lines, pendant triangles, and wide hatched crossing bands on the interior of some bowls (Lloyd and Safar 1945, fig. 2).
130. See also Lloyd and Safar 1945, fig. 1:2.

and their characteristic inlaid eyes recur much later, in Late Uruk and Early Dynastic stone statues in Mesopotamia, with no apparent intermediate links.

HALAF PHASE

The Halaf period brings to northern Mesopotamia a new style of pottery decoration, which Helene Kantor conversationally characterized as "more Rococo and much fussier than Samarra." Nevertheless, there must have been a phase when Halaf potters absorbed some of the Samarran traditions. To be sure, the squaring-of-the-circle scheme, that is, the central square with triangles attached to the corners, known from both Samarran and the contemporary cultures of Eridu in the south and Early Susiana in the southeast, reappears on the famous polychrome Halaf bowls (Mallowan and Rose 1933, pls. 14–15). The central rosette with either a few or many rays, used in the third phase of the Ubaid period (Ubaid 2/Haji Mohammed) and in the early Middle Susiana phase, occurs frequently on the Halaf bowls. These center motifs are accompanied by small motifs, including dotted circles, resulting in a finely subdivided network of patterns. For the most part, the circular designs are radially symmetrical and torsional elements are much rarer than in the earlier Samarran culture.

Naturalistic motifs appear in the Halaf style but are rather limited. The most common animal motif is the bucranium, which was stylized in a variety of ways. Snakes and birds also appear. Many small birds fill a triangular panel on the closely painted sides of jars from Tell Hassan (Fiorina 1984, fig. 31; 1987, fig. 5). However, none of these examples prepares us for a unique straight-sided bowl found at Arpachiya (Hijjara 1997, pl. 48A). A number of panels on the exterior of this vessel are filled with geometric elements or bucrania, but one has what may be called an episodic representation in which, presumably, the "highlights" of a narrative are depicted; the missing parts of the narrative would have to be supplied by the prehistoric viewer. The scene is found on a large jar; the upper part depicts two men who seem to clamber in order to dip into the contents of a gigantic high-neck jar. Another representational scene consists of a striding hunter shooting at a feline, flanked by a bovine and two women standing on either side of an upright loom. The flat bottom of the painted jar has an enigmatic design that seems to be a structure with steps leading up to an altar or emblem. We cannot identify this last motif, but the sudden appearance of representations painted individually without any regard to formal considerations shows us how little we know of the range of the arts of the Halaf period.

The Halaf culture is thus distinguished by a sophisticated tradition of pottery painting characterized by a strongly abstract orientation in which the limited number of representational motifs are geometricized. However, as mentioned before, the unique bowl from Hijjara's excavations at Arpachiya proves the unexpected existence of a primarily representational aspect with quite complex groups of motifs. We must assume that comparably painted vessels existed. The analogies between the Hijjara bowl and the flask in the form of a woman from Tappeh Yarim indicate a consistency of style. The influence of the Halaf style spread far, even to the northern coast of Syria, at Ras Shamra and in the Amuq. It remains doubtful that Halaf tradition "crossed" the Tigris, much less appeared in the Zagros as what is known locally as "J" ware (Levine and Young 1987). However, it does not seem to have bequeathed any lasting legacy to the decorative art of the later periods. Instead, it is replaced in northern Mesopotamia by a developed stage of the Ubaid material culture — particularly the pottery and architectural styles — from the south, and in the west by later stages of the local sequence.

SOUTHERN MESOPOTAMIA

UBAID 0 (EL-OUEILI) PHASE

The art historian will have to look at the northern Mesopotamian prehistoric cultures to find antecedents to the explosive representational art of the Uruk period in the south, for to date, none of the prehistoric cultures of lower Mesopotamia offer any clues to the Uruk representational art.

In southern Mesopotamia, recent excavations at the site of Tell el-Oueili have brought to light a cultural stage antedating the earliest known Ubaid phase at Eridu (i.e., Ubaid 1). Finally, the long-hypothesized early phase of the southern sequence is taking substance. The pottery decoration, so far as we know it, is purely geometric and reminiscent of the geometric motifs of the close-line ware of the Archaic Susiana 3 phase in Khuzestan, but in a simplified and degenerated state. A comparative analysis of the Samarran-related close-line ware in Susiana and Deh Luran, the Chogha Mami Transitional ware from the Mandali region of central Mesopotamia, and the pottery of Ubaid 0 at el-Oueili reveal the limited nature of the repertoire of designs in southern Mesopotamia. This, however,

may be considered as regional variations of a single tradition, for the great Samarran architectural tradition of Tell es-Sawwan with large, multi-room structures and corner buttresses continued later at Chogha Mami (Oates 1969, pl. 24) and Tell el-Oueili (Vallet 1996).

UBAID 1 (ERIDU) PHASE

The Ubaid culture provides an outstanding line of continuity in the development of pottery and, especially, architecture. At Eridu the superimposed shrines begin with a very modest room that gradually was enlarged until the typical Uruk monumental shrine was reached. Furthermore, the large tripartite structures found at Tell el-Oueili (Vallat 1996, fig. 7), far more monumental in their layout than one would expect to see in a residential unit, are striking precursors of the tripartite plan typical of Late Uruk temples and possibly administrative buildings of the Eanna complex at Warka.

The next stage of cultural development in southern Mesopotamia (Ubaid 1/Eridu phase) exhibits strong ties with the previous phases. The deeper levels at Eridu represent the second phase of the Ubaid culture, where the pottery decoration is purely geometric. An important family of bowls that is known also in the Early Susiana period at Chogha Mish establishes a contemporaneity and a strong artistic link.

UBAID 2 (HAJI MOHAMMED) PHASE

The Ubaid 2 phase, best known at the sites of Eridu, Ras el-ʾAmiya, and Haji Mohammed, has — like its predecessor — a geometric system of pottery painting and is strongly tectonic. Circular fields are squared by using central rectangles, from the corners of which triangles emerge — the same scheme that was already prominent in the Eridu phase and much earlier, in the Samarran phase in the north. In the contemporary early Middle Susiana phase in neighboring Khuzestan, there was much greater variety of squaring-of-the-circle patterns. Another frequent scheme in the Ubaid 2/Haji Mohammed phase is the radial composition on the interior of wide open bowls. In still other cases, the central circle of the interior of large bowls is occupied by a diaper pattern of windmills. Although the Haji Mohammed phase of the Ubaid culture has close links with the early Middle Susiana phase in Khuzestan, the two traditions already show separate lines of development. In the Susiana area, the decorative tradition was to become more complicated, while in Mesopotamia it was simplified.

UBAID 3–4 PHASES

In the third, standard phase of Ubaid (Ubaid 3) and later (Ubaid 4), painted motifs are greatly simplified. Wide horizontal and wavy bands encircle vessels. Broad washes of paint were used, occasionally with a reserve circle in which a rosette was placed. In contrast, in both the Susiana and Deh Luran areas, contemporary phases have a highly developed decorative style with a number of representational motifs, namely, fish, tortoises, birds, goats, bulls, bucrania, panthers, human beings holding hands (dancing?),[131] and later, in the Late Susiana 1 phase, highly stylized goats and birds set into a closely knit frame of registers and panels. There is hardly a trace of this decorative wealth in the Ubaid phase of Mesopotamia.

The Late Ubaid phase has yielded distinctive terra-cotta figurines, the famous lizard-headed women and men. Female figures are much more common; the arms are crossed, either under the breasts or to hold a nursing child. The heads are greatly elongated, the faces are lengthened into snouts, and the eyes are represented by coffee bean-shaped pellets. Similar pellets also adorn the shoulders. The assumption that the heads are those of lizards has prompted speculation as to the superhuman character of the figures. The possibility exists that these are not really lizard heads but strongly simplified human heads. The deformed skulls that have been found in Deh Luran, and another from Chogha Mish that belongs to the contemporary late Middle Susiana phase, suggest the possibility that these Ubaid figurines may represent actual physical characteristics of some special members of the society (possibly the elite).

131. See Garfinkel 2003.

TERMINAL UBAID PHASE

The Ubaid period merges into a little-known transitional phase with gray- and red-burnished wares, which in turn merges into the Uruk period. If we are to find some continuity from the prehistoric periods to the Uruk period, it is much more likely to trace it in the south where the Ubaid culture developed. In the north the sequence is not that of consecutive stages in a single material cultural tradition, but rather different traditions with different geographical centers. It is clear that we could hardly expect any continuous development. In southwest Asia, Susiana is another region where a long sequence of stages of a single tradition can be followed, namely, the Susiana tradition of Khuzestan adjacent to southern Iraq.

When we turn from architecture to representational art, which flourished in such an unbelievably rich fashion in the Uruk period, prototypes hardly seem to be present. As mentioned above, the painted patterns on the standard Ubaid pottery are of simple schemes. There is only one source where we could look for antecedents for the glyptic art of the Uruk period, namely, the stamp seals typical of both the Late Ubaid and Late Susiana 2 phase. In Iraq they are best known from northern sites where the Ubaid culture had been acclimatized at the expense of the western-oriented Halaf tradition. They bear a wide variety of motifs, including humans and animals that are often scattered on the field without any organized pattern. In the final phase of the Susiana prehistoric sequence, Late Susiana 2, stamp seals were also sometimes elaborately carved.

PART 2: STYLISTIC ANALYSIS OF SUSIANA PREHISTORIC POTTERY

INTRODUCTION

Prehistoric Susiana painted pottery provides one of the most delightful mediums and a powerful tool to study and trace millennia-old decorative traditions and their evolution in southwestern Iran. The large and varied corpus of Susiana prehistoric painted pottery also allows the archaeologist to study stylistic changes and to link them to stratigraphic observations, particularly the elusive transitional phases from one period to the next. Although the discovery of transitional phases is not crucial in the interpretation of the internal history of a given site, it is of utmost importance to establish a refined comparative chronology that can be used in dating surface collections in the interpretation of regional and interregional development and contact.

The Chogha Mish pottery corpus is extensively analyzed and presented in *Chogha Mish* I. Here, we limit our discussion to some general aspects of the various painted styles, decorative schemes, and techniques, as well as to the analysis of what we believe can be considered transitional style from one phase to the next. In addition, we also address the circumstances that resulted in the abandonment of Chogha Mish as Susiana's regional center and the establishment of Susa on the opposite side of the plain.

The early ceramic assemblages as reported from Chogha Bonut, Chogha Mish, and Tappeh Tuleii (KS-372), a small, low mound some 50 km northwest of Chogha Mish (fig. 2), consist of classes of pottery vessels with a number of distinct shapes and painted designs that seem to represent an unbroken and evolutionary sequence from the Formative to the Archaic Susiana 3 phase when the close-line ware (or Chogha Mami Transitional ware, as it is known in Deh Luran) was introduced into the sequence. Specific classes in the early Susiana pottery assemblage include: (1) the formative maroon-on-cream painted ware, (2) the Archaic Susiana 0 painted-burnished variant ware, and (3) the Archaic Susiana 1 painted-burnished ware (Alizadeh 2003a). These wares are well attested at Chogha Bonut, Tuleii, and Chogha Mish, but are poorly represented in Deh Luran.

FORMATIVE SUSIANA PHASE

The Formative Susiana phase corresponds to the appearance of pottery in lowland Susiana and so far has been documented only at Chogha Bonut. A general explanation of this and the following Archaic Susiana 0 phase is necessary for an understanding of the re-evaluation of the periodization suggested by Kantor. The term "Formative Susiana" was coined by Kantor prior to the excavations at Chogha Bonut and was applied to the basal levels at Chogha Mish, which were characterized by a mixture of the painted-burnished variant ware and the standard painted-burnished ware. The stratified evidence from Chogha Bonut indicates that the painted-burnished variant was preceded

by at least two distinct ceramic phases and therefore the term "Formative" cannot apply to the cultural stage characterized by the painted-burnished variant ware, clearly a latecomer. Based on our understanding of the pottery sequence at Chogha Bonut and Chogha Mish, we suggest the term "Formative Susiana" for the phase characterized by the coarse straw-tempered, straw-tempered red-burnished, and smear-painted wares. The latter seems to have been an experimental stage in decorating pottery vessels, as it appears to have been short-lived and so far is found only at Chogha Bonut. The discovery, existence, and stratigraphic position of this and the following Archaic Susiana 0 phase and their characteristic cultural assemblages are extensively discussed and analyzed in the final publication of Chogha Bonut and need no reiteration (Alizadeh 2003a).

When Chogha Mish was occupied in the early seventh millennium B.C., lowland Susiana had already been colonized by two small communities of farmers at Chogha Bonut and possibly at Tappeh Tuleii, a small settlement west of the provincial town of Dezful, northwest of Chogha Mish.[132] So far, the earliest evidence of human activity in the plain of Susiana comes from only one site, Chogha Bonut. The initial phase seems to have been aceramic with hearths, flint blades, and stone vessels (Kantor 1976/77: 23; Alizadeh 1996/97, 1997, 2003a). The following period, the Formative Susiana, is characterized by a simple decorated pottery, known as film-painted ware (Kantor 1976; 1976/77: 23; Alizadeh 2003a). Although very little is known about this early phase of settlement in Susiana, its existence is important in the study of the origins of agriculture and village life in Susiana and its relation to similar developments in the Zagros Mountains.

The earliest ceramic evidence from Chogha Bonut is classified on the basis of stratigraphy and stylistic variations. A plain, friable pottery constitutes the earliest stage of pottery manufacture in lowland Susiana. Some pieces of this class of pottery bear traces of red ochre, but with no discernible pattern. Another class of pottery, straw-tempered red-burnished ware, soon appears and overlaps with this coarse ware. The appearance at Chogha Bonut of solid architecture coincides with the appearance of another distinct pottery type, smear-painted ware.[133] Examples of this class of pottery are decorated using a finger as brush, hence the appellation, a technique that may have been employed on some of the famous Jarmo "tadpole" decorated vessels. Overlapping with and finally succeeding the smear-painted ware is the maroon-on-cream painted ware, known also from Deh Luran, and the painted-burnished variant ware, marking the beginning of shared artistic tradition with the early Deh Luran sites.

ARCHAIC SUSIANA PERIOD

The entire Archaic Susiana period is characterized by the presence of a plain, vegetal-tempered ware, already present in the Formative Susiana phase. The occurrence of this ware throughout the sequence without any major changes in fabric or in shape suggests that Archaic Susiana represents a developing cultural phase with no break. The stratified succession of a series of decorated wares, however, has been used to distinguish four major phases. Based on stratigraphic position and stylistic analysis of the archaeological materials, the Archaic Susiana period is divided into four phases, the Archaic Susiana 0 (Alizadeh 2003a) and Archaic Susiana 1–3 (Kantor 1972/73). The earliest, Archaic Susiana 0, was found at Chogha Bonut, Tappeh Tuleii, and possibly Boneh Fazl Ali. Evidence of the Archaic Susiana 1–3 was found at Chogha Mish.

ARCHAIC SUSIANA 0 PHASE

The Archaic Susiana 0 phase[134] is characterized primarily by the painted-burnished variant ware found at Chogha Bonut, Tappeh Tuleii, and Chogha Mish. The development of this comparatively sophisticated ware out of the preceding simpler wares is analogous to the appearance of the sophisticated Samarran pottery at Tell Hassuna in northern Mesopotamia and the appearance of the Archaic Susiana 3 close-line ware in southwestern Iran. While the painted-burnished variant ware appears with the maroon-on-red ware at Chogha Bonut, at the basal levels of Chogha Mish it is mixed with the standard painted-burnished ware, which is absent from Chogha Bonut and Tappeh Tuleii.

132. Tappeh Tuleii has been identified by its excavator as a "herders' camp" (Hole 1974, 1975). But this identification is not certain and the possibility remains that the site may be a permanent farming village (Wheeler Pires-Ferreira 1976/77) occupied somewhat later than Chogha Bonut (see Alizadeh 2003a).

133. Kantor termed this characteristic ware "film-painted ware" to underline the fact that on some of the examples the paint is so thin that the underlying surface can be seen. But the term seems to be misleading and, in any case, most of the sherds of this type have thick paint, hence the descriptive term "smear-painted." We chose the term "smear" to describe its highly characteristic technique of painting.

134. To avoid confusion in terminology and to underline the continuity of the cultural phase characterized by the painted-burnished variant with the following Archaic Susiana 1, characterized by the standard painted-burnished ware, we suggest "Archaic Susiana 0," following the example of the French for the el-Oueili phase (i.e., Ubaid 0).

Exact parallels for the painted-burnished variant ware and the maroon-on-cream painted ware have been found at Tappeh Tuleii (Hole 1974, figs. 11–14). In the nearby Deh Luran plain, the painted-burnished variant ware is scarce, but the maroon-on-cream ware is well represented. Thus, the evidence from these sites can now be fitted into the early cultural sequence of Khuzestan as established by the combined finds from Chogha Mish and Chogha Bonut.

The majority of the examples of the painted-burnished variant vessels are decorated with a series of closely spaced horizontal wavy lines, usually limited to the upper body of the vessel (fig. 3b:OO, BBBB–CCCC, III, PPPP). The wavy lines may either be continuous or divided into metopes with a series of vertical bands (fig. 3b:CCCC, PPPP). Both matte and shiny paint occur. Related to this decoration is a subfamily that can be divided into at least four groups based on the primary decorative scheme. These include (1) vessels decorated with a solid band of paint below the lip; (2) a negative chevron band or multiple bands reserved in a solid panel of paint (fig. 3b:OO); (3) those with overall decoration consisting of horizontal registers and pendant triangles; and, much less frequent, (4) vessels decorated with meanders whose interstices are filled with horizontal bands.[135] The edges of the border lines are often scalloped and the space between them reserved, anticipating not only some features of the standard painted-burnished ware, but also the tradition of fine reserved lines seen in the designs of the Archaic 3 close-line ware and the Early Susiana pottery. Of all the decorative schemes observed in this early stage of decorative art, the chevron — negative and positive, also known from the later Samarran pottery and sometimes consisting of several parallel lines — was perhaps the most enduring composition in prehistoric Susiana.

No sherds of standard painted-burnished ware were found at Chogha Bonut. At Chogha Mish, the painted-burnished variant co-existed with the standard painted-burnished ware, but it is not known for how long, or whether the standard painted-burnished ware existed from the beginning of the occupation. In any case, by the time the standard painted-burnished variant appeared in Susiana, Chogha Bonut and Tappeh Tuleii had been deserted.

ARCHAIC SUSIANA 1 PHASE

The Archaic Susiana 1 phase is marked by the standard painted-burnished ware, a decorated, straw-tempered ware that is usually slipped and highly burnished (figs. 3b:OOOO; 73). The primary decorative composition on the examples of this ware consists of widely spaced fringed panels, rickrack zigzags, and zigzag registers superimposed by bands filled with various elements such as florets and what appear to be horizontally placed birds in flight.[136] This general composition continued in various combinations until the end of the prehistoric sequence, around 4000 B.C. The interior lips of most examples are decorated with either a solid band or a combination of solid band and two or three pendant semicircles (fig. 73:C), another Archaic Susiana motif that continued well into the Middle Susiana period.[137]

A series of closely placed stepped designs, each separated from the next by thin reserved lines, combines the much later Middle and Late Susiana stepped motifs with the Archaic and Early Susiana technique of meticulously rendered reserved borders.[138] Such taxing effort was replaced in the Middle Susiana period by incision, using a sharp stylus to scratch the intended reserved lines, a major distinction between some of the similar compositions of the Early and Middle Susiana periods.

Another enduring and recurring feature of the painted-burnished decorative repertoire is the group of pendant solid scallops or triangles (sometimes with a hook) on the interior lip or the exterior lower painted panel (fig. 73:B–C).[139] This simple decorative motif was used in a number of compositions throughout the prehistoric sequence. With the sole exception of possible stylized birds, no animal or human forms are depicted on the examples of the painted-burnished ware.

135. For an analysis of the meander and scalloped wavy lines, see *Chogha Mish* I: 243–44, fig. 36.
136. See *Chogha Mish* I, pl. 224:G–I.
137. See *Chogha Mish* I, pl. 224:C.
138. See *Chogha Mish* I, pls. 223:K; 224:C–F.
139. See *Chogha Mish* I, pls. 223:B–C; 224:D–E; 226:E–G.

ARCHAIC SUSIANA 2 PHASE

The primary decorated vessels of the Archaic Susiana 2 phase belong to the red-line/band ware (figs. 3b:NN: 72:E–I, K). These vessels have a dense sandy fabric and are decorated primarily with a red paint. The most frequent motif is bands of chevrons bordered by solid triangles (fig. 72:D–E). The reserved zigzags and multiple zigzags in a broad panel of the Archaic Susiana 1 phase developed further in this phase into chevron friezes and became firmly established throughout the entire prehistoric sequence. During the following Archaic Susiana 3 phase, chevron friezes were bordered on top and bottom by rows of solid or hatched triangles (fig. 71:B), a composition that continues in various forms into the Middle and Late Susiana periods (cf. fig. 3b:NN with T, SSS–TTT, and 3a:HHHH). The evolved composition of chevron friezes is also prominent in the Samarran pottery.

The multiple stepped patterns of the previous phase, the Archaic Susiana 1, are now simplified and rendered as simple stepped lines.[140] A new motif of diagonal bands with basketry-like hatching is introduced (fig. 72:K)[141] and continues in use until the end of the Archaic period; it is seen on some of the examples of the matte-painted ware (fig. 71:E) and close-line ware in both Susiana and Deh Luran,[142] as well as on some Samarran vessels. The typical meander motif of the Archaic Susiana 1 also continues into this and later phases.[143] On the basis of its context, Kantor dated to this phase the base of a plate that was decorated with four human figures.[144] If this sherd did belong to this phase, then it represents the earliest unequivocal human representation on pottery in southwestern Iran.

ARCHAIC SUSIANA 3 PHASE

The matte-painted and the close-line wares, two wares entirely different in fabric and to a lesser extent in decoration, represent the final phase of the Archaic Susiana period. The former ware has vegetal inclusions and the latter has fine mineral tempering. The matte-painted ware is the direct descendant of the earlier painted-burnished and red-line wares, while the close-line ware has features new to the repertoire of painted designs and shapes. Nevertheless, examples (e.g., fig. 72:a) of the close-line ware exhibit similarities in decorative motifs, composition, and technique to the earlier wares, as well as to those of its contemporary, the matte-painted ware.

Matte-painted Ware

As in the earlier red-line ware, variously decorated chevron friezes bordered by solid, hatched, or negative triangles are the most common decoration (fig. 3b:HHH). The earlier fringed crosshatched panels of the painted-burnished ware (*Chogha Mish* I, pl. 223:B–C) evolved into a motif of solid "footed rectangles" (figs. 3b:YYY, 71:A)[145] bordered by broad bands. This motif continues and recurs in the Middle Susiana period in a variety of complex shapes and fringes.[146] The use of pendant scallops on the interior lip of open vessels, too, continues from the Archaic Susiana 2 phase and survives until the late Middle Susiana phase. The composition of triangles bordering single, double, or clusters of chevrons, so basic in the earlier Archaic phase and the Samarran phase, continues in this phase. In such compositions, the triangles might be reserved, solid, or occupied by filling motifs, a practice that continues well into the Late Susiana period (fig. 3a:TT).

Another prominent design of matte-painted ware consists of a bold checkerboard of crosshatched and reserved rectangles, usually with a single filling geometric motif (fig. 3b:ZZZ), a variation of the earlier "footed rectangles" (fig. 3b:YYY). This specific motif develops further in the Early Susiana period, when the geometric filling elements were replaced by a single or a column of flying birds (fig. 3b:AAAA). Human forms, perhaps already known from the Archaic Susiana 2 phase, are depicted with the same style of mannerism on some of the examples of this ware (fig. 3b:HHH).[147] Similar human forms also occur at the contemporary Chogha Mami (see Oates 1969, pl. 31:B).[148]

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140. See *Chogha Mish* I, pl. 218:C.
141. See *Chogha Mish* I, pl. 217:E–F.
142. See *Chogha Mish* I, pl. 212:J; Hole 1977, figs. 52:a; 53:a; pl. 37:a, c, i.
143. Compare *Chogha Mish* I, pl. 218:A with 226 and 176:X.
144. See *Chogha Mish* I, pl. 217:I.
145. For a variant of this motif, see *Chogha Mish* I, pl. 213:D.
146. See *Chogha Mish* I, pl. 173:K–L.
147. The fragment published in the first volume (*Chogha Mish* I, pl. 217:I) with similar human figures painted on the interior base of an open form was misassigned. It is indeed part of the close-line ware assemblage.
148. A base plate dated by Kantor to the Archaic Susiana 2 phase (*Chogha Mish* I, pl. 217:I) is decorated on the interior base with four humans. The left and right arms of the individuals to the right and left are raised. Judging by the reserved triangles indicating the genitals, they seem to be female. This is almost exactly the way a group of two females flanking a male on contemporary potsherds from Chogha Mami is depicted (Oates 1969, pl. 31:B). What sets the Chogha Mish example apart is the curious mirror image of the four figures.

Close-line Ware

The matte-painted ware is a direct descendant of the earlier Archaic Susiana tradition, but the close-line ware has no clear direct antecedent in the earlier phases. Apart from the fact that the constituent lines of the various compositions on close-line vessels are much more carefully drawn than those of the Samarran ware, the only major difference between the two ceramic styles is the almost total absence of animal and human figures from the close-line ware repertoire.[149] In addition, the typical Samarran central designs on the base of open forms are also extremely rare in close-line ware. What connects the Samarran pottery to the close-line ware is therefore not the similarities of certain individual motifs, but rather the shared grammar of designs that dictates certain combinations of motifs in the two styles of decoration.

The close-line ware also appears in southern Mesopotamia (Tell el-Oueili), central Mesopotamia (Chogha Mami), and Deh Luran (Chogha Sefid), where it is known as "Chogha Mami Transitional" ware. Although in general, close-line ware shows affinities with the ceramics of the Samarran period in upper Mesopotamia, recent excavations at Tell el-Oueili, near Larsa, have revealed stratified layers that predate the Ubaid 1/Eridu period and contain pottery similar to the close-line ware of Chogha Mish (Calvet 1983, 1985/86, 1986). It must be noted, however, that the complexity and variety of the close-line ware decorative schemes, as well as its high quality, are unmatched by what is known at Tell el-Oueili, but much closer to those from Chogha Sefid, in Deh Luran.

The close-line ware exhibits a tremendous burst of new decorative motifs and compositions, as well as new shapes. A close look reveals some underlying similarities in structure and grammar of design to the matte-painted and the earlier wares as well. Carinated bowls were usually adorned on the interior with the distinct decoration that consists of pendant hatched triangles, groups of three or four straight vertical lines, usually linked by cross strokes, and horizontal wavy lines (fig. 3b:II–MM, GGG). While these interior decorative elements are new, the typical earlier combination of a solid band, scallops, or semicircles on the interior lips of some close-line examples are not (fig. 3b:MM, OOOO).[150]

On the exterior of some specimens, single, double, or even triple groups of diagonal lines separated by blank panels are prominent (figs. 3b:MM; 66:A, C, H). This motif continues into the following Early Susiana period (figs. 3a:R; 56:D). A variant of this motif combines decorated pendant triangles (on the interior) with a row of single, double, or clusters of Xs on the exterior (fig. 3b:II, KK). The combination of the Xs and pendant triangles continues into the Early Susiana, but now the triangles are simplified and usually have a dripping appendage or are linked to a rectangular pattern painted on the interior base of open forms (fig. 3a:HH). Such triangles are rare at Jafarabad levels 6–4, but the X motif occurs there in various combinations, albeit in a degenerated fashion. The composition of Xs combined with pendant triangles does not occur in either southern Mesopotamia or Deh Luran in the following Early Susiana period.

Another prominent Archaic Susiana 3 decorative composition at Chogha Mish, which occurs only on carinated bowls with their upper walls slightly turned inward, is the alternating panels of crosshatching and linked vertical lines (fig. 3b:DDD, abstract humans?). A modified version of this motif continues into the Early Susiana period at both Chogha Mish and Jafarabad (see Dollfus 1975, fig. 25:1, 4). Again, this particular composition is absent in southern Mesopotamia.

Typical decoration for closed forms consists of a solid band, a double register with alternating groups of paired and multiple lines ("pegs"), and a zone in which a wide reserved zigzag is filled with chevrons. This decorative scheme also occurs on some carinated bowls (fig. 3b:LL); it is not only related to the simple scheme found on many Samarran bowls, but also to the earlier, simple patterns seen on some Archaic Susiana 0 and Archaic Susiana 2 phase vessels (cf. fig. 3b:NN–OO, III with T, LL). Another specific Archaic Susiana scheme that occurs at Chogha Mish on cylindrical and hemispherical vessels is the frieze of opposing single or clusters of chevrons, separated by "hourglasses" and lozenges (fig. 3b:EEE–FFF). Such compositions continue into the Early Susiana period, as seen at both Chogha Mish and Jafarabad (see Dollfus 1975, figs. 21:6, 22:6, 23:8, 25:8, 28:3). They also occur in southern Mesopotamia but are absent from the published corpus from Deh Luran. The clusters of opposed diagonal lines separated by crosshatched triangles (fig. 3b:WWW), and its variants (fig. 3b:W–X, RRR–TTT, VVV), occur mostly on jars with flaring necks. When broad crosshatched bands (fig. 3b:TTT, VVV) replace the cluster of diagonal lines,

149. A glaring exception is a "scorpion" painted on a shoulder fragment found at Chogha Mish. See *Chogha Mish* I, pl. 211:S. Contemporary levels at Chogha Sefid in the Deh Luran plain also yielded a base plate decorated with long-legged birds and what appears to be a stylized human figure (Hole 1977, pl. 36:L–O).

150. For much more similar examples, see *Chogha Mish* I, pls. 210:C, E; 211:H, M–N.

they exhibit affinities in both structure and composition to the basic pattern of chevrons bordering reserved triangles of the Archaic Susiana 2 phase.[151]

The obvious affinities of the grammar of designs among the Samarran, Chogha Mami Transitional, close-line, and Tell el-Oueili wares cannot be considered as either incidental or simple imitation, though imitation, emulation, and movement of artisans (through interregional marriage, for example) may have contributed to the similarities we observe. Nevertheless, a common heritage for these early cultures cannot be ruled out. While the close-line ware and the Chogha Mami Transitional ware from the Mandali region in central Mesopotamia share many characteristics with the Samarran pottery, the painted ware of the Ubaid 0 at el-Oueili is only broadly similar to these. Whether the simple and limited repertoire of painted motifs and compositions of the el-Oueili ware is a reflection of geography or chronology is still an open question. However, given the fact that the levels with this pottery at el-Oueili were stratigraphically immediately below the levels with the Eridu pottery, we may consider geography as a contributing factor for the differences. What is more, based on the existing repertoire of painted motifs of the el-Oueili ware, it is difficult to imagine it as the direct ancestor of the complex and sophisticated Eridu ware.

EARLY SUSIANA PERIOD

The Early Susiana pottery tradition is directly related to that of the Archaic period. A hybrid of the Archaic Susiana ceramic traditions developed in this period. Early Susiana pottery is clearly a direct descendant of the Archaic Susiana 3 ceramics, with the close-line ware as the main source of inspiration. Although the Early Susiana ceramic has many similarities with that of Ubaid 1/Eridu phase in southern Mesopotamia, many Early Susiana painted decorative motifs and compositions,[152] as well as the dominant plain, flanged vessels (figs. 3b:LLLL; 64:A-K) have no parallels there.[153] Such specific plain vessels are direct descendants of the Archaic deep carinated vessels and are limited in distribution to the Susiana region (fig. 3b:MMMM–NNNN). Despite a great number of similarities in this period among the potteries of Susiana, Deh Luran, and southern Mesopotamia, regional development along separate lines existed. It was not until the following late Middle Susiana phase, when the highlands became integrated into the sphere of interaction in southwestern Iran, that the Susiana pottery became distinct from that of contemporary Mesopotamia and developed along different lines, resulting in the mature pottery tradition of the Late Susiana 2 phase, best exemplified at Susa.

Direct descendants from the Archaic Susiana 3 phase are the Early Susiana bell-shaped bowls that are completely covered with decoration on both surfaces (fig. 3a:R). The interior decoration consists of tightly spaced horizontal brush strokes to form a solid mass of paint with narrow "slots" left unpainted. The outside decoration consists of multiple coalescing diagonal strokes separated by reserved diagonal bands filled with what appears to be schematic flying birds or other filling elements.

Prominent among the artistic developments of Early Susiana potters was the technique of transforming the interior circular base of open vessels into a square (figs. 3a:D; 59:A–D). This effect was achieved by drawing two pairs of widely spaced parallel lines that cross at right angles to produce four equilateral pendant triangles whose apices touch the four corners of the square. This decorative scheme, which may have been inspired by the earlier Samarran tradition (fig. 3b:H–J), became the basis for the complex circular patterns that are very prominent in the Middle Susiana period.

The technique of meticulously rendering reserved lines that border various elements of design retained its importance and continued, but the finely drawn parallel lines, typical of the Archaic Susiana 3 close-line ware, had become sloppy and almost coalesce (fig. 3b:T–U). Other designs, such as the alternating triangles bordered with solid bands, continued even into the Middle and Late Susiana period (cf. figs. 3b:W with 3a:P, TT, and 3b:T). In the Middle Susiana example, the crosshatched triangles are sometimes replaced by reserved ones (fig. 3a:N–P).

Bold contrasts between negative and positive elements of design that begin in the Archaic 3 matte-painted ware develop and become typical of the Early Susiana decorative tradition (figs. 55–56). The interior design of pendant triangles, the hallmark of the Archaic 3 close-line ware, and the exterior design of continuous Xs persist in the Early Susiana period, but were never combined on a single vessel at Chogha Mish (figs. 58:C; 59).[154] One sherd decorated

151. See *Chogha Mish* I, pl. 217:G–H.

152. For examples, see figures 3a:U; 3b:FF, AAA; 65:A–E; and 58:C.

153. The same is probably true about Deh Luran, but the limited number of published examples preclude a definitive conclusion.

154. At Jafarabad, the two patterns do occur on a single vessel (Dollfus 1975, fig. 29:3). It comes from Level 6, the basal level, and as such may be a surviving fragment of the earlier phase. All other examples with the X motif have plain interior; see Dollfus 1975, fig. 27:1–9.

with Xs presumably comes from an early Middle Susiana context at Jawi (Dollfus 1983, fig. 15:7), indicating that vessels decorated with Xs may have persisted even into the beginning of the Middle Susiana period. Another prominent Early Susiana type lip sherd from Jawi (Dollfus 1983, fig. 15:7) corroborates this suggestion.

Other surviving decorative elements and schemes from Archaic Susiana (and possibly Samarra) include single, double, or even triple groups of diagonal lines separated by blank panels (fig. 3a:Q–R); a frieze of opposing chevrons separated by "hourglasses" and lozenges; and continuous clusters of zigzags and chevrons bordered by cross-hatched triangles (fig. 3b:T).

Vertical tab handles appear in this phase (figs. 3a:EE; 63:D, H) and continue into the Middle Susiana period (figs. 3a:DD; 50:D). Decorated rectangular and, more commonly, circular pottery lids also appear in this phase (figs. 3a:FF; 62). They are curiously absent from Deh Luran and only one fragment of the rectangular type is reported from Jafarabad level 4 (Dollfus 1975, fig. 30:3), but they do occur at the nearby site of Jawi (Dollfus 1983, fig. 16:5). These lids are also completely absent from Mesopotamia and thus appear to be a Susian invention.

Elaborate decorations that completely cover the interior of some open forms developed in the Early Susiana period out of the more restrained Archaic Susiana tradition (figs. 3a:D; 58:H; 59:D; 60:F–G). The exterior of such vessels is usually decorated with a horizontal register filled with a zigzag band, normally thicker than the bordering bands (fig. 58:D–F, I). Again, such bowls do not occur at Jafarabad and only one example is reported from Jawi (Dollfus 1983, fig. 15:2).

MIDDLE SUSIANA PERIOD

Based on stylistic changes in pottery and stratigraphic observations, the Middle Susiana period is divided into early and late phases — Kantor's Middle Susiana 2 is incorporated into the early phase. In terms of pottery, the early Middle Susiana phase is a direct continuation of the preceding Early Susiana period and shares many features with the contemporary southern Mesopotamian pottery, that is, the Ubaid 2/Haji Mohammed phase. The second phase, late Middle Susiana, was a time of both substantial change and continuity in the pottery and in the regional status of Chogha Mish.

Various types of shallow and deep bowls with flaring walls bear the hallmark of Middle Susiana decorative designs that cover most of the interior and the exterior above the carination (fig. 3a:A–C, K–P). The interiors of these vessels are densely painted with a tripartite scheme corresponding to the base, the curvature below the carination, and the main walls of the vessels. Two concentric bands enclose the interior central field. The inner band is joined by cusps that radiate from the central design and the outer band is either free floating or joined to other elements. Among the various types of ceramic vessels in the entire Susiana sequence, such bowls exhibit the most varied and complex decorative schemes. The same can be claimed for the similar Ubaid 2/Haji Mohammed open bowls in southern Mesopotamia.

Specific to the early Middle Susiana decorative repertoire are the lip frieze of reserved crescents (fig. 3:O), occasionally grading to pendant triangles, and the oval fields in the central quadrants filled with fish, birds, and other subsidiary motifs on the interior of open bowls (fig. 3a:A–D). While the reserved crescents are common in both Susiana and southern Mesopotamia, filled ovals are found only at Chogha Mish. This specific decorative feature disappeared in the following late Middle Susiana phase.

Another specific feature of the early Middle Susiana bowls is the technique of covering the exterior of some open forms with large panels of paint with small reserved triangles between them (fig. 3a:C, O). Bowls decorated with such panels usually have a dense lattice grid of crossing diagonal lines on the interior walls. In the following late Middle Susiana phase, these grids become much more open and by the end of the phase the crossing diagonal lines are replaced by clusters of crossing diagonal lines separated by empty space (fig. 3a:M–N). Toward the end of the phase, the cusps are substantially attenuated.

Tab handles continue from the Early Susiana period with more elaborate decorations than before (figs. 3a:DD; 50:D). They disappear by the end of the Middle Susiana period. The common, intricately decorated lids of the Early Susiana period are replaced by much simpler but deeper lids (fig. 3a:XX). Early Middle Susiana lids have parallels in both Susiana[155] and southern Mesopotamia.[156] More sophisticated lids in the manner of the typical Middle Susiana radiating design also occur (fig. 3a:WW) but are extremely rare.

155. Dollfus 1978, fig. 17:7, Tappeh Bandebal levels 16–11.

156. Stronach 1961, pl. 57:7–9; Ziegler 1953, pl. 25:C.

Tortoise jars appear in the early Middle Susiana phase and continue until the end of the period (figs. 3a:BB–CC; 52). Their defining features include a lentoid body, hole mouth, and large flaring spout. They are well known in both southern (at Eridu and Ras al-ʾAmiya)[157] and northern Mesopotamia (at Gawra).[158] In Susiana the only site other than Chogha Mish that has these vessels is Jawi, north of Susa.[159] In the first part of the Middle Susiana period, the decoration of these vessels consists of a broad wash of paint that covers both the spout and the entire body above the carination (figs. 3a:CC; 52:A, D). Reserved narrow vertical bands or horizontal wavy lines provide the decorative patterns. Later in the sequence, the meticulously reserved lines seen on the Archaic and Early Susiana vessels are replaced by incised lines (fig. 3a:CC), though a few vessels still bear the reserved lines. The few tortoise vessels dated to the late Middle Susiana phase (figs. 3a:BB; 52:H, I) are invariably decorated with motifs typical of the phase.

Another Middle Susiana innovation is a peculiar class of pottery objects that, for lack of a better term, we call "stands." Their highly specialized form has a concave top with a circular hole in the middle and an open base (figs. 3a:AA; 51). The top is always highly decorated and the cylindrical walls of the base are almost always decorated with a row of zigzags bordered by two wide bands, a pattern already known from the Archaic period. If they served as stands for porous pottery vessels (not common in the period) and the hole is designed to drain the moisture, the need to decorate a covered space becomes superfluous. Such vessels seem to be limited to Chogha Mish; they are not reported from Mesopotamia.

A certain class of ring-based bowls appears by the end of the early Middle Susiana phase and as such may be considered transitional to the following late Middle Susiana phase (fig. 3a:NNN). This specific form, with its specific decorative design, is at home in Fars during the Tall-e Bakun B2 and Tall-e Gap phases. The walls of these bowls are unusually straight. The exterior walls are left plain save for two bands covering the lip and the ring base; the interior decoration consists of comparatively large motifs organized with reference to the lip, a scheme that contrasts sharply with the standard Susiana practice where the focal pattern is usually the center of the bowl. In this new group, the center of the vessel is left unpainted. In several examples, the areas of the three pendant triangles are subdivided into four smaller triangles; the middle one is left blank, but the three surrounding triangles are filled with crosshatching. Later in the phase, and particularly in the Late Susiana 1 phase, these divided crosshatched triangles are applied to a number of shapes and with more complex combinations of motifs (fig. 3a:OOO–PPP). Such triangles appear in Fars at the beginning of the Bakun B2 phase, perhaps slightly earlier than late Middle Susiana, but the earliest exact parallels are found on the famous Samarran high-neck jar from Tell Hassuna.[160] At least one millennium separates the Samarran and Middle Susiana periods, but it must be noted that the Samarran style of pottery decoration did not evolve from the preceding Hassuna phase and may have an Iranian origin, though no intervening culture has been found in Iran to fill the gap.

POST-MIDDLE SUSIANA DEVELOPMENT

An understanding of the burst of innovative motifs and compositions of the post-Middle Susiana period rests on the overall cultural development in this phase. During the early Middle Susiana phase, the interregional pottery tradition of the earlier phases continued. Close parallels still existed between the ceramics of Susiana, Deh Luran ("Khazineh Phase"), and southern Mesopotamia (Ubaid 2/Haji Mohammed and Eridu levels XII–IX). The change in the Susiana ceramic tradition was part of larger regional developments. A number of surveys indicate that this phase was a time of population increase in southwestern Iran.[161] It was also a period of expansion and possibly migration from Mesopotamia to more marginal regions, such as those along the Persian Gulf coast (Burkholder 1972; Burkholder and Golding 1971; Oates et al. 1977). By the middle of the period, the number of sites in Susiana reached a maximum. Chogha Mish grew to be the largest settlement, a development paralleled in Deh Luran where at least two sites grew to more than 3 ha (Hole 1987: 37, 40). The sheer size of Chogha Mish, about 15 ha in this period, makes it the largest population center in southwestern Iran. Though the architecture is mostly residential, the evidence of a 10 × 15 m monumental structure (the Burnt Building) with thick plastered walls (1.50 m thick) suggests the existence of non-domestic architecture as well. The stacks of jars found in a back room of the Burnt Building imply storage facilities and perhaps distribution of goods, but the presence of many complete flint blades, flint chips, and nodules gives an indication of a workshop as well (Kantor 1989/90: 33–34).

157. Safar, Mustafa, and Lloyd 1981, figs. 72–73; Stronach 1961, pl. 56:3–5.
158. Tobler 1950, pl. 69:24.
159. Dollfus 1983, fig. 18:6–8; 23:7, 10.
160. Figure 3a:YY; see also Lloyd and Safar 1945, fig. 1:2.
161. Adams 1962; Hole 1987; Dittmann 1984; Alizadeh 1992. See also Kouchoukos 1998 for a comprehensive review of the survey results.

As described in *Chapter 1*, violence may have ended the Middle Susiana period at Chogha Mish, as suggested by the evidence of fire in the Burnt Building. This large Middle Susiana center, along with some contemporary sites, was abandoned, not to be re-occupied for perhaps several centuries. A similar development occurred in Deh Luran. These events culminated in major changes in the Susiana society by the fifth millennium B.C.

By the end of the early Middle Susiana phase, the interregional artistic tradition that was shared for at least a millennium between southwestern Iran and Mesopotamia seems to have ceased. There appears to have been a reorientation in the interregional contact. This development may have been the result, among other things, of the rising regional elite who sought resources that could be found only in the highlands. The following Late Susiana period was a time of increasing contact with the highlands, as suggested by the general similarities among the regional ceramics of southwestern Iran. A general westward shift of the settlements in Susiana also occurred. The large cemeteries of Hakalān and Parchineh in the Zagros Mountains appeared in the first half of the fifth millennium B.C.[162] As we discuss in *Chapter 1*, these cemeteries were not associated with any settlement and are located in an area unsuitable for grain agriculture, suggesting their use by mobile pastoralists. Similar cemeteries of later historical periods in this region reinforce this attribution.

LATE SUSIANA PERIOD

Any interpretation of post-Middle Susiana archaeological data, from the lowlands in general and from Chogha Mish in particular, must in part depend on an understanding of the break in the sequence at Chogha Mish between the Middle and Late Susiana periods, on the one hand, and on the westward movement of settlements during that hiatus on the other. Thus, the following observations are offered in an effort to account for these events.

The painted ceramics of the Late Susiana period can be divided into two related but separate groups with known stratigraphic niches. One group is characteristic of the earlier part of the period, that is, the Late Susiana 1 phase, which begins more or less with the abandonment of Chogha Mish after the Burnt Building was destroyed by fire and sealed. The second group represents the entire prehistoric sequence at Susa and its contemporary sites, just prior to the Terminal Susa phase (ca. 4000–3900 B.C.).

Excavations at Chogha Mish and other sites in Khuzestan, as well as the ceramics collected from numerous surveys, demonstrate that the vessel types and painted designs that Le Breton attributed to his Susiana sequence "d" can be divided into two distinct classes of pottery representing two chronologically sequential phases. The characteristic shapes and decorative motifs that comprise Le Breton's earlier phase d can now be attributed to the late Middle Susiana phase. In Susiana this class of pottery is known from Chogha Mish, Jafarabad (levels 3m–n), Jawi (period II), Tappeh Bandebal (period II, levels 27–16), Farrukhabad (Farukh phase), and Tappeh Sabz (Bayat phase) in Deh Luran.

Numerous surveys have discovered examples of Le Breton's later phase d ceramics, but only three sites provide stratigraphically controlled evidence of this pottery class. In Khuzestan, comparative material comes from Tappeh Bandebal and Qabr-e Sheikheyn. In Deh Luran, Farrukhabad is the only site that has produced stratified materials for this phase.

The stylistic distinction between the pottery assemblages of the two phases is made based on both vessel shapes and painted designs. Some typical examples of the Late Susiana 1 phase ceramics that come from the Gremliza collection (Alizadeh 1992) are illustrated here (figs. 4–5).[163] The repertoire of the painted motifs of the Late Susiana 1 phase is large and varied. Naturalistic, stylized, and geometric motifs occur. The most characteristic examples of this class are bowls with a sharp carination near the base and numerous dots as a subsidiary design element.

Assigning surface collections to various chronological phases and periods in the absence of comparative stratified materials is, of course, filled with pitfalls. To avoid a stylistic selection in order to isolate a chronological phase, we rely mostly on the excavated materials from Tappeh Bandebal, Farrukhabad, and occasionally Qabr-e Sheikheyn. However, searching for parallels and diagnostics only among stratified materials is serviceable up to the point of establishing a chronological niche for the survey materials. The numbers of published examples from Bandebal and, particularly, Farrukhabad are limited. Even with a greater number of examples, the strong possibility remains that not all characteristics are represented at any given site. Therefore, pieces not represented in the excavated materials

162. Haerinck and Overlaet 1996; Vanden Berghe 1970, 1973a, 1973b, 1975.

163. Examples illustrated in figures 4–5 are *not* from Chogha Mish. The figures include pottery vessels discovered by Dr. Gremliza (Alizadeh 1992) in his survey of Susiana and are illustrated here for comparative purposes.

are included in the pottery repertoire of this later phase based on stylistic similarities and their absence from sites with a known stratigraphic hiatus between the late Middle Susiana and Late Susiana 2/Susa 1 phase (e.g., Chogha Mish and Jafarabad). Admittedly, relying on negative evidence is not an ideal way to date unrepresented pieces. It is, nevertheless, warranted and practical because of the well-known pottery sequence of Susiana and our knowledge of its relative chronology.

The change in the ceramic tradition seems to coincide with, or was the result of, changes in settlement pattern and some regional developments. Chogha Mish was abandoned after the conflagration of its Burnt Building, marking the end of the Middle Susiana period.[164] The site was re-occupied sometime during the Late Susiana 2 phase, probably when Susa was already a full-fledged town. Evidence from archaeological surface surveys indicates that during the period between the desertion of Chogha Mish and the founding of Susa no one site attained — as far as size is concerned — a central position as did Chogha Mish before and Susa later, with the possible exception of Chogha Do Sar (see *Chapter 1*). Moreover, there seems to have been a drop in the regional population as well as a general tendency for the settlements to move to the west of the plain (Hole 1987: 85–86).

The distinguishing marks of the Late Susiana period in the Susiana sequence not only include a characteristic change in the spatial distribution of settlements, but also a new class of pottery with stylistic links to the earlier local traditions and to those in the highlands. Nevertheless, there is substantial continuity from the preceding phase in the style and mannerism of decorative motifs. Thus, one might choose to treat this class of pottery as the final manifestation of the Middle Susiana period.

For several reasons, however, we consider the term "Late Susiana 1" more appropriate for this phase and its pottery repertoire, taking into account the following observations: (1) there seems to be more continuity from this phase to the Late Susiana 2 (Susa 1) than there is between this and the preceding late Middle Susiana; (2) a number of important constituents of late Middle Susiana pottery disappear in this phase, while a number of new shapes and painted motifs appear (e.g., fig. 4:A–F, H); and (3) the change in the pottery repertoire coincided with or was the result of some regional and interregional developments such as: (a) the abandonment of Chogha Mish as the largest site in Susiana; (b) the shift of the Susiana settled community from the east to the west; (c) the appearance of isolated cemeteries in highland Iran, suggesting the existence of developed and organized mobile pastoralist groups; (d) the perceived increasing contact with the highlands; (e) the development and specialization of other crafts such as architecture and administrative technology; and (f) the appearance of Late Susiana 1 pottery in the Central Plateau (see *Chapter 1*).

These observations suggest that the end of the Middle Susiana period cannot be considered as one of stylistic change in the ceramic tradition. Rather, the new forms and painted motifs seem to be a reflection of far greater socioeconomic and political changes that were paving the way to urbanization and formation of state organizations that appear one thousand years later. These transformations occurred at a historical juncture when there were signs in southwestern Iran and southern Mesopotamia of increasing socioeconomic complexity.

CHARACTERISTICS OF LATE SUSIANA 1 POTTERY

The most prominent and readily recognizable element among the painted designs of Late Susiana 1 pottery is the dot motif,[165] a decorative scheme consisting of series of small dots usually arranged in horizontal rows accompanying solid elements, or scattered randomly on the surface of the vessel. These dots appear with simple geometric designs and stylized animal motifs. Various combinations of these elements usually appear on bowls with a sharp carination above the base and with cylindrical or slightly incurved walls (fig. 4:A, C–D). They also appear on cylindrical vessels with flat bases. Bowls decorated with multiple painted bands without the dots also occur (fig. 4:E–F). Another typical and new form is a deep, conical goblet with a shaved, pointed base and simple painted geometric decoration.

Bowls decorated with a series of concentric circles inscribing an "hourglass" or a "sun disc" also appear in this phase (fig. 5:A). These bowls seem to be absent from Farrukhabad and Tappeh Bandebal but are common

164. There is probably a Late Susiana 1 phase occupation on the High Mound at Chogha Mish, of which very little material (mostly sherds) was recovered (H. Kantor, pers. comm.). Moreover, recently I found a few sherds decorated with the dot motif in the Chogha Mish collection at the Oriental Institute. Even so, if Chogha Mish continued to be occupied during the Late Susiana 1 phase, it must have been an insignificant settlement. in addition, these few sherds can be attributed to a nomadic camp at the site, as it was an ideal location for camping as it is today.

165. Although in the majority of cases dots are used as filling or subsidiary motifs, following Henry Wright (1981a) we use the term "dot motif" because it is simple and graphic.

at Qabr-e Sheikheyn (Weiss 1976, fig. 20:110–11). Another prominent type, apparently absent in the Deh Luran plain but present in Susiana and in the Zagros Mountains,[166] consists of bowls with either concave or flaring walls (Weiss 1976, fig. 18; Dollfus 1983, figs. 71:8, 81:15). The latter usually have a sharp carination close to the base. Two narrow bands in reserve separate the central motif from the lip and base bands (fig. 4:G–H). The area between these bands is covered with paint, leaving opposed diagonal bands and equilateral triangles in reserve (fig. 4:H). In a variant of this type, the middle frieze is executed in the positive (fig. 5:C). This type is also absent from Chogha Mish and Jafarabad; since it appears in Bandebal levels 17 and 16, it may have started in the Late Middle Susiana phase and subsequently became popular during the Late Susiana 1 phase. Exact parallels and many other variants of this type of shape and decoration occur at Tall-e Bakun B (Egami and Masuda 1962, figs. 15:13, 17:8), Tall-e Gap (Egami and Sono 1962, figs. 14:7, 17:10, pl. 21:1), Tappeh Sialk (Ghirshman 1938, pl. 81:14), and Tappeh Giyan (Contenau and Ghirshman 1935, pl. 48).

Naturally, there is also evidence of continuity from the earlier Middle Susiana pottery tradition. Prominent among the carryovers are: large open bowls with a simple band on the exterior lip and a series of triple or quadruple diagonal lines or festoons hanging from the interior lip (fig. 37:C–D, G); the geometric design consisting of one or two rows of solid lozenges, bordered with multiple horizontal bands (fig. 46:B); small hemispherical jars (fig. 44:N); bowls decorated with a frieze of crosshatched triangles and a sigma motif (Wright 1981a, fig. 18:a–c); and jars with completely painted necks (figs. 46:A, E–F, I; 47; Wright 1981a, fig. 24:A, table 8).

Other prominent late Middle Susiana ceramic types that continue into the Late Susiana 1 include bowls and hemispherical jars with a decorative design that evolve throughout the Susiana sequence. The decoration usually consists of a frieze of large, bold zigzags; large triangles fill the interstices of the zigzags. These triangles are broken up into three smaller crosshatched triangles (figs. 5:D) and its variant (figs. 4:G; 44:R). A simpler version of this design appears first in the Archaic Susiana 3 phase (fig. 67:B) and continues into the Early (fig. 58:I), Middle (fig. 44:R), and Late Susiana periods.[167]

Stratified Evidence for the Late Susiana 1 Phase

In an earlier study (Alizadeh 1992) we discussed in detail the evidence pertinent to the establishment of a phase between the destruction and subsequent abandonment of Chogha Mish and the establishment of Susa as a new regional center. This new phase not only represents the major spatial rearrangement of population centers and some sociopolitical upheaval in Susiana during the first half of the fifth millennium B.C., but it also represents a class of pottery that is akin to the millennia-old tradition of the lowlands. More importantly it has affinities with the highland ceramic tradition, primarily with that of prehistoric Fars.

The following discussion of the stylistic and stratigraphic position of the new class of pottery was published in Alizadeh 1992. Since then, only one study (Kouchoukos 1998) has addressed these issues. Moreover, no new body of related material has been published from Susiana. Thus we present our argument here in its entirety with some modification based on the analysis of Kouchoukos. The Late Susiana 1 pottery assemblage, as defined and described here, is found stratigraphically above that of the late Middle Susiana. This Late Susiana 1 phase pottery assemblage is extremely rare at Chogha Mish and seems to be absent from Jafarabad, indicating a gap at Jafarabad between levels 3m–n and 3d–l, and between the late Middle Susiana Burnt Building and the Late Susiana 2 occupation of the High Mound at Chogha Mish.

Potteries from Farrukhabad and Tappeh Bandebal help establish a stratigraphic niche for this phase. Bandebal's levels 28–10 have been divided into three periods, Bandebal I–III. Level 28 is assigned to Bandebal I, levels 27–11 to Bandebal II, and level 10 to Bandebal III. Period II is divided into three phases. The earliest, levels 27–19, correspond to the late Middle Susiana phase, levels 18–13 to "transitional" late Middle Susiana, and levels 12–11 to the period between the late Middle Susiana and Late Susiana 2 phase/Susa 1.[168]

Tappeh Bandebal level 16 seems to be basically late Middle Susiana, but with some carryovers into the following phase. Among them, large bowls decorated with sets of concentric parallelograms separated by solid bands

166. For example, see Contenau and Ghirshman 1935, Tappeh Giyan level Vc, pl. 48:22; Vanden Berghe 1975, fig. p. 56.

167. For various later examples of this prominent design, see de Mecquenem et al. 1943, fig. 112:24–25 (Buhalan); Vanden Berghe 1975: 56 (Parchineh, tomb A 30); Dollfus 1975, fig. 22:2 (Jafarabad); Dollfus 1978, fig. 14: (Jowi); Pottier 1923, no. 15 (Susa).

168. In her chronological chart, Dollfus (1983: 166–67, table 41) separates levels 12–11 from level 13 by a broken line. In the text, however, level 13 is added to levels 12–11 to represent her "période 12."

are noteworthy (fig. 4:B; Dollfus 1983, fig. 74:5). Another characteristic motif is found on some decorated bowls whose exterior is covered with paint with opposed hatched diagonal bands in reserve (figs. 4:H; 5:C; Dollfus 1983, fig. 71:8). These bowls do not occur at Farrukhabad but are found at Qabr-e Sheikheyn (Weiss 1976, fig. 18:92). Simple bowls decorated with multiple broad horizontal bands first appear in levels 17 and 16 and continue into level 11; this motif was later accompanied by dots (fig. 4:C–D; Dollfus 1983, figs. 65:1, 74:1–2, 83:9). At Farrukhabad this type is found in layers B 44–37 and A 30–24, indicating that the multiple bands motif appeared a little later than some other characteristic motifs (Wright 1981a, table 8). These bowls are absent from Tappeh Sabz, "Bayat phase," Chogha Mish, and Jawi, but common at Bandebal and Qabr-e Sheikheyn (Weiss 1976, fig. 29:3–4).

The pottery from level 15 at Tappeh Bandebal is not illustrated. Level 14 still has some late Middle Susiana pottery, but the prominent Late Susiana 1 bowls with sharp carination near the base appear in this level (Dollfus 1983, fig. 85:15, 17). It is interesting to note that these bowls, along with other Late Susiana 1 characteristics, appear first in level 19 and become frequent in levels 17–11 (Dollfus 1983, fig. 65:8–9, table 27).

Bold motifs combined with the dot motif, which constitutes an important constituent of the Late Susiana 1 painted designs repertoire, appear for the first time in level 14 at Tappeh Bandebal (fig. 4:A, C; Dollfus 1983, fig. 82:2). Another characteristic of Late Susiana 1 ceramic motifs in level 14 is the combination of opposed hatched bars linked by chevrons whose apices touch the upper and lower framing bands (fig. 5:C; Dollfus 1983, fig. 82:8). This motif and its variants occur at Qabr-e Sheikheyn (Weiss 1976, fig. 18:92–94) but are absent from Farrukhabad. In addition, some painted designs more common in eastern Iran also appeared in level 14. One example, found on a bulbous jar, consists of a row of crosshatched lozenges, probably an abstraction of a "lizard," linked by chevrons (Dollfus 1983, fig. 81:14). This design is absent from Chogha Mish, Jafarabad, and Qabr-e Sheikheyn but common in Kerman and especially in Fars.[169] The decoration consists of one file of crosshatched rectangles that are attached to one another and to the framing elements with small solid squares at their corners (Dollfus 1983, fig. 82:1). One example of this type was found at Chogha Mish (fig. 3a:BBB) and therefore may be a carryover from the late Middle Susiana phase. Late Susiana 1 motifs and shapes become dominant in Bandebal levels 13, 12, and especially 11. They include bowls with sharp carination near the base (Dollfus 1983, fig. 81:15,17), opposed crosshatched bars (Dollfus 1983, figs. 81:15, 82:8), and bowls decorated with dot motifs (Dollfus 1983, fig. 82:2). None of these shapes and motifs occur at either Chogha Mish or Jafarabad.

At Farrukhabad the Late Susiana 1 pottery was found in two excavation areas, A and B. Levels 31–23 in area A and levels 47–37 in area B are dated to the "Farukh phase" (Wright 1981a: 8, 57–60). Whereas Late Susiana 1 was the earliest phase reached in area B, in area A Farukh phase layers were found above the deposits of the late Middle Susiana phase ("Bayat phase" in Deh Luran) with no apparent gap. The site seems to have been abandoned sometime during the Late Susiana 1 phase and was re-occupied during the Protoliterate phase.

At Farrukhabad Late Susiana 1 ceramics were also found mixed with some late Middle Susiana carryovers, but the few published examples do not show the variety in shape and decoration found at Tappeh Bandebal and Qabr-e Sheikheyn. Tall beakers with narrow and pointed bases occur. In many cases, the base is scraped and rounded, but examples with shaved bases also occur (Wright 1981a, figs. 13–14, 24–26). The two examples that are reported from Bandebal (Dollfus 1983, fig. 83:2) and Qabr-e Sheikheyn (Weiss 1976, fig. 29:11) are plain. At Farrukhabad both plain and painted types occur; the latter has a simple design consisting of lip and base bands that border a wavy line framed by four vertical lines (Wright 1981a, fig. 14:a–b). These beakers are reported to be restricted to the Farrukh phase (Wright 1981a: 26). Again, they are absent from Chogha Mish and Jafarabad.

The characteristic simple bowls with multiple band motifs and dot motifs also occur (Wright 1981a, fig. 15:H). Dot motifs typically occur on bowls with concave or flaring walls (Wright 1981a, fig. 17:a–g). Wright attributes a specific bold decorative element termed the "step motif" to this phase as well (Wright 1981a, fig. 19:a–f). This motif is not reported from Tappeh Bandebal or Qabr-e Sheikheyn, which may be an accident of discovery.

Certain shapes and decorative motifs of Late Susiana 1 pottery are absent from Farrukhabad as well. If not accidental, the absence of these shapes and motifs suggests regional variation rather than chronological difference. This suggestion is supported by the fact that several typical late Middle Susiana pottery types continue into the Farukh phase with no stratigraphic gap between layers A 33 (late Middle Susiana) and A 31 (Farukh phase).[170] The missing shapes and motifs from Farrukhabad include flat-base cylindrical jars, bowls with a sharp carination near the base

169. For examples, see Caldwell 1967, figs. 4–5; Lamberg-Karlovsky 1970, fig. 37:M; Beale 1986, fig. 4.21:C; Langsdorff and McCown 1942, pl. 61:2; Stein 1936, pls. 21:41, 28:27; Egami and Sono 1962, fig. 20:12.

170. It must be noted that most types missing from Farrukhabad were present in the Louvre pottery collection from Tappeh Khazineh (in the Deh Luran plain).

that is decorated with simple bands (fig. 4:C–F), open bowls ornamented with a series of concentric circles inscribing an "hourglass" or a "sun disc" (fig. 5:A), the combination of various stylized animals and dots, and bowls decorated with opposed hatched diagonal bands. Most of these shapes and motifs occur at Tappeh Bandebal and Qabr-e Sheikheyn (Weiss 1976, figs. 18, 20, 22).

Evidence of Late Susiana 1 Occupation at Susa

The abandonment of Chogha Mish by the end of the Middle Susiana period cannot, of course, be equated with the disappearance of its large population and its resident ruling elite. If, as we propose, interregional conflict and security were the contributing factors for the Chogha Mish elite to relocate, we may be able to demonstrate this archaeologically, admittedly with the help of circumstantial evidence. It seems that Susa was founded as a large urban center. If the late Middle Susiana inhabitants of Chogha Mish indeed chose to relocate to the site of Susa, it is impossible to determine at what point during the Late Susiana 1 phase this happened. The purpose of this section, then, is to demonstrate that Susa was founded much earlier than is traditionally thought and as such is an excellent candidate as the locus to study the continuity of social complexity that started at Chogha Mish two thousand years earlier.

Susa 1 (Acropole levels 27–25) is known to be chronologically later than Tappeh Bandebal levels 12–11, Qabr-e Sheikheyn levels 5–2, and Farrukhabad levels B 37–47/A 23–31. It is also considered contemporary with Jafarabad levels 3–1, Chogha Mish Late Susiana 2 High Mound, Tappeh Bandebal III level 10, and Qabr-e Sheikheyn level 1. However, the following observations indicate that Susa must have been occupied at the least in the Late Susiana 1 phase when Chogha Mish laid abandoned.

As mentioned, the dot motif is a distinctive decorative element and an unmistakeable hallmark of the Late Susiana 1 pottery repertoire, providing a reliable, stratified diagnostic for this phase. This decorative element is absent from Late Susiana Chogha Mish, Jafarabad levels 3–1, and Tappeh Bandebal III level 10, all contemporary with Susa 1 levels 27–25. On the other hand, it occurs at Bandebal II levels 14–11, Qabr-e Sheikheyn levels 4–2, and Farrukhabad levels B 37–47/A 23–31, all earlier than Susa 1 levels 27–25. The presence of this and other Late Susiana 1 motifs at Susa argues for an earlier date for Susa 1 basal levels than traditionally thought, making Susa 1 partly contemporaneous with the Late Susiana 1 sites just mentioned and therefore much closer in time to the fall of Chogha Mish at the end of the Middle Susiana period.

The presence of the dot motif at Susa is indicated by various examples published from the site.[171] Other early motifs at Susa include bowls decorated with pendant scallops on the interior lip (fig. 3a:Z; Le Breton 1947, fig. 47:8), concentric bold circles framing a central element (fig. 5:A; Le Breton 1947, fig. 48:12–15; Stève and Gasche 1971, pl. 39:17), and bowls decorated with a multiple-band motif (fig. 4:E–F; Stève and Gasche 1971, pl. 34:23).

It can be argued that, as with the late Middle Susiana carryovers, the typical Late Susiana 1 motifs found at Susa are also survivors of the preceding phase and, as such, do not necessarily indicate a chronological presence of the Late Susiana 1 phase. This argument would be strong and convincing if other contemporary sites, such as Chogha Mish, Jafarabad levels 3–1, and Tappeh Bandebal III level 10, had similar assemblages, which they do not. The presence at Susa of the above motifs and shapes, characteristic of the Late Susiana 1 phase, and their absence from Chogha Mish, Jafarabad levels 3–1, and Bandebal III indicate that Susa 1 partly overlaps with the Late Susiana 1 phase and must have been founded sometime during the Late Susiana 1 phase. If further investigation and detailed analysis of the unpublished materials from Susa, or future investigation at the site, provide solid stratigraphic evidence for the above observations, then that evidence will be theoretically significant in the study of socioeconomic and political development in Susiana.

If we are justified in stretching the initial settlement at Susa to an earlier phase, then it is reasonable to suggest that Chogha Mish inhabitants sought to resettle in a less volatile region, away from the troubled area, and so founded Susa on the western part of the plain, if not immediately, then soon after they left Chogha Mish. This suggestion also helps explain the large initial size of Susa and its associated socioeconomic eminence from the onset, a development that must have started prior to the founding of Susa, whether at Chogha Mish or at some as-yet undiscovered site. Admittedly, this hypothesis can only be tested by precise radiocarbon dating from both Chogha Mish and from the deepest level at Susa, which are to date unavailable.

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171. For examples, see Le Breton 1947, figs. 47:26–30, 32–33; and Stève and Gasche 1971, pls. 40:17–18, 41:35.

Following Veenenbos (1958), Kouchoukos (1998) discusses a geomorphological factor that might have played a role in the changing of settlement patterns in lowland Susiana in the fifth millennium B.C. Veenenbos argues that for much of the earlier Holocene the Susiana plain was rapidly aggrading. Based on an analysis comparing the dated basal levels at excavated sites in Deh Luran and Susiana with the elevations of the surrounding floodplain, Michael Kirkby (1977) concludes that aggradation was already in progress as early as 8000 B.C. and continued at a rate of about 0.6 mm per year until roughly 2000 B.C., when aggradation slowed and the major rivers began to incise the plain.

Kouchoukos (1998: 95–105) argues that while this holds possible for the Dez and Karun rivers, remnant levees show that the Karkheh River was a meandering system. Braided channels form when streams are charged with a high sediment load too coarse to be carried in suspension. In such cases, the load is deposited along the course of the river, forming elongated sediment bars around which the river diverges and recombines. In regions such as Susiana where the river channel gradient is steep and the bank material readily erodable, braided rivers form wide, shallow, and relatively straight valleys. Such river systems are inherently unstable, leading, in times of flood, to extensive deposition of fine sediments and also making them susceptible to abrupt diversions of flow.

According to Veenenbos (1958), the Dez and Karkheh rivers were migrating gradually westward for much of the Holocene period, perhaps due to the tectonic uplift of the eastern region of the plain. This uplifting may have generated a gentle northeast–southwest slope, dictating the direction of any artificial irrigation canals and the frequency of flooded areas to the west of these rivers. Veenenbos also observes that in antiquity the Dez followed the modern course of the Sia Mansur and Shur rivers, situated on either side of Chogha Mish. As for the Karkheh River, Veenenbos reconstructs three successive courses across the plain from the study of its relict levee system. The oldest followed the modern course of the Dez River; the middle course followed the modern Atig and Shaur streams, and the last one is the present course of the river. This suggests that Chogha Mish had been established next to the Dez River before it changed it course; it also suggests that Susa was founded on the east bank of the Karkheh River before that river changed its course to its present position.

Whether the events by the end of the Middle Susiana period were spurred by economic, sociopolitical, or purely geomorphological factors — but most probably the combination of all — the conclusion that Susa was a new home for the inhabitants of Chogha Mish, or at least its elite, seems to be warranted, but calls for further evidence and more specific data.

Late Susiana 1 and the Highland Connection

As we mentioned before, during the late Middle Susiana phase, lowland Susiana turned its attention from Mesopotamia to highland Iran. Thus we consider the increasing interregional contact between the lowlands and highlands as a contributing factor in the changes that occurred in Susiana between 5000 and 3000 B.C. The perceived increasing interregional contact could have been the result of a myriad of factors, including the rise of the local population and regional elite, their desire for interregional alliances through treaty and/or marriages, and the desire to obtain highland natural resources, including mobile pastoral productions such as meat, wool, and dairy products. Consequently, a network of exchange could have developed in which material goods, ideas, political alliances (or "symbolic understandings" as Wright [1981a: 262] put it), spouses, and craftsmen would be exchanged. Pertinent archaeological evidence for such a network of exchange has eluded archaeologists. Nevertheless, the similarity between the ceramic assemblages of the lowlands and highlands may be attributed to a shared tradition among craftsmen and interregional marriages rather than to mere imitation.

In this presumed network of exchange, the artistic and stylistic influence seems to have been mutual. Evidence, though weak, suggests that some of the new types and decorative motifs and elements in the Late Susiana 1 phase were introduced from the highland, especially from Fars. The use of dots in specific motifs and arrangements, prominent in the Late Susiana 1 assemblage, has a long history in Fars, beginning at Jari B.[172] In Fars the dot motif continued into the Tall-e Bakun B2 and Tall-e Gap phases, contemporary with the Late Susiana 1 phase, and into the following Tall-e Bakun A phase, contemporary with the Susa 1 or Late Susiana 2 phase.[173] At Bakun A, more than one hundred fragments of painted pottery bearing this motif were found in all four architectural levels. Since Bakun

172. See Egami and Masuda 1962, figs. 14:3–4; 15:9.

173. For examples, see Egami and Sono 1962, fig. 17:6–11; and Langsdorff and McCown 1942, pls. 54:15; 62:6–7; 64:5; 65:5; 70:3, 5–6, 15; and 71:3, 10.

A and Susa 1 are more or less contemporaneous, it seems that this motif had a much longer life-span in its presumed homeland than it did in Susiana. Late Susiana 1 motifs also occur in Behbahan, Ram Hormuz (Tall-e Geser, also incorrectly known as Ghazir), Luristan (Tappeh Giyan), and in the Central Plateau (in the Qum area south of Tehran, Kaboli 2000, fig. 29), indicating their wide geographic distribution.[174]

One of the most interesting painted motifs, most probably of highland Fars origin, consists of an earlier version of the well-known Tall-e Bakun A motif of a canine (dog?) chasing or guarding a goat. So far, the only Susiana example was found by Dr. Gremliza (Alizadeh 1992, fig. 59:F) on Chogha Cheshmeh II in central Susiana. On this specimen, in the manner of highland tradition, the goat is rendered as a negative image. Good parallels are found in highland Fars.[175]

Rows of standing and wading birds bordered with solid bands appear first in the late Middle Susiana phase and develop into the long-necked cranes typical of the Late Susiana 2 phase at Susa. Exact parallels for the early version of this motif abound at Tall-e Gap in Fars.[176] Similarly, plain bowls with interior design of a series of clusters of pendant diagonal or vertical lines appear first in late Middle Susiana (fig. 37:C) and continue into the Late Susiana 1 phase. Again, close parallels are found at Tall-e Gap and Tall-e Bakun A.[177]

Other common lowland/highland motifs include a slash motif that decorated the reserved areas between solid rectangles, multiple-band motif, and rows of solid lozenges with elongated horizontal ovals in reserve.[178] This last motif, usually used to decorate bowls, first appeared in the early Middle Susiana phase in Susiana (Jawi I, L 16), Dollfus 1983, fig. 15:9–10) and became popular during the Late Susiana 1 phase in both the highland and lowland.

In conclusion, the later development of the highland states that successfully integrated the lowlands and highlands seems to have its origins in late prehistoric times. The shared artistic and technical tradition of the highlands and lowlands in the fifth millennium B.C. may be taken as a prelude to the rise of the proto-Elamite civilization and the subsequent rise of the various Elamite and Anshanite polities.

174. See Dittmann 1984, figs. 24:8–21; 25:1, 6, 9 (Behbahan); Caldwell 1968, fig. 1 (Tall-e Geser); Contenau and Ghirshman 1935, pls. 49–51 (Tappeh Giyan level Vc).

175. Egami and Sono 1962, fig. 21:5, p. 36:9 (Tall-e Gap); Sumner unpublished survey, site 5K2; Stein 1936, pl. 24:14 (Tall-e Saku), and several others in the British Museum's Stein collection.

176. See Egami and Sono 1962, pl. 36:3–5, 7–8.

177. Egami and Sono 1962, pls. 26:1–4, 27:1–2; Egami and Masuda 1962, fig. 10:1, 11:12; Langsdorff and McCown 1942, pl. 29:1–7.

178. At Farrukhabad (Wright 1981a, fig. 20:D), Tall-e Bakun A (Langsdorff and McCown 1942, pl. 48:12–13), and Tappeh Giyan level Vc (Contenau and Ghirshman 1935, pl. 46).

CHAPTER FIVE
ADMINISTRATIVE TECHNOLOGY: SEALS, SEALINGS, AND TOKENS

INTRODUCTION

The crystallization of village life in the Near East coincided with the appearance of a class of clay objects known as tokens. The new economic and social environment of early Neolithic farming villages seems to have presented a strong incentive for a personal, if not interpersonal, mnemonic notation system, an exigency of life that does not seem to have been necessary in the earlier fluid hunting-gathering Upper Paleolithic communities. Nevertheless, Marshack (1972a–b) has demonstrated that abstract notation systems existed even in the Aurignacian and Magdalenian periods in Europe about 20,000 years ago. As Marshack noted, such a system need not be formal, representing actual numbers, rather it can be "an informal tradition whose basic system is the accumulation of sets and subsets, but the precise form or style of the accumulation was not culturally determined except in general terms" (Marshack 1972a: 825). Only relatively recently were such clay objects systematically analyzed and interpreted as tokens for numerical notation.[179]

Clay tokens of the early Neolithic period are simple in shape and have a wide geographic distribution in the Near East, occurring in the Levant (e.g., Beisamoun, Jericho), Jordan (e.g., Beidha, Ain Ghazal), Syria (e.g., Mureybet, Tappeh Aswad), Anatolia (e.g., Çan Hassan, Demircihöyük),[180] Iraq (e.g., Jarmo, Tell Maghzaliyah, M'lefaat), Iran (e.g., Tappeh Ganj Dareh, Tappeh Asiab, Tappeh Ali Kosh, Chogha Mish, Tappeh Zagheh), and Turkmenistan (e.g., Anau, Jeitun).[181] It is not known whether clay tokens developed in one particular region and then spread throughout the Near East. By the middle of the Neolithic period, around 5500–5000 B.C., clay tokens occur in association with monumental buildings, but the early stages of their development and utilization need not have been encouraged by regional economic impetus. Such simple systems of notation may have developed independently more than once and in more than one particular region. The human brain is hard-wired to seek patterns and to organize them into some sort of manageable form. This fact, coupled with the shared exigencies of daily life, would lead to parallel developments of simple mnemonic methods of recording numerical data with, for example, notches on a stick, a collection of pebbles (Schmandt-Besserat 1974; Lieberman 1980; Oppenheim 1959), or with a collection of variously shaped clay objects that were easy to make, store, carry, and count.

PREHISTORIC EVIDENCE

The evidence of prehistoric administrative technology at Chogha Mish consists primarily of clay and stone tokens, as well as a few stamp seals and seal impressions. Small baked and unbaked clay tokens occur in all prehistoric Susiana levels (fig. 77:A–F, H–K, O, S). The similarity in shape and size of some of the prehistoric tokens to the ubiquitous Protoliterate tokens is taken by Denise Schmandt-Besserat as evidence of the evolution of these tokens into later abstract signs (see n. 179 for criticisms of her thesis). The most common shapes among the prehistoric tokens found at Chogha Mish are cones (fig. 77:A–F), discs (fig. 77:J–K, S), and spheres (see *Chogha Mish* I, pl. 231). Such tokens have a wide geographic distribution and are reported from many prehistoric sites in the Near East.[182]

Conical and disc-shaped tokens are the most common types in the Archaic period levels. They continue into the Protoliterate phase with only slight changes in size and in general shape. Among the conical tokens, three (fig. 77:C, F, I) are similar to the T-shaped, finger-shaped stalk, and chessman figurines of the Archaic period. While one of

179. For a full treatment of these objects, see Schmandt-Besserat 1977a, 1977b, and 1992; see Friberg 1994 for a critical review of Schmandt-Besserat 1992. See also Englund 1993, 1998: 46–51; Friberg 1984; Michalowski 1993; and Zimansky 1993.

180. Baykal-Seeher and Obladen-Kauder 1996.

181. For comprehensive bibliographic references, see Schmandt-Besserat 1992.

182. See Schmandt-Besserat 1977a: 4ff.; 1992.

these (fig. 77:I; pl. 25:C, lower right) may indeed be an example of the chessman figurines typical of the Archaic Susiana 2 phase, we consider the other two specimens to be tokens because simple conical tokens with a simple or flaring base continue to occur even after the Archaic period when T-shaped and stalk figurines disappear.[183]

No seals or sealings were found at Chogha Mish in the levels earlier than the late Middle Susiana phase. A fragment of what appears to be a round clay tablet (fig. 76:EE; pl. 25:A) is a unique, enigmatic object and may be dated by context to the late Middle Susiana phase since it was found under the floor of a Protoliterate room (see fig. 17:S18:902). Two parallel impressed lines divide the surface into halves, each bearing impressions of a triangular object (stamp seal?). This singular clay object has general parallels in the contemporary Deh Luran. From Tappeh Ali Kosh and Tappeh Sabz a number of flat oval-shaped pebbles were discovered. These objects bear on one side a simple geometric (in one example, floral) incised pattern (Hole, Flannery, and Neely 1969: 200–01, fig. 86). Whether the Chogha Mish "tablet" is related in function to these Deh Luran pebbles is impossible to tell.

Various types of Early Susiana tokens were also found at Chogha Mish (fig. 77:C–E, H, K, S). One example (fig. 77:J) is remarkably similar to Schmandt-Besserat's type III. Tokens of this type bear an incised or impressed cross that Schmandt-Besserat interprets as the Sumerian pictograph for sheep (Schmandt-Besserat 1978: 56, table; 1992: 22, fig. 18.3). One elaborate object (fig. 77:K, pl. 25:G) may have been some type of tool (i.e., spool, sinker, etc.), but clay utilitarian objects are not as a rule painted and usually bear signs of wear. Moreover, both sides of the disc bear a central cross much the same as the one depicted in figure 77:J and as Schmandt-Besserat types III and 3:7 with concave sides (Schmandt-Besserat 1992: 208). The continuation of this type of token from the Early Susiana into the Protoliterate phase can be bridged by similar tokens that occur at Susa; these have a central cross but are less elaborately painted (Schmandt-Besserat 1992: 25, fig. 19). A remarkably close parallel to the token depicted on plate 25:G is reported from a Late Susiana 2 context at both Susa (de Mecquenem 1934, fig. 16:2) and Jafarabad (Dollfus 1971, fig. 21:18), indicating the long evolution of this particular shape and painted pattern from the Early Susiana to the Protoliterate phase.

A truly unique object is a perforated disc-shaped plano-convex token (fig. 77:S). The closest parallel for this token comes from Susa.[184] Dollfus (1971, fig. 21:18) reports an almost identical object from Jafarabad. The difference between the Jafarabad and Chogha Mish objects are the two small depressions the former bears at its center. Another object (fig. 77:O) is tentatively considered to be a token because it is unbaked and thus useless as a sinker; it is also too light to have served as loom weight.

The majority of clay tokens datable to the Middle Susiana period are spherical and disc-shaped.[185] The few Middle and Late Susiana sealings and stamp seals found in the first five seasons of excavations are fully discussed in *Chogha Mish* I.[186] Surprisingly, no sealings or seals datable to the Middle Susiana period were found in the subsequent seasons. The four stamp seals illustrated in figure 76 (A–C, E; pl. 22:C), as well as the stamp seal on plate 22:A, date to the Late Susiana 2 phase. While some of these objects (fig. 76:A, C–D; pl. 22:A) are typical of the late prehistoric period both in the shape and geometric design, one (fig. 76:B; pl. 22:C) is different. The main motif on this seal is a single quadruped. In Iran, stamp seals with animal or human designs apparently first appeared in the final phases of the prehistoric period and continued into the Protoliterate phase.[187] Further, this object does not have a provenance and could well belong to a phase later than the Late Susiana 2 phase.

Only two clay sealings (fig. 76:U, Y) can be assigned to the Late Susiana 2 phase. These sealing fragments unquestionably belong to door sealings with multiple seal impressions, much the same as the late prehistoric door sealings found at Susa and Tall-e Bakun A.[188]

PROTOLITERATE PHASE

The largest corpus of clay tokens from Chogha Mish belongs to the Protoliterate phase. Protoliterate tokens from Chogha Mish are fully discussed and illustrated in *Chogha Mish* I,[189] where Kantor discusses the Protoliterate seals and sealings not only from the first five seasons, but also those discovered during the later seasons.[190] In the

183. A number of conical tokens with fingernail impressions, discussed by Schmandt-Besserat (1992: 204, types 1:30–32), bear general similarities to figure 74:I.
184. Schmandt-Besserat 1992, fig. 36.3, bottom row, second from right.
185. See also *Chogha Mish* I: 253–54, table 27.
186. *Chogha Mish* I: 256–57, pls. 67, 234.
187. Stamp seals with animal and/or human design occurred much earlier in upper Mesopotamia during the Halaf period; for examples, see Amiet 1961, pl. 1.
188. See Alizadeh 1988a, 1988b, and 2005.
189. *Chogha Mish* I: 120–25, tables 11–12, pls. 40, 134.
190. *Chogha Mish* I: 115–48.

present volume we expand the published corpus of seals and sealings by adding the remaining recognizable pieces in figures 76 and 77. Here, examples found in the sixth and later seasons are illustrated (fig. 77:G, L–R). Two new types are depicted in figure 77 (N–O). They are classified by Schmandt-Besserat[191] as paraboloid tokens; their earliest type is represented by figure 77:I.

The only intact cylinder seal (fig. 76:D) bears superimposed rows of fish, a typical Mesopotamian Late Uruk/Terminal Uruk design.[192] The seal was found in the debris capping the monumental Protoliterate building in the East Area, suggesting the possibility of a later Protoliterate architectural phase there; similar seals were found in level 17 of the Susa Acropolis.[193] Two additional stamp seals (pl. 22:B, D) were also found in a Protoliterate context. The first example (pl. 22:B) is a stamp seal with a geometric design. The back of the seal is provided with a loop handle. The other stamp seal (pl. 22:D) has what seems to be a design composed of two feet depicted pointing in opposite directions. Stamp seals with almost identical designs are also found at Susa and Tappeh Yahya in Kerman.[194]

The various types of sealings found in most of the Protoliterate levels consist of door, bag, bale, and jar sealings, as well as clay balls, bullae (solid egg-shaped tags), and tablets. Six new examples of tablets are discussed here (fig. 76:CC, FF, pl. 22:F-K). One (fig. 76:CC; pl. 22:J) is a flat tablet with four impressions of a seal, the design of which is shown on another (fig. 76:FF; pl. 22:K). The seal impressions on both these objects were not created in the normal manner of rolling the cylinder on the wet clay, but rather in the manner of stamp seals. From the impressions it appears that the entire cylinder was pressed against the clay to make the impression of the whole seal. Similar cylindrical impressions do occur on square and rectangular tablets of the terminal Susa 1 phase, but the impressions on figure 76:CC were made with a plain cylindrical object.[195] The one example that is remarkably similar to these two tablets is reported to have come from Tappeh Sabz in Deh Luran (Porada 1969, plate on p. 57). Whether these tablets are evidence of the initial use of cylinder seals or whether they had special meaning and function is impossible to say with the available data. It must be mentioned that similar seals dated to the Late Susiana 2 phase were found at Susa, Jafarabad,[196] and Tappeh Sabz in Deh Luran (Hole, Flannery, and Neely 1969, fig. 103:N), anticipating the more complex administrative technology of the later Protoliterate phase.

The remaining tablets (pl. 22:E–I) are made of unbaked clay with no seal impression. They only bear numerical notations and as such must belong to the last stages of the Protoliterate period. It is noteworthy that these numerical tablets were found in P17:1102, a rectangular room in the subsidiary building of the monumental Protoliterate building in the East Area (fig. 16). The impressed signs include small circles (pl. 22:E), a combination of small and large circles (pl. 22:F), ovals (pl. 22:G), long strokes (pl. 22:I), and the combination of strokes and circles (pl. 22:H). Similar or identical signs occur on the clay tablets from level IV at Warka,[197] but the Warka tablets bear pictographic signs as well. Some of the clay tablets found in Tappeh Sialk level IV are similar to the Chogha Mish tablets in that they only bear numerical notations.[198] Level IV at Tappeh Sialk is dated to the proto-Elamite period, slightly later than the latest Protoliterate occupation at Chogha Mish. But if numerical tablets preceded those with combined numerals and pictographic signs, then Sialk IV must have started earlier. Susa has also provided similar clay tablets with only numerical signs and no seal impressions from levels 17A–17B.[199]

The representations on Protoliterate cylinder seals provide a vivid picture of the society that created them. It was a society headed by a ruler always represented in the same characteristic manner. He led his community in both religious observances and in battle. The cylinder seal representations also show ordinary individuals engaged in activities of daily life (craftsmen, hunters, and herdsmen). Animals both realistic and fantastic appear in many contexts with natural scenes and abstract compositions. The art bequeathed to us by the Protoliterate phase shows that this was one of the most innovative phases in the ancient Near East.

The bulk of the material illustrating the glyptic art of the Protoliterate phase consists of impressions of cylinder seals on documents (clay balls, bullae, and tablets) and on the sealings of doors, pottery vessels, and bales or packages of various sorts. The largest groups of impressions come from Warka, Susa, and Chogha Mish in the east, and

191. Schmandt-Besserat 1992, fig. 31, 21–22.
192. Similar fish motifs appear at Susa in level 17 of Acropolis (Le Brun 1971, fig. 43:10).
193. See Vallat 1971, fig. 43:10.
194. For Susa, see Amiet 1972, nos. 379, 409–10 (the latter are square in shape). For Tappeh Yahya, see Lamberg-Karlovsky 1971: 91, fig. 2:C.
195. A baked-clay cylinder seal found in a Late Susiana 2 phase level at Jafarabad is the closest to the seal that was used to impress the object in figure 76:CC, FF both in shape, size, and in geometric design (see Dollfus 1971, pl. 9:10, fig. 21:15).
196. See Dollfus 1971, fig. 21:15.
197. Falkenstein 1936, pls. 1–18.
198. See Ghirshman 1938, pl. 92:S.1631, S.1621, S.1619, S.1617; pl. 93:S.1625, S.539, etc.
199. See Vallat 1971, fig. 43:4, 6–7, 9; Scheil 1923, pls. 3:20–21, 23; 4:28–29; 9:70; 25:160; 28:184, and so on. See also Englund (1998) for an extensive treatment of the subject.

the Habuba Kabira sites in the northwest. Despite their small scale and usually fragmentary preservation, impressions document an amazing range of subject matter and style. Actual cylinder seals are rarely found, making their absence a tantalizing problem.

CHAPTER SIX
CLAY AND STONE FIGURINES

OLD ELAMITE PERIOD

From the Old Elamite (Sukkalmah) occupation on the High Mound, a number of fragmentary baked-clay plaques with images of women were recovered. They vary in size and quality of workmanship but are typical for the period. Such figurines and figurine molds have been analyzed in detail (Azarpay 1999; Goodarzi-Tabrizi 1999; *Chogha Mish* I; Spycket 1992, 1995), we need not discuss them here.

The most spectacular object dating to the Old Elamite period is the goat-handled cup made of bituminous stone that was found on the High Mound in the ninth season (pl. 26:B). Though not technically a figurine, it is briefly introduced here; Kantor gives this object full treatment elsewhere.[200] The cup was found near the Protoliterate catch basin in N9:1005 (fig. 8) and, judging by the scattered human bones associated with it, may have been part of the funerary deposit of an Elamite grave. The cup is 14.25 cm high and the goat-shaped handle reaches a height of 16.80 cm; the diameter at the base is 7.30 cm.

Bituminous stone was used as early as the Archaic Susiana 3 phase. Bituminous stone vessels with theriomorphic ornaments and attachments appeared at Chogha Mish during the late fourth millennium B.C. and became widespread in both Iran and Mesopotamia in the second millennium B.C. Though the paucity of evidence does not allow tracing the evolution of such vessels, it seems that Achaemenid ibex-handled vessels were inspired by the Elamite tradition.[201]

PROTOLITERATE PHASE

From the Protoliterate monumental building (fig. 16) came an outstanding bone figurine of a naked woman, only 3.55 cm high (pl. 26:A). The head is rendered crudely; two shallow depressions represent the eyes; and the eyebrows, lips, and mouth are indicated by deep incisions. The hair on the back is indicated by a gentle, flowing mass; at front, two comparatively narrow locks of hair rest on the breasts. The high-quality, naturalistic modeling of the figurine and its upright stance have close parallels from other sites, namely Uruk and Khafajah. The examples from Khafajah are furnished with a round base and provide the closest parallels for the Chogha Mish figurine.

Another fragmentary figurine of a female (fig. 78:G) found in the same building represents an abstract style much closer to the style of the prehistoric figurines. This baked-clay figurine primarily consists of a cylindrical body the upper sides and top of which are stretched to form the head and arms. Two cone-shaped lumps of clay indicate the breasts.

The Protoliterate animal figurines from Chogha Mish represent either dogs (fig. 80:A) or sheep/cattle (fig. 80: C). Though the animal figurines are well proportioned and naturalistic, no attempt has been made to represent anatomical and facial details. This style is much in accordance with the rendering of animals and humans in the glyptic art of Protoliterate Iran, as opposed to that of Mesopotamia where such features are usually rendered with care.

MIDDLE AND LATE SUSIANA PERIODS

From the Late Susiana 2 phase deposit on the High Mound, a small but typical range of quadrupeds and occasionally birds or "rod/horn" figurines was discovered (fig. 80:I–J).[202] One figurine (fig. 80:I) looks like a decorated horn. In its broken state it is about 7 cm long, therefore the statuette from which it presumably comes would have been some 20–30 cm long. However, no such statuette, intact or fragmentary, has been found in prehistoric contexts. Furthermore, the thicker end of the object, which would have attached to the head, has a finished surface and there-

200. Kantor 1974/75a, 1974/75b.
201. See Kantor 1977 for a full discussion.
202. See also *Chogha Mish* I: 260.

fore was not broken off from the body. Similar decorated objects with unmistakably finished ends, reported from the Susa Acropolis,[203] make it clear that such "horns" were independent objects; perhaps they are tokens representing horned animals (possibly goats). Several pictographic signs found on proto-Elamite clay tablets from Susa look remarkably like representations of individual notched horns,[204] suggesting that perhaps one of these objects (fig. 80:I) might have been a token.

In the preceding Middle Susiana period the only common figurines represent presumably sheep and cattle; they are either decorated or plain (fig. 80:B, D–E, G–H; pl. 27:B). However, as a representative of Middle Susiana work, there is a less common and more sophisticated terra-cotta pendant in the shape of a bull head (fig. 80:G). It is not an isolated piece since there is one other example.

In contrast to animal figurines, human figurines are extremely rare in the Middle Susiana context at Chogha Mish. The two examples found can both be assigned to the initial phase of the period, early Middle Susiana. The more complete piece is a "violin" figurine with painted dots at the edge (*Chogha Mish* I, pl. 235:G). The head is broken but was presumably a round disc like the fragmentary head found in the ninth season (*Chogha Mish* I, registration number 9087).

It was during the Archaic and Early Susiana periods when figurines in human form seem to have been quite common, so much so that we can trace their gradual evolution over hundreds of years. Alongside the human figurines, both simple and occasionally more elaborate renderings of animals also occur. Outstanding among them is the stone figurine of a boar (fig. 80:F; pl. 27:B). In its overall simplicity, the piece is well proportioned and naturalistically rendered. With the help of a few simple lines, the major characteristics of a wild boar, such as snout, eyes, tail, and underbelly wrinkles, are indicated.[205] The figurine of a boar (fig. 80:F) has a perforation on the rump, suggesting that it may have been used as a pendant.

EARLY SUSIANA PERIOD

Figurines of the Archaic and Early Susiana periods were found for the most part in the area of the Gully Cut near an underlying structure with a buttressed wall and massive pottery deposits. This may have been an area of special character, but the present data preclude us from any spatial-functional analysis of the context.

Evidence is steadily accumulating to indicate the gradual transition from Archaic to Early Susiana. This can be demonstrated in great detail not only from the pottery, but also from the figurines. For example, the Archaic painted torso (fig. 78:D; pl. 28:K) is very similar to a fragmentary mid-section (fig. 78:A; pl. 28:D), as well as a torso (fig. 78:E; pl. 28:A) of the Early Susiana period; all show the same rendering of the waist with horizontal painted bands and a lower body with vertical stripes.

Two examples of the lower body of a human figurine, complete at the base, have been recovered at Chogha Mish. It is noteworthy that in each case the fragment consists of one-half of the body in lateral section (fig. 78:G–H; pl. 28:C–D). This is no accident; the figures are made from two lateral halves that were pressed together to make the cylindrical figurine. A relatively deep cleft remained where the two sections were not bonded together. This is clearly visible in the fragment of a female statuette; between the bulging breasts one can see the deep cleft where the two parts of the object come together (fig. 78:E; pl. 28:A). This fragment supports the assumption that these figurines may represent women. All have painted details and can be considered lineal descendants of such types as the Archaic 3 examples (fig. 78:D; pl. 28:K).

Excellent parallels for these Early Susiana painted figurines occur at Jafarabad, where torsos with painted costumes show how typical such figures were for the period.[206] Unfortunately, no complete painted figures were found at Jafarabad. However, two figurine heads from Chogha Mish provide more evidence for what a complete figure might have looked like. One head (fig. 78:C; pl. 27:A) is 5 cm high and thus would have belonged to a figure of larger dimensions than the examples discussed above.[207] The neck, painted with a horizontal black band, supports the vertical stance of the head. The head itself is roughly circular with an attenuated crest that is not fully preserved. The facial details consist of eyebrows, "coffee-bean" eyes, and small pellets representing or decorating the ears, as

203. Stève and Gasche 1971, pls. 37:5–9; 93:7–11.

204. For examples, see Scheil 1923: 59, first column and tablet numbers 16, 32, 64, 83, 174, and 188.

205. The striking similarity between the Chogha Mish boar and that found by Robert Braidwood at Tappeh Sarab (near Kermanshah, western Iran), indicates a shared representation style and keen observation among the prehistoric artisans in western Iran (Broman Morales 1990, pl. 2:A).

206. Dollfus 1975, figs. 32, 33:11, pl. 18:1.

207. A composite reconstruction of this head and the mid-section of the body (fig. 78:A, pl. 28:D) is illustrated on the *Frontispiece*.

well as the now-broken nose that projected from the smooth surface of the face. Black paint is used to emphasize these details, as well as the edge of the face. Two broad bands of paint run diagonally from the middle of the forehead toward the ears; two others run vertically from the eyes to the chin. We have no way of telling for certain what these painted bands represent. Possibly they are tattoos or paint actually applied to the face; they could, of course, be merely adornment of the figurine without reflecting any real feature.[208] The broken upper part of the head could have been either a headdress or perhaps a rendering of an artificially elongated skull. Such intentionally deformed skulls have been found at Susiana sites. At Chogha Mish itself a very well-preserved elongated skull was found at the bottom of Trench XXII in Early Susiana context (*Chogha Mish* I, pl. 69).

The second figurine head is smaller and, in contrast to the first, is supported by a diagonally projecting neck. The head itself is disc shaped, slightly concave in the back, and without any real modeling in front. A large nose projects from the middle of the "disc"; the two nostrils are indicated by slight indentations and are emphasized by neat dabs of brown paint. The mouth is indicated in the same way, but less neatly. Round or ovoid pellets form the eyes and the eyebrows. Bold lines running diagonally down from the bridge of the nose cannot be indisputably equated with any natural feature. The periphery of the entire front of the face is painted; the paint runs onto the back of the head where it renders the hair. A cleft running from the top of the nose over the head and down to the nape of the neck is a noteworthy feature reminiscent of the cleft on the otherwise very differently shaped head of the Archaic 3 phase (fig. 79:A). Three diagonal painted lines on the back of the neck probably indicate dress.

The best parallels for the two Early Susiana painted heads from Chogha Mish are the Samarran period heads found at Chogha Mami, though none are identical. The closest in style are four somewhat disc-shaped heads, none of which is as geometric as our examples (Oates 1968, pls. 2–3:a; 1969, pl. 26:a–f). The general similarity is obvious and includes such details as pellets at the ears, the use of paint to represent the hair and to emphasize important parts of the face, and, in some cases, the diagonal stance of the neck. Dissimilarities include the more detailed rendering of the hair with curving locks painted on the forehead and even an indication of a plait of hair fastened on the back of one of the Chogha Mami heads. Perhaps an even more noteworthy difference is the more organic structure of the eyebrows, which connect to the nose, whereas in the Chogha Mish heads what we interpret as eyebrows float as discrete elements well away from the nose.

A fifth head from Chogha Mami, though in its flattened stance is quite unlike the one from Chogha Mish, has a projection issuing from the forehead that may be similar to that which once existed in the larger example (Oates 1969, pl. 25:a–c). Two more heads found at Chogha Mish are covered all over with a red wash rather than with painted patterns. The smaller head (pl. 27:D) is also posed on a diagonally jutting neck and consists of a simple rounded face with the forehead rising up, reminiscent of the Chogha Mami head just mentioned. The sweeping nose with its carefully indicated nostrils is perfectly preserved. The "coffee-bean" eyes are huge in proportion to the rest of the head. There is no indication of a mouth or any other facial feature.

The second and larger red-washed head (fig. 78:B) is more complex and even shows a slight amount of modeling in the chin and on the side of the face. This head is much less geometric than the other, although its eyes are very unrealistic, consisting of great modeled hemispheres crossed diagonally by a narrow, deep incision. The nostrils are indicated by a slight incision; no mouth is indicated, but on the chin a large plug is plastically rendered. Comparable plugs also appear on Chogha Mami heads (Oates 1969, pl. 26:c–d). The larger red-washed head exhibits a feature that so far is unique, namely the use of perforations. Two small holes appear at the ears and five on the top of the forehead. We may speculate that originally additional elements were attached by means of these holes to represent, for example, a headdress or hair. It is tantalizing that we do not know to what kind of figure these two red-washed heads were attached. They are, however, a good indication of the variety of figurines that existed in the Early Susiana period.

Another distinct class of small, seated figurines is represented by two examples. This type probably began in the final phase of the Archaic period but was certainly rare. From the Early Susiana deposit in the Gully Cut comes a tiny figurine, only 2 cm in length, which for its size exhibits very well-modeled buttocks and back (fig. 79:B; pl. 27:F). Large pellets form the feet, the huge breasts, and the three beads of a necklace. Alternatively, these latter can be taken as representing the nose and cheeks of the figurine. This possibility is much stronger because the characteristic head cleft is well preserved just above the three clay "beads." Another, fragmentary, figure in the same seated

208. Facial tattoos are still common among both the Arabic-speaking and Bakhtiyari women in Khuzestan, and it is not farfetched to consider the painted lines on these figurines as the same.

pose was also recovered (fig. 79:C). Excavations at Chogha Mami have revealed an elaborate figure painted all over and with the feet and arms indicated (Oates 1969, pl. 28:a–b, torsos). Several of the Chogha Mami torsos have necklaces represented by pellets more realistic in their proportions than on the Chogha Mish miniature figure (Oates 1969, pls. 28:c–d; 29:a–e).

No indisputable male figurines have been found at Chogha Mish. However, the general shape of one figurine (fig. 79:L; *Chogha Mish* I, pl. 236:C) is similar to that of the simple standing female figurines, but without the usual triangular region representing female genitalia. These figurines are usually unpainted, bend slightly forward, and have an incision at the back to indicate buttocks. They may date to Early Susiana, although they come from a mixed context. The buttocks are clearly modeled, but a raised button in front is either furnished with a shallow hole or with an incised cross. It is perhaps more logical to consider this feature as a navel rendered out of proportion.

Already in the Archaic Susiana period, relatively simple unbaked-clay renderings of animals occur and some are also known from the Early Susiana period. Fortunately some specimens were found that indicate the complexity of rendering animals in Archaic Susiana 3 and Early Susiana phases. A fragment of close-line ware painted with bands and dashes could not have been part of a vessel but can be reconstructed as the hindquarters or the horn of an animal figurine (fig. 80:J). If this specimen indeed represents the horn of an animal, the proportions of the original must have reached those of a statuette. In the seventh season of excavations, another mysterious fragment of close-line ware, which could not possibly be part of a vessel, was recovered (fig. 80:K). It is elaborately painted and possibly represents the hindquarters of an animal. This reconstruction is based on another painted piece of a horn found in the tenth season of excavations. The ware and the painted patterns on these three pieces are strikingly similar. A fragment of this size would have belonged to a figurine about 10 cm in length, therefore we can guess that the larger horn fragment might have belonged to a figurine some 18 cm in length. Such a figure would indeed have been an imposing work.

ARCHAIC SUSIANA PERIOD

The Archaic Susiana period at Chogha Mish can be divided into three phases on the basis of the stratified finds of pottery and architectural remains.[209] The figurines from the Archaic Susiana 2 phase have a quite abstract and characteristic chessman shape (fig. 79:J–K, M–N). This class of Archaic figurines consists of a simple cylinder with a slightly concave top and base; in some pieces deep punctuations seem to represent the eyes, the nose, or the mouth. The vertical incised lines at the base of one figurine (fig. 79:M) might represent dress. Already in the Archaic 2 phase there seems to have been a tendency for slightly more naturalistic versions of the chessman type. This is indicated by fragmentary figurines in which the lower parts are modeled so as to suggest a narrow waist (fig. 79:J; pl. 8:I; *Chogha Mish* I, pl. 237:H).

In the final phase of the Archaic period there is a considerable evolution of the figurines and several different types can be distinguished. The chessman type has now developed into figures with a distinct head, upper torso, and skirted lower body. Based on the available evidence, the Archaic Susiana 3 human figurines can be divided into the three main categories of unpainted incised, painted, and painted-incised.

Much interest is devoted to suggesting details of the textile covering the lower part of the figure. One complete figure of this type has a triangular head with a pinched out flange in front to represent the nose (fig. 79:A). No other facial features are shown. In addition to the unpainted figures of the Archaic Susiana 3 phase we also see the introduction of painting, as on a relatively large head of the same triangular shape (fig. 78:D). Here, too, only the nose is pinched out from the head; all other details are indicated by paint except for the slight cleft marking the top of the head. Unfortunately, the lower body is missing, thus we can only guess that it might have been similar to the fragmentary figurine with a tapered waist (fig. 79:A). The lower body is slightly triangular in section. The hips swell out and the sides undulate down, presumably to a broad base, as seen in a similar figurine (fig. 78:F). A triangular area covered with paint and delineated with incised lines represents the pubic area. An incised vertical line below the pubic area separates the legs. The vertical and horizontal painted stripes can be taken as corresponding to the textile details of the dress.

209. An additional, earlier phase of the Archaic Susiana period was discovered at Chogha Bonut during the 1995 Oriental Institute-ICHTO joint project. This phase, termed the Archaic 0 phase, and represented by distinct, but related pottery, does not occur at Chogha Mish. See *Chapters 1* and *4*.

Two examples (fig. 79:F, H) are somewhat incongruous with the rest of the Archaic figurines. The latter (fig. 79:H) is stylistically much closer to the conical-skirted and chessman figurines. It consists of a conical lump of clay with a rough base. The breasts are molded out of the cone and the usual mid-section incision is applied between the breasts. The neck is indicated by a very shallow depression just above the chest. The lower body (or possibly skirt) is decorated with a few fingernail impressions. The other figurine (fig. 79:F), if indeed it is a figurine, is quite abstract. It is a solid clay cylinder, the top of which — presumably the head — is missing. The top of the preserved portion bulges slightly, suggesting a pelvic area. The cylinder is decorated with a ladder-like incised pattern on three sides. The fourth side, presumably the front, is decorated with a double ladder-like pattern. If this specimen is a figurine, then the incised decoration should be interpreted as patterns or fringes of the garment, similar to the Early Susiana figurine (fig. 79:D).

T-shaped or thorn-shaped clay and stone figurines are the most prominent type of all Archaic Susiana figurines (pl. 27:C). Whether such objects were meant to represent female humans is not clear. There are a few characteristics shared by other, less ambiguous female figurines of the same period that lend support to this interpretation. They occur in all phases of the Archaic Susiana period at Chogha Mish but began earlier, for they also occur in the preceding, Formative Susiana phase at the neighboring site of Chogha Bonut (Alizadeh 2003a, fig. 30:A–C).

As the name implies, these figurines have an elongated base from which a tapering projection rises perpendicular to the base. The apex of this projection is usually plain, as is the base. In some specimens, the base is decorated with fingernail impressions with or without a discernible pattern. In such cases, almost invariably the apex of the projection is also decorated.

The decoration of the apex is usually done by fingernail impressions, but sometimes with a combination of nail impressions and clay appliqué, suggesting facial features. The association of decorated base and the decorated apex seems to be consistent throughout the Archaic period. Stylistic analysis of another type of figurine from Chogha Mish, described above, can shed light on the iconography of the T-shaped figurines. The strong similarity between the lower part of chessman and conical-skirted figurines with the base of the T-shaped figurines strongly suggests that the latter represent seated women with splayed skirts.

CHAPTER SEVEN
SMALL OBJECTS, STONE TOOLS, AND STONE VESSELS

PERSONAL ORNAMENTS

Prehistoric ornamental beads are rare at Chogha Mish, even though a large number of undisturbed graves were found in the course of eleven seasons of excavation. The available data do not allow a reasonable speculation as to whether this paucity of personal objects of semi-precious stones in prehistoric Chogha Mish is indicative of a certain type of socioeconomic underpinning at the site. Flannery (1999) argues that the rarity of exotic materials in Near Eastern chiefly societies may have been due to certain cultural behaviors that do not involve material objects, namely piety, skills in negotiation, and great religious knowledge.[210]

A few well-preserved beads from the Archaic and Middle Susiana phases are published in *Chogha Mish* I.[211] The few beads that were discovered in the ninth season belong to the Protoliterate phase (fig. 81:L–O). One example (fig. 81:P) is a painted cylindrical object that may have been either a pendant or a token. Pendants made of mother-of-pearl (fig. 81:Q–S) are more numerous in the prehistoric sequence. Two of these pendants (fig. 81:Q–R) are broken and have rough edges, thus the preserved objects may not represent their original shape.

Several types of studs and labrets of both clay and stone were used as facial decoration during the Archaic through the early Middle Susiana phases.[212] The double-headed (fig. 81:A–B) and T-shaped variants of the stud type (fig. 81:F–H) started in the Archaic period and continued into the Middle Susiana period. One typical stud of the Middle Susiana period (fig. 81:F; pl. 25:C) is representative of a large group of studs. This group is cut from white-veined black stone or dark-veined white stone in such a way as to produce a black or white stalk and a white "eye" with black "iris" or vice versa.

Various types of bracelets made of stone, bituminous stone, and terra-cotta were common throughout the entire Susiana sequence at Chogha Mish.[213] Two illustrated specimens (fig. 81:J–K; pl. 25:D–E) are triangular in section and at Chogha Mish were specific to the Early Susiana period, though other types also occurred in this period and continued into the succeeding Middle Susiana period.[214]

One pendant (fig. 81:I) represents a Protoliterate ornament in the shape of an abbreviated bird. Such pendants are made of both stone and shell.[215]

CLAY AND TERRA-COTTA OBJECTS

Baked-clay sickles were common items in the Protoliterate tool kit (fig. 82:M–N). They are usually made of the same ware as the Protoliterate standard buff ware but were baked at such high temperatures that the color is usually greenish yellow or greenish buff. Such sickles appeared during the Ubaid 4 phase in Mesopotamia and were also common during the Uruk period. In Susiana, terra-cotta sickles appeared during the Protoliterate phase. The Late Susiana example reported from Jafarabad (Dollfus 1971, fig. 20:22), though generally similar in shape, is different in many details, particularly the bitumen-smeared groove intended to hold the flint blades.

Spools may have been used in textile and possibly kilim manufacture. Two types of "spools" occur at Chogha Mish, solid and perforated. A number of examples of the former type are published in *Chogha Mish* I;[216] one speci-

210. See also Stein 1994 and D'Altroy and Earle 1985.
211. *Chogha Mish* I: 224, pl. 234:W–BB.
212. That these objects were most certainly used for decoration is best illustrated by an Early Susiana terra-cotta example (fig. 81:B; see *Chogha Mish* I, pl. 234:A). Excavations at Chogha Mami also produced a number of clay figurines decorated with such studs (Oates 1969). In addition, one such stud was found against the mandible of a male skeleton at Tappeh Ali Kosh in the Deh Luran plain (Hole, Flannery, and Neely 1969: 235–36, fig. 109).
213. See *Chogha Mish* I: 256–57, table 28, for details.
214. See *Chogha Mish* I, table 28, for the temporal distribution of bracelets in various phases of the Susiana sequence.
215. For similar objects at Susa, see de Mecquenem 1934: 192, fig. 27:24; for Mesopotamia, see Mackay 1931, pl. 74:6 (Jemdet Nasr).
216. *Chogha Mish* I, pl. 126:Y–CC.

men (fig. 82:C) is perforated. Terra-cotta spools at Chogha Mish range in height from 4.7 to 6.2 cm and are usually found in groups of two or more. In Mesopotamia, similar spools, like sickles, occurred in the Late Ubaid phase and became common during the Uruk period; such spools do not seem to have become common in Anatolia until much later.[217]

Terra-cotta discs with a single perforation on the edge (fig. 82:G) is another type of clay object that appears to be related to the manufacture of textiles, perhaps kilims. That they were in fact used in such industry was documented by Marta Hoffman in 1964.[218] Again, this type of loom weight occurred earlier in both Mesopotamia[219] and Susiana;[220] they appeared much later in Minoan Crete.[221] Disc-shaped loom weights and their spherical versions (fig. 82:E) may also have been used as sinkers. The spherical type occurs in earlier contexts and if the disc-shaped type was introduced from Mesopotamia, they did not replace the earlier, round ones.[222]

Numerous painted mosaic cones were discovered at Chogha Mish (fig. 82:I–K). These decorative architectural elements were first discovered at Warka (Loftus 1857: 187; Heinrich 1932, pl. 7), decorating walls, niches, and engaged columns of the Eanna temenos. The abundance of these cones, both on the surface and in all Protoliterate deposits at Chogha Mish, suggests that numerous Protoliterate buildings there were decorated with these cones. Although no complete Protoliterate building was discovered on the High Mound, the dense concentration of baked-clay cones there indicates that they must have come from a monumental building that once stood at the highest point of the site.

Three examples of terra-cotta "pegs" (fig. 82:B, D, H) were found. These well-baked pegs have either a hollow or a solid shaft with a slight depression. Such objects are characteristic of the Protoliterate phase.[223] At Susa one was found in situ inserted into the central hole of a baked-clay square plaque (Stève and Gasche 1971: 150–51, pls. 33:1–16, 38). These objects were presumably set into walls to serve either as fasteners or as decorative architectural elements. At Warka similar but larger pegs (*Flaschenwand*) were placed in rows at the top edges of the high platforms belonging to the successive phases of the White Temple complex (Jordan 1932: 22–23, pls. 9, 17; Heinrich 1937, pl. 44:B).

Three other objects (fig. 82:A, F, L) are singletons. One (fig. 82:A) is reconstructed as a solid disc. It was found in an early Middle Susiana context but may well be intrusive. The absence of wear marks and the fact that it is painted on only one side suggests that the object may have been used as a lid for a small jar. The second enigmatic object (fig. 82:F) is a small baked-clay cone, perhaps a variant of the mosaic wall cone. The third object (fig. 82:L), a strainer, came from a Protoliterate pit that was dug into the prehistoric levels and, as such, may or may not date to the Protoliterate phase.

The pottery vessel in the shape of a hedgehog (fig. 34; pl. 29:A) is of special interest. Although it served to hold and dispense liquid and thus may be considered a ritual vessel,[224] its rarity, its special form, accessories, and meticulous incised decoration set it apart as a special and pleasing object, hence its inclusion in this section. The vessel is made of Protoliterate standard ware. A round hole is provided on top of the vessel (on the back of the animal) and a typical Protoliterate tapering spout is provided in such an ingenious way to represent the snout of the animal. Four tapering stumps and a narrow strip of clay represent the stubby legs and the tail. The projecting appliqués in front are provided with slightly crescent recesses indicating the eyes. This vessel and another vase, published in the first volume,[225] are among the most elaborately incised decorated Protoliterate vessels.

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217. Lloyd and Safar 1943, pl. 16:B (Tell Uqair); Lenzen 1974, pl. 21:K (Warka); de Genouillac et al. 1934, pl. 44:1 (Tello); Mackay 1931, pl. 70:28–30 (Jemdet Nasr); Woolley 1955: 66, U.14466; 67, U.14941 (Ur, Pit F, Stratum H, late Uruk); Speiser 1935 (Gawra VIII); Schmidt 1932: 122, fig. 150:B 2686–87 (Alishar, Assyrian Colony period).
218. See Hoffmann 1964: 17–22; 33–36, figs. 4–6:42–43, 9–10:46–50, 13–14:18; see also Sheffer 1981.
219. See Boehmer 1972, pl. 45:38, 38w (Warka, Square K XVII, Anu Ziggurat area); Lloyd and Safar 1943, pl. 16b; Lloyd 1978: 46, fig. 14 (Tell Uqair, House A); Huot et al. 1980: 123, fig. 30:G, I (Tell el-Oueili). A variant of this type of tool with two perforations may also have been a loom weight. See Jordan 1932, pl. 20d (Warka, Eanna XVII); Boehmer 1972, pl. 50:140 (Warka, Steingebaude sounding, Layer 5); Woolley 1955: 9, fig. 14 (al-Ubaid).
220. A single disc of this type was found in a late Middle Susiana context in the seventh season of excavations at Chogha Mish.
221. See Warren 1972: 212, 243, fig. 96:7, 75, 77–79; pl. 73:77 (Early Minoan IIa and b). For an Early Minoan II example from Palaikastro and Late Minoan examples from Tylissos, see ibid., p. 212.
222. For a discussion of the various types of looms and their chronological and geographical distribution, see Forbes 1964: 198–206; Hoffman 1964: 5–16, 297–336.
223. Stève and Gasche (1971: 51) argue that at Susa such pegs apparently occur earlier during the Late Susiana 2 phase and continue into the Protoliterate phase.
224. On some Protoliterate cylinder seals and on the Warka stone vase, theriomorphic vessels appear as temple objects.
225. *Chogha Mish* I, pls. 116–19.

SPINDLE WHORLS

A large corpus of clay and stone spindle whorls is presented and discussed in *Chogha Mish* I.[226] Here, we have chosen a few outstanding examples from the last six seasons of excavations at Chogha Mish, as well as one from a Middle Susiana deposit found at Chogha Bonut.[227] Surprisingly, no spindle whorl dated with any certainty to the Archaic Susiana phases has been recovered from Chogha Mish or Chogha Bonut. At the contemporary levels at Tappeh Ali Kosh in Deh Luran, few perforated discs made of plain potsherds are attributed to this period (Hole, Flannery, and Neely 1969: 205, fig. 88:a–c). Whether this is an accident of discovery or whether during the Archaic period a perishable material was used to manufacture spindle whorls is by no means clear.

The earliest recognizable spindle whorls come from Early Susiana contexts and are too sophisticated to represent early forms of this tool. The Early Susiana whorls come in three major types, each with slight variations: (1) painted plano-convex (fig. 83:F), (2) painted shallow conical (fig. 83:E), and (3) plain star shaped (fig. 83:G; pl. 25:H). Types 1 and 2 almost always have a denticulated circumference, often large enough to resemble cogs. The Early Susiana tradition continued into the Middle Susiana period when there was a considerable increase in the number of shapes and painted designs (fig. 83:A–D, H–I). Many Middle Susiana spindle whorl types became extinct in the following Late Susiana period, when the majority of spindle whorls discovered at Chogha Mish and elsewhere were plain.[228]

METAL OBJECTS

The only prehistoric metal object found at Chogha Mish is a copper pin dated to the late Middle Susiana phase (*Chogha Mish* I: 250, pl. 65:P). As with the first five seasons, almost all the metal objects came from Protoliterate and later deposits.

A large number of metal objects were discovered from the East Area, but only those that are recognizable are illustrated here (fig. 84:A–D, F–H).[229] The only new type is a copper nail or stud (fig. 84:C) found in a Protoliterate context, although it must be dated to the Old or Middle Elamite period since it resembles copper/bronze nails used at the Inshushinak temple at Susa.[230] Another example (fig. 84:E) is a bronze arrowhead of the Achaemenid period.

BONE OBJECTS

During the first five seasons of excavations at Chogha Mish, only a few well-preserved and recognizable bone tools were discovered.[231] The same is true of the last six seasons. The high concentration of salt and other minerals at Chogha Mish (and at the nearby Chogha Bonut) may be responsible for the paucity of bone tools. But, with the exception of the Late Susiana 2 phase and the Protoliterate phase,[232] all other phases are represented.[233]

A long, handsomely carved and highly polished double-eyed needle/awl (fig. 85:L), an awl with a shaft (fig. 85:J), and a ladle or spatula (fig. 85:C) belong to the Archaic period. Bone tools from the Early Susiana period are relatively more numerous. Pins or awls (fig. 85:B, D, H, K, M, O–P) are most common. Some (fig. 85:B, D; pl. 25:B) are so thoroughly carved that the original shape of the bone is no longer evident, while others (fig. 85:O–P) still retain the shape of the bone. The most exquisite example of Early Susiana bone-cutting technique is represented by an almost intact needle (fig. 85:I) with the eye still perfectly preserved. The illustrated examples of Middle Susiana bone tools represent all the types discovered during the last six seasons of excavations (fig. 85:E–G, N). Except for the difference in the type of needles of the Early and Middle Susiana periods (cf. fig. 85:F with 85:I), Middle Susiana bone tools are generally similar to those of the Early Susiana.

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226. *Chogha Mish* I: 106–09; 251–53.
227. For a complete presentation of Chogha Bonut spindle whorls, see Alizadeh 2003a.
228. For a detail discussion and temporal distribution of various types of whorls, see *Chogha Mish* I: 252–53, table 26.
229. For other metal tool types, see *Chogha Mish* I: 105, pls. 29:A–H, 128:A–S.
230. See Jéquier 1900: 119, fig. 220; 134, figs. 333–34; de Morgan 1905: 79, pl. 47:4–7.
231. *Chogha Mish* I: 253–54.
232. A few bone tools dating to the Protoliterate phase were reported in the field books, but no illustrations are available.
233. For a more detailed description and discussion, see *Chogha Mish* I: 110.

STONE TOOLS

The prehistoric and Protoliterate stone implements from Chogha Mish were analyzed by Daniel Shimabuku and are presented in detail in *Chogha Mish* I.[234] Figure 87 and plate 30 illustrate both the known and published types of stone implements, as well as a few types not presented previously.

Shown in figure 87:A–B are two bitumen-hafted flint blades from a late Middle Susiana context. This type of hafted blade must have at least started in the Early Susiana period because a number of such bitumen-smeared flint blades have been found in deposits dated to that period.

Figure 87:C shows an example of the well-known stone hoes of the Early Susiana period (see also pl. 30:A–B, F–H). The fossilized rope and the bitumen coating the shaft are exquisitely preserved as illustrated, but most of the stone hoes from this period bear only bitumen stains and sometimes only the impression of the rope. An exact parallel for such hoes is reported from a Late Susiana 2 context from Susa (de Mecquenem 1934, fig. 2:1). It is not certain whether hoes with roped handles continued to be manufactured for this long period, or whether this single example from Susa was found in antiquity and was used as a tool. In Susiana such hoes appeared in the late Archaic/Early Susiana period and continued into the Protoliterate phase; they appeared much earlier in northern Mesopotamia (Lloyd and Safar 1945, fig. 19, Hassuna phase).

Whether the example in figure 87:G is some type of a tool or simply a miniature tumbler is not certain. But since it is made of alabaster, it is not likely that it was used as a tool. A fragmentary stone pestle (fig. 87:K) comes from an Early Susiana context, but the type has a long history and appears in the sequence from the Archaic Susiana 1 phase (see also pl. 30:I–M). That the three ceremonial "mace-heads" (fig. 87:D–F) could not have been used as weapons is indicated by the narrow perforation with flaring ends that could hardly accommodate a strong, solid handle for practical use.

The example in figure 87:H, plate 30:D–E, is a variant of the common Archaic/Early Susiana saddle-shaped stone mill. Such objects are common in prehistoric contexts and are found at many sites in western Iran. Another example (pl. 30:N) is a phallus-shaped stone object of uncertain use. The shape may be accidental and the object may well have been used as a hammer or pounder, though admittedly no sign of use is evident on its surface. It is unknown whether the ball-shaped bituminous stone object (fig. 87:I) was used as tool or was shaped into a ball as a convenient way to store bitumen. Similar objects reported from Farrukhabad, in the nearby Deh Luran plain, from the much later "Farrukh phase" (Late Susiana 1 phase), suggest the latter possibility (Wright 1981a: 53, pl. 17b).

Balls made of sandstone (pl. 25:F) were commonly used in prehistory as pounders, but our example has a simple geometric motif incised on the surface in the shape of two triangles joined at their apices. So far, this is the only example of its kind found at Chogha Mish. In the Deh Luran area a number of incised pebbles are reported from Tappeh Ali Kosh and Tappeh Sabz dating to the Bus Mordeh through the Mehmeh phases (i.e., Archaic to Middle Susiana periods).[235] It is unlikely that this object was used as a tool, for its incised sign is exactly like that found on some Early Susiana flanged vessels, where it is called a "potter's mark."[236]

STONE VESSELS

PROTOLITERATE PHASE

Several types of stone were used to manufacture stone vessels in the Protoliterate phase, namely sandstone, alabaster, and a type of yellowish translucent stone. The bulk of the Protoliterate stone vessels found at Chogha Mish consist of fragmentary pieces. Few whole vessels survived (fig. 86:G, J, N, P–Q, S–T), showing the range of stone vessel types as well as the skill of craftsmen.

234. *Chogha Mish* I: 261–78.

235. Hole, Flannery, and Neely 1969: 200–02, fig. 86.

236. See *Chogha Mish* I, pl. 203, no. 104. During the first five seasons at Chogha Mish (and much more in the later seasons), about 104 different marks were found on the flanged vessels of the Early Susiana period. If these individual signs represented individual potters, then it is difficult to envision why so many potters were needed in a 5 ha population center. An alternative view would be that these signs represent individual families who shared the same collective pottery kilns and that the marks helped them to identify their own vessels. Kouchoukos (1998: 140) argues that such signs belonged to potters who shared huge bonfires to bake their vessels. But the sheer number of such signs argues against this hypothesis as well.

As with the examples published in *Chogha Mish* I,[237] the majority of whole vessels and vessel fragments consist of open forms, simple flat-base bowls being the most common (fig. 86:J, Q, T). Rounded-base hemispherical bowls, with or without a pouring lip, also occur (fig. 86:N, S). There is one example of a closed form, an exquisite four-lugged miniature jar (fig. 86:G). A vessel with a raised base is represented by a single fragment (fig. 86:P). The interior surface of this fragment is highly polished and thus the base may belong to an open form.

Simple open bowls with a rim band appear in the late Middle Susiana phase (fig. 86:O) and continue into the Protoliterate phase (fig. 86:Q), becoming somewhat taller and deeper. Based on the frequency of occurrence, the band rim seems to be a feature typical for stone bowls; the few pottery vessels with this feature may have been imitations of the stone type.[238] On the other hand, stone vessels with open pouring lips (fig. 86:S; pl. 29:B) may be an imitation of the common pottery type (fig. 26:E).

PREHISTORIC PERIODS

The small corpus of fragmentary prehistoric stone vessels found at Chogha Mish, particularly those from the Archaic Susiana period, must be an accident of discovery. Excavations at Chogha Bonut (Alizadeh 2003a) and at Tappeh Ali Kosh in Deh Luran (Hole, Flannery, and Neely 1969: 107–08, fig. 42) have shown the skill and craftsmanship of Archaic stone cutters. Here, the only two complete pieces recovered from Archaic Susiana contexts are a shallow miniature bowl (fig. 86:A) and a miniature pot with a sharp carination (fig. 86:I). The most spectacular achievement of the Archaic stone cutter is represented by a fragmentary obsidian open bowl (fig. 86:F). The majority of stone vessels from the last six seasons of excavations at Chogha Mish, including those made of a bituminous stone, date to the Early Susiana period (fig. 86:C–D, K–L). Typical of the Early Susiana period are cylindrical vessels with beaded rims (fig. 86:C–D, K–L).

A limited number of deep and shallow bowls (fig. 86:M, O, R, U) and footed rectangular containers are made of bituminous stone (fig. 86:V) and represent the Middle Susiana assemblage. As with the stone vessels of the Protoliterate phase, all Middle Susiana stone vessels have parallel shapes in the pottery corpus of the period. No whole stone vessels or vessel fragments were found in Late Susiana 2 deposits at Chogha Mish in the course of the last six seasons.

BASKETRY

Numerous fragments of bitumen bearing impressions of reed matting were found during the sixth season of excavations. The majority of the fragments are flat and thus part of the floor covers (pls. 29:D–E; 30:C) and are all that remain from actual baskets that were covered with bitumen.[239] All the illustrated samples (pls. 29:D–E; 30:C) are dated by context to the Early Susiana period. Smaller, less well-preserved Archaic samples have also been found in Archaic Susiana context in the East Area. Most of the Early Susiana samples are preserved well enough to allow the identification of the weave patterns. As in Deh Luran,[240] the majority of patterns are over-two, under-two twilled reed mat. The earliest exact parallel comes from the Hassuna phase in northern Mesopotamia (Lloyd and Safar 1945: 271, fig. 38).

237. *Chogha Mish* I, pls. 29:O, AA–CC; 124:A–FF; 125:A–E.
238. *Chogha Mish* I: 103, pls. 17:L; 84:O–P.
239. Similar rectangular and round baskets are still used in Khuzestan to carry and store dates.
240. For similar impressions, see Hole, Flannery, and Neely 1969: 220–23, fig. 95:A, pl. 37:D.

APPENDIX ONE

PRODUCTION ZONE SOURCING AND INTRAREGIONAL EXCHANGE OF CERAMICS IN THE FOURTH-MILLENNIUM B.C. SUSIANA PLAIN: A CASE STUDY

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SUMMARY

Instrumental Neutron Activation Analysis (INAA) was conducted at the University of Missouri Research Reactor (MURR) on 200 pottery sherds from the Susiana plain in southwestern Iran, dating to the Late Susiana 2 (Susa 1) and mid-fourth millennium B.C. Previous INAA research by Judith Berman sought to evaluate the organization of ceramic production and distribution on the plain. Berman's analyses indicated that the clay sources in the region were too homogenous to be analytically useful in reconstructing specific compositional ceramic groups. However, subsequent statistical reanalysis of Berman's data by Nicholas Kouchoukos has suggested that there is more compositional diversity and structure than Berman's analyses indicated. This present case study was able to suggest a number of improvements to the sampling design that allowed us to evaluate the efficacy of using INAA in this region. Our analysis of three principal sites in the Susiana plain has allowed us to determine that, despite the underlying homogeneity of the plain's clay sources, sufficient compositional diversity does exist and can contribute significantly to the evaluation of the hypotheses formulated to explain Susiana's fourth-millennium B.C. organization of ceramic production, namely, the "centralization hypothesis" advanced by Gregory Johnson and Henry T. Wright.

INTRODUCTION

Archaeologists have proposed that specialized modes of craft production and centralized exchange are characteristic features and perhaps motivators of political and social complexity (e.g., Childe 1936, 1951; for overview, see Brumfiel and Earle 1987; Costin and Hagstrum 1995; Earle 1997; Sinopoli 1991). Considerable research has focused upon the institutional or elite management of the economy and how state apparatuses strategically control economic activities and build political power. Studies of craft production in complex societies have generally been geared toward determining the degree to which production was centralized or was subject to administrative control. Luxury items or socially valuable goods have enjoyed the lion's share of this research focus, given that these objects are seen to be instrumental in creating, maintaining, and legitimizing political power. Utilitarian goods, such as pottery vessels, are believed to have a lower exchange value and therefore have not been given the same scrutiny. However, in cultural periods where raw materials for preciosity exchange are lacking or underdeveloped, these more mundane domains of production may prove critical to the development of early states.

Johnson and Wright (Johnson 1973, 1987; Wright and Johnson 1975) have suggested that state development in the Susiana plain was not an event, but rather a protracted process that arose from increased intraregional exchange of mundane goods and commodities, such as pottery. Lacking clear indicators for preciosity exchange, Johnson and

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Wright focused their attention on what they believe to be the administrated centralization of ceramic production and attachment of craft specialists to regional centers. In what has come to be known as the "centralization hypothesis," Wright and Johnson (1975; Johnson 1973, 1987) argued that regional centers were the primary locations of ceramic production on the plain. As evidence, they cite the conspicuous lack of cultural materials related to production at rural sites. Indicators of pottery production, such as kilns and pottery wasters, were only discovered at the three largest settlements on the plain, namely Susa (KS-00), Chogha Mish (KS-01), and Tappeh Abu Fanduweh (KS-59). This evidence led Johnson (1973, 1987) to propose that "microstylistic" description of the pottery from fourth-millennium B.C. Susiana could be used to attribute the distribution of certain pottery types to subregional workshops.

Encouraged by Wright and Johnson's novel insight, Judith Berman (1986, 1987) attempted to identify spatial distribution of the pottery manufactured at these workshops through bulk compositional analysis. She conducted INAA on 1,021 sherds and clay samples taken from fifth- and fourth-millennium B.C. contexts in the Susiana plain. Her results proved to be considerably uniform. However, reanalysis of a subset of Berman's data (Kouchoukos 1998) suggests that the sampling strategy and statistics employed in Berman's analysis may have hampered her results; considerable temporal and spatial variability was in fact evident across the plain.

Although Berman's data set was rather large, her sampling strategy had a number of inherent problems. For example, the number of vessel types (approximately seventy) may have introduced too much potential variation into the data set. Moreover, techniques of manufacture, including clay processing, firing procedures, and temper use can contribute significantly to the geochemical signature of a ceramic (Senior 1998; Blackman 1992; Theusen and Heydorn 1991). In addition, the number of sampled sites may have significantly hampered her ability to construct compositional groups. More than a hundred sites were sampled in her analysis, yielding an average ratio of ten sherds per site. Small group sizes make it impossible to analyze the data using the full range of multivariate statistics available.

Encouraged by these observations, we were able to suggest a number of pertinent changes to the sampling design for the present case study, which seeks to evaluate the utility of using INAA to study intraregional production and distribution in the Susiana plain. Our results indicate that INAA can yield meaningful compositional information. Based on our preliminary and tentative results, it appears that pottery in fourth-millennium B.C. Susiana was produced not only at regional centers, but in the rural countryside as well.

METHODOLOGY

SAMPLING DESIGN

In the summer of 2004, we conducted an INAA pilot study of 200 sherds dating to the fourth and fifth millennia B.C. Samples were selected for analysis on the basis of the location, relevance to prior research, chronological appropriateness, and availability. Minimum group sizes were chosen to meet or exceed the number of elements analyzed (here, thirty-three). Tables 3–4 provide a site-by-site breakdown of the sampled ware types.

Although the primary concern of this study was the mid-fourth-millennium ceramic assemblage, we felt it necessary to include a small subset of Late Susiana 2 pottery in order to evaluate both temporal and technical variability of Susiana ceramics. The Late Susiana 2 V-geometric beakers have been reported from many sites in Susiana. All V-geometric beaker samples were derived from the Oriental Institute's F. G. L. Gremliza survey collection (see Alizadeh 1992). In order to make the case study more manageable and to restrict the range of technical variability that might contribute to compositional differences, we limited our analysis of mid-fourth-millennium pottery vessels to three types: (1) crosshatch band jars (see fig. 29:B for type), (2) beveled-rim bowls (see fig. 26:D for type), and (3) the aforementioned V-geometric beakers (see *Chogha Mish* I, pl. 162:A for type).[242]

There are several good reasons to select crosshatch band jars and beveled-rim bowls. First, crosshatch band jars are one of the ceramic types that can be confidently attributed to the mid-fourth millennium B.C. and were probably mass produced. The beveled-rim bowl group is more problematic from a chronological standpoint, but they are generally attributed to mid- to late phases of the period. Second, all the samples used in our analysis come from stratified contexts at the regional center of Chogha Mish and the rural site of Tappeh Sharafabad (KS-36). A group of ten beveled-rim bowl sherds from problematic "kiln" contexts taken in the surface survey of Tappeh Abu Fanduweh

242. All material used in this study from the site of Chogha Mish was contributed by the University of Chicago's Oriental Institute. In addition, all Sharafabad and Tappeh Abu Fanduweh material was contributed by the University of Michigan's Museum of Anthropology.

have also been included (Johnson 1973). Finally, both these types have been studied extensively in the past. The Sharafabad crosshatch band jar samples analyzed in this study were also included in Johnson's (1987) microstylistic analysis, Cheryl Coursey's (1997) petrographic analysis, and Berman's (1986) INAA study. We can therefore be confident that our conclusions regarding these ceramics bear directly upon prior observations. In addition, retesting these types was necessary because we eventually intend to calibrate our data set with that of Berman.[243]

SAMPLE PREPARATION

Our Susiana samples were prepared for INAA according to standard MURR procedures (Glascock 1992; Neff 2000). The analyses conducted at MURR produced elemental concentration values for thirty-three elements. For the purposes of data manipulation, all elemental data were transformed to base-10 logarithm values in order to compensate for differences in magnitude between major elements, such as calcium and iron, and rare elements, such as those in the lanthanide series.[244] In tables 5–13 each sample is identified by a unique identification number that consists of the initials of the principal investigator followed by a sequential three-digit sample number (e.g., ROG158).[245]

PRELIMINARY RESULTS

Initial groups in the present analysis were determined through the visual selection of groups identified in cluster analysis (CA). Tantalum and rubidium concentrations have proved to be particularly effective in determining initial groups that could be tested using more robust multivariate statistics, such as principle components analysis (PCA). In addition to bivariate plots of elemental concentrations, robust multivariate statistics were employed in this research. Although cluster plots can yield useful information about the structure of a data set, the overall variance-covariance cannot be ascertained in a single bivariate projection (Pollard 1986; cf. Baxter 1992: 144). Principle components analysis provides a multivariate approach for graphing the data by calculating and ranking the orientation and length of axes of greatest variance-covariance in the data (for review, see Baxter 1993; Neff 1994).

The following section describes the basic compositional group structure identified for our Susiana ceramic data (figs. 89–99). Table 4 provides provenance information and elemental concentrations for all the samples in this analysis.

DATA SET

Figure 89 shows a bivariate plot of tantalum and thorium of the entire data set. The structure of the projected data set reveals two to three possible groupings, and therefore served as the initial reference for the construction of groups. Subsequent permutations of the data revealed that these "groups" were highly correlated with archaeological contexts. Subsequent sections detail the graphic presentation of our results.

BEVELED-RIM BOWLS

In our analysis, bivariate plots illustrate clear compositional groupings of beveled-rim bowls, which are highly correlated with their site contexts (figs. 90–92). Our projections show that beveled-rim bowls are compositionally distinct for Chogha Mish, Sharafabad, and Tappeh Abu Fanduweh. Although Berman's data proved to be largely

243. INAA research can be conducted at a number of places around the world, but results rarely prove comparable. In addition, detection limits (i.e., the number of elements analyzed) can vary from one institution to the next. Berman's analyses were conducted at the Brookhaven National Laboratory.

244. There has been some debate among specialists regarding the necessity of log transformation of data sets. Pollard (1986; cf. Baxter 1993: 3–4) provides a useful summary of these debates. Baxter (1993: 4) suggests that "a substantive reason for such a transformation is the assumption that naturally occurring trace elements, in the clays that go into making a pot, for example, have a log-normal distribution; if data are highly skew[ed] the transformation will often improve the performance of the method [i.e., PCA]." Notably, Berman's (1986) data were not log transformed.

245. All quantitative analyses for this research were performed in GAUSS, a program designed at MURR to facilitate the identification of compositional groups. In addition to bivariate projections, the GAUSS program provides four different methods for computing principle components analyses: (1) principal components analysis using variance-covariance matrix; (2) principal components analysis using correlation matrix; (3) simultaneous RQ factor analysis with variance-covariance matrix; and (4) simultaneous RQ factor analysis with correlation matrix. Each method contributed results that would appear to confirm the general conclusions gained herein, but markedly different graphic results. The first option (i.e., variance-covariance matrix) was employed in the calculation of all PCA values in this report.

homogenous across the plain, Berman (1986: 243) was also able to suggest that beveled-rim bowls were compositionally homogenous within individual sites, suggesting local production of these wares. Our results concur strongly with her conclusions, indicating clear compositional groupings with a strong correlation between site and type. Berman (1986: 240) suggests that local sources of tempering agents may be the contributing factor in the site-to-site variability in the composition of beveled-rim bowls.

CROSSHATCH BAND JARS

In Berman's (1986: 249–51)[246] analysis of the crosshatch band jars, two parallel groups appeared in the bivariate scatter-plot of scandium (Sc) versus iron (Fe) — elements that are determined to be highly correlated in the overall data set (fig. 91). As in most of her projections, crosshatch band jar samples can be seen clustering in a linear pattern, but differ from other plots in that two parallel trends can be distinguished (note the lower "group" in the dashed ellipsis at bottom of fig. 93). The original researchers noted that two facts about this group were immediately apparent: (1) many of the samples in this small group came from Sharafabad, and (2) these aberrant projections were all irradiated in the same batch, leading some to speculate that some form of sampling error had taken place. After reanalysis, many of these specimens were omitted from the final analysis (Berman 1986: 251).

One possible reason for the separation of the crosshatch band jars in Berman's data set may have been that the Sharafabad samples (twenty in number) were one of the larger groups of specimens to come from a single location (eighty-seven samples from a total of eleven sites). This in part has influenced our decision to increase the number of samples per site group, rather than including a large number of specimens from several different sites from across the Susiana plain. In our projections (figs. 94–95), crosshatch band jars exhibit a distinctly different clustering pattern when compared to the beveled-rim bowls. We might attribute this variability to differences in resource procurement, workshop organization, paste composition formulas (used by potters), or some other cultural variable (e.g., trade, exchange, etc.).

Much of the projected and statistical overlapping exhibited by the data set can be attributed to the higher degree of compositional variability in the crosshatch band jar samples. In contrast, beveled-rim bowl specimens tend to cluster together much more tightly, suggesting that they may more accurately reflect the compositional structure of their clay sources. Despite their compositional diversity, however, crosshatch band jars from Sharafabad and Chogha Mish demonstrate compositional groupings in both elemental and component projections. Therefore, we can reasonably surmise that, as with the beveled-rim bowls, crosshatch band jars are produced locally and at sites of different size and apparent complexity.

MID-FOURTH MILLENNIUM B.C. AND LATE SUSIANA 2 AGGREGATE GROUPS

As noted above, the cluster analysis of both beveled-rim bowls and crosshatch band jars shows a high degree of correlation between the archaeological provenance of the sherd and the compositional groups. Beveled-rim bowls and crosshatch band jars have demonstrated strikingly different degrees of variability. Yet, while they can be discriminated visually, beveled-rim bowl and crosshatch band jar compositional groups also have a high degree of association particularly in elemental plots that exhibit linear trends due to the positive correlation. In these linear trends, beveled-rim bowl samples tend to associate at the lower end of the graph, while crosshatch band jars plot higher on the graph. Given their comparative compositional similarities, crosshatch band jar and beveled-rim bowl groups were combined to form aggregate groups.

As aggregate groups, the beveled-rim bowls and crosshatch band jars display a remarkable degree of covariation at the site level (see fig. 96). Indeed, the aggregate groups composed of mid-fourth-millennium B.C. wares can be shown to remain compositionally distinct between sites. Furthermore, they appear to be temporally distinct from the Late Susiana 2 V-geometric beakers in both elemental and principal component projections (see figs. 97–98).

246. Note that the elements are not log transformed, as in the original publication.

UNCLASSIFIED SAMPLES AND GROUPS

Mahalanobis distance statistic samples possessing a probability of one percent or above are considered good candidates for group membership. In addition, specimens whose Mahalanobis distance lay below the one percent probability cutoff *for all groups* were unclassified. Nevertheless, specimens occasionally indicate possible membership in one or more groups. Final group membership then must be determined by the investigators based on the relative magnitude of the probability and the visual projections of the data. Specimens whose group membership cannot be determined, or extreme outliers, are often omitted from the final projection of the data set. For reasons that are often unclear, some specimens may have very good statistics but exhibit very poor projections or cause principal component groupings to vary more significantly than others. In some cases, these unusual specimens can dominate an analysis and make detection of reference groups difficult, if not impossible (Baxter 1993: 7).

In the present study, Mahalanobis distance probabilities confirm that the group structure proposed herein is statistically viable. However, several of the unassigned samples exceed the one percent probability of membership in one or more of the identified groups. Membership probabilities fluctuate dramatically when these samples are assigned to one of the identified groups. Unclassified samples in the present analysis were often shown to have a very strong visual association in selected principal component and bivariate projections to the groups thus far described but could vary widely in graphs of alternate components or elements. One of the difficulties in constructing elemental or component projections is that unclassified samples may appear to be closely related to a particular group statistically but become quite skewed when they are plotted (often in the best projections!). Probability statistics and bivariate/multivariate projections often proved to be inclusive in assigning group membership to these samples. Therefore, these samples were removed from the final analysis of the data set. As too many omissions can give the impression that the data are being unduly manipulated, Baxter (1993: 7) suggests that a compromise approach (employed here; see fig. 99) is to project the outliers and other omitted samples from an analysis in relation to the other data points. The principal component plots of the aggregated site-type groups make for the clearest projection of the data. Therefore, in figure 98, the unclassified data (fifty-two in number) are projected against the three aggregated groups described above. We remain optimistic that with additional analyses of pottery from this region we will be able to classify some of the problematic pottery.

DISCUSSION

It has been suggested that pottery was not being produced at Sharafabad or other rural sites on the Susiana plain in the fourth millennium B.C. (Johnson 1973; Wright and Johnson 1975), and that the pottery found at these sites was imported from the regional centers of Susa, Chogha Mish, and/or Tappeh Abu Fanduweh. Our results in this sense are provocative because they would clearly suggest that pottery vessels, particularly beveled-rim bowls, were manufactured locally despite the lack of evidence for production, such as kilns and wasters. In our analysis, virtually no migration of samples could be noted between compositional site groups based on beveled-rim bowl specimens alone. Although our data are in contrast with past theories of ceramic production in Susiana (Johnson 1973; Wright and Johnson 1975), the results are in keeping with other arguments for localized beveled-rim bowls production, distribution, and consumption (Beale 1978; Le Brun 1980; Berman 1986).

Crosshatch band jar compositions on the other hand, while also distinctly correlated with sites, show a higher degree of variability relative to the beveled-rim bowl specimens. These compositional differences may reflect migration of samples due to trade, or they may reflect underlying differences in the tempering formulas used to make non-beveled-rim bowl wares. A small portion of samples that relate archaeologically to Chogha Mish and Sharafabad show compositional affinities with the opposing group. While the underlying homogeneity of the plain could explain these "migrating" samples, the possibility of exchange between the two sites could be reasonably entertained. However, a number of alternative interpretations can be formulated on social grounds.

First, it may be possible that the ceramics were all produced at Chogha Mish, but that two different workshops, relying upon different clay sources, produced wares for specific rural markets. Nevertheless, this scenario does not seem likely given the overall homogeneity of clays on the plain. To date, there does not seem to be an appreciable degree of intra-site variability to qualify such a position.

Second, we might suggest that ceramics found at Sharafabad were being acquired from another regional center, such as Susa or Tappeh Abu Fanduweh. Regrettably, samples from Susa could not be acquired in time for this study but will be analyzed in the final publication of the data. A small group of ten beveled-rim bowls from Tappeh Abu

Fanduweh, however, were tested and appeared to be compositionally distinct from the other groups (figs. 90–91). This leaves the hypothesis that Sharafabad ceramics were predominantly of local origin provisionally intact.

Finally, the high degree of variability in the crosshatch band jar group may reflect local organizational differences in manufacturing processes. The absence of kilns and wasters from Sharafabad might indicate that production took place off-site on the surrounding plain, perhaps reflecting decreased labor capacity of these smaller rural sites relative to large urban centers such as Chogha Mish. It should also be noted that excavations at Sharafabad were limited to a few test trenches. Therefore, materials or locations related to ceramic production may remain masked by the overburden of later occupations.

The apparent homogeneity of source clays in the Susiana plain is surely a salient factor masking material exchanges. However, it should be remarked that the underlying homogeneity could in fact be exacerbated by the overall magnitude of intraregional trade, which is no doubt occurring. Increased sampling of beveled-rim bowls would seem to be warranted, as these wares seem to provide the most useful proxy measure for local source clays. We have already noted that beveled-rim bowls act as effective anchor points for establishing compositional groups. Other ware types like the crosshatch band jar have been shown to closely adhere to these "anchors," despite a larger degree of variability. No doubt this is partly due to the vagaries of their chemical composition but may also reflect exchange, trade, or use of alternate clay sources. A better understanding of tempering formulas used in the production of beveled-rim bowls and other wares is necessary for sorting out these issues and will figure prominently in subsequent permutations of this ongoing research.

We should also note that compositional groups do not necessarily imply individual workshops. In fact, we would likely anticipate several workshops operating within a site, some specialized and others non-specialized. The social organization of production at a particular site can profoundly affect a potter's access to clay. Ethnographically, we know that craft specialists often assiduously guard their clay resources (Dietler and Herbich 1998; Miller 1985; Nicklin 1981). In some instances, potters may rely upon several clay sources to produce desired attributes in the ceramic paste (Rice 1987: 115–24). Indeed, we might venture to suggest that the compositional diversity of specialized wares, like crosshatch band jars, could derive from the use of multiple clay resources by potters at different workshops within a site.

A subset of Late Susiana 2 V-geometric beaker data was included in this study in order to lend much-needed diachronic perspective to the analysis. Large samples of Late Susiana 2 pottery could not be gained from individual sites in time for this study, so we sampled collections from sites located along the Dez River south of Sharafabad. The results demonstrate that Late Susiana 2 ceramics were compositionally distinct from the mid-fourth-millennium wares described above, perhaps due to technical differences such as painting, slipping, and firing (Theusen and Heydorn 1991). Compositional differences might also result from changing patterns of clay deposition and exploitation.

CONCLUSION

Previous INAA studies have concluded that source clays in the Susiana plain were too homogenous to identify the location of production or track the trajectory of material exchanges. One of the primary goals of this case study was to reevaluate the utility of INAA in this region. To that end, we focused our attention on three primary ware types, beveled-rim bowls, crosshatch band jars, and V-geometric beakers. Both beveled-rim bowls and crosshatch band jars exist in relatively high concentrations in survey collections and bear the weight of considerable prior analysis (Beale 1978; Berman 1986, 1987; Coursey 1997; Johnson 1973, 1987; Wright and Johnson 1975). The present research project asks: (1) Can we determine whether Susiana clays are in fact too homogenous to see groups which we can relate to sites on the plain? (2) Are particular wares compositionally dissimilar from other vessels sharing the same archaeological provenance? (3) Do we see samples associated with particular archaeological deposits migrating to other groups, reflecting exchange of ceramics? Provisional results affirm all three of these questions.

We cannot yet claim that the observed pattern of local production prevailed across the entire Susiana plain. Instead, we point out that at least three compositional groups can be seen in elemental and principal component projections of mid-fourth-millennium samples. These compositional groups are closely correlated with the site-groups of Chogha Mish, Sharafabad, and Tappeh Abu Fanduweh. The variability evident in the crosshatch band jars appears consistent with the proposition that intraregional exchange took place but requires further clarification.

Our research has demonstrated the effectiveness of INAA on the Susiana plain at least within the narrow geographic parameters of this investigation. With continued analysis, compositional differences in ceramic materials

promise insight into crucial questions concerning the intensity, source, and duration of intraregional and interregional trade and the role that commodities played in the development of regionally expansive states.

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Table 3. Number of INAA Specimens by Site and Type

SITE	*TYPE*				
	Crosshatch Band Jar	*Beveled-rim Bowl*	*Clay*	*Late Susiana 2 V-Geometric Beaker*	*Subtotal*
Chogha Mish (KS-01)	41	25	—	—	66
Sharafabad (KS-36)	39	30	10	9	88
Tappeh Abu Fanduweh (KS-59)	—	10	—	—	10
Abul Bashir (KS-562)	—	—	—	3	3
Tappeh Seyfabad (KS-458)	—	—	—	4	4
Gremliza Survey G-III (KS-162)	—	—	—	1	1
Gremliza Survey G-IX (KS-168)	—	—	—	1	1
Tappeh Deylameh Sofla (KS-49)	—	—	—	1	1
Khalte (KS-1450)	—	—	—	7	7
Ishan al-ʿAin (KS-05)	—	—	—	2	2
Chogha Cheshmeh (KS-494)	—	—	—	7	7
Badili (KS-709)	—	—	—	3	3
Beladieh (KS-409)	—	—	—	3	3
Shangar-e Sofla (KS-113)	—	—	—	1	1
Shamʿun (KS-1322)	—	—	—	1	1
Gremliza Survey G1-III (KS-161)	—	—	—	2	2
Total	**80**	**65**	**10**	**45**	**200**

Table 4. Site and Type Information for INAA Samples

Sample Identification	*Site Identification*	*Site Name**	*Northing (meters)*	*Easting (meters)*	*Type*
ROG001–027	KS-36	Tappeh Sharafabad	3575096 E	251937 E	CHBJ
ROG028–057	KS-36	Tappeh Sharafabad	3575096 N	251937 E	BRB
ROG058–067	KS-36	Tappeh Sharafabad	3575096 N	251937 E	Clay
ROG068–109	KS-01	Chogha Mish	3567891 N	269610 E	BRB
ROG110–133	KS-01	Chogha Mish	3567891 N	269610 E	CHBJ
ROG134–136	KS-562	Abul Bashir G97	3553866 N	264382 E	V-GB
ROG137	KS-05	Ishan al-ʿAin G86-I	3560284 N	263390 E	V-GB
ROG138	KS-458	Tappeh Seyfabad G64-I	3565285 N	262792 E	V-GB
ROG139	KS-162	G-III	3563399 N	279982 E	V-GB
ROG140	KS-168	G-IX	3560946 N	258548 E	V-GB
ROG141	KS-49	Tappeh Deylameh Sofla G26-II	3557748 N	258548 E	V-GB
ROG142–148	KS-1450	Khalte G131	3575301 N	257382 E	V-GB
ROG149–155	KS-494	Chogha Cheshmeh G86-II	3559944 N	263402 E	V-GB
ROG156	KS-05	Ishan al-ʿAin G86-I	3560284 N	263390 E	V-GB
ROG157–159	KS-709	Badili G79	3560555 N	269737 E	V-GB
ROG160–162	KS-458	Tappeh Seyfabad G64-I	3565285 N	262792 E	V-GB
ROG163–165	KS-409	Beladieh G62-I	3563580 N	265994 E	V-GB
ROG166	KS-113	Shangar-e Sofla G60	3559012 N	266463 E	V-GB
ROG167–175	KS-36	Tappeh Sharafabad	3575096 N	251937 E	V-GB
ROG176	KS-1322	Shamʾun G25-II	3560759 N	258837 E	V-GB
ROG177	KS-161 & KS-162	GI-III	3566016 N	279469 E	V-GB
ROG178	KS-161 & KS-162	GI-II	3566016 N	279469 E	V-GB
ROG179–180	KS-59	Tappeh Abu Fanduweh	3553987 N	246909 E	BRB
ROG181–192	KS-36	Tappeh Sharafabad	3575096 N	251937 E	CHBJ
ROG193–200	KS-59	Tappeh Abu Fanduweh	3553987 N	246909 E	BRB

* In the third column, “G” followed by numbers represents sites surveyed by Dr. Gremliza.

Table 5. Elemental Concentration (ppm) Data for Susiana Ceramics

Sample Identification	*Arsenic* (*As*)	*Lanthanum* (*La*)	*Lutetium* (*Lu*)	*Neodymium* (*Nd*)
ROG001	4.5299	19.8607	0.2357	17.2148
ROG002	4.2102	18.5205	0.2291	16.1184
ROG003	6.0339	19.4993	0.2398	16.1589
ROG004	5.1929	17.6084	0.2034	15.6621
ROG005	7.1128	18.7509	0.2447	16.9654
ROG006	6.1243	17.3862	0.2568	17.4510
ROG007	5.5243	19.6841	0.2576	17.4017
ROG008	5.8582	22.0875	0.3055	20.0616
ROG009	5.7197	21.1801	0.2324	18.1206
ROG010	5.5801	20.4377	0.2571	17.9633
ROG011	6.1719	19.2967	0.2796	19.4060
ROG012	6.1261	20.5595	0.2584	17.1143
ROG013	5.1786	18.6111	0.2454	16.9066
ROG014	5.5095	18.6205	0.2124	17.0103
ROG015	5.5553	21.5832	0.2596	19.9743
ROG016	6.4589	17.4697	0.3226	17.7943
ROG017	4.5879	18.1697	0.2179	17.7392
ROG018	7.0431	17.7728	0.2424	16.2229
ROG019	6.2401	17.8542	0.2471	17.5632
ROG020	5.7792	17.8158	0.2391	16.2970
ROG021	5.3545	22.8692	0.2628	21.7049
ROG022	8.3307	23.0404	0.3638	21.1895
ROG023	4.9080	18.8395	0.2954	17.1303
ROG024	5.7585	17.1787	0.2194	14.2600
ROG025	5.2246	17.5211	0.2159	15.6882
ROG026	5.5040	18.6867	0.2291	17.9001
ROG027	4.3468	17.0374	0.2170	15.1487
ROG028	12.4919	15.6544	0.2019	15.4860
ROG029	3.5439	21.0974	0.2435	19.3697
ROG030	23.5206	16.7722	0.1996	16.6797
ROG031	9.6875	16.8651	0.2147	15.3269
ROG032	12.6999	16.0428	0.2281	14.2718
ROG033	6.0598	17.3535	0.2075	17.3729
ROG034	25.3231	15.6590	0.1898	15.4687
ROG035	16.7857	15.7884	0.2069	14.6872
ROG036	6.8348	15.9352	0.2088	14.7764
ROG037	22.6414	16.5697	0.2177	15.6396

Table 5. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Arsenic* (*As*)	*Lanthanum* (*La*)	*Lutetium* (*Lu*)	*Neodymium* (*Nd*)
ROG038	4.6418	19.3208	0.2384	17.6456
ROG039	4.9397	18.6191	0.2276	16.7415
ROG040	5.4863	15.6806	0.2129	13.2467
ROG041	3.1220	21.5835	0.2540	20.0477
ROG042	4.2330	20.0939	0.2698	17.9706
ROG043	4.2748	16.2940	0.2137	15.3940
ROG044	3.6608	16.5298	0.2133	15.9116
ROG045	5.4110	15.9624	0.2260	15.1887
ROG046	5.7469	18.5362	0.2382	16.7711
ROG047	4.9764	16.4146	0.2172	14.7685
ROG048	3.8900	18.3850	0.2295	16.4691
ROG049	4.7884	15.7218	0.1972	14.5871
ROG050	5.6206	17.9454	0.2247	16.1197
ROG051	4.0499	16.1791	0.1821	14.3139
ROG052	3.9510	16.5152	0.2064	13.5547
ROG053	4.7366	20.5615	0.2466	17.6379
ROG054	4.5406	18.5006	0.2033	14.8847
ROG055	3.5558	21.2581	0.2580	15.2358
ROG056	4.7898	16.9830	0.1960	16.8158
ROG057	3.9647	16.3999	0.2151	14.8254
ROG058	6.1567	17.7586	0.2550	17.1263
ROG059	5.7590	18.4366	0.2339	13.4256
ROG060	4.3351	18.2151	0.2313	16.9720
ROG061	7.5410	18.7842	0.2281	15.0762
ROG062	5.1819	20.1979	0.2673	19.7724
ROG063	5.4034	19.0096	0.2380	17.2599
ROG064	3.1717	16.4237	0.2100	12.8845
ROG065	5.5314	15.4883	0.2079	12.2828
ROG066	4.4191	18.6736	0.2015	14.9203
ROG067	5.4742	17.3479	0.2237	16.2931
ROG068	5.7241	21.1409	0.2598	14.9078
ROG069	6.3705	20.5892	0.2493	17.5461
ROG070	5.1295	20.2706	0.2683	20.0303
ROG071	7.9007	18.7999	0.2554	13.7090
ROG072	7.1684	18.9287	0.2674	13.4042
ROG073	8.2732	25.2651	0.3159	20.7811
ROG074	5.6392	22.0270	0.2857	19.0900

Table 5. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Arsenic* (*As*)	*Lanthanum* (*La*)	*Lutetium* (*Lu*)	*Neodymium* (*Nd*)
ROG075	7.1012	18.4374	0.2501	13.2708
ROG076	6.8076	17.9591	0.2309	13.7952
ROG077	6.6211	23.1537	0.3232	18.8339
ROG078	4.2091	20.4540	0.2658	14.2433
ROG079	6.2886	20.9051	0.2876	19.5582
ROG080	9.4542	16.7383	0.2390	12.6376
ROG081	5.4636	20.2726	0.2402	18.8739
ROG082	4.1962	20.7175	0.2634	18.2433
ROG083	4.3889	20.2649	0.2425	18.7057
ROG084	5.2115	22.0839	0.2854	21.8949
ROG085	5.3286	20.7376	0.2498	19.5379
ROG086	6.8249	18.9943	0.2418	14.7335
ROG087	4.4181	17.9728	0.2274	16.7554
ROG088	5.3621	21.6891	0.2747	17.5374
ROG089	3.2956	19.2820	0.2576	13.5889
ROG090	7.6500	21.9675	0.3028	18.3166
ROG091	7.1316	18.8210	0.2444	17.6459
ROG092	6.4474	18.1874	0.2316	14.9477
ROG093	6.0731	21.1587	0.2546	18.7138
ROG094	16.6838	20.9905	0.2548	19.7382
ROG095	4.4659	20.4575	0.2518	15.9385
ROG096	5.6564	19.0812	0.2238	16.2922
ROG097	6.8873	16.3710	0.2032	12.5828
ROG098	4.7594	19.3447	0.2759	17.7948
ROG099	4.5175	19.0437	0.2290	12.9324
ROG100	5.9193	19.9275	0.2402	17.4806
ROG101	5.1933	17.8969	0.2357	14.6660
ROG102	8.7896	17.8653	0.2900	13.7003
ROG103	7.8333	21.1414	0.2812	20.3310
ROG104	6.7812	20.9969	0.2812	20.2362
ROG105	8.1255	20.6445	0.2664	16.6277
ROG106	5.2453	19.4620	0.2661	16.6790
ROG107	10.0573	20.8651	0.2979	18.7668
ROG108	5.0717	19.7826	0.2810	17.3304
ROG109	8.3548	17.8710	0.2737	15.9647
ROG110	2.4139	16.6315	0.2361	14.7388
ROG111	3.4320	16.5529	0.2231	15.5993

Table 5. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Arsenic* (*As*)	*Lanthanum* (*La*)	*Lutetium* (*Lu*)	*Neodymium* (*Nd*)
ROG112	9.8178	18.0903	0.2877	15.0448
ROG113	5.7781	17.3036	0.2342	16.3733
ROG114	7.9638	18.1613	0.2547	15.1774
ROG115	5.4500	16.2633	0.1873	12.5909
ROG116	15.3812	20.9832	0.2817	17.9850
ROG117	6.7842	15.9335	0.2220	14.9633
ROG118	11.5656	16.7228	0.2135	15.1407
ROG119	6.5257	20.4661	0.2605	18.1346
ROG120	3.8930	17.0673	0.2250	16.4503
ROG121	6.2519	16.3830	0.2278	14.0393
ROG122	4.5575	17.1106	0.2495	14.5553
ROG123	4.8350	16.7161	0.2356	15.4670
ROG124	5.1517	16.4965	0.2467	14.4430
ROG125	7.1831	16.2047	0.2327	15.7188
ROG126	6.4219	20.9884	0.2904	18.4015
ROG127	8.9797	17.0766	0.2300	17.1585
ROG128	4.8983	19.5518	0.2718	16.5974
ROG129	6.6310	14.2360	0.1781	12.0784
ROG130	4.5529	18.3924	0.2843	16.3642
ROG131	7.9399	15.6814	0.2255	13.2786
ROG132	5.2005	18.7321	0.2666	17.0379
ROG133	4.7140	15.9008	0.2146	13.8531
ROG134	7.1214	22.9079	0.3291	21.0212
ROG135	0.0000	22.3644	0.3009	20.0695
ROG136	6.8389	20.9856	0.2757	18.8033
ROG137	8.5038	22.9681	0.3030	20.1231
ROG138	0.0000	24.4581	0.3318	23.1318
ROG139	1.5724	23.2850	0.3168	20.7768
ROG140	26.6859	23.4387	0.3020	20.8761
ROG141	8.7624	24.5022	0.3431	21.8624
ROG142	16.7480	21.9383	0.2748	20.0748
ROG143	4.4962	22.9171	0.3588	20.1401
ROG144	7.9489	22.7263	0.2776	20.7657
ROG145	8.1783	22.1513	0.2717	21.0169
ROG146	3.3799	25.3723	0.3488	24.0882
ROG147	0.0000	26.4232	0.3473	24.3677
ROG148	4.9327	23.5269	0.3109	18.8486

Table 5. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Arsenic* (*As*)	*Lanthanum* (*La*)	*Lutetium* (*Lu*)	*Neodymium* (*Nd*)
ROG149	3.4067	22.4351	0.2815	20.0595
ROG150	3.9318	23.5122	0.3251	21.4386
ROG151	6.0378	25.0744	0.2868	19.0755
ROG152	4.0905	24.4007	0.3069	23.1830
ROG153	1.4071	22.6099	0.2974	21.1460
ROG154	17.4942	19.0757	0.2838	16.3196
ROG155	6.7658	23.4197	0.2795	17.1445
ROG156	9.5144	22.2505	0.2537	19.1491
ROG157	6.4788	24.6245	0.2847	19.5731
ROG158	9.8066	24.5063	0.3022	23.4577
ROG159	13.0054	22.7322	0.3103	19.1797
ROG160	2.5227	24.5972	0.2915	20.4256
ROG161	3.9648	24.7255	0.3071	18.0736
ROG162	4.7399	23.5420	0.3144	18.7101
ROG163	12.6697	22.0043	0.2939	20.2176
ROG164	10.8939	22.6779	0.3056	17.6877
ROG165	8.0028	19.3736	0.2643	18.3343
ROG166	3.9991	25.2890	0.3470	19.9757
ROG167	6.8753	23.2805	0.3180	15.8049
ROG168	8.1631	22.8804	0.2963	19.5118
ROG169	7.2451	22.6747	0.2835	19.8892
ROG170	1.2195	25.6817	0.3222	21.3607
ROG171	6.7963	24.2910	0.3256	17.5385
ROG172	18.0886	25.4088	0.3069	20.9912
ROG173	12.8172	23.5170	0.2604	22.1434
ROG174	2.6351	23.5081	0.3102	17.1113
ROG175	1.4621	26.2684	0.3397	21.9888
ROG176	5.2520	25.2673	0.2788	18.3338
ROG177	5.9819	26.1244	0.3042	18.2335
ROG178	4.7949	24.2100	0.2719	21.4447
ROG179	10.4025	19.5776	0.2402	15.9240
ROG180	4.3165	18.8377	0.2128	12.4110
ROG181	4.4624	19.2623	0.2219	18.8826
ROG182	5.8186	23.4254	0.3214	20.1288
ROG183	3.9157	21.9863	0.2469	17.6916
ROG184	3.4626	21.8314	0.2698	15.9850
ROG185	2.7471	21.2749	0.2133	14.4478

Table 5. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Arsenic* (*As*)	*Lanthanum* (*La*)	*Lutetium* (*Lu*)	*Neodymium* (*Nd*)
ROG186	5.0950	21.4775	0.2832	15.4175
ROG187	4.5242	20.5211	0.2034	19.7305
ROG188	4.1651	24.6095	0.3049	23.6718
ROG189	3.8239	21.6023	0.2486	15.3350
ROG190	6.4900	21.6582	0.2796	16.2095
ROG191	6.0642	21.2991	0.2418	16.5253
ROG192	7.5803	20.5725	0.2232	17.1143
ROG193	3.2944	19.0126	0.2381	14.4921
ROG194	5.4097	18.2080	0.2222	14.0950
ROG195	8.7713	18.6514	0.2220	14.6381
ROG196	8.0369	17.4206	0.2187	13.4855
ROG197	13.1486	20.6215	0.2646	18.9178
ROG198	7.2987	16.8976	0.2122	16.7371
ROG199	9.5739	20.6610	0.2640	17.4952
ROG200	7.1818	18.2140	0.2349	14.5185

Table 6. Elemental Concentration (ppm) Data for Susiana Ceramics

Sample Identification	*Samarium (Sm)*	*Uranium (U)*	*Ytterbium (Yb)*	*Cerium (Ce)*
ROG001	3.6859	2.3436	1.4225	40.5149
ROG002	3.5115	2.4030	1.3653	37.3352
ROG003	3.6304	2.5081	1.4344	39.8895
ROG004	3.2478	1.7574	1.3033	35.5892
ROG005	3.6221	1.9691	1.4821	38.4097
ROG006	3.3547	1.5622	1.4535	35.1653
ROG007	3.7543	2.2258	1.4745	40.7009
ROG008	4.1723	1.8847	1.7320	45.1268
ROG009	3.9727	2.5585	1.4913	43.4579
ROG010	3.8727	2.5251	1.6075	41.5005
ROG011	3.6425	1.6873	1.5969	38.6854
ROG012	3.8245	2.1415	1.4858	42.1370
ROG013	3.5034	2.1282	1.3840	38.3568
ROG014	3.4558	1.9788	1.3937	37.4536
ROG015	3.8551	2.8528	1.5896	43.7423
ROG016	3.3374	1.6905	1.5107	35.3094
ROG017	3.4253	2.4312	1.3608	36.9170
ROG018	3.4005	1.8731	1.5100	35.7847
ROG019	3.4138	1.9844	1.5446	35.6344
ROG020	3.3105	2.1494	1.3821	35.8860
ROG021	4.2680	2.7062	1.6720	46.8578
ROG022	4.4886	2.1756	2.0374	47.3807
ROG023	3.5168	2.3131	1.3795	38.0950
ROG024	3.2031	1.7467	1.3077	34.8776
ROG025	3.3100	2.4987	1.3754	35.7604
ROG026	3.5606	2.5443	1.5423	38.3682
ROG027	3.2464	2.5293	1.2969	34.5117
ROG028	3.0609	2.5807	1.1646	31.6821
ROG029	4.0226	2.8751	1.5680	42.6126
ROG030	3.2463	2.9440	1.2311	33.5151
ROG031	3.2389	2.4806	1.3363	34.2844
ROG032	3.1425	1.8959	1.2318	32.5610
ROG033	3.2897	2.0249	1.3803	34.9895
ROG034	3.1838	4.0390	1.1794	32.5659
ROG035	3.1009	3.0056	1.3126	32.1935
ROG036	3.1119	2.2907	1.3228	32.4846
ROG037	3.2180	2.6104	1.2542	33.4845

Table 6. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Samarium* (*Sm*)	*Uranium* (*U*)	*Ytterbium* (*Yb*)	*Cerium* (*Ce*)
ROG038	3.7630	2.2636	1.4551	39.9518
ROG039	3.5665	2.2853	1.4578	37.7004
ROG040	2.9974	1.9155	1.2032	31.3986
ROG041	4.0957	3.0153	1.5280	44.0482
ROG042	3.9112	3.0241	1.5252	40.8120
ROG043	3.1635	2.3589	1.2653	33.4960
ROG044	3.1408	2.0278	1.2405	33.2607
ROG045	3.0760	1.8617	1.2394	32.3985
ROG046	3.5944	3.2429	1.3650	37.6453
ROG047	3.1751	1.6994	1.2992	32.9911
ROG048	3.4189	2.2026	1.4041	37.4696
ROG049	3.0561	2.0030	1.2056	32.2057
ROG050	3.4747	2.1350	1.3057	36.4489
ROG051	3.0810	1.6983	1.1847	34.1913
ROG052	3.2308	2.0431	1.3402	34.9184
ROG053	3.9122	2.4360	1.6255	42.7339
ROG054	3.5194	2.0031	1.4445	38.7532
ROG055	4.0178	2.5056	1.6520	44.6164
ROG056	3.2540	2.2062	1.3410	34.9804
ROG057	3.1968	2.2594	1.3090	34.7140
ROG058	3.4191	2.2713	1.3534	37.3750
ROG059	3.5020	2.6245	1.4697	38.0967
ROG060	3.5909	2.3643	1.4369	38.6977
ROG061	3.6041	2.6706	1.2997	39.4217
ROG062	3.8329	2.5135	1.5786	41.7282
ROG063	3.6091	2.3594	1.4302	39.4283
ROG064	3.2277	2.4625	1.3499	35.2486
ROG065	3.0199	2.1923	1.2229	31.9874
ROG066	3.5412	2.1828	1.4551	39.0915
ROG067	3.3384	2.1572	1.3692	36.6723
ROG068	4.0712	1.8354	1.7787	43.8805
ROG069	3.9919	2.0512	1.7854	42.9232
ROG070	3.9936	2.2621	1.8136	42.2012
ROG071	3.6641	2.0552	1.5754	38.8279
ROG072	3.7249	2.0199	1.6336	40.2865
ROG073	4.9322	2.6371	2.0413	55.1740
ROG074	4.2383	2.2180	1.9852	46.1116

Table 6. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Samarium* (*Sm*)	*Uranium* (*U*)	*Ytterbium* (*Yb*)	*Cerium* (*Ce*)
ROG075	3.5496	1.8324	1.4820	37.6826
ROG076	3.6359	2.0638	1.5291	38.0739
ROG077	4.7283	4.1869	1.9206	47.5714
ROG078	3.9039	2.0547	1.7144	42.1761
ROG079	4.0446	2.2512	1.8945	43.2176
ROG080	3.3975	3.3435	1.5172	34.5226
ROG081	3.8347	2.4341	1.5652	41.5992
ROG082	3.9162	2.2626	1.7358	44.1341
ROG083	3.8279	2.4427	1.6329	40.8480
ROG084	4.3094	1.9358	1.8402	45.7757
ROG085	3.9438	1.6953	1.5605	43.2334
ROG086	3.6188	1.8201	1.7823	39.2446
ROG087	3.4307	2.4667	1.5284	37.0586
ROG088	4.1796	2.3111	1.7960	44.6738
ROG089	3.7619	1.9287	1.6268	40.2894
ROG090	4.3266	1.7441	1.9489	45.8291
ROG091	3.6335	1.8594	1.5278	38.4995
ROG092	3.3703	2.3197	1.4930	37.2442
ROG093	4.0916	1.8262	1.7083	43.4346
ROG094	4.0865	2.3201	1.8042	44.1399
ROG095	3.8996	1.9092	1.7207	42.2503
ROG096	3.6560	2.2253	1.5302	39.1964
ROG097	3.1458	1.7433	1.4163	33.3473
ROG098	3.7887	2.5063	1.5954	40.7932
ROG099	3.6472	2.2830	1.6458	39.2983
ROG100	3.7822	1.9500	1.5956	41.6906
ROG101	3.2627	1.8822	1.3293	36.0990
ROG102	3.3506	1.8339	1.4268	36.3604
ROG103	4.0431	2.3529	1.7598	43.1593
ROG104	3.9990	2.1029	1.6851	43.6822
ROG105	3.8664	2.2627	1.6471	41.5141
ROG106	3.8331	2.3397	1.6126	40.4077
ROG107	4.0524	2.4490	1.7017	43.7475
ROG108	3.7010	2.2361	1.5744	39.6915
ROG109	3.4951	1.9831	1.3943	36.7899
ROG110	3.1617	1.8370	1.3427	33.9559
ROG111	3.1972	1.8593	1.7052	33.5761

Table 6. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Samarium* (*Sm*)	*Uranium* (*U*)	*Ytterbium* (*Yb*)	*Cerium* (*Ce*)
ROG112	3.5203	2.5636	1.5218	37.1452
ROG113	3.3856	1.9654	1.3547	35.9728
ROG114	3.5416	2.2483	1.6932	37.9004
ROG115	2.9864	2.1048	1.2089	33.5216
ROG116	4.1190	2.0420	1.7383	44.3528
ROG117	3.0916	2.1068	1.2706	32.7730
ROG118	3.2227	2.1062	1.3565	34.4271
ROG119	3.9880	2.4115	1.5780	42.5622
ROG120	3.3172	2.1584	1.4729	35.3326
ROG121	3.1738	1.7541	1.3586	33.5864
ROG122	3.3539	1.9538	1.4676	35.4354
ROG123	3.2647	1.7414	1.4567	34.9404
ROG124	3.2767	2.0166	1.2798	34.2150
ROG125	3.2082	2.1471	1.3625	34.0637
ROG126	4.0655	2.3559	1.6924	43.9573
ROG127	3.3267	1.9826	1.3698	34.8124
ROG128	3.7825	2.1530	1.6894	40.4861
ROG129	2.7457	1.6033	1.2529	29.0055
ROG130	3.5450	1.8101	1.6204	37.4704
ROG131	3.0605	1.8470	1.3339	32.0531
ROG132	3.6066	1.6335	1.7025	38.7167
ROG133	3.0482	2.2276	1.2365	32.8137
ROG134	4.4719	2.8491	1.9409	47.5313
ROG135	4.2804	2.6811	1.8316	45.7243
ROG136	4.0558	2.8888	1.6140	43.9721
ROG137	4.2771	2.5427	1.7831	46.5278
ROG138	4.7745	3.4464	2.0164	50.3911
ROG139	4.5803	2.6631	1.8398	50.6177
ROG140	4.4711	3.1043	1.7759	48.9151
ROG141	4.6851	3.0531	2.1808	51.3896
ROG142	4.1949	2.8055	1.6791	45.6079
ROG143	4.6500	3.0241	2.0441	49.7945
ROG144	4.2859	2.6678	1.6605	46.4864
ROG145	4.3132	2.8866	1.6241	47.0736
ROG146	4.9094	4.2101	2.0619	51.5955
ROG147	5.0334	2.7083	2.0217	55.1847
ROG148	4.4948	2.2220	1.8490	48.6675

Table 6. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Samarium* (*Sm*)	*Uranium* (*U*)	*Ytterbium* (*Yb*)	*Cerium* (*Ce*)
ROG149	4.2085	2.8252	1.7235	46.3452
ROG150	4.5371	2.8037	1.8011	49.6004
ROG151	4.8983	2.4292	2.0966	53.1784
ROG152	4.6218	2.5600	1.8795	52.4981
ROG153	4.3499	2.8947	2.0438	49.0931
ROG154	3.7623	2.9088	2.0065	41.4467
ROG155	4.5688	2.5198	1.9754	50.5929
ROG156	4.3477	3.2551	1.8295	47.2359
ROG157	4.7547	3.2669	2.1175	52.1656
ROG158	4.7547	3.6816	2.1219	50.9004
ROG159	4.2945	2.0747	1.9016	48.7279
ROG160	4.7001	2.4916	2.1203	53.5615
ROG161	4.7562	2.3996	2.1158	50.7003
ROG162	4.5924	2.8003	2.0237	51.5111
ROG163	4.2008	3.3020	1.7846	45.9808
ROG164	4.2747	2.4829	1.6899	47.3195
ROG165	3.8833	2.3073	1.7033	41.8156
ROG166	4.9114	2.4840	2.2839	56.1129
ROG167	4.6056	2.4287	1.9863	50.2007
ROG168	4.3435	2.5362	2.1312	50.9284
ROG169	4.3532	2.1966	1.8985	48.7368
ROG170	4.8836	2.6485	2.0852	48.3556
ROG171	4.6694	2.3213	2.0166	56.2028
ROG172	4.9250	1.9746	2.1385	55.7108
ROG173	4.4807	2.2054	1.8267	58.3462
ROG174	4.5403	2.8219	2.1389	48.5325
ROG175	5.1199	2.8098	2.2699	50.8798
ROG176	4.8061	3.3375	1.9819	54.7261
ROG177	5.0827	2.3583	2.3232	53.9599
ROG178	4.7458	3.0180	1.7227	52.5457
ROG179	3.8266	2.3210	1.7383	40.9668
ROG180	3.6031	2.3127	1.6187	40.2211
ROG181	3.5991	2.3091	1.3406	40.0801
ROG182	4.5857	2.6756	2.1559	48.5585
ROG183	4.0228	2.0842	1.6391	45.5296
ROG184	4.1227	2.2984	1.6243	45.9808
ROG185	4.0094	2.2194	1.6526	44.8055

Table 6. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Samarium* (*Sm*)	*Uranium* (*U*)	*Ytterbium* (*Yb*)	*Cerium* (*Ce*)
ROG186	4.0142	2.9245	1.5802	45.4221
ROG187	3.8322	2.1650	1.5801	42.9468
ROG188	4.7401	2.4198	2.0653	51.0233
ROG189	4.0367	3.5283	1.5712	45.5750
ROG190	4.1325	2.6117	1.6673	46.2083
ROG191	3.9115	2.1757	1.5139	44.3637
ROG192	4.0406	1.9832	1.7358	44.2554
ROG193	3.7528	1.5775	1.6128	41.0409
ROG194	3.4857	1.8497	1.6890	37.0884
ROG195	3.6939	1.9261	1.6645	40.2622
ROG196	3.3979	1.7430	1.4724	36.6369
ROG197	4.2725	1.9043	1.7938	46.2369
ROG198	3.3078	2.0119	1.4556	35.3465
ROG199	4.0928	1.6114	1.8659	44.2843
ROG200	3.5609	1.2784	1.6364	38.7035

Table 7. Elemental Concentration (ppm) Data for Susiana Ceramics

Sample Identification	*Cobalt (Co)*	*Chromium (Cr)*	*Caesium (Cs)*	*Europium (Eu)*
ROG001	15.5004	138.8081	2.5622	0.8653
ROG002	14.9803	141.5449	2.0402	0.8438
ROG003	16.8835	156.6406	2.7007	0.8391
ROG004	14.3319	130.1825	2.1065	0.7556
ROG005	16.6957	193.4029	3.1394	0.8394
ROG006	16.5050	201.4255	2.5502	0.7516
ROG007	19.0475	140.9895	2.7466	0.8663
ROG008	22.0998	217.3806	3.4017	0.9786
ROG009	16.5246	141.0731	2.9259	0.9312
ROG010	13.4108	201.6492	2.0899	0.8321
ROG011	17.2279	208.3401	2.9715	0.8619
ROG012	16.6688	143.2565	2.8030	0.9046
ROG013	18.1292	149.8398	2.6077	0.8201
ROG014	15.4732	128.0338	2.7089	0.8287
ROG015	15.6259	142.8032	3.8119	0.8543
ROG016	16.2809	209.3920	2.6521	0.7738
ROG017	15.2613	122.5138	1.9902	0.7959
ROG018	16.1297	212.2199	2.5739	0.7663
ROG019	16.4161	216.6579	2.8964	0.8041
ROG020	15.3590	155.0233	2.5581	0.7688
ROG021	19.8164	172.8772	2.8437	1.0174
ROG022	26.6206	271.5164	3.4895	1.0215
ROG023	16.2626	136.9561	1.7478	0.8373
ROG024	15.1994	141.5224	2.3561	0.7448
ROG025	15.6770	151.6525	1.9659	0.7403
ROG026	16.3846	164.1922	2.5036	0.8081
ROG027	14.5822	145.7366	2.1316	0.7541
ROG028	11.7003	137.1456	1.6411	0.7088
ROG029	18.4848	181.3820	2.3716	0.9593
ROG030	11.7357	154.9066	1.6687	0.7411
ROG031	14.1840	149.0807	1.5621	0.7843
ROG032	10.6413	142.4041	1.6614	0.7470
ROG033	13.5626	131.3617	1.8173	0.7556
ROG034	11.0369	131.2863	1.7367	0.7003
ROG035	10.5595	143.2831	1.6602	0.7049
ROG036	13.1869	142.3740	2.1117	0.7299
ROG037	12.4586	147.2613	1.8086	0.7414

Table 7. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Cobalt* (*Co*)	*Chromium* (*Cr*)	*Caesium* (*Cs*)	*Europium* (*Eu*)
ROG038	15.7650	164.5423	2.1902	0.8923
ROG039	15.1588	118.6640	2.1300	0.8267
ROG040	12.9997	113.5442	1.7463	0.7210
ROG041	16.7296	166.5632	2.6297	0.9379
ROG042	15.8098	159.0262	2.2887	0.8870
ROG043	14.6152	133.0696	2.2128	0.7283
ROG044	13.9862	148.5668	1.9580	0.7453
ROG045	12.9198	134.9215	1.9532	0.7299
ROG046	13.6978	127.7426	1.5600	0.8340
ROG047	13.1683	130.7933	1.9361	0.7655
ROG048	15.5715	136.2340	3.1990	0.8036
ROG049	13.7228	133.3620	1.7252	0.7332
ROG050	14.5585	140.5333	2.1704	0.8013
ROG051	14.5096	121.4904	2.1623	0.7245
ROG052	13.6480	123.8721	2.0377	0.7446
ROG053	16.8020	163.2346	2.3457	0.9344
ROG054	15.7451	148.3048	2.0427	0.8424
ROG055	14.7525	164.5158	2.8324	0.9689
ROG056	15.4360	142.5216	1.7914	0.7907
ROG057	14.5971	140.5027	2.0805	0.7624
ROG058	14.0264	147.4347	2.6043	0.8276
ROG059	15.9199	141.1044	3.3379	0.8207
ROG060	16.4336	159.0451	2.6571	0.8645
ROG061	12.9379	127.1241	3.5473	0.8088
ROG062	18.3319	144.7485	3.7467	0.8927
ROG063	16.0114	157.4272	3.2838	0.8724
ROG064	14.2803	143.3046	2.6790	0.7626
ROG065	11.9833	149.4096	2.2063	0.7255
ROG066	16.7561	140.4850	3.0497	0.8427
ROG067	13.3890	138.3940	2.9221	0.7895
ROG068	18.1494	196.6110	3.8695	0.8988
ROG069	18.5169	203.6189	2.7920	0.9068
ROG070	14.5047	294.9379	2.5539	0.9246
ROG071	15.2981	175.2909	2.5927	0.8290
ROG072	15.4937	193.5357	2.7674	0.8239
ROG073	24.8558	225.7107	4.2238	1.1424
ROG074	21.1838	182.5949	3.9341	0.9536

Table 7. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Cobalt* (*Co*)	*Chromium* (*Cr*)	*Caesium* (*Cs*)	*Europium* (*Eu*)
ROG075	17.5373	176.6899	2.5646	0.8068
ROG076	15.3191	176.4243	2.9974	0.8164
ROG077	18.9329	206.9436	3.2416	0.9744
ROG078	17.0683	192.1239	3.7014	0.8585
ROG079	18.4012	181.3731	3.4144	0.8951
ROG080	14.4159	138.2848	1.8074	0.7304
ROG081	17.3695	194.5173	2.9963	0.8540
ROG082	21.1641	169.9186	3.2953	0.9277
ROG083	17.7844	189.6910	3.4673	0.8636
ROG084	19.7211	198.7360	3.8191	0.9601
ROG085	21.7133	240.7629	3.5221	0.9446
ROG086	15.7865	157.8230	2.6457	0.8013
ROG087	15.3946	184.3171	2.2383	0.7892
ROG088	18.9631	185.1865	3.7914	0.9375
ROG089	16.6175	174.5499	3.0547	0.8598
ROG090	20.0623	258.8474	3.0457	0.9694
ROG091	16.6332	164.6816	2.4300	0.8344
ROG092	16.8400	132.9855	2.7168	0.8018
ROG093	16.8775	195.7594	2.1996	0.9241
ROG094	19.2595	180.2110	3.7479	0.9089
ROG095	18.5916	194.1872	3.7391	0.8752
ROG096	15.8996	168.7277	2.7006	0.8308
ROG097	13.3806	152.8755	2.3182	0.7194
ROG098	17.5759	193.4494	3.2765	0.8471
ROG099	14.7355	153.0792	3.8155	0.8093
ROG100	18.7523	171.3837	3.8566	0.8587
ROG101	15.7966	162.4270	2.9291	0.7462
ROG102	16.0965	161.2065	3.1303	0.7729
ROG103	19.2545	194.0255	3.5331	0.9080
ROG104	17.9736	191.0259	3.7527	0.9055
ROG105	17.4161	179.9186	3.1160	0.8537
ROG106	16.7649	186.7007	2.7180	0.8843
ROG107	19.6384	199.1727	3.9004	0.9177
ROG108	17.8332	179.7243	3.6239	0.8206
ROG109	16.8815	130.9189	2.5410	0.7765
ROG110	13.5986	159.4787	2.7285	0.7246
ROG111	13.8087	157.2913	2.0674	0.7254

Table 7. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Cobalt* (*Co*)	*Chromium* (*Cr*)	*Caesium* (*Cs*)	*Europium* (*Eu*)
ROG112	15.8967	241.6074	2.6238	0.7957
ROG113	14.1720	142.7581	2.4870	0.7796
ROG114	17.9009	152.4784	3.3429	0.8134
ROG115	11.9365	127.0451	1.9968	0.6635
ROG116	17.4506	174.7826	2.5271	0.9395
ROG117	14.6507	143.7367	2.0644	0.7130
ROG118	15.2937	141.3258	2.4874	0.7151
ROG119	19.5123	170.6369	3.2148	0.8968
ROG120	14.2739	175.5372	2.2035	0.7896
ROG121	11.5704	154.5943	2.2428	0.7341
ROG122	11.1194	158.2926	1.9116	0.7486
ROG123	14.0696	150.0575	2.7681	0.7453
ROG124	15.5656	136.5320	2.7482	0.7353
ROG125	15.4466	135.5916	2.5823	0.7372
ROG126	20.3089	179.7289	2.5813	0.9247
ROG127	14.8010	204.8866	2.3068	0.7664
ROG128	15.7324	173.8047	2.6051	0.8656
ROG129	11.6488	134.4205	2.0962	0.6212
ROG130	16.5551	212.7159	2.4130	0.7984
ROG131	14.6164	131.0338	2.3748	0.6912
ROG132	16.4194	161.1602	1.8192	0.8291
ROG133	12.0455	173.9357	1.8810	0.6999
ROG134	17.7842	285.5405	4.2159	1.0110
ROG135	20.5590	176.0008	4.4471	0.9432
ROG136	16.1230	217.7533	2.8603	0.8546
ROG137	20.6508	217.0267	4.6411	0.9808
ROG138	18.6654	195.7686	3.8025	1.0333
ROG139	18.6887	187.2038	3.9524	1.0000
ROG140	18.9243	214.2910	4.0204	0.9588
ROG141	25.4232	224.0777	5.5471	1.0956
ROG142	20.5961	207.6954	4.3913	0.9155
ROG143	19.1963	231.3815	5.0844	1.0140
ROG144	18.0421	218.9436	4.7389	0.9872
ROG145	20.9626	200.9581	4.7247	0.9504
ROG146	20.9020	287.4565	4.3877	1.1082
ROG147	23.9579	214.0290	5.0882	1.0966
ROG148	20.3314	228.6479	5.0281	0.9838

Table 7. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Cobalt* (*Co*)	*Chromium* (*Cr*)	*Caesium* (*Cs*)	*Europium* (*Eu*)
ROG149	20.5221	206.5753	4.5442	0.9523
ROG150	20.6301	193.1092	1.7410	0.9789
ROG151	27.1361	262.5999	3.3666	1.1410
ROG152	21.8482	235.1117	5.0821	1.0644
ROG153	14.1346	212.9194	1.7498	1.0035
ROG154	15.3038	176.2746	2.3476	0.8604
ROG155	21.7699	256.9426	3.8737	1.0521
ROG156	16.2654	185.7875	4.4184	0.9765
ROG157	18.2426	212.0995	4.6407	1.1036
ROG158	19.1979	209.1768	4.4205	1.0799
ROG159	19.8997	175.9654	4.9297	0.9977
ROG160	20.1898	194.3937	5.0957	1.0234
ROG161	19.5688	288.2147	3.7644	1.1029
ROG162	21.7690	226.6096	4.6154	0.9835
ROG163	18.6137	176.7227	3.4692	0.9313
ROG164	15.3376	196.5437	4.1249	0.9574
ROG165	14.6633	190.1596	4.4842	0.8588
ROG166	22.0392	208.3317	4.1924	1.1731
ROG167	19.6507	251.3361	4.4424	1.0790
ROG168	22.4222	210.4433	5.3106	0.9762
ROG169	23.7592	218.7852	4.9673	1.0007
ROG170	20.6402	210.1738	3.3240	0.9840
ROG171	22.6632	206.2639	5.6349	1.1011
ROG172	24.1621	204.5014	5.4905	1.0962
ROG173	22.8031	182.9324	5.3011	1.1341
ROG174	17.9673	155.8676	5.5708	1.0068
ROG175	21.0552	207.6516	4.7874	1.0635
ROG176	18.8367	211.5260	4.9397	1.0668
ROG177	20.8058	283.0499	3.9996	1.1612
ROG178	19.8375	228.3201	3.6987	1.0995
ROG179	22.6044	221.2434	0.6475	0.9083
ROG180	19.3318	219.3890	3.7477	0.8352
ROG181	16.9586	141.2582	2.8492	0.8506
ROG182	19.1414	366.0635	3.9992	1.0206
ROG183	18.2051	151.7435	3.0799	0.9374
ROG184	19.8357	172.2331	3.3324	0.9635
ROG185	18.6956	168.8977	3.2613	0.9184

Table 7. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Cobalt* (*Co*)	*Chromium* (*Cr*)	*Caesium* (*Cs*)	*Europium* (*Eu*)
ROG186	17.0127	159.9698	2.8185	0.9300
ROG187	18.2825	173.6349	2.7780	0.9053
ROG188	19.1286	311.0328	3.9033	1.0764
ROG189	20.1961	165.7458	3.3038	0.9512
ROG190	19.0695	178.5772	2.9348	0.9683
ROG191	16.8988	151.4529	2.9416	0.9101
ROG192	20.3905	246.5988	3.0968	0.9592
ROG193	16.3368	304.1426	2.0030	0.8556
ROG194	15.0753	250.6235	1.1282	0.8089
ROG195	18.2555	263.4122	0.4682	0.8528
ROG196	16.8078	207.6945	0.5931	0.8032
ROG197	20.6728	240.2098	2.1543	1.0189
ROG198	18.6854	200.5004	1.9910	0.7830
ROG199	19.5937	340.8228	2.8462	0.9576
ROG200	17.0924	302.2438	1.4676	0.8344

Table 8. Elemental Concentration (ppm) Data for Susiana Ceramics

Sample Identification	*Iron (Fe)*	*Hafnium (Hf)*	*Nickel (Ni)*	*Rubidium (Rb)*
ROG001	35225.0	2.6316	103.73	19.68
ROG002	32568.6	2.5086	80.01	29.15
ROG003	33328.4	2.8425	76.73	48.43
ROG004	31434.5	2.2931	89.36	36.97
ROG005	36623.6	2.9260	124.67	54.84
ROG006	31498.1	2.9896	130.50	47.33
ROG007	35988.0	2.6336	95.06	51.59
ROG008	43880.9	3.1182	163.65	41.13
ROG009	37491.3	2.8413	89.08	55.31
ROG010	34575.9	3.1218	116.84	42.24
ROG011	36082.9	2.8387	112.47	53.36
ROG012	35740.7	2.8042	82.26	52.11
ROG013	35239.3	2.6218	79.10	42.99
ROG014	32673.5	2.4584	103.07	27.76
ROG015	35373.3	2.7418	92.24	33.24
ROG016	32423.5	2.8161	138.48	48.18
ROG017	31338.9	2.5351	89.95	27.22
ROG018	31809.1	2.8520	141.47	47.27
ROG019	32821.4	2.8942	108.75	47.76
ROG020	30353.4	2.6358	81.49	46.00
ROG021	42271.7	3.1160	87.69	51.99
ROG022	49246.1	3.4247	210.82	61.29
ROG023	32206.8	2.5781	91.24	34.21
ROG024	29366.1	2.5147	79.82	40.35
ROG025	30344.9	2.6857	75.02	38.33
ROG026	32041.0	2.7190	77.35	44.43
ROG027	29508.7	2.4971	92.45	41.23
ROG028	25365.3	2.3132	71.77	32.61
ROG029	35276.4	3.2310	81.20	18.94
ROG030	26116.3	2.4263	42.25	34.22
ROG031	27836.3	2.6226	64.19	32.33
ROG032	26614.0	2.4800	43.95	35.76
ROG033	28883.6	2.5280	87.60	38.13
ROG034	24993.8	2.2505	59.57	32.98
ROG035	24268.4	2.2838	71.52	33.01
ROG036	26267.5	2.3166	79.11	34.16
ROG037	27124.2	2.4366	45.54	38.29

Table 8. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Iron* (*Fe*)	*Hafnium* (*Hf*)	*Nickel* (*Ni*)	*Rubidium* (*Rb*)
ROG038	32572.5	2.8773	104.52	44.27
ROG039	31853.4	2.5826	87.38	44.13
ROG040	26443.1	2.0762	64.91	37.81
ROG041	36875.6	2.9053	104.60	23.17
ROG042	34679.8	2.7815	78.26	33.71
ROG043	29172.2	2.3242	91.18	41.50
ROG044	27681.6	2.4071	69.90	38.76
ROG045	26940.6	2.3409	71.38	36.15
ROG046	31704.2	2.4333	73.41	31.78
ROG047	27631.3	2.3083	71.10	37.65
ROG048	32444.4	2.4758	90.56	47.56
ROG049	27358.6	2.3592	84.84	33.03
ROG050	30100.5	2.6499	99.30	43.66
ROG051	29763.2	2.2752	64.28	39.49
ROG052	29641.7	2.3248	66.24	36.24
ROG053	35142.9	3.0119	93.00	48.01
ROG054	32073.8	2.5949	54.19	40.09
ROG055	38086.7	2.9312	83.85	21.69
ROG056	29245.1	2.4176	59.74	38.34
ROG057	28280.9	2.4262	72.80	33.26
ROG058	29623.8	2.6873	73.14	44.41
ROG059	32828.5	2.5169	94.10	51.82
ROG060	32328.2	2.6334	105.72	42.52
ROG061	31094.6	2.5107	60.24	56.68
ROG062	35347.2	2.8361	91.79	54.71
ROG063	34617.8	2.6592	65.88	55.16
ROG064	28320.7	2.4638	74.36	45.44
ROG065	25605.9	2.3376	51.19	37.88
ROG066	33464.9	2.4921	77.27	47.55
ROG067	29850.7	2.4240	78.19	47.95
ROG068	38105.1	3.1588	106.60	29.28
ROG069	35304.1	3.2926	88.95	44.46
ROG070	30538.5	3.9622	72.29	28.43
ROG071	34373.7	3.0871	92.83	49.37
ROG072	32316.8	3.2006	90.20	32.24
ROG073	50393.0	4.2480	114.47	25.29
ROG074	40981.3	3.2717	114.61	67.85

Table 8. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Iron (Fe)*	*Hafnium (Hf)*	*Nickel (Ni)*	*Rubidium (Rb)*
ROG075	33228.2	2.7961	98.01	48.04
ROG076	31468.8	3.0680	89.42	51.75
ROG077	39286.1	3.7224	101.06	59.90
ROG078	35788.0	3.1135	108.45	31.58
ROG079	36328.5	3.3460	89.02	59.51
ROG080	27494.6	2.7745	75.93	37.44
ROG081	33813.2	3.3235	80.12	24.42
ROG082	41484.5	3.0727	104.28	57.98
ROG083	35134.6	3.1190	62.46	33.37
ROG084	39398.2	3.4999	108.31	62.55
ROG085	38625.0	3.1684	130.25	40.16
ROG086	32406.4	2.8438	89.83	49.08
ROG087	32591.6	2.8669	85.14	46.46
ROG088	39801.7	3.2962	102.83	66.31
ROG089	34330.1	2.9927	77.17	54.59
ROG090	36037.3	4.1269	116.37	55.63
ROG091	32199.5	2.7796	95.28	44.93
ROG092	32916.7	2.5579	68.72	48.80
ROG093	34083.6	3.4177	84.83	38.10
ROG094	37696.2	3.0622	76.59	62.32
ROG095	36079.9	3.2591	87.62	34.11
ROG096	32526.8	2.7326	87.82	39.71
ROG097	26471.3	2.5441	70.74	42.34
ROG098	34002.7	3.2525	86.70	58.43
ROG099	32560.1	2.9255	71.80	36.12
ROG100	37595.7	2.8409	103.56	18.66
ROG101	32258.0	2.5196	92.27	50.65
ROG102	31664.8	2.7554	128.55	53.03
ROG103	37304.2	3.3280	82.01	55.06
ROG104	36990.2	3.3684	87.79	62.16
ROG105	35266.9	2.9907	103.03	55.04
ROG106	32623.3	3.3381	78.34	39.10
ROG107	40039.4	3.2914	120.10	65.85
ROG108	34755.5	3.1402	87.68	30.99
ROG109	33301.8	2.6721	95.33	48.21
ROG110	26720.0	2.7308	67.48	43.51
ROG111	27699.1	2.7434	87.69	43.20

Table 8. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Iron* (*Fe*)	*Hafnium* (*Hf*)	*Nickel* (*Ni*)	*Rubidium* (*Rb*)
ROG112	32270.6	3.1990	146.58	47.85
ROG113	28604.4	2.6828	61.74	46.06
ROG114	35584.0	2.7514	114.71	60.16
ROG115	24463.8	2.2864	238.20	38.66
ROG116	40067.4	3.2902	110.66	63.42
ROG117	27718.4	2.5652	80.95	43.18
ROG118	30243.3	2.5409	104.79	48.97
ROG119	37334.9	3.0990	88.60	32.98
ROG120	29283.9	3.1105	63.60	44.89
ROG121	26323.0	2.7317	68.05	44.53
ROG122	25696.5	3.1626	79.47	30.93
ROG123	28591.9	2.7236	82.56	47.35
ROG124	29736.7	2.6145	93.68	47.27
ROG125	30566.9	2.5911	76.72	46.43
ROG126	41977.2	3.2457	103.56	56.55
ROG127	28090.2	3.3219	89.42	43.84
ROG128	33931.7	3.3463	56.60	51.00
ROG129	23950.9	2.3752	77.59	40.79
ROG130	31020.1	3.4316	87.13	46.46
ROG131	28300.1	2.4163	66.52	40.67
ROG132	32995.4	2.9598	72.59	45.81
ROG133	25302.5	2.7453	62.88	42.36
ROG134	41082.3	4.1318	122.42	22.54
ROG135	43191.9	3.3815	154.12	10.85
ROG136	39544.5	3.5352	150.13	15.25
ROG137	41735.0	3.4541	153.34	19.61
ROG138	47227.8	3.6152	139.44	21.01
ROG139	47117.5	3.4899	111.02	11.24
ROG140	45215.7	3.6567	134.67	18.29
ROG141	48853.9	3.7726	158.51	73.47
ROG142	43148.0	3.4319	149.76	29.61
ROG143	46877.2	3.9180	162.93	22.09
ROG144	43051.9	3.6177	106.22	35.97
ROG145	45815.6	3.5783	147.42	18.53
ROG146	42844.0	4.3388	120.57	27.96
ROG147	50017.0	4.0986	122.86	47.02
ROG148	46002.9	3.6652	156.93	41.05

Table 8. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Iron (Fe)*	*Hafnium (Hf)*	*Nickel (Ni)*	*Rubidium (Rb)*
ROG149	45584.1	3.4170	143.40	32.28
ROG150	44404.8	3.6549	103.75	31.66
ROG151	51764.5	3.8080	173.23	28.31
ROG152	48069.6	3.8351	140.13	29.09
ROG153	39027.3	4.0279	105.17	20.41
ROG154	37038.6	3.1044	82.50	56.56
ROG155	42858.1	4.2362	116.79	24.59
ROG156	42702.3	3.2098	89.62	23.71
ROG157	48786.6	3.7514	98.87	19.91
ROG158	47746.9	3.7293	119.89	24.31
ROG159	48359.7	3.4044	110.96	21.48
ROG160	49589.7	3.7340	143.89	21.66
ROG161	40813.3	4.1857	109.17	57.16
ROG162	48563.7	4.0340	112.72	18.77
ROG163	44846.9	3.3172	119.09	69.26
ROG164	46560.0	3.5479	107.38	33.60
ROG165	42393.7	3.4283	112.40	27.60
ROG166	49335.9	4.0826	110.14	38.72
ROG167	42901.6	3.9387	124.72	22.62
ROG168	49429.1	3.7772	100.10	28.85
ROG169	47139.1	3.6000	122.17	16.05
ROG170	45098.7	3.6628	116.79	18.36
ROG171	50207.0	3.9678	91.38	31.81
ROG172	51035.9	3.8721	104.35	23.96
ROG173	47774.0	4.1516	97.90	17.30
ROG174	40709.3	3.8069	75.17	12.10
ROG175	46054.2	3.4986	120.36	33.63
ROG176	49253.8	3.7726	102.89	38.31
ROG177	45145.3	4.4096	114.46	32.33
ROG178	45558.7	3.8843	115.00	35.47
ROG179	37333.0	2.9960	154.29	19.97
ROG180	36025.5	3.1937	120.93	16.89
ROG181	35128.4	2.6614	88.02	50.39
ROG182	39735.8	4.4212	111.07	64.01
ROG183	36943.6	2.9112	85.34	58.45
ROG184	39165.4	2.9323	88.11	58.83
ROG185	38648.3	3.1015	92.56	23.11

Table 8. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Iron* (*Fe*)	*Hafnium* (*Hf*)	*Nickel* (*Ni*)	*Rubidium* (*Rb*)
ROG186	37223.5	2.8904	73.50	54.16
ROG187	36544.8	2.9041	73.15	50.60
ROG188	38228.9	4.3116	85.67	68.14
ROG189	39799.1	3.2350	81.69	55.87
ROG190	40025.9	3.2988	95.48	53.44
ROG191	36251.6	2.8774	80.24	55.36
ROG192	38971.7	3.2831	121.47	57.47
ROG193	30773.6	3.8860	98.23	18.54
ROG194	28395.2	3.6095	88.34	17.45
ROG195	32361.8	3.6951	125.27	16.60
ROG196	31182.3	3.3539	87.68	19.95
ROG197	40948.8	3.4062	165.79	18.23
ROG198	32869.8	2.7705	138.28	25.14
ROG199	35933.5	4.3321	134.98	7.53
ROG200	31504.6	3.6951	118.17	13.90

Table 9. Elemental Concentration (ppm) Data for Susiana Ceramics

Sample Identification	*Antimony (Sb)*	*Scandium (Sc)*	*Strontium (Sr)*	*Tantalum (Ta)*
ROG001	0.4988	12.8299	736.74	0.8741
ROG002	0.4275	11.8242	832.00	0.7645
ROG003	0.5099	12.1031	869.84	0.8276
ROG004	0.5181	11.4977	695.92	0.7580
ROG005	0.5803	12.6437	1078.82	0.7381
ROG006	0.5181	11.4032	606.22	0.6875
ROG007	0.5199	12.8891	674.66	0.8794
ROG008	0.6495	15.9268	539.91	0.9229
ROG009	0.5957	13.5368	579.60	0.8985
ROG010	0.6903	11.8687	666.01	0.6978
ROG011	0.5255	13.0116	709.05	0.7979
ROG012	0.5072	13.0605	694.01	0.8903
ROG013	0.4897	12.8096	734.36	0.8348
ROG014	0.5060	11.9814	660.16	0.8126
ROG015	0.6135	13.1032	613.22	0.8772
ROG016	0.5408	11.7344	638.76	0.7184
ROG017	0.4495	11.3829	790.77	0.7684
ROG018	0.5149	11.4880	679.33	0.6935
ROG019	0.5207	11.8741	621.80	0.6950
ROG020	0.5120	11.0919	653.38	0.7471
ROG021	0.5726	15.3137	667.65	0.9849
ROG022	0.8701	18.2219	592.86	0.7653
ROG023	0.5537	11.8323	724.71	0.8111
ROG024	0.5052	10.7152	702.45	0.7057
ROG025	0.5030	11.1416	764.16	0.7210
ROG026	0.5273	11.6152	916.89	0.7618
ROG027	0.4408	10.7712	1034.12	0.7191
ROG028	0.4483	9.2713	712.79	0.6492
ROG029	0.6171	12.5280	791.99	0.8756
ROG030	0.4652	9.5957	920.92	0.6666
ROG031	0.4677	10.1985	818.60	0.6805
ROG032	0.4603	9.6632	848.48	0.6645
ROG033	0.4747	10.3428	835.73	0.7352
ROG034	0.3887	9.3391	766.76	0.6370
ROG035	0.3565	9.3175	884.12	0.6617
ROG036	0.3599	9.6342	550.19	0.6551
ROG037	0.4655	9.8877	677.62	0.6820

Table 9. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Antimony* (*Sb*)	*Scandium* (*Sc*)	*Strontium* (*Sr*)	*Tantalum* (*Ta*)
ROG038	0.5175	11.8293	708.84	0.8382
ROG039	0.4949	11.5285	1174.84	0.7804
ROG040	0.4008	9.7101	712.96	0.6543
ROG041	0.5251	13.4505	726.14	0.8899
ROG042	0.4795	12.4482	733.60	0.8443
ROG043	0.3555	10.5669	656.15	0.7054
ROG044	0.3491	10.1331	949.06	0.6895
ROG045	0.3695	9.6598	628.30	0.6736
ROG046	0.5418	11.3162	852.81	0.7863
ROG047	0.4063	10.0453	704.20	0.6805
ROG048	0.3895	11.9735	554.06	0.7924
ROG049	0.4312	9.8994	591.24	0.6935
ROG050	0.4945	10.7661	836.18	0.7636
ROG051	0.4311	10.6452	639.20	0.6795
ROG052	0.4059	10.6250	542.72	0.7108
ROG053	0.5273	12.4122	536.21	0.8779
ROG054	0.5426	11.3367	724.42	0.8124
ROG055	0.5904	13.6131	474.09	0.8963
ROG056	0.4337	10.5553	475.52	0.7451
ROG057	0.4123	10.0082	500.09	0.7290
ROG058	0.4171	10.5904	463.19	0.7467
ROG059	0.4409	11.8926	587.20	0.8099
ROG060	0.4745	11.5201	510.75	0.8371
ROG061	0.4859	11.3852	522.55	0.8042
ROG062	0.5406	12.7369	477.13	0.8527
ROG063	0.4709	12.5322	482.69	0.8572
ROG064	0.3720	10.1998	567.15	0.7132
ROG065	0.4209	9.1222	515.64	0.6556
ROG066	0.4506	12.0891	551.18	0.7973
ROG067	0.4207	10.7724	536.78	0.7391
ROG068	0.6233	13.1960	527.72	0.7558
ROG069	0.6344	12.5881	662.18	0.7431
ROG070	0.6367	11.0708	1010.20	0.7421
ROG071	0.5735	11.9243	527.61	0.7081
ROG072	0.5852	11.6499	639.63	0.6785
ROG073	0.9197	17.7901	424.06	1.1811
ROG074	0.6639	14.3367	635.57	0.7886

Table 9. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Antimony* (*Sb*)	*Scandium* (*Sc*)	*Strontium* (*Sr*)	*Tantalum* (*Ta*)
ROG075	0.5786	11.7212	520.91	0.7138
ROG076	0.4640	10.8845	606.47	0.6466
ROG077	0.7451	13.8094	663.86	0.7747
ROG078	0.6157	12.5036	496.85	0.7171
ROG079	0.5911	12.6893	764.09	0.7150
ROG080	0.5596	9.6369	662.49	0.5638
ROG081	0.6603	11.8625	719.54	0.6794
ROG082	0.5355	14.6946	550.94	1.0082
ROG083	0.5730	12.2300	580.16	0.7173
ROG084	0.7235	13.7731	581.94	0.7756
ROG085	0.6129	13.5889	528.49	0.8524
ROG086	0.5065	11.3505	604.20	0.6430
ROG087	0.4318	11.3529	743.70	0.6672
ROG088	0.6356	13.8631	617.79	0.7840
ROG089	0.5522	11.9797	565.57	0.7054
ROG090	0.5000	12.8300	453.52	0.8157
ROG091	0.5516	11.3498	494.88	0.6742
ROG092	0.5222	12.0195	624.55	0.8018
ROG093	0.6267	11.9469	776.87	0.7446
ROG094	0.4932	13.3062	540.23	0.7366
ROG095	0.5941	12.5557	551.86	0.7259
ROG096	0.5511	11.4402	603.84	0.6953
ROG097	0.5078	9.4466	562.58	0.5879
ROG098	0.5279	12.0886	582.85	0.7124
ROG099	0.6749	11.4871	589.02	0.6280
ROG100	0.6085	12.6689	486.38	0.6952
ROG101	0.4912	11.0086	558.02	0.6221
ROG102	0.4444	11.0163	565.55	0.5957
ROG103	0.6216	12.9220	635.06	0.7561
ROG104	0.6717	12.8496	835.46	0.7432
ROG105	0.5859	12.1483	645.77	0.7131
ROG106	0.6054	11.5582	827.13	0.7140
ROG107	0.6005	14.1952	445.39	0.7804
ROG108	0.6151	12.0362	682.34	0.6602
ROG109	0.6492	11.6121	854.86	0.6875
ROG110	0.3524	9.5702	434.06	0.6085
ROG111	0.4592	9.8873	776.35	0.6066

Table 9. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Antimony* (*Sb*)	*Scandium* (*Sc*)	*Strontium* (*Sr*)	*Tantalum* (*Ta*)
ROG112	0.5709	11.5822	826.68	0.6797
ROG113	0.5136	10.1719	783.52	0.6077
ROG114	0.5851	12.4258	847.38	0.6928
ROG115	0.4212	8.7813	951.06	0.5257
ROG116	0.8593	14.1528	1425.13	0.8356
ROG117	0.5412	9.8089	789.50	0.5807
ROG118	0.5764	10.7200	903.88	0.6379
ROG119	0.7142	13.1285	960.92	0.7473
ROG120	0.4224	10.7589	631.04	0.7198
ROG121	0.4462	9.5118	755.90	0.5913
ROG122	0.4574	9.3073	870.59	0.6106
ROG123	0.4350	10.0949	842.31	0.6023
ROG124	0.4136	10.5095	670.48	0.6153
ROG125	0.5246	10.7179	743.17	0.6300
ROG126	0.7300	14.7281	770.37	0.8303
ROG127	0.4688	9.5800	598.96	0.5843
ROG128	0.5277	12.1341	1021.33	0.7435
ROG129	0.4589	8.6310	716.00	0.5056
ROG130	0.4683	10.9425	532.99	0.6673
ROG131	0.4794	10.0391	933.91	0.5679
ROG132	0.6053	11.6445	821.21	0.6685
ROG133	0.4108	9.0524	782.82	0.5817
ROG134	0.7944	14.5949	695.13	0.8466
ROG135	0.1900	15.7959	686.68	0.8261
ROG136	0.7454	14.1203	781.74	0.7927
ROG137	0.6996	15.0009	641.49	0.9691
ROG138	0.6792	16.9201	672.65	0.9301
ROG139	0.7215	16.8324	508.64	0.8702
ROG140	0.5062	16.3659	782.37	0.8961
ROG141	0.8409	17.7383	327.58	0.9274
ROG142	0.9652	15.2646	753.39	0.8365
ROG143	0.4849	16.4661	525.65	1.0025
ROG144	0.8647	15.5165	457.67	0.8932
ROG145	0.9229	16.0116	582.54	0.8758
ROG146	0.5820	15.2154	559.30	0.9465
ROG147	0.8048	18.0870	390.32	1.0390
ROG148	0.6940	16.0714	848.36	0.9419

Table 9. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Antimony* (*Sb*)	*Scandium* (*Sc*)	*Strontium* (*Sr*)	*Tantalum* (*Ta*)
ROG149	0.6456	16.3432	786.36	0.9526
ROG150	0.5722	16.0139	999.72	0.8658
ROG151	0.7866	18.5367	767.67	1.0786
ROG152	0.7729	17.0211	792.76	0.9967
ROG153	0.4041	14.1947	1171.22	0.8832
ROG154	0.7612	13.2163	1697.20	0.7387
ROG155	0.8208	15.3905	928.52	0.9137
ROG156	0.8341	15.0713	692.19	0.8118
ROG157	0.8628	17.6022	880.80	1.0851
ROG158	0.7938	17.2476	1219.94	1.0515
ROG159	0.9844	17.3592	770.02	0.8644
ROG160	0.4002	17.6148	610.32	0.9998
ROG161	0.7278	14.5516	750.11	0.9260
ROG162	0.7761	17.1879	541.84	0.9103
ROG163	0.9154	15.7773	872.62	0.8478
ROG164	1.0549	16.5183	759.69	0.8901
ROG165	0.8612	15.0488	859.61	0.8319
ROG166	0.7377	18.1605	671.04	1.0474
ROG167	0.7355	15.3406	280.52	0.9278
ROG168	0.9749	17.4621	371.22	0.8962
ROG169	0.8734	16.7714	439.25	0.8865
ROG170	1.0285	15.9813	411.60	0.9188
ROG171	0.8152	18.0543	421.39	0.9852
ROG172	1.2806	18.4218	428.53	1.0170
ROG173	0.7409	17.4067	415.62	0.9488
ROG174	0.6015	14.9673	604.04	0.8309
ROG175	0.9181	16.6440	570.59	1.0186
ROG176	0.8243	17.0283	1242.06	0.9760
ROG177	0.7981	15.8570	813.16	0.9390
ROG178	0.7370	15.9372	943.53	0.9632
ROG179	0.4253	13.3663	669.43	0.7955
ROG180	0.5792	12.6991	855.87	0.7054
ROG181	0.4492	12.6249	555.21	0.8841
ROG182	0.6544	14.2226	648.42	0.8612
ROG183	0.5186	13.4405	822.96	0.8833
ROG184	0.5058	14.1053	626.89	0.9435
ROG185	0.5380	13.8420	936.14	0.9174

Table 9. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Antimony* (*Sb*)	*Scandium* (*Sc*)	*Strontium* (*Sr*)	*Tantalum* (*Ta*)
ROG186	0.4914	13.4957	770.72	0.9253
ROG187	0.4991	13.3093	494.61	0.8718
ROG188	0.5807	14.1893	950.66	0.8760
ROG189	0.4963	14.1504	580.10	0.9741
ROG190	0.5423	14.2956	695.26	0.9925
ROG191	0.5109	13.1936	805.99	0.8661
ROG192	0.5788	14.1437	545.63	0.8212
ROG193	0.4891	11.0210	1093.80	0.6924
ROG194	0.5126	10.2122	1604.02	0.6297
ROG195	0.4652	11.4588	868.43	0.6984
ROG196	0.4721	11.0817	1168.57	0.6824
ROG197	0.6382	14.0842	1117.65	0.9573
ROG198	0.5019	11.7131	1202.17	0.7018
ROG199	0.6303	12.7594	996.36	0.7379
ROG200	0.5368	11.2998	861.31	0.7151

Table 10. Elemental Concentration (ppm) Data for Susiana Ceramics

Sample Identification	*Terbium (Tb)*	*Thorium (Th)*	*Zinc (Zn)*	*Zirconium (Zr)*
ROG001	0.4742	5.0939	77.39	71.73
ROG002	0.4287	4.6548	99.44	79.43
ROG003	0.5067	5.1973	87.16	94.04
ROG004	0.4326	4.5689	116.88	73.30
ROG005	0.4519	5.4059	97.10	80.83
ROG006	0.5559	4.8235	104.92	64.56
ROG007	0.6033	5.2776	114.36	71.32
ROG008	0.5172	6.3034	102.68	73.77
ROG009	0.4458	5.5649	84.76	78.19
ROG010	0.4796	5.9177	107.29	83.02
ROG011	0.4746	5.1116	106.10	79.26
ROG012	0.4443	5.2081	103.48	71.98
ROG013	0.4605	4.7460	86.85	89.24
ROG014	0.5589	4.6865	87.83	64.86
ROG015	0.5075	5.8739	89.10	88.18
ROG016	0.4063	4.9261	91.11	74.48
ROG017	0.3936	4.6715	112.89	92.36
ROG018	0.4705	5.0331	85.45	74.11
ROG019	0.4258	5.0738	88.80	64.38
ROG020	0.4683	4.6799	95.59	68.93
ROG021	0.5468	5.8798	115.17	112.28
ROG022	0.6165	6.9576	88.98	98.79
ROG023	0.5107	4.7362	96.85	75.37
ROG024	0.3713	4.4260	98.26	67.07
ROG025	0.4086	4.7979	96.18	62.14
ROG026	0.5056	4.8524	81.33	98.55
ROG027	0.4149	4.4793	90.90	58.04
ROG028	0.3873	3.8993	85.37	80.30
ROG029	0.5131	5.2811	97.05	79.21
ROG030	0.5004	4.0102	89.62	71.07
ROG031	0.5295	4.2057	133.48	71.54
ROG032	0.4084	4.0557	85.12	57.58
ROG033	0.4036	4.4128	132.03	71.54
ROG034	0.4180	3.9306	90.72	73.77
ROG035	0.4233	4.0068	91.98	67.42
ROG036	0.3971	3.9754	92.31	70.33
ROG037	0.4252	4.0490	109.73	56.45

Table 10. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Terbium (Tb)*	*Thorium (Th)*	*Zinc (Zn)*	*Zirconium (Zr)*
ROG038	0.5501	5.0305	108.90	102.84
ROG039	0.4803	4.7026	101.99	69.07
ROG040	0.3963	3.9002	125.15	65.98
ROG041	0.5145	5.4876	83.18	98.25
ROG042	0.5081	5.3028	87.91	75.73
ROG043	0.4255	4.2187	107.92	77.08
ROG044	0.4061	4.1189	107.64	73.15
ROG045	0.4497	4.1328	124.09	73.84
ROG046	0.4479	4.6223	71.91	62.97
ROG047	0.4205	4.0679	105.25	47.33
ROG048	0.4230	4.8559	121.47	61.72
ROG049	0.4305	3.9391	98.22	62.07
ROG050	0.4524	4.5193	83.65	72.05
ROG051	0.3937	4.2369	121.51	69.33
ROG052	0.4275	4.4111	131.59	83.74
ROG053	0.6428	5.1743	103.47	93.77
ROG054	0.4958	4.5487	78.88	83.99
ROG055	0.6346	5.4507	102.65	124.59
ROG056	0.5075	4.2100	93.38	89.80
ROG057	0.4558	4.5182	92.60	94.95
ROG058	0.4726	4.2974	91.84	94.82
ROG059	0.4592	4.7943	98.89	90.15
ROG060	0.4887	4.5738	137.65	87.66
ROG061	0.4930	5.1194	98.91	86.28
ROG062	0.5474	5.5594	115.18	85.00
ROG063	0.5455	4.8231	108.50	77.71
ROG064	0.4192	4.2445	109.16	97.13
ROG065	0.4011	3.6707	78.43	84.92
ROG066	0.4632	4.8261	113.40	88.35
ROG067	0.4329	4.4177	90.85	77.99
ROG068	0.5462	6.2468	92.10	97.74
ROG069	0.5152	5.9326	95.91	92.12
ROG070	0.5595	5.4258	86.49	119.04
ROG071	0.5221	5.4944	99.57	88.06
ROG072	0.6176	5.3572	92.93	90.52
ROG073	0.6030	7.6414	77.95	126.14
ROG074	0.5502	6.5605	111.14	93.74

Table 10. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Terbium (Tb)*	*Thorium (Th)*	*Zinc (Zn)*	*Zirconium (Zr)*
ROG075	0.5249	5.4047	94.00	96.20
ROG076	0.5043	5.0810	76.45	95.53
ROG077	0.6548	6.4342	125.22	111.99
ROG078	0.6763	5.7787	79.83	87.77
ROG079	0.5577	6.1215	99.88	110.93
ROG080	0.4555	4.5832	75.55	80.23
ROG081	0.6564	5.6783	92.10	98.97
ROG082	0.4438	5.4256	85.76	104.76
ROG083	0.5051	5.6169	75.11	87.77
ROG084	0.6344	6.4707	87.15	97.01
ROG085	0.6129	5.5026	71.11	86.60
ROG086	0.5064	5.3962	79.94	72.63
ROG087	0.4474	5.0953	97.59	92.38
ROG088	0.5689	6.2941	116.72	112.55
ROG089	0.5104	5.4999	80.11	105.56
ROG090	0.5766	6.5894	86.68	108.53
ROG091	0.4866	5.0030	92.85	87.16
ROG092	0.4575	4.7869	83.79	84.11
ROG093	0.6863	5.6713	69.98	98.37
ROG094	0.4926	6.0296	138.90	106.56
ROG095	0.6704	5.8551	81.21	104.75
ROG096	0.5047	5.3680	83.59	90.08
ROG097	0.4155	4.5305	80.35	79.49
ROG098	0.6348	5.5495	89.23	102.33
ROG099	0.4852	5.6460	65.21	86.22
ROG100	0.5003	5.7168	80.38	83.68
ROG101	0.3902	5.0022	81.11	64.85
ROG102	0.4733	5.1090	91.93	76.13
ROG103	0.5548	6.0764	96.08	88.02
ROG104	0.5508	6.0578	95.85	89.65
ROG105	0.5861	5.7266	91.38	68.89
ROG106	0.5641	5.5200	62.99	75.26
ROG107	0.6285	6.4384	104.53	87.75
ROG108	0.5162	5.5448	79.81	87.40
ROG109	0.4747	5.3262	81.41	67.46
ROG110	0.4344	4.4361	81.78	70.27
ROG111	0.5345	4.6949	78.24	85.21

Table 10. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Terbium* (*Tb*)	*Thorium* (*Th*)	*Zinc* (*Zn*)	*Zirconium* (*Zr*)
ROG112	0.4762	5.1647	100.30	85.46
ROG113	0.4855	4.8895	97.29	70.94
ROG114	0.4571	5.5262	125.78	76.97
ROG115	0.3624	4.1565	74.78	71.78
ROG116	0.6161	6.4700	81.32	92.02
ROG117	0.3732	4.6587	89.24	61.01
ROG118	0.4468	4.8505	93.27	65.47
ROG119	0.5686	6.0379	79.31	79.46
ROG120	0.5471	4.6640	87.89	99.73
ROG121	0.4141	4.6061	81.34	48.75
ROG122	0.5158	4.6275	79.34	76.67
ROG123	0.4701	4.7911	105.25	66.21
ROG124	0.5151	4.8886	100.06	70.15
ROG125	0.4410	4.8791	101.36	53.94
ROG126	0.5222	6.4025	99.19	86.25
ROG127	0.5006	4.9074	86.01	84.05
ROG128	0.5110	5.6371	108.03	96.41
ROG129	0.3772	3.9837	78.48	67.32
ROG130	0.4649	5.3308	99.77	91.59
ROG131	0.3760	4.5945	95.02	76.49
ROG132	0.4959	5.4087	102.87	86.95
ROG133	0.5222	4.3587	82.18	88.34
ROG134	0.6451	6.9592	57.24	151.55
ROG135	0.6054	7.1436	84.62	66.55
ROG136	0.5908	6.7007	59.39	109.88
ROG137	0.6499	6.7114	81.72	108.35
ROG138	0.8306	7.6594	67.82	107.41
ROG139	0.7302	7.8532	46.58	79.21
ROG140	0.6656	7.4023	55.78	97.86
ROG141	0.6883	7.9274	97.92	98.01
ROG142	0.5129	6.9465	77.73	105.61
ROG143	1.0978	7.8175	54.37	124.21
ROG144	0.5534	7.0337	67.95	78.99
ROG145	0.5065	7.2455	66.73	116.80
ROG146	0.6196	7.2442	80.79	124.47
ROG147	0.6192	8.6627	82.17	90.88
ROG148	0.6307	7.6145	73.83	72.63

Table 10. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Terbium (Tb)*	*Thorium (Th)*	*Zinc (Zn)*	*Zirconium (Zr)*
ROG149	0.6698	6.9642	72.64	96.17
ROG150	0.6753	7.5046	66.45	97.90
ROG151	0.6395	7.2222	76.52	104.64
ROG152	0.6099	7.5082	89.02	103.03
ROG153	0.5783	7.0445	67.72	126.25
ROG154	0.4644	6.0466	80.96	73.94
ROG155	0.6137	7.2191	63.90	114.84
ROG156	0.5500	6.7961	79.63	94.76
ROG157	0.6170	7.5728	61.87	106.81
ROG158	0.6009	7.4244	58.88	78.62
ROG159	0.5849	7.5927	61.83	89.68
ROG160	0.5976	8.3617	82.81	125.23
ROG161	0.7627	6.7976	86.36	120.37
ROG162	0.5855	7.7937	70.40	101.92
ROG163	0.5875	7.0627	59.28	92.08
ROG164	0.5116	7.4252	48.58	90.96
ROG165	0.4946	6.9676	52.26	100.89
ROG166	0.6839	8.0822	75.87	118.28
ROG167	0.6568	7.2546	58.98	105.91
ROG168	0.5594	7.8239	90.62	95.23
ROG169	0.5760	7.5532	103.74	104.24
ROG170	0.5989	7.0237	87.39	99.85
ROG171	0.6240	8.8609	86.50	105.06
ROG172	0.7109	8.9529	100.61	106.03
ROG173	0.8761	8.8500	102.20	115.41
ROG174	0.7954	7.5121	82.06	92.62
ROG175	0.5928	7.2481	78.81	116.06
ROG176	0.6029	8.2847	65.65	118.51
ROG177	0.6875	7.5286	77.93	145.47
ROG178	0.6368	7.1197	70.13	105.13
ROG179	0.5251	5.2978	92.28	85.43
ROG180	0.4710	5.5456	80.99	85.91
ROG181	0.4314	4.9059	84.64	75.86
ROG182	0.6260	6.6808	89.37	144.19
ROG183	0.5437	5.6516	93.49	93.71
ROG184	0.7274	5.6595	92.64	107.38
ROG185	0.4777	5.4920	83.89	87.32

Table 10. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Terbium* (*Tb*)	*Thorium* (*Th*)	*Zinc* (*Zn*)	*Zirconium* (*Zr*)
ROG186	0.5494	5.8403	88.04	97.80
ROG187	0.5895	5.1789	96.13	96.25
ROG188	0.7088	7.0241	93.65	124.31
ROG189	0.5187	5.7703	91.24	87.51
ROG190	0.5661	5.7736	116.17	103.53
ROG191	0.5091	5.6403	86.73	97.60
ROG192	0.7045	5.8544	131.01	84.98
ROG193	0.4706	5.5130	59.64	107.52
ROG194	0.4671	4.8763	69.52	75.54
ROG195	0.5339	5.2309	81.59	107.19
ROG196	0.4676	5.0562	85.72	95.75
ROG197	0.5740	6.1911	69.78	102.46
ROG198	0.4550	4.7227	76.64	85.07
ROG199	0.5592	5.8740	71.17	149.03
ROG200	0.5805	5.2098	70.26	79.96

Table 11. Elemental Concentration (ppm) Data for Susiana Ceramics

Sample Identification	*Aluminum* (*Al*)	*Barium* (*Ba*)	*Calcium* (*Ca*)	*Dysprosium* (*Dy*)
ROG001	42053.8	182.7	137337.3	2.4290
ROG002	41962.6	207.4	146481.9	2.6534
ROG003	45541.5	176.0	152829.3	2.9541
ROG004	45213.5	200.4	159506.5	2.7641
ROG005	47457.9	314.6	122009.4	2.7132
ROG006	41660.5	181.8	138567.0	2.8484
ROG007	48285.0	105.8	130193.1	2.6654
ROG008	57588.0	216.7	119133.2	3.5432
ROG009	52210.2	199.9	119827.5	2.7102
ROG010	50008.8	156.4	138212.7	2.8159
ROG011	46564.2	181.3	144188.4	3.1630
ROG012	49760.5	175.7	135796.3	2.9656
ROG013	47733.0	139.0	152023.8	2.5977
ROG014	46371.6	172.6	151034.9	2.7521
ROG015	50973.0	165.1	143210.7	2.7609
ROG016	44944.3	167.8	134348.3	3.1022
ROG017	42998.5	177.1	152158.0	2.6459
ROG018	45285.7	174.5	144533.3	2.7035
ROG019	43904.9	188.2	144038.7	2.7387
ROG020	40119.1	205.3	164978.8	2.1672
ROG021	52719.5	188.1	119007.4	3.2268
ROG022	66803.5	178.4	117243.0	3.2740
ROG023	42813.7	151.0	148087.7	2.1491
ROG024	39903.9	119.9	170669.7	2.4841
ROG025	40688.8	112.7	154740.1	2.4262
ROG026	45538.5	183.6	159147.5	2.4863
ROG027	39175.3	162.1	171945.1	2.3908
ROG028	35853.8	62.5	170693.6	2.0120
ROG029	46141.8	335.7	180661.5	3.2474
ROG030	34729.2	182.3	173568.9	2.5438
ROG031	37094.4	126.3	148353.1	2.1925
ROG032	34027.3	123.4	166870.8	2.5073
ROG033	39218.8	92.4	163723.6	2.5496
ROG034	35066.7	209.1	167164.2	2.2208
ROG035	36613.2	140.9	164182.5	2.6508
ROG036	36112.0	223.1	171565.1	2.1487
ROG037	38815.6	159.3	155223.4	2.2431

Table 11. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Aluminum* (*Al*)	*Barium* (*Ba*)	*Calcium* (*Ca*)	*Dysprosium* (*Dy*)
ROG038	44298.3	162.7	124947.6	2.7859
ROG039	43908.2	161.4	162042.9	2.6014
ROG040	35407.8	93.1	174226.9	2.3036
ROG041	51680.7	140.0	149998.3	2.6583
ROG042	48009.6	144.8	144556.0	3.2201
ROG043	41876.0	79.1	177665.0	2.1888
ROG044	35776.8	198.8	168224.9	1.9001
ROG045	34909.6	143.5	167207.5	2.4493
ROG046	43921.3	211.7	161883.2	2.4751
ROG047	36103.5	203.5	157413.7	2.2016
ROG048	43607.4	137.2	150377.3	2.2934
ROG049	33400.9	123.3	163940.9	2.4950
ROG050	42561.2	200.2	166914.2	2.7431
ROG051	38924.2	105.8	169042.1	2.5530
ROG052	36396.6	120.1	157114.6	2.7102
ROG053	45234.6	190.0	145861.6	2.6881
ROG054	40785.9	204.8	173215.8	2.6743
ROG055	51658.4	95.3	150680.1	2.9300
ROG056	34349.0	167.9	165419.1	2.6530
ROG057	36782.4	86.9	168970.7	2.4238
ROG058	32857.5	165.7	206635.6	2.1335
ROG059	39937.3	464.2	213173.2	2.5666
ROG060	40261.4	181.8	196300.4	3.5366
ROG061	41496.4	276.7	200650.9	2.4576
ROG062	49641.0	235.2	180652.9	2.9528
ROG063	43152.2	100.3	175382.7	2.7121
ROG064	36366.2	132.9	187159.0	2.7073
ROG065	31846.1	107.9	202905.8	2.5092
ROG066	42434.8	170.0	195909.3	2.4757
ROG067	37721.2	90.3	190595.8	2.3885
ROG068	52692.0	333.3	127284.3	3.1711
ROG069	49393.2	533.4	148022.2	3.2479
ROG070	47837.1	466.2	154794.2	3.4597
ROG071	48748.1	240.7	147149.8	2.7472
ROG072	65588.5	177.9	101033.5	3.6724
ROG073	48402.9	206.2	147591.8	2.8486
ROG074	57446.7	309.7	138725.2	3.2615

Table 11. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Aluminum* (*Al*)	*Barium* (*Ba*)	*Calcium* (*Ca*)	*Dysprosium* (*Dy*)
ROG075	43867.6	215.3	113471.2	2.5513
ROG076	45957.5	681.5	125120.6	2.4946
ROG077	56076.7	851.7	91937.6	3.2053
ROG078	53625.1	462.9	134788.3	3.4453
ROG079	55937.0	471.7	141046.5	2.7397
ROG080	40713.4	483.1	168300.1	2.2145
ROG081	50460.6	136.5	130243.6	3.1473
ROG082	50719.6	153.1	102375.2	3.0559
ROG083	53348.5	343.3	146920.2	3.5650
ROG084	57786.1	374.3	122986.0	3.6673
ROG085	53435.9	524.5	124414.4	2.8966
ROG086	47593.4	743.9	149647.0	2.7446
ROG087	45025.2	532.3	161939.3	2.8044
ROG088	55418.2	436.9	116682.5	3.2265
ROG089	51332.6	617.5	142622.0	2.7225
ROG090	50967.9	475.2	131668.0	3.5874
ROG091	43890.5	211.0	113120.1	2.9395
ROG092	42664.1	228.8	189290.3	2.6011
ROG093	48296.6	712.7	134329.6	3.3973
ROG094	54375.7	627.5	125490.3	3.1428
ROG095	50695.3	526.8	143562.4	2.8019
ROG096	48880.2	875.9	152596.2	2.8770
ROG097	37555.0	308.5	166898.1	2.5979
ROG098	52324.3	497.0	145687.7	3.3813
ROG099	47621.6	797.6	142965.2	2.7877
ROG100	52618.5	131.2	141937.6	3.0002
ROG101	41743.4	306.5	143323.8	2.5102
ROG102	43802.0	240.7	141676.0	2.4301
ROG103	56287.9	217.4	136542.6	2.8401
ROG104	53263.1	618.7	135954.0	3.1432
ROG105	51752.7	393.7	129671.2	3.0647
ROG106	45471.6	520.6	145010.2	2.9209
ROG107	56200.7	276.4	122907.2	3.4422
ROG108	48658.6	463.6	144158.7	3.0188
ROG109	50653.8	736.8	186624.5	2.7414
ROG110	42350.0	206.6	160530.5	2.4426
ROG111	41277.7	491.0	188038.7	2.4553

Table 11. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Aluminum* (*Al*)	*Barium* (*Ba*)	*Calcium* (*Ca*)	*Dysprosium* (*Dy*)
ROG112	49754.8	333.0	148066.7	2.8853
ROG113	42577.5	325.8	165864.5	2.4572
ROG114	51110.9	348.3	142004.1	2.7845
ROG115	33996.2	446.8	198050.5	2.2186
ROG116	57554.2	455.2	142347.9	3.4317
ROG117	38449.8	452.4	167620.0	2.6127
ROG118	43449.5	286.9	152382.4	2.6116
ROG119	51529.8	545.5	161473.7	2.8929
ROG120	42276.8	511.0	164104.6	2.3383
ROG121	38914.0	340.5	169145.5	2.8561
ROG122	41643.2	629.3	168837.9	3.1124
ROG123	39971.3	307.5	163483.5	2.5974
ROG124	41707.0	229.5	164066.8	2.2411
ROG125	46161.4	412.1	163919.5	2.4458
ROG126	57162.1	781.2	141698.2	3.3773
ROG127	42809.7	474.5	158987.2	2.5884
ROG128	48960.6	450.9	147221.2	2.9390
ROG129	38418.7	217.0	183395.7	2.1267
ROG130	48602.7	438.9	130200.5	2.7341
ROG131	41186.5	389.6	186435.6	2.7222
ROG132	49500.0	594.1	170863.9	2.7974
ROG133	41407.4	478.8	174522.1	2.6809
ROG134	60352.9	140.9	120656.6	3.5804
ROG135	64648.9	61.7	165514.6	2.7106
ROG136	58938.6	99.0	154953.0	3.1480
ROG137	62100.3	115.3	151886.6	3.9142
ROG138	66926.2	317.8	116349.0	3.6504
ROG139	66099.5	0.0	121655.6	3.0130
ROG140	68078.6	52.8	125437.3	3.5825
ROG141	75735.8	284.1	129178.1	3.7951
ROG142	61098.7	1016.9	144860.8	3.1222
ROG143	70205.9	95.2	116157.0	3.6345
ROG144	65192.6	105.4	141867.8	4.3208
ROG145	66909.0	0.0	142768.0	2.9800
ROG146	62716.9	393.4	131808.6	4.1598
ROG147	74459.7	199.9	112518.7	3.8473
ROG148	68615.1	1320.4	130139.3	3.4406

Table 11. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Aluminum* (*Al*)	*Barium* (*Ba*)	*Calcium* (*Ca*)	*Dysprosium* (*Dy*)
ROG149	63747.9	533.1	142281.6	3.1680
ROG150	64322.7	318.0	141915.1	3.1133
ROG151	69014.4	158.7	130741.1	3.6829
ROG152	65192.2	222.5	125956.3	3.3562
ROG153	56161.2	226.6	133402.6	3.1876
ROG154	49610.7	870.4	166261.6	2.8541
ROG155	66843.6	661.6	125996.8	3.2451
ROG156	60392.2	180.7	147913.7	3.1478
ROG157	67754.7	192.7	132660.3	3.4286
ROG158	65963.0	220.9	132501.0	3.7493
ROG159	69515.6	681.3	144601.1	3.8570
ROG160	76269.2	371.1	118911.3	3.2945
ROG161	58633.0	213.9	122244.1	3.7639
ROG162	71227.2	133.7	115106.1	3.4762
ROG163	62577.2	349.7	147553.6	3.4586
ROG164	66646.9	260.2	129327.3	3.0347
ROG165	65530.7	298.0	113938.2	3.3706
ROG166	70218.4	718.2	119733.6	3.7712
ROG167	58880.8	154.9	109464.4	3.6006
ROG168	72499.1	193.2	113786.8	3.2324
ROG169	68606.4	418.9	133762.0	3.1205
ROG170	72260.7	207.9	114002.4	3.8417
ROG171	76435.1	183.5	127016.3	3.7309
ROG172	77205.2	248.0	128920.3	4.1627
ROG173	65445.8	79.6	133335.8	2.9758
ROG174	67856.9	151.3	139231.3	3.6717
ROG175	64903.4	150.5	133833.6	3.4170
ROG176	70358.3	1142.7	111266.1	3.7155
ROG177	64252.4	233.7	109126.2	3.7410
ROG178	64742.5	326.3	124775.0	3.3430
ROG179	50262.0	123.5	155812.3	3.1777
ROG180	51997.7	226.9	170764.3	2.8185
ROG181	47571.0	159.4	134758.1	2.8201
ROG182	57558.3	556.3	94101.2	3.6497
ROG183	47338.8	219.6	142815.9	3.3279
ROG184	51032.4	0.0	122624.2	3.1532
ROG185	50018.4	159.8	142572.8	2.8484

Table 11. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Aluminum* (*Al*)	*Barium* (*Ba*)	*Calcium* (*Ca*)	*Dysprosium* (*Dy*)
ROG186	52587.4	218.4	142637.1	3.0203
ROG187	42949.5	166.4	115894.2	2.8011
ROG188	58836.3	2196.8	82060.6	3.6408
ROG189	49563.1	174.1	123637.0	3.2238
ROG190	50888.7	117.2	131008.0	3.1958
ROG191	47877.8	172.9	152072.2	3.0383
ROG192	52017.8	432.8	99772.3	3.6100
ROG193	45575.9	193.1	180093.3	2.7343
ROG194	43530.1	111.9	154904.7	2.8148
ROG195	45517.9	129.1	141759.1	2.5219
ROG196	46802.2	580.9	146883.5	2.2540
ROG197	49293.1	73.6	162882.4	4.0122
ROG198	41026.2	784.3	175980.3	2.5669
ROG199	53207.1	230.0	165421.0	3.5497
ROG200	46594.6	194.8	146310.5	2.4236

Table 12. Elemental Concentration (ppm) Data for Susiana Ceramics

Sample Identification	*Potassium (K)*	*Manganese (Mn)*	*Sodium (Na)*	*Titanium (Ti)*
ROG001	13474.8	642.43	8752.6	3430.9
ROG002	17589.8	455.62	5404.2	3045.9
ROG003	18509.3	688.97	7198.3	3246.0
ROG004	15889.4	652.60	7032.5	3691.9
ROG005	21149.4	573.56	8840.2	3350.1
ROG006	18635.1	546.87	6873.0	3117.3
ROG007	21173.4	688.34	8727.5	3831.1
ROG008	16203.0	719.44	7580.9	4294.4
ROG009	20356.2	684.50	9206.9	4111.3
ROG010	20936.2	551.13	9518.3	3063.9
ROG011	18146.9	658.52	8014.0	3328.8
ROG012	21134.6	620.30	6543.6	4034.4
ROG013	16587.4	710.46	7850.8	4045.3
ROG014	16944.1	598.57	6649.7	3614.2
ROG015	12785.2	585.37	8938.9	3688.9
ROG016	17875.8	545.25	7078.1	3120.2
ROG017	17796.6	548.44	6074.5	3465.9
ROG018	20252.5	541.70	7020.0	3266.9
ROG019	18310.6	537.84	6584.5	3434.7
ROG020	15645.5	653.44	6250.6	3478.9
ROG021	21039.3	624.89	6902.5	3969.9
ROG022	16726.3	1043.17	9625.5	3290.9
ROG023	19529.1	700.23	7571.4	2923.7
ROG024	16376.8	678.64	6099.1	3067.0
ROG025	20821.3	659.79	7031.1	3516.1
ROG026	20132.8	660.68	6581.9	4364.6
ROG027	18584.9	540.67	7236.8	3379.6
ROG028	16961.8	612.39	6180.7	2611.1
ROG029	11238.9	757.82	8629.4	4133.6
ROG030	19414.7	582.38	6131.0	3456.4
ROG031	23051.7	630.38	12713.4	3099.2
ROG032	20766.7	588.76	8407.6	3301.1
ROG033	18064.7	617.79	9603.2	2656.7
ROG034	18659.7	545.91	6283.2	2800.3
ROG035	18990.5	535.05	6517.3	2905.8
ROG036	17471.9	565.73	6071.4	3093.5
ROG037	22793.4	604.27	7462.9	2727.5

Table 12. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Potassium* (*K*)	*Manganese* (*Mn*)	*Sodium* (*Na*)	*Titanium* (*Ti*)
ROG038	19047.3	622.82	6472.3	4180.1
ROG039	17843.9	657.60	7116.3	3716.5
ROG040	15867.4	566.23	5343.0	2888.1
ROG041	14956.8	694.92	7732.1	4183.4
ROG042	17425.5	741.30	6882.5	3707.7
ROG043	17857.8	612.51	4868.0	3394.0
ROG044	16152.9	588.28	5777.7	3367.6
ROG045	15361.5	595.87	4982.3	2862.8
ROG046	15916.9	634.74	6959.1	3091.8
ROG047	16372.7	631.92	6368.6	3328.7
ROG048	17030.6	581.70	5149.7	3482.9
ROG049	16255.0	578.37	6997.5	2718.2
ROG050	15614.6	632.68	7629.8	3031.1
ROG051	18964.4	659.89	8002.3	3466.6
ROG052	19505.2	601.97	7397.0	2831.6
ROG053	20247.7	735.54	6639.3	3620.7
ROG054	17953.8	645.67	6642.5	3101.0
ROG055	17873.1	729.96	9397.2	3594.2
ROG056	17296.7	632.35	7947.7	2636.5
ROG057	15694.0	572.62	6363.3	2898.0
ROG058	13583.2	543.62	5074.1	2642.3
ROG059	15489.4	624.75	5972.5	3679.8
ROG060	17624.2	710.49	7152.5	3856.0
ROG061	15676.2	613.93	6775.5	3742.4
ROG062	18998.7	739.68	6716.0	3720.5
ROG063	16007.0	780.07	4403.5	3267.4
ROG064	13806.2	643.00	3799.2	3864.4
ROG065	10901.7	564.00	3847.3	2206.9
ROG066	15424.2	723.22	3983.0	3945.6
ROG067	12277.9	772.64	3497.8	3720.2
ROG068	14029.6	740.32	8169.5	3014.0
ROG069	15213.1	779.98	4680.4	3327.1
ROG070	15411.5	644.31	8612.3	3316.6
ROG071	20492.0	668.86	5778.9	3348.3
ROG072	18215.8	884.35	12890.1	5185.3
ROG073	17790.1	640.55	9996.3	2791.3
ROG074	22525.8	904.49	4861.2	3890.6

Table 12. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Potassium (K)*	*Manganese (Mn)*	*Sodium (Na)*	*Titanium (Ti)*
ROG075	17088.9	653.26	5481.9	2880.8
ROG076	15574.0	656.81	5312.7	2720.2
ROG077	22335.6	942.27	4726.1	3752.1
ROG078	14207.9	767.80	7847.9	3139.6
ROG079	18603.1	924.15	5441.9	3402.4
ROG080	18428.6	1008.59	5855.0	2281.6
ROG081	13400.2	759.51	9041.2	2821.8
ROG082	16803.4	737.22	3876.6	4149.4
ROG083	13242.1	759.41	7661.7	3370.9
ROG084	20197.6	878.40	5902.6	4167.3
ROG085	10630.0	730.52	5613.7	4010.4
ROG086	16677.5	709.03	4179.2	2798.0
ROG087	15751.3	489.55	4240.4	3530.3
ROG088	22619.9	832.22	5570.5	3312.2
ROG089	17111.4	704.33	4486.5	3124.6
ROG090	16259.6	818.42	5190.4	3847.8
ROG091	17009.1	630.60	5400.5	3307.3
ROG092	19211.6	628.69	3661.7	3461.1
ROG093	21022.2	747.77	6773.2	3249.0
ROG094	20187.5	755.36	4581.2	3463.6
ROG095	12907.0	802.59	8399.5	3487.2
ROG096	16657.8	681.28	4765.9	3039.4
ROG097	14167.1	583.23	4016.6	2736.2
ROG098	18658.3	855.75	5734.1	2595.7
ROG099	16422.8	597.90	6026.2	3374.4
ROG100	7863.8	728.17	8751.9	3271.3
ROG101	15933.0	546.11	4128.3	2720.3
ROG102	16475.5	632.46	4771.2	2636.7
ROG103	18478.9	860.58	5498.6	3617.7
ROG104	18805.8	914.00	5653.8	3449.9
ROG105	20839.6	735.31	5059.0	3067.8
ROG106	15737.4	717.85	5824.1	3666.4
ROG107	21264.9	730.86	5527.3	3656.8
ROG108	11460.6	787.52	7869.2	2845.8
ROG109	18200.8	711.88	4249.6	3076.5
ROG110	13081.3	495.66	4171.2	2519.6
ROG111	15871.5	618.24	4057.7	3141.1

Table 12. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Potassium* (*K*)	*Manganese* (*Mn*)	*Sodium* (*Na*)	*Titanium* (*Ti*)
ROG112	19198.0	584.71	6175.8	3303.2
ROG113	18630.1	645.46	5746.4	3060.5
ROG114	23090.1	751.59	4858.0	3153.3
ROG115	15357.0	515.91	4609.6	2200.8
ROG116	27885.9	847.56	5340.0	3376.1
ROG117	18378.2	640.95	5383.4	2545.7
ROG118	22347.4	701.27	5555.5	2377.0
ROG119	13844.1	775.18	7136.2	3097.5
ROG120	15889.7	561.41	4307.7	3115.2
ROG121	16090.1	615.53	4569.8	2487.9
ROG122	15539.3	609.19	5563.8	2660.4
ROG123	16965.7	645.87	5298.8	2784.5
ROG124	18199.0	666.39	3792.1	3367.3
ROG125	20705.3	677.73	4366.5	3047.3
ROG126	23106.3	763.87	3665.7	3556.8
ROG127	14653.5	887.69	5341.0	2517.0
ROG128	24604.5	683.69	5357.2	3467.2
ROG129	18151.2	529.65	4371.0	2804.7
ROG130	18353.4	776.71	4799.4	3421.0
ROG131	17135.0	646.84	4088.2	2783.4
ROG132	21791.1	745.87	4247.8	3009.6
ROG133	14569.3	593.22	4792.7	2966.0
ROG134	19395.9	664.54	11350.0	3986.9
ROG135	6126.0	787.33	14526.7	3597.8
ROG136	16302.8	709.21	11713.6	3500.5
ROG137	11058.6	733.58	11257.4	4410.4
ROG138	17171.6	701.98	12191.7	3876.5
ROG139	12704.5	822.93	12186.4	4027.7
ROG140	11660.7	731.62	11409.1	3850.3
ROG141	16340.6	904.36	3930.2	3849.6
ROG142	7087.4	733.23	8328.3	3805.2
ROG143	15202.5	863.16	8788.6	3951.1
ROG144	17472.6	727.09	9590.8	4636.8
ROG145	12916.2	730.55	11334.2	4505.5
ROG146	9232.6	711.43	9308.2	4855.8
ROG147	13656.7	873.67	9860.4	5150.6
ROG148	13152.9	817.43	7362.5	4022.3

Table 12. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Potassium (K)*	*Manganese (Mn)*	*Sodium (Na)*	*Titanium (Ti)*
ROG149	8031.8	720.44	8910.0	4182.4
ROG150	15627.5	866.74	9596.7	4122.9
ROG151	13128.9	788.78	9819.1	4973.3
ROG152	15070.6	796.26	9097.1	4119.5
ROG153	20631.0	655.04	9238.6	3941.6
ROG154	17647.8	679.74	3687.4	3518.3
ROG155	17374.0	840.06	13500.8	3652.2
ROG156	13298.6	709.80	8141.5	3774.9
ROG157	16570.1	676.55	9905.5	4861.7
ROG158	14934.4	689.45	9550.6	4660.2
ROG159	8769.2	779.44	8964.4	3785.5
ROG160	15215.6	790.19	10830.2	4020.9
ROG161	21990.9	570.12	9958.6	4397.4
ROG162	18897.4	776.40	11528.1	4816.0
ROG163	25132.3	802.35	4587.3	3203.7
ROG164	17554.9	676.34	8670.3	3686.1
ROG165	16280.5	554.21	8768.3	3974.5
ROG166	12869.6	792.59	10243.8	4902.4
ROG167	13970.7	804.25	20678.5	4088.2
ROG168	13370.6	806.94	17553.3	3167.3
ROG169	5578.0	669.42	11750.1	3722.1
ROG170	14587.2	849.16	14220.6	4751.5
ROG171	7881.8	911.79	15334.0	4213.4
ROG172	8494.1	876.95	11370.3	4291.4
ROG173	16478.5	674.66	15303.8	4009.1
ROG174	8263.7	673.37	13881.4	3978.6
ROG175	22585.5	773.13	11582.1	4486.3
ROG176	21773.0	680.15	7812.1	4335.3
ROG177	17641.4	603.74	9905.0	4331.1
ROG178	12758.6	739.87	6113.9	4320.7
ROG179	8748.7	811.10	7922.4	3296.9
ROG180	7641.3	755.39	10856.8	3751.7
ROG181	17441.8	588.39	9160.7	3344.0
ROG182	21894.6	684.03	9550.6	4534.0
ROG183	19242.5	709.80	6295.6	3829.1
ROG184	23069.3	757.25	9576.9	4454.8
ROG185	15806.5	720.44	11794.6	3868.5

Table 12. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Potassium* (*K*)	*Manganese* (*Mn*)	*Sodium* (*Na*)	*Titanium* (*Ti*)
ROG186	20049.8	698.45	7436.5	4222.4
ROG187	18822.0	747.55	11735.2	3877.7
ROG188	20297.8	504.59	11502.5	3892.1
ROG189	19613.7	746.10	9396.8	4465.0
ROG190	21366.1	701.81	6751.9	4463.9
ROG191	21733.6	727.38	5169.9	3686.0
ROG192	22951.7	764.94	8255.6	4015.0
ROG193	8296.9	716.19	10221.0	3611.6
ROG194	6062.2	650.70	8884.7	2781.8
ROG195	7038.6	831.78	11492.2	3837.9
ROG196	7130.1	719.08	14799.8	2475.1
ROG197	5259.3	852.26	9093.3	3913.7
ROG198	6877.6	757.75	7054.4	3664.6
ROG199	1114.9	870.27	9279.0	3564.4
ROG200	5032.3	754.26	13955.5	3082.7

Table 13. Elemental Concentration (ppm) Data for Susiana Ceramics

Sample Identification	*Vanadium (V)*	*Sample Identification*	*Vanadium (V)*
ROG001	94.66	ROG041	105.84
ROG002	97.83	ROG042	99.63
ROG003	110.26	ROG043	96.27
ROG004	99.12	ROG044	83.74
ROG005	101.02	ROG045	84.77
ROG006	88.24	ROG046	93.66
ROG007	105.39	ROG047	100.29
ROG008	113.07	ROG048	101.38
ROG009	110.08	ROG049	98.42
ROG010	80.56	ROG050	74.25
ROG011	106.25	ROG051	94.92
ROG012	93.99	ROG052	93.10
ROG013	117.21	ROG053	79.60
ROG014	90.09	ROG054	78.26
ROG015	104.61	ROG055	90.77
ROG016	95.83	ROG056	92.08
ROG017	92.91	ROG057	98.33
ROG018	96.75	ROG058	90.32
ROG019	91.17	ROG059	115.89
ROG020	102.79	ROG060	94.93
ROG021	117.97	ROG061	114.51
ROG022	146.03	ROG062	123.63
ROG023	107.07	ROG063	121.96
ROG024	94.62	ROG064	98.73
ROG025	105.38	ROG065	91.94
ROG026	107.63	ROG066	114.31
ROG027	92.41	ROG067	102.05
ROG028	91.35	ROG068	117.87
ROG029	75.22	ROG069	79.42
ROG030	107.94	ROG070	76.73
ROG031	83.45	ROG071	88.86
ROG032	126.59	ROG072	114.91
ROG033	74.58	ROG073	72.60
ROG034	117.64	ROG074	109.88
ROG035	97.34	ROG075	87.56
ROG036	93.60	ROG076	83.82
ROG037	122.20	ROG077	86.70

Table 13. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Vanadium (V)*	*Sample Identification*	*Vanadium (V)*
ROG038	110.22	ROG078	89.56
ROG039	95.99	ROG079	87.05
ROG040	93.57	ROG080	71.61
ROG081	88.56	ROG135	148.04
ROG082	106.32	ROG136	108.86
ROG083	96.72	ROG137	106.82
ROG084	93.45	ROG138	147.94
ROG085	103.44	ROG139	146.52
ROG086	84.23	ROG140	146.28
ROG087	85.22	ROG141	130.99
ROG088	108.32	ROG142	113.32
ROG089	98.40	ROG143	134.26
ROG090	100.99	ROG144	118.82
ROG091	97.31	ROG145	127.21
ROG092	101.42	ROG146	143.88
ROG093	83.54	ROG147	137.98
ROG094	151.67	ROG148	137.11
ROG095	99.05	ROG149	133.73
ROG096	85.07	ROG150	139.17
ROG097	86.63	ROG151	130.52
ROG098	85.53	ROG152	136.68
ROG099	103.19	ROG153	121.10
ROG100	105.30	ROG154	110.37
ROG101	84.47	ROG155	124.42
ROG102	93.71	ROG156	114.84
ROG103	92.91	ROG157	160.83
ROG104	106.85	ROG158	136.80
ROG105	100.02	ROG159	122.25
ROG106	81.88	ROG160	142.43
ROG107	117.99	ROG161	132.12
ROG108	89.11	ROG162	142.01
ROG109	89.07	ROG163	120.49
ROG110	73.82	ROG164	123.38
ROG111	74.12	ROG165	132.15
ROG112	101.36	ROG166	134.76
ROG113	83.23	ROG167	110.05
ROG114	119.94	ROG168	127.83

Table 13. Elemental Concentration (ppm) Data for Susiana Ceramics (*cont.*)

Sample Identification	*Vanadium (V)*	*Sample Identification*	*Vanadium (V)*
ROG115	81.00	ROG169	133.12
ROG116	115.09	ROG170	133.95
ROG117	95.39	ROG171	136.62
ROG118	115.59	ROG172	133.40
ROG119	102.55	ROG173	105.00
ROG120	90.28	ROG174	129.95
ROG121	91.51	ROG175	132.68
ROG122	62.35	ROG176	132.52
ROG123	91.49	ROG177	123.26
ROG124	81.05	ROG178	116.18
ROG125	89.15	ROG179	76.30
ROG126	103.30	ROG180	80.49
ROG127	87.99	ROG181	122.34
ROG128	91.60	ROG182	124.14
ROG129	90.02	ROG183	93.61
ROG130	89.72	ROG184	109.08
ROG131	92.00	ROG185	98.18
ROG132	74.75	ROG186	103.26
ROG133	79.82	ROG187	90.71
ROG134	106.18	ROG188	106.71
ROG189	111.78	ROG195	57.50
ROG190	129.32	ROG196	39.32
ROG191	95.61	ROG197	67.90
ROG192	100.33	ROG198	68.41
ROG193	81.99	ROG199	47.89
ROG194	48.48	ROG200	74.07

APPENDIX TWO

MASTER LIST OF LOCI FROM CHOGHA MISH SEASONS 2–11 IN CHRONOLOGICAL ORDER

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Probably Archaic Susiana				
Ch.M. V	Trench XXV	R20:515 East	76.86	Occupational debris
Ch.M. 1996 VII	Gully Cut	S22:701	75.46	Occupational debris
Archaic Susiana 1				
Ch.M. IV	Gully Cut	S22:402+403	72.88	Occupational debris
Ch.M. IV	Gully Cut	S22:402+403	72.88–72.00	Occupational debris
Ch.M. IV	Gully Cut	S22:402+403	72.88	Occupational debris
Ch.M. IV	Gully Cut	S22:403	74.13–73.53	Occupational debris
Ch.M. IV	Gully Cut	S22:403	73.23	Occupational debris
Ch.M. IV	Gully Cut	S22:403	73.13–72.88	Occupational debris
Ch.M. IV	Gully Cut	S22:403	72.53	Occupational debris
Ch.M. IV	Gully Cut	S22:404	73.43	Occupational debris
Ch.M. IV	Gully Cut	S22:404	73.43–73.13	Occupational debris
Ch.M. IV	Gully Cut	S22:404	72.83	Occupational debris
Ch.M. IV	Gully Cut	S22:405 East	73.00–72.80	Occupational debris
Ch.M. IV	Gully Cut	S22:405 Middle	73.95	Occupational debris
Ch.M. IV	Gully Cut	S22:405 Middle	73.70	Occupational debris
Ch.M. IV	Gully Cut	S22:405 Middle	73.70–73.45	Occupational debris
Ch.M. IV	Gully Cut	S22:404	73.43	Occupational debris
Ch.M. IV	Gully Cut	S22:405 Middle	73.30	Occupational debris
Ch.M. V	Gully Cut	S22:502	73.30–73.20	Occupational debris
Ch.M. V	Gully Cut	S22:502	73.20–72.89	Occupational debris
Ch.M. V	Gully Cut	S22:502	72.89	Occupational debris
Ch.M. V	Gully Cut	S22:502	72.89–72.47	Occupational debris
Ch.M. V	Gully Cut	S22:502	72.47–72.18	Occupational debris
Ch.M. V	Gully Cut	S22:503	72.40–72.05	Occupational debris
Ch.M. V	Gully Cut	S22:503	N/A	Occupational debris
Ch.M. V	Gully Cut	S22:503	72.99–72.69	Occupational debris
Ch.M. V	Gully Cut	S22:503	72.69–72.40	Occupational debris
Ch.M. V	Gully Cut	S22:503	72.49	Occupational debris
Ch.M. V	Gully Cut	S22:503	72.40–72.05	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Archaic Susiana 1 (*cont.*)				
Ch.M. V	Gully Cut	S22:506	73.30–72.96	Occupational debris
Ch.M. V	Gully Cut	S22:506	73.24–72.96	Occupational debris
Ch.M. V	Gully Cut	S22:506	72.96–72.72	Occupational debris
Ch.M. V	Gully Cut	S22:507	72.96–72.72	Occupational debris
Ch.M. V	Gully Cut	S22:508	73.44–73.06	Occupational debris
Ch.M. V	Gully Cut	S22:508	73.29–73.24	Occupational debris
Ch.M. V	Gully Cut	S22:508	73.06–72.84	Occupational debris
Ch.M. V	Gully Cut	S22:508	72.84	Occupational debris
Ch.M. V	Gully Cut	S22:508	72.74–72.59	Occupational debris
Ch.M. V	Gully Cut	S22:508	72.59–72.40	Occupational debris
Ch.M. V	Gully Cut	S22:511	72.49–72.20	Occupational debris
Ch.M. V	Gully Cut	S22:511	72.40	Occupational debris
Ch.M. V	Gully Cut	S22:511	72.40–72.23	Occupational debris
Ch.M. V	Gully Cut	S22:511	72.23	Occupational debris
Ch.M. V	Gully Cut	S22:511	71.70	Occupational debris
Archaic Susiana 1–2				
Ch.M. IV	Gully Cut	S22:401	74.88–74.63	Occupational debris
Ch.M. IV	Gully Cut	S22:404	74.93–74.38	Occupational debris
Ch.M. IV	Gully Cut	S22:405 Middle	74.85–74.60	Occupational debris
Ch.M. V	Trench XXXII	R23:503	76.93	Room
Ch.M. V	Trench XXXII	R23:504	76.85	Room
Ch.M. VI	Gully Cut	S22:601	73.12	Occupational debris
Ch.M. VI	Gully Cut	S22:601	73.00	Occupational debris
Ch.M. VII	Trench XXXII	R23:708	76.09	Occupational debris
Archaic 2				
Ch.M. IV	Sounding G	S-T21	72.60–72.50	Occupational debris
Ch.M. IV	Sounding G	S-T21	72.50	Occupational debris
Ch.M. IV	Gully Cut	S22:404	75.13	Occupational debris
Ch.M. V	Trench XXXII	R23:501	N/A	Settlement area
Ch.M. V	Trench XXXII	R23:504	N/A	Room
Ch.M. V	Trench XXXII	Q23:504	N/A	Room
Ch.M. V	Trench XXXII	R23:504 East	75.92	Room
Ch.M. V	Trench XXXII	R23:504 East	75.90	Room
Ch.M. V	Gully Cut	S22:502	74.43	Occupational debris
Ch.M. V	Gully Cut	S22:502	74.43	Occupational debris
Ch.M. V	Gully Cut	S22:502	74.41	Hard surface (floor?)

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Archaic 2 (*cont.*)				
Ch.M. V	Gully Cut	S22:502	74.40–74.26	Occupational debris
Ch.M. V	Gully Cut	S22:502	74.26–74.01	Occupational debris
Ch.M. V	Gully Cut	S22:502	74.20–74.11	Occupational debris
Ch.M. V	Gully Cut	S22:502	74.11–73.68	Occupational debris
Ch.M. V	Gully Cut	S22:502	74.11–73.60	Occupational debris
Ch.M. V	Gully Cut	S22:502	73.96–73.83	Occupational debris
Ch.M. V	Gully Cut	S22:502	73.83–73.60	Occupational debris
Ch.M. V	Gully Cut	S22:502	73.83–73.36	Occupational debris
Ch.M. V	Gully Cut	S22:502	73.60–73.50	Occupational debris
Ch.M. V	Gully Cut	S22:502	73.50–73.30	Occupational debris
Ch.M. V	Gully Cut	S22:506	74.12	Ash deposit
Ch.M. V	Gully Cut	S22:506	74.06	Ash deposit
Ch.M. V	Gully Cut	S22:506	73.79–73.30	Occupational debris
Ch.M. V	Gully Cut	S22:508	74.22–73.96	Occupational debris
Ch.M. V	Gully Cut	S22:508	73.96–73.73	Occupational debris
Ch.M. V	Gully Cut	S22:508	73.73–73.29	Occupational debris
Ch.M. V	Gully Cut	S23:505	74.50–73.83	Occupational debris
Ch.M. V	Gully Cut	S23:505	74.31	Occupational debris
Ch.M. VI	Gully Cut	S22:601	73.67	Occupational debris
Ch.M. VI	Gully Cut	S22:601	74.38	Occupational debris
Ch.M. VI	Gully Cut	S22:601	74.07–73.77	Occupational debris
Ch.M. VI	Gully Cut	S22:601	73.80–73.55	Occupational debris
Ch.M. VI	Gully Cut	S22:601	73.67	Occupational debris
Ch.M. VI	Gully Cut	S22:601	73.46	Occupational debris
Ch.M. VI	Gully Cut	S22:602	74.12	Occupational debris
Ch.M. VI	Gully Cut	S22:602	73.95	Occupational debris
Ch.M. VI	Gully Cut	S22:602	73.63	Occupational debris
Ch.M. VII	Trench XXI	Q22:708	N/A	Occupational debris
Ch.M. VII	Trench XXXII	Q22:708	N/A	Occupational debris
Ch.M. VII	Trench XXXII	Q23:713	N/A	Occupational debris
Archaic Susiana 2–3				
Ch.M. IV	Sounding H	T21–22 North	71.95–71.65	Occupational debris
Ch.M. V	Gully Cut	S22:502 South	74.78	Occupational debris
Ch.M. V	Gully Cut	S22:505	74.60	Hard surface (floor?)
Ch.M. V	Gully Cut	S22:505	N/A	Indeterminate
Ch.M. V	Gully Cut	S22:508	74.84–74.61	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Archaic Susiana 2–3 (*cont.*)				
Ch.M. V	Gully Cut	S22:508	74.61–74.42	Occupational debris
Ch.M. V	Gully Cut	S22:508	74.43–74.22	Occupational debris
Ch.M. VI	Trench XXI	P22:614	79.80	Occupational debris
Ch.M. VI	Trench XXI	P22:614	79.80	Occupational debris
Ch.M. VI	Trench XXI	P22:614	79.70	Occupational debris
Ch.M. VI	Trench XXI	P22:614	79.50	Room
Ch.M. VI	Trench XXV	R20:608	77.60	Living surface
Ch.M. VI	Trench XXV	R20:608	77.03	Living surface
Ch.M. VI	Trench XXV	R20:608	76.62	Living surface
Archaic Susiana				
Ch.M. IV	Sounding G	S-T21	74.20–73.95	Occupational debris
Ch.M. IV	Sounding G	S-T21	73.95–73.70	Occupational debris
Ch.M. IV	Sounding G	S-T21	73.70–73.45	Occupational debris
Ch.M. IV	Sounding G	S-T21	73.45–73.35	Occupational debris
Ch.M. IV	Sounding G	S-T21	73.35–73.15	Occupational debris
Ch.M. IV	Sounding G	S-T21	73.15–72.90	Occupational debris
Ch.M. IV	Sounding G	S-T21	72.90	Occupational debris
Ch.M. IV	Sounding G	S-T21	72.90–72.60	Occupational debris
Ch.M. V	Trench XXXII	R23:501	77.52	Pebble surface
Ch.M. V	Trench XXXII	R23:501	77.20	Occupational debris
Ch.M. V	Gully Cut	S22:501	75.81–75.41	Occupational debris
Ch.M. V	Gully Cut	S22:501	75.42–75.14	Occupational debris
Ch.M. V	Gully Cut	S22:501	75.14–74 .71	Occupational debris
Ch.M. V	Gully Cut	S22:501	74.81	Occupational debris
Ch. M, V	Gully Cut	S22:501	74.78–74.43	Occupational debris
Ch.M. V	Gully Cut	S22:501	74.71	Occupational debris
Ch.M. V	Gully Cut	S22:504	75.84	Occupational debris
Ch.M. V	Gully Cut	S22:505	74.72–74.60	Occupational debris
Ch.M. V	Gully Cut	S22:507	75.64	Occupational debris
Ch.M. V	Gully Cut	S22:507	75.43	Burial
Ch.M. V	Gully Cut	S22:507	75.43	Occupational debris
Ch.M. V	Gully Cut	S22:507	75.23–75.14	Occupational debris
Ch.M. V	Gully Cut	S22:507	75.14–74.79	Occupational debris
Ch.M. V	Gully Cut	S22:508	75.14–74.79	Occupational debris
Ch.M. V	Gully Cut	S22:508	75.14–74.79	Occupational debris
Ch.M. V	Gully Cut	S22:508	74.89–74.61	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Archaic Susiana (*cont.*)				
Ch.M. V	Gully Cut	S22:508	74.70	Occupational debris
Ch.M. V	Gully Cut	S22:508 North	75.01	Occupational debris
Ch.M. V	Gully Cut	S22:508 South	75.14–74.79	Occupational debris
Ch.M. V	Gully Cut	S22:512	75.88–75.36	Occupational debris
Ch.M. V	Gully Cut	S22:512	75.68–75.46	Occupational debris
Ch.M. V	Gully Cut	S22:512	75.46–75.39	Occupational debris
Ch. M, V	Gully Cut	S22:512	75.46–75.06	Occupational debris
Ch.M. V	Gully Cut	S22:512	75.39–75.24	Occupational debris
Ch.M. V	Gully Cut	S22:512	75.24–74.59	Occupational debris
Ch.M. V	Gully Cut	S22:512	75.16	Occupational debris
Ch.M. V	Gully Cut	S22:512	75.09	Occupational debris
Ch.M. V	Gully Cut	S22:512	74.91–74.71	Occupational debris
Ch.M. V	Gully Cut	S22:512	74.59	Occupational debris
Ch.M. V	Gully Cut	S22:512	N/A	Occupational debris
Ch.M. V	Gully Cut	S22:512 North	75.36–74.91	Occupational debris
Ch.M. VI	Gully Cut	S22:601	75.32	Occupational debris
Ch.M. VI	Gully Cut	S22:601	74.96–74.67	Occupational debris
Ch.M. VI	Gully Cut	S22:601	74.87	Occupational debris
Ch.M. VI	Gully Cut	S22:601	74.72	Occupational debris
Ch.M. VI	Gully Cut	S22:602	75.32	Occupational debris
Ch.M. VI	Gully Cut	S22:602	74.71	Occupational debris
Ch.M. VI	Gully Cut	S22:602	74.67–74.18	Occupational debris
Ch.M. VI	Gully Cut	S22:602	74.45	Occupational debris
Ch.M. VI	Trench XXI	P22:612	79.45	Room
Ch.M. VI	Trench XXI	P22:617	79.36	Room
Ch.M. VI	Trench XXI	P22:620	81.00	Room
Ch. M, VI	Trench XXI	P22:620	80.95	Room
Ch.M. VI	Trench XXI	P22:620	80.83	Room
Ch.M. VI	Trench XXI	P22:620	80.80	Room
Ch.M. VI	Trench XXI	P22:628	79.91	Room
Ch.M. VI	Trench XXI	P22:628	79.58	Occupational debris
Ch.M. VI	Trench XXI	Q22:602	79.90	Occupational debris
Ch.M. VI	Trench XXV	S20:619	75.20	Occupational debris
Ch.M. VI	Trench XXXII	R23:601	76.20	Occupational debris
Ch.M. VI	Trench XXXII	R23:601	76.11	Occupational debris
Ch.M. VII	Gully Cut	S22:703	75.25	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Archaic Susiana (*cont.*)				
Ch.M. VII	Gully Cut	S22:703	75.23	Occupational debris
Ch.M. VII	Gully Cut	S22:703	74.86	Occupational debris
Ch.M. VII	Trench XXI	Q23:713	77.66	Occupational debris
Ch.M. VII	Trench XXI	Q23:713	77.59	Occupational debris
Ch.M. VII	Trench XXI	Q23:713 South	77.79	Occupational debris
Ch.M. VIII	Gully Cut	S22:824	75.19	Occupational debris
Ch.M. VIII	Gully Cut	S22:824	75.08	Occupational debris
Ch.M. VIII	Gully Cut	S22:824	74.98	Occupational debris
Ch.M. VIII	Gully Cut	S22:824	74.83	Occupational debris
Ch.M. VIII	Gully Cut	S22:824 West	75.11	Occupational debris
Ch.M. VIII	Gully Cut	S22:826	73.62	Occupational debris
Ch.M. VIII	Trench XXI	Q22:802	76.87	Occupational debris
Ch.M. VIII	Trench XXI	Q22:802	76.32	Occupational debris
Ch.M. VIII	Trench XXI	Q22:803	77.48	Occupational debris
Ch.M. VIII	Trench XXI	Q23:808 East	77.11	Occupational debris
Ch.M. VIII	Trench XXI	Q23:810	77.80	Occupational debris
Ch.M. VIII	Trench XXI	Q23:810	77.68	Occupational debris
Ch.M. VIII	Trench XXI	Q23:810 East	77.60	Occupational debris
Ch.M. VIII	Trench XXI	Q23:814	77.59	Room
Ch.M. VIII	Trench XXI	Q23:814	77.32	Room
Ch.M. VIII	Trench XXXVII	Q24:801 West	79.19	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:801 West	78.98	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:801 West	77.63	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:801 West	77.45	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:801 West	77.22	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:801 West	77.00	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:801 West	76.68	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:801 West	76.53	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:801 West	76.19	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:801 West	75.99	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:801 West	75.79	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:802 East	77.18	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:802 East	76.75	Occupational debris
Archaic 3 + Miscellaneous				
Ch.M. VII	TrenchXXXII	R23:710	77.82	Occupational debris
Ch.M. VII	TrenchXXXII	R23:710	77.46	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Archaic Susiana 3 – Early Susiana Transition				
Ch.M. IV	Sounding G	S-T21	74.30–74.20	Occupational debris
Ch.M. VIII	Trench XXI	Q22:80	78.44	Occupational debris
Ch.M. VIII	Trench XXI	Q22:803	78.76	Occupational debris
Ch.M. VIII	Trench XXI	Q22:806	79.11	Room
Ch.M. VIII	Trench XXI	Q22:806	79.07	Room
Ch.M. VIII	Trench XXI	Q23:801	78.78	Wall
Ch.M. VIII	Trench XXI	Q23:80 South	78.69	Surface wash
Ch.M. VIII	Trench XXI	Q23:802	78.82	Surface wash
Ch.M. VIII	Trench XXI	Q23:802	78.70	Occupational debris
Ch.M. VIII	Trench XXI	Q23:802	78.33	Occupational debris
Ch.M. VIII	Trench XXI	Q23:802	78.30	Occupational debris
Ch.M. VIII	Trench XXI	Q23:803 North	78.80	Occupational debris
Ch.M. VIII	Trench XXI	Q23:806	79.22	Occupational debris
Ch.M. VIII	Trench XXI	Q23:806	78.92	Occupational debris
Ch.M. VIII	Trench XXI	Q23:808	78.24	Occupational debris
Ch.M. VIII	Trench XXI	Q23:808 East	78.01	Occupational debris
Ch.M. VIII	Trench XXI	Q23:809	78.16	Room
Ch.M. VIII	Trench XXI	Q23:810	78.27	Occupational debris
Ch.M. VIII	Trench XXI	Q23:810	78.18	Occupational debris
Ch.M. VIII	Trench XXI	Q23:810	77.90	Occupational debris
Ch.M. VIII	Trench XXI	Q23:810	77.47	Occupational debris
Ch.M. VIII	Trench XXI	Q23:810	77.43	Occupational debris
Ch.M. VIII	Trench XXI	Q23:810 East	78.07	Occupational debris
Ch.M. VIII	Trench XXI	Q23:810 West	78.03	Occupational debris
Ch.M. VIII	Trench XXI	Q23:810 West	77.71	Occupational debris
Ch.M. VIII	Trench XXI	Q23:821	78.59	Room
Ch.M. VIII	Trench XXI	Q23:821	78.43	Room
Ch.M. VIII	Gully Cut	S22:801 South	76.65	Room
Ch.M. VIII	Gully Cut	S22:802	76.85	Protoliterate pit(?)
Ch.M. VIII	Gully Cut	S22:803	76.61	Protoliterate pit(?)
Ch.M. VIII	Gully Cut	S22:806	76.90–65.00	Open court
Ch.M. VIII	Gully Cut	S22:806 East	76.64	Room?
Ch.M. VIII	Gully Cut	S22:807	76.68	Cubical
Ch.M. VIII	Gully Cut	S22:808	75.91	Protoliterate pit
Ch.M. VIII	Gully Cut	S22:808	75.46	Occupational debris
Ch.M. VIII	Gully Cut	S22:808	75.28	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Archaic Susiana 3 – Early Susiana Transition (*cont.*)				
Ch.M. VIII	Gully Cut	S22:808	75.15	Occupational debris
Ch.M. VIII	Gully Cut	S22:808	75.06	Occupational debris
Ch.M. VIII	Gully Cut	S22:808 North	75.47	Occupational debris
Ch.M. VIII	Gully Cut	S22:808 North	75.28	Occupational debris
Ch.M. VIII	Gully Cut	S22:808 North	75.13	Occupational debris
Ch.M. VIII	Gully Cut	S22:808	75.51	Occupational debris
Ch.M. VIII	Gully Cut	S22:810	76.55	Yard and kiln(?) area
Ch.M. VIII	Gully Cut	S22:811	76.96	Room
Ch.M. VIII	Gully Cut	S22:812	76.90	Open court
Ch.M. VIII	Gully Cut	S22:813	76.90	Open court/room
Ch.M. VIII	Gully Cut	S22:814	76.60	Room
Ch.M. VIII	Gully Cut	S22:815	76.62	Room
Ch.M. VIII	Gully Cut	S23:815 South	76.58	Occupational debris
Ch.M. VIII	Gully Cut	S22:816	76.55	Room
Ch.M. VIII	Gully Cut	S22:818	76.65	Room
Ch.M. VIII	Gully Cut	S22:819	76.85	Activity area/room
Ch.M. VIII	Gully Cut	S22:821	76.00	Area between walls
Ch.M. VIII	Gully Cut	S22:822	76.45	Room
Ch.M. VIII	Gully Cut	S22:823	75.30	Occupational debris
Ch.M. VIII	Gully Cut	S22:823	76.10	Hearth/kiln(?)
Ch.M. VIII	Gully Cut	S22:823	75.08	Occupational debris
Ch.M. VIII	Gully Cut	S22:823	74.98	Occupational debris
Ch.M. VIII	Gully Cut	S22:823	74.84	Occupational debris
Ch.M. VIII	Gully Cut	S22:823 North	75.03	Kiln(?) area
Ch.M. VIII	Gully Cut	S22:823 North	74.51	Occupational debris
Ch.M. VIII	Gully Cut	S22:823 South	75.37	Occupational debris
Ch.M. VIII	Gully Cut	S22:823 South	75.24	Occupational debris
Ch.M. VIII	Gully Cut	S22:823 South	74.92	Occupational debris
Ch.M. VIII	Gully Cut	S22:823 South	74.79	Occupational debris
Ch.M. VIII	Gully Cut	S22:823 South	74.63	Occupational debris
Ch.M. VIII	Gully Cut	S22:823 West	74.89	Occupational debris
Ch.M. VIII	Gully Cut	S22:825	76.30	Room
Ch.M. VIII	Gully Cut	S22:826	75.90	Alley
Ch.M. VIII	Gully Cut	S22:826	74.12	Occupational debris
Ch.M. VIII	Gully Cut	S22:826	74.08	Occupational debris
Ch.M. VIII	Gully Cut	S22:827	74.85	Room

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Archaic Susiana 3 – Early Susiana Transition (*cont.*)				
Ch.M. VIII	Gully Cut	S22:827	74.85	Room
Ch.M. VIII	Gully Cut	S22:828	75.30	Long Hall
Ch.M. VIII	Gully Cut	S22:830	74.92	Occupational debris
Ch.M. VIII	Gully Cut	S22:830 South	74.99	Occupational debris
Ch.M. VIII	Gully Cut	S22:830 South	74.81	Occupational debris
Ch.M. VIII	Gully Cut	S22:830 Middle	74.99	Occupational debris
Ch.M. VIII	Gully Cut	S22:831 North	75.02	Occupational debris
Ch.M. VIII	Gully Cut	S22:831 South	75.70	Burnt area
Ch.M. VIII	Gully Cut	S23:824	775.00	Open area next to burial
Ch.M. IX	Gully Cut	S22:901	75.60	Kiln(?) area
Ch.M. IX	Gully Cut	S22:902 Northeast	75.00	Open area
Ch.M. IX	Gully Cut	S22:902 Southwest	75.00	Open area
Ch.M. IX	Gully Cut	S22:903	75.82	Open area
Ch.M. IX	Gully Cut	S22:904	74.50	Protoliterate pit
Ch.M. IX	Gully Cut	S22:905	75.85	Open area
Ch.M. IX	Gully Cut	S22:907	75.35	Open area
Ch.M. IX	Gully Cut	S22:908	75.40	Long bricks
Ch.M. IX	Gully Cut	S22:912	75.30	Open court
Ch.M. IX	Gully Cut	S22:914	75.45	Open area
Ch.M. IX	Gully Cut	S22:916	74.90	Entrance to room
Ch.M. IX	Gully Cut	S22:918	77.22	Room
Ch.M. IX	Gully Cut	S22:923	75.35	Long Hall
Ch.M. IX	Gully Cut	S22:929	75.40	Entrance to Long Hall
Early Susiana				
Ch.M. V	Trench XXI	Q23:504	79.92–79.55	Supra floor fill
Ch.M. V	Trench XXXI	P27:505	78.35–78.30	Settlement area
Ch.M. V	Trench XXXI	P27:505	78.30–77.90	Surface near wall
Ch.M. VI	Trench XXI	P22:602	81.95	Room
Ch.M. VI	Trench XXI	P22:602	81.25	Room
Ch.M. VI	Trench XXI	P22:602 West	82.18	Surface wash
Ch.M. VI	Trench XXI	P22:604	81.58	Room
Ch.M. VI	Trench XXI	P22:605	81.15	Room
Ch.M. VI	Trench XXI	P22:606	80.42	Occupational debris
Ch.M. VI	Trench XXI	P22:606	81.77	Occupational debris
Ch.M. VI	Trench XXI	P22:606	80.86	Pottery deposit
Ch.M. VI	Trench XXI	P22:606	80.54	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Early Susiana (*cont.*)				
Ch.M. VI	Trench XXI	P22:606	80.51	Pottery deposit
Ch.M. VI	Trench XXI	P22:606	80.50	Occupational debris
Ch.M. VI	Trench XXI	P22:606	80.38	Floor
Ch.M. VI	Trench XXI	P22:606	80.34	Occupational debris
Ch.M. VI	Trench XXI	P22:606 North	81.06	Occupational debris
Ch.M. VI	Trench XXI	P22:606 South	81.24	Occupational debris
Ch.M. VI	Trench XXI	P22:606 South	81.06	Occupational debris
Ch.M. VI	Trench XXI	P22:606 Middle	80.46	Occupational debris
Ch.M. VI	Trench XXI	Northwest of P22:606	81.42	Occupational debris
Ch.M. VI	Trench XXI	North of P22:606	81.33	Occupational debris
Ch.M. VI	Trench XXI	P22:607	81.43	Room
Ch.M. VI	Trench XXI	P22:607	80.81	Room
Ch.M. VI	Trench XXI	P22:607 North	81.54–81.29	Room
Ch.M. VI	Trench XXI	P22:608	81.11	Room
Ch.M. VI	Trench XXI	P22:608 North	81.16	Room
Ch.M. VI	Trench XXI	P22:608 North	81.13	Room
Ch.M. VI	Trench XXI	P22:608 North	81.08	Room
Ch.M. VI	Trench XXI	P22:608 North	80.78	Room
Ch.M. VI	Trench XXI	P22:608 North	80.62	Room
Ch.M. VI	Trench XXI	P22:608 North	80.50	Room
Ch.M. VI	Trench XXI	P22:609	81.16	Occupational debris
Ch.M. VI	Trench XXI	P22:609	80.34	Room
Ch.M. VI	Trench XXI	P22:611	81.10	Occupational debris
Ch.M. VI	Trench XXI	P22:611	80.81	Occupational debris
Ch.M. VI	Trench XXI	P22:611	80.66	Occupational debris
Ch.M. VI	Trench XXI	P22:611	80.58	Occupational debris
Ch.M. VI	Trench XXI	P22:611	80.50	Occupational debris
Ch.M. VI	Trench XXI	P22:611	80.38	Occupational debris
Ch.M. VI	Trench XXI	P22:611	80.37	Occupational debris
Ch.M. VI	Trench XXI	P22:611 South	80.15	Occupational debris
Ch.M. VI	Trench XXI	P22:612	80.18	Occupational debris
Ch.M. VI	Trench XXI	P22:615	81.43	Surface wash
Ch.M. VI	Trench XXI	P22:620	82.14	Room
Ch.M. VI	Trench XXI	P22:620 Northwest	82.02–81.42	Room
Ch.M. VI	Trench XXI	P22:621 West	82.19	Surface wash
Ch.M. VI	Trench XXI	P22:622	80.79	Room

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Early Susiana (*cont.*)				
Ch.M. VI	Trench XXI	P22:622	80.74	Room
Ch.M. VI	Trench XXI	P22:623	82.02	Room
Ch.M. VI	Trench XXI	P22:623	81.72	Room
Ch.M. VI	Trench XXI	P22:624	82.00	Room
Ch.M. VI	Trench XXI	P22:625	81.88	Room
Ch.M. VI	Trench XXI	P22:625	81.75	Room
Ch.M. VI	Trench XXI	P22:625	81.23	Room
Ch.M. VI	Trench XXI	P22:626	81.69–81.35	Room
Ch.M. VI	Trench XXI	P22:626	80.87	Room
Ch.M. VI	Trench XXI	P22:628	80.67	Room
Ch.M. VI	Trench XXI	P22:629	81.68	Occupational debris
Ch.M. VI	Trench XXI	P22:629	81.37	Occupational debris
Ch.M. VI	Trench XXI	P22:629 South	80.89	Occupational debris
Ch.M. VI	Trench XXI	P22:629 Southwest	80.84	Occupational debris
Ch.M. VI	Trench XXI	Q22:601	80.89	Occupational debris
Ch.M. VI	Trench XXI	Q22:601	80.69	Occupational debris
Ch.M. VI	Trench XXI	Q22:602	81.02	Occupational debris
Ch.M. VI	Trench XXI	Q22:602	80.29	Occupational debris
Ch.M. VI	Trench XXI	Q22:603	80.33	Surface wash
Ch.M. VI	Trench XXI	Q22:603	80.06	Occupational debris
Ch.M. VI	Trench XXI	Q22:603	79.70	Room
Ch.M. VI	Trench XXI	Q23:604	80.81	Surface wash
Ch.M. VI	Trench XXV	S20:607	78.74	Pebble surface
Ch.M. VI	Trench XXV	S20:617	78.40	Occupational debris
Ch.M. VII	Trench XXI	P23:702	80.58	Occupational debris
Ch.M. VII	Trench XXI	Q22:706	79.36	Surface wash
Ch.M. VII	Trench XXI	Q22:707	79.71	Surface wash
Ch.M. VII	Trench XXI	Q22:707	79.47	Occupational debris
Ch.M. VII	Trench XXI	Q23:702	79.84	Surface wash
Ch.M. VII	Trench XXI	Q23:702	79.51	Surface wash
Ch.M. VII	Trench XXI	Q23:703	79.40	Room floor
Ch.M. VII	Trench XXI	Q23:703	79.32	Occupational debris
Ch.M. VII	Trench XXI	Q23:703	78.92	Occupational debris
Ch.M. VII	Trench XXI	Q23:703	78.84	Occupational debris
Ch.M. VII	Trench XXI	Q23:704	79.33	Room
Ch.M. VII	Trench XXI	Q23:707	79.62	Room

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Early Susiana (*cont.*)				
Ch.M. VII	Trench XXI	Q23:707	79.30	Room
Ch.M. VII	Trench XXI	Q23:709	79.99	Occupational debris
Ch.M. VII	Trench XXI	Q23:710	79.78	Room
Ch.M. VII	Trench XXI	Q23:710	79.49	Room
Ch.M. VII	Trench XXI	Q23:711	78.00	Occupational debris
Ch.M. VII	Trench XXXVI	G29:702	77.07	Occupational debris
Ch.M. VII	Trench XXXVI	G29:702	76.84	Occupational debris
Ch.M. VII	Trench XXXVI	G29:703 North	76.86	Occupational debris
Ch.M. VII	Trench XXXVI	G29:703 North	76.82	Occupational debris
Ch.M. VIII	Trench XXI	Q22:805	79.35	Room
Ch.M. VIII	Trench XXI	Q22:805	79.29	Room
Ch.M. VIII	Trench XXI	Q22:805	78.74	Room
Ch.M. VIII	Trench XXI	Q23:803 Southwest	80.14	Surface wash
Ch.M. VIII	Trench XXI	Q23:804	79.10	Surface wash
Ch.M. VIII	Trench XXI	Q23:805	78.80	Room
Ch.M. VIII	Trench XXI	Q23:805	78.68	Room
Ch.M. VIII	Trench XXI	Q23:809	78.24	Room
Ch.M. VIII	Trench XXI	Q23:812	79.49	Lane/alley
Ch.M. VIII	Trench XXI	Q23:813	79.89	Brick platform
Ch.M. VIII	Trench XXI	Q23:813	79.80	Brick platform
Ch.M. VIII	Trench XXI	Q23:813	79.38	Brick platform
Ch.M. VIII	Trench XXI	Q23:817	79.00	Surface wash
Ch.M. VIII	Trench XXI	Q23:818	79.17	Room
Ch.M. VIII	Trench XXI	Q23:818 South	78.60	Occupational debris
Ch.M. VIII	Trench XXI	Q23:819	79.27	Supra floor fill
Ch.M. VIII	Trench XXI	Q23:819	79.26	Supra floor fill
Ch.M. VIII	Trench XXI	Q23:820	79.28	Occupational debris
Ch.M. VIII	Trench XXI	Q23:820	79.05	Room
Ch.M. VIII	Trench XXI	Q23:820	78.80	Room
Ch.M. VIII	Trench XXI	Q23:820	78.63	Room
Ch.M. VIII	Trench XXI	Q23:821	79.17	Room
Ch.M. VIII	Trench XXI	Q23:821	78.78	Room
Ch.M. VIII	Trench XXI	Q23:823	78.58	Room
Ch.M. VIII	Trench XXI	Q23:823	78.15	Room
Ch.M. VIII	Trench XXI	Q23:824	78.10	Room
Ch.M. VIII	Trench XXI	Q23:827	78.75	Room

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Early Susiana (*cont.*)				
Ch.M. VIII	Trench XXI	Q23:827	78.45	Room
Ch.M. VIII	Trench XXI	Q23:829	77.91	Room
Ch.M. VIII	Trench XXI	Q23:831	80.70	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:802 East	77.82	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:802 East	77.77	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:802 East	77.75	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:802 East	77.49	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:802 East	77.40	Occupational debris
Ch.M. VIII	Trench XXXVII	Q25:801	77.39	Occupational debris
Ch.M. VIII	Trench XXXVII	Q25:801	77.12	Occupational debris
Ch.M. VIII	Gully Cut	S22:802	75.98	Occupational debris
Ch.M. VIII	Gully Cut	S22:802	75.86	Occupational debris
Ch.M. VIII	Gully Cut	S22:802	75.85	Occupational debris
Ch.M. VIII	Gully Cut	S22:806 North	76.60	Occupational debris
Ch.M. VIII	Gully Cut	S22:808	76.70	Occupational debris
Ch.M. VIII	Gully Cut	S22:808	75.91	Occupational debris
Ch.M. VIII	Gully Cut	S22:808	75.67	Occupational debris
Ch.M. VIII	Gully Cut	S22:808	75.60	Occupational debris
Ch.M. VIII	Gully Cut	S22:808 South	75.68	Occupational debris
Ch.M. VIII	Gully Cut	S22:810	76.51	Supra floor fill
Ch.M. VIII	Gully Cut	S22:810	76.47	Room floor
Ch.M. VIII	Gully Cut	S22:810	76.30	Occupational debris
Ch.M. VIII	Gully Cut	S22:813	75.86	Occupational debris
Ch.M. VIII	Gully Cut	S22:813	75.66	Occupational debris
Ch.M. VIII	Gully Cut	S22:814	76.85	Room
Ch.M. VIII	Gully Cut	S22:814	76.75	Room
Ch.M. VIII	Gully Cut	S22:814	76.42	Room
Ch.M. VIII	Gully Cut	S22:815	76.65	Room floor
Ch.M. VIII	Gully Cut	S22:815 North	76.59	Supra floor fill
Ch.M. VIII	Gully Cut	S22:815 South	76.44	Occupational debris
Ch.M. VIII	Gully Cut	S22:816	76.59	Room floor
Ch.M. VIII	Gully Cut	S22:818	76.30	Occupational debris
Ch.M. VIII	Gully Cut	S22:818	76.11	Occupational debris
Ch.M. VIII	Gully Cut	S22:818	75.59	Occupational debris
Ch.M. VIII	Gully Cut	S22:819	75.78	Occupational debris
Ch.M. VIII	Gully Cut	S22:819 North	76.08	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Early Susiana (*cont.*)				
Ch.M. VIII	Gully Cut	S22:819 East	75.65	Occupational debris
Ch.M. VIII	Gully Cut	S22:819 Middle	75.78	Occupational debris
Ch.M. VIII	Gully Cut	S22:821	76.35	Occupational debris
Ch.M. VIII	Gully Cut	S22:821	76.41	Room
Ch.M. VIII	Gully Cut	S22:821	76.32	Room
Ch.M. VIII	Gully Cut	S22:821 North	76.22	Room
Ch.M. VIII	Gully Cut	S22:822 North	76.18	Room
Ch.M. VIII	Gully Cut	S22:822 East	76.16	Wall
Ch.M. VIII	Gully Cut	S22:822 South	76.22	Hearth area
Ch.M. VIII	Gully Cut	S22:822 South	76.02	Occupational debris
Ch.M. VIII	Gully Cut	S22:822 South	75.95	Occupational debris
Ch.M. VIII	Gully Cut	S22:822 West	76.10	Wall
Ch.M. VIII	Gully Cut	S22:822 Middle	76.22	Room
Ch.M. VIII	Gully Cut	S22:822	75.98	Occupational debris
Ch.M. VIII	Gully Cut	S22:822	75.84	Occupational debris
Ch.M. VIII	Gully Cut	S22:822	75.77	Occupational debris
Ch.M. VIII	Gully Cut	S22:823	75.74	Occupational debris
Ch.M. VIII	Gully Cut	S22:823	75.62	Occupational debris
Ch.M. VIII	Gully Cut	S22:823	75.60	Occupational debris
Ch.M. VIII	Gully Cut	S22:823 North	76.06	Occupational debris
Ch.M. VIII	Gully Cut	S22:823	75.62	Occupational debris
Ch.M. VIII	Gully Cut	S22:823	75.60	Occupational debris
Ch.M. VIII	Gully Cut	S22:823 North	75.06	Occupational debris
Ch.M. VIII	Gully Cut	S22:823 North	75.81	Occupational debris
Ch.M. VIII	Gully Cut	S22:823 North	75.47	Occupational debris
Ch.M. VIII	Gully Cut	S22:823 West	75.94	Occupational debris
Ch.M. VIII	Gully Cut	S22:823 West	75.90	Occupational debris
Ch.M. VIII	Gully Cut	S22:823 Middle	75.44	Occupational debris
Ch.M. VIII	Gully Cut	S22:823 Middle	75.43	Occupational debris
Ch.M. VIII	Gully Cut	S22:825	75.95	Occupational debris
Ch.M. VIII	Gully Cut	S22:826	75.14	Occupational debris
Ch.M. VIII	Gully Cut	S22:826	75.02	Occupational debris
Ch.M. VIII	Gully Cut	S22:826	74.66	Occupational debris
Ch.M. VIII	Gully Cut	S22:826 East	75.14	Occupational debris
Ch.M. VIII	Gully Cut	S22:826 West	75.49	Occupational debris
Ch.M. VIII	Gully Cut	S22:826 West	75.09	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Early Susiana (*cont.*)				
Ch.M. VIII	Gully Cut	S22:827	75.75	Room
Ch.M. VIII	Gully Cut	S22:827	75.51	Room
Ch.M. VIII	Gully Cut	S22:827	75.49	Room
Ch.M. VIII	Gully Cut	S22:827	75.13	Room
Ch.M. VIII	Gully Cut	S22:827	75.10	Room
Ch.M. VIII	Gully Cut	S22:827	74.93	Room
Ch.M. VIII	Gully Cut	S22:827	74.78	Occupational debris
Ch.M. VIII	Gully Cut	S22:827	74.76	Occupational debris
Ch.M. VIII	Gully Cut	S22:827 West	75.98	Room
Ch.M. VIII	Gully Cut	S22:827 West	75.75	Room
Ch.M. VIII	Gully Cut	S22:828	75.30	Brick platform
Ch.M. VIII	Gully Cut	S22:829	76.35	Occupational debris
Ch.M. VIII	Gully Cut	S22:830 North	75.38	Occupational debris
Ch.M. VIII	Gully Cut	S22:830 Middle	75.55	Occupational debris
Ch.M. VIII	Gully Cut	S22:830 Middle	75.28	Occupational debris
Early Susiana + Miscellaneous				
Ch.M. VII	Trench XXI	Q22:707	79.56	Surface wash
Ch.M. VII	Trench XXI	Q23:804	79.39	Surface wash
Ch.M. VII	Trench XXI	Q23:804	79.00	Surface wash
Ch.M. VII	Trench XXI	Q23:820	79.48	Surface wash
Ch.M. VII	Trench XXI	Q23:827	78.91	Surface wash
Early Susiana – Early Middle Susiana Transition				
Ch.M. IV	Trench XIII	K22:409	79.59	Settlement area
Ch.M. V	Trench XIII	K23:509	80.15	Room
Ch.M. V	Trench XIII	K23:509	79.90	Room
Ch.M. V	Trench XIII	K23:509	79.87	Room
Ch.M. V	Trench XIII	L22:506	80.00	Room
Ch.M. VII	Trench XXXVI	G29:701	74.93	Occupational debris
Ch.M. VII	Trench XXXII	R23:701	76.77	Occupational debris
Ch.M. VII	Trench XXXII	R23:701	76.66	Occupational debris
Early Middle Susiana				
Ch.M. IV	Sounding G	S-T21	75.95–75.65	Settlement area
Ch.M. IV	Trench XIII	K22:403	81.19–80.99	Room
Ch.M. IV	Trench XIII	West of K22:403	81.30	Near wall
Ch.M. IV	Trench XIII	K22:405	81.35–80.50	Inside kiln(?)
Ch.M. V	Trench XIII	K22:501	81.10	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Early Middle Susiana (*cont.*)				
Ch.M. V	Trench XIII	K22:502	81.27	Near wall
Ch.M. V	Trench XIII	K22:502	81.00	Near wall
Ch.M. V	Trench XIII	K23:506	81.60–80.80	Near wall
Ch.M. V	Trench XIII	K23:506	81.36	Room
Ch.M. V	Trench XIII	K23:506	81.20–80.40	Room
Ch.M. V	Trench XIII	K23:506	80.75	Room
Ch.M. V	Trench XIII	K23:506	80.43–80.05	Room
Ch.M. V	Trench XIII	K23:506	80.30	Room
Ch.M. V	Trench XIII	K23:507	80.98	Room
Ch.M. V	Trench XIII	K23:510	80.46	Settlement area
Ch.M. V	Trench XIII	L22:504	81.12	Room
Ch.M. V	Trench XIII	L22:504	80.05	Room
Ch.M. V	Trench XIII	L22:506	81.90	Room
Ch.M. V	Trench XIII	L22:506	80.54	Room
Ch.M. V	Trench XXI	P23:501	82.49	Settlement area
Ch.M. V	Trench XXI	P23:501	82.39	Settlement area
Ch.M. V	Trench XXI	P23:501	82.04	Settlement area
Ch.M. V	Trench XXI	P23:502	82.24	Hearth area
Ch.M. V	Trench XXI	P23:502	81.75	Hearth area
Ch.M. V	Trench XXI	P23:502	81.75	Hearth area
Ch.M. V	Trench XXI	P23:503	82.25	Settlement area
Ch.M. V	Trench XXI	P23:504	82.24	Room
Ch.M. V	Trench XXI	P23:504	82.20	Room
Ch.M. V	Trench XXI	P23:505	82.15	Room
Ch.M. V	Trench XXXI	P27:501	78.34	Settlement area
Ch.M. V	Trench XXXI	P27:501 North	78.57–78.27	Settlement area
Ch.M. V	Trench XXXI	P27:501 North	78.53–78.10	Near wall
Ch.M. V	Trench XXXI	P27:503	78.34	Floor
Ch.M. VI	Trench XXI	P22:601	81.69–81.21	Occupational debris
Ch.M. VI	Trench XXI	P22:602	81.44	Room
Ch.M. VI	Trench XXI	P22:605	81. 93	Surface wash
Ch.M. VI	Trench XXI	P22:606	82.42–81.92	Surface wash
Ch.M. VI	Trench XXI	P22:606	82.42	Surface wash
Ch.M. VI	Trench XXI	P22:606	81.92	Occupational debris
Ch.M. VI	Trench XXI	P22:606 Northwest	82.08–81.42	Occupational debris
Ch.M. VI	Trench XXI	P22:606 West	82.18	Surface wash

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Early Middle Susiana (*cont.*)				
Ch.M. VI	Trench XXI	P22:606 Middle	82.42	Surface wash
Ch.M. VI	Trench XXI	P22:611	82.19	Surface wash
Ch.M. VI	Trench XXI	P22:611	81.51	Occupational debris
Ch.M. VI	Trench XXI	P23:601	83.04	Surface wash
Ch.M. VI	Trench XXI	P23:601	82.92	Surface wash
Ch.M. VI	Trench XXI	P23:601	82.84	Occupational debris
Ch.M. VI	Trench XXI	P23:601	82.31	Occupational debris
Ch.M. VI	Trench XXI	P23:601	82.19	Occupational debris
Ch.M. VI	Trench XXI	P23:601	82.16	Occupational debris
Ch.M. VI	Trench XXI	P23:601	81.89	Occupational debris
Ch.M. VI	Trench XXI	P23:601	81.22–81.70	Occupational debris
Ch.M. VI	Trench XXI	P23:602	82.02	Occupational debris
Ch.M. VI	Trench XXI	P23:602	82.02	Occupational debris
Ch.M. VI	Trench XXI	P23:602	81.70	Occupational debris
Ch.M. VI	Trench XXI	P23:602	81.63	Occupational debris
Ch.M. VI	Trench XXI	P23:602	81.50	Occupational debris
Ch.M. VI	Trench XXI	P23:602	81.31	Occupational debris
Ch.M. VI	Trench XXI	P23:602	80.55	Occupational debris
Ch.M. VI	Trench XXI	P23:602 South	81.52	Occupational debris
Ch.M. VI	Trench XXI	P23:603	82.22	Occupational debris
Ch.M. VI	Trench XXI	P23:603	82.19	Occupational debris
Ch.M. VI	Trench XXI	P23:604	81.89	Occupational debris
Ch.M. VI	Trench XXI	P23:604	81.74	Occupational debris
Ch.M. VI	Trench XXI	P23:604	81.69	Occupational debris
Ch.M. VI	Trench XXI	P23:604	81.31	Occupational debris
Ch.M. VI	Trench XXI	P23:604 North	82.84	Surface wash
Ch.M. VI	Trench XXI	P23:604 South	82.84	Surface wash
Ch.M. VI	Trench XXI	P23:604 South	82.18–81.83	Occupational debris
Ch.M. VI	Trench XXI	P23:604 South	82.12	Occupational debris
Ch.M. VI	Trench XXI	P23:604 South	81.69–81.23	Occupational debris
Ch.M. VI	Trench XXI	P23:604 South	81.58	Occupational debris
Ch.M. VI	Trench XXI	P23:604 Middle	82.84	Surface wash
Ch.M. VI	Trench XXI	P23:604	82.44	Surface wash
Ch.M. VI	Trench XXI	P23:606	82.05	Occupational debris
Ch.M. VI	Trench XXI	P23:606	81.50	Occupational debris
Ch.M. VI	Trench XXI	P23:606	81.32	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Early Middle Susiana (*cont.*)				
Ch.M. VI	Trench XXI	P23:606	81.26	Occupational debris
Ch.M. VI	Trench XXI	P23:607	83.05–82.75	Surface wash
Ch.M. VI	Trench XXI	P23:607	82.16	Occupational debris
Ch.M. VI	Trench XXI	P23:607	82.04	Occupational debris
Ch.M. VI	Trench XXI	P23:607	81.64	Occupational debris
Ch.M. VI	Trench XXI	P23:607	81.82	Room
Ch.M. VI	Trench XXI	Q22:602 South	81.82	Occupational debris
Ch.M. VI	Trench XXI	Q23:602	80.25	Occupational debris
Ch.M. VI	Trench XXI	Q23:602	79.53	Occupational debris
Ch.M. VII	Trench XXI	P23:702	81.13	Occupational debris
Ch.M. VII	Trench XXXVI	G29:703 South	76.23	Occupational debris
Early Middle Susiana Mixed				
Ch.M. V	Trench XIII	K23:502	81.70	Settlement area
Ch.M. VI	Trench XXXII	R23:601	77.17–76.94	Occupation debris
Ch.M. VI	Trench XXI	P23:607	82.75	Surface wash
Late Middle Susiana				
Ch.M. II	Trench II	R10–11 Plot 2E	79.10	Occupational debris
Ch.M. II	Trench XVI	O27 South	78.60	Settlement area
Ch.M. III	Trench XXI	P-Q23:301	81.50	Settlement area
Ch.M. IV	Trench XIII	K22:400	82.54–82.44	Settlement area
Ch.M. IV	Trench XIII	K22:400	82.29–82.09	Settlement area
Ch.M. IV	Sounding G	S-T21	77.50–76.70	Settlement area
Ch.M. IV	Sounding G	S-T21	76.25–76.10	Settlement area
Ch.M. IV	Sounding G	S-T21	76.10	Settlement area
Ch.M. IV	Sounding G	S-T21	76.00	Settlement area
Ch.M. IV	Sounding G	S-T21	76.00–75.95	Settlement area
Ch.M. V	Trench XIII	K22:501	82.00	Occupational debris
Ch.M. V	Trench XIII	K22:501	81.59	Occupational debris
Ch.M. V	Trench XIII	K22:501	81.52	Occupational debris
Ch.M. V	Trench XIII	K22:501	81.40	Occupational debris
Ch.M. V	Trench XIII	L22:501	82.50	Settlement area
Ch.M. V	Trench XIII	L22:501	82.46–82.16	Settlement area
Ch.M. V	Trench XIII	L22:502	82.00	Settlement area
Ch.M. V	Trench XIII	L22:505	82.17	Room
Ch.M. V	Trench XIII	L23:502	81.30	Settlement area
Ch.M. V	Trench XIII	L23:504	82.34	Settlement area

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Late Middle Susiana (*cont.*)				
Ch.M. V	Trench XXV	R20:515	79.69	Settlement area
Ch.M. V	Trench XXV	R20:515	79.40	Settlement area
Ch.M. V	Trench XXV	R20:515 North	79.60	Settlement area
Ch.M. V	Trench XXV	R20:515 East	78.75	Pit
Ch.M. V	Trench XXXI	P27:507	79.60–79.44	Settlement area
Ch.M. V	Trench XXXI	P27:507	79.34–79.13	Settlement area
Ch.M. VI	Trench XXV	R20:603	79.08	Occupational debris
Ch.M. VI	Trench XXV	R20:604	78.48	Occupational debris
Ch.M. VI	Trench XXV	S20:601	79.20–78.66	Surface wash
Ch.M. VI	Trench XXV	S20:601	79.11–78.89	Occupational debris
Ch.M. VI	Trench XXV	S20:601	79.10	Surface wash
Ch.M. VI	Trench XXV	S20:601	79.04	Surface wash
Ch.M. VI	Trench XXV	S20:601	78.99–78.60	Occupational debris
Ch.M. VI	Trench XXV	S20:601	78.92–78.72	Occupational debris
Ch.M. VI	Trench XXV	S20:601	78.90	Occupational debris
Ch.M. VI	Trench XXV	S20:601	78.78	Occupational debris
Ch.M. VI	Trench XXV	S20:601	78.74–78.35	Occupational debris
Ch.M. VI	Trench XXV	S20:601	78.67	Occupational debris
Ch.M. VI	Trench XXV	S20:601	78.60	Occupational debris
Ch.M. VI	Trench XXV	S20:601	78.56–78.42	Occupational debris
Ch.M. VI	Trench XXV	S20:601	78.56	Occupational debris
Ch.M. VI	Trench XXV	S20:601	78.47	Occupational debris
Ch.M. VI	Trench XXV	S20:601	78.33	Occupational debris
Ch.M. VI	Trench XXV	S20:601	78.30	Occupational debris
Ch.M. VI	Trench XXV	S20:601	78.2	Occupational debris
Ch.M. VI	Trench XXV	S20:601	78.12	Occupational debris
Ch.M. VI	Trench XXV	S20:601	78.06	Occupational debris
Ch.M. VI	Trench XXV	S20:601	77.89	Occupational debris
Ch.M. VI	Trench XXV	S20:601	77.81	Occupational debris
Ch.M. VI	Trench XXV	S20:601 South	79.13–78.61	Occupational debris
Ch.M. VI	Trench XXV	S20:602	79.12	Room
Ch.M. VI	Trench XXV	S20:602	78.60	Room
Ch.M. VI	Trench XXV	S20:603	79.20	Pit
Ch.M. VI	Trench XXV	S20:603	78.91	Pit
Ch.M. VI	Trench XXV	Southwest of S20:603	79.06	Hard surface (floor?)
Ch.M. VI	Trench XXV	S20:605	79.20	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Late Middle Susiana (*cont.*)				
Ch.M. VI	Trench XXV	S20:605	79.05	Occupational debris
Ch.M. VI	Trench XXV	S20:605	79.05	Occupational debris
Ch.M. VI	Trench XXV	S20:606	78.88	Ash deposit
Ch.M. VI	Trench XXV	S20:608	79.60	Mudbrick pavement
Ch.M. VI	Trench XXV	S20:608	79.20	Mudbrick pavement
Ch.M. VI	Trench XXV	S20:608	79.12	Mudbrick pavement
Ch.M. VI	Trench XXV	S20:608	79.07	Mudbrick pavement
Ch.M. VI	Trench XXV	S20:608	79.97	Mudbrick pavement
Ch.M. VI	Trench XXV	S20:608 Southwest	79.17	Mudbrick pavement
Ch.M. VI	Trench XXV	S20:608 West	79.27–78.88	Mudbrick pavement
Ch.M. VI	Trench XXV	S20:608 Middle	79.04	Mudbrick pavement
Ch.M. VI	Trench XXV	S20:608	78.36	Occupational debris
Ch.M. VI	Trench XXV	S20:609	78.11	Occupational debris
Ch.M. VI	Trench XXV	S20:609	78.07	Occupational debris
Ch.M. VI	Trench XXV	S20:609	77.89	Occupational debris
Ch.M. VI	Trench XXV	S20:609	77.60	Occupational debris
Ch.M. VI	Trench XXV	S20:609	77.48	Occupational debris
Ch.M. VI	Trench XXV	S20:609	77.23	Occupational debris
Ch.M. VI	Trench XXV	S20:609	77.05	Occupational debris
Ch.M. VI	Trench XXV	S20:609 West	78.07	Occupational debris
Ch.M. VI	Trench XXV	S20:609	79.73	Occupational debris
Ch.M. VI	Trench XXV	S20:610	78.73	Occupational debris
Ch.M. VI	Trench XXV	S20:610	78.44	Room
Ch.M. VI	Trench XXV	S20:610	77.81	Occupational debris
Ch.M. VI	Trench XXV	S20:612	77.60	Occupational debris
Ch.M. VI	Trench XXV	S20:612	77.52	Occupational debris
Ch.M. VI	Trench XXV	S20:612	77.40	Occupational debris
Ch.M. VI	Trench XXV	S20:612	77.26	Pebble surface
Ch.M. VI	Trench XXV	S20:612	77.25	Occupational debris
Ch.M. VI	Trench XXV	S20:612	77.05	Occupational debris
Ch.M. VI	Trench XXV	S20:612	76.87	Occupational debris
Ch.M. VI	Trench XXV	S20:612	76.82	Occupational debris
Ch.M. VI	Trench XXV	S20:613	78.17	Granary(?)
Ch.M. VI	Trench XXV	S20:614	78.03	Occupational debris
Ch.M. VI	Trench XXV	S20:615	78.13	Occupational debris
Ch.M. VI	Trench XXV	S20:615	78.13	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Late Middle Susiana (*cont.*)				
Ch.M. VI	Trench XXV	S20:615	78.00	Occupational debris
Ch.M. VI	Trench XXV	S20:615	77.83	Occupational debris
Ch.M. VI	Trench XXV	S20:615	77.68	Occupational debris
Ch.M. VI	Trench XXV	S20:615	77.53	Occupational debris
Ch.M. VI	Trench XXV	S20:615	77.28	Occupational debris
Ch.M. VI	Trench XXV	S20:618	76.90	Occupational debris
Ch.M. VI	Trench XXV	S20:618	76.50	Occupational debris
Ch.M. VI	Trench XXV	S20:618	76.30	Occupational debris
Ch.M. VI	Trench XXV	S20:619	76.70	Occupational debris
Ch.M. VI	Trench XXV	S20:620	77.92	Occupational debris
Ch.M. VI	Trench XXV	S20:620	77.86	Occupational debris
Ch.M. VI	Trench XXV	S20:621	79.16	Occupational debris
Ch.M. VI	Trench XXV	S20:621	79.04	Occupational debris
Ch.M. VI	Trench XXV	S20:621	78.85	Occupational debris
Ch.M. VI	Trench XXV	S20:621	78.75	Occupational debris
Ch.M. VI	Trench XXV	S20:621	78.70	Occupational debris
Ch.M. VI	Trench XXV	S20:621	78.64	Occupational debris
Ch.M. VI	Trench XXV	S20:621	78.60	Occupational debris
Ch.M. VI	Trench XXV	S20:621	78.60	Occupational debris
Ch.M. VI	Trench XXV	S20:621	78.42	Occupational debris
Ch.M. VI	Trench XXV	S20:621	78.40	Occupational debris
Ch.M. VI	Trench XXV	S20:621	78.32	Occupational debris
Ch.M. VI	Trench XXV	S20:621	78.25	Occupational debris
Ch.M. VI	Trench XXV	S20:621	78.20	Occupational debris
Ch.M. VI	Trench XXV	S20:621	78.09	Occupational debris
Ch.M. VI	Trench XXV	S20:621	78.04	Occupational debris
Ch.M. VI	Trench XXV	S20:621	78.04	Occupational debris
Ch.M. VI	Trench XXV	S20:621	77.90	Occupational debris
Ch.M. VI	Trench XXV	S20:621	77.85	Occupational debris
Ch.M. VI	Trench XXV	S20:621	77.76	Occupational debris
Ch.M. VI	Trench XXV	S20:621 West	78.42	Occupational debris
Ch.M. VI	Trench XXV	S20:622	78.84	Occupational debris
Ch.M. VI	Trench XXV	S20:622	78.43	Room
Ch.M. VI	Trench XXV	S20:622	78.34	Room
Ch.M. VI	Trench XXV	S20:622	78.10	Room
Ch.M. VI	Trench XXV	S20:622	77.90–77.70	Room

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Late Middle Susiana (*cont.*)				
Ch.M. VI	Trench XXV	S20:622	77.70	Room
Ch.M. VI	Trench XXV	S20:622	N/A	Room
Ch.M. VI	Trench XXXIII	S19:601 North	76.55	Occupational debris
Ch.M. VI	Trench XXXIII	S19:601 North	76.10	Occupational debris
Ch.M. VI	Trench XXXIII	S19:601 North	76.08	Occupational debris
Ch.M. VI	Trench XXXIII	S19:601 North	75.59	Occupational debris
Ch.M. VI	Trench XXXIII	S19:601 South	75.82	Occupational debris
Ch.M. VI	Trench XXXIII	South of S19:603	77.25	Occupational debris
Ch.M. VI	Trench XXXIII	South of S19:603	76.91	Occupational debris
Ch.M. VI	Trench XXXIII	South of S19:603	76.88	Occupational debris
Ch.M. VI	Trench XXXIII	South of S19:603	76.84	Occupational debris
Ch.M. VI	Trench XXXIII	South of S19:603	76.74	Occupational debris
Ch.M. VI	Trench XXXIII	South of S19:603	76.29	Occupational debris
Ch.M. VI	Trench XXXIII	South of S19:603	75.79	Occupational debris
Ch.M. VI	Trench XXXIII	South of S19:603	74.48	Occupational debris
Ch.M. VI	Trench XXXIII	South of S19:603	73.82	Occupational debris
Ch.M. VI	Trench XXXIII	South of S19:603	73.30	Occupational debris
Ch.M. VI	Trench XXXIII	S19:604	77.30	Occupational debris
Ch.M. VI	Trench XXXIII	S19:604	76.14	Occupational debris
Ch.M. VI	Trench XXXIII	S19:604	75.36	Occupational debris
Ch.M. VI	Trench XXXIII	S19:604	73.02	Occupational debris
Ch.M. VI	Trench XXXIII	S18:602	77.39	Occupational debris
Ch.M. VI	Trench XXXIII	S18:602 South	76.32	Occupational debris
Ch.M. VI	Trench XXXIII	S18:603	77.06	Occupational debris
Ch.M. VI	Trench XXXIII	S18:603	76.93	Occupational debris
Ch.M. VI	Trench XXXIII	S18:603	76.75	Occupational debris
Ch.M. VI	Trench XXXIII	S19:601	76.93	Occupational debris
Ch.M. VI	Trench XXXIII	S19:601 North	76.60	Occupational debris
Ch.M. VI	Trench XXXIII	S19:601 North	76.50	Occupational debris
Ch.M. VI	Trench XXXIII	S19:601 South	76.79	Occupational debris
Ch.M. VI	Trench XXXIII	S19:601 South	76.69	Occupational debris
Ch.M. VI	Trench XXXIII	S19:601 South	76.54	Occupational debris
Ch.M. VI	Trench XXXIII	S19:601 South	76.30	Occupational debris
Ch.M. VI	Trench XXXIII	S19:601 South	76.22	Occupational debris
Ch.M. VI	Trench XXXIII	S19:602	75.74	Occupational debris
Ch.M. VI	Trench XXXIII	S19:602 North	76.65	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Late Middle Susiana (*cont.*)				
Ch.M. VI	Trench XXXIII	S19:602 North	75.74	Occupational debris
Ch.M. VI	Trench XXXIII	S19:602 South	76.95	Occupational debris
Ch.M. VI	Trench XXXIII	R19:601 East	76.32	Occupational debris
Ch.M. VI	Trench XXXIII	S18:602	75.70	Occupational debris
Ch.M. VI	Trench XXXIII	S18:602 North	75.91	Occupational debris
Ch.M. VI	Trench XXXIII	S18:602 North	75.85	Occupational debris
Ch.M. VI	Trench XXXIII	S18:602 North	75.58	Occupational debris
Ch.M. VI	Trench XXXIII	S18:602 North	75.35	Occupational debris
Ch.M. VI	Trench XXXIII	S18:602 South	75.91	Occupational debris
Ch.M. VI	Trench XXXIV	S18:604	77.45	Surface wash
Ch.M. VI	Trench XXXIV	S18:604	76.49	Occupational debris
Ch.M. VI	Trench XXXIV	T19:602	76.55	Wall
Ch.M. VI	Trench XXXIV	T19:602	76.20	Occupational debris
Ch.M. VI	Trench XXXIV	T19:602	75.45	Occupational debris
Ch.M. VI	Trench XXXIV	T19:602	75.07	Occupational debris
Ch.M. VI	Trench XXXIV	T19:602	74.42	Occupational debris
Ch.M. VI	Trench XXXIV	T19:602	73.58	Occupational debris
Ch.M. VI	Trench XXXIV	T19:652	77.45	Surface wash
Ch.M. VI	Trench XXXV	R19:601	77.55	Surface wash
Ch.M. VI	Trench XXXV	R19:601	76.81	Occupational debris
Ch.M. VI	Trench XXXV	R19:601	76.13	Occupational debris
Ch.M. VI	Trench XXXV	R19:601	74.85	Occupational debris
Ch.M. VI	Trench XXXV	R19:601	74.35	Occupational debris
Ch.M. VI	Trench XXXV	R19:601 East	75.47	Occupational debris
Ch.M. VI	Trench XXXV	R19:601 East	74.35	Occupational debris
Ch.M. VI	Trench XXXV	R19:601 West	77.55	Surface wash
Ch.M. VI	Trench XXXV	R19:601 West	76.47	Occupational debris
Ch.M. VI	Trench XXXV	R20:600	77.55	Surface wash
Ch.M. VI	Trench XXXV	R20:610	77.55	Surface wash
Ch.M. VI	Trench XXXV	R20:610	77.50	Occupational debris
Ch.M. VI	Trench XXXV	R20:610	77.55	Surface wash
Ch.M. VI	Trench XXXV	R20:610	76.13	Occupational debris
Ch.M. VI	Trench XXXV	R20:610	75.88	Occupational debris
Ch.M. VI	Trench XXXV	R20:610	75.67	Occupational debris
Ch.M. VI	Trench XXXV	R20:610 East	75.25	Occupational debris
Ch.M. VI	Trench XXXV	Northeast of R20:610	77.08	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Late Middle Susiana (*cont.*)				
Ch.M. VII	Trench XXI	P23:701	82.85	Surface wash
Ch.M. VII	Trench XXI	P23:701	82.54	Occupational debris
Ch.M. VII	Trench XXXVI	G27:701	81.62	Inside kiln area
Ch.M. VII	Trench XXXVI	G27:701 East	81.71	Occupational debris
Ch.M. VII	Trench XXXVI	G27:701 East	81.26	Inside kiln area
Ch.M. VII	Trench XXXVI	G27:702	81.65	Supra floor fill
Ch.M. VII	Trench XXXVI	G27:702	81.18	Supra floor fill
Ch.M. VII	Trench XXXVI	G27:702	80.96	Floor
Ch.M. VII	Trench XXXVI	G27:703	81.47	Supra floor fill
Ch.M. VII	Trench XXXVI	G27:703	81.17	Supra floor fill
Ch.M. VII	Trench XXXVI	G28:702	80.49	Occupational debris
Ch.M. VII	Trench XXXVI	G28:702	80.41	Occupational debris
Ch.M. VII	Trench XXXVI	G28:702	79.65	Occupational debris
Ch.M. VII	Trench XXXVI	G28:703	79.02	Occupational debris
Ch.M. VII	Trench XXXVI	G28:705	79.87	Pit
Ch.M. VII	Trench XXXVI	G28:705	79.60	Pit
Ch.M. VII	Trench XXXVI	G28:705	79.42–78.30	Pit
Ch.M. VII	Trench XXXVI	G28:705	79.42	Pit
Ch.M. VII	Trench XXXVI	G28:705	77.75	Pit
Ch.M. VII	Trench XXXVI	G28:705	77.73	Pit
Ch.M. VII	Trench XXXVI	G28:705	77.70	Pit
Ch.M. VII	Trench XXXVI	G28:705	76.08	Pit
Ch.M. VII	Trench XXXVI	G28:705	75.74	Pit
Ch.M. VII	Trench XXXVI	G28:705	75.50	Pit
Ch.M. VII	Trench XXXVI	G28:705	74.39	Pit
Ch.M. VII	Trench XXXVI	G27:702	82.27	Surface wash
Ch.M. VII	Trench XXXVI	G27:703	80.68	Hard surface
Ch.M. VII	Trench XXXVI	G28:703	80.68	Hard surface
Ch.M. VII	Trench XXXVI	G28:703 North	77.42	Occupational debris
Ch.M. VII	Trench XXXVI	G28:703 North	76.94	Occupational debris
Ch.M. VII	Trench XXXVI	G28:704 South	76.83	Occupational debris
Ch.M. VII	Trench XXXVI	G28:704	77.54	Occupational debris
Ch.M. VII	Trench XXXVI	G28:704	77.19	Occupational debris
Ch.M. VII	Trench XXXVI	G28:704	76.57	Occupational debris
Ch.M. VII	Trench XXXVI	G28:704	76.26	Occupational debris
Ch.M. VII	Trench XXXVI	G28:704	76.25	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Late Middle Susiana (*cont.*)				
Ch.M. VII	Trench XXXVI	G28:704	75.61	Occupational debris
Ch.M. VII	Trench XXXVI	G28:704	75.55	Occupational debris
Ch.M. VII	Trench XXXVI	G28:704	75.27	Occupational debris
Ch.M. VII	Trench XXXVI	G28:706 South	77.17	Occupational debris
Ch.M. VII	Trench XXXVI	G28:707	79.54	Occupational debris
Ch.M. VII	Trench XXXVI	G28:707	76.40	Pit
Ch.M. VII	Trench XXXVI	G28:707	75.90	Pit
Ch.M. VII	Trench XXXVI	G29:701	75.07	Pit
Ch.M. VII	Trench XXXVI	G29:701	76.98	Occupational debris
Ch.M. VII	Trench XXXVI	G29:701	76.88	Occupational debris
Ch.M. VII	Trench XXXVI	G29:701	76.25	Occupational debris
Ch.M. VII	Trench XXXVI	G29:701	75.88	Occupational debris
Ch.M. VII	Trench XXXVI	G29:701	75.37	Occupational debris
Ch.M. VII	Trench XXXVI	G29:701 North	77.97	Occupational debris
Ch.M. VII	Trench XXXVI	G29:701 South	78.66	Occupational debris
Ch.M. VII	Trench XXXVI	G29:701 South	78.03	Occupational debris
Ch.M. VII	Trench XXXVI	G29:701 South	77.63	Occupational debris
Ch.M. VII	Trench XXXVI	G29:703	77.47	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:802 Northwest	76.40	Pit
Ch.M. VIII	Trench XXXVII	Q24:802 East	78.32	Indeterminable
Ch.M. VIII	Trench XXXVII	Q24:802 East	78.07	Hearth
Ch.M. VIII	Trench XXXVII	Q25:801	77.47	Supra floor fill
Ch.M. VIII	Trench XXXVII	Q25:801 East	77.64	Occupational debris
Ch.M. VIII	Trench XXXVII	Q25:801 East	76.27	Pit
Ch.M. VIII	Trench XXXVII	Q25:802	81.84	Pit
Ch.M. VIII	Trench XXXVII	Q25:802	81.80	Pit
Ch.M. VIII	Trench XXXVII	Q25:802	79.99	Pit
Ch.M. VIII	Trench XXXVII	Q25:802	77.84	Pit
Ch.M. VIII	Trench XXXVII	Q25:802	77.57	Occupational debris
Ch.M. VIII	Trench XXXVII	Q25:802	77.40	Pit
Ch.M. VIII	Trench XXXVII	Q25:802	77.35	Occupational debris
Ch.M. VIII	Trench XXXVII	Q25:802	77.02	Pit
Ch.M. VIII	Trench XXXVII	Q25:802	76.10	Pit
Ch.M. VIII	Trench XXXVII	Q25:802 East	77.04	Pit
Ch.M. VIII	Trench XXXVII	Q25:802 East	76.94	Pit
Ch.M. VIII	Trench XXXVII	Q25:802 East	76.59	Pit
Ch.M. VIII	Trench XXXVII	Q25:802 East	76.32	Pit

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Late Middle Susiana (*cont.*)				
Ch.M. VIII	Trench XXXVII	Q25:802 East	76.24	Pit
Ch.M. VIII	Trench XXXVII	Q25:802 East	75.70	Pit
Ch.M. VIII	Trench XXXVII	Q25:802 East	75.17	Pit
Ch.M. VIII	Trench XXXVII	Q25:802 East	74.92	Pit
Ch.M. VIII	Trench XXXVII	Q25:802 East	74.56	Pit
Ch.M. VIII	Trench XXXVII	Q25:802 East	74.12	Pit
Ch. M. VIII	Trench XXXVII	Q25:802 West	78.18	Pit
Ch.M. VIII	Trench XXXVII	Q25:802 West	77.25	Occupational debris
Ch.M. VIII	Trench XXXVII	Q25:802 West	77.13	Occupational debris
Ch.M. VIII	Trench XXXVII	Q25:802 West	76.94	Occupational debris
Ch.M. VIII	Trench XXXVII	Q25:802 West	76.07	Pit
Ch.M. VIII	Trench XXXVII	East of Q25:803	79.77	Pit
Ch.M. VIII	Gully Cut	S22:801	76.81	Room
Ch.M. VIII	Gully Cut	S22:802 North	76.95	Occupational debris
Ch.M. VIII	Gully Cut	S22:802 North	76.93	Occupational debris
Ch.M. VIII	Gully Cut	S22:802 North	76.82	Occupational debris
Ch.M. VIII	Gully Cut	S22:805	77.35	Inside kiln area
Ch.M. VIII	Gully Cut	S22:805	77.35	Inside kiln area
Ch.M. VIII	Gully Cut	S22:805	76.96	Ash deposit
Ch.M. VIII	Gully Cut	S22:805 North	77.35	Inside kiln area
Ch.M. VIII	Gully Cut	S22:806 North	76.89	Inside kiln area
Ch.M. VIII	Gully Cut	S22:806	77.24	Occupational debris
Ch.M. VIII	Gully Cut	S22:806	76.97	Occupational debris
Ch.M. VIII	Gully Cut	S22:806	77.89	Occupational debris
Ch.M. VIII	Gully Cut	S22:806	76.63	Occupational debris
Ch.M. VIII	Gully Cut	S22:806	76.54	Occupational debris
Ch.M. VIII	Gully Cut	S22:806 East	76.63	Hearth area
Ch.M. VIII	Gully Cut	S22:807	77.18	Near wall
Ch.M. VIII	Gully Cut	S22:807	76.98	Room
Ch.M. VIII	Gully Cut	S22:809	76.80	Occupational debris
Ch.M. VIII	Gully Cut	S22:809	76.70	Occupational debris
Ch.M. VIII	Gully Cut	S22:809	76.66	Room
Ch.M. VIII	Gully Cut	S22:809	76.41	Room
Ch.M. VIII	Gully Cut	S22:809	76.37	Fill over room floor
Ch.M. VIII	Gully Cut	S22:811	77.10	Room
Ch.M. VIII	Gully Cut	S22:811	76.63	Room

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Late Middle Susiana (*cont.*)				
Ch.M. VIII	Gully Cut	S22:812	77.14	Wall
Ch.M. VIII	Gully Cut	S22:812	76.72	Occupational debris
Ch.M. VIII	Gully Cut	S22:812	76.71	Occupational debris
Ch.M. VIII	Gully Cut	S22:812	76.62	Occupational debris
Ch.M. VIII	Gully Cut	S22:812	76.49	Occupational debris
Ch.M. VIII	Gully Cut	S22:812	76.34	Occupational debris
Ch.M. VIII	Gully Cut	S22:812	76.19	Occupational debris
Ch.M. VIII	Gully Cut	S22:812 West	76.42	Occupational debris
Ch.M. VIII	Gully Cut	S22:812 West	76.19	Occupational debris
Ch.M. VIII	Gully Cut	S22:817	76.48	Occupational debris
Ch.M. VIII	Gully Cut	S22:819	77.61	Surface wash
Ch.M. VIII	Gully Cut	S22:819	77.61	Surface wash
Ch.M. VIII	Gully Cut	S22:819	76.86	Occupational debris
Ch.M. VIII	Gully Cut	S22:819	76.71	Occupational debris
Ch.M. VIII	Gully Cut	S22:819	76.63	Occupational debris
Ch.M. VIII	Gully Cut	S22:819	76.54	Occupational debris
Ch.M. VIII	Gully Cut	S22:819	76.33	Occupational debris
Ch.M. VIII	Gully Cut	S22:819	76.06	Occupational debris
Ch.M. VIII	Gully Cut	S22:820 West	75.97	Occupational debris
Ch.M. VIII	Gully Cut	S22:821	77.48	Surface wash
Middle Susiana + Mixed				
Ch.M. V	Trench XXV	R20:515	80.04	Surface wash
Ch.M. V	Trench XXV	R20:515	79.15	Settlement area
Ch.M. V	Trench XXV	R20:515	78.97	Settlement area
Ch.M. V	Trench XXXI	P27:501	78.87	Settlement area
Ch.M. V	Trench XXXI	P27:501	78.65	Settlement area
Ch.M. V	Trench XXXI	P27:501 Southwest	79.04	Settlement area
Ch.M. VI	Trench XXV	R20:602	80.08	Surface wash
Ch.M. VI	Trench XXV	R20:602	79.64	Occupational debris
Ch.M. VI	Trench XXV	R20:602	78.89	Occupational debris
Ch.M. VI	Trench XXV	R20:606	78.93	Inside kiln area
Late Susiana 2				
Ch.M. II	Trench I	R10–11 Plot 4	82.85	Occupational debris
Ch.M. II	Trench II	R10–11 Plot 4	84.70	Occupational debris
Ch.M. II	Trench II	R10–11 Plots 5–6	83.40	Occupational debris
Ch.M. III	Trench XXIII	N10 East	81.37	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Late Susiana 2 (*cont.*)				
Ch.M. IV	Trench XXIII	N10 West extension	85.40	Burial
Ch.M. X	Trench XXIII	N10:1001 South	81.25	Parthian pit
Ch.M. X	Trench XXIII	N10:1001	83.09	Surface
Ch.M. X	Trench XXIII	N10:1002	84.50	Pit
Ch.M. X	Trench XXIII	N10:1003	84.02	Floor in room
Ch.M. X	Trench XXIII	N10:1004	83.74	Floor in room
Ch.M. X	Trench XXIII	N10:1004 East	83.80	Mudbrick detritus
Ch.M. X	Trench XXIII	N10:1005	84.10	Floor in room
Ch.M. X	Trench XXIII	N10:1007–08	84.30	Ash
Ch.M. X	Trench XXIII	N10:1008–9	82.28	Floor in room
Ch.M. X	Trench XXIII	N10:1010	83.10	Floor in room
Ch.M. X	Trench XXIII	N10:1011	83.10	Floor in room
Ch.M. X	Trench XXIII	N10:1012	82.28	Floor in room
Ch.M. X	Trench XXIII	N10:1014	82.28	Floor in room
Probably Protoliterate				
Ch.M. III	Trench V	0.30 B.S.	N/A	Near PL pits and wall stumps
Ch.M. V	Trench XIII	K23:502	82.53	Settlement area
Ch.M. VIII	Gully Cut	S22:802 North	76.73	Occupational debris
Protoliterate				
Ch.M. II	Trench X	G26–27 Middle	80.25	Vicinity of BRBs deposit
Ch.M. II	East Area	R17:203	83.40	BRBs
Ch.M. II	East Area	R17:203+204	83.40–82.50	Vicinity of pit and wall stumps
Ch.M. II	East Area	R17:204+205	83.90	Vicinity of pit and wall stumps
Ch.M. II	East Area	R17:208	84.21	Pit (with BRBs, etc.)
Ch.M. II	East Area	R17:208	84.21–82.71	Pit (with BRBs, etc.)
Ch.M. II	East Area	R17:208	83.71–83.61	Pit (with BRBs, etc.)
Ch.M. II	East Area	R17:208	83.61	Pit (with BRBs, etc.)
Ch.M. III	East Area	P18:301	82.00–80.00	Pottery
Ch.M. III	East Area	P18:301	81.90–81.50	Pottery
Ch.M. III	East Area	P18:301	81.20	Pottery deposit
Ch.M. III	East Area	R18:305	83.40–82.30	Area near wall
Ch.M. III	East Area	R18:305	82.75	Area of pit and wall stumps
Ch.M. III	East Area	West of R18:305	83.40–82.20	Area of pit and wall stumps

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Protoliterate (*cont.*)				
Ch.M. III	East Area	R19–Q18:301–307	81.50	Area of pit and wall stumps
Ch.M. III	Trench VI	K14 West	81.00–79.50	Settlement area
Ch.M. III	Trench IX	H14:302	80.80	Settlement area
Ch.M. III	Trench IX	H14:305 South	81.40	Occupational debris
Ch.M. III	Trench XIX	Q18	0.50 B.S.	Area of pit and wall stumps
Ch.M. III	Trench XIX	Q18	1.30 B.S.	Area of pit and wall stumps
Ch.M. IV	West Area	H15:401	80.21–79.17	Pit
Ch.M. IV	West Area	H15:401	81.41–80.50	Pit (with BRBs, etc.)
Ch.M. IV	West Area	H15:402	80.56–80.16	Baked-brick drain
Ch.M. IV	West Area	East of J14:404	80.31	Vicinity of PL drain
Ch.M. IV	East Area	Q18:401	80.37	Surface wash
Ch.M. IV	East Area	Q18:402	81.23	Vicinity of PL pit and wall stumps
Ch.M. IV	East Area	R17:405	83.36–82.64	Baked-brick installation
Ch.M. IV	East Area	R17:408	83.40–80.90	Pit
Ch.M. IV	East Area	R18:401	80.25–80.00	Near wall
Ch.M. IV	East Area	R18:406	82.07–81.67	Settlement area
Ch.M. IV	East Area	R18:413	82.85–82.75	Near room
Ch.M. IV	East Area	R18:415	82.35–81.40	PL pit (BRBs, etc.)
Ch.M. IV	East Area	R19:401	81.75	Settlement area
Ch.M. IV	East Area	S17:401 South	82.50	Room
Ch.M. IV	East Area	S17:402	83.10	Settlement area
Ch.M. IV	East Area	S17:401	82.60–82.32	Room
Ch.M. IV	East Area	S18:402	82.70	Room
Ch.M. IV	East Area	S18:404	82.80–82.00	Well
Ch.M. IV	Trench IX	J15:401	81.50–81.15	Settlement area
Ch.M. IV	Trench IX	J15:401	81.30–80.65	Lane
Ch.M. IV	Trench IX	East of J15:401	80.90–80.80	Vicinity of PL pits and wall stumps
Ch.M. IV	Trench IX	J15:402	80.78–80.22	Rectangular bin-like structure
Ch.M. IV	Trench IX	H14:401	80.71–80.61	Vicinity of PL drain
Ch.M. IV	Trench IX	H14:406	81.27–80.52	Room
Ch.M. IV	Trench XIII	K23:400	83.10–82.90	Settlement area
Ch.M. IV	Trench XIII	K23:400	82.90–82.80	Settlement area

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Protoliterate (*cont.*)				
Ch.M. IV	Trench XX	R18	B.S.	Vicinity of PL pit and wall stumps
Ch.M. IV	Trench XXV	R20:401	79.08–78.95	Backed-brick drain
Ch.M. IV	Trench XXV	R20:401	78.24	Near wall
Ch.M. IV	Trench XXV	R20:402	79.23–79.03	Settlement area
Ch.M. IV	Trench XXV	R20:402 South	78.03–75.69	PL pit (BRBs, etc.)
Ch.M. IV	Trench XXV	R20:403	78.67–78.33	Near wall
Ch.M. IV	Trench XXV	R21:401 South	79.13–78.33	Settlement area
Ch.M. IV	Trench XXV	R21:401 South	78.00	Settlement area
Ch.M. IV	Trench XXV	R21:402	79.23	Vicinity of PL pit and wall stumps
Ch.M. IV	Trench XXV	R21:402	78.93	Vicinity of PL pit and wall stumps
Ch.M. IV	Trench XXV	R21:402 North	78.03–77.78	Vicinity of PL pit and wall stumps
Ch.M. IV	Trench XXV	R21:402 North	77.23	Vicinity of PL pit and wall stumps
Ch.M. IV	Trench XXV	R21:402 South	77.78	Vicinity of PL pit and wall stumps
Ch.M. IV	Trench XXV	R21:404	78.23	Inside kiln area
Ch.M. IV	Trench XXV	South of R21:404	77.73	Kiln area
Ch.M. IV	Trench XXV	R21:405	77.43	Pit
Ch.M. IV	Trench XXV	R21:408	75.23–74.78	Pit
Ch.M. IV	Trench XXV	R21:401	78.03	Settlement area
Ch.M. V	Gully Cut	S22:501	6.77–75.81	Vicinity of PL baked bricks
Ch.M. V	Gully Cut	S22:501	77.11–76.77	Surface or slope wash
Ch.M. V	Gully Cut	S22:501	76.76–76.71	Vicinity of PL baked bricks
Ch.M. V	Gully Cut	S22:501	76.71–76.66	Surface- or slope wash
Ch.M. V	Gully Cut	S22:501	76.66–76.51	Vicinity of PL baked bricks
Ch.M. V	Gully Cut	S22:501	76.51–76.26	Vicinity of PL baked bricks
Ch.M. V	Gully Cut	S22:501	76.26–76.01	Vicinity of PL baked bricks
Ch.M. V	Gully Cut	S22:504	77.25–76.82	Surface or slope wash
Ch.M. V	Gully Cut	S22:504	76.82–76.42	Vicinity of PL baked bricks
Ch.M. V	Gully Cut	S22:504	76.42–75.84	Vicinity of PL baked bricks
Ch.M. V	Gully Cut	S22:507	76.50–76.43	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Protoliterate (*cont.*)				
Ch.M. V	Gully Cut	S22:509	76.54–76.14	Vicinity of PL baked bricks
Ch.M. V	Gully Cut	S22:509	76.21–75.71	Vicinity of PL baked bricks
Ch.M. V	Gully Cut	S22:512	76.51	Occupational debris
Ch.M. V	Sounding I	S-T26	75.50	Slop wash
Ch.M. V	Sounding I	S-T26	74.40	Slope wash
Ch.M. V	Sounding I	S-T26	73.40	Slope wash
Ch.M. V	Sounding I	S-T26	73.10	Slope wash
Ch.M. V	Sounding I	S-T26	71.40	Slope wash
Ch.M. V	Sounding I	S-T26	70.50	Slope wash
Ch.M. V	Sounding I	S-T26	70.30	Slope wash
Ch.M. V	Trench V	R20:506	78.46	Settlement area
Ch.M. V	Trench V	R20:506	78.46	Settlement area
Ch.M. V	Trench V	R20:506	78.40	Settlement area
Ch.M. V	Trench V	R20:509	79.28	Surface wash
Ch.M. V	Trench V	R20:509	78.59	Pit
Ch.M. V	Trench V	R20:510	79.37	PL pit (BRBs, etc.)
Ch.M. V	Trench V	R20:510	78.75	PL pit (BRBs, etc.)
Ch.M. V	Trench V	R20:510	78.71	PL pit (BRBs, etc.)
Ch.M. V	Trench V	R20:510	78.17	PL pit (BRBs, etc.)
Ch.M. V	Trench V	R20:510	78.05	PL pit (BRBs, etc.)
Ch.M. V	Trench V	R20:510	77.64	PL pit (BRBs, etc.)
Ch.M. V	Trench V	R20:510	77.64	PL pit (BRBs, etc.)
Ch.M. V	Trench V	West of R20:510	79.48	PL pit (BRBs, etc.)
Ch.M. V	Trench V	R20:513	79.70	Settlement area
Ch.M. V	Trench V	R20:513	79.04	Settlement area
Ch.M. V	Trench V	R20:513	78.84	Settlement area
Ch.M. V	Trench V	R20:513	78.46	PL pit (BRBs, etc.)
Ch.M. V	Trench V	North of R20:513	79.68	Settlement area
Ch.M. V	Trench V	South of R20:513	79.36	Settlement area
Ch.M. V	Trench V	South of R20:513	78.66	Settlement area
Ch.M. V	Trench V	South of R20:513	78.66	Settlement area
Ch.M. V	Trench V	West of R20:513	78.81	Settlement area
Ch.M. V	Trench XIII	K23:501	82.99–82.83	Settlement area
Ch.M. V	Trench XIII	K23:501	82.98–82.83	Settlement area
Ch.M. V	Trench XIII	K23:501	82.83	Settlement area
Ch.M. V	Trench XIII	K23:501	82.83–82.73	Settlement area
Ch.M. V	Trench XIII	K23:501	82.73	Settlement area

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Protoliterate (*cont.*)				
Ch.M. V	Trench XIII	K23:501	82.73–82.63	Settlement area
Ch.M. V	Trench XIII	K23:501	82.63	Settlement area
Ch.M. V	Trench XIII	K23:502	82.58–82.33	Settlement area
Ch.M. V	Trench XIII	K23:503	82.38	Settlement area
Ch.M. V	Trench XIII	K23:503	82.23–82.03	Settlement area
Ch.M. V	Trench XIII	K23:503	82.03–81.83	Settlement area
Ch.M. V	Trench XIII	K23:505	83.02	Settlement area
Ch.M. V	Trench XIII	K23:506	80.40–80.36	Pit
Ch.M. V	Trench XIII	L23:501	82.98–82.63	Settlement area
Ch.M. V	Trench XXV	R21:503	77.81–75.25	Pit
Ch.M. V	Trench XXV	R21:503	77.41	Pit
Ch.M. V	Trench XXV	R21:503	76.01	Pit
Ch.M. V	Trench XXV	R21:503	75.41	Pit
Ch.M. V	Trench XXV	R21:505	77.00–76.07	PL pit (BRBs, etc)
Ch.M. V	Trench XXV	R21:505	76.70	PL pit (BRBs, etc)
Ch.M. V	Trench XXV	R21:505	76.28	PL pit (BRBs, etc)
Ch.M. V	Trench XXV	R21:509	76.97–75.40	PL pit (BRBs, etc.)
Ch.M. V	Trench XXV	R21:509	76.86–76.03	PL pit (BRBs, etc.)
Ch.M. V	Trench XXV	R21:509	76.86–74.74	PL pit (BRBs, etc.)
Ch.M. V	Trench XXV	R21:509	76.86–75.75	PL pit (BRBs, etc.)
Ch.M. V	Trench XXV	R21:509	76.03–75.75	PL pit (BRBs, etc.)
Ch.M. V	Trench XXV	R21:509	75.75	PL pit (BRBs, etc.)
Ch.M. V	Trench XXV	R21:509	75.75–75.67	PL pit (BRBs, etc.)
Ch.M. V	Trench XXV	R21:509	75.67	PL pit (BRBs, etc.)
Ch.M. V	Trench XXV	R21:509	75.40	PL pit (BRBs, etc.)
Ch.M. V	Trench XXV	R21:509	75.17	PL pit (BRBs, etc.)
Ch.M. V	Trench XXV	R21:509	75.17–74.74	PL pit (BRBs, etc.)
Ch.M. V	Trench XXV	R20:506	79.21	Settlement area
Ch.M. V	Trench XXV	West of R20:513	78.60	Settlement area
Ch.M. V	Trench XXXI	P27:502	79.14	Ash deposit
Ch.M. V	Trench XXXI	P27:502	80.14	Ash deposit
Ch.M. V	Trench XXXI	P27:502	79.31	Ash deposit
Ch.M. V	Trench XXXI	P27:502	79.31	Ash deposit
Ch.M. V	Trench XXXI	P27:502	79.24–79.14	Ash deposit
Ch.M. V	Trench XXXI	P27:502	79.19	Ash deposit
Ch.M. V	Trench XXXI	P27:502 South	79.51–79.24	Ash deposit
Ch.M. V	Trench XXXI	P27:503 South	78.85	Near wall

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Protoliterate (*cont.*)				
Ch.M. V	Trench XXXI	P27:504	79.14–78.10	Pit
Ch.M. V	Trench XXXI	P27:504	79.04	Occupational debris
Ch.M. V	Trench XXXI	P27:504 East	78.80	Pit
Ch.M. V	Trench XXXI	P27:506	79.21–79.00	Surface or slope wash
Ch.M. VI	Trench XXXI	P27:601	80.19	Surface wash
Ch.M. VI	Trench XXXI	P27:601	79.70	Occupational debris
Ch.M. VI	Trench XXXIII	S18:603 North	77.70	Occupational debris
Ch.M. VII	Trench XXXVI	G27:701	82.62	Surface wash
Ch.M. VII	Trench XXXVI	G27:704	82.62–81.33	Pit
Ch.M. VII	Trench XXXVI	G27:704	81.98	Pit
Ch.M. VII	Trench XXXVI	G27:704	81.65	Pit
Ch.M. VII	Trench XXXVI	G27:704	81.33	Pit
Ch.M. VII	Trench XXXVI	G27:704	80.75	Pit
Ch.M. VII	Trench XXXVI	G27:704	80.62	Pit
Ch.M. VII	Gully Cut	S22:701	77.13	Surface wash
Ch.M. VII	Gully Cut	S22:701	76.53–75.95	Occupational debris
Ch.M. VII	East Area	Q17:701	83.92	Surface wash
Ch.M. VII	East Area	Q17:701	83.78	Surface wash
Ch.M. VII	East Area	Q17:701	83.75	Surface wash
Ch.M. VII	East Area	Q17:701	83.57	Occupational debris
Ch.M. VII	East Area	Q17:701	83.18	Occupational debris
Ch.M. VII	East Area	Q17:701	82.91	Occupational debris
Ch.M. VII	East Area	R17:701	83.28	Occupational debris
Ch.M. VII	East Area	R17:701 East	84.45	Surface wash
Ch.M. VII	East Area	R17:701 East	83.80	Room floor
Ch.M. VII	East Area	R17:701 East	83.60	Hard surface (floor?)
Ch.M. VII	East Area	R17:701 East	83.56	Occupational debris
Ch.M. VII	East Area	R17:701 West	84.04	Surface wash
Ch.M. VII	East Area	R17:701 West	83.23	Room
Ch.M. VII	East Area	R17:702	84.02	Inside kiln area
Ch.M. VII	East Area	R17:702	83.74	Inside kiln area
Ch.M. VII	East Area	R17:703	83.91	Room
Ch.M. VII	East Area	R17:704	84.30	Surface wash
Ch.M. VII	East Area	R17:704	82.35	Occupational debris
Ch.M. VII	East Area	R17:704 East	84.30	Surface wash
Ch.M. VII	East Area	R17:704 East	83.64	Occupational debris
Ch.M. VII	East Area	R17:704 East	83.34	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Protoliterate (*cont.*)				
Ch.M. VII	East Area	R17:704 East	82.85	Occupational debris
Ch M. VII	East Area	R17:704 West	83.97	Room
Ch.M. VII	East Area	R17:704 West	83.85	Room
Ch.M. VII	East Area	R17:704 West	83.84	Room
Ch.M. VII	East Area	R17:704 West	83.54	Room
Ch.M. VII	East Area	R17:704 West	83.49	Room
Ch.M. VII	East Area	R17:704 West	83.43	Room
Ch.M. VII	East Area	R17:704 West	83.25	Room
Ch.M. VII	East Area	R17:704 West	82.90	Room
Ch.M. VII	East Area	R17:705	83.77	Occupational debris
Ch.M. VII	East Area	R17:705	83.65	Occupational debris
Ch.M. VII	East Area	R17:705	83.10	Occupational debris
Ch.M. VII	East Area	R17:705	82.71	Occupational debris
Ch.M. VII	East Area	R17:706	83.78	Room
Ch.M. VII	East Area	R17:707	82.84	Room floor
Ch.M. VII	East Area	R17:709	83.43	Occupational debris
Ch.M. VII	East Area	R17:710	83.14	Occupational debris
Ch.M. VII	East Area	R17:710	83.04	Occupational debris
Ch.M. VII	East Area	R17:710	82.96	Occupational debris
Ch.M. VII	East Area	R17:710	82.89	Occupational debris
Ch.M. VII	East Area	R17:711	83.52	Occupational debris
Ch.M. VII	East Area	R17:711	83.49	Occupational debris
Ch.M. VII	East Area	R17:711	83.17	Occupational debris
Ch.M. VII	East Area	R17:712	82.82	Room
Ch.M. VII	East Area	R17:713	82.64–82.15	Pit
Ch.M. VII	East Area	R17:714	83.74	Occupational debris
Ch.M. VII	East Area	R17:714	83.50	Room
Ch.M. VII	East Area	R17:714	83.39	Room
Ch.M. VII	East Area	R17:714	82.66	Room
Ch.M. VII	East Area	R17:714	82.64	Room floor
Ch.M. VII	East Area	R17:714	0.00	Room
Ch.M. VII	East Area	R17:715	82.58	Room
Ch.M. VII	East Area	R17:716	84.30	Surface wash
Ch.M. VII	East Area	R17:716	83.97	Occupational debris
Ch.M. VII	East Area	R17:716	83.91	Occupational debris
Ch.M. VII	East Area	R17:717	83.50	Room
Ch.M. VII	East Area	R17:717	83.18	Room

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Protoliterate (*cont.*)				
Ch.M. VII	East Area	R17:717	82.81	Room
Ch.M. VII	East Area	R17:718	83.76	Occupational debris
Ch.M. VII	East Area	R17:720	82.40	Pit
Ch.M. VII	East Area	R17:721	83.68	Occupational debris
Ch.M. VII	East Area	S17:702	82.77	Room
Ch.M. VII	Trench XXXII	R23:703	77.00	Pit
Ch.M. VII	Trench XXXII	R23:711	77.95	Surface wash
Ch.M. VII	Trench XXXII	R23:703 South	75.80–75.67	PL pit (BRBs, etc.)
Ch.M. VIII	East Area	P17:805	82.66	Surface wash
Ch.M. VIII	East Area	P17:805	82.36	Pit
Ch.M. VIII	East Area	Q17:801 Plot 1	84.11	Surface wash
Ch.M. VIII	East Area	Q17:801 Plot 1	83.88	Occupational debris
Ch.M. VIII	East Area	Q17:801 Plot 5	83.75	Surface wash
Ch.M. VIII	East Area	Q17:801 Plot 5	83.57	Surface wash
Ch.M. VIII	East Area	Q17:802	83.36	Pit
Ch.M. VIII	East Area	Q17:802	83.19	Pit
Ch.M. VIII	East Area	Q17:802	83.09	Pit
Ch.M. VIII	East Area	Q17:803	83.41	Pit
Ch.M. VIII	East Area	Q17:803	83.37	Pit
Ch.M. VIII	East Area	Q17:803	83.08	Pit
Ch.M. VIII	East Area	Q17:803	83.01	Pit
Ch.M. VIII	East Area	Q17:803	82.91	Pit
Ch.M. VIII	East Area	Q17:803	82.75	Pit
Ch.M. VIII	East Area	Q17:803	82.70	Pit
Ch.M. VIII	East Area	Q17:803	82.58	Pit
Ch.M. VIII	East Area	Q17:803	82.56	Pit
Ch.M. VIII	East Area	Q17:803	82.54	Pit
Ch.M. VIII	East Area	Q17:803	82.42	Pit
Ch.M. VIII	East Area	Q17:804	83.11	Inside kiln
Ch.M. VIII	East Area	Q17:804	83.00	Vicinity of PL drain
Ch.M. VIII	East Area	Q17:804 South	82.98	Inside kiln
Ch.M. VIII	East Area	Q17:804 South	82.85	Inside kiln
Ch.M. VIII	East Area	Q17:805	83.03	Room floor
Ch.M. VIII	East Area	Q17:805	82.87	Room floor
Ch.M. VIII	East Area	Q17:805	82.84	Room floor
Ch.M. VIII	East Area	Q17:805	82.64	Room floor
Ch.M. VIII	East Area	Q17:806	83.00	Room floor

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Protoliterate (*cont.*)				
Ch.M. VIII	East Area	Q17:806	82 .84	Room floor
Ch.M. VIII	East Area	Q17:807	83.04	Occupational debris
Ch.M. VIII	East Area	Q17:810	82.88	Inside kiln
Ch.M. VIII	East Area	Q17:811	82.69	Supra floor fill
Ch.M. VIII	East Area	Q17:811	82.32	Supra floor fill
Ch.M. VIII	East Area	Q17:813	82.90	Surface wash
Ch.M. VIII	East Area	Q17:813	82.51	Supra floor fill
Ch.M. VIII	East Area	Q17:814	83.46	Surface wash
Ch.M. VIII	East Area	Q17:814	83.30	Pit
Ch.M. VIII	East Area	Q17:814	83.27	Surface wash
Ch.M. VIII	East Area	Q17:814	83.03	Pit
Ch.M. VIII	East Area	Q17:816	83.23	Occupational debris
Ch.M. VIII	East Area	Q17:816	82.67	Room floor
Ch.M. VIII	East Area	Q17:816	82.59	Room floor
Ch.M. VIII	East Area	Q17:817	83.06	Room
Ch.M. VIII	East Area	Q17:817	83.00	Room
Ch.M. VIII	East Area	Q17:817	82.49	Room
Ch.M. VIII	East Area	Q17:819	82.79	Surface wash
Ch.M. VIII	East Area	Q17:821	82.37–81.78	Pit
Ch.M. VIII	East Area	Q17:822	82.34	Kiln area
Ch.M. VIII	East Area	Q17:824	83.07	Occupational debris
Ch.M. VIII	East Area	Q17:826	82.20	Room
Ch.M. VIII	East Area	R16:801	84.18	Surface wash
Ch.M. VIII	East Area	R16:801	83.91	Surface wash
Ch.M. VIII	East Area	R16:801	83.79	Occupational debris
Ch.M. VIII	East Area	R16:801	83.76	Room
Ch.M. VIII	East Area	R16:802	83.73	Pit
Ch.M. VIII	East Area	R16:802	83.51	Pit
Ch.M. VIII	East Area	R16:804	83.53	Room
Ch.M. VIII	East Area	R16:804	83.09	Room
Ch.M. VIII	East Area	R16:805	83.80	Room
Ch.M. VIII	East Area	R16:805	83.15	Room
Ch.M. VIII	East Area	R16:806	83.54	Room
Ch.M. VIII	East Area	R16:806	83.49	Room
Ch.M. VIII	East Area	R16:807	82.69	Pit
Ch.M. VIII	East Area	R17:801 Plot 1	84.02	Surface wash

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Protoliterate (*cont.*)				
Ch.M. VIII	East Area	R17:801 Plot 1 South	83.68	Room
Ch.M. VIII	East Area	R17:801 Plot 3	84.08	Surface wash
Ch.M. VIII	East Area	R17:801	N/A	Ashy pit lined with bricks (kiln?)
Ch.M. VIII	East Area	R17:803	83.49	Ashy pit lined with bricks (kiln?)
Ch.M. VIII	East Area	R17:803	83.28	Ashy pit lined with bricks (kiln?)
Ch.M. VIII	East Area	R17:803	82.99	Ashy pit lined with bricks (kiln)
Ch.M. VIII	East Area	R17:804	83.68	Room
Ch.M. VIII	East Area	R17:805	83.68	Room
Ch.M. VIII	East Area	R17:806	83.61	Room
Ch.M. VIII	East Area	R17:808	84.00	Room
Ch.M. VIII	East Area	R17:808	83.15	Room
Ch.M. VIII	East Area	R17:808	83.01	Room
Ch.M. VIII	East Area	R17:810	83.02	Room
Ch.M. VIII	East Area	R17:812	83.47	Occupational deposit
Ch.M. VIII	East Area	R17:813	82.56	Room floor
Ch.M. VIII	East Area	R17:814	83.91	Room
Ch.M. VIII	Gully Cut	S22:801	77.22	Surface wash
Ch.M. VIII	Gully Cut	S22:801 North	77.22	Surface wash
Ch.M. VIII	Gully Cut	S22:802	77.20	Occupational debris
Ch.M. VIII	Gully Cut	S22:802 South	76.78	Occupational debris
Ch.M. VIII	Gully Cut	S22:803	77.01	Pit
Ch.M. VIII	Gully Cut	S22:803	76.41	Pit
Ch.M. VIII	Gully Cut	S22:804	76.49	Pit
Ch.M. IX	High Mound	N9:901	90.20	Mudbrick detritus
Ch.M. IX	High Mound	N9:903	90.15	Mudbrick detritus
Ch.M. IX	High Mound	N9:904	90.15	Mudbrick detritus
Ch.M. IX	High Mound	N9:905	90.38	Baked-brick pavement
Ch.M. IX	High Mound	N9:907	89.80	Occupational debris
Ch.M. IX	High Mound	N9:908	89.80	Occupational debris
Ch.M. XI	East Area	P17:1101	81.74	Pottery deposit in long room
Ch.M. XI	East Area	P17:1102	81.65	Mudbrick detritus
Ch.M. XI	East Area	P17:1103	81.56	Beaten earth floor

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Protoliterate (*cont.*)				
Ch.M. XI	East Area	P17:1103 North	81.70	Mudbrick detritus
Ch.M. XI	East Area	P17:1104	81.54	Beaten earth floor
Ch.M. XI	East Area	P17:1106	81.60	Occupational debris
Protoliterate and Miscellaneous				
Ch.M. V	Gully Cut	S22:507	75.97	Occupational debris
Ch.M. VII	Gully Cut	S22:701	76.43	Occupational debris
Mixed Protoliterate and Iron III / Achaemenid				
Ch.M. III	East Area	P18:203	81.00	Settlement area
Ch.M. IV	Trench XIII	K23:400	82.80–82.55	Settlement area
Ch.M. IV	Trench XIII	L23:400	83.59–83.44	Settlement area
Ch.M. IV	Trench V:A	P17:401	82.20–81.80	Occupational debris
Ch.M. IV	Trench V:A	P17:401	82.17	Packed earth platform
Ch.M. V	Trench XIII	L22:501	83.21–83.06	Settlement area
Ch.M. V	Trench XIII	L22:501	83.06–82.96	Settlement area
Ch.M. V	Trench XIII	L22:501	82.96–82.76	Settlement area
Ch.M. VIII	East Area	Q17:801 Plot 2	83.87	Occupational debris
Ch.M. VIII	East Area	Q17:801 Plot 2	83.44	Occupational debris
Ch.M. VIII	East Area	Q17:801 Plot 3	83.99	Surface wash
Ch.M. VIII	East Area	Q17:801 Plot 3	83.69	Occupational debris
Ch.M. VIII	East Area	Q17:801 Plot 4	83.69	Surface wash
Ch.M. VIII	East Area	Q17:801 Plot 5	83.50	Surface wash
Ch.M. VIII	East Area	Q17:801 Plot 6	83.58	Surface wash
Ch.M. VIII	East Area	Q17:801 Plot 6	83.28	Occupational debris
Ch.M. VIII	East Area	Q17:801 Plot 6	83.17	Occupational debris
Ch.M. VIII	East Area	Q17:801 Plot 7	83.58	Occupational debris
Ch.M. VIII	East Area	Q17:801 Plot 7	83.57	Surface wash
Ch.M. VIII	East Area	Q17:801 Plot 7	83.31	Occupational debris
Ch.M. VIII	East Area	R17:801 Plot 3	83.82	Room
Iron III / Achaemenid				
Ch.M. III	East Area	Q18:305	82.00–80.00	Room
Ch.M. III	East Area	Q18:305	81.15–81.00	Room
Ch.M. VIII	East Area	P17:802	83.27	Occupational debris
Ch.M. VIII	East Area	P17:802	82.82	Occupational debris
Ch.M. VIII	East Area	P17:802	82.45	Occupational debris
Ch.M. VIII	East Area	Q17:807	83.50	Room floor
Ch.M. VIII	East Area	Q17:807	83.13	Hearth

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Iron III / Achaemenid (*cont.*)				
Ch.M. VIII	East Area	Q17:812	82.69	Pit
Ch.M. VIII	East Area	Q17:825	83.27	Surface wash
Ch.M. VIII	East Area	Q17:825	82.68	Occupational debris
Ch.M. VIII	East Area	Q17:825 North	82.72	Pit
Ch.M. VIII	Trench XXXVII	Q24:801 East	N/A	Pit
Ch.M. VIII	Trench XXXVII	Q24:802 West	78.21	Pit
Ch.M. VIII	Trench XXXVII	Q24:802 West	77.98	Pit
Ch.M. VIII	Trench XXXVII	Q24:802 West	77.59	Pit
Ch.M. VIII	Trench XXXVII	Q24:802 West	76.89	Pit
Ch.M. VIII	Trench XXXVII	Q24:802 West	76.64	Pit
Ch.M. VIII	Trench XXXVII	Q24:803	78.61	Pit
Ch.M. VIII	Trench XXXVII	Q24:803	77.82	Pit
Old Elamite (Sukkalmah)				
Ch.M. III	High Mound	O7:301	91.30	Fallen bricks
Ch.M. III	High Mound	O7:302	91.20	Mudbrick detritus
Ch.M. IV	High Mound Southeast P10:402	87.60	Fallen bricks	
Ch.M. IV	High Mound Southeast	P10:402	87.23	Burial no. 432
Ch.M. X	High Mound	O8:1002	91.45	Hard surface
Ch.M. X	High Mound	O8:1003	91.50	Mudbrick detritus
Ch.M. X	High Mound	O8:1004 North	91.10	Mudbrick detritus
Ch.M. X	High Mound	O8:1007	91.28	Brick pavement
Ch.M. X	High Mound	O9:1007 North	90.80	Mudbrick detritus
Ch.M. X	High Mound	O9:1010	90.80	Mudbrick detritus
Indeterminate				
Ch.M. V	Sounding I	S-T26	N/A	Slope wash
Ch.M. V	Trench XXV	R20:805	77.97	Surface wash
Ch.M. V	Trench XXV	R20:514	76.27	Settlement area
Ch.M. VI	Trench XXI	Q23:606	81.33	Occupational debris
Ch.M. VI	Trench XXI	P22:608	79.98	Occupational debris
Ch.M. VI	Trench XXV	R20:603	75.70	Settlement area
Ch.M. VI	Trench XXV	R20:601	80.14	Surface wash
Ch.M. VI	Trench XXV	R20:601	79.26	Occupational debris
Ch.M. VI	Trench XXV	R20:601	78.80	Occupational debris
Ch.M. VI	Trench XXV	R20:601 West	78.48	Occupational debris
Ch.M. VI	Trench XXV	S20:603	79.95	Occupational debris
Ch.M. VI	Trench XXV	South of S20:603	78.74–78.31	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Indeterminate (*cont.*)				
Ch.M. VI	Trench XXV	S20:611	78.74–78.31	Occupational debris
Ch.M. VI	Trench XXV	S20:612	78.98	Near wall
Ch.M. VI	Trench XXV	S20:612	76.60	Occupational debris
Ch.M. VI	Trench XXV	S20:618	75.60	Occupational debris
Ch.M. VI	Trench XXV	S20:618	76.63	Occupational debris
Ch.M. VI	Trench XXV	S20:618	75.60	Occupational debris
Ch.M. VI	Trench XXV	S20:618	75.56	Occupational debris
Ch.M. VI	Trench XXV	S20:619	75.46	Occupational debris
Ch.M. VI	Trench XXV	S20:619	76.10	Occupational debris
Ch.M. VI	Trench XXV	S20:619	75.85	Occupational debris
Ch.M. VI	Trench XXV	S20:619	75.59	Occupational debris
Ch.M. VI	Trench XXXIII	S19:601 West	78.48	Occupational debris
Ch.M. VI	Trench XXXIII	S19:601 North	75.07	Occupational debris
Ch.M. VI	Trench XXXIII	S19:601 North	74.47	Occupational debris
Ch.M. VI	Trench XXXIII	S19:601 North	73.95	Occupational debris
Ch.M. VI	Trench XXXIII	S19:602 North	77.21	Occupational debris
Ch.M. VI	Trench XXXIII	S19:602 North	77.03	Occupational debris
Ch.M. VII	Trench XXXVI	G27:701	82.19	Occupational debris
Ch.M. VII	Trench XXXVI	G28:704	79.81	Surface wash
Ch.M. VII	Trench XXXVI	G28:704	79.69	Surface wash
Ch.M. VII	Trench XXXVI	G28:704	76.96	Surface wash
Ch.M. VIII	Trench XXI	P22:801	80.26	Occupational debris
Ch.M. VIII	Trench XXI	Q22:804 North	78.83	Occupational debris
Ch.M. VIII	Trench XXI	Q22:804 South	78.47	Occupational debris
Ch.M. VIII	Trench XXI	Q23:802 North	78.49	Occupational debris
Ch.M. VIII	Trench XXI	Q23:803 Southwest	79.53	Surface wash
Ch.M. VIII	Trench XXXVII	Q24:801	78.67	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:801	78.67	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:802	78.89	Surface wash
Ch.M. VIII	Trench XXXVII	Q25:803	79.34	Surface wash
Ch.M. VIII	Trench XXXVII	Q25:801	78.30	Surface wash
Ch.M. VIII	Gully Cut	S22:619	76.36	Occupational debris
Mixed				
Ch.M. VI	Trench XXI	P22:623	82.82	Surface wash
Ch.M. VI	Trench XXI	Q22:605 North	79.39	Room
Ch.M. VI	Trench XXI	Q22:605 North	79.06	Room

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Mixed (*cont.*)				
Ch.M. VI	Trench XXI	Q22:605 South	80.11	Surface wash
Ch.M. VI	Trench XXI	Q22:608	80.11	Surface wash
Ch.M. VI	Trench XXI	Q22:608	79.95–79.57	Occupational debris
Ch.M. VI	Trench XXV	R20:603	78.56	Occupational debris
Ch.M. VII	Trench XXXII	R23:710	76.10	Occupational debris
Ch.M. VII	Trench XXXII	R23:711	77.59	Occupational debris
Ch.M. VII	Trench XXXII	R23:711	77.53	Occupational debris
Ch.M. VII	Trench XXXII	R23:711	77.02	Occupational debris
Ch.M. VII	Trench XXXII	R23:711	76.20	Occupational debris
Ch.M. VII	Trench XXXII	R23:711 West	78.00	Occupational debris
Ch.M. VII	Trench XXXII	R23:712	78.29	Occupational debris
Ch.M. VII	Trench XXXII	R23:712	77.86	Occupational debris
Ch.M. VII	Trench XXXII	R23:712	76.27	Occupational debris
Ch.M. VII	Trench XXXII	R23:712 North	75.77	Occupational debris
Ch.M. VIII	Trench XXI	Q22:801	78.84	Surface wash
Ch.M. VIII	Trench XXI	Q22:802	78.99	Surface wash
Ch.M. VIII	Trench XXI	Q22:802	78.83	Surface wash
Ch.M. VIII	Trench XXI	Q22:802	78.39	Occupational debris
Ch.M. VIII	Trench XXI	Q22:802 South	78.16–78.06	Occupational debris
Ch.M. VIII	Trench XXI	Q22:803 North	79.09	Settlement area
Ch.M. VIII	Trench XXI	Q22:803 North	78.72	Occupational debris
Ch.M. VIII	Trench XXI	Q22:804 South	78.56	Occupational debris
Ch.M. VIII	Trench XXI	Q23:804	79.69	Surface wash
Ch.M. VIII	Trench XXI	Q23:816	77.28	Occupational debris
Ch.M. VIII	Trench XXI	Q23:816	76.86	Occupational debris
Ch.M. VIII	Trench XXI	Q23:820	79.81	Surface wash
Ch.M. VIII	Trench XXI	Q23:823	78.72	Surface wash
Ch.M. VIII	Trench XXI	Q23:825	78.43	Occupational debris
Ch.M. VIII	Trench XXI	Q23:825	78.36	Occupational debris
Ch.M. VIII	Trench XXI	Q23:825	77.97	Occupational debris
Ch.M. VIII	Gully Cut	S22:823 West	76.35	Occupational debris
Mixed Susiana				
Ch.M. V	Trench XXV	R20:512	78.41	Settlement area
Ch.M. VI	Trench XXXII	R23:601 South	76.52	Pit
Archaic Susiana				
Ch.M. V	Gully Cut	S22:502	N/A	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Archaic Susiana (*cont.*)				
Ch.M. V	Gully Cut	S22:507	N/A	Occupational debris
Ch.M. V	Trench XXXII	R23:504	77.25	Room
Ch.M. VI	Trench XXV	S20:617	77.04	Occupational debris
Ch.M. VI	Trench XXXII	R23:601	77.66	Surface wash
Ch.M. VII	Trench XXI	Q22:702	N/A	Occupational debris
Ch.M. VII	Trench XXI	Q22:702	N/A	Occupational debris
Ch.M. VII	Trench XXI	Q22:705	N/A	Occupational debris
Ch.M. VII	Trench XXXII	R23:710	77.95	Occupational debris
Ch.M. VIII	Trench XXI	Q22:807	N/A	Occupational debris
Ch.M. VIII	Trench XXI	Q22:808	N/A	Room
Ch.M. VIII	Trench XXI	Q22:810	N/A	Room
Ch.M. VIII	Trench XXI	Q22:811	N/A	Occupational debris
Ch.M. VIII	Trench XXI	Q23:822	N/A	Occupational debris
Ch.M. VIII	Trench XXI	Q23:822	N/A	Occupational debris
Mixed Archaic Susiana / Early Susiana				
Ch.M. V	Gully Cut	S22:502	74.78	Fallen brickwork
Ch.M. V	Gully Cut	S22:502	74.76	Fallen brickwork
Ch.M. VI	Trench XXI	P22:613	80.22	Room
Ch.M. VI	Trench XXI	P22:614	80.92	Occupational debris
Ch.M. VI	Trench XXI	P22:618	80.19	Occupational debris
Ch.M. VI	Trench XXI	P22:618	80.18	Occupational debris
Ch.M. VI	Trench XXI	P22:618	79.63	Occupational debris
Ch.M. VI	Trench XXI	P22:620	80.18	Room
Ch.M. VI	Trench XXI	P22:620	81.01	Room
Ch.M. VI	Trench XXI	P22:628	80.89	Occupational debris
Ch.M. VI	Trench XXI	P22:628	80.17	Room
Ch.M. VI	Trench XXI	P22:629	80.20	Occupational debris
Ch.M. VI	Trench XXI	P22:629	80.16	Occupational debris
Ch.M. VI	Trench XXI	P22:630	80.38	Occupational debris
Ch.M. VI	Trench XXI	Q22:606	80.35	Occupational debris
Ch.M. VI	Trench XXI	Q22:606	80.20	Room
Ch.M. VI	Trench XXV	S20:617	78.08	Occupational debris
Ch.M. VI	Trench XXV	S20:617	77.90	Occupational debris
Ch.M. VII	Trench XXI	Q22:704	79.95	Surface wash
Ch.M. VII	Trench XXI	Q22:704	79.49	Occupational debris
Ch.M. VII	Trench XXI	Q22:707	79.30	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Mixed Archaic Susiana / Early Susiana (*cont.*)				
Ch.M. VII	Trench XXI	Q22:707	79.07	Occupational debris
Ch.M. VII	Trench XXI	Q22:707 South	79.40	Occupational debris
Ch.M. VII	Trench XXXII	R23:702	76.78	Occupational debris
Ch.M. VIII	Trench XXI	Q22:801	78.73	Occupational debris
Ch.M. VIII	Trench XXI	Q22:801	78.60	Occupational debris
Ch.M. VIII	Trench XXI	Q22:801	78.38	Occupational debris
Ch.M. VIII	Trench XXI	Q22:803	78.16–78.06	Occupational debris
Ch.M. VIII	Trench XXI	Q22:803	78.16	Occupational debris
Ch.M. VIII	Trench XXI	Q22:803 North	78.38	Occupational debris
Ch.M. VIII	Trench XXI	Q22:803 South	78.96	Occupational debris
Ch.M. VIII	Trench XXI	Q22:803 South	78.61	Occupational debris
Ch.M. VIII	Trench XXI	Q22:803 South	78.52	Occupational debris
Ch.M. VIII	Trench XXI	Q22:803 South	78.16–78.06	Occupational debris
Ch.M. VIII	Trench XXI	Q22:803 South	78.16	Occupational debris
Ch.M. VIII	Trench XXI	Q22:803 South	78.06	Occupational debris
Ch.M. VIII	Trench XXI	Q22:803 South	77.91	Occupational debris
Ch.M. VIII	Trench XXI	Q22:804 North	79.04	Occupational debris
Ch.M. VIII	Trench XXI	Q22:804 North	78.24	Occupational debris
Ch.M. VIII	Trench XXI	Q22:804 South	79.33	Occupational debris
Ch.M. VIII	Trench XXI	Q22:804	79.01	Occupational debris
Ch.M. VIII	Trench XXI	Q23:801	79.15	Surface wash
Ch.M. VIII	Trench XXI	Q23:803	78.95	Occupational debris
Ch.M. VIII	Trench XXI	Q23:808	78.31	Occupational debris
Ch.M. VIII	Trench XXI	Q23:809 West	78.56	Occupational debris
Ch.M. VIII	Trench XXI	Q23:814	78.83	Room
Ch.M. VIII	Trench XXI	Q23:820	77.83	Occupational debris
Ch.M. VIII	Trench XXI	Q23:821	79.13	Room
Ch.M. VIII	Trench XXI	Q23:822	78.26	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:802 East	77.33	Occupational debris
Ch.M. VIII	Gully Cut	S22:824	75.53	Occupational debris
Mixed Archaic / Early / Middle Susiana				
Ch.M. VI	Trench XXV	R20:605	77.80	Occupational debris
Ch.M. VI	Trench XXXII	R23:601	76.95	Occupational debris
Ch.M. VI	Trench XXXII	R23:601	76.94	Occupational debris
Ch.M. VI	Trench XXXII	R23:601	76.55	Occupational debris
Ch.M. VI	Trench XXXII	R23:601 Northeast	76.42	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Mixed Archaic / Early / Middle Susiana (*cont.*)				
Ch.M. VII	Trench XXXII	R23:701	76.49	Occupational debris
Ch.M. VII	Trench XXXII	R23:701	76.16	Occupational debris
Ch.M. VII	Trench XXXII	R23:702	77.12	Occupational debris
Ch.M. VII	Trench XXXII	R23:702	76.37	Occupational debris
Ch.M. VII	Trench XXXII	R23:702	76.19	Occupational debris
Ch.M. VII	Trench XXXII	R23:702	76.13	Occupational debris
Ch.M. VII	Trench XXXII	R23:704	75.97	Occupational debris
Ch.M. VII	Trench XXXII	R23:704	75.47	Occupational debris
Ch.M. VII	Trench XXXII	R23:704	75.44	Occupational debris
Ch.M. VII	Trench XXXII	R23:704	75.44	Occupational debris
Ch.M. VII	Trench XXXII	R23:704	75.19	Occupational debris
Ch.M. VII	Trench XXXII	R23:704	75.03	Occupational debris
Ch.M. VII	Trench XXXII	R23:704	74.90	Occupational debris
Ch.M. VII	Trench XXXII	R23:705	76.00	Occupational debris
Ch.M. VII	Trench XXXII	R23:705	75.63	Occupational debris
Ch.M. VII	Trench XXXII	R23:705	75.32	Occupational debris
Ch.M. VII	Trench XXXII	R23:706	76.72	Occupational debris
Ch.M. VII	Trench XXXII	R23:706	76.64	Occupational debris
Ch.M. VII	Trench XXXII	R23:706	76.19	Occupational debris
Ch.M. VII	Trench XXXII	R23:706	75.89	Occupational debris
Ch.M. VII	Trench XXXII	R23:706	75.31	Occupational debris
Ch.M. VIII	Gully Cut	S22:823 West	76.35	Occupational debris
Ch.M. VIII	Gully Cut	S22:832	77.58	Surface wash
Ch.M. VIII	Trench XXI	Q22:803	79.48	Surface wash
Ch.M. VIII	Trench XXI	Q22:803 South	78.31	Occupational debris
Ch.M. VIII	Trench XXI	Q23:829	78.37	Occupational debris
Mixed Early / Middle Susiana				
Ch.M. V	Trench XXXI	P27:501	N/A	Settlement area
Ch.M. V	Trench XXXI	P27:505	79.10	Settlement area
Ch.M. VI	Trench XXI	P22:601	82.55	Surface wash
Ch.M. VI	Trench XXI	P22:601	82.25	Surface wash
Ch.M. VI	Trench XXI	P22:601	82.23	Surface wash
Ch.M. VI	Trench XXI	P22:602	81.77	Room
Ch.M. VI	Trench XXI	P22:603	81.77–81.40	Occupational debris
Ch.M. VI	Trench XXI	P22:604	82.15	Surface wash
Ch.M. VI	Trench XXI	P22:606 North	81.77	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Mixed Early / Middle Susiana (*cont.*)				
Ch.M. VI	Trench XXI	P22:606 North	81.73	Occupational debris
Ch.M. VI	Trench XXI	P22:606 Northeast	81.52	Occupational debris
Ch.M. VI	Trench XXI	P22:606 South	81.69	Occupational debris
Ch.M. VI	Trench XXI	P22:609	81.67	Room
Ch.M. VI	Trench XXI	P22:611	81.14	Occupational debris
Ch.M. VI	Trench XXI	P22:611	80.94	Occupational debris
Ch.M. VI	Trench XXI	P22:621 West	82.19	Surface wash
Ch.M. VI	Trench XXI	P22:623 East	82.46	Surface wash
Ch.M. VI	Trench XXI	P22:623 West	82.73	Surface wash
Ch.M. VI	Trench XXI	P22:625	81.91	Room
Ch.M. VI	Trench XXI	P23:601	81.77	Occupational debris
Ch.M. VI	Trench XXI	P23:602	81.07	Occupational debris
Ch.M. VI	Trench XXI	P23:602	81.00	Occupational debris
Ch.M. VI	Trench XXI	P23:606	81.22	Occupational debris
Ch.M. VI	Trench XXI	P23:606	80.69	Occupational debris
Ch.M. VI	Trench XXI	P23:609	81.24	Occupational debris
Ch.M. VI	Trench XXI	P23:609	80.93	Occupational debris
Ch.M. VI	Trench XXI	P23:611	80.54	Occupational debris
Ch.M. VI	Trench XXI	Q22:601	81.24	Occupational debris
Ch.M. VI	Trench XXI	Q22:602 North	80.80	Surface wash
Ch.M. VI	Trench XXI	Q22:603	81.42	Surface wash
Ch.M. VI	Trench XXI	Q23:601	81.40–80.63	Surface wash
Ch.M. VII	Trench XXXII	R23:701	77.20	Occupational debris
Ch.M. VII	Trench XXXII	R23:701	76.88	Occupational debris
Ch.M. VII	Trench XXXII	R23:702	76.63	Occupational debris
Ch.M. VII	Trench XXXVI	G29:702	77.42	Occupational debris
Ch.M. VII	Trench XXXVI	G29:703 North	76.66	Occupational debris
Ch.M. VIII	Trench XXI	Q22:802	77.63	Occupational debris
Ch.M. VIII	Trench XXI	Q23:804	78.75	Occupational debris
Ch.M. VIII	Trench XXI	Q23:820	79.65	Surface wash
Ch.M. VIII	Trench XXI	Q23:821	79.36	Surface wash
Ch.M. VIII	Trench XXI	Q23:821	79.31	Surface wash
Ch.M. VIII	Trench XXI	Q24:802	78.30	Occupational debris
Ch.M. VIII	Trench XXI	Q25:801	77.78	Occupational debris
Ch.M. VIII	Gully Cut	S22:801 North	76.83	Occupational debris
Ch.M. VIII	Gully Cut	S22:801 East	76.88	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Mixed Early / Middle Susiana (*cont.*)				
Ch.M. VIII	Gully Cut	S22:806 West	76.95	Occupational debris
Ch.M. VIII	Gully Cut	S22:806 West	76.73	Floor
Ch.M. VIII	Gully Cut	S22:813	76.33	Room
Ch.M. VIII	Gully Cut	S22:813	76.29	Room
Ch.M. VIII	Gully Cut	S22:813	76.05	Supra floor fill
Ch.M. VIII	Gully Cut	S22:813 East	76.31	Occupational debris
Ch.M. VIII	Gully Cut	S22:819 West	75.79	Occupational debris
Early Susiana + Protoliterate				
Ch.M. V	Trench XXV	R20:511	77.96	Occupational debris
Ch.M. V	Trench XXV	R20:511	77.84	Occupational debris
Ch.M. V	Trench XXXI	P27:504	78.00	Settlement area
Ch.M. VI	Trench XXI	P22:623 North	82.82	Surface wash
Ch.M. VII	Trench XXXII	R23:711	76.58	Occupational debris
Ch.M. VIII	Trench XXI	Q23:803 North	79.00	Surface wash
Mixed Archaic / Middle Susiana				
Ch.M. V	Trench XXXII	R23:502	77.20	Settlement area
Ch.M. V	Trench XXXII	R23:502	76.91	Settlement area
Mixed Archaic Susiana / Protoliterate				
Ch.M. IV	Trench XXV	R21:411	77.53	Fallen brickwork
Ch.M. IV	Gully Cut	S22:401 East	75.40	Occupational debris
Ch.M. V	Trench XXV	R20:504	77.80	Room
Ch.M. V	Trench XXV	R20:510	76.10	Pit
Ch.M. VII	Trench XXXII	R23:711	77.40	Occupational debris
Ch.M. VII	Trench XXXII	R23:711	77.05	Occupational debris
Ch.M. VII	Gully Cut	S22:701	75.71	Occupational debris
Mixed Archaic Susiana 3 / Protoliterate				
Ch.M. V	Gully Cut	S22:507	75.89–75.79	Occupational debris
Ch.M. V	Gully Cut	S22:507	75.79	Occupational debris
Middle Susiana / Protoliterate				
Ch.M. VI	Trench XXXIII	S18:603 North	76.55	Occupational debris
Ch.M. VI	Trench XXXIII	S18:603 North	76.36	Occupational debris
Ch.M. VI	Trench XXXIII	S18:603 North	76.08	Occupational debris
Ch.M. VI	Trench XXXIII	S18:603 South	76.53	Occupational debris
Ch.M. VI	Trench XXXIII	S18:603 South	76.48	Occupational debris
Ch.M. VI	Trench XXXIII	S19:601	77.40	Occupational debris
Ch.M. VI	Trench XXXIII	S19:601	77.35	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Middle Susiana / Protoliterate (*cont.*)				
Ch.M. VI	Trench XXXV	R20:610	76.20	Occupational debris
Ch.M. VI	Trench XXXV	R20:610	75.16	Occupational debris
Ch.M. IV	Trench XIII	L23:400	83.24–83.90	Settlement area
Ch.M. V	Trench XIII	K23:502	82.42–81.48	Settlement area
Ch.M. V	Trench XIII	K23:503	82.33–82.23	Settlement area
Ch.M. V	Trench XIII	K23:506	81.46	Room
Ch.M. V	Trench XIII	L23:502	82.23	Settlement area
Ch.M. V	Trench XXV	R20:501	79.23	Settlement area
Ch.M. V	Trench XXV	R20:505	78.48	Settlement area
Ch.M. V	Trench XXV	R20:505	78.10	Settlement area
Ch.M. V	Trench XXXII	R23:502	77.55	Settlement area
Ch.M. V	Sounding I	S-T26	72.70	Slope wash
Ch.M. V	Sounding I	S-T26	72.10	Slope wash
Ch.M. V	Sounding I	S-T26	69.95	Slope wash
Ch.M. V	Sounding I	S-T26	69.50	Slope wash
Ch.M. V	Sounding I	S-T26	69.10	Slope wash
Ch.M. VI	Trench XXV	R20:602	80.12	Surface wash
Ch.M. VI	Trench XXXIII	S19:601 South	77.55	Occupational debris
Ch.M. VI	Trench XXXIV	T19:601	77.45	Surface wash
Ch.M. VI	Trench XXXIV	T19:601	75.97	Occupational debris
Ch.M. VI	Trench XXXIV	T19:601	74.90	Occupational debris
Ch.M. VII	Trench XXXII	R23:701	77.59	Occupational debris
Ch.M. VII	Trench XXXII	R23:702	77.38	Occupational debris
Ch.M. VII	Trench XXXII	R23:710	78.40	Surface wash
Ch.M. VII	Gully Cut	S22:701	75.91	Occupational debris
Ch.M. VIII	Trench XXXVII	Q24:801	79.66	Surface wash
Ch.M. VIII	Trench XXXVII	Q24:801	79.57	Surface wash
Ch.M. VIII	Trench XXXVII	Q24:801	79.00	Surface wash
Ch.M. VIII	Trench XXXVII	Q25:804	77.97	Surface wash
Ch.M. VIII	Gully Cut	S22:802	77.08	Occupational debris
Ch.M. VIII	Gully Cut	S22:802	77.03	Occupational debris
Ch.M. VIII	Gully Cut	S22:802	76.99	Occupational debris
Ch.M. VIII	Gully Cut	S22:802	76.91	Occupational debris
Ch.M. VIII	Gully Cut	S22:802	76.75	Occupational debris
Ch.M. VIII	Gully Cut	S22:802	76.70	Occupational debris
Ch.M. VIII	Gully Cut	S22:802	76.55	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Middle Susiana / Protoliterate (*cont.*)				
Ch.M. VIII	Gully Cut	S22:802	76.51	Occupational debris
Ch.M. VIII	Gully Cut	S22:802 North	77.51	Surface wash
Ch.M. VIII	Gully Cut	S22:802 North	77.30	Occupational debris
Ch.M. VIII	Gully Cut	S22:802 North	77.01	Occupational debris
Ch.M. VIII	Gully Cut	S22:806	77.20	Surface wash
Ch.M. VIII	Gully Cut	S22:806 North	77.51	Surface wash
Ch.M. VIII	Gully Cut	S22:806 North	77.26	Surface wash
Mixed Susiana / Protoliterate				
Ch.M. V	Trench XXV	R20:501	77.34	Room
Ch.M. V	Trench XXV	North of R20:501	77.50	Room
Ch.M. V	Trench XXV	R20:502	76.18	Circular bitumen floor
Ch.M. V	Trench XXV	R20:505	79.28	Settlement area
Ch.M. V	Trench XXV	R20:505	78.00	Settlement area
Ch.M. V	Trench XXV	Northwest of R20:507	78.70	Settlement area
Ch.M. V	Trench XXV	South of R20:507	78.70	Settlement area
Ch.M. V	Trench XXV	R20:508	79.32	Settlement area
Ch.M. V	Trench XXV	R20:508	79.32	Pit
Ch.M. V	Trench XXV	R20:510	77.25	Occupational debris
Ch.M. V	Trench XXV	R21:501	77.50	Room
Ch.M. V	Trench XXV	R21:506	76.41	Occupational debris
Ch.M. V	Trench XXV	R21:506	76.30	Occupational debris
Ch.M. V	Trench XXV	R21:506 East	75.65	Settlement area
Ch.M. V	Trench XXV	R21:508	76.41–76.00	Settlement area
Ch.M. V	Trench XXV	R21:508	76.41–75.29	Settlement area
Ch.M. V	Trench XXV	R21:508	76.12–76.00	Settlement area
Ch.M. V	Trench XXV	R21:508	75.29–75.19	Settlement area
Ch.M. V	Trench XXXI	P27:506	79.00	Settlement area
Ch.M. V	Trench XXXII	R23:501	78.20	Surface or slope wash
Ch.M. V	Trench XXXII	R23:502	77.21	Settlement area
Ch.M. V	Gully Cut	S22:501	76.01–75.86	Occupational debris
Ch.M. VI	Trench XXI	P22:604	81.71	Surface wash
Ch.M. VI	Trench XXV	R20:606	78.42	Occupational debris
Ch.M. VIII	Gully Cut	S22:801	76.32	Occupational debris
Ch.M. VIII	Gully Cut	S22:801 South	76.57	Occupational debris
Ch.M. VIII	Gully Cut	S22:802	76.31	Occupational debris
Ch.M. VIII	Gully Cut	S22:802 North	76.00	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Early / Middle Susiana + Protoliterate				
Ch.M. V	Trench XIII	K23:502	82.37–81.68	Settlement area
Ch.M. V	Trench XIII	K23:502	80.70	Settlement area
Ch.M. V	Trench XXXI	P27:501 North	79.85–79.00	Settlement area
Mixed Early Middle Susiana / Protoliterate				
Ch.M. V	Trench XIII	K23:502	81.53	Settlement area
Ch.M. V	Trench XIII	K23:502	81.12	Settlement area
Ch.M. V	Trench XIII	K23:502	81.05	Settlement area
Ch.M. V	Trench XIII	L22:502	81.66	Settlement area
Ch.M. VI	Trench XXXI	P27:602	79.53	Surface wash
Mixed Late Middle Susiana / Protoliterate				
Ch.M. VI	Trench XXXIII	S18:601	77.49–77.35	Occupational debris
Ch.M. VI	Trench XXXIII	S18:601	77.39	Occupational debris
Ch.M. VI	Trench XXXIII	S18:601	77.15	Occupational debris
Ch.M. VI	Trench XXXIII	S18:601 North	76.97	Occupational debris
Ch.M. VI	Trench XXXIII	S18:601 North	76.68	Occupational debris
Ch.M. VI	Trench XXXIII	S18:601 South	77.19	Occupational debris
Ch.M. VI	Trench XXXIII	S18:601 South	76.85	Occupational debris
Ch.M. VI	Trench XXXIII	S18:601 South	76.40	Occupational debris
Ch.M. VI	Trench XXXIII	S18:601	76.95	Occupational debris
Ch.M. VI	Trench XXXIII	S18:602	76.89	Occupational debris
Ch.M. VI	Trench XXXIII	S18:602	76.68	Occupational debris
Ch.M. VI	Trench XXXIII	S18:602	76.48	Occupational debris
Ch.M. VI	Trench XXXIII	S18:602	76.48	Occupational debris
Ch.M. VI	Trench XXXIII	S18:602 North	78.00	Occupational debris
Ch.M. VI	Trench XXXIII	S18:602 North	77.60	Occupational debris
Ch.M. VI	Trench XXXIII	S18:602 North	76.32	Occupational debris
Ch.M. VI	Trench XXXIII	S18:602 South	77.70	Occupational debris
Ch.M. VI	Trench XXXIII	S18:602 Middle	76.32	Occupational debris
Ch.M. VI	Trench XXXIII	S18:602 Middle	76.20	Occupational debris
Ch.M. VI	Trench XXXIII	S18:603	77.35	Occupational debris
Ch.M. VI	Trench XXXIII	S18:603	77.34	Occupational debris
Approaching or In Virgin Soil				
Ch.M. V	Gully Cut	S23:509	73.38–72.35	Hard packed clean clay
Ch.M. VI	Gully Cut	S22:701	72.40	Occupational debris
Ch.M. VII	Gully Cut	S22:702	72.84–72.64	Occupational debris
Ch.M. VII	Gully Cut	S22:702	72.61	Occupational debris

Season	*Area*	*Provenance*	*Elevation*	*Type of Deposit or Feature*
Middle Susiana + Protoliterate + Late				
Ch.M. II	Trench XIII	K22:201 West	83.20	Settlement area
Ch.M. IV	Trench XIII	K22:400	83.44–83.29	Settlement area
Mixed Protoliterate / Late				
Ch.M. IV	Sounding A	L15	79.15	Occupation debris
Probably Iron III / Achaemenid				
Ch.M. VIII	East Area	R17:804 South	83.34	Inside kiln area

APPENDIX THREE

FAUNAL REMAINS

The several thousand faunal remains from the excavation of Chogha Mish, too numerous to include here, are presented in an electronic file hosted on the Oriental Institute's Web site: http://oi.uchicago.edu/research/pubs/catalog/oip/oip130.html. A summary of the faunal remains is sorted by period in table 14.

Table 14. Summary of Faunal Remains by Period

Period	Total of Indentification	*Bos*	*Bovid*	*Camelus* sp.	*Canis aureus*	*Canis familiaris*	*Cervus*	*Dama*	*Equus equus*	*Equus hemionus* or *asinus*	*Equus hemionus*	*Equus* sp.	*Gazelle*	*Gerbillus* sp.	*Goat*	*Hemiechinus* sp.	*Hystrix indica*	*Indeterminate*	Large *Canid*	Large *Felid*
Ach.	1,121	195	1	3	—	3	—	—	6	—	2	65	1	—	13	—	—	15	3	—
Approaching or in virgin soil	74	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
AS	214	4	—	—	—	—	—	—	—	—	—	1	2	—	1	—	—	3	2	—
AS 1	930	33	—	—	1	—	—	—	—	—	—	29	19	—	34	—	—	14	1	—
AS 1–2	53	2	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
AS 2	1,448	24	—	—	—	—	—	—	—	—	9	5	21	—	30	—	—	—	—	—
AS 2–3	267	2	—	—	—	—	—	—	—	—	—	2	4	—	2	—	1	50	—	—
AS 3	1,836	59	—	—	—	9	—	—	—	—	—	6	18	—	30	—	—	23	3	—
AS 3 + Misc.	36	2	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—
Elamite	29	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EMS	1,219	69	—	—	—	—	—	—	—	5	—	10	20	—	3	—	—	44	—	—
EMS + Misc.	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ES	3,406	270	—	—	—	21	—	1	—	1	—	4	52	—	19	1	—	28	35	—
ES + Misc.	81	7	—	—	—	—	—	—	—	—	—	7	—	—	1	—	—	—	2	—
ES + PL	127	14	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—
ES/AS 3 Trans.	1,923	134	1	—	—	15	—	—	—	—	—	4	57	—	16	—	—	8	22	1
ES/MS Trans.	126	10	—	—	—	—	—	—	—	—	—	—	1	—	4	—	—	2	—	—
Indeterminate	473	26	—	—	—	—	—	—	—	—	—	1	1	—	2	—	—	2	2	—
LMS	555	29	—	—	—	—	—	—	1	—	—	1	3	—	5	—	—	1	—	—
LS	13	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—
Mixed	537	23	1	—	—	4	—	—	—	—	—	9	4	—	5	—	—	2	24	1
Mixed Ach./PL	359	15	—	—	—	—	—	—	—	—	—	4	—	—	1	—	—	21	1	—
Mixed ES/AS	986	120	—	1	—	90	—	—	1	—	—	26	17	—	2	—	—	6	50	4
Mixed LS/PL	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mixed MS	53	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Mixed MS/AS	90	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Mixed MS/ES	737	30	1	—	—	—	—	—	—	—	—	2	6	—	3	—	—	16	7	—
Mixed MS/ES/AS	480	21	—	—	—	6	—	—	—	—	—	4	10	—	3	—	—	1	11	5
Mixed PL/AS	99	5	—	—	—	—	—	—	—	—	—	—	1	—		—	—	—	—	—
Mixed PL/AS 3	34	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Mixed PL/EMS	53	5	—	—	—	—	—	—	—	—	—	—	—	—	3	—	—	1	—	—
Mixed PL/LMS	351	24	—	—	—	—	—	—	—	—	—	14	2	—	—	—	—	—	—	—
Mixed PL/MS	1,001	62	—	—	—	—	—	—	—	—	1	6	6	—	10	—	—	39	—	—
MS	5,777	315	11	—	—	5	—	—	—	—	—	9	32	—	37	11	—	36	12	—
MS + Misc.	83	8	—	—	—	—	—	—	—	—	—	1	1	—	1	—	—	5	—	—
MS + PL	78	4	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
PL	6,262	497	1	—	—	7	1	2	—	1	9	46	43	1	62	—	—	168	7	—
PL + LS + MS	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
PL + Misc.	32	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
PL + MS + ES	28	3	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	7	—	—
Prob. Ach.	37	3	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Prob. AS	57	1	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Prob. PL	18	—	—	—	—	—	—	—	—	—	—	1	1	12	—	—	—	—	—	—

Table 14. Summary of Faunal Remains by Period (*cont.*)

Large Mammal	*Lepus* sp.	Medium *Artiodactyl*	Medium *Canid*	Medium Carnivore	Medium Mammal	Missing	*Mus* sp.	*Mustelid*	*Nesokia indica*	Rodent	Sheep	Sheep-Goat	Sheep-Goat-Gazelle	Small *Artiodactyl*	Small *Canid*	Small Carnivore	Small *Felid*	Small Mammal	*Suid*	*Sus scrota*	*Tatera indica*	*Vulpes* sp.	*Vulpes vulpes*
81	—	—	12	—	307	—	—	—	—	2	7	316	7	—	—	—	—	—	—	82	—	—	—
17	—	—	—	—	40	—	—	—	—	—	1	14	1	—	—	—	—	—	—	1	—	—	—
10	—	—	1	—	133	—	—	—	—	—	—	33	19	—	—	—	—	3	—	2	—	—	—
43	—	—	15	2	385	—	—	—	—	1	8	320	22	—	—	—	—	2	—	1	—	—	—
4	—	—	2	—	19	—	—	—	—	—	—	16	7	—	—	—	1	1	—	—	—	—	—
60	1	1	6	—	731	—	—	—	—	3	2	434	110	—	—	—	—	6	—	4	—	1	—
15	—	—	—	—	87	1	—	—	1	—	—	93	9	—	—	—	—	—	—	—	—	—	—
114	—	1	15	—	800	—	—	—	—	6	7	531	155	—	1	—	—	17	—	41	—	—	—
1	—	—	1	—	23	—	—	—	—	—	—	5	1	—	—	—	—	—	—	1	—	—	—
14	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—
164	1	1	3	—	581	—	—	—	—	15	2	199	30	1	—	—	—	20	2	49	—	—	—
1	—	—	1	—	13	—	—	—	—	—	—	7	—	—	—	—	—	—	—	—	—	—	—
455	—	1	12	—	1,698	3	—	1	—	30	4	545	129	—	5	—	—	10	1	80	—	—	—
10	—	—	—	—	40	—	—	—	—	—	—	9	5	—	—	—	—	—	—	—	—	—	—
17	—	—	—	—	70	—	—	—	—	—	—	22	3	—	—	—	—	—	—	—	—	—	—
244	—	2	6	—	843	—	—	—	—	2	2	391	115	—	2	—	1	3	—	50	—	4	—
11	—	—	2	—	55	—	—	—	—	4	—	19	17	—	—	—	—	—	—	1	—	—	—
59	—	—	4	—	227	—	—	—	—	5	—	100	17	—	—	—	—	—	—	27	—	—	—
90	—	—	—	—	289	—	—	—	—	5	—	99	20	—	1	—	—	—	—	11	—	—	—
—	—	—		—	5	—	—	—	—	—	—	5		—	—	—	—	—	—	2	—	—	—
23	—	—	4	—	284	—	—	—	—	12	1	115	18	1	—	—	—	—	—	6	—	—	—
54	—	—	—	—	183	—	—	—	—	—	—	65	3	—	—	—	—	—	—	12	—	—	—
42	—	—	4	1	390	—	—	—	—	—	3	175	25	—	2	—	—	1	—	25	—	1	—
—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2	—	—	—	—	34	—	—	—	—	1	—	13	—	—	—	—	—	1	—	—	—	—	—
3	—	—	—	—	56	—	—	—	—	1	—	25	2	—	—	—	—	—	—	—	—	—	—
61	—	—	1	—	452	—	1	—	—	1	1	134	10	—	1	—	—	3	—	7	—	—	—
34	—	—	19	1	238	—	—	—	—	3	1	85	19	—	—	—	—	—	—	18	1	—	—
7	—	—	5	—	46	—	—	—	—	—	—	31	3	—	—	—	—	—	1	—	—	—	—
2	—	—	—	—	18	—	—	—	—	—	—	12	—	—	—	—	—	—	—	1	—	—	—
2	—	—	—	—	27	—	—	—	—	2	—	11	—	—	—	—	—	2	—	—	—	—	—
90	—	—	2	—	163	—	—	—	—	1	—	38	6	—	—	—	—	2	—	9	—	—	—
129	—	1	9	—	508	—	—	—	—	17	2	186	5	—	1	—	1	8	—	10	—	—	—
669	—	1	34	—	2,689	11	—	—	—	45	3	1,286	235	—	1	—	—	29	3	297	3	3	—
18	—	—	1	—	32	—	—	—	—	—	—	13	2	—	—	—	—	—	—	1	—	—	—
15	—	—	—	—	38	—	—	—	—	1	—	13	5	—	—	—	—	—	—	1	—	—	—
824	—	—	23	—	2,662	—	—	—	—	15	51	1,642	102	—	2	1	1	14	2	66	—	—	12
3	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
1	—	—	—	—	20	—	—	—	—	—	—	6	2	—	—	—	—	2	—	—	—	—	—
7	—	—	—	—	3	—	—	—	—	—	—	6	—	—	—	—	—	1	—	—	—	—	—
15	—	—	—	—	15	—	—	—	—	—	—	3	—	—	—	—	—	—	—	—	—	—	—
7	—	—	—	—	25	—	—	—	—	—	—	20	3	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—

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Locus	*Elevation*	*Reg. No.*	*Description*	*Illustration*
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P17:901	81.83	9479	Pottery vessel. Protoliterate	Fig. 33:I
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Locus	*Elevation*	*Reg. No.*	*Description*	*Illustration*
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Locus	*Elevation*	*Reg. No.*	*Description*	*Illustration*
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P22:609	81.30	N/A	Open pottery vessel. Early Susiana	Fig. 57:B
P22:611	80.37	6082	Open pottery vessel. Early Susiana	Fig. 59:B
P22:611	80.37	6167	Open pottery vessel. Early Susiana	Fig. 58:I
P22:611	80.66	6230	Plain pottery vessel. Early Susiana	Fig. 64:A
P22:611	80.38	6231	Plain pottery vessel. Early Susiana	Fig. 65:B
P22:611	80.50	6241	Plain pottery vessel. Early Susiana	Fig. 64:G
P22:611	80.50	6248	Open pottery vessel. Early Susiana	Fig. 61:M
P22:611	80.58	6291	Plain pottery vessel. Early Susiana	Fig. 65:J
P22:611	82.19	6336	Pottery vessel. Early to Middle Susiana transitional	Fig. 50:B
P22:611	80.81	6861	Open pottery vessel. Early Susiana	Fig. 61:D
P22:611	80.57	VI-102	Pottery vessel. Early Susiana	Fig. 63:J, pl. 20:B
P22:611 West	81.14	6867	Plain pottery vessel. Early Susiana	Fig. 64:I
P22:612 South	79.25	N/A	Matte-painted pottery vessel. Archaic Susiana 3	Fig. 71:B
P22:614	80.30	VI-40	Plain pottery vessel. Early Susiana	Fig. 65:P
P22:615	81.14	6074	Pottery vessel. Middle Susiana	Fig. 48:C
P22:620	81.00	6139	Pottery vessel. Archaic Susiana 3	Fig. 69:G
P22:620	81.43	6765	Bitumen fragments with basket impression. Early Susiana	Pls. 29:D–E, 30:C
P22:622	80.94	VII-51	Hafted flint hoe with bitumen and rope impressions. Early Susiana	Pl. 30:A
P22:623	80.50	VI-16	Stone hoe. Early Susiana	Fig. 87:C
P22:624	81.62	6141	Pottery vessel. Early Middle Susiana	Fig. 39:C
P22:624	80.85	6300	Lid(?) fragment. Early Middle Susiana	Fig. 82:A
P22:625	81.75	6223	Plain pottery vessel. Early Susiana	Fig. 65:R
P22:625	82.09	VI-14	Bone object. Middle Susiana	Fig. 85:A
P22:626	81.96	6850	Closed pottery vessel. Late Middle Susiana	Fig. 45:F
P22:626 Southwest	80.85	VI-79	Stone hoe. Early Susiana	Fig. 87:L
P23:601	81.80	6018	Open pottery vessel. Early Susiana	Fig. 56:C
P23:601	B.S.	6395	Closed pottery vessel. Late Middle Susiana	Fig. 44:G
P23:601	B.S.	VI-2	Baked-clay figurine of bull or ram. Middle Susiana	Fig. 80:B, pl. 27:E
P23:602	81.70	VI-43	Closed pottery vessel. Early Middle Susiana	Fig. 44:P, pl. 20:G
P23:603	82.22	6144	Open pottery vessel. Early Susiana	Fig. 57:H
P23:603	N/A	6301	Tortoise pottery vessel. Middle Susiana	Fig. 52:J
P23:604	B.S.	6009	Pottery vessel. Archaic Susiana 3	Fig. 69:I
P23:604	B.S.	6012	Pottery vessel. “Sauce boat” vessel fragment. Early Middle Susiana	Fig. 50:E
P23:604	B.S.	6364	Pottery vessel. Late Middle Susiana	Fig. 43:I
P23:606	82.05	6046	Plain pottery vessel. Late Middle Susiana	Fig. 53:J
P23:606	82.05	6197	Open bowl. Late Iron Age/Achaemenid	Fig. 24:K
P23:606	81.32	6202	Pottery vessel. Ladle fragment. Early Middle Susiana	Fig. 50:D
P23:606	81.12	6221	Pottery vessel. Late Middle Susiana	Fig. 42:L
P23:606	82.05	6859	Plain pottery vessel. Late Middle Susiana	Fig. 53:V
P23:607	82.65	6223	Pottery vessel. Early/Late Middle Susiana transitional	Fig. 43:D

Locus	*Elevation*	*Reg. No.*	*Description*	*Illustration*
P23:607	83.05	6224	Closed pottery vessel. Early Middle Susiana	Fig. 44:E
P23:704	75.44	7140	Pottery vessel. Probably Archaic/Early Susiana transitional	Fig. 63:B
P27:501	1.27 B.S.	5525	Pottery vessel. Late Middle Susiana	Fig. 42:O
P27:502	79.14	5510	Stone vessel. Middle Susiana	Fig. 86:R
Q16:1001	83.15	X-4	Pottery vessel. Protoliterate	Fig. 31:H
Q16:1007	83.64	X-2	Pottery vessel. Protoliterate	Fig. 32:F
Q16:1103	83.49	11206	Pottery vessel. Protoliterate	Fig. 26:J
Q17:801	83.57	8160	Pottery vessel. Late Iron Age/Achaemenid	Fig. 23:F
Q17:801	83.31	8430	Pottery vessel. Late Iron Age/Achaemenid	Fig. 23:N
Q17:801	83.57	8431	Open bowl. Late Iron Age/Achaemenid	Fig. 24:C
Q17:801	83.57	8435	Pottery vessel. Late Iron Age/Achaemenid	Fig. 22:N
Q17:801	83.57	8522	Pottery vessel. Protoliterate or possibly Achaemenid	Fig. 27:C
Q17:801	83.31	8533	Open bowl. Late Iron Age/Achaemenid	Fig. 20:I
Q17:801	83.28	8639	Open bowl. Late Iron Age/Achaemenid	Fig. 24:I
Q17:801	83.31	8642	Pottery vessel. Late Iron Age/Achaemenid	Fig. 23:G
Q17:801	83.57	8644	Pottery vessel. Protoliterate	Fig. 27:B
Q17:801	83.87	8665a	Pottery vessel. Protoliterate	Fig. 33:C
Q17:801	83.30	8709	Open bowl. Late Iron Age/Achaemenid	Fig. 24:G
Q17:803	83.41	8176	Pottery vessel. Protoliterate	Fig. 29:C
Q17:803	83.40	8396	Pottery vessel. Protoliterate	Fig. 33:B
Q17:803	83.37	8643	Pottery vessel. Protoliterate	Fig. 31:A
Q17:803	83.78	8662	Pottery vessel. Protoliterate	Fig. 26:I
Q17:804	82.78	8395	Pottery vessel. Protoliterate	Fig. 33:J
Q17:804	82.73	8645	Pottery vessel. Protoliterate	Fig. 27:A
Q17:804 South	82.85	VIII-55	Copper pin/nail. Protoliterate	Fig. 84:G
Q17:806	82.84	8156	Open bowl. Late Iron Age/Achaemenid	Fig. 24:M
Q17:806	83.57	8610	Pottery vessel. Protoliterate	Fig. 31:I
Q17:806	83.57	8663	Pottery vessel. Protoliterate	Fig. 32:H
Q17:806	81.15	9873	Bulla with cylinder-seal impression of workshop. Protoliterate	Pl. 24:D
Q17:806	83.30	11245	Jar sealing fragment with cylinder-seal impression of workshop. Protoliterate	Pl. 24:B
Q17:806	83.28	81189	Conical clay token. Protoliterate	Pl. 24:E
Q17:808	83.32	8390	Pottery vessel. Late Iron Age/Achaemenid	Fig. 23:S
Q17:811	82.69	8048	Pottery vessel. Late Iron Age/Achaemenid	Fig. 22:G
Q17:811	82.69	8056	Pottery vessel. Late Susiana 2	Fig. 35:C
Q17:811	82.69	8058	Open bowl. Late Iron Age/Achaemenid	Fig. 20:D
Q17:811	86.69	8337	Pottery vessel. Late Iron Age/Achaemenid	Fig. 22:F
Q17:812	82.65	8049	Pottery vessel. Late Iron Age/Achaemenid	Fig. 23:J
Q17:813	82.51	8661	Pottery vessel. Protoliterate	Fig. 30:G
Q17:816	82.55	8567	Pottery vessel. Protoliterate	Fig. 28:E
Q17:816	82.55	8611	Pottery vessel. Protoliterate	Fig. 31:J
Q17:816	82.59	VIII-72	Alabaster miniature jar(?). Protoliterate	Fig. 87:G
Q17:903	83.75	9111	Open bowl. Late Iron Age/Achaemenid	Fig. 20:B
Q17:903	83.38	IX-28	Pottery vessel. Protoliterate	Fig. 26:D
Q17:903 East	83.63	IX-9	Pottery vessel. Protoliterate	Fig. 31:B
Q17:903 West	83.64	9021	Baked-clay spool. Protoliterate	Fig. 82:C
Q17:905 West	82.96	9013	Pottery vessel. Protoliterate	Fig. 26:F
Q17:907	83.60	9031	Pottery vessel. Late Iron Age/Achaemenid	Fig. 23:K
Q17:907 Northeast	83.60	9217	Baked-clay object. Protoliterate	Fig. 82:F
Q17:1001	82.65	X-1	Libation(?) vessel. Protoliterate	Fig. 34, pl. 29:A
Q17:1001	82.69	X-10	Pottery vessel. Protoliterate	Fig. 27:H
Q17:1001	82.69	X-25	Pottery vessel. Protoliterate	Fig. 27:G
Q17:1001	82.69	X-5	Pottery vessel. Protoliterate	Fig. 27:F
Q17:1002 North	83.58	X-6	Baked-clay sinker/loom weight. Protoliterate	Fig. 82:E
Q17:1106	82.70	N/A	Pottery vessel. Protoliterate	Fig. 33:F
Q18:205	Surface	2485	Pottery vessel. Late Iron Age/Achaemenid	Fig. 23:Q
Q18:305	B.S.	2587	Open bowl. Late Iron Age (Neo-Elamite)/Achaemenid	Fig. 21:C
Q18:305	1.0 B.S.	2623	Open bowl. Late Iron Age (Neo-Elamite)/Achaemenid	Fig. 21:I

Locus	*Elevation*	*Reg. No.*	*Description*	*Illustration*
Q18:305	0.35 B.S.	3644	Open bowl. Late Iron Age/Achaemenid	Fig. 24:J
Q18:305	82.00	3885	Pottery vessel. Late Iron Age/Achaemenid	Fig. 22:O
Q18:305	1.0 B.S.	3934	Pottery vessel. Late Iron Age/Achaemenid	Fig. 23:H
Q18:305	N/A	3935	Open bowl. Late Iron Age (Neo-Elamite)/Achaemenid	Fig. 21:F
Q18:305	1.80 B.S.	3937	Open bowl. Late Iron Age (Neo-Elamite)/Achaemenid	Fig. 21:H
Q18:314	Sifting	III-831	Seal impression on bale (flat) sealing. Protoliterate	Fig. 76:I
Q18:1106	81.50	11198	Pottery vessel. Protoliterate	Fig. 33:L
Q19:301	0.20 B.S.	3822	Pottery "stand." Late Middle Susiana	Fig. 51:C
Q19:901	N/A	9009	Pottery vessel. Late Middle Susiana	Fig. 41:J
Q21:101	Fireplace	1206	Pottery vessel. Old Elamite (Sukkalmah)	Fig. 25:A
Q21:101	Fireplace	1213	Pottery vessel. Old Elamite (Sukkalmah)	Fig. 25:O
Q21:102	0.90 B.S.	1207	Pottery vessel. Old Elamite (Sukkalmah)	Fig. 25:M
Q21:102	Surface	1212	Pottery vessel. Old Elamite (Sukkalmah)	Fig. 25:B
Q22:601	80.89	6026	Decorated pottery lid. Early Susiana	Fig. 62:E
Q22:602	79.57	6447	Pottery vessel. Archaic Susiana 2	Fig. 72:J
Q22:602	80.47	N/A	Plain pottery vessel. Early Susiana	Fig. 65:K
Q22:602	78.80	N/A	Stone ball with incised mark. Early Susiana	Pl. 25:F
Q22:602	80.45	VI-23	Plain pottery vessel. Early Susiana	Fig. 65:L
Q22:602	79.50	VI-25	Plain pottery vessel. Archaic Susiana 3	Fig. 75:D
Q22:602	8047	VI-26	Stone pestle. Early Susiana	Pl. 30:I
Q22:602	80.47	VI-27	Stone mill made of medium- to large-grained sandstone. Early Susiana	Pl. 30:D–E
Q22:602	80.47	VI-29	Open pottery vessel. Early Susiana	Fig. 61:A
Q22:602	80.47	VI-30	Open pottery vessel. Early Susiana	Fig. 61:C
Q22:602 North	80.41	VI-15	Stone pestle. Early Susiana	Pl. 30:N
Q22:603	81.42	6190	Decorated pottery lid. Early Susiana	Fig. 62:B
Q22:605	80.11	VI-84	Stone celt. Early Susiana	Fig. 87:M
Q22:606 North	80.35	VI-83	Stone celt. Early Susiana	Fig. 87:N
Q22:608	79.57	6164	Painted-burnished pottery vessel. Archaic Susiana 1	Fig. 73:A, pl. 20:F
Q22:614	80.77	VI-80	Stone hoe. Early Susiana	Fig. 87:O
Q22:701	N/A	VII-53	Stone hoe. Early Susiana	Fig. 87:J, pl. 30:F
Q22:702	79.23	VII-34	Mother-of-pearl disc. Early Susiana	Fig. 81:S
Q22:702	79.11	VII-50	Stone hoe with bitumen stain on handle. Early Susiana	Pl. 30:H
Q22:702	79.11	VII-52	Hafted flint hoe with bitumen and rope impressions. Early Susiana	Pl. 30:B
Q22:703	79.28	VII-37	Clay token. Early Susiana(?)	Fig. 77:S
Q22:704	79.34	VII-11	Stone token. Early Susiana	Fig. 77:E
Q22:708	79.40	VII-25	Plain pottery vessel. Archaic Susiana 3	Fig. 75:G
Q22:804 North	77.48	8667	Pottery vessel. Archaic Susiana 3	Fig. 72:A
Q22:804 South	78.56	VIII-16	Stone vessel. Early Susiana	Fig. 86:E
Q23:504	79.27	V-100	Baked-clay figurine. Early Susiana	Fig. 78:B
Q23:601	81.40	6187	Tortoise pottery vessel. Early Middle Susiana	Fig. 52:G
Q23:702	79.08	7261	Open pottery vessel. Early Susiana	Fig. 56:B
Q23:703	79.40	7075	Open pottery vessel. Early Susiana	Fig. 60:C
Q23:709	79.99	VII-35	Bone object. Early Susiana	Fig. 85:D
Q23:712	78.29	7253	Pottery vessel. Archaic Susiana 3	Fig. 68:A
Q23:713	77.59	7216	Open pottery vessel. Probably transitional Archaic/Early Susiana	Fig. 60:F
Q23:713	76.98	VII-90	Baked-clay token(?). Early Susiana	Fig. 77:K, pl. 25:G
Q23:801	78.47	VIII-6	Whitish stone. Early Susiana	Fig. 87:F
Q23:802	78.30	8155	Plain pottery vessel. Archaic Susiana 3	Fig. 74:D
Q23:802	78.30	8660	Plain pottery vessel. Archaic Susiana 3	Fig. 75:P
Q23:802	78.30	VIII-18	Stone vessel. Early Susiana	Fig. 86:K
Q23:802	78.30	VIII-19	Stone vessel. Early Susiana	Fig. 86:L
Q23:802	78.29	VIII-5	Dark gray stone. Early Susiana	Fig. 87:E
Q23:803	78.72	VIII-39	Spindle whorl. Early Susiana	Fig. 83:F
Q23:804	78.60	8070	Matte-painted pottery vessel. Archaic Susiana 3	Fig. 70:G
Q23:804	78.50	N/A	Matte-painted pottery vessel. Archaic Susiana 3	Fig. 71:C
Q23:805	78.80	8265	Plain pottery vessel. Early Susiana	Fig. 65:Q
Q23:810	77.90	8092	Close-line open bowl. Archaic Susiana 3	Fig. 66:C

Locus	*Elevation*	*Reg. No.*	*Description*	*Illustration*
Q23:810	77.69	81013	Close-line open bowl. Archaic Susiana 3	Fig. 66:J
Q23:810	78.25	VI-28/A34802	Matte-painted pottery vessel. Archaic Susiana 3	Fig. 70:F, pl. 20:E
Q23:815	77.31	8110	Close-line open bowl. Archaic Susiana 3	Fig. 66:D
Q23:820	79.31	8665	Ball of bitumen stone. Early Susiana	Fig. 87:I
Q23:820	79.28	VIII-68	T-shaped figurine. Archaic Susiana 1–2	Pl. 27:C
Q23:821	78.42	VIII-42	White stone "plug" with two heads. Early Susiana	Fig. 81:A
Q23:821	78.59	VIII-61	Stone token. Early Susiana	Fig. 77:H
Q23:821	79.19	VIII-67	Black-and-white stone "plug." Early Susiana	Fig. 81:D
Q23:827 East	78.82	8399	Plain pottery vessel. Early Susiana	Fig. 64:C
Q24:801	79.00	8116	Pottery "stand." Late Middle Susiana	Fig. 51:D
Q24:801	76.26	8259	Pottery vessel. Late Iron Age/Achaemenid	Fig. 22:K
Q24:801	79.00	8651	Pottery vessel. Early/Middle Susiana transitional	Fig. 43:G
Q24:801 East	77.30	8873	Plain pottery vessel. Early Susiana	Fig. 65:O
Q24:801 West	77.22	8248	Open pottery vessel. Probably intermediate between Archaic/Early Susiana	Fig. 56:H
Q24:801 West	77.22	8289	Pottery vessel. Archaic Susiana 3	Fig. 69:F
Q24:802	77.40	8249	Plain pottery vessel. Archaic Susiana 3	Fig. 75:K
Q24:802 East	78.07	8027	Open pottery vessel. Early Susiana	Fig. 57:F
Q24:803	78.61	8170	Open bowl. Late Iron Age/Achaemenid	Fig. 20:C
Q24:803	78.61	8170	Open bowl. Late Iron Age/Achaemenid	Fig. 24:F
Q25:801	76.62	8775	Close-line open bowl. Archaic Susiana 3	Fig. 66:E
Q25:802	75.70	8833	Plain pottery vessel. Early Middle Susiana	Fig. 53:L
Q25:802	77.00	8956	Closed pottery vessel. Middle Susiana	Fig. 44:N
Q25:802	77.00	8957	Plain pottery vessel. Late Middle Susiana	Fig. 54:D
Q25:802 West	77.10	8251	Tortoise pottery vessel. Middle Susiana	Fig. 52:F
Q9:1010	B.S.	X-11	Pottery vessel. Old Elamite (Sukkalmah)	Fig. 25:Q
R16:1105	83.50	XI-10	Pottery vessel. Protoliterate	Fig. 29:B
R16:801	82.80	10092	Jar sealing fragment. Protoliterate	Pl. 23:A
R16:801	82.75	81185	Jar sealing fragment. Protoliterate	Pl. 23:D
R16:801	82.80	81186	Jar sealing fragment. Protoliterate	Pl. 23:C
R16:801	82.75	N/A	Jar sealing fragment. Protoliterate	Pl. 23:E
R16:803	82.45	10093	Door sealing fragment with rope and peg impressions. Protoliterate	Pl. 23:G
R16:803	82.45	10916	Door sealing fragment. Protoliterate	Pl. 23:H
R16:807	82.69	VIII-83	Baked clay. Protoliterate	Fig. 80:A
R16:901	84.21	9898	Clay ball fragment with impression of birds (chicken?). Protoliterate	Fig. 76:M
R16:902	83.87	9193	Pottery vessel. Protoliterate	Fig. 32:I
R16:903	83.16	9203	Pottery vessel. Protoliterate	Fig. 26:G
R16:903	83.26	9495	Stone token or pendant. Protoliterate	Fig. 77:G
R16:905	83.13	9215	Pottery vessel. Protoliterate	Fig. 82:H
R16:906	83.87	9192	Pottery vessel. Protoliterate	Fig. 33:E
R16:907	83.13	9215	Pottery vessel. Protoliterate	Fig. 82:D
R16:909	84.21	9901	Jar sealing fragment with impression of procession. Protoliterate	Fig. 76:T
R16:910	83.59	9899	Flat sealing with impression of building facade(?). Protoliterate	Fig. 76:Q
R16:910	83.59	9900	Clay ball fragment with impression of superimposed animals. Protoliterate	Fig. 76:R
R16:910	83.46	9903	Clay ball fragment with impression of two rows of sacks of grain(?). Protoliterate	Fig. 76:K
R16:912	82.85	9015	Pottery vessel. Protoliterate	Fig. 26:E
R16:912	84.03	9024	Pottery vessel. Protoliterate	Fig. 28:A
R17:215	83.80	2579	Pottery vessel. Parthian	Fig. 19:F
R17:407	1.20 B.S.	VI-89	Discoidal socket/weight. Protoliterate	Pl. 25:K
R17:408	82.90	VI-47	Pottery vessel. Protoliterate	Fig. 26:A
R17:701	84.12	7211	Pottery vessel. Protoliterate	Fig. 82:J
R17:701	84.12	7212	Pottery vessel. Protoliterate	Fig. 82:I
R17:701	83.85	7390b	Fragment of bale sealing with much eroded impression. Protoliterate	Fig. 76:L
R17:704	83.25	VII-60	Baked-clay figurine. Protoliterate	Fig. 79:G
R17:704	82.90	VII-84	Stone vessel. Protoliterate	Fig. 86:G
R17:704	82.50	VIII-92	Left-handed sickle. Protoliterate	Fig. 82:M
R17:704 West	83.49	7389	Fragment of bale sealing with stamp seal impression. Protoliterate	Fig. 76:BB, pl. 23:B

Locus	*Elevation*	*Reg. No.*	*Description*	*Illustration*
R17:705	82.92	VII-66	Copper pin. Protoliterate	Fig. 84:F
R17:705	83.77	VII-67	White stone cylinder seal. Protoliterate	Fig. 76:D
R17:705	83.77	VII-69	Stone token or pendant. Protoliterate	Fig. 77:N
R17:710	82.96	7331	Pottery vessel. Late Iron Age/Achaemenid	Fig. 22:C
R17:710	82.89	VII-77	Clay token. Protoliterate	Fig. 77:M
R17:711	83.49	VII-68	Gray black stone pendant in shape of bird. Protoliterate	Fig. 81:I
R17:713	82.64	7390a	Jar sealing with much eroded impression. Protoliterate	Fig. 76:P
R17:714	82.65	7387	Clay ball with two different seal impressions of procession and herding. Protoliterate	Fig. 76:AA, pl. 24:F
R17:714	82.65	7388	Clay ball with impression of battle scene. Protoliterate	Fig. 76:DD
R17:714	82.64	VII-94	Left-handed sickle. Protoliterate	Fig. 82:N
R17:716	84.30	VII-75	Clay token. Protoliterate	Fig. 77:L
R17:719	83.76	7394	Pottery vessel. Protoliterate	Fig. 33:G
R17:803	83.28	8664	Bottle stopper/sealing with impression of cloth. Protoliterate	Fig. 76:X
R17:803	82.99	8881	Open bowl. Late Iron Age/Achaemenid	Fig. 20:O
R17:805	83.68	8432	Open bowl. Late Iron Age/Achaemenid	Fig. 20:N
R17:807	83.80	VIII-17	Stone vessel. Protoliterate	Fig. 86:S, pl. 29:B
R17:808	83.15	VIII-20	Stone vessel. Protoliterate	Fig. 86:Q
R17:808	83.68	VIII-82	Pottery vessel. Protoliterate	Fig. 82:K
R17:914	83.39	VII-88	Copper/bronze pin. Protoliterate	Fig. 84:H
R17:1101	83.44	XI-9	Pottery vessel. Protoliterate	Fig. 33:K
R17:1110	82.10	XI-13	Pottery vessel. Protoliterate	Fig. 29:A
R17:1115	83.00	N/A	Stone vessel. Protoliterate	Fig. 86:N
R18:304	0.50 B.S.	3913	Pottery vessel. Late Iron Age/Achaemenid	Fig. 23:T
R18:305	1.60 B.S.	3661	Open bowl. Late Iron Age (Neo-Elamite)/Achaemenid	Fig. 21:A
R18:305	0.75 B.S.	3901	Pottery vessel. Late Iron Age/Achaemenid	Fig. 23:C
R18:305	1.75 B.S.	III-804	Jar sealing with much eroded impression probably of animals. Protoliterate	Fig. 76:O
R18:307	B.S.	3974	Open bowl. Late Iron Age/Achaemenid	Fig. 24:L
R18:307	0.55 B.S.	4299	Pottery vessel. Protoliterate	Fig. 29:G
R18:414	N/A	VI-62	Pottery vessel. Protoliterate	Fig. 29:F
R18:901	81.33	9123	Plain pottery vessel. Late Middle Susiana	Fig. 53:O
R18:901	80.52	9176	Plain pottery vessel. Late Middle Susiana	Fig. 54:E
R18:901	81.10	9185a	Pottery vessel. Late Middle Susiana	Fig. 37:O
R18:901	80.52	IX	Pottery vessel. Late Middle Susiana	Fig. 38:H
R18:901	81.51	IX-115	Plain pottery vessel. Late Middle Susiana	Fig. 53:F
R18:901	81.51	IX-118	Plain pottery vessel. Late Middle Susiana	Fig. 54:G
R18:901	81.52	IX-32	Plain pottery vessel. Late Middle Susiana	Fig. 53:G
R18:901	80.52	IX-34	Plain pottery vessel. Early Middle Susiana	Fig. 53:M
R18:901	81.10	IX-41	Pottery vessel. Late Middle Susiana	Fig. 37:K
R18:901	80.46	IX-48	Plain pottery vessel. Early Middle Susiana	Fig. 53:K
R18:901	80.52	IX-52	Pottery vessel. Late Middle Susiana	Fig. 40:M
R18:902	81.22	9032	Pottery vessel. Protoliterate	Fig. 31:E
R18:902	81.22	9185b	Pottery vessel. Late Middle Susiana	Fig. 37:Q
R18:902	81.22	9205	Plain pottery vessel. Late Middle Susiana	Fig. 53:I
R18:902	81.22	9675	Pottery vessel. Late Middle Susiana	Fig. 37:M
R18:903	81.05	9090	Black stone stamp seal. Late Susiana(?)	Fig. 76:E
R18:903	81.38	9561	Baked-clay horn. Protoliterate context, but probably Middle or Late Susiana	Fig. 80:I
R18:904	81.78	9093	Baked clay. Middle Susiana	Fig. 80:E
R18:904	82.05	9902	Jar sealing fragment with impression of human, much eroded. Protoliterate	Fig. 76:Z
R18:905	81.55	9513	Plain pottery vessel. Late Middle Susiana	Fig. 54:J
R18:906	80.02	9146	Pottery vessel. Protoliterate	Fig. 32:E
R18:906	80.02	9501	Pottery vessel. Protoliterate	Fig. 32:L
R18:906	81.66	9502	Stone vessel. Protoliterate	Fig. 86:J
R18:906	81.46	IX-133	Pottery vessel. Protoliterate	Fig. 31:L
R18:906	81.22	IX-40	Pottery vessel. Late Middle Susiana	Fig. 40:B
R18:906	79.46	IX-75	Pottery vessel. Protoliterate	Fig. 31:D

Locus	*Elevation*	*Reg. No.*	*Description*	*Illustration*
R18:908	81.13	IX-105	Closed pottery vessel. Late Middle Susiana	Fig. 44:T
R18:908	81.13	9045	Bitumen hafted flint tool. Late Middle Susiana	Fig. 87:B
R18:908	81.13	9046	Bitumen hafted flint tool. Late Middle Susiana	Fig. 87:A
R18:908	80.34	9172	Closed pottery vessel. Late Middle Susiana	Fig. 46:A
R18:908	80.91	9187	Pottery vessel. Middle Susiana	Fig. 49:D
R18:908	80.88	9208	Pottery vessel. Middle Susiana	Fig. 36:L
R18:908	81.13	9295	Closed pottery vessel. Late Middle Susiana and Late Susiana 1	Fig. 44:R
R18:908	81.13	9297	Closed pottery vessel. Late Middle Susiana	Fig. 44:D
R18:908	80.91	9874	Door sealing fragment with much eroded seal impression. Protoliterate	Fig. 76:V
R18:908 South	81.13	9044	Spindle whorl. Late Middle Susiana	Fig. 83:C
R18:908 South	81.76	9150	Plain pottery vessel. Late Middle Susiana	Fig. 53:N
R18:909	80:07	9189	Pottery vessel. Protoliterate	Fig. 29:D
R18:909	80.98	IX-58	Pottery vessel. Protoliterate	Fig. 33:A
R18:910	80.34	9677	Closed pottery vessel. Early Middle Susiana	Fig. 46:C
R18:912	81.22	9036	Spindle whorl. Late Middle Susiana	Fig. 83:H
R18:913	80.23	9064	Clay token. Protoliterate	Fig. 77:P
R18:913	81.10	9173	Pottery vessel. Late Middle Susiana	Fig. 48:E
R18:914	81.88	9509	Closed pottery vessel. Late Middle Susiana	Fig. 46:I
R18:916	80.24	9098	Pottery vessel. Late Iron Age/Achaemenid	Fig. 22:D
R18:916	80.24	9133	Pottery vessel. Protoliterate	Fig. 30:D
R18:916	81.71	IX-103	Pottery vessel. Late Middle Susiana	Fig. 37:D
R18:919	82.76	9114	Bone object. Middle Susiana	Fig. 85:N
R18:920	81.97	9137	Copper pin. Protoliterate	Fig. 84:B
R18:921	81.13	9135	Spindle whorl. Late Middle Susiana	Fig. 83:A
R18:921	80.27	9166	Plain pottery vessel. Late Middle Susiana	Fig. 54:M
R18:921	81.13	9467	Turquoise bead. Protoliterate	Fig. 81:O
R18:921	81.13	9468	Yellowish white stone bead. Protoliterate	Fig. 81:L
R18:921	80.35	N/A	Pottery vessel. Late Middle Susiana	Pl. 19:G
R18:921	80.40	N/A	Pottery vessel. Late Middle Susiana	Pl. 19:L
R19:?	N/A	3801	Pottery vessel. Late Iron Age/Achaemenid	Fig. 22:Q
R19:301	N/A	N/A	Pottery vessel. Old Elamite (Sukkalmah)	Fig. 25:K
R19:401	1.0 B.S.	6130	Pottery vessel. Protoliterate	Fig. 26:C
R19:601	1.0 B.S.	6847	Pottery vessel. Protoliterate	Fig. 28:F
R19:903	79.52	9480	Stone vessel. Protoliterate	Fig. 86:T
R19:903	79.89	IX-132	Pottery vessel. Protoliterate	Fig. 30:B
R19:905	79.44	9151	Pottery vessel. Protoliterate	Fig. 31:C
R19:905	80.15	9154	Pottery vessel. Protoliterate	Fig. 26:K
R19:905	79.44	9543	Plain pottery vessel. Late Middle Susiana	Fig. 53:C
R19:905	80.19	IX-104	Pottery vessel. Protoliterate	Fig. 28:C
R19:905	80.15	IX-89	Pottery vessel. Protoliterate	Fig. 32:D
R19:910	80.34	9677	Pottery vessel. Early Middle Susiana	Pl. 21:D
R20:401	B.S.	4654	Open bowl. Late Iron Age/Achaemenid	Fig. 24:B
R20:510	77.64	5359	Pottery vessel. Late Iron Age/Achaemenid	Fig. 22:I
R20:510	78.68	5694	Pottery vessel. Protoliterate	Fig. 33:D
R20:515	79.15	6177	Pottery vessel. Lid fragment. Early Middle Susiana	Fig. 50:G
R20:601	78.48	6525	Pottery vessel. Late Middle Susiana	Fig. 43:K
R20:602	B.S.	6050	Pottery vessel. Late Middle Susiana	Fig. 42:A, pl. 19:F
R20:602	B.S.	6051	Pottery vessel. Late Middle Susiana	Fig. 42:Q, pl. 19:J
R21:301 South	B.S.	3083	Close-line open bowl. Archaic Susiana 3	Fig. 66:B
R22:401	74.15	4520	Painted-burnished pottery vessel. Archaic Susiana 1	Fig. 73:C
R22:401	74.13	41050	Painted-burnished pottery vessel. Archaic Susiana 1	Fig. 73:B
R22:401	2.2 B.S.	VI-92	Stone pestle. Early Susiana	Pl. 30:J
R23:502	0.65 B.S.	N/A	Stone vessel. Early Susiana	Fig. 86:B
R23:601	77.39	6298	Pottery vessel. Early/Late Middle Susiana transitional	Fig. 43:E
R23:602	76.92	VII-8	Black stone “plug.” Middle Susiana	Fig. 81:G, pl. 25:C
R23:701	76.77	7065	Pottery vessel. Early Middle Susiana	Fig. 38:K
R23:701	76.77	7066	Pottery vessel. Early Middle Susiana	Fig. 39:A

Locus	*Elevation*	*Reg. No.*	*Description*	*Illustration*
R23:701	77.66	7119	Pottery vessel. Early/Late Middle Susiana	Fig. 37:J
R23:701	77.59	7133	Pottery vessel. Early Middle Susiana	Fig. 42:I
R23:701	77.59	7152	Plain pottery vessel. Early Susiana	Fig. 65:C
R23:702	77.63	7067	Pottery vessel. Early to Middle Susiana transitional	Fig. 38:E
R23:702	77.63	7074	Pottery vessel. Middle Susiana	Fig. 36:H
R23:702	77.63	7084	Tortoise pottery vessel. Middle Susiana	Fig. 52:C
R23:702	77.78	7128	Closed pottery vessel. Early Middle Susiana	Fig. 44:H
R23:702	77.78	7130	Tortoise pottery vessel. Middle Susiana	Fig. 52:H
R23:702	77.82	VII-7	Baked-clay token or "thorn"-shaped figurine. Early Susiana(?)	Fig. 77:F, pl. 25:C
R23:703	77.36	7403	Closed pottery vessel. Late Middle Susiana	Fig. 44:M
R23:704	75.47	7004	Pottery vessel. Early Middle Susiana	Fig. 36:K
R23:705	76.00	7069	Open pottery vessel. Early Susiana	Fig. 60:E
R23:706	76.64	VII-59	Unbaked clay chessman figurine. Archaic Susiana 2	Fig. 79:M
R23:710	77.95	7105	Close-line open bowl. Archaic Susiana 3	Fig. 66:I
R23:710	77.82	7251	Close-line open bowl. Archaic Susiana 3	Fig. 66:A
R23:710 West	78.18	7068	Stone vessel. Early Susiana	Fig. 86:D
R23:710 West	78.18	7185	Baked clay animal figurine. Early Susiana	Fig. 80:K
R23:710 West	78.18	N/A	Stone vessel. Early Susiana	Fig. 86:C
R27:702	77.63	7070	Tortoise pottery vessel. Early Middle Susiana	Fig. 52:A
R27:704	74.90	7161	Plain pottery vessel. Early Susiana	Fig. 65:U
Round Building	N/A	2676	Pottery vessel. Late Iron Age/Achaemenid	Fig. 22:L
Round Building	N/A	5501	Pottery vessel. Late Iron Age/Achaemenid	Fig. 22:M
S17:404	82.28	41030	Horned conical clay token. Protoliterate	Pl. 24:C
S17:405	N/A	VI-51	Pottery vessel. Protoliterate	Fig. 28:B
S17:901	81.20	9629	Pottery vessel. Late Susiana 2	Fig. 35:B
S17:901	81.20	9630	Pottery vessel. Late Susiana 2	Fig. 35:D
S17:901	81.20	9631	Pottery vessel. Late Susiana 2	Fig. 35:A, pl. 19:B
S18:403	B.S.	9001	Pottery vessel. Late Iron Age/Achaemenid	Fig. 22:E
S18:901	83.87	9194	Barrel-shaped baked-clay bead. Protoliterate	Fig. 81:P
S18:902	81.14	9904	Sealing with four impressions of decorated cylindrical object (cylinder seal?). Protoliterate	Fig. 76:CC, pl. 22:J
S18:902	81.14	9905	Sealing(?) with four impressions. Protoliterate	Fig. 76:FF, pl. 22:K
S18:902	80.40	IX-127	Plain pottery vessel. Early Middle Susiana	Fig. 54:A
S18:902	80.97	IX-31	Plain pottery vessel. Late Middle Susiana	Fig. 54:K
S18:904	81.12	IX-30	Plain pottery vessel. Late Middle Susiana	Fig. 53:U
S18:904 West	81.12	IX-131	Closed pottery vessel. Late Middle Susiana	Fig. 47:D
S18:905 West	81.07	9909	Closed pottery vessel. Late Middle Susiana	Fig. 47:C
S18:905 West	81.07	IX-113	Closed pottery vessel. Late Middle Susiana	Fig. 46:E
S18:905 West	81.07	IX-114	Closed pottery vessel. Late Middle Susiana	Fig. 47:vB
S18:905 West	81.07	IX-115	Closed pottery vessel. Late Middle Susiana	Fig. 46:F
S18:905 West	81.86	IX-126	Closed pottery vessel. Late Middle Susiana	Fig. 47:A
S18:906	81.50	IX-128	Plain pottery vessel. Middle Susiana	Fig. 54:I
S18:907	80.59	9420	Pottery vessel. Late Middle Susiana	Fig. 40:N
S18:907	81.45	IX-56	Plain pottery vessel. Late Middle Susiana	Fig. 53:B
S18:915	82.00	9153	Pottery vessel. Middle Susiana	Fig. 36:A
S18:915	81.69	9178	Plain pottery vessel. Late Middle Susiana	Fig. 54:C
S18:915	82.00	9547	Pottery vessel. Middle Susiana	Fig. 36:I
S18:916	81.71	9026	Stone vessel. Middle Susiana	Fig. 86:M
S18:916	81.60	9152	Pottery vessel. Middle Susiana	Fig. 36:E
S18:916	80.10	9171	Closed pottery vessel. Late Middle Susiana	Fig. 46:B
S18:916	81.86	9464	Turquoise bead. Protoliterate	Fig. 81:N
S18:916	81.71	9534	Pottery vessel. Late Middle Susiana	Fig. 40:K
S18:916	81.71	9624	Pottery vessel. Late Middle Susiana	Fig. 37:G
S18:918	81.12	9051	Stone vessel. Protoliterate	Fig. 86:P
S18:918	81.12	9110	Clay token. Protoliterate	Fig. 77:Q
S18:918	81.12	9167	Pottery vessel. Late Middle Susiana	Fig. 49:F
S18:918	81.10	9206	Pottery vessel. Late Middle Susiana	Fig. 42:M

Locus	*Elevation*	*Reg. No.*	*Description*	*Illustration*
S18:918	80.09	9517	Closed pottery vessel. Middle Susiana	Fig. 44:A
S18:918	80.09	9518	Closed pottery vessel. Middle Susiana	Fig. 44:B
S18:918	80.09	9520	Pottery vessel. Middle Susiana	Fig. 36:B
S18:918	81.65	9542	Pottery vessel. Middle Susiana	Fig. 36:D
S18:918 South	81.58	9551	Closed pottery vessel. Middle Susiana	Fig. 44:I
S18:919	80.05	9580	Pottery vessel. Lid. Early to Middle Susiana transitional	Fig. 50:A
S20:601	79.24	6002	Pottery vessel. Late Middle Susiana	Fig. 41:H
S20:601	0.20 B.S.	6004	Closed pottery vessel. Late Middle Susiana	Fig. 44:S
S20:601	0.20 B.S.	6005	Pottery vessel. Late Middle Susiana	Fig. 37:A
S20:601	78.56	6013	Pottery vessel. Late Middle Susiana	Fig. 37:B
S20:601	0.40 B.S.	6036	Pottery vessel. Late Middle Susiana	Pl. 19:H
S20:601	78.33	6040	Pottery vessel. Late Middle Susiana	Fig. 42:C, pl. 19:E
S20:601	76.63	6084	Pottery vessel. Late Middle Susiana	Fig. 38:C
S20:601	78.47	6131	Pottery vessel. Early Middle Susiana	Fig. 38:D
S20:601	74.38	6370	Pottery vessel. Archaic Susiana 2	Fig. 72:C
S20:601	73.63	6372	Pottery vessel. Archaic Susiana 2	Fig. 72:G
S20:601	74.38	6432	Close-line open bowl. Archaic Susiana 3	Fig. 66:G
S20:601	78.06	6744	Pottery vessel. Early Middle Susiana(?)	Fig. 49:C
S20:601	0.40 B.S.	6836	Door sealing with stamp seal impressions. Late Susiana(?)	Fig. 76:Y
S20:601	78.33	6848	Closed pottery vessel. Late Middle Susiana	Fig. 44:Q
S20:601	0.40 B.S.	6856	Pottery vessel. Early Middle Susiana	Fig. 42:K
S20:601	0.20 B.S.	VI-1	Baked-clay bull figurine/pendant. Middle Susiana	Fig. 80:G
S20:605	78.66	6003	Pottery vessel. Late Middle Susiana	Fig. 41:G
S20:605	79.05	6015	Plain pottery vessel. Late Middle Susiana	Fig. 54:B
S20:605	79.05	6224	Plain pottery vessel. Late Middle Susiana	Fig. 54:N
S20:605	79.20	6490	Pottery vessel. Late Middle Susiana	Fig. 43:A
S20:605	79.05	6851	Closed pottery vessel. Late Middle Susiana	Fig. 45:K
S20:606	N/A	6498	Pottery vessel. Late Middle Susiana	Fig. 48:B
S20:607	78.74	6466	Decorated pottery lid. Early Susiana	Fig. 62:A
S20:607	78.74	6469	Open pottery vessel. Early Susiana	Fig. 57:E
S20:607	78.74	6866	Plain pottery vessel. Early Susiana	Fig. 64:F
S20:608 East	78.73	N/A	Bale sealing fragment with impression of tops of “staff.” Protoliterate	Fig. 76:W
S20:609	78.67	6093	Pottery vessel. Late Middle Susiana	Fig. 42:V
S20:609	78.90	6094	Pottery vessel. Late Middle Susiana	Fig. 42:U
S20:609	77.89	6451	Pottery vessel. Late Middle Susiana	Fig. 40:H
S20:609	77.05	6532	Pottery vessel. Early Middle Susiana	Fig. 38:N
S20:609	78.07	6839	Closed pottery vessel. Middle Susiana	Fig. 44:L
S20:609	77.05	VI-13	Bone object. Early Susiana	Fig. 85:B, pl. 25:B
S20:609 West	78.07	6853	Pottery vessel. Early to Middle Susiana transitional	Fig. 50:C
S20:609 West	78.07	6409a	Tortoise pottery vessel. Middle Susiana	Fig. 52:B
S20:609 West	78.07	6409a	Tortoise pottery vessel. Middle Susiana	Fig. 52:I
S20:615	78.13	6441	Pottery vessel. Early to Middle Susiana transitional	FFig. 38:
S20:618	75.20	6522	Pottery vessel. Form and decoration Early Susiana/Middle Susiana transitional	Fig. 37:F
S20:619	75.20	6058	Close-line open bowl. Archaic Susiana 3	Fig. 66:M
S20:620	78.20	6068	Pottery vessel. Archaic Susiana 3	Fig. 69:C
S20:620	78.20	6113	Pottery vessel. Late Middle Susiana	Fig. 38:M
S20:620	78.20	6114	Plain pottery vessel. Late Middle Susiana	Fig. 53:S
S20:620	77.92	6116	Closed pottery vessel. Late Middle Susiana	Fig. 45:H
S20:620	78.20	6858	Plain pottery vessel. Late Middle Susiana	Fig. 53:A
S20:620	77.86	VI-41	Pottery vessel. Late Middle Susiana	Fig. 41:E, pl. 19:K
S20:620	77.40	VI-42	Pottery vessel. Late Middle Susiana	Fig. 42:T
S20:621	77.85	6147	Pottery vessel. Late Middle Susiana	Fig. 41:F
S20:621	77.85	6148	Pottery vessel. Late Middle Susiana	Fig. 40:D
S20:621	78.40	6151	Pottery vessel. Late Middle Susiana	Fig. 41:K
S20:621	78.85	6857	Pottery vessel. Late Middle Susiana	Fig. 41:I
S20:621	78.70	6871	Plain pottery vessel. Early Susiana	Fig. 65:S
S22:505	N/A	N/A	Closed pottery vessel. Late Middle Susiana	Fig. 45:A

Locus	*Elevation*	*Reg. No.*	*Description*	*Illustration*
S22:601	73.60	6232	Pottery vessel. Archaic Susiana 2	Fig. 72:I
S22:601	73.21	6239	Plain pottery vessel. Archaic Susiana 3	Fig. 75:Q
S22:601	73.63	6240	Plain pottery vessel. Archaic Susiana 3	Fig. 75:V
S22:601	73.63	6426	Matte-painted pottery vessel. Archaic Susiana 3	Fig. 70:C
S22:601	73.63	6427	Pottery vessel. Archaic Susiana 2	Fig. 72:D
S22:601	73.46	6433	Pottery vessel. Archaic Susiana 2	Fig. 72:E
S22:601	73.63	6435	Pottery vessel. Archaic Susiana 2	Fig. 72:F
S22:601	73.46	6439	Plain pottery vessel. Archaic Susiana 3	Fig. 75:U
S22:601	73.67	6841	Pottery vessel. Archaic Susiana 2	Fig. 72:H
S22:601	73.67	N/A	Pottery vessel. Archaic Susiana 1	Fig. 68:C
S22:601	75.67	N/A	Pottery vessel. Archaic Susiana 2	Fig. 72:K
S22:601	74.38	VI-100	Clay tablet with impressed patterns of stippled triangles and bands. Probably Archaic Susiana	Fig. 76:EE, pl. 25:A
S22:601	74.93	VI-3	Baked-clay waist and lower body of female figurine. Early Susiana	Fig. 78:F, pl. 28:J
S22:609	78.07(?)	6542	Plain pottery vessel. Archaic Susiana	Fig. 74:B
S22:622	78.34	6092	Open pottery vessel. Early/Middle Susiana	Fig. 55:F
S22:701	76.68	VII-32	Mother-of-pearl pendant. Early Susiana	Fig. 81:Q
S22:701	76.43	VII-97	Pottery vessel. Protoliterate	Fig. 30:A
S22:701	76.43	VII-97	Pottery vessel. Protoliterate	Fig. 31:N
S22:702	Surface	7400	Pottery vessel. Late Middle Susiana	Fig. 43:B
S22:703	75.25	7079	Pottery vessel. Archaic Susiana 3	Fig. 69:E
S22:703	75.25	7091	Plain pottery vessel. Archaic Susiana 3	Fig. 75:T
S22:703	74.86	7178	Plain pottery vessel. Archaic Susiana 3	Fig. 75:E
S22:714	75.76	VII-58	Baked-clay token or figurine. Archaic Susiana	Fig. 77:I
S22:803	75.91	8001	Open pottery vessel. Early Susiana	Fig. 60:A
S22:803	76.15	8007	Open pottery vessel. Early Susiana	Fig. 58:H
S22:803	76.16	8009	Pottery vessel. Late Middle Susiana	Fig. 40:G
S22:803	70.41	8051	Pottery vessel. Protoliterate	Fig. 30:C
S22:803	76.16	8568	Pottery vessel. Protoliterate	Fig. 29:H
S22:803	77.01	8572	Pottery vessel. Protoliterate	Fig. 31:F
S22:805	76.88	8725	Pottery vessel. Early Middle Susiana	Fig. 39:D
S22:806	77.70	8086	Pottery vessel. Late Middle Susiana	Fig. 49:B
S22:806	76.93	8789	Pottery vessel. Late Middle Susiana	Fig. 41:C
S22:806 East	76.65	8181	Pottery vessel. Late Middle Susiana	Fig. 40:C
S22:806 North	76.93	81012	Plain pottery vessel. Late Middle Susiana	Fig. 53:D
S22:808	75.91	8030	Open pottery vessel. Early Susiana	Fig. 55:H
S22:808	75.67	8062	Open pottery vessel. Early Susiana	Fig. 55:A
S22:808	75.67	8063	Open pottery vessel. Early Susiana	Fig. 56:F
S22:808	75.67	8064	Open pottery vessel. Early Susiana	Fig. 57:A
S22:808	75.55	8184	Open pottery vessel. Early Susiana	Fig. 55:E
S22:808	75.55	8227	Close-line open bowl. Archaic Susiana 3	Fig. 66:K
S22:808	75.91	8230	Open pottery vessel. Early Susiana	Fig. 56:D
S22:808	75.94	8239	Open pottery vessel. Early Susiana	Fig. 57:I
S22:808	75.46	8734	Pottery vessel. Archaic/Early Susiana transitional	Fig. 63:F
S22:808	75.46	8738	Open pottery vessel. Early Susiana	Fig. 60:B
S22:808	75.46	8802	Pottery vessel. Archaic/Early Susiana transitional	Fig. 63:E
S22:808	75.60	8870	Open pottery vessel. Early Susiana	Fig. 56:G
S22:808	75.77	VIII-1	Baked-clay figurine of seated female. Early Susiana	Fig. 79:B, pl. 27:F
S22:808 North	74.99	8695	Torso of a baked-clay female figurine. Early Susiana	Fig. 78:E, pl. 28:A
S22:809	77.21	IX-53	Stone vessel. Late Middle Susiana	Fig. 86:U
S22:809	76.77	VIII-21	Stone vessel. Middle Susiana	Fig. 86:O
S22:812	76.65	8002	Closed pottery vessel. Late Middle Susiana	Fig. 44:K
S22:813	76.30	IX-26	Sandstone mill. Early Susiana	Fig. 87:H
S22:813	76.29	VIII-49	Bone object. Middle Susiana	Fig. 85:F
S22:816	77.19	9141	Stone vessel. Late Middle Susiana	Fig. 86:V
S22:819	76.71	8589	Spindle whorl. Early Middle Susiana	Fig. 83:D
S22:819	76.33	8677	Pottery vessel. Early Middle Susiana	Fig. 37:E

Locus	*Elevation*	*Reg. No.*	*Description*	*Illustration*
S22:819	B.S.	8923	Spindle whorl. Late Middle Susiana	Fig. 83:B
S22:819	76.06	VIII-50	Bone object. Early Susiana	Fig. 85:I
S22:819 North	76.06	VIII-56	Copper pin. Old Elamite(?)	Fig. 84:C
S22:821	76.35	8862	Open pottery vessel. Early Susiana	Fig. 61:J
S22:822	76.18	8114	Open pottery vessel. Archaic/Early Susiana transitional	Fig. 58:A
S22:822	76.18	VIII-54	White stone with dark veins. Early Susiana	Fig. 81:C
S22:823	75.98	8104	Open pottery vessel. Early Susiana	Fig. 58:E
S22:823	75.84	8117	Open pottery vessel. Archaic/Early Susiana transitional	Fig. 58:C
S22:823	75.84	8183	Plain pottery vessel. Early Susiana	Fig. 65:I
S22:823	75.43	8252	Open pottery vessel. Early Susiana	Fig. 61:I
S22:823	75.94	8254	Open pottery vessel. Early Susiana	Fig. 59:C
S22:823	75.51	8255	Open pottery vessel. Early Susiana	Fig. 58:G
S22:823	75.90	8260	Open pottery vessel. Early Susiana	Fig. 56:A
S22:823	74.84	8283	Open pottery vessel. Early Susiana	Fig. 61:L
S22:823	74.98	8287	Open pottery vessel. Early Susiana	Fig. 56:I
S22:823	74.98	8308	Open pottery vessel. Early Susiana	Fig. 61:N
S22:823	75.08	8348	Matte-painted pottery vessel. Archaic Susiana 3	Fig. 70:D
S22:823	74.98	8350	Open pottery vessel. Archaic/Early Susiana transitional	Fig. 58:B
S22:823	74.98	8358	Plain pottery vessel. Archaic Susiana 2	Fig. 75:B
S22:823	75.44	8360	Open pottery vessel. Early Susiana	Fig. 61:O
S22:823	75.30	8440	Plain pottery vessel. Archaic Susiana 3	Fig. 75:J
S22:823	76.35	8467	Bone object. Early Susiana	Fig. 85:P
S22:823	76.35	8468	Bone object. Early Susiana	Fig. 85:M
S22:823	75.43	8490	Open pottery vessel. Early Susiana	Fig. 56:K
S22:823	75.13	8497	Close-line open bowl. Archaic Susiana 3	Fig. 66:L
S22:823	75.90	8578	Closed pottery vessel. Early Susiana	Fig. 61:F
S22:823	74.87	8605	Pottery vessel. Archaic Susiana 3	Fig. 68:D
S22:823	76.35	8640	Closed pottery vessel. Early Susiana	Fig. 61:G
S22:823	74.51	8641	Closed pottery vessel. Early Susiana	Fig. 61:E
S22:823	75.94	8648	Open pottery vessel. Early Susiana	Fig. 56:E
S22:823	75.43	8758	Open pottery vessel. Early Susiana	Fig. 61:K
S22:823	74.92	8760	Pottery vessel. Archaic Susiana 3	Fig. 69:A
S22:823	75.84	8762	Plain pottery vessel. Early Susiana	Fig. 65:D
S22:823	75.03	8769	Open pottery vessel. Early Susiana	Fig. 57:D
S22:823	75.08	VIII-4	Brownish gray sandstone. Archaic Susiana 3	Fig. 87:D
S22:823	75.94	VIII-57	Bone object. Early Susiana	Fig. 85:H
S22:823	74.79	VIII-58	Copper. Protoliterate	Fig. 84:D
S22:823	76.35	VIII-60	Stone figurine of boar. Archaic/Early Susiana	Fig. 80:F, pl. 27:B
S22:823	74.79	VIII-63	Mother-of-pearl pendant. Archaic Susiana	Fig. 81:R
S22:823 North	75.74	8043	Baked-clay waist and lower body of female figurine. Early Susiana	Fig. 78:G, pl. 28:C
S22:823 North	76.35	8465	Bone object. Early Susiana	Fig. 85:O
S22:823 North	75.03	8761	Open pottery vessel. Early Susiana	Fig. 55:G
S22:823 North	75.81	VIII-38	Spindle whorl. Early Susiana	Fig. 83:E
S22:823 North	75.74	VIII-84	Mid-section of female figurine. Early Susiana	Fig. 78:A, pl. 28:D
S22:823 West	75.90	8298	Plain pottery vessel. Early Susiana	Fig. 65:H
S22:823 West	74.24	8448	Open pottery vessel. Early Susiana	Fig. 55:C
S22:824	75.08	8238	Close-line open bowl. Archaic Susiana 3	Fig. 66:F
S22:824	74.98	VIII-62	Stone token. Archaic Susiana	Fig. 77:B
S22:825	76.35	8099	Open pottery vessel. Probably transitional Archaic/Early Susiana	Fig. 60:G
S22:825	76.24	8137	Open pottery vessel. Early Susiana	Fig. 55:I
S22:825	76.30	N/A	Pottery vessel. Early Susiana	Pl. 21:C
S22:826	75.49	8128	Open pottery vessel. Early Susiana	Fig. 55:B
S22:826	74.68	8938	Open pottery vessel. Early Susiana	Fig. 57:C
S22:826	74.66	VIII-85	Baked-clay head of human figurine. Early Susiana	Fig. 78:C, pl. 27:A
S22:827	74.30	8174	Baked-clay waist and body of female figurine. Archaic/Early Susiana	Fig. 78:H, pl. 28:B
S22:827	74.30	8856	Open pottery vessel. Archaic/Early Susiana transitional	Fig. 61:B
S22:827	74.30	VIII-52	White stone “plug.” Archaic Susiana 3	Fig. 81:B

Locus	*Elevation*	*Reg. No.*	*Description*	*Illustration*
S22:831	75.41	8471	Unbaked clay chessman figurine. Archaic Susiana 2	Fig. 79:K
S22:831 North	75.02	8292	Plain pottery vessel. Archaic Susiana 3	Fig. 75:H
S22:831 North	75.02	VIII-74	Baked-clay figurine of female. Early Susiana	Fig. 79:D
S22:902	77.43	9018	Closed pottery vessel. Middle Susiana	Fig. 44:C
S22:902	77.51	9028	Baked-clay token. Early Susiana	Fig. 77:C
S22:902	76.83	9080	Bone object. Middle Susiana	Fig. 85:G
S22:902	76.83	9184	Pottery vessel. Early Middle Susiana	Fig. 49:A
S22:902	77.08	9333	Closed pottery vessel. Late Middle Susiana	Fig. 45:I
S22:902 Northeast	77.65	9358	Pottery vessel. Middle Susiana	Fig. 49:E
S22:903	75.39	9134	Pottery vessel. Early Susiana	Fig. 63:L
S22:904	76.96	9144	Pottery vessel. Protoliterate	Fig. 30:F
S22:904	74.72	11068	Plain pottery vessel. Archaic Susiana 3	Fig. 75:F
S22:904	76.22	IX-59	Strainer. Protoliterate	Fig. 82:L
S22:908	76.90	9033	Stand/cup(?) fragment. Protoliterate	Fig. 82:B
S22:908	74.45	9282	Matte-painted pottery vessel. Archaic Susiana 3	Fig. 71:E
S22:909	74.57	9107	Plain pottery vessel. Archaic Susiana 2	Fig. 75:A
S22:909	73.70	9138	Figurine. Archaic Susiana 2	Pl. 28:G–H
S22:909	75.00	9312	Matte-painted pottery vessel. Archaic Susiana 3	Fig. 70:A, pl. 21:E
S22:909	74.40	9343	Pottery vessel. Archaic Susiana 3	Fig. 67:A
S22:909 Middle	74.40	9043	Stone vessel. Archaic Susiana 3	Fig. 86:I
S22:909 Middle	N/A	9061	Unbaked clay token. Archaic Susiana	Fig. 77:O
S22:909 South	75.13	9008	Unbaked clay chessman figurine. Archaic Susiana 2	Fig. 79:J, pl. 28:I
S22:909 South	75.00	9277	Plain pottery vessel. Early Susiana	Fig. 65:G
S22:910 South	74.68	9060	Unbaked clay chessman figurine. Archaic Susiana 3	Fig. 79:N
S22:911	74.00	9268	Matte-painted pottery vessel. Archaic Susiana 3	Fig. 71:A
S22:911	74.00	9269	Pottery vessel. Archaic Susiana 3	Fig. 69:B
S22:912	74.52	9047	Stone vessel. Archaic Susiana 3	Fig. 86:A
S22:912	74.57	9237	Pottery vessel. Archaic Susiana 3	Fig. 69:D
S22:912	74.74	9328	Pottery vessel. Archaic Susiana 2	Fig. 72:B
S22:912	74.52	9364	Pottery vessel. Archaic Susiana 3	Fig. 69:K
S22:912	73.72	9512	Pottery vessel. Archaic Susiana 3	Fig. 68:B, pl. 21:J
S22:912 East	74.46	9040	Baked-clay human figurine. Archaic Susiana 3	Fig. 79:F, pl. 28:F
S22:912 East	74.46	9253	Baked-clay horn. Archaic Susiana/Early Susiana	Fig. 80:J
S22:912 East	75.55	N/A	Baked-clay figurine. Early Susiana	Pl. 28:E
S22:912, S22:916	73.72, 73.70	9512/9370	Pottery vessel. Archaic Susiana 3	Fig. 68:B
S22:913	74.54	9039	Head and torso of highly stylized human figurine. Archaic Susiana 3	Fig. 78:D, pl. 28:K
S22:913	74.21	9063	Unbaked clay figurine, presumably female. Early Susiana	Fig. 79:C
S22:914	75.76	9101	Bone object. Early Susiana	Fig. 85:K
S22:914	73.70	9183	Bone object. Archaic Susiana	Fig. 85:C
S22:914	73.70	9225	Plain pottery vessel. Archaic Susiana 2	Fig. 75:C
S22:914	74.77	9267	Pottery vessel. Archaic/Early Susiana transitional	Fig. 63:C
S22:914	74.02	9511	Matte-painted pottery vessel. Archaic Susiana 3	Fig. 71:D
S22:916	76.19	9126	Unbaked clay chessman figurine. Archaic/Early Susiana	Fig. 79:I
S22:916	77.19	9127	Baked-clay female figurine. Archaic Susiana 3	Fig. 79:A
S22:916	77.19	9128	Baked-clay figurine of dog(?). Middle Susiana	Fig. 80:H
S22:916	73.70	9370	Pottery vessel. Archaic Susiana 3	Pl. 21:K
S22:916	74.94	9465	Bone object. Archaic Susiana	Fig. 85:J
S22:918	76.53	9115	Stone pestle fragment. Early Susiana	Fig. 87:K
S22:919	76.61	9783	Pottery vessel. Early Susiana	Pl. 21:B
S22:923	74.52	9494	Baked-clay token. Archaic Susiana	Fig. 77:A
S22:923	75.22	9739	Pottery vessel. Early Susiana	Pl. 21:A
S22:923	74.54	IX-102	Plain pottery vessel. Archaic Susiana 3	Fig. 74:A
S22:926	77.09	9454	Bone object. Middle Susiana	Fig. 85:E
S22:926	77.03	9806	Pottery vessel. Late Middle Susiana	Fig. 42:B
S22:929	74.90	11212	Pottery vessel. Archaic Susiana 1	Pl. 21:I
S22:1101	78.95	N/A	Plain pottery vessel. Archaic Susiana 3	Fig. 75:I
S22:1102	73.40	11006	Plain pottery vessel. Archaic Susiana 3	Fig. 75:O
S22:1103	73.20	11064	Plain pottery vessel. Archaic Susiana 3	Fig. 75:L

Locus	*Elevation*	*Reg. No.*	*Description*	*Illustration*
S22:1103	72.74	11180	Plain pottery vessel. Archaic Susiana 3	Fig. 75:S
S22:1103	72.89	11186	Plain pottery vessel. Archaic Susiana 2(?)	Fig. 75:R
S22:1103	74.20	N/A	Baked-clay human figurine. Archaic Susiana 3	Fig. 79:H
S22:1107	72.20	11179	Plain pottery vessel. Archaic Susiana 3	Fig. 75:N
S22:1108	72.68	11142	Plain pottery vessel. Archaic Susiana 3	Fig. 75:M
S22:1108 East	72.27	11158	Pottery vessel. Archaic Susiana 1	Fig. 68:E
S23:605	79.05	6128	Pottery vessel. Early Middle Susiana	Fig. 39:E
S23:Steps	75.46	5125	Matte-painted pottery vessel. Archaic Susiana 3	Fig. 70:E
Sdg. A	B.S.	2652	Open bowl. Late Iron Age/Achaemenid	Fig. 24:O
Sdg. A	0.85 B.S.	41136	Pottery vessel. Parthian	Fig. 19:D
Sdg. E	N/A	II	Pottery vessel. Parthian	Fig. 19:B
Sdg. E	B.S.	II	Pottery vessel. Parthian	Fig. 19:H
Sdg. E	B.S.	II	Pottery vessel. Parthian	Fig. 19:J
Sdg. F	B.S.	2577	Pottery vessel. Late Iron Age/Achaemenid	Fig. 22:H
Sdg. F	Surface	2608	Pottery vessel. Late Iron Age/Achaemenid	Fig. 23:P
Sdg. G	0.55 B.S.	4115	Pottery “stand.” Late Middle Susiana	Fig. 51:F
Sdg. G	1.40 B.S.	4264	Pottery vessel. Middle Susiana	Fig. 36:F
Sdg. G	77.15	4462	Pottery vessel. Late Middle Susiana	Fig. 41:A
Sdg. H	0.90 B.S.	4116	Pottery “stand.” Late Middle Susiana	Fig. 51:E
Sdg. H	B.S.	4461	Pottery vessel. Late Middle Susiana	Fig. 42:P
Sdg. H	0.50 B.S.	41173	Closed pottery vessel. Early Middle Susiana	Fig. 45:L
Surface	N/A	N/A	Closed pottery vessel. Late Middle Susiana	Fig. 45:D
Tr. II	2.50 B.S.	1219	Pottery vessel. Old Elamite (Sukkalmah)	Fig. 25:N
Tr. V	B.S.	2484	Open bowl. Late Iron Age/Achaemenid	Fig. 20:F
Tr. V	0.70 B.S.	2556	Open bowl. Late Iron Age/Achaemenid	Fig. 20:M
Tr. V	0.40 B.S.	2557	Open bowl. Late Iron Age/Achaemenid	Fig. 20:K
Tr. V	1.40 B.S.	2593	Pottery vessel. Late Iron Age/Achaemenid	Fig. 22:J
Tr. V	82.98	2619	Open bowl. Late Iron Age/Achaemenid	Fig. 24:D
Tr. V	N/A	2758	Open bowl. Late Iron Age/Achaemenid	Fig. 20:J
Tr. V	0.90 B.S.	2797	Open bowl. Late Iron Age (Neo-Elamite)/Achaemenid	Fig. 21:K
Tr. V	1.70 B.S.	3648	Open bowl. Late Iron Age (Neo-Elamite)/Achaemenid	Fig. 21:G
Tr. V	1.0 B.S.	3654	Open bowl. Late Iron Age/Achaemenid	Fig. 24:N
Tr. V	1.20 B.S.	II-213	Seal impression of female on door sealing. Protoliterate	Fig. 76:J
Tr. V	1.50 B.S.	II-241	Impression of female with butter-churning vessel on jar sealing. Protoliterate	Fig. 76:G
Tr. V, Plot D	81.40	2483	Open bowl. Late Iron Age/Achaemenid	Fig. 20:A
Tr. V, Plot D	0.50 B.S.	2589	Pottery vessel. Late Iron Age/Achaemenid	Fig. 23:D
Tr. V, Plot D	1.0 B.S.	2618	Pottery vessel. Late Iron Age/Achaemenid	Fig. 23:E
Tr. V, Plot D	1.0 B.S.	2638	Pottery vessel. Late Iron Age/Achaemenid	Fig. 23:O
Tr. V, Plot D	N/A	2669	Pottery vessel. Late Iron Age/Achaemenid	Fig. 23:B
Tr. VI	B.S.	2625	Pottery vessel. Late Iron Age/Achaemenid	Fig. 22:P
Tr. VI	B.S.	2631	Pottery vessel. Parthian	Fig. 19:A
Tr. VI	N/A	II-202	Seal impression of “lamb” on clay ball. Protoliterate	Fig. 76:F
Tr. VII	B.S.	2596	Open bowl. Late Iron Age/Achaemenid	Fig. 24:E
Tr. VII	N/A	2641	Open bowl. Late Iron Age (Neo-Elamite)/Achaemenid	Fig. 21:J
Tr. VII	0.90 B.S.	2657	Open bowl. Late Iron Age/Achaemenid	Fig. 20:G
Tr. VII	N/A	2667	Pottery vessel. Late Iron Age/Achaemenid	Fig. 23:A
Tr. VIII	1.0 B.S.	8237	Pottery vessel. Parthian	Fig. 19:I
Tr. IX	B.S.	2669	Pottery vessel. Late Iron Age/Achaemenid	Fig. 22:B
Tr. IX	0.70 B.S.	3211	Pottery vessel. Late Middle Susiana	Fig. 38:G
Tr. IX	0.45 B.S.	4641	Pottery vessel. Parthian	Fig. 19:E
Tr. IX	0.75 B.S.	IV-24	Bone object. Archaic Susiana	Fig. 85:L
Tr. XI	N/A	2488	Open bowl. Late Iron Age/Achaemenid	Fig. 20:E
Tr. XIII	N/A	41043	Pottery “stand.” Late Middle Susiana	Fig. 51:H
Tr. XIII	0.60 B.S.	2543	Pottery vessel. Middle Susiana	Fig. 48:A
Tr. XIII	0.85 B.S.	4232	Pottery vessel. Early Middle Susiana	Fig. 42:J
Tr. XIII	0.45 B.S.	4782	Pottery vessel. Late Iron Age/Achaemenid	Fig. 23:I
Tr. XIII	0.70 B.S.	6225	Pottery vessel. Protoliterate	Fig. 32:G
Tr. XIII	82.24	VI-86	Stone socket/sinker. Middle Susiana	Pl. 25:J

Locus	*Elevation*	*Reg. No.*	*Description*	*Illustration*
Tr. XIII	0.95 B.S.	VI-87	Stone sinker(?). Middle Susiana	Pl. 25:L
Tr. XIII	N/A	VI-90	Stone pestle. Early Middle Susiana	Pl. 30:K
Tr. XIII	Surface	VIII-53	Stone "plug." Date(?)	Fig. 81:E
Tr. XIV	B.S.	2546	Pottery vessel. Parthian	Fig. 19:C
Tr. XVI	Surface	2523	Pottery "stand." Late Middle Susiana	Fig. 51:A
Tr. XVIII	B.S.	2621	Pottery vessel. Late Iron Age/Achaemenid	Fig. 22:A
Tr. XVIII	B.S.	N/A	Open bowl. Late Iron Age (Neo-Elamite)/Achaemenid	Fig. 21:D
Tr. XXI	Surface	7155	Pottery vessel. Early Middle Susiana	Fig. 42:G
Tr. XXIV	B.S.	3836	Pottery vessel. Parthian	Fig. 19:O
Tr. XXIV	B.S.	31057	Pottery vessel. Parthian	Fig. 19:G
Tr. XXV	1.00 B.S.	3360	Pottery vessel. Archaic Susiana 3	Fig. 69:H
Tr. XXV	78.56	6001	Pottery vessel. Late Middle Susiana	Fig. 41:B, pl. 19:M
Tr. XXV	76.13	6142	Plain pottery vessel. Late Middle Susiana	Fig. 54:H
Tr. XXV	Surface	8299	Pottery vessel. Protoliterate	Fig. 33:H
Tr. XXV	N/A	N/A	Baked-clay human female figurine. Probably Archaic Susiana 3	Fig. 79:E
Tr. XXVI	N/A	4117	Pottery "stand." Late Middle Susiana	Fig. 51:B
Tr. XXVI	B.S.	N/A	Open bowl. Late Iron Age (Neo-Elamite)/Achaemenid	Fig. 21:B
Tr. XXXIII	76.40	6024	Pottery vessel. Late Middle Susiana	Fig. 42:R, pl. 19:D
Tr. XXXIII	76.80	6027	Pottery vessel. Late Middle Susiana	Fig. 42:N
Tr. XXXIII	77.68	6028	Pottery vessel. Late Middle Susiana	Fig. 42:S, pl. 19:C
Tr. XXXIII	77.34	6029	Pottery vessel. Early/Late Middle Susiana	Fig. 42:H
Tr. XXXIII	77.40	6031	Pottery vessel. Protoliterate	Fig. 27:I
Tr. XXXIII	77.21	6033	Pottery vessel. Ladle fragment. Early Susiana	Fig. 63:H
Tr. XXXIII	76.32	6118	Pottery vessel. Late Middle Susiana	Pl. 19:I
Tr. XXXIII	77.40	6121	Pottery vessel. Late Middle Susiana	Fig. 37:C
Tr. XXXIII	77.40	6121	Pottery vessel. Late Middle Susiana	Fig. 38:A
Tr. XXXIII	76.83	6527	Pottery vessel. Late Middle Susiana	Fig. 42:D
Tr. XXXIII	Surface	9383	Pottery vessel. Late Middle Susiana	Fig. 40:E
Tr. XXXIII	77.40	N/A	Stone vessel. Early Middle Susiana(?)	Fig. 86:H
Tr. XXXIII	77.02	6499	Closed pottery vessel. Late Middle Susiana	Fig. 45:C
Tr. XXXIV	Surface	7100	Closed pottery vessel. Late Middle Susiana	Fig. 45:E
Tr. XXXIV	B.S.	7266	Closed pottery vessel. Late Middle Susiana	Fig. 44:J
Tr. XXXV	B.S.	6032	Pottery vessel. Late Middle Susiana	Fig. 40:A
Tr. XXXV	76.13	6133	Plain pottery vessel. Late Middle Susiana	Fig. 53:T
Tr. XXXV	76.47	6134	Plain pottery vessel. Late Middle Susiana	Fig. 53:R
Tr. XXXVI	N/A	VII-1	White stone "plug" with dark vein used as "eye" of plug. Middle Susiana	Fig. 81:F, pl. 25:C
West Area	1.30 B.S.	41078	Pottery "stand." Late Middle Susiana	Fig. 51:G
N/A	N/A	9246	Pottery vessel. Protoliterate	Fig. 27:D
N/A	N/A	IX-111	Bone female figurine. Protoliterate	Pl. 26:A
N/A	N/A	IX-112	Goat-handled cup. Old Elamite	Pl. 26:B–C
N/A	N/A	VII-10	Token/labret	Pl. 25:C
N/A	N/A	VII-11	Token/labret	Pl. 25:C
N/A	N/A	VII-33	Token/labret	Pl. 25:C
N/A	N/A	VII-55	Token/labret	Pl. 25:C
N/A	N/A	VII-57	Token/labret	Pl. 25:C
N/A	N/A	VII-58	Token/labret	Pl. 25:C
N/A	N/A	VII-61	Token/labret	Pl. 25:C
N/A	N/A	VII-65	Chessman figurine	Pl. 25:C
N/A	N/A	VII-9	Chessman figurine	Pl. 25:C
N/A	Surface	1073	Pottery vessel. Early Middle Susiana	Fig. 38:J
N/A	N/A	9906	Baked-clay stamp seal. Late Susiana(?)	Fig. 76:B, pl. 22:C
N/A	N/A	BF-2687	Pottery vessel. Archaic Susiana	Fig. 67:D
N/A	Surface	IX-116	Pottery vessel. Protoliterate	Fig. 31:M
N/A	1.0 B.S.	IX-20	Plain pottery vessel. Late Middle Susiana	Fig. 54:O
N/A	N/A	N/A	Closed pottery vessel. Late Middle Susiana	Fig. 44:F
N/A	N/A	N/A	Closed pottery vessel. Late Middle Susiana	Fig. 44:O

INDEX OF GEOGRAPHICAL NAMES

FIGURES

Figure 1. Map Showing the Location of Chogha Mish and Other Major Sites in Southwestern Iran and Southern Mesopotamia

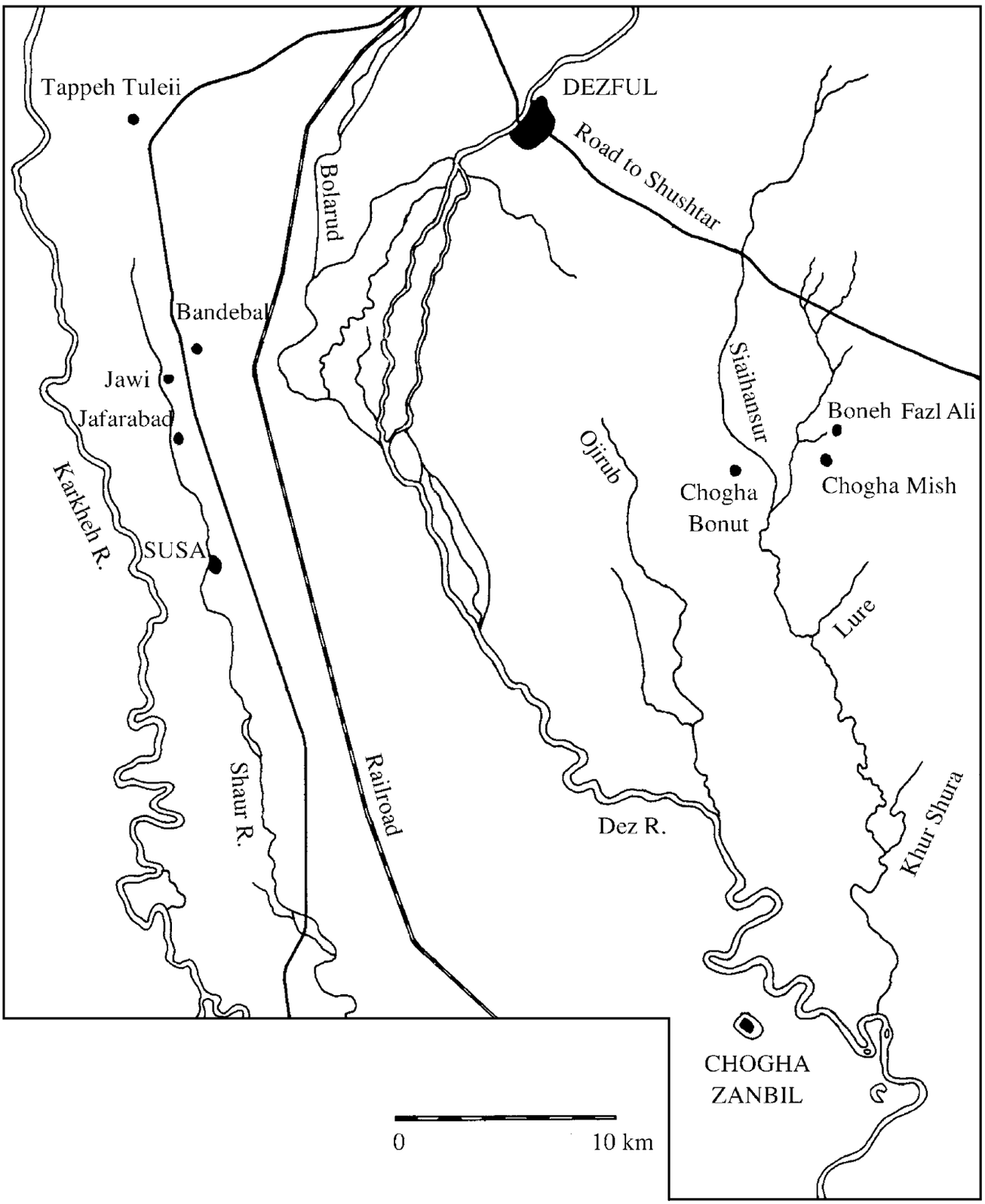


Figure 2. Map of Northern Susiana Plain Showing Locations of Chogha Mish, Chogha Bonut, Boneh Fazl Ali, and Their Environs

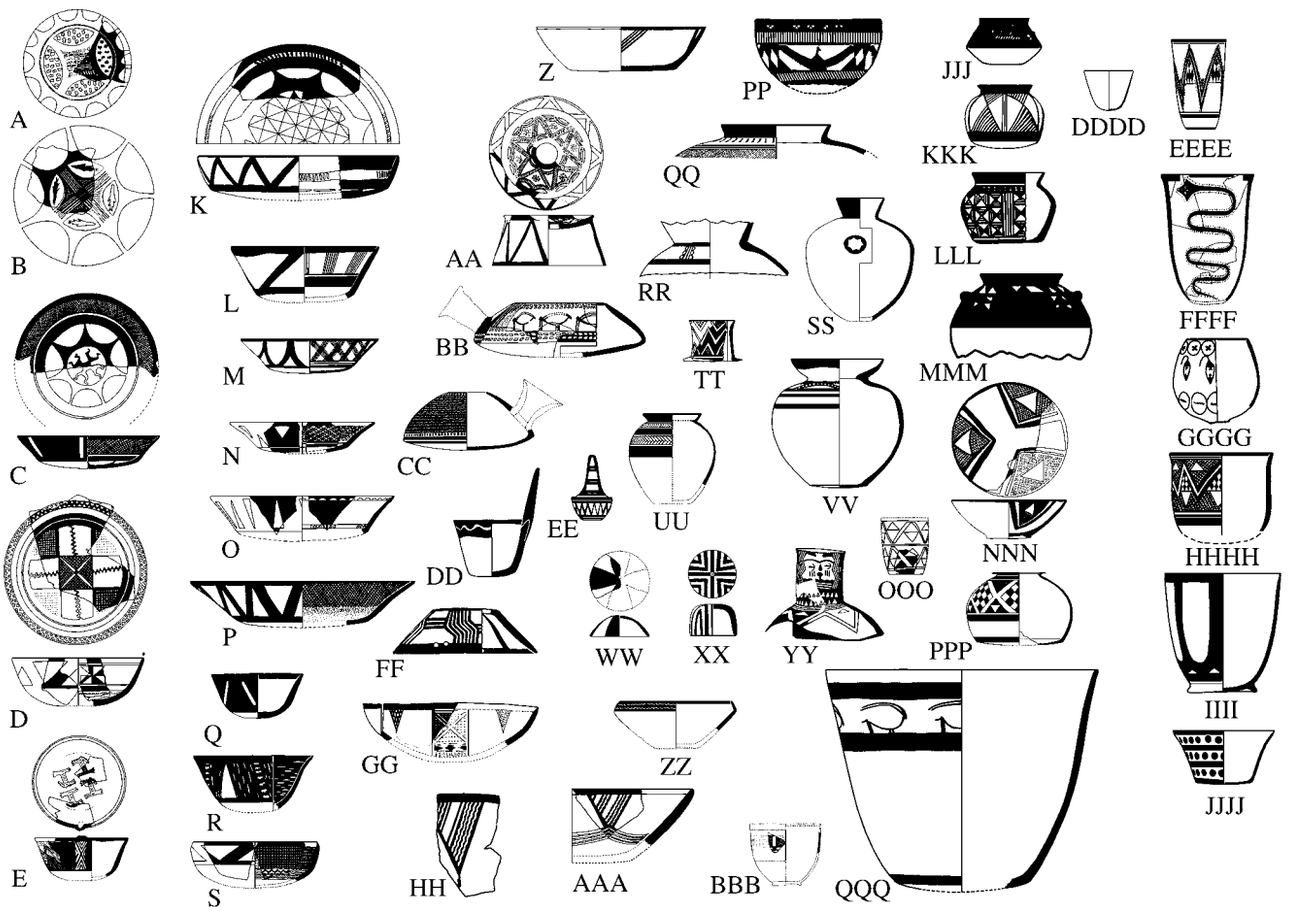


Figure 3a. Synopsis of the Evolution of Pottery Decoration of Prehistoric Susiana. Not to Any Scale

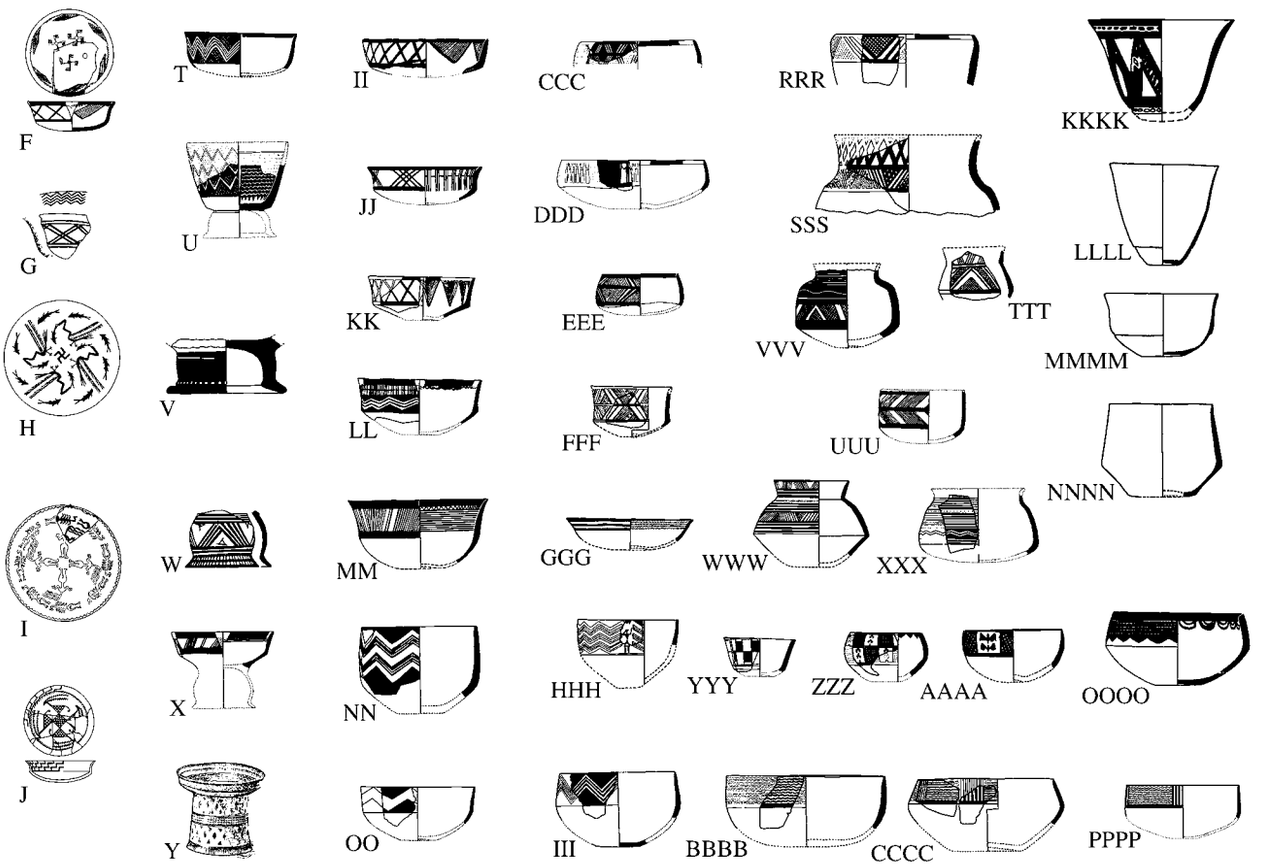


Figure 3b. Synopsis of the Evolution of Pottery Decoration of Prehistoric Susiana. Not to Any Scale (*cont.*)

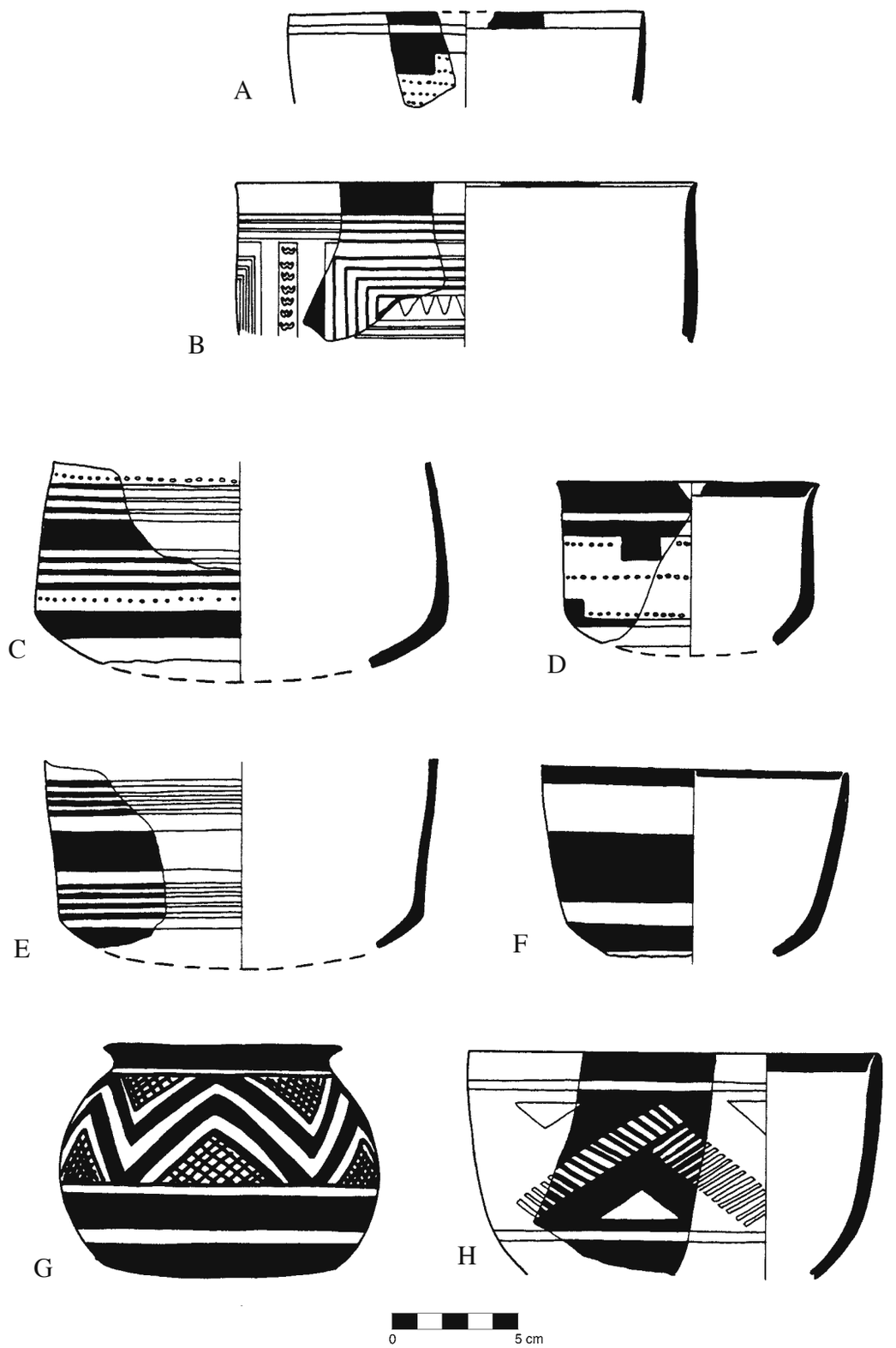


Figure 4. Examples of Late Middle Susiana/Late Susiana 1 Painted Pottery
(from Gremliza's survey of Suziana; see Alizadeh 1992)

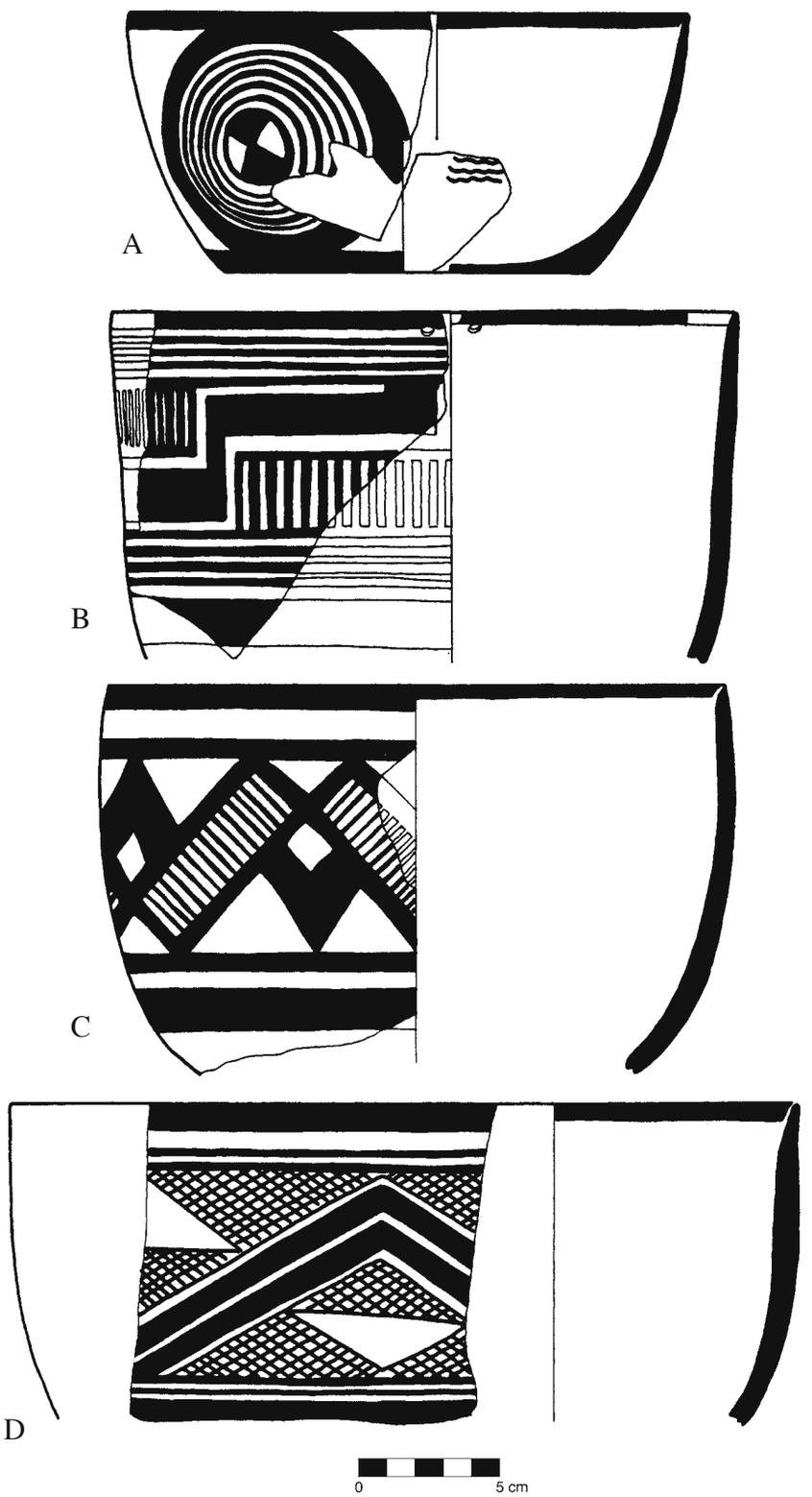


Figure 5. Examples of Late Middle Susiana/Late Susiana 1 Painted Pottery (from Gremliza's survey of Suziana; see Alizadeh 1992)

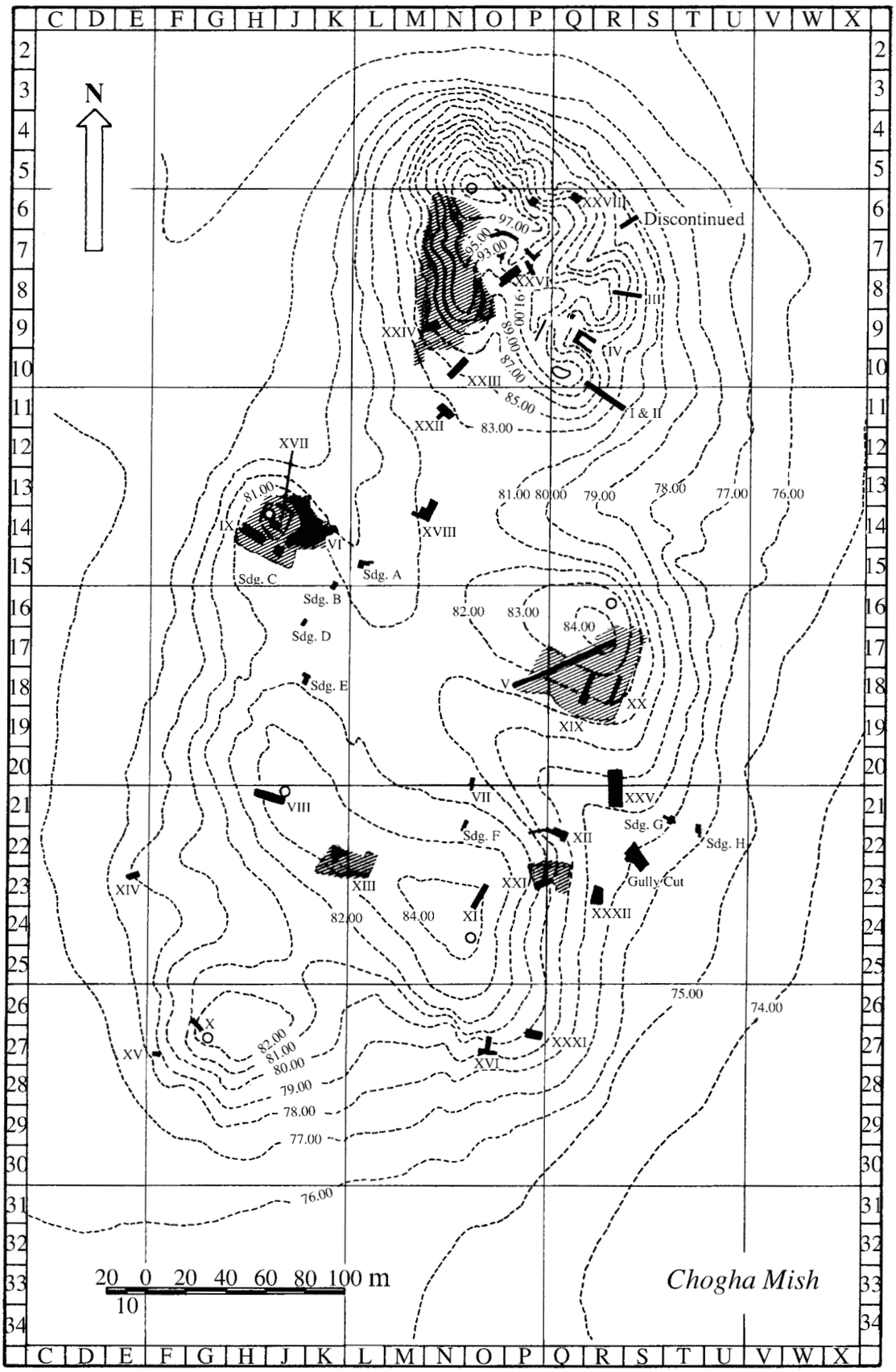


Figure 6. Contour Map of Chogha Mish

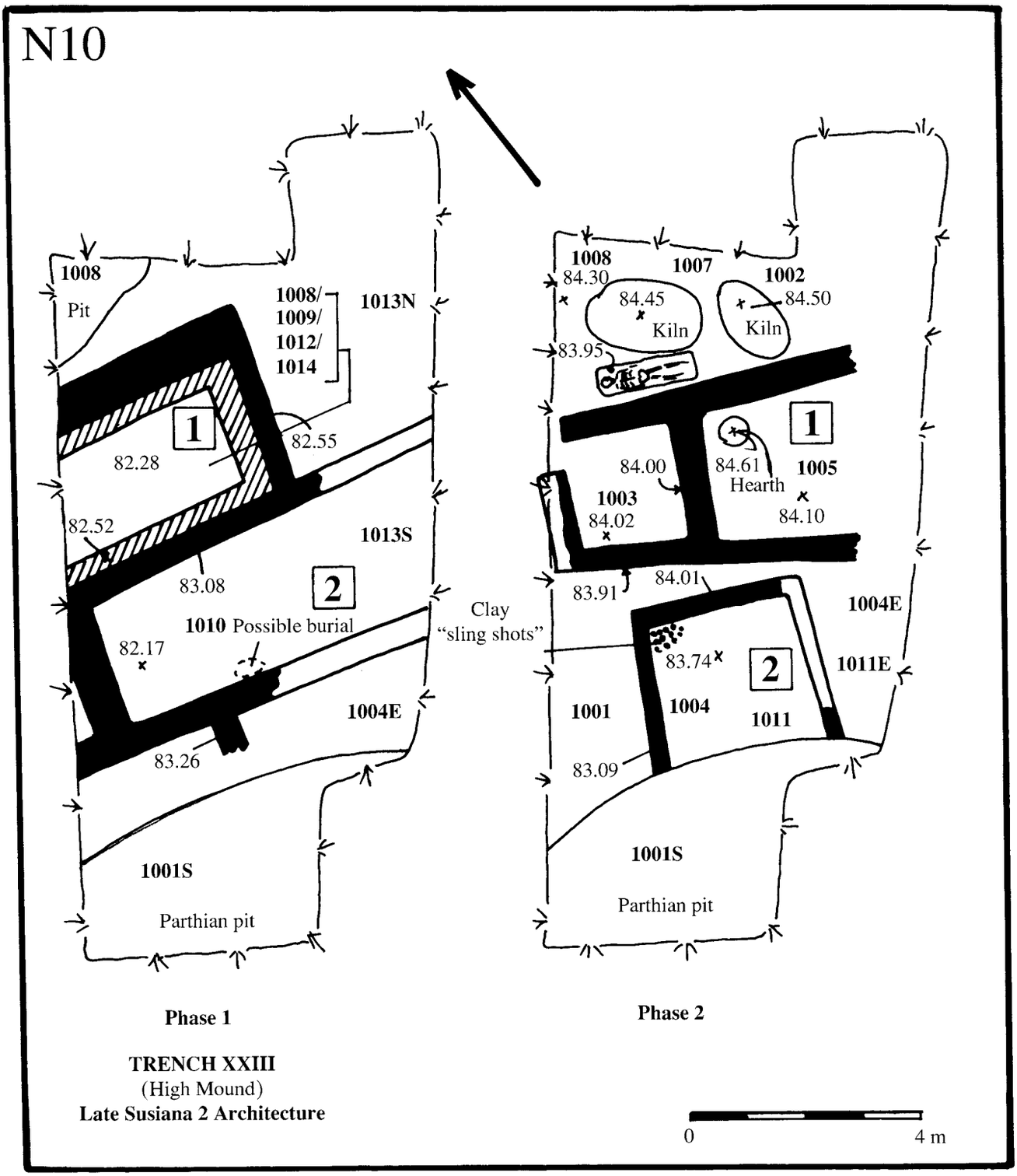


Figure 7. Top Plan of Trench XXIII, High Mound

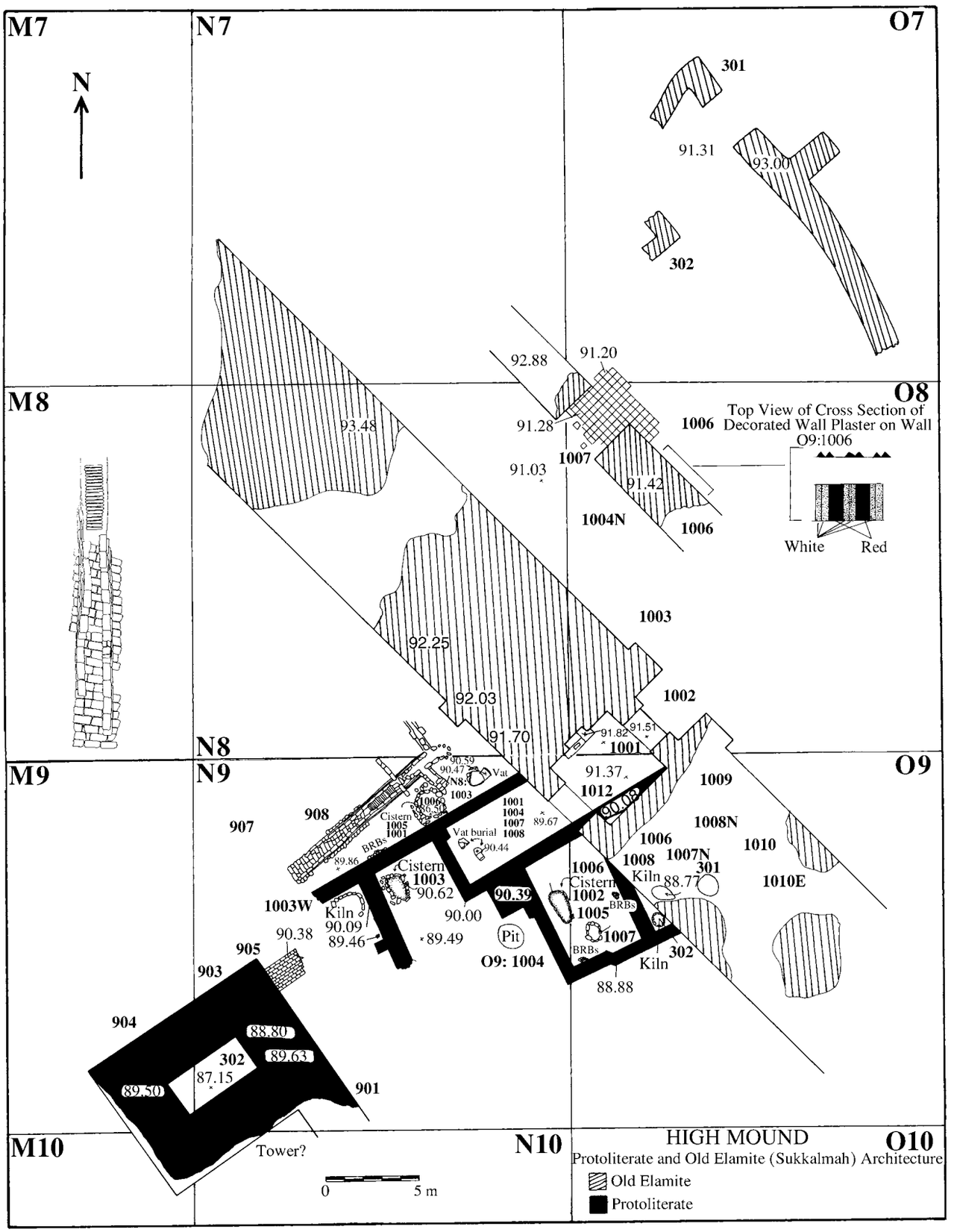


Figure 8. Top Plan of the Old Elamite Fort and Protoliterate Remains, High Mound

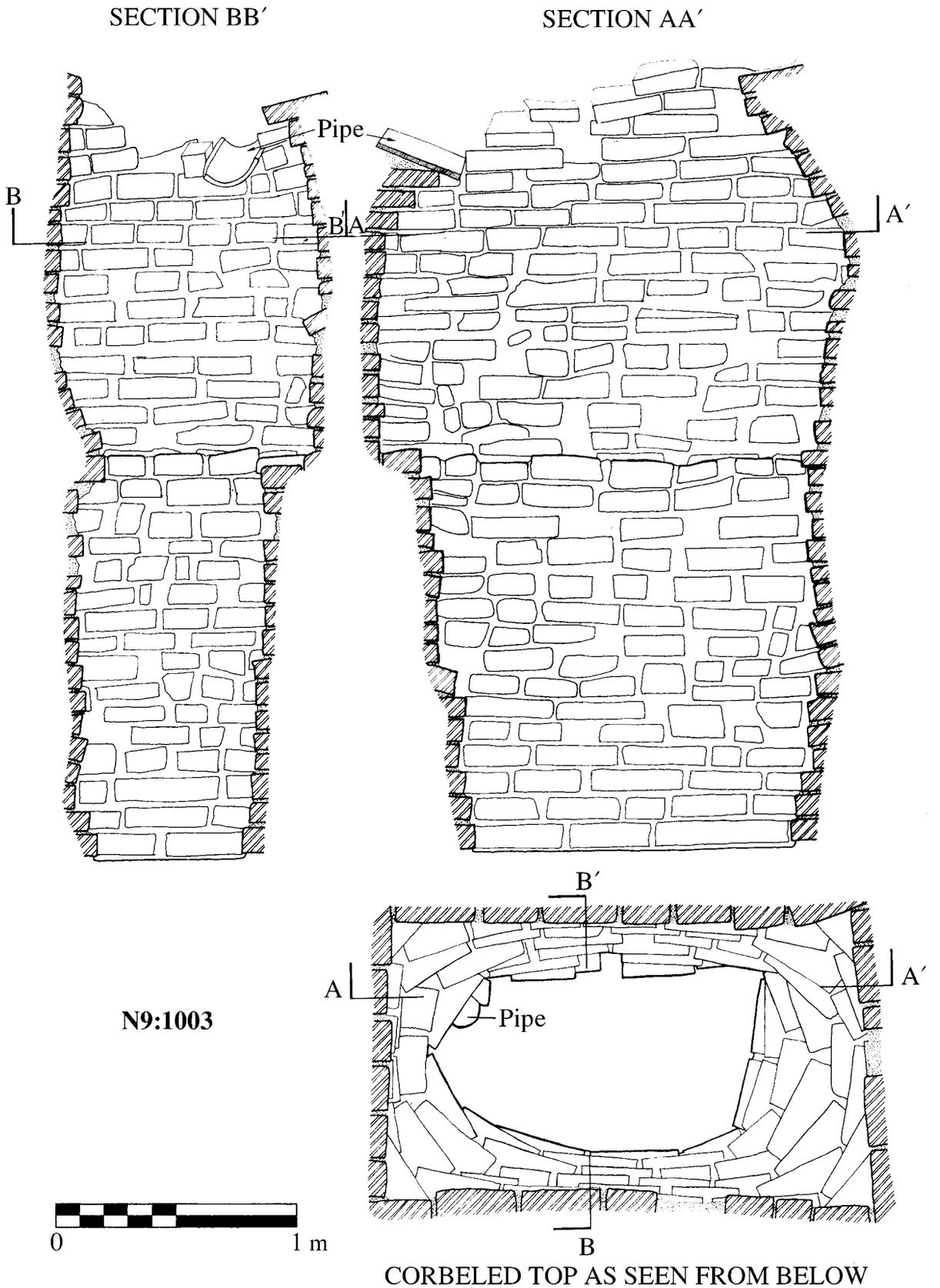


Figure 9. Section Drawings of Elamite Well, N9:1003

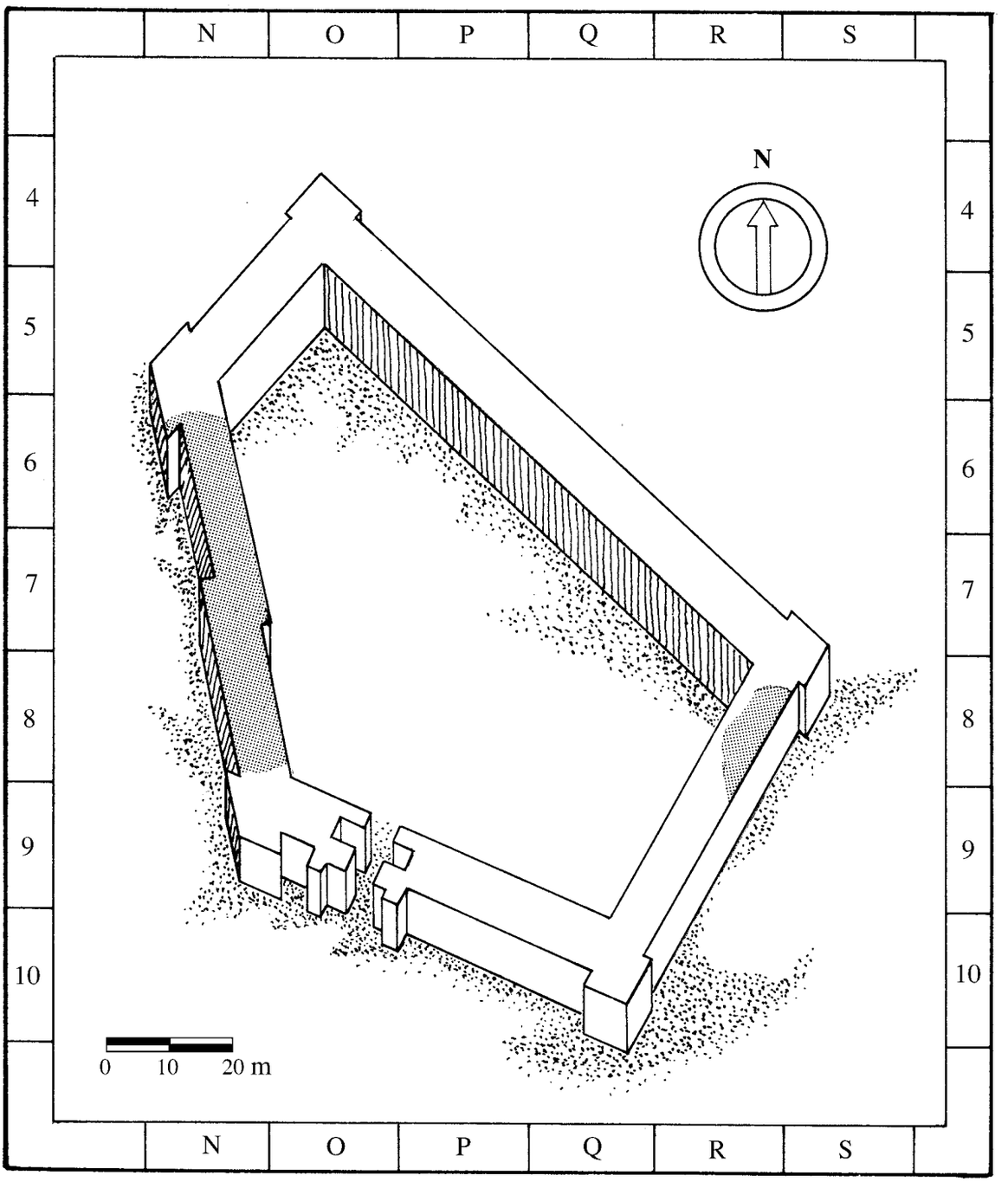


Figure 10. Isometric Plan of the Old Elamite Fort

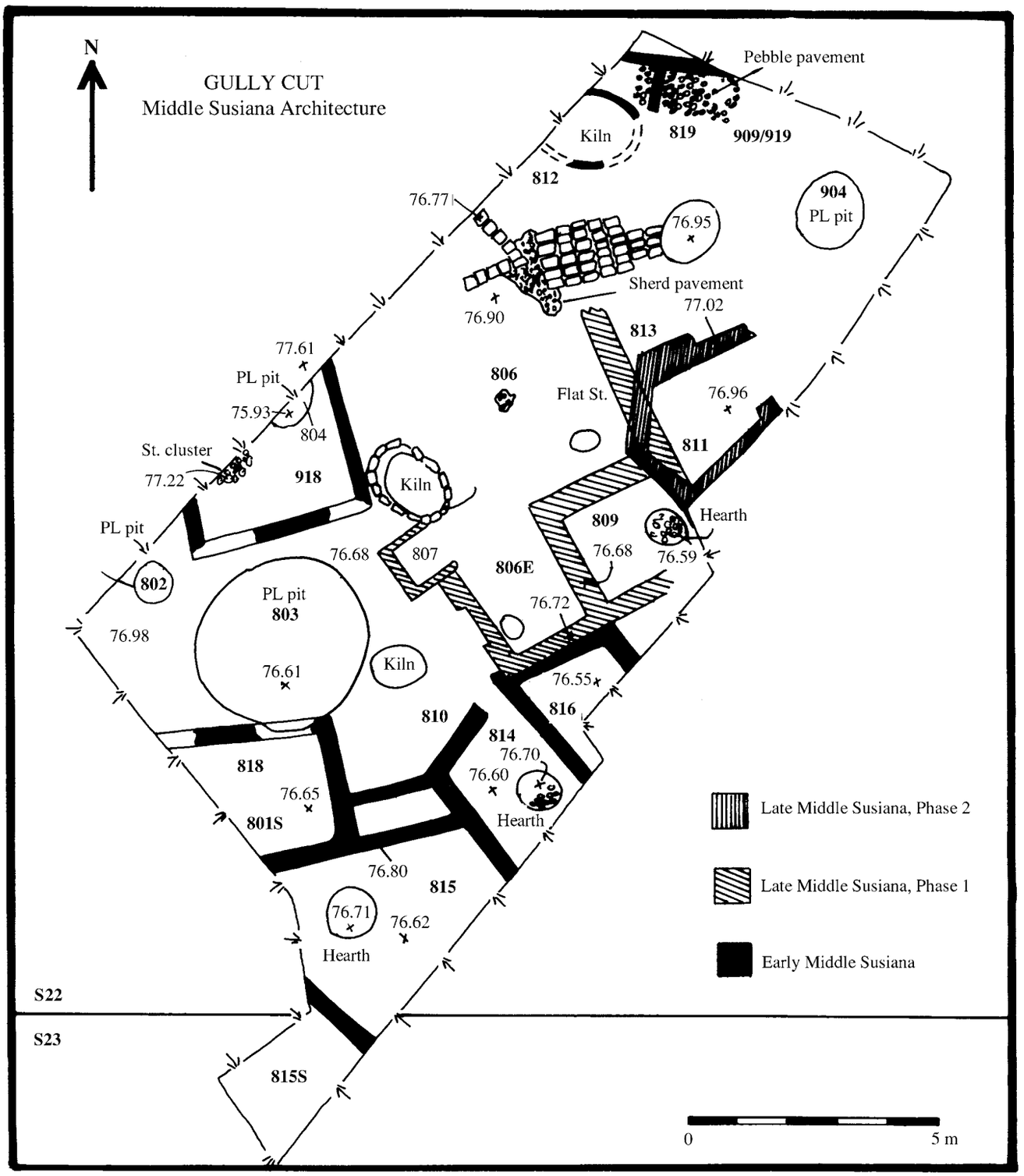


Figure 11. Top Plan of Gully Cut, Middle Susiana

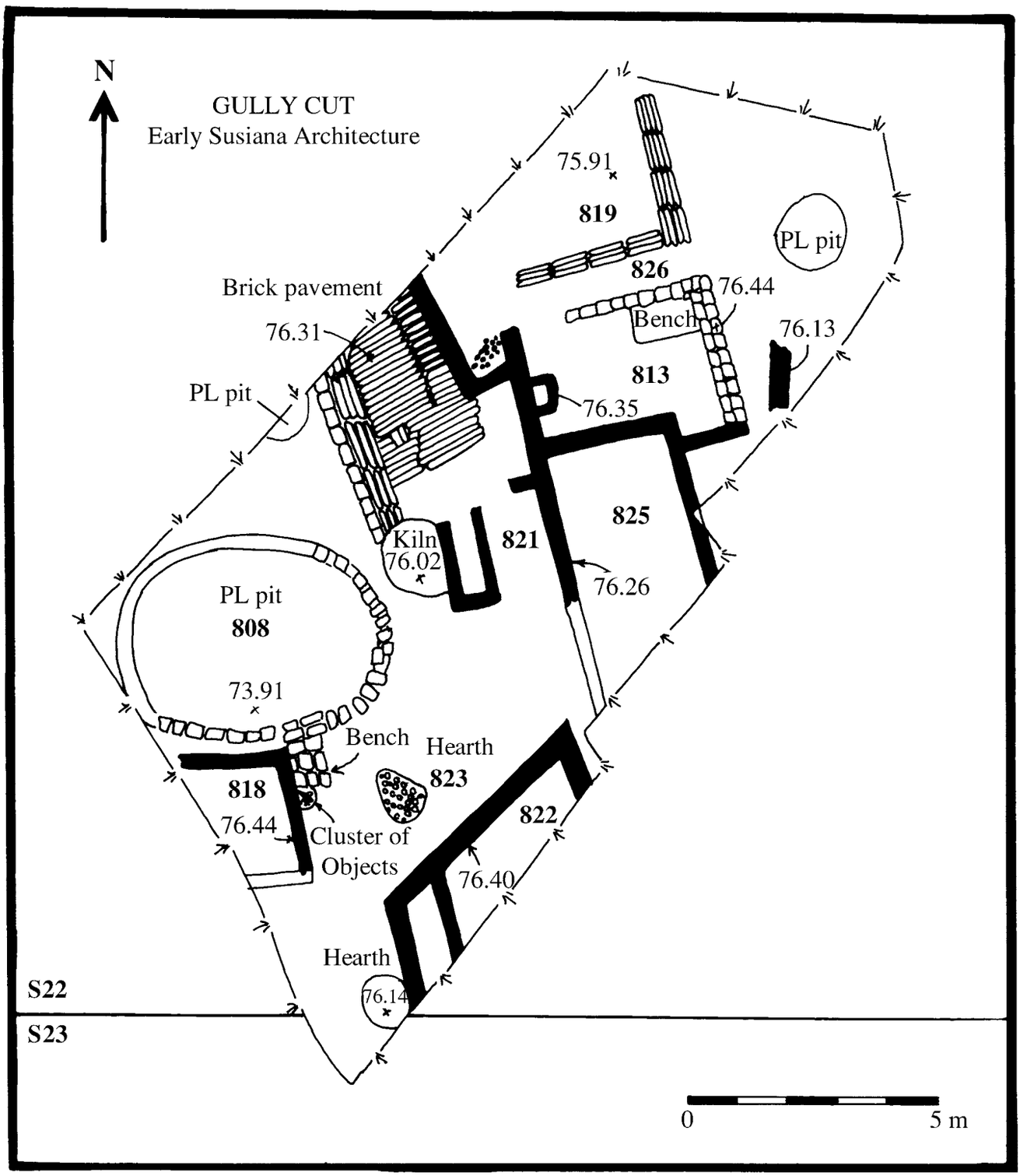


Figure 12. Top Plan of Gully Cut, Early Susiana

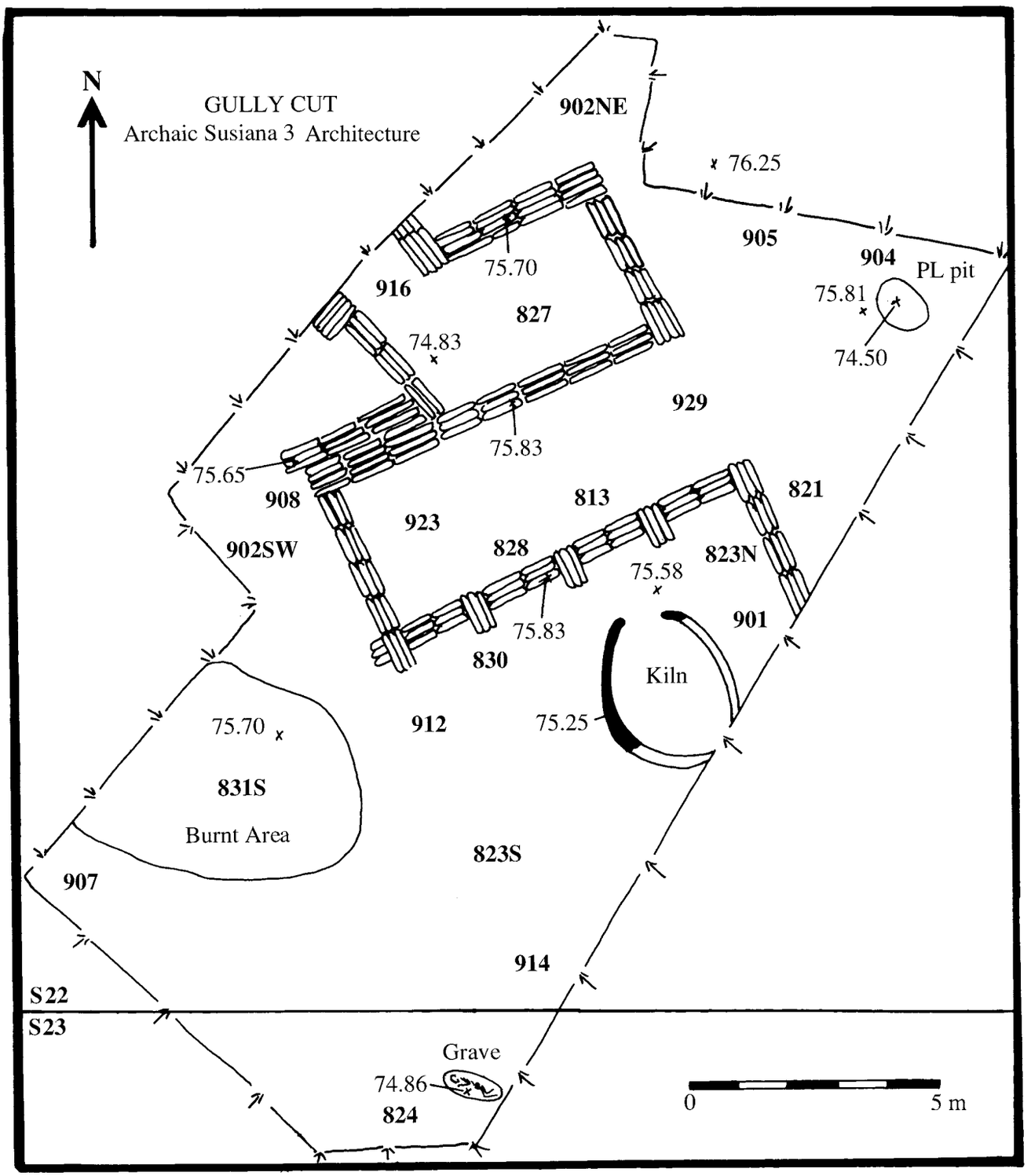


Figure 13. Top Plan of Gully Cut, Archaic Susiana 3

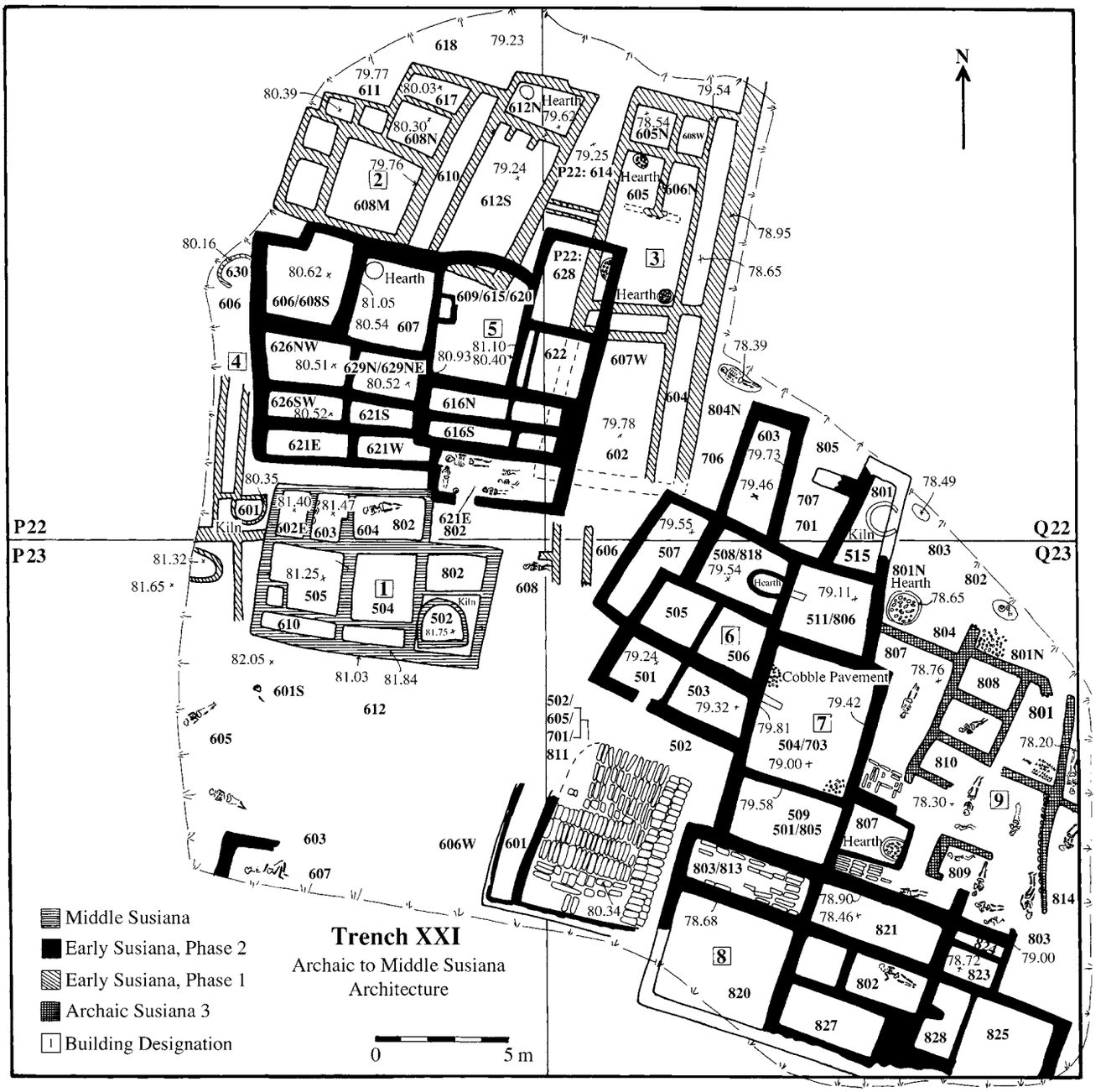


Figure 14. Top Plan of Trench XXI, Archaic to Middle Susiana

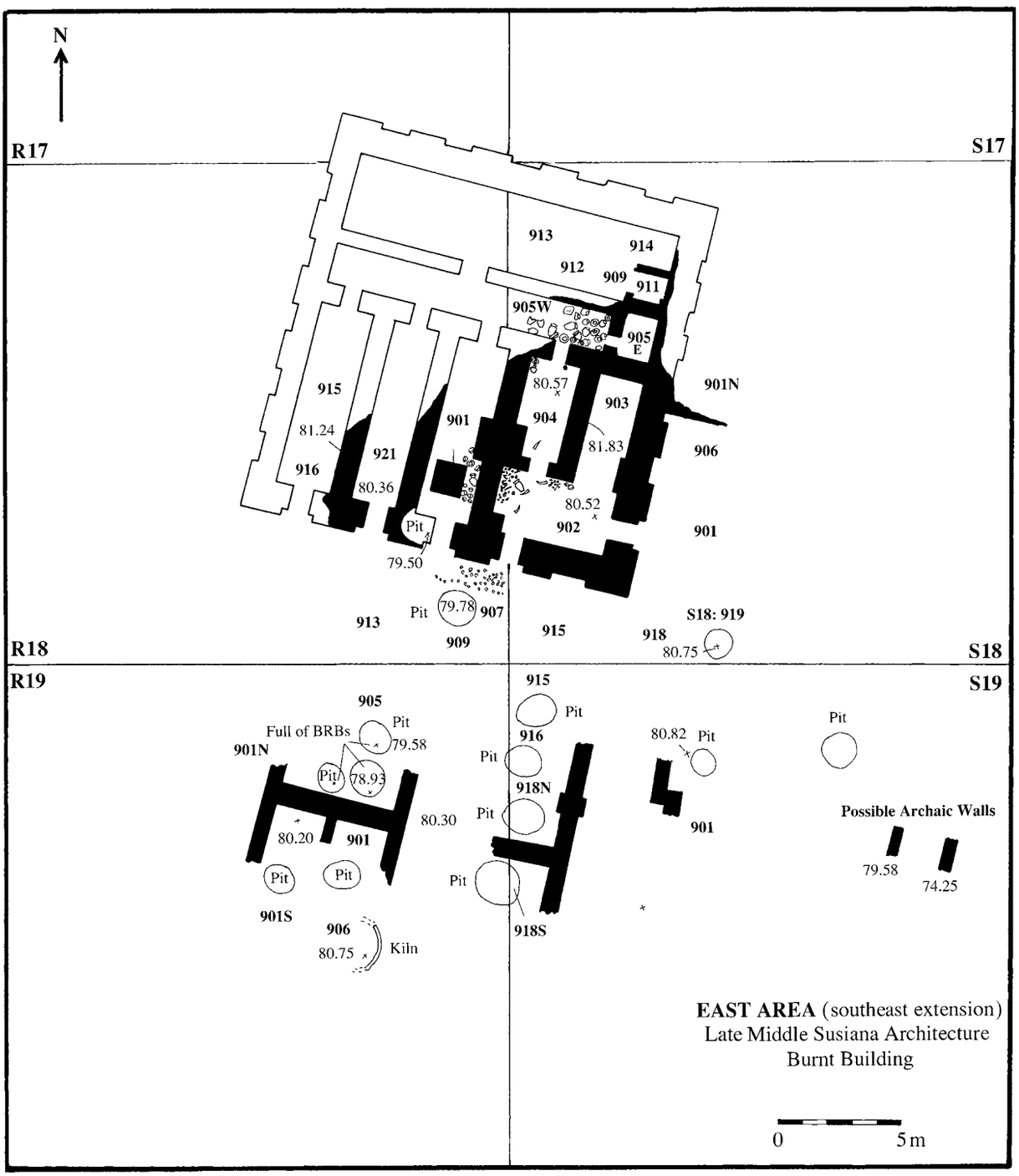


Figure 15. Top Plan of Late Middle Susiana Burnt Building

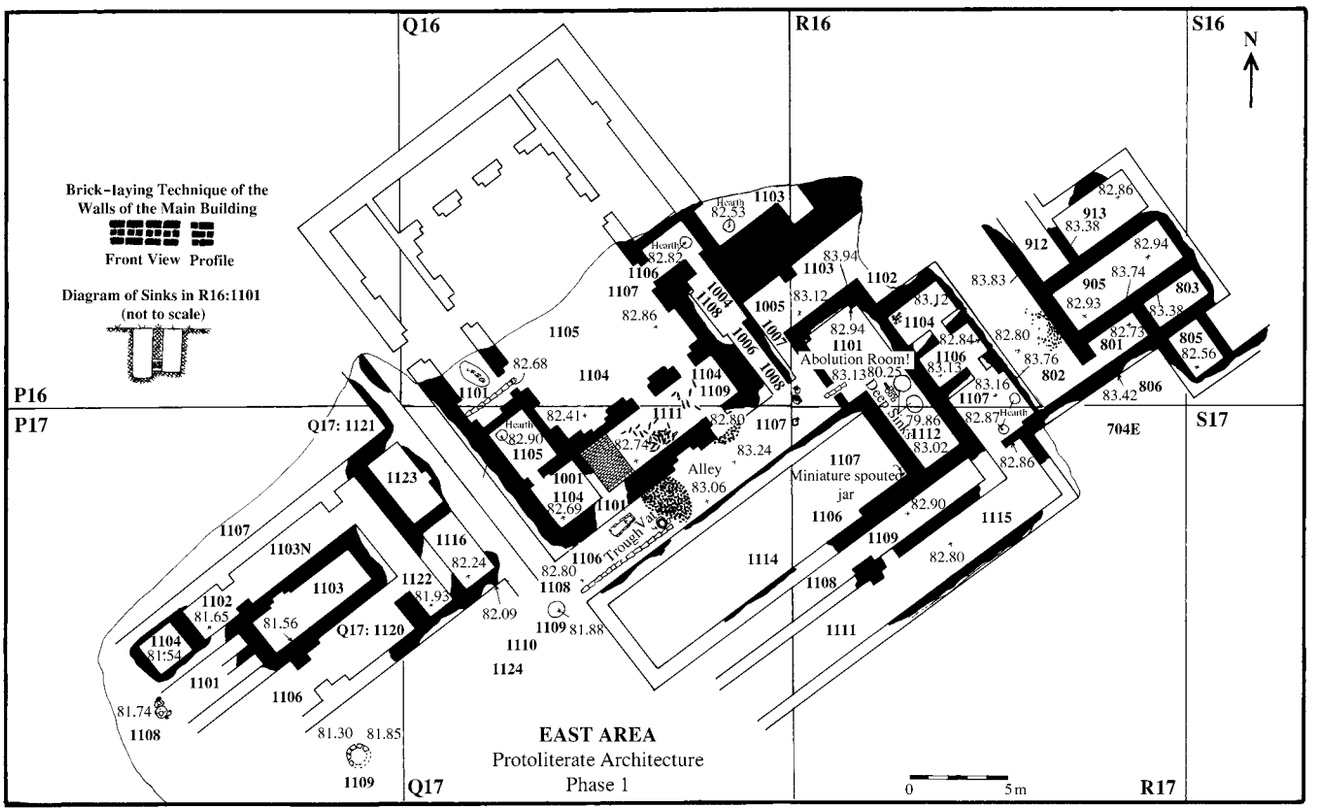


Figure 16. Top Plan of Protoliterate Architectural Complex, Phase 1

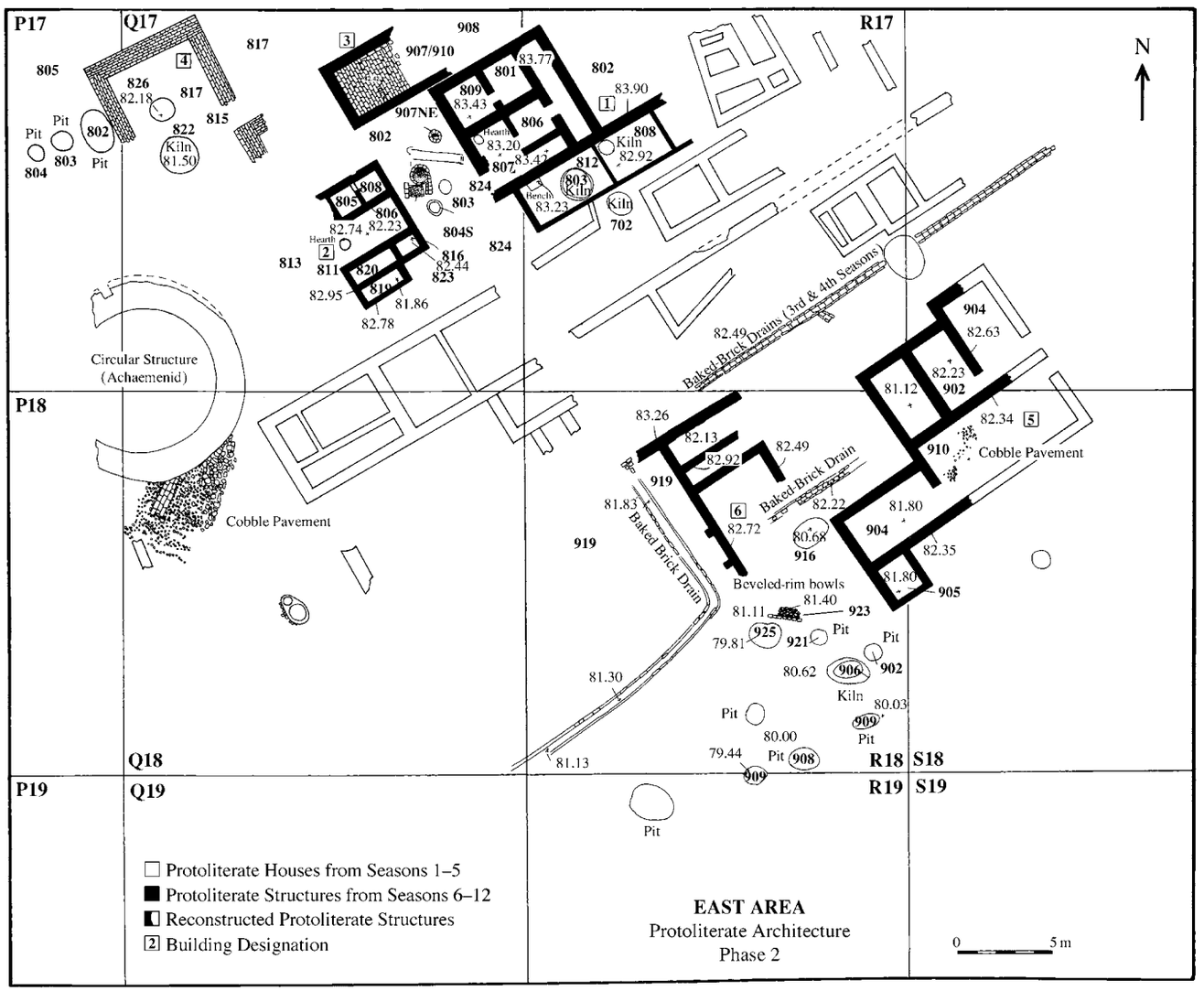


Figure 17. Top Plan of Protoliterate Architectural Complex, Phase 2

Figure 18. Prehistoric Burials

	Provenance	*Elevation*	*Description*
A	Q23:807	78.70	Archaic Susiana 3
B	Q23:801	78.40	Early Susiana
C	Q23:809	78.75	Archaic Susiana 3
D	P22:604	81.40	Middle Susiana
E	Q22:804 North	78.59	Early Susiana
F	Q23:803	78.25	Archaic Susiana 3
G	P22:621	81.80	Early Susiana
H	P22:621	81.78	Early Susiana
I	P23:608	79.80	Early Susiana
J	Q23:809	78.30	Archaic Susiana 3
K	P22:621	81.75	Early Susiana
L	P22:621	81.80	Early Susiana
M	P23:605	82.00	Middle Susiana
N	Q23:810	78.25	Archaic Susiana 3
O	Q23:810	78.21	Archaic Susiana 3
P	Q23:810 South	78.40	Archaic Susiana 3
Q	Q23:810 South	78.40	Archaic Susiana 3; P and Q may be parts of a single burial
R	Q23:809	78.30	Archaic Susiana 3
S	P23:607	81.00	Middle Susiana
T	S23:824	74.86	Archaic Susiana 3

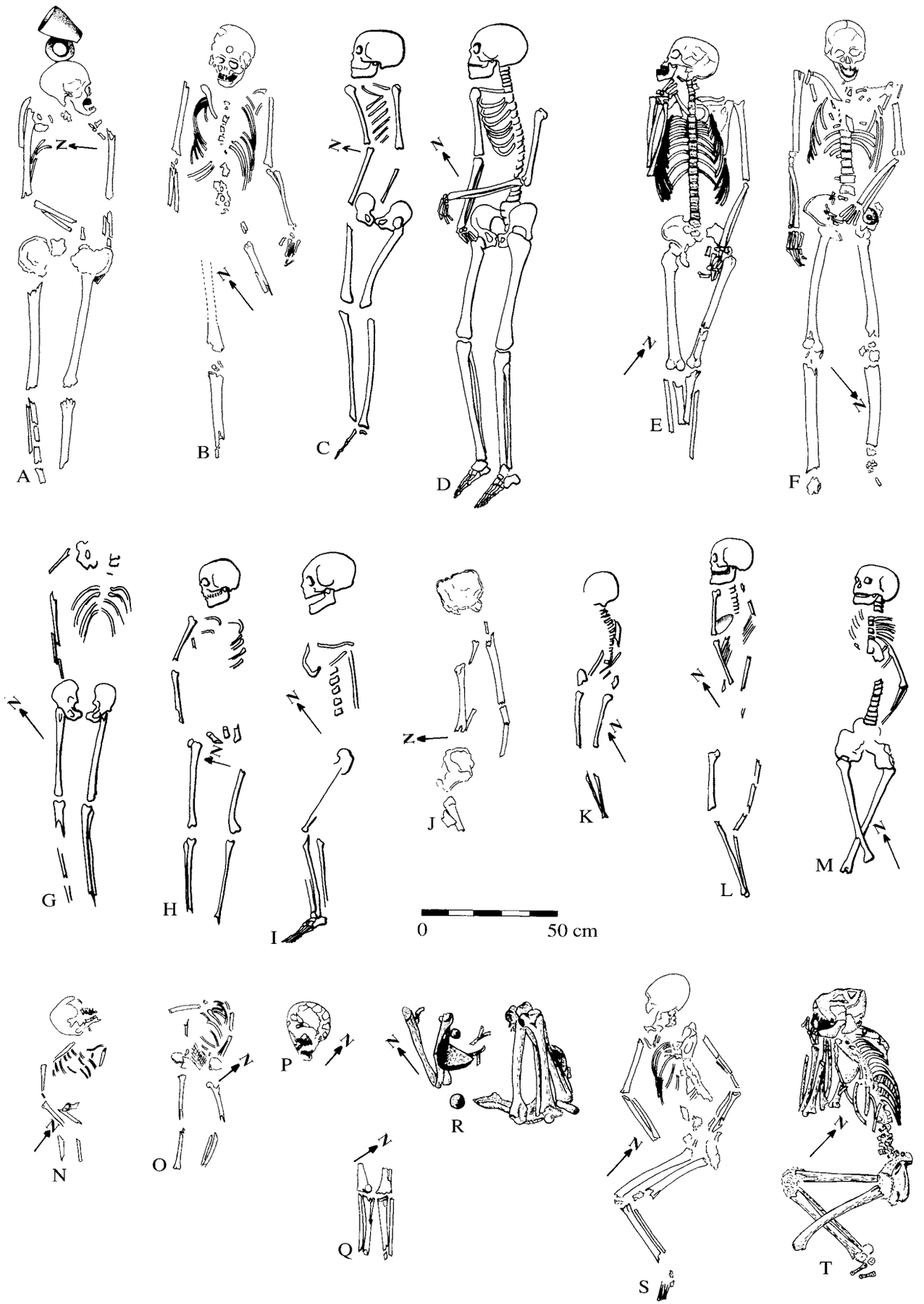


Figure 18. Prehistoric Burials

Figure 19. Parthian Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	2631	Tr. VI	B.S.	Buff ware. Buff slip all over. Well baked, gritty with small to medium grits
B	II	Sdg. E	N/A	Buff ware. Over-fired greenish buff, gritty, smoothed
C	2546	Tr. XIV	B.S.	Buff ware. Light gray core, dense. Traces of reddish buff slip on exterior, striations on exterior
D	41136	Sdg. A	0.85 B.S.	N/A
E	4641	Tr. IX	0.45 B.S.	Buff ware. Sand and grit inclusions. Green glaze on exterior, air bubbles where glaze is thick
F	2579	R17:215	83.80	Buff ware. Slightly over fired, some scattered medium to large grits. Pale blue glaze on exterior
G	31057	Tr. XXIV	B.S.	Buff ware. Dark gray core, no visible inclusions, smoothed
H	II	Sdg. E	B.S.	Buff ware. Well baked, gritty. Yellowish red wash
I	8237	Tr. VIII	1.0 B.S.	Brown buff ware. Grit and sand inclusions, rough surface on exterior
J	II	Sdg. E	B.S.	Buff ware. Small to medium grit inclusions, smoothed
K	3843	High Mound	B.S.	Dark buff ware. Dense, sandy, smoothed
L	3884	J15:301	Kiln	Orange buff ware. Dense, small grits and occasional calcite particle inclusions. Slipped all over, striations on exterior and interior. Reconstruction is based on a more complete form. See *Chogha Mish* I, plate 70:O
M	3883	J15:301	Kiln	Buff ware. Gritty, smoothed, incised
N	3844	High Mound	B.S.	Buff ware. Gritty, well baked, smoothed with visible grit drag marks
O	3836	Tr. XXIV	B.S.	Dark gray ware. Large dark grit with occasional calcite inclusions (crushed shells?), smoothed exterior and interior

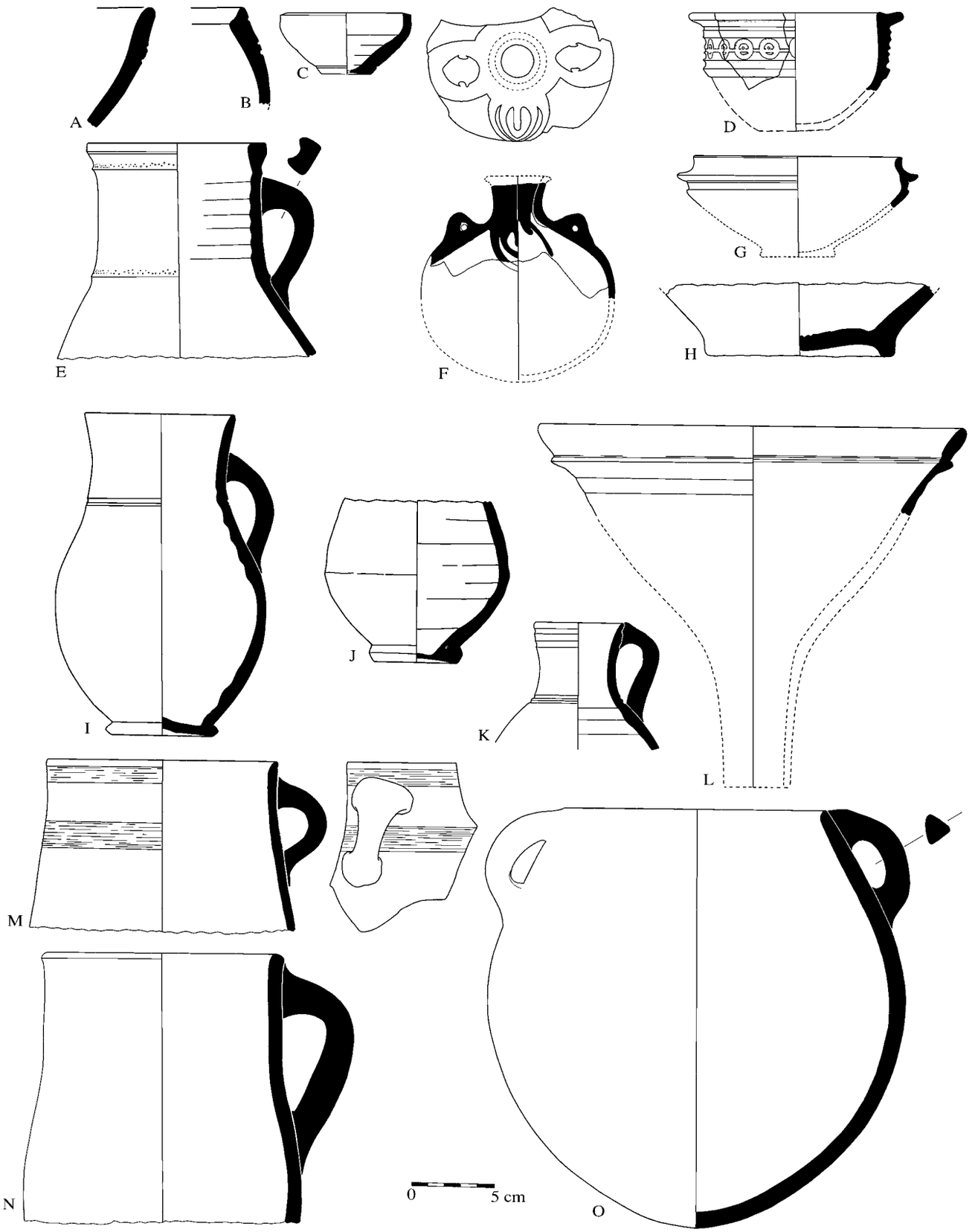


Figure 19. Parthian Pottery Vessels

Figure 20. Late Iron Age/Achaemenid Open Bowls

	Registration Number	*Provenance*	*Elevation*	*Description*
A	2483	Tr. V, Plot D	81.40	Buff ware. Pink buff core. Well baked, no visible inclusions, wheel striations interior and exterior
B	9111	Q17:903	83.75	Red ware. Grit-tempered, smoothed, slightly burnished
C	8170	Q24:803	78.61	Buff ware. Buff slipped interior and exterior. Grit and sand inclusions, smoothed with visible wheel striations
D	8058	Q17:811	82.69	Orange red ware. White slip interior. Dense, grit inclusions
E	2488	Tr. XI	N/A	Buff ware. Dense. Yellowish buff slip exterior, sand inclusions, smoothed interior and exterior, upper interior burnished
F	2484	Tr. V	B.S.	Buff ware. Pink buff core. Some grit and sand inclusions, slightly burnished exterior, visible striations
G	2657	Tr. VII	0.90 B.S.	Greenish gray ware. Very dense, no visible inclusions, smoothed
H	41138	L23:400	0.45 B.S.	Buff ware. Well baked, some grit inclusions, smoothed
I	8533	Q17:801	83.31	Standard gray ware. Charcoal gray surface, straw and fine grit temper, smoothed
J	2758	Tr. V	N/A	Grayish buff ware. Some grit inclusions, smoothed
K	2557	Tr. V	0.40 B.S.	Orange buff ware. Coarse. Large grit inclusions, pinkish orange exterior. Interior rough with visible large grits
L	3927	O18:205	B.S.	Fine buff ware. No visible inclusions, smoothed exterior, some striations on the upper body
M	2556	Tr. V	0.70 B.S.	Buff ware. Dense, sandy with few grits. Scoring and corrugations around rim
N	8432	R17:805	83.68	Buff ware. Fine grit inclusions, pinkish buff on the surface
O	8881	R17:803	82.99	Buff ware. Gritty, smoothed. Corrugations below rim

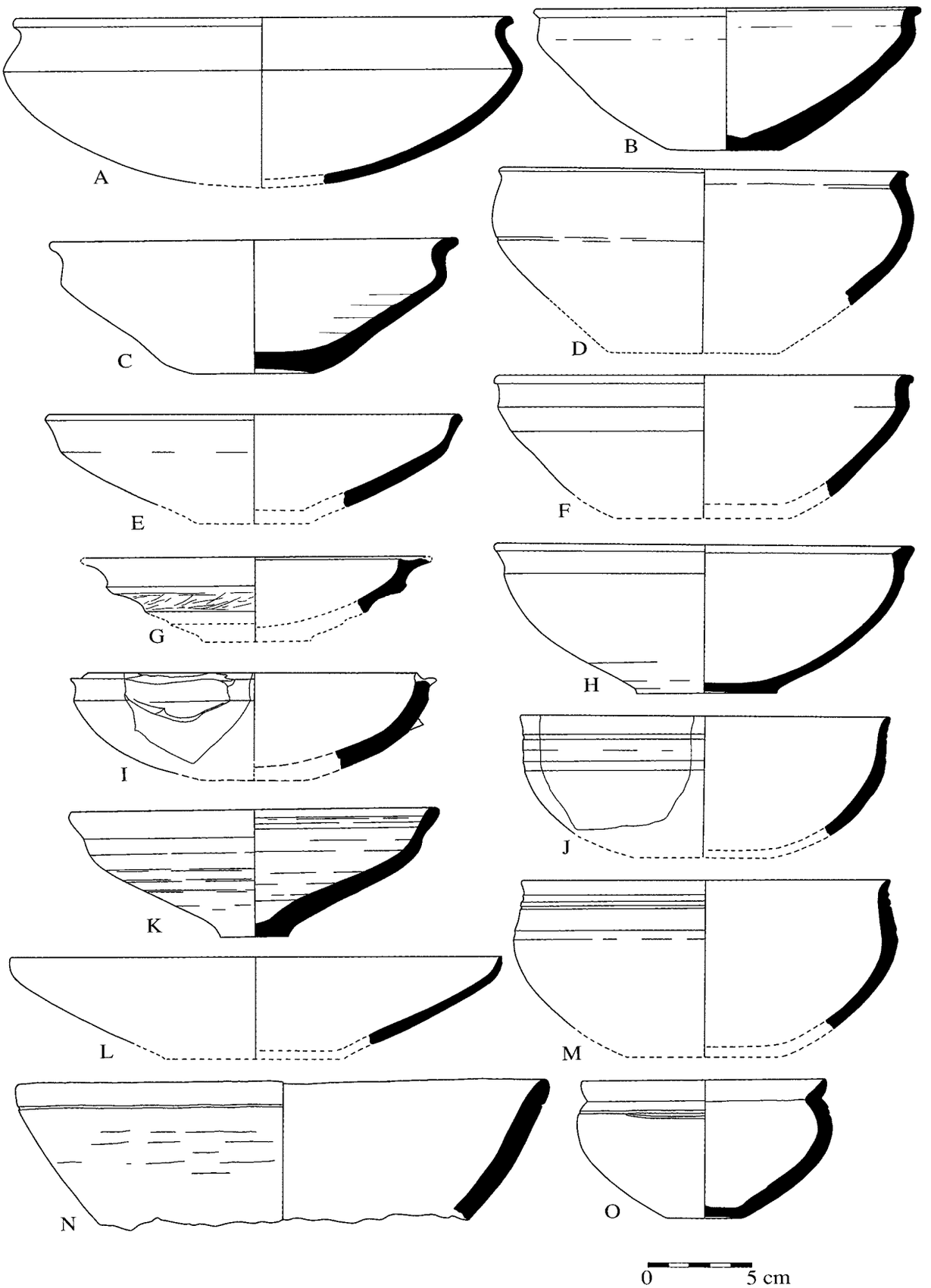


Figure 20. Late Iron Age/Achaemenid Open Bowls

Figure 21. Late Iron Age (Neo-Elamite)/Achaemenid Open Bowls

	Registration Number	*Provenance*	*Elevation*	*Description*
A	3661	R18:305	1.60 B.S.	Buff ware. Well baked, sandy, smoothed
B	N/A	Tr. XXVI	B.S.	Greenish buff ware. Well baked, gritty, smoothed. Diameter: 15 cm
C	2587	Q18:305	B.S.	Brownish buff ware. Medium and large sized grits included. Slight wheel marks on the exterior
D	N/A	Tr. XVIII	B.S.	Brownish buff ware. Cream slip exterior. Well baked, gritty
E	2646	P18:203	N/A	Buff ware. Exterior covered with a thin brown slip, interior plain. Small grit inclusions
F	3935	Q18:305	N/A	Red ware. Light buff core. Dark, red, and white grit inclusions, sandy face, red slipped on exterior, smoothed, faint traces of burnishing
G	3648	Tr. V	1.70 B.S.	Buff ware. Small dark grits as well as some calcite particles included in the paste, smoothed
H	3937	Q18:305	1.80 B.S.	Buff ware. Warm buff core grading to pink toward surface, yellowish buff interior, pinkish buff exterior. Grit inclusions, sandy face, visible striations, lower body scored
I	2623	Q18:305	1.0 B.S.	Buff ware. Over-fired greenish buff, dense, small grit inclusions, surfaces slipped, visible striations
J	2641	Tr. VII	N/A	Fine red ware. Dense, some sand inclusions, interior, and exterior, buff slipped, striations visible on exterior
K	2797	Tr. V	0.90 B.S.	Buff ware. Well baked, grit inclusions, smoothed

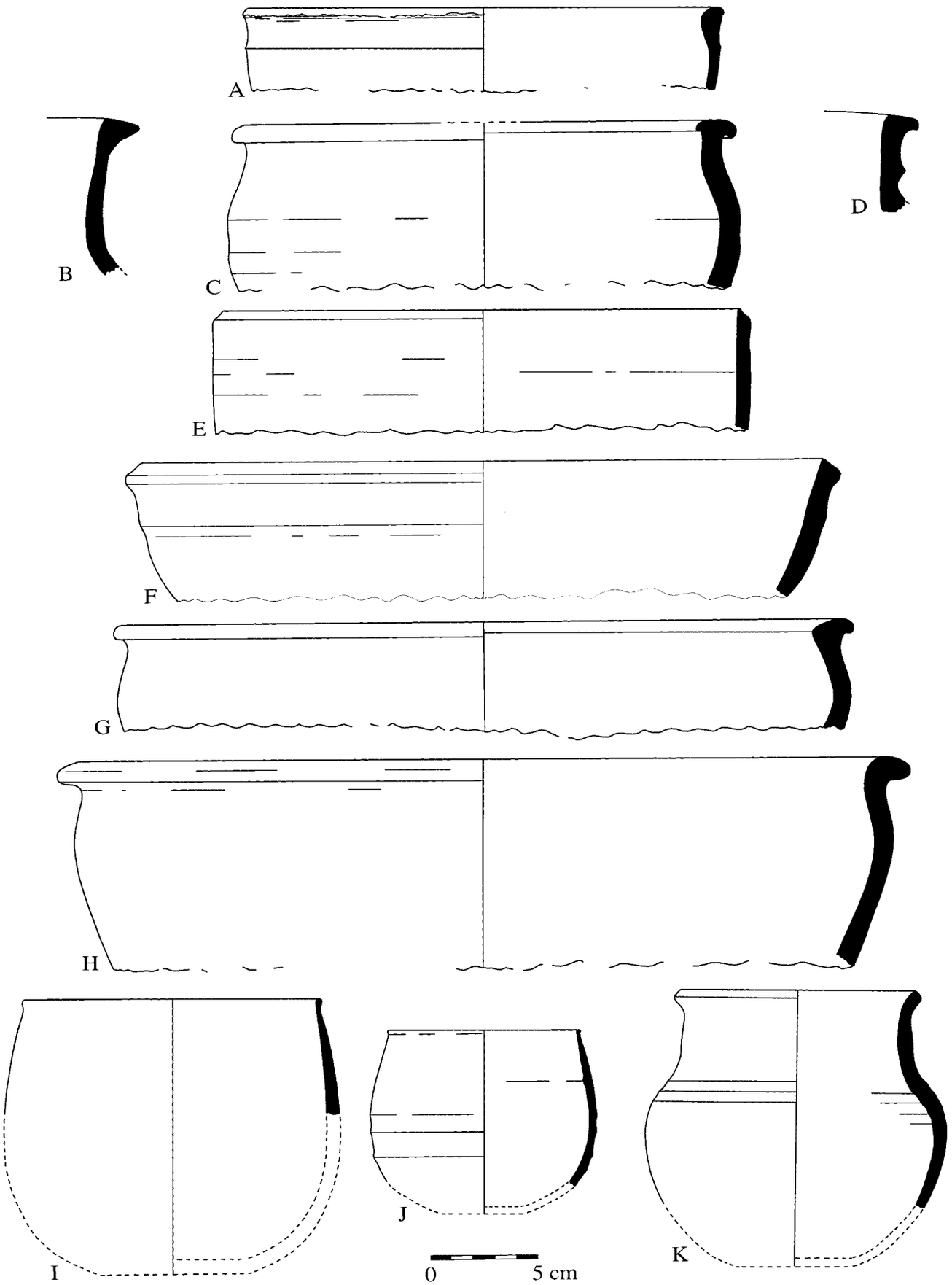


Figure 21. Late Iron Age (Neo-Elamite)/Achaemenid Open Bowls

Figure 22. Late Iron Age/Achaemenid Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	2621	Tr. XVIII	B.S.	Buff ware. Buff slip turned greenish buff. Small grit inclusions, wheel corrugations on interior
B	2669	Tr. IX	B.S.	Buff ware. Slipped all over, mottled surface ranging from orange to greenish buff. Dense, fine grit inclusions
C	7331	R17:710	82.96	Orange buff ware. Orange slip all over. Dense, small grit and fine chaff inclusions, scraped marks on exterior
D	9098	R18:916	80.24	Fine red ware. Cream slipped exterior, dark paint. No visible inclusions
E	9001	S18:403	B.S.	Fine buff ware. Buff slip on exterior. Sand and occasional grit inclusions, smoothed, wheel marks on interior
F	8337	Q17:811	86.69	Red ware. Sand and grit inclusions, smoothed
G	8048	Q17:811	82.69	Buff ware. Red wash on exterior and interior. Grit and sand inclusions
H	2577	Sdg. F	B.S.	Buff ware. Dark, red, and white grit inclusions, smoothed. Finger prints on handle
I	5359	R20:510	77.64	Orange red ware. Creamy buff slip on exterior. Grit inclusions
J	2593	Tr. V	1.40 B.S.	Buff ware. Probably slipped. Small to medium grit inclusions, smoothed. Slight corrugation marks on exterior
K	8259	Q24:801	76.26	Red ware. Red slipped. Gray core, sand and grit inclusions, striations on interior
L	2676	Round Building	N/A	Red ware. Khaki buff core grading to pink toward the surface. Dark grit inclusions, some pinkish white stripes on the bed of spout
M	5501	Round Building	N/A	Buff ware. Sand inclusions, smoothed. Ville royale II
N	8435	Q17:801	83.57	Buff ware. Probably slipped. Grit tempered, smoothed
O	3885	Q18:305	82.00	Buff ware. Buff slipped turned greenish buff. Small grit inclusions, striations on interior
P	2625	Tr. VI	B.S.	Orange buff ware. Dense, grit tempered, smoothed. Slight traces of burnishing
Q	3801	R19	N/A	Buff ware. Coarse, dark coarse grit inclusions, scrape marks on interior

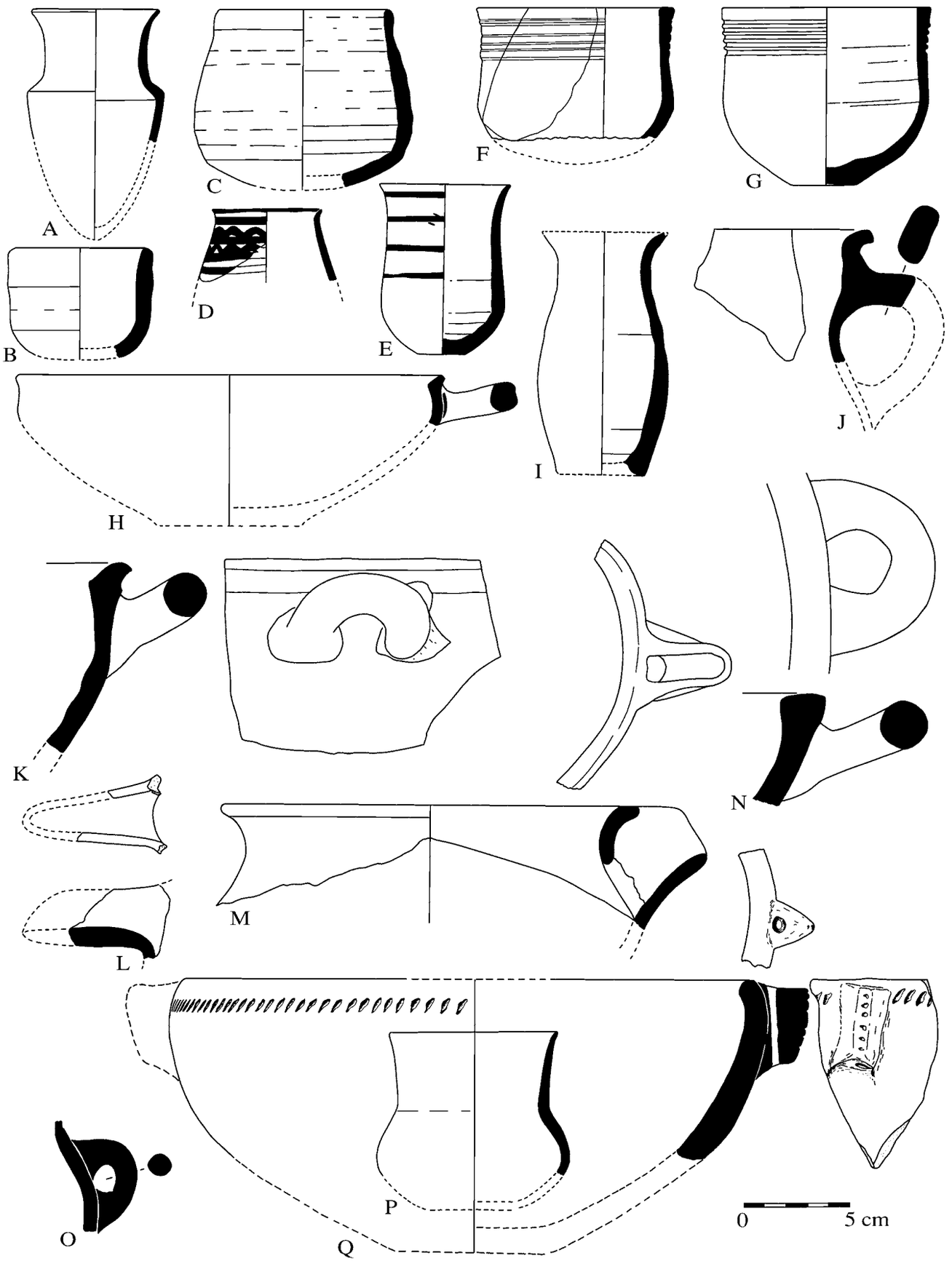


Figure 22. Late Iron Age/Achaemenid Pottery Vessels

Figure 23. Late Iron Age/Achaemenid Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	2667	Tr. VII	N/A	Buff ware. Yellowish buff slip exterior. Grit inclusions, sandy face, striation marks on exterior
B	2669	Tr. V, Plot D	N/A	Red ware. Red core grades to buff toward surface, buff slip on exterior. Grit inclusions, striation marks on exterior
C	3901	R18:305	0.75 B.S.	Buff ware. Uniform core. Small and medium size grit inclusions, smoothed
D	2589	Tr. V, Plot D	0.50 B.S.	Buff ware. Buff slip turned over-fired greenish buff. Small to medium size grit inclusions, striation marks on exterior
E	2618	Tr. V, Plot D	1.0 B.S.	Buff ware. Buff slip. Small grit inclusions, striation marks on interior and exterior
F	8160	Q17:801	83.57	Buff ware. Red slip interior and exterior. Sand inclusions, burnished exterior
G	8642	Q17:801	83.31	Red ware. Sand, grit, and chaff inclusions, gritty face lower body, striation marks upper body
H	3934	Q18:305	1.0 B.S.	Buff ware. Light buff core, multi-color and multi-size grit inclusions, gritty face, striation marks on exterior
I	4782	Tr. XIII	0.45 B.S.	Buff ware. Light brown surface. Well baked, dark grit inclusions, gritty face. “Potter’s marks”(?) on base
J	8049	Q17:812	82.65	Buff ware. Buff slip all over. Sand and grit inclusions, striation marks interior and exterior
K	9031	Q17:907	83.60	Buff ware. Light buff slip with some orange spots. Sand and grit inclusions, smoothed
L	XI-19	P17:1112	80.72	N/A
M	5612	K23:502	0.90 B.S.	Buff ware. Red wash all over. Sand inclusions, smoothed
N	8430	Q17:801	83.31	Buff ware. Straw-tempered coarse ware with some large grits, striation marks upper body, lower body scraped
O	2638	Tr. V, Plot D	1.0 B.S.	Buff ware. Slipped. Light brown surface, grit inclusions, smoothed
P	2608	Sdg. F	Surface	Red ware. Buff slipped. Small to medium grit inclusions with occasional chaff visible on surface
Q	2485	Q18:205	Surface	Buff ware. Probably slipped. Grit tempered, scrape marks on upper body
R	9478	P17:901	81.85	Buff ware. Buff slip turned greenish due to over firing. Grit tempered
S	8390	Q17:808	83.32	Buff ware. Buff slip turned greenish due to over firing. Grit tempered, striation marks on interior
T	3913	R18:304	0.50 B.S.	Buff ware. Buff slip turned greenish buff due to over firing. Small to medium size grit tempered; see Stronach and Roaf 1978, fig. 7

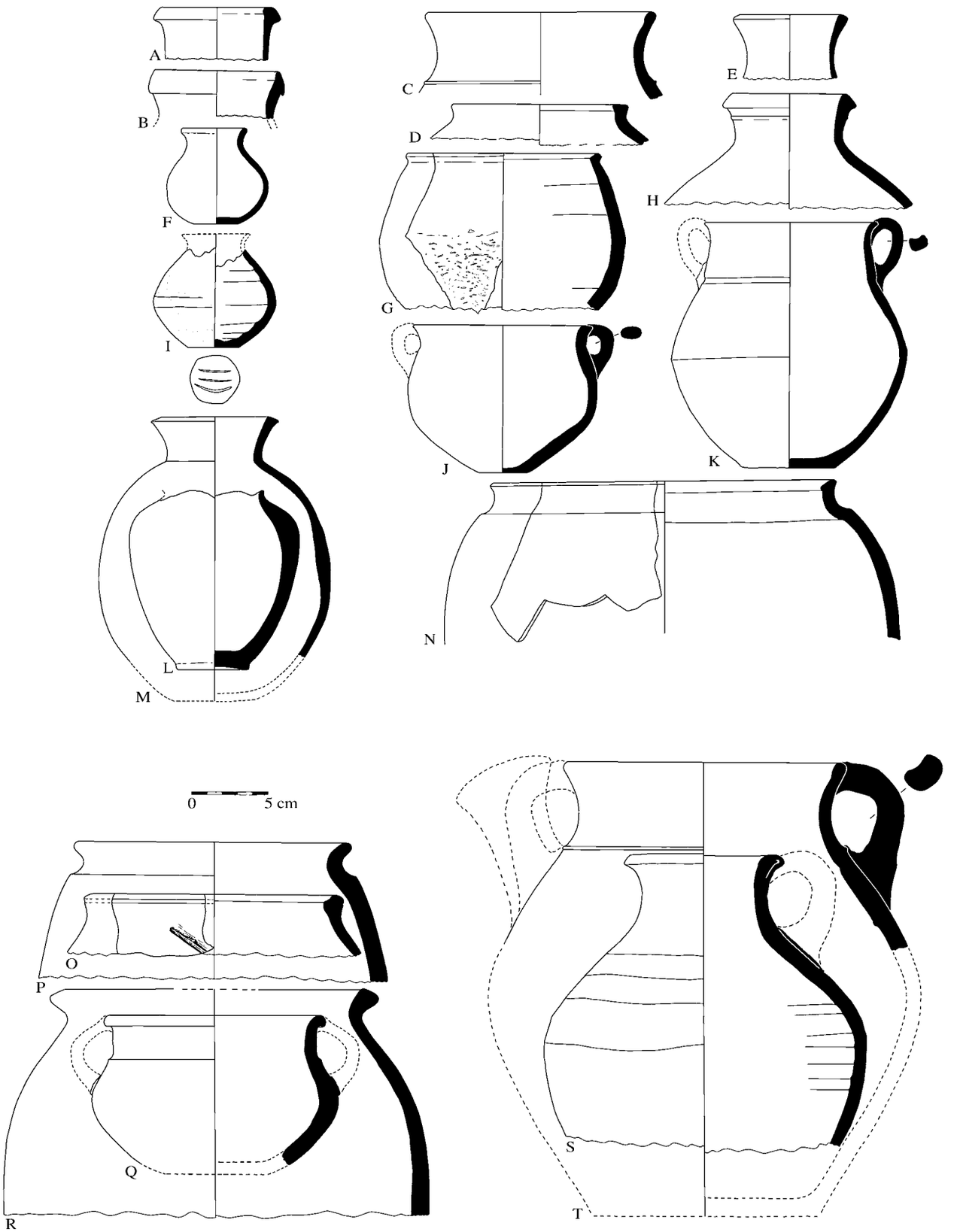


Figure 23. Late Iron Age/Achaemenid Pottery Vessels

Figure 24. Late Iron Age/Achaemenid Open Bowls

	Registration Number	*Provenance*	*Elevation*	*Description*
A	41137	K23:400	1.35 B.S.	Buff ware. Well baked, no visible inclusions, smoothed
B	4654	R20:401	B.S.	Buff ware. Creamy slip on exterior and interior. Light buff, sand and grit inclusions, some chaff
C	8431	Q17:801	83.57	Buff ware. Orange buff surface. Well baked, grit inclusions
D	2619	Tr. V	82.98	Orange buff ware. Well baked, dense, grit inclusions, smoothed
E	2596	Tr. VII	B.S.	Orange buff ware. Buff slip exterior. Well baked, grit inclusions, visible striations
F	8170	Q24:803	78.61	Buff ware. Buff slip exterior and interior. Well baked, grit and sand inclusions, smoothed, visible striation marks
G	8709	Q17:801	83.30	Red ware. Red slip all over. Well baked, no visible inclusions
H	9908	P17:901	N/A	N/A
I	8639	Q17:801	83.28	Red ware. Red slip interior turning to white and flaking. Well baked, grit and sand inclusions
J	3644	Q18:305	0.35 B.S.	Orange buff ware. Dense with metallic ring, well baked, some grit inclusions, scrape marks on lower exterior
K	6197	P23:606	82.05	Greenish buff ware. Well baked (over fired?), no visible inclusions
L	3974	R18:307	B.S.	Buff ware. Well baked, small and large grit inclusions, smoothed
M	8156	Q17:806	82.84	Buff ware. Buff slip exterior and interior. Well baked, sand inclusions
N	3654	Tr. V	1.0 B.S.	Orange ware. Well baked, some sand inclusions, smoothed
O	2652	Sdg. A	B.S.	Buff ware. Slipped all over. Well baked, light brown buff surface, occasional medium size grit inclusions

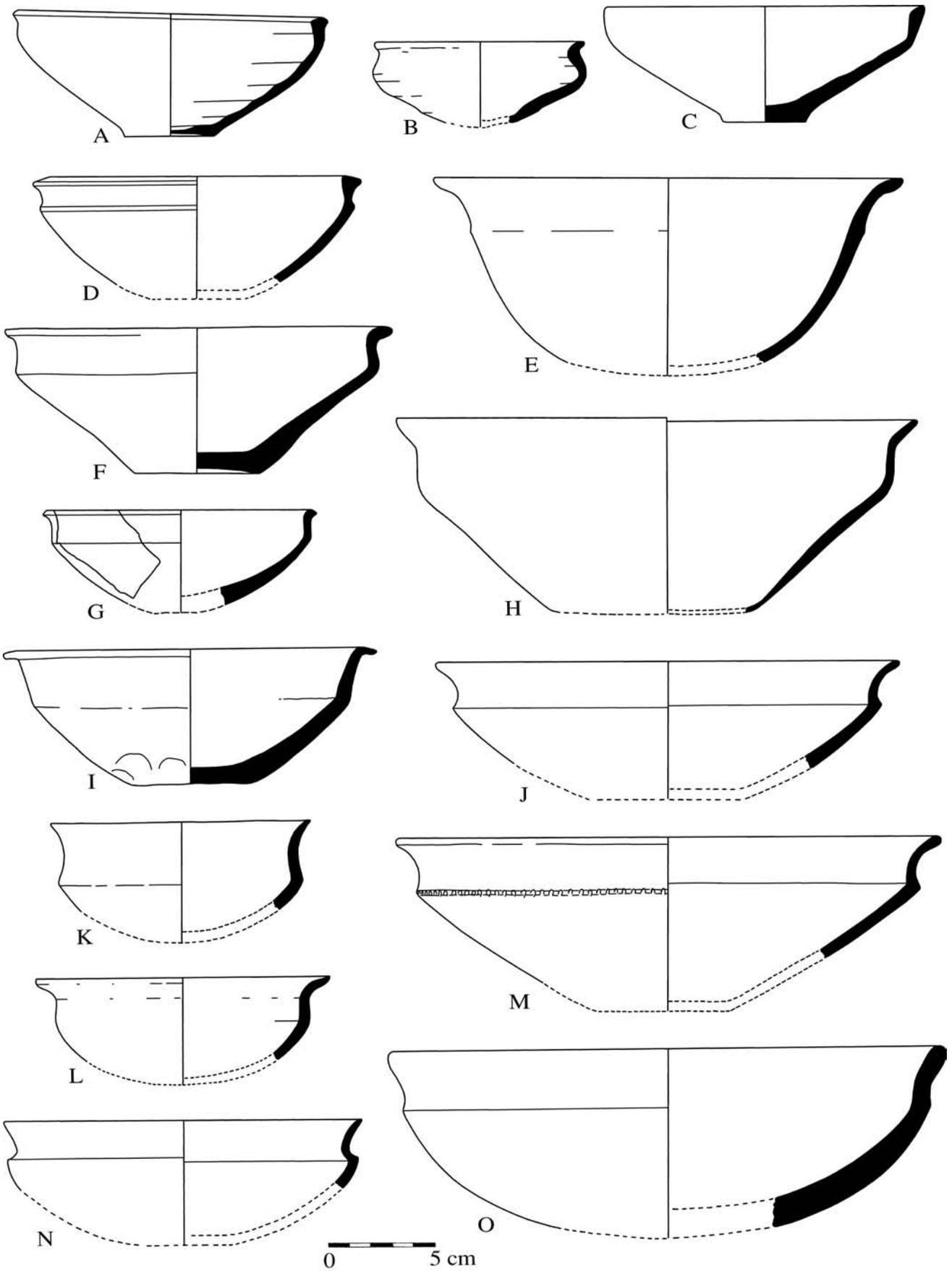


Figure 24. Late Iron Age/Achaemenid Open Bowls

Figure 25. Old Elamite (Sukkalmah) Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	1206	Q21:101	Fireplace	Orange buff ware. Probably slipped. Fine grit tempered
B	1212	Q21:102	Surface	Yellowish buff ware. Grit and straw tempered, striation marks below rim
C	4330	J15:408	1.03 B.S.	Buff ware. No slip. Gritty, smoothed
D	X-14	N9:1004	90.40	Buff ware. Tan buff surface, probably slipped. Medium to small grits, scored base
E	X-15	N9	90.40	Buff ware. Buff tan exterior and interior. Grit tempered, smoothed
F	10064	N9:1006 South	90.88	Yellowish buff ware, grading to light orange toward surface. Creamy buff slip exterior. Some fine chaff and grit inclusions
G	X-22	N1006	90.30	Buff ware. Light orange tinge toward exterior. Small to medium grit tempered, striations on interior, scrape marks exterior
H	1211	High Mound	Surface	Buff ware. Light yellow buff surface. Grit and straw tempered, smoothed
I	1202	High Mound	Surface	Buff ware. Fine grit tempered, smoothed, wheel corrugations on exterior and interior
J	10018	N10:1002 North	85.18	Buff ware. Traces of cream buff slip exterior. Some grit inclusions, dense, scored base
K	N/A	R19:301	N/A	N/A
L	4690	P10:401	B.S.	Creamy buff ware. Straw and grit tempered, dense, striations on both sides, wheel corrugations interior
M	1207	Q21:102	0.90 B.S.	Grayish buff ware. Dense, gritty, fire smudges on exterior
N	1219	Tr. II	2.50 B.S.	Buff ware. Slipped. Grit tempered, gritty face, smoothed, grit drag marks on exterior
O	1213	Q21:101	Fireplace	Buff ware. Brownish buff surface. Fine straw and grit tempered, interior covered with smudges, striations on interior and exterior
P	4693	P9:401	B.S.	Creamy buff ware. Probably slipped. Straw and grit tempered, striations on interior and exterior
Q	X-11	Q9:1010	B.S.	Buff ware. Probably slipped. Some grit inclusions, striations on interior and exterior
R	X-16	N9:1004	90.84	Buff ware. Creamy buff surface. Some grit inclusions, wheel corrugations interior
S	X-9	N9:1001 North	90.83	Buff ware. Straw and grit tempered, striations on exterior and interior
T	X-32	N8:1005	90.44	Buff ware. Creamy buff surface. Straw and grit tempered, smoothed, wheel corrugations on interior
U	10087	N9:1001	Grave 1001	Buff ware. Straw and grit tempered, scored below rim and lower body, wheel corrugations on interior

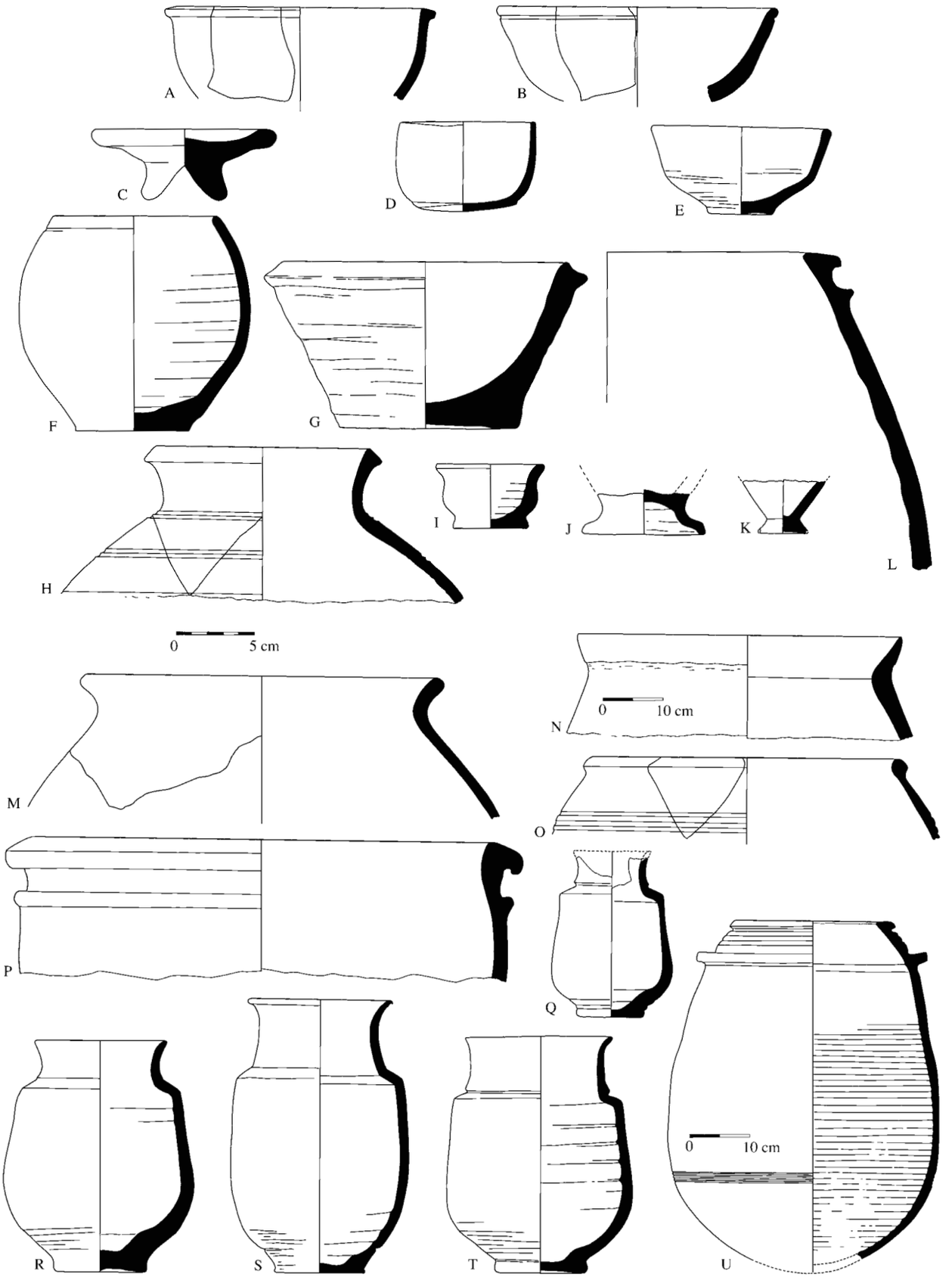


Figure 25. Old Elamite (Sukkalmah) Pottery Vessels

Figure 26. Protoliterate Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	VI-47	R17:408	82.90	Standard ware. Pinkish buff. Wheel corrugations inside, string-cut base
B	N/A	P17:902	81.61	Standard ware. “Pseudo-” beveled-rim bowl
C	6130	R19:401	1.0 B.S.	Standard ware. Buff slip turned greenish buff due to over firing. Fine to medium grits, striations on interior, lower body scraped
D	IX-28	Q17:903	83.38	Coarse ware. Light gray buff, smeared with bitumen on interior and exterior
E	9015	R16:912	82.85	Standard ware. Buff. Few grits
F	9013	Q17:905 West	82.96	Standard ware. “Pseudo-” beveled-rim bowl
G	9203	R16:903	83.16	Coarse buff ware. Grit and straw tempered. Rough surface exterior
H	9500	P17:901	81.51	Standard ware. Buff. Straw tempered
I	8662	Q17:803	83.78	Buff ware. Pinkish hue on the interior, light pink blotches on the exterior. Striations on the interior
J	11206	Q16:1103	83.49	Standard ware. Buff. Some grit inclusions. Possibly a lid
K	9154	R19:905	80.15	Coarse ware. Buff. Chaff tempered, scraped marks on lower body

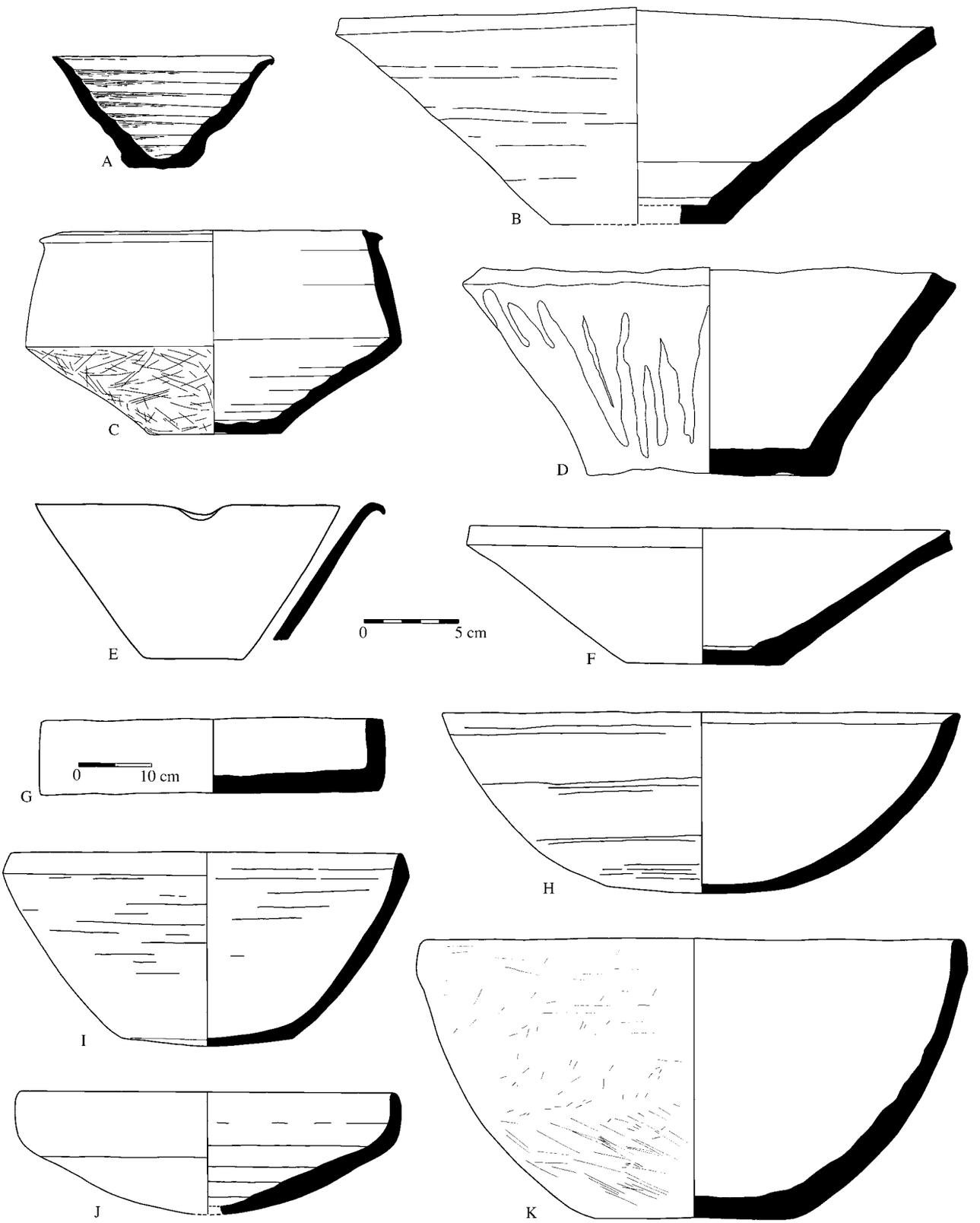


Figure 26. Protoliterate Pottery Vessels

Figure 27. Protoliterate Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	8645	Q17:804	82.73	Fine red ware. Red slip. Sand tempered, silky smooth exterior
B	8644	Q17:801	83.57	Buff ware. Grayish surface, interior slip yellowish buff in color. Sand and grit tempered
C	8522	Q17:801	83.57	Buff ware. Medium to large grits inclusions, dense, salt encrusted. Possibly Achaemenid
D	9246	N/A	N/A	N/A
E	9691	N8:903	88.00	Standard ware. Buff orange. Sand tempered. Smoothed surface, some striations visible on the exterior
F	X-5	Q17:1001	82.69	Standard ware. Buff. Sand and fine grits included. Scraped marks below shoulder, striations on the interior
G	X-25	Q17:1001	82.69	Standard ware. Buff orange. Sand tempered. Smoothed surface, some striations visible on the exterior
H	X-10	Q17:1001	82.69	Standard ware. Pale pink buff. Sand tempered, smoothed
I	6031	Tr. XXXIII	77.40	Standard buff ware. No visible slip, wet smoothed(?)
J	XI-16	P17:1104	81.55	Standard ware. Buff orange. Sand tempered, smoothed

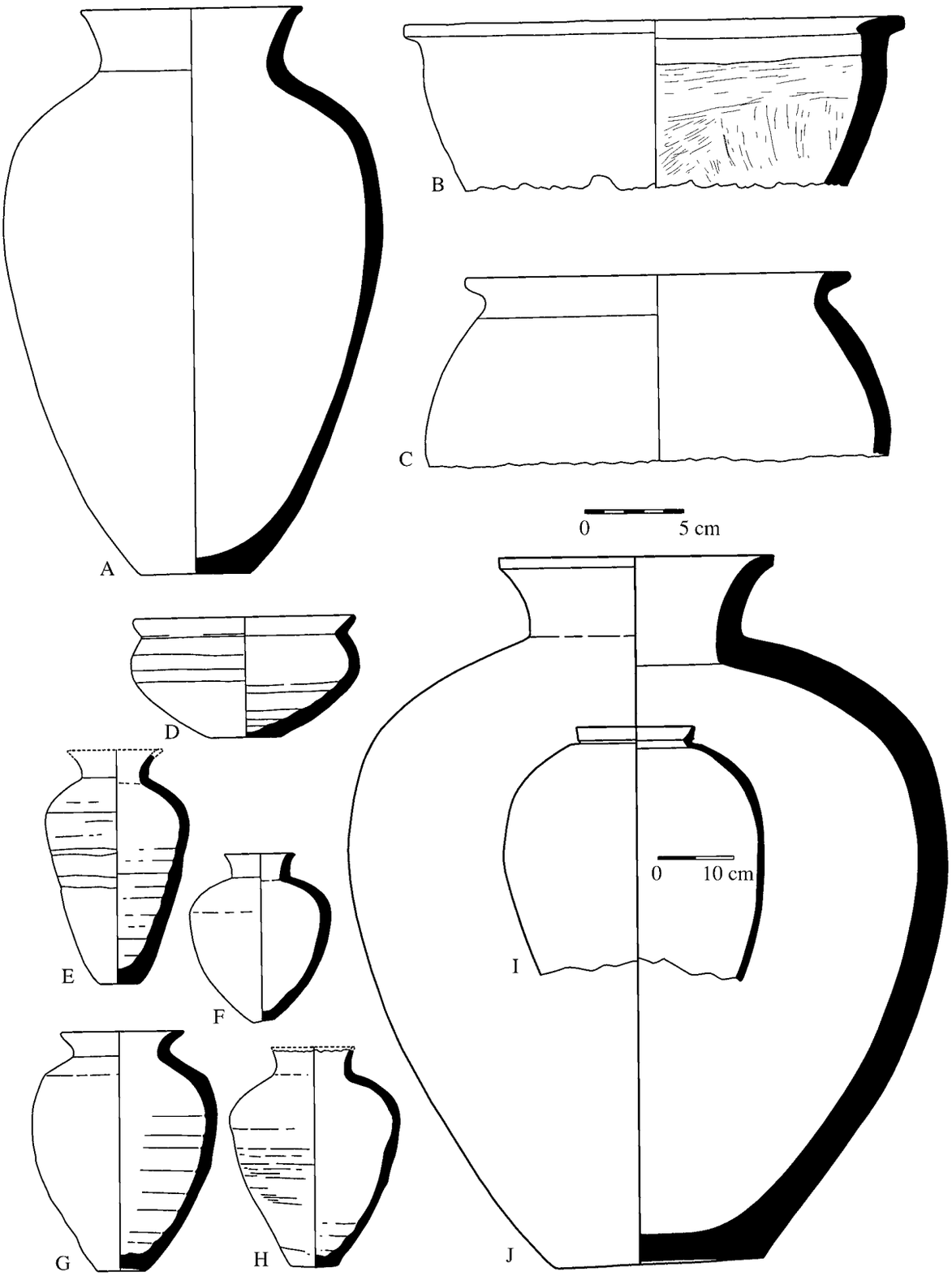


Figure 27. Protoliterate Pottery Vessels

Figure 28. Protoliterate Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	9024	R16:912	84.03	Gritty standard ware. Orange buff. Smoothed
B	VI-51	S17:405	N/A	Gritty standard ware. Reddish brown. Rough body except for the smoothed rim and neck
C	IX-104	R19:905	80.19	Gritty standard ware. Light red. Smoothed
D	VI-52	H15:408	1.03 B.S.	Gritty standard ware. Brownish buff. Smoothed
E	8567	Q17:816	82.55	Coarse ware. Straw-tempered orange brown clay. Scraped marks on body
F	6847	R19:601	1.0 B.S.	Coarse ware. Straw-tempered orange buff ware. Scraped marks on body

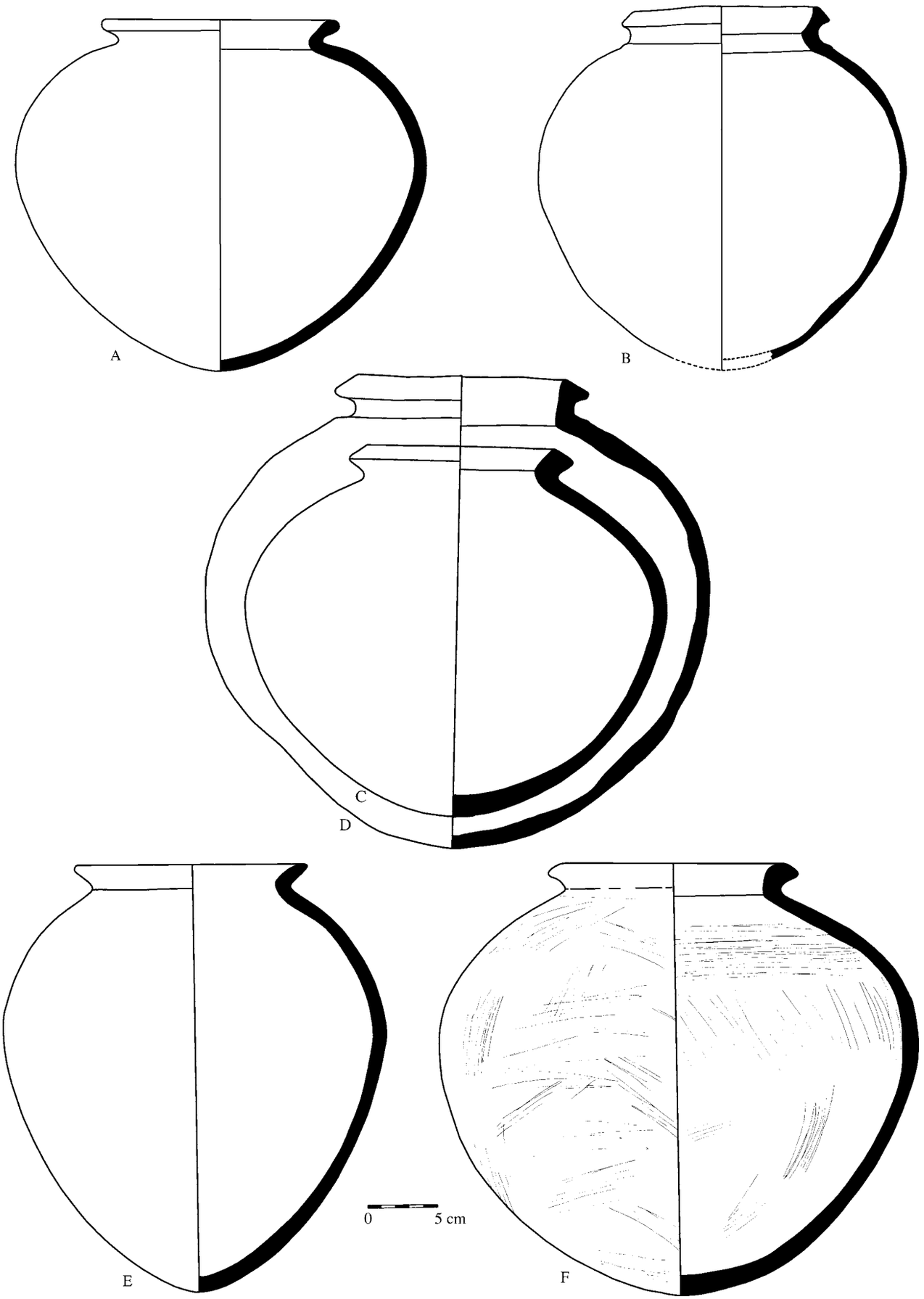


Figure 28. Protoliterate Pottery Vessels

Figure 29. Protoliterate Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	XI-13	R17:1110	82.10	Standard buff ware. Red wash. Sandy, occasional red grits
B	XI-10	R16:1105	83.50	Standard buff ware. Gritty, dense
C	8176	Q17:803	83.41	Standard buff ware. Orange buff slip. Grit tempering. Base covered with knobs of various sizes
D	9189	R18:909	80:07	Standard buff ware. Sandy, smoothed. Shoulder decorated by pinching clay
E	X-7	East Area	N/A	Standard red ware. Sandy, smoothed
F	VI-62	R18:414	N/A	Standard buff ware. Some grit inclusions, smoothed
G	4299	R18:307	0.55 B.S.	Standard buff ware. Buff slip exterior, buff slip shading into orange. Sand tempered, smoothed. Shoulder decorated with black paint and knobs
H	8568	S22:803	76.16	Standard buff ware. Surface buff shades to light orange. Sandy, dense
I	VI-44	K14:403	0.85 B.S.	Standard buff ware. Surface yellowish buff. Sand tempered
J	XI-12	East Area	N/A	Standard red ware. Sandy, smoothed, wheel striations on the interior

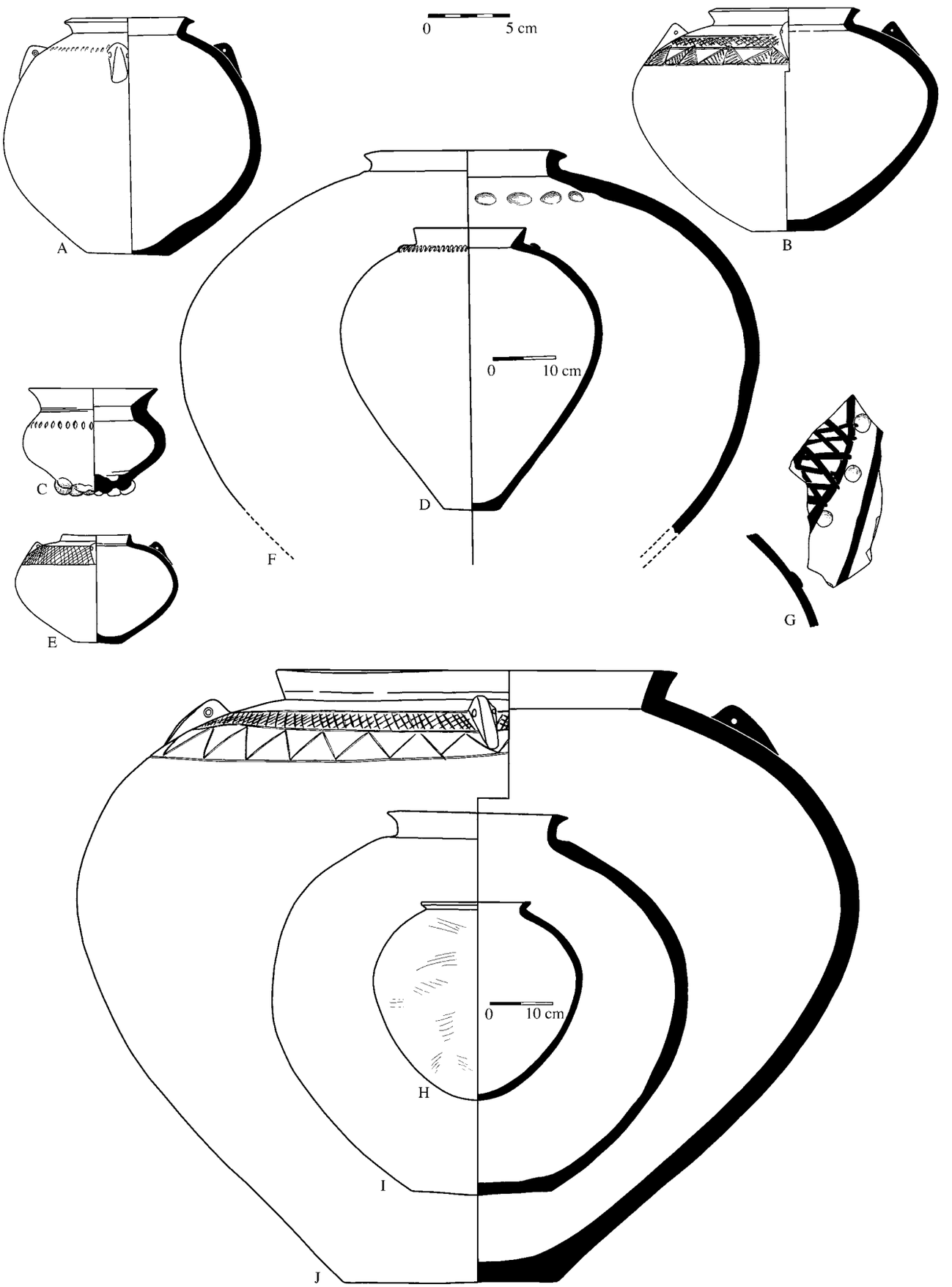


Figure 29. Protoliterate Pottery Vessels

Figure 30. Protoliterate Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	VII-97	S22:701	76.43	Standard ware. Rather fine, smoothed
B	IX-132	R19:903	79.89	Standard ware. Gritty buff. Incised shoulder
C	8051	S22:803	70.41	Standard ware. Red slip. Grits and sand inclusions, striations on exterior
D	9133	R18:916	80.24	Fine buff ware. Sand tempered with occasional grits. Smoothed upper body, scraped lower body
E	IX-117	East Area	N/A	Standard ware. Red slip. Grits and sand inclusions, striations on exterior
F	9144	S22:904	76.96	Standard buff ware. Sand and grit inclusions, striations on interior and exterior
G	8661	Q17:813	82.51	Standard red ware. Grit tempered, smoothed, wheel corrugations on interior
H	9030	R16:914	83.50	Standard red ware. Gritty, heavy corrugations on the interior

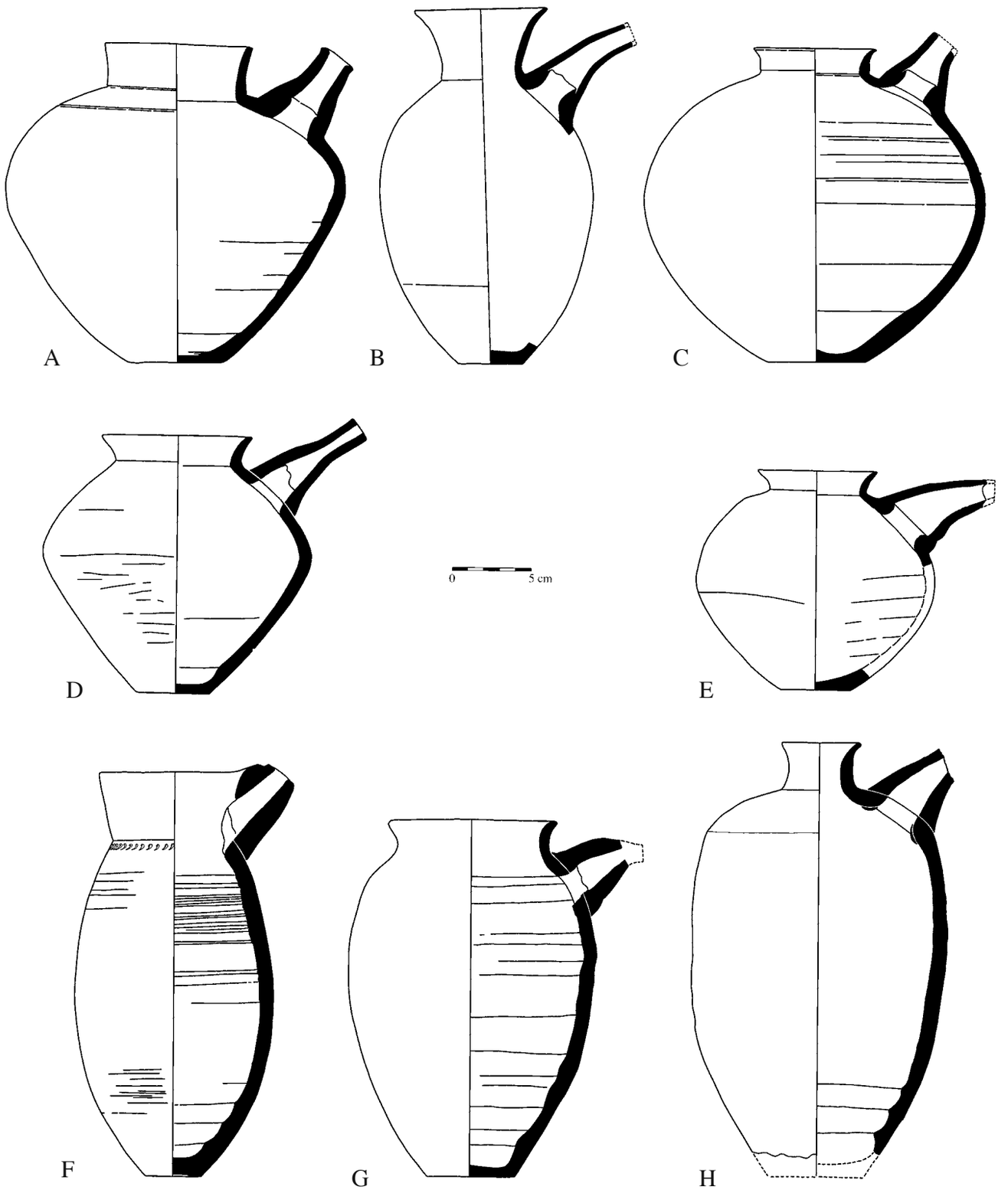


Figure 30. Protoliterate Pottery Vessels

Figure 31. Protoliterate Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	8643	Q17:803	83.37	Standard buff ware. Sandy, creamy buff surface, upper body smoothed, lower body scraped
B	IX-9	Q17:903 East	83.63	Standard buff ware. Brownish buff core, wet smoothed
C	9151	R19:905	79.44	Standard buff ware. Sand and grits, very smooth
D	IX-75	R18:906	79.46	Standard buff ware. Yellowish buff surface, sandy
E	9032	R18:902	81.22	Standard buff ware. Light buff slip shading into light orange on surface. Sand and grit inclusions, smoothed
F	8572	S22:803	77.01	Fine buff ware. Creamy buff slip. Sand tempered
G	VI-56	East Area	Surface	Standard red ware. Brownish buff core, sandy face
H	X-4	Q16:1001	83.15	Fine buff ware. Buff slipped turned greenish buff on surface. Sand tempered
I	8610	Q17:806	83.57	Fine buff ware. Creamy buff slip on exterior. Sand tempering with some grits, striations on exterior
J	8611	Q17:816	82.55	Fine buff ware. Creamy buff slip turned greenish due to over firing. Sandy, smoothed
K	VI-59	K23:502	0.90 B.S.	Standard buff ware. Some scattered grits, corrugation marks just below equator
L	IX-133	R18:906	81.46	Standard buff ware. Buff slip turned greenish due to over firing. Sandy, smoothed
M	IX-116	N/A	Surface	Standard buff ware. Sand tempered. Buff slip turned greenish due to over firing
N	VII-97	S22:701	76.43	Standard buff ware. Buff slip. Almost fine, sandy
O	9506	East Area	N/A	Standard red ware. Sandy, smoothed

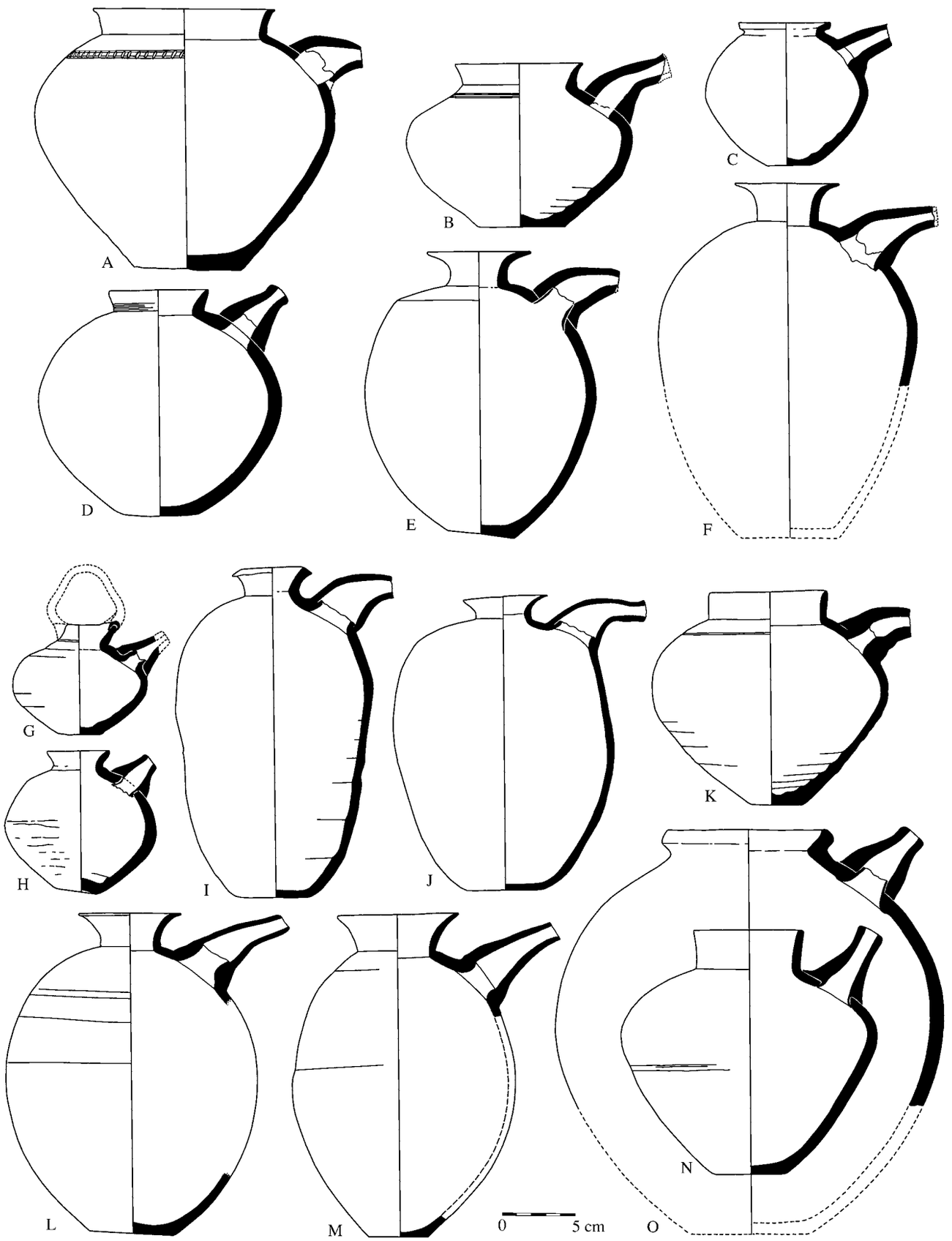


Figure 31. Protoliterate Pottery Vessels

Figure 32. Protoliterate Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	9505	N8:903	98.80	Standard buff ware. Gritty, light brownish core grading to buff
B	9481	P17:901	81.85	Standard ware. Gritty, orange red with buff gray core
C	X-15	N10:1004	89.73	Standard ware. Gritty, brownish buff, wheel corrugations inside
D	IX-89	R19:905	80.15	Standard ware. Gritty, yellowish buff
E	9146	R18:906	80.02	Standard red ware. Orange buff, incised
F	X-2	Q16:1007	83.64	Standard ware. Gritty, buff
G	6225	Tr. XIII	0.70 B.S.	Standard ware. Gritty, some very large. Brownish buff core, orange buff surface, smoothed
H	8663	Q17:806	83.57	Standard ware. Light buff. Gritty
I	9193	R16:902	83.87	Fine ware. Light buff, sand and grit tempered. Creamy buff slipped
J	VI-67	K23:501	0.25 B.S.	Standard ware. Gritty orange brown, rough surface with fire smudges
K	9693	N8:903	88.00	Standard ware. Buff orange with light buff brownish core. Grits visible on the surface. No slip
L	9501	R18:906	80.02	Standard red ware. Gritty, smoothed

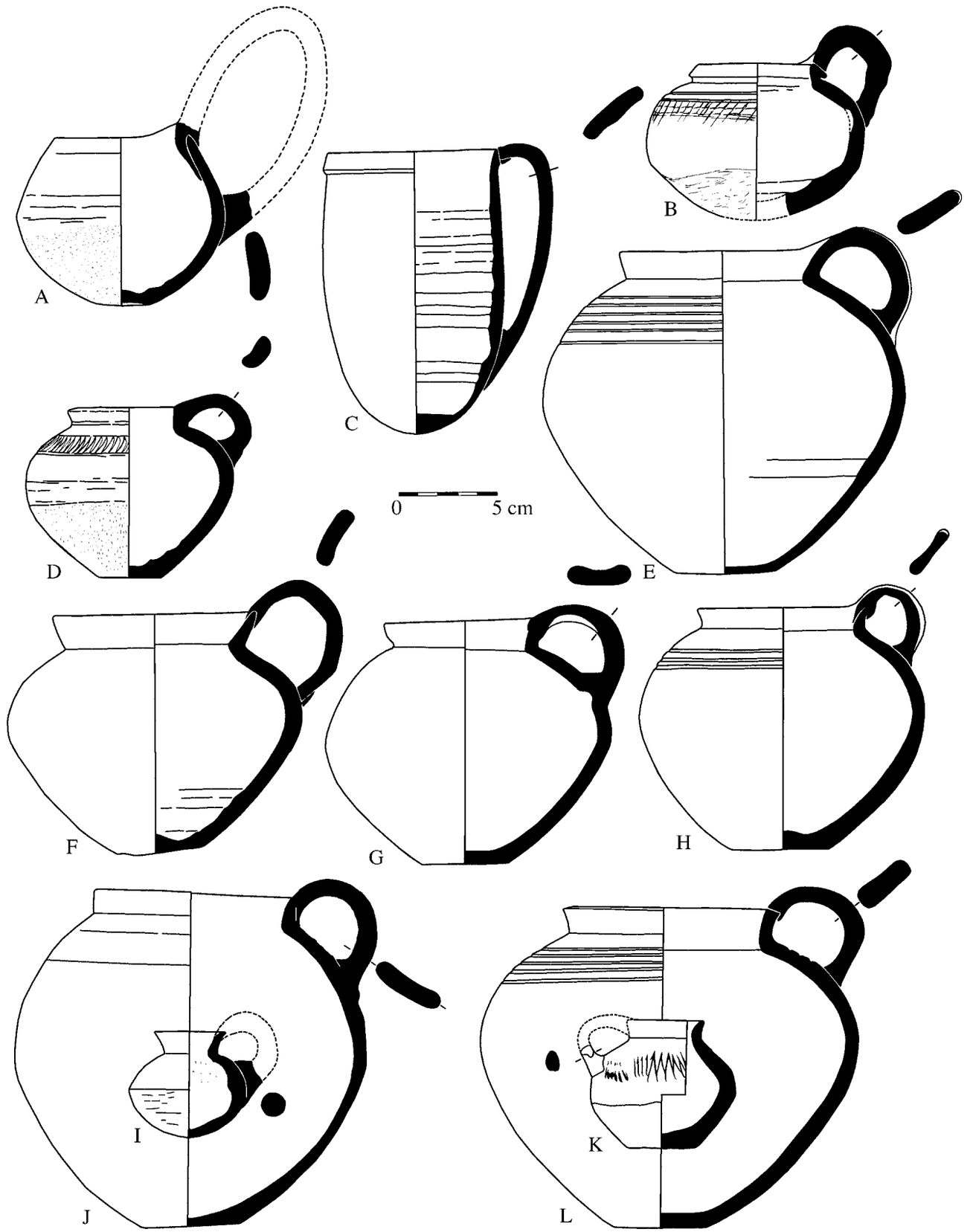


Figure 32. Protoliterate Pottery Vessels

Figure 33. Protoliterate Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	IX-58	R18:909	80.98	Standard buff ware. Gritty. Smoothed exterior
B	8396	Q17:803	83.40	Buff ware. Sand and grit inclusions. Prominent wheel marks on interior
C	8665a	Q17:801	83.87	Buff ware. Sand and grits tempering. Wheel marks on the interior. Lower exterior scraped
D	5694	R20:510	78.68	Light red ware. Dark red wash on exterior with horizontal burnish strokes. Black paint
E	9192	R16:906	83.87	Red ware. Grit tempered. Flaky surface
F	N/A	Q17:1106	82.70	Standard buff ware. Gritty. Water pipe
G	7394	R17:719	83.76	N/A
H	8299	Tr. XXV	Surface	N/A
I	9479	P17:901	81.83	Coarse gray ware. Basin fragment with spout or bellow fragment. Straw tempered. Greenish gray core
J	8395	Q17:804	82.78	Standard red ware. Red, dark, and white (calcite) grits tempering. Uneven body
K	XI-9	R17:1101	83.44	Coarse ware. Brownish buff. Grits and chaff tempered. Interior “floor” longitudinally stroked
L	11198	Q18:1106	81.50	Coarse ware. Brownish buff. Grits and chaff tempered. Interior “floor” longitudinally stroked

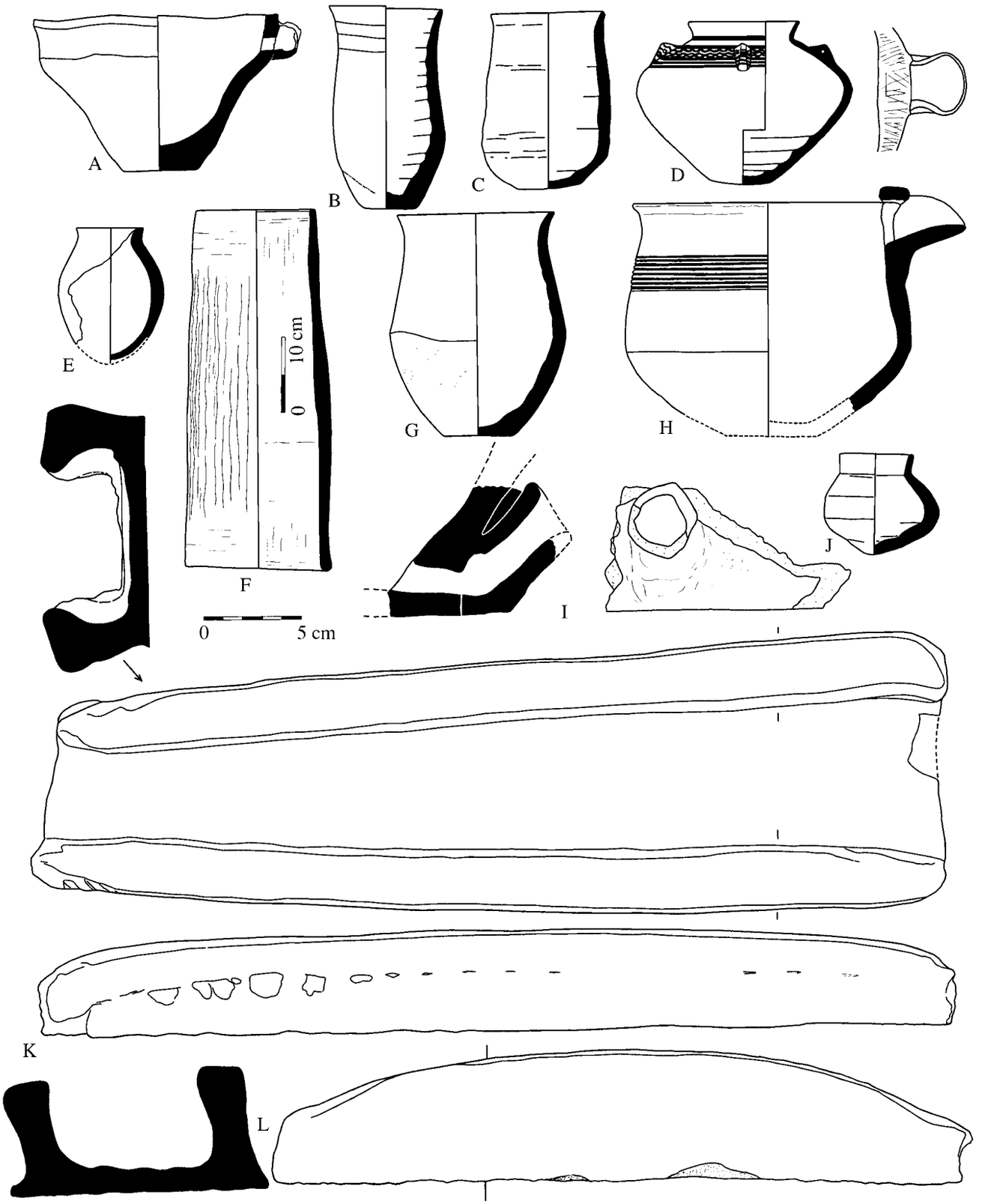


Figure 33. Protoliterate Pottery Vessels

Figure 34. Protoliterate Ritual Vessel

Registration Number	*Provenance*	*Elevation*	*Description*
X-1	Q17:1001	82.65	Libation(?) vessel. Buff ware. Sand tempered. Creamy buff slipped. Incised. See pl. 29:A for photograph

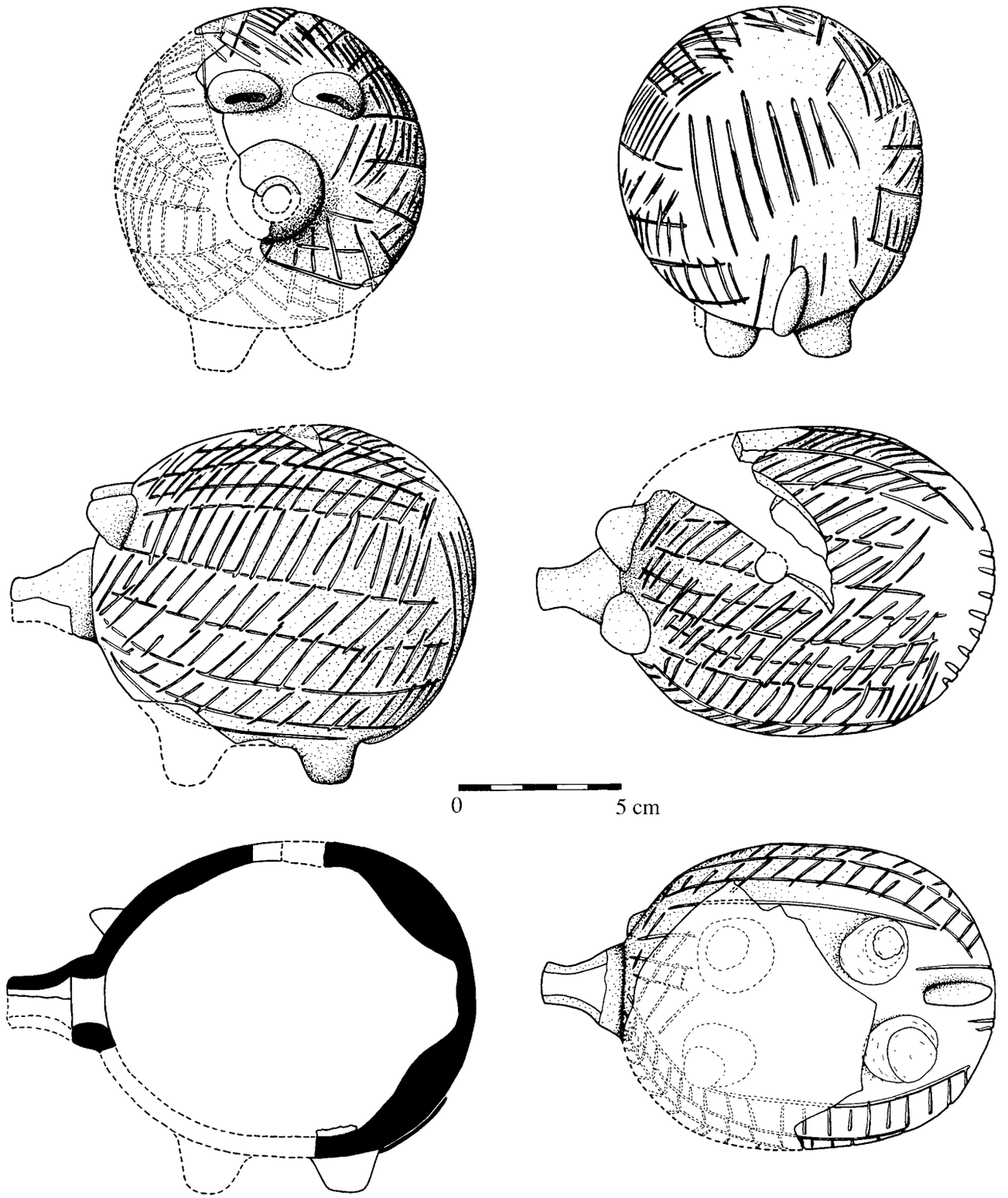


Figure 34. Protoliterate Ritual Vessel

Figure 35. Late Susiana 2 Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	9631	S17:901	81.20	Creamy buff fine ware. No visible inclusions, black paint. See plate 19:B for photograph
B	9629	S17:901	81.20	Creamy buff fine ware. No visible inclusions, black paint
C	8056	Q17:811	82.69	Fine buff ware. Some sand included. Creamy slip on exterior and interior. Black paint
D	9630	S17:901	81.20	Light red (2.5 YR 6/6) fine ware. Some sand inclusions, red paint. Susa Acropole II, level VII
E	9676	M9:901	83.68	Buff ware. Some sand inclusions, smoothed, black paint

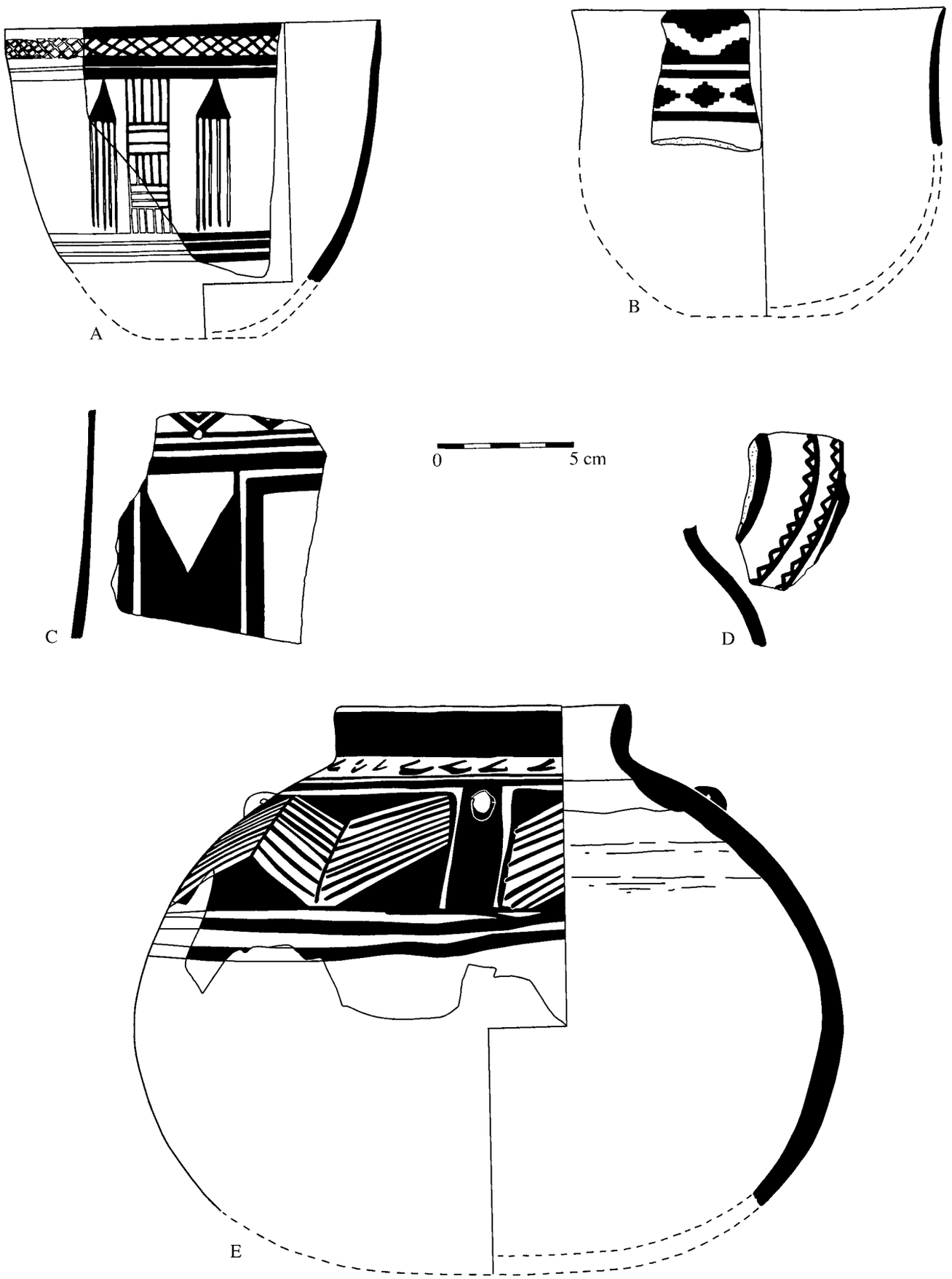


Figure 35. Late Susiana 2 Pottery Vessels

Figure 36. Middle Susiana Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	9153	S18:915	82.00	Buff ware. Sand tempered. Creamy buff slip turned greenish buff due to over firing, black paint
B	9520	S18:918	80.09	Fine buff ware. No visible inclusions. Creamy buff slipped. Black paint
C	VII-26	G28:705	79.42	Buff ware. Dense, no visible inclusions. Yellowish buff slipped. Black paint
D	9542	S18:918	81.65	Buff ware. Some sand inclusions. Creamy buff slipped. Black paint
E	9152	S18:916	81.60	Buff ware. Sand tempered with few grits. Buff slipped. Black paint
F	4264	Sdg. G	1.40 B.S.	Fine buff ware. Some fine grit inclusions. Creamy buff slipped. Brown matte paint
G	7008	G27:703	81.17	Fine buff ware. No visible inclusions. Creamy buff slipped. Black broad wash
H	7074	R23:702	77.63	Buff ware. Small grit tempered. Creamy beige slipped. Brown paint
I	9547	S18:915	82.00	Buff ware. Some sand inclusions. Creamy buff slip turned slightly green due to over firing. Black paint
J	9177	P17:901	79.37	Buff ware. Sand tempered. Creamy buff slipped. Black paint
K	7004	R23:704	75.47	Standard buff ware. Fine grit tempered. Creamy buff slipped. Dark brown paint. Interior decoration achieved by incision through broad wash. Early Middle Susiana
L	9208	R18:908	80.88	Fine buff ware. No visible inclusions. Creamy buff slip turned slightly green due to over firing. Black paint

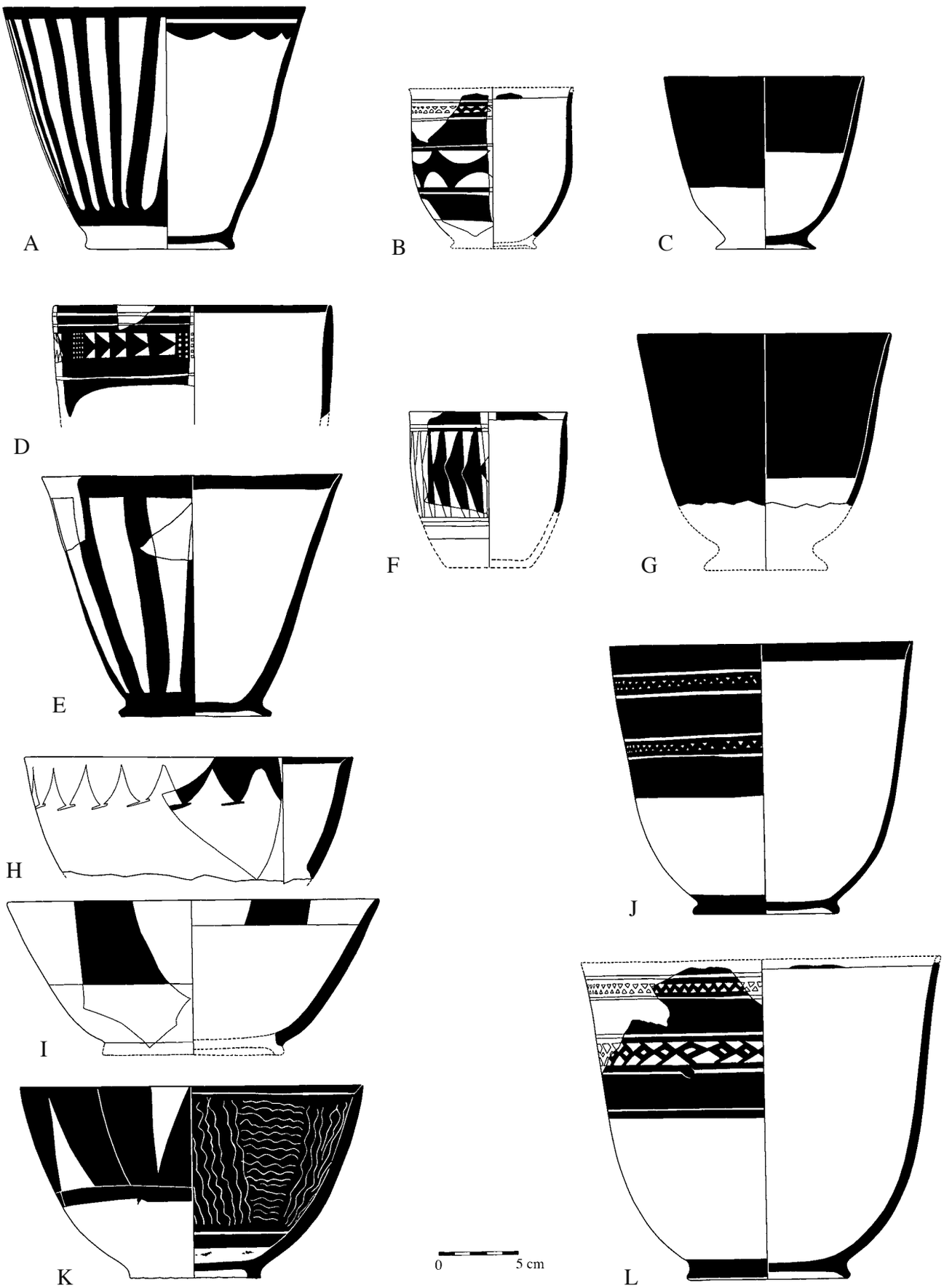


Figure 36. Middle Susiana Pottery Vessels

Figure 37. Middle Susiana Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	6005	S20:601	0.20 B.S.	Standard buff ware. Sand tempered. Buff slip turned greenish due to over firing. Greenish brown paint. Late Middle Susiana
B	6013	S20:601	78.56	Standard buff ware. Sand tempered. Creamy buff slip turned greenish due to over firing. Olive black paint. Late Middle Susiana
C	6121	Tr. XXXIII	77.40	Standard buff ware. Sand tempered. Creamy buff slip turned greenish due to over firing. Black paint, somewhat shiny. See also figure 38:A. Late Middle Susiana
D	IX-103	R18:916	81.71	Standard buff ware. Sand tempered. Creamy buff slip turned greenish due to over firing. Black paint. Late Middle Susiana
E	8677	S22:819	76.33	Standard buff ware. Sand tempered. Creamy buff slipped. Brown paint. Early Middle Susiana
F	6522	S20:618	75.20	Buff ware. Small grit tempered with occasional traces of chaff. Creamy buff slipped. Black paint. Form and decoration Early Susiana/Middle Susiana Transitional
G	9624	S18:916	81.71	Standard buff ware. Sand tempered. Buff slipped. Blackpaint. Late Middle Susiana
H	7716	G28:703	77.60	Standard buff ware. Sand tempered with occasional grits. Buff slipped. Dark paint. Late Middle Susiana
I	6268	P22:604	B.S.	Buff ware. Dense. Orange buff surface. Sand tempered with occasional grits. Some air pockets. Dark reddish brown granular paint. Early Middle Susiana
J	7119	R23:701	77.66	Buff ware. Sand tempered. Buff slipped. Black paint. Early/Late Middle Susiana
K	IX-41	R18:901	81.10	Standard buff ware. Sand tempered with occasional grits. Buff slipped. Dark paint. Late Middle Susiana
L	6477	P22:602	81.44	Buff ware. Grit tempered with some straw. Buff slipped. Black paint. Early Middle Susiana
M	9675	R18:902	81.22	Standard buff ware. Sand tempered with occasional grits. Buff slipped. Dark paint. Late Middle Susiana
N	7002	G28:703 South	76.98	Standard buff ware. Sand tempered. Buff slipped. Dark brown paint. For outside decoration, see pl. 20:H. See also figure 39:B. Early/Late Middle Susiana
O	9185a	R18:901	81.10	Standard buff ware. Sand tempered with occasional grits. Buff slipped. Dark paint. Late Middle Susiana
P	4640	K22:402	1.35 B.S.	Standard buff ware. Sand tempered. Buff slipped. Black paint. Late Middle Susiana
Q	9185b	R18:902	81.22	Standard buff ware. Sand tempered with occasional grits. Buff slipped. Dark paint. Late Middle Susiana
R	7051	G28:705	79.42	Standard buff ware. Sand tempered. Buff slipped. Dark matte paint. Late Middle Susiana

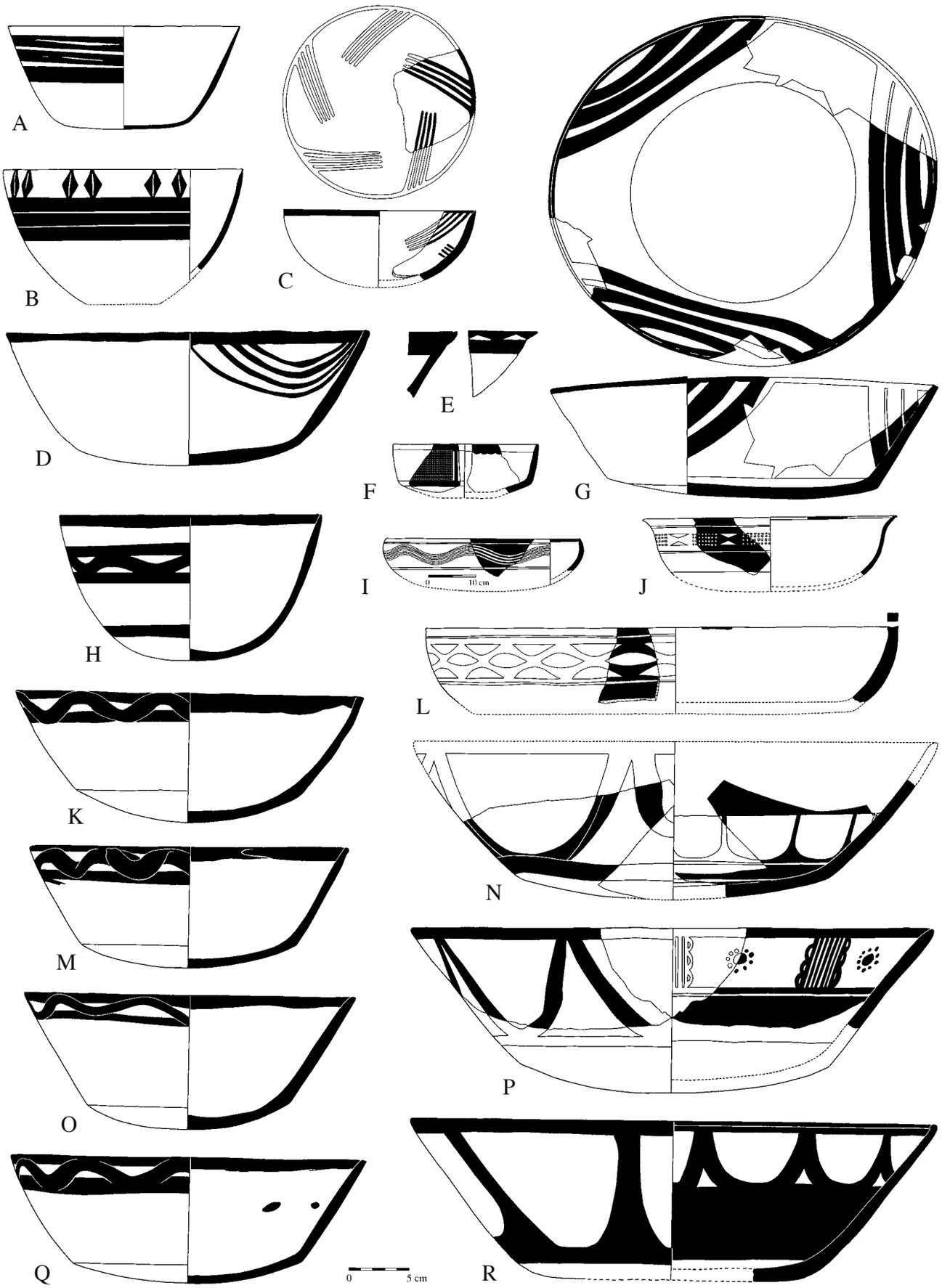


Figure 37. Middle Susiana Pottery Vessels

Figure 38. Middle Susiana Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	6121	Tr. XXXIII	77.40	Standard buff ware. Sand tempered. Creamy buff slip with a greenish tinge. Black paint. Slightly burnished. See also figure 37:C. Late Middle Susiana
B	7107	G28:701	81.73	Buff ware. Grit tempered. Probably buff slipped. Black paint
C	6084	S20:601	76.63	Standard buff ware. Sand tempered. Buff slipped. Black paint. Slightly burnished. Late Middle Susiana
D	6131	S20:601	78.47	Buff ware. Grit tempered with occasional chaff. Buff slipped, smoothed. Black matte paint. Early Middle Susiana
E	7067	R23:702	77.63	Standard buff ware. Sand tempered. Buff slipped. Brown paint. Early to Middle Susiana transitional
F	6441	S20:615	78.13	Standard buff ware. Sand tempered with occasional grits. Cream slipped. Black paint. Early to Middle Susiana transitional
G	3211	Tr. IX	0.70 B.S.	Standard buff ware. Sand tempered. Buff slipped with greenish tinge. Brown paint. Late Middle Susiana
H	IX	R18:901	80.52	Standard buff ware. Grit tempered. Yellowish buff surface, possibly slipped. Black paint. Late Middle Susiana
I	7003	G28:701	81.27	Standard buff ware. Some sand. Creamy buff slipped. Brown paint. Scraping marks inside. Late Middle Susiana
J	1073	N/A	Surface	Standard buff ware. Gritty. Probably slipped light buff. Dark paint. Early Middle Susiana
K	7065	R23:701	76.77	Buff ware. Grit tempered. Probably slipped. Greenish brown paint. Scraping marks on base. Early Middle Susiana
L	6044	P22:606	82.17	Fine buff ware. Some sand. Creamy buff slipped. Black paint. Burnished. Early Middle Susiana
M	6113	S20:620	78.20	Standard buff ware. Sand tempered with some grits. Creamy buff slipped. Smoothed. Black paint. Late Middle Susiana
N	6532	S20:609	77.05	Standard buff ware. Dense. Small grits tempered. Brown black paint, somewhat shiny. Early Middle Susiana

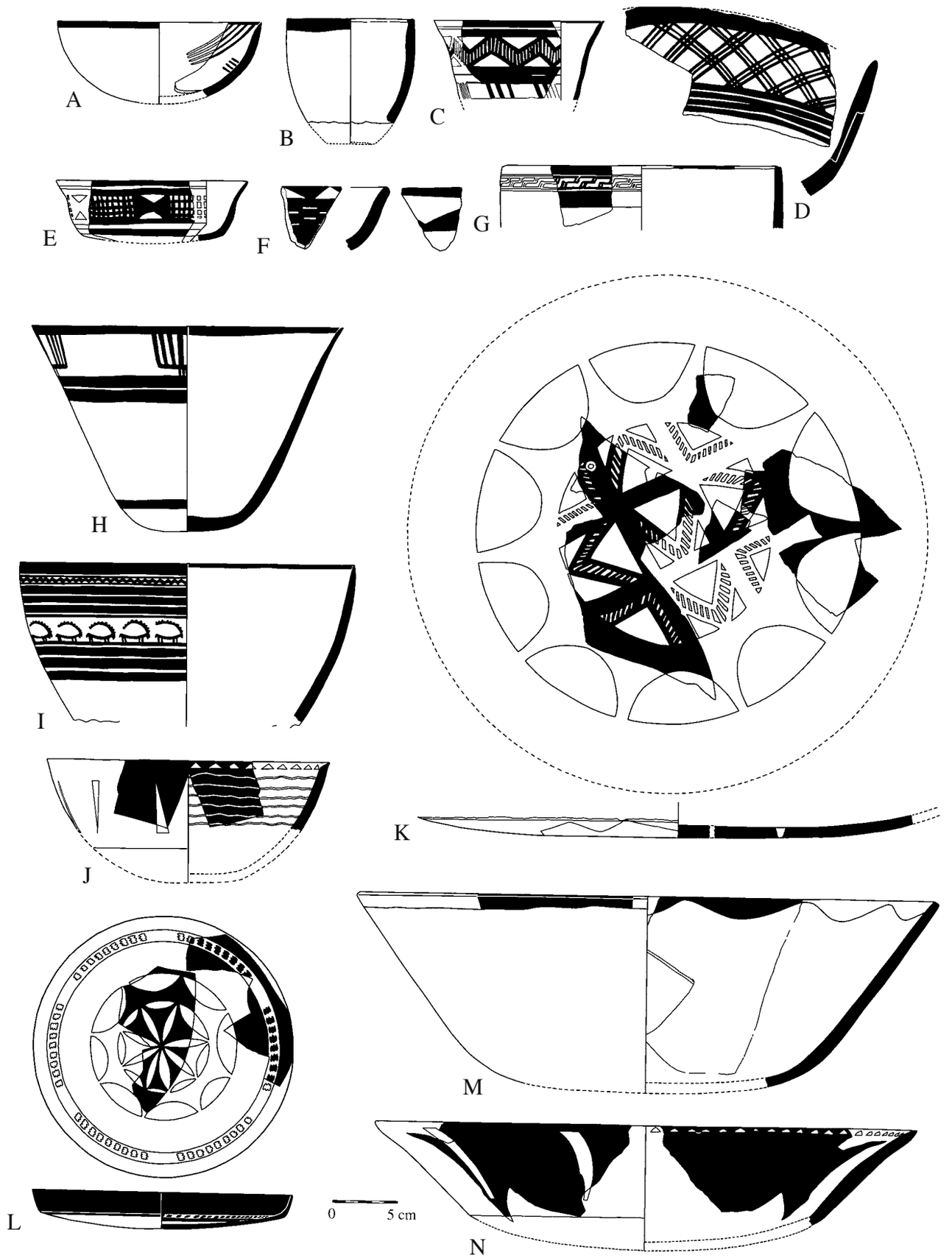


Figure 38. Middle Susiana Pottery Vessels

Figure 39. Middle Susiana Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	7066	R23:701	76.77	Standard buff ware. Grit tempered. Scraping marks on base. Olive green paint. Early Middle Susiana
B	7002	G28:703 South	76.98	Standard buff ware. Sand tempered. Creamy buff slipped. Dark brown paint. Early Middle Susiana. For outside decoration, see pl. 20:H. See also figure 37:N
C	6141	P22:624	81.62	Standard buff ware. Small grit tempered. Creamy buff slipped. Smoothed. Black matte paint. Early Middle Susiana
D	8725	S22:805	76.88	Standard buff ware. Dense. Sand tempered. Creamy buff slipped. Black paint. Early Middle Susiana
E	6128	S23:605	79.05	Buff ware. Sand tempered. Smoothed. Brownish black paint. Early Middle Susiana
F	7165	G27:705	Surface	Standard buff ware. Sand tempered with some grits. Creamy buff slipped. Black paint. Early Middle Susiana

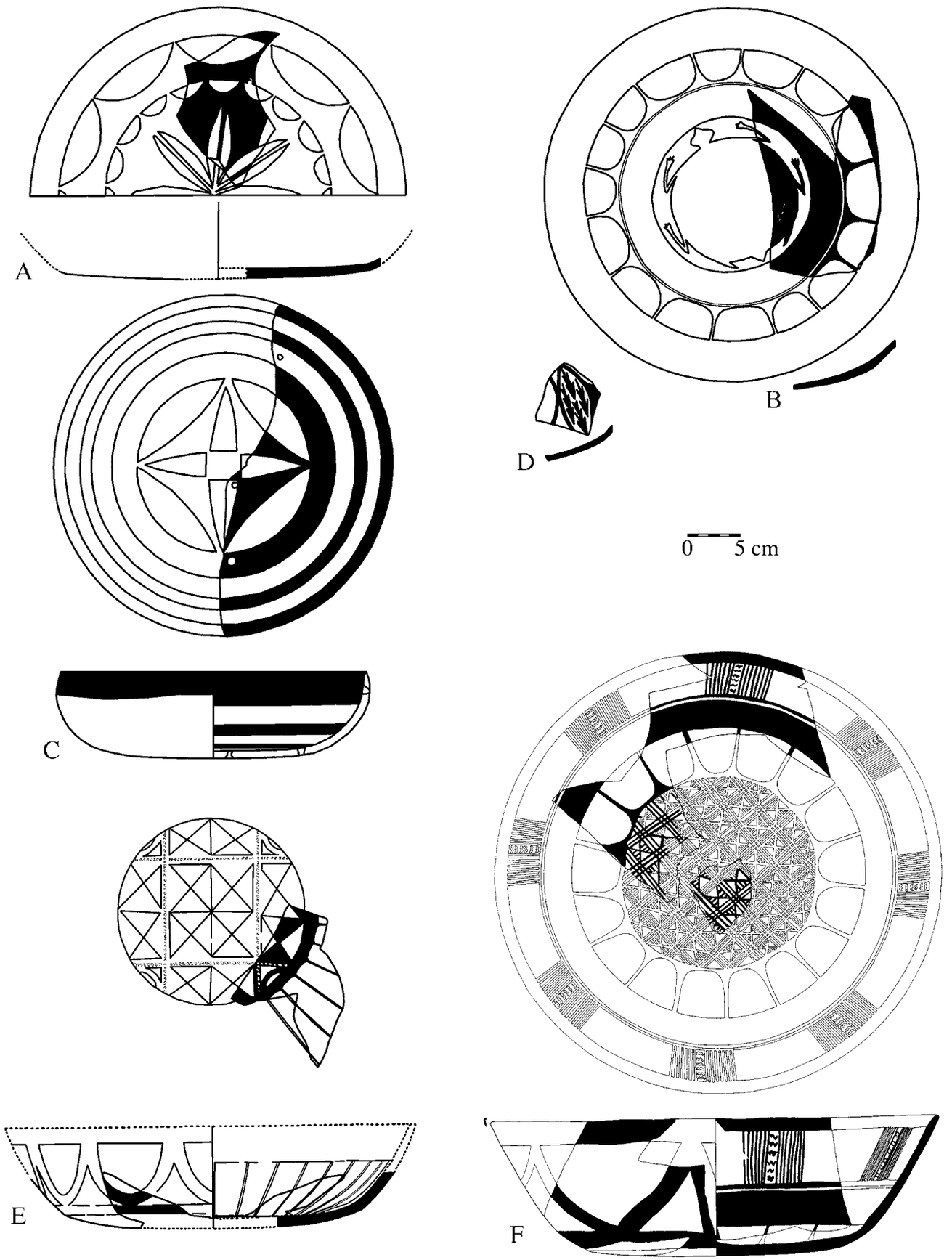


Figure 39. Middle Susiana Pottery Vessels

Figure 40. Middle Susiana Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	6032	Tr. XXXV	B.S.	Fine buff ware. No visible inclusions. Creamy buff slipped. Interior greenish tinge. Painted in granulated black matte paint. Late Middle Susiana
B	IX-40	R18:906	81.22	Standard buff ware. Grit tempered. Yellowish buff surface, possibly slipped. Black paint. Late Middle Susiana
C	8181	S22:806 East	76.65	Standard buff ware. Small grit tempered. Greenish buff surface. Olive brown paint. Late Middle Susiana
D	6148	S20:621	77.85	Fine buff ware. No visible inclusions. Creamy buff slipped. Black paint. Late Middle Susiana
E	9383	Tr. XXXIII	Surface	Fine buff ware. No visible inclusions. Buff slipped. Black paint. Late Middle Susiana
F	3842	J19:306	0.40 B.S.	Buff ware. Sand and grit tempered. Buff slipped. Black paint. Diameter: 28 cm
G	8009	S22:803	76.16	Fine buff ware. Sand tempered. Creamy buff slipped. Black paint. Late Middle Susiana
H	6451	S20:609	77.89	Fine buff ware. Sand tempered. Creamy buff slipped. Black paint. Late Middle Susiana
I	7044	G27:703	82.08	Standard buff ware. Sand and grit tempered. Buff slipped. Reddish brown paint. Late Middle Susiana
J	7005	G28:705	Surface	Standard buff ware. Cream slipped. Dark paint. Scrape marks on lower body. Late Middle Susiana
K	9534	S18:916	81.71	Standard buff ware. Buff slipped. Black paint. Late Middle Susiana
L	8023	Gully Cut	Surface	Standard buff ware. Sand tempered with occasional grits. Creamy buff slip with a greenish tinge. Black paint. Late Middle Susiana
M	IX-52	R18:901	80.52	Standard buff ware. Grit tempered. Yellowish buff surface, possibly slipped. Black paint. Late Middle Susiana
N	9420	S18:907	80.59	Standard buff ware. Sand tempered with some large dark grits. Dark olive brown granular paint. Late Middle Susiana

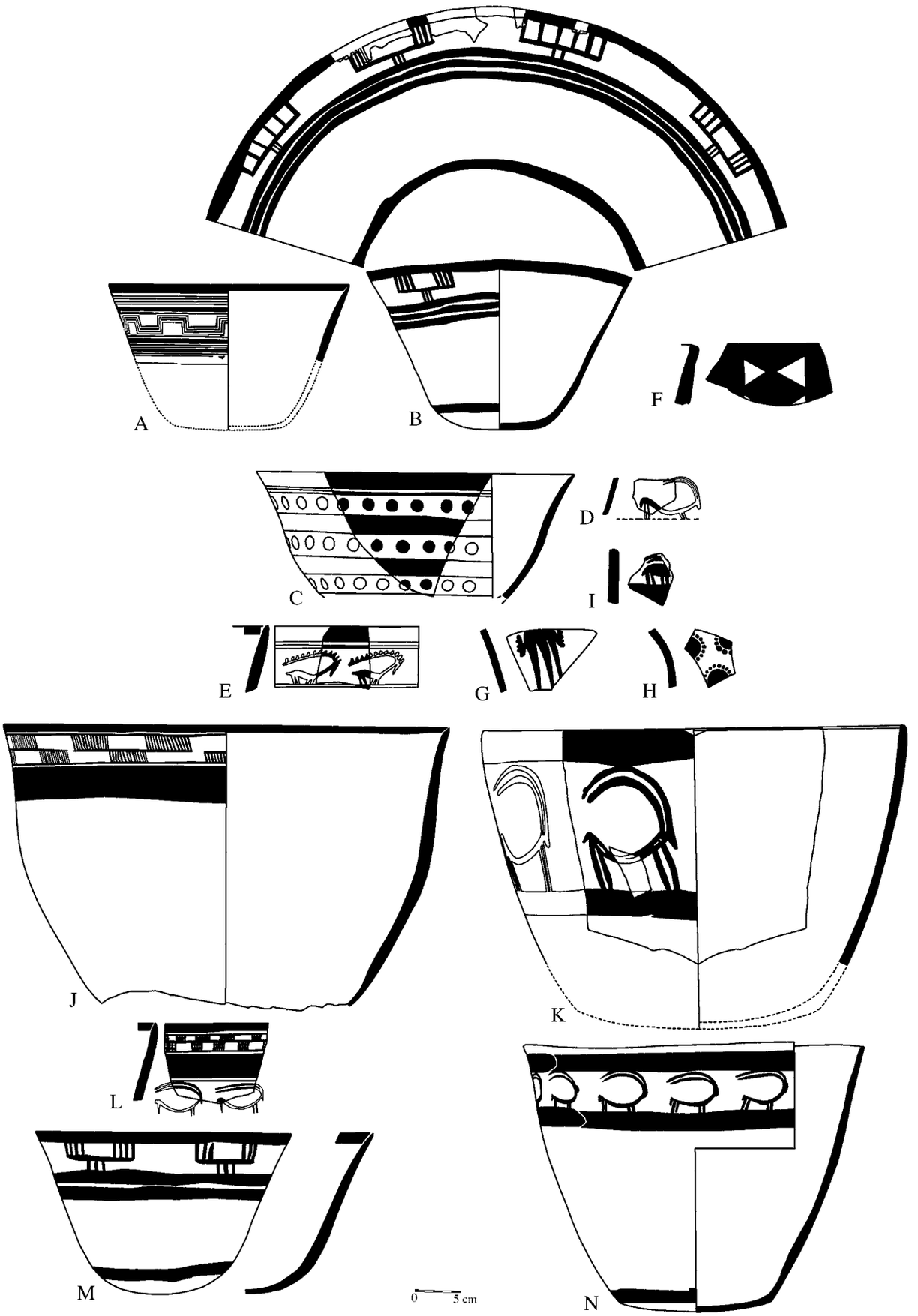


Figure 40. Middle Susiana Pottery Vessels

Figure 41. Middle Susiana Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	4462	Sdg. G	77.15	Fine buff ware. No visible inclusions. Creamy buff slipped. Black paint. Late Middle Susiana
B	6001	Tr. XXV	78.56	Fine buff ware. No visible inclusions. Creamy buff slipped. Black paint. See plate 19:M for photograph. Late Middle Susiana
C	8789	S22:806	76.93	Fine buff ware. No visible inclusions. Creamy buff slipped. Black paint. Late Middle Susiana
D	7046	G28:705	79.42	Fine buff ware. No visible inclusions. Creamy buff slipped. Black paint. Late Middle Susiana
E	VI-41	S20:620	77.86	Fine buff ware. Dense. No visible inclusions. Creamy buff slipped. Somewhat shiny surface. Black granulated paint. See plate 19:K for photograph. Late Middle Susiana
F	6147	S20:621	77.85	Standard buff ware. Sand tempered. Creamy buff slipped. Smoothed. Dark brown thick matte paint. Late Middle Susiana
G	6003	S20:605	78.66	Standard buff ware. Sand tempered. Buff slipped. Black paint. Late Middle Susiana
H	6002	S20:601	79.24	Standard buff ware. Sand tempered. Buff slipped. Black paint. Late Middle Susiana
I	6857	S20:621	78.85	Standard buff ware. Sand tempered. Buff slipped. Black paint. Late Middle Susiana
J	9009	Q19:901	N/A	Fine buff ware. Sand tempered. Creamy buff slipped with a greenish tinge. Black paint. Late Middle Susiana
K	6151	S20:621	78.40	Fine buff ware. No visible inclusions. Creamy buff slipped. Black paint. Late Middle Susiana

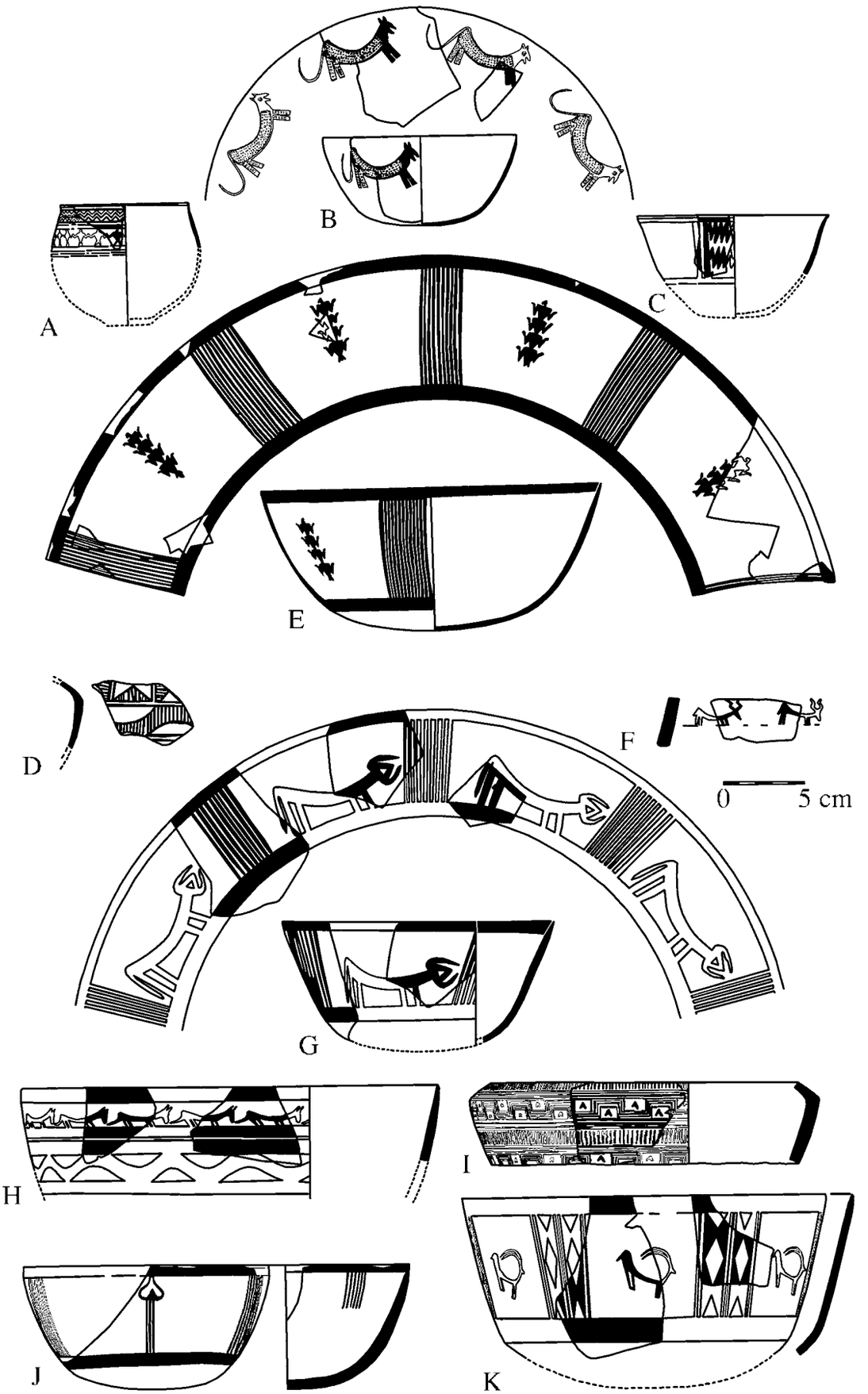


Figure 41. Middle Susiana Pottery Vessels

Figure 42. Middle Susiana Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	6050	R20:602	B.S.	Fine buff ware. No visible inclusions. Creamy buff slipped. Black matte paint. See plate 19:F for photograph. Late Middle Susiana
B	9806	S22:926	77.03	Standard buff ware. Sand tempered with few grits. Buff slipped with a greenish tinge. Sunken olive black paint. Late Middle Susiana
C	6040	S20:601	78.33	Fine buff ware. No visible inclusions. Creamy buff slipped with a greenish tinge. Olive black matte paint. See plate 19:E for photograph. Late Middle Susiana
D	6527	Tr. XXXIII	76.83	Standard buff ware. Sand tempered. Creamy buff slipped. Late Middle Susiana
E	6484	P22:602	81.44	Standard buff ware. Sand tempered. Creamy buff slipped. Black paint. Early Middle Susiana
F	B 1074	Ch. Bonut/ M10:101	B.S.	Fine buff ware. No visible inclusions. Creamy buff slipped.
G	7155	Tr. XXI	Surface	Standard buff ware. Sand tempered. Buff slipped. Black paint. Early Middle Susiana
H	6029	Tr. XXXIII	77.34	Standard buff ware. Sand and grit tempered. Buff slipped. Black granulated paint. Early/Late Middle Susiana
I	7133	R23:701	77.59	Buff ware. Grit tempered. Buff slipped with a greenish tinge. Early Middle Susiana
J	4232	Tr. XIII	0.85 B.S.	Buff ware. Medium grit tempered. Buff slipped. Dark purple brown paint. Early Middle Susiana
K	6856	S20:601	0.40 B.S.	Standard buff ware. Sand tempered. Buff slipped. Dark brown paint. Early Middle Susiana
L	6221	P23:606	81.12	Fine buff ware. No visible inclusions. Creamy buff slipped. Matte purple paint. Late Middle Susiana
M	9206	S18:918	81.10	Fine buff ware. No visible inclusions. Creamy buff slipped. Black paint. Late Middle Susiana
N	6027	Tr. XXXIII	76.80	Standard buff ware. Sand tempered. Buff slipped. Black-brown matte paint. Late Middle Susiana
O	5525	P27:501	1.27 B.S.	Standard buff ware. Grit tempered. Buff slipped. Black paint. Late Middle Susiana
P	4461	Sdg. H	B.S.	Fine buff ware. No visible inclusions. Very light cream buff slipped. Black paint. Late Middle Susiana
Q	6051	R20:602	B.S.	Fine buff ware. No visible inclusions. Creamy buff slipped. Black matte paint. See plate 19:J for photograph. Late Middle Susiana
R	6024	Tr. XXXIII	76.40	Fine buff ware. No visible inclusions. Creamy buff slipped. Olive brown granulated paint. See plate 19:D for photograph. Late Middle Susiana
S	6028	Tr. XXXIII	77.68	Fine buff ware. No visible inclusions. Creamy buff slipped. Brown paint. See plate 19:C for photograph. Late Middle Susiana
T	VI-42	S20:620	77.40	Fine buff ware. No visible inclusions. Creamy buff slipped. Black granulated paint, mostly flaked off. Late Middle Susiana
U	6094	S20:609	78.90	Fine buff ware. No visible inclusions. Creamy buff slipped. Black paint. Late Middle Susiana
V	6093	S20:609	78.67	Fine buff ware. No visible inclusions. Creamy buff slipped. Black granulated paint, mostly flaked off. Late Middle Susiana

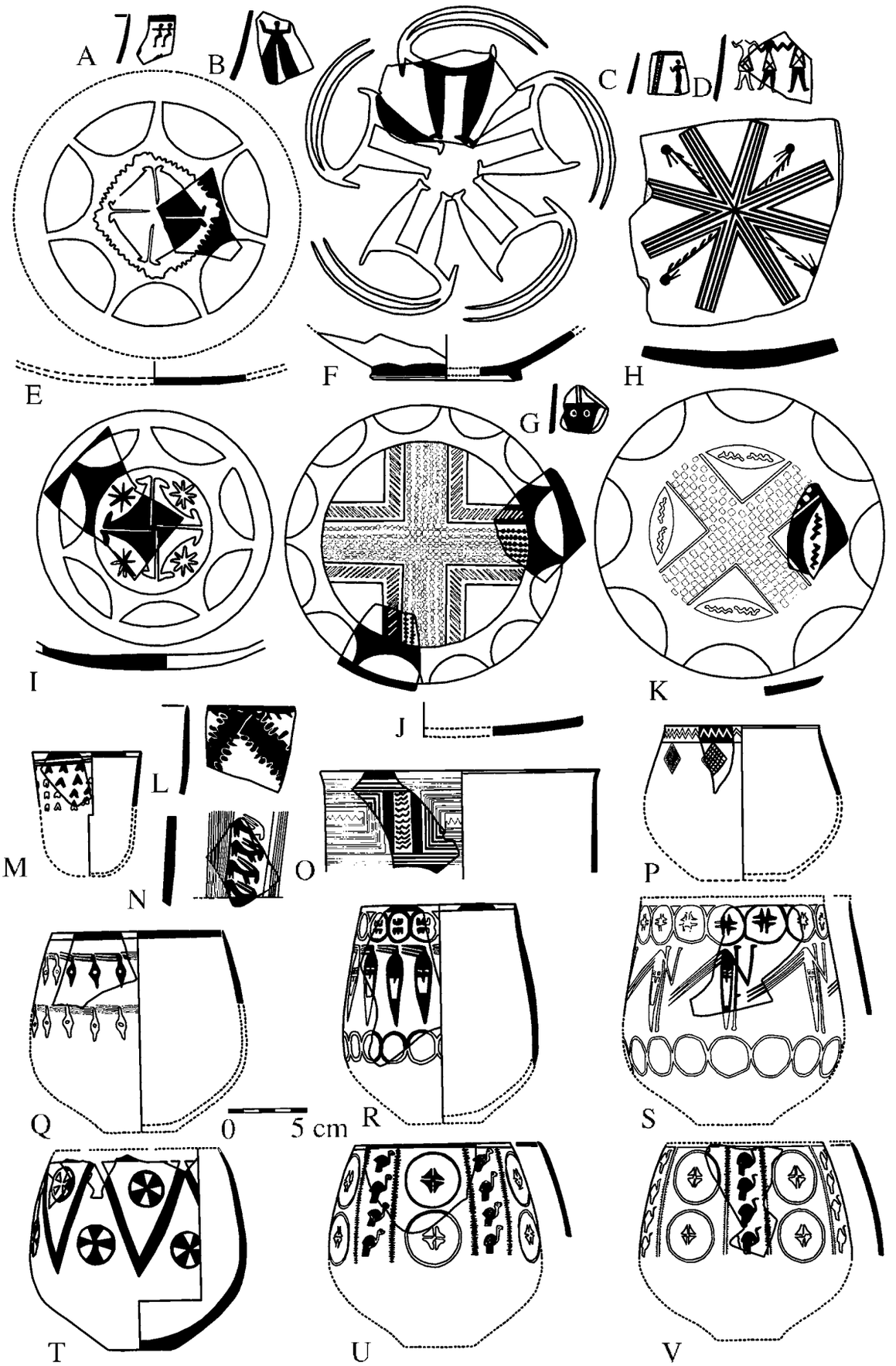


Figure 42. Middle Susiana Pottery Vessels

Figure 43. Middle Susiana Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	6490	S20:605	79.20	Standard buff ware. Some sand inclusions. Buff slipped. Black paint. Late Middle Susiana
B	7400	S22:702	Surface	Standard buff ware. No visible inclusions. Creamy buff slipped. Late Middle Susiana
C	7104	G28:704	78.19	Standard buff ware. Sand tempered. Buff slipped. Late Middle Susiana
D	6223	P23:607	82.65	Standard buff ware. Sand tempered. Buff slipped. Black paint. Early/Late Middle Susiana transitional
E	6298	R23:601	77.39	Standard buff ware. Creamy buff slipped. Dark brown paint. Early/Late Middle Susiana transitional
F	7104	G28:704	78.19	Standard buff ware. Creamy buff slipped. Black paint. Late Middle Susiana
G	8651	Q24:801	79.00	Buff ware. Sand and grit tempered. Creamy buff slip turned greenish buff due to over firing. Black paint. Early/Middle Susiana transitional
H	7206	G28:702	77.73	Buff ware. Sand and grit tempered. Creamy buff slip turned greenish buff due to over firing. Black paint. Early Middle/Late Middle Susiana
I	6364	P23:604	B.S.	Fine buff ware. Scattered small grit inclusions. Buff slipped. Late Middle Susiana
J	7206 a–b	G28:702	77.73	Standard buff ware. Sand tempered with some grits. Buff slipped. Late Middle Susiana
K	6525	R20:601	78.48	Standard buff ware. Sand tempered with few grits. Buff slipped. Late Middle Susiana
L	6067	P22:606	80.42	Buff ware. Grit tempered. Buff slipped. Black matte paint. Early/Middle Susiana transitional

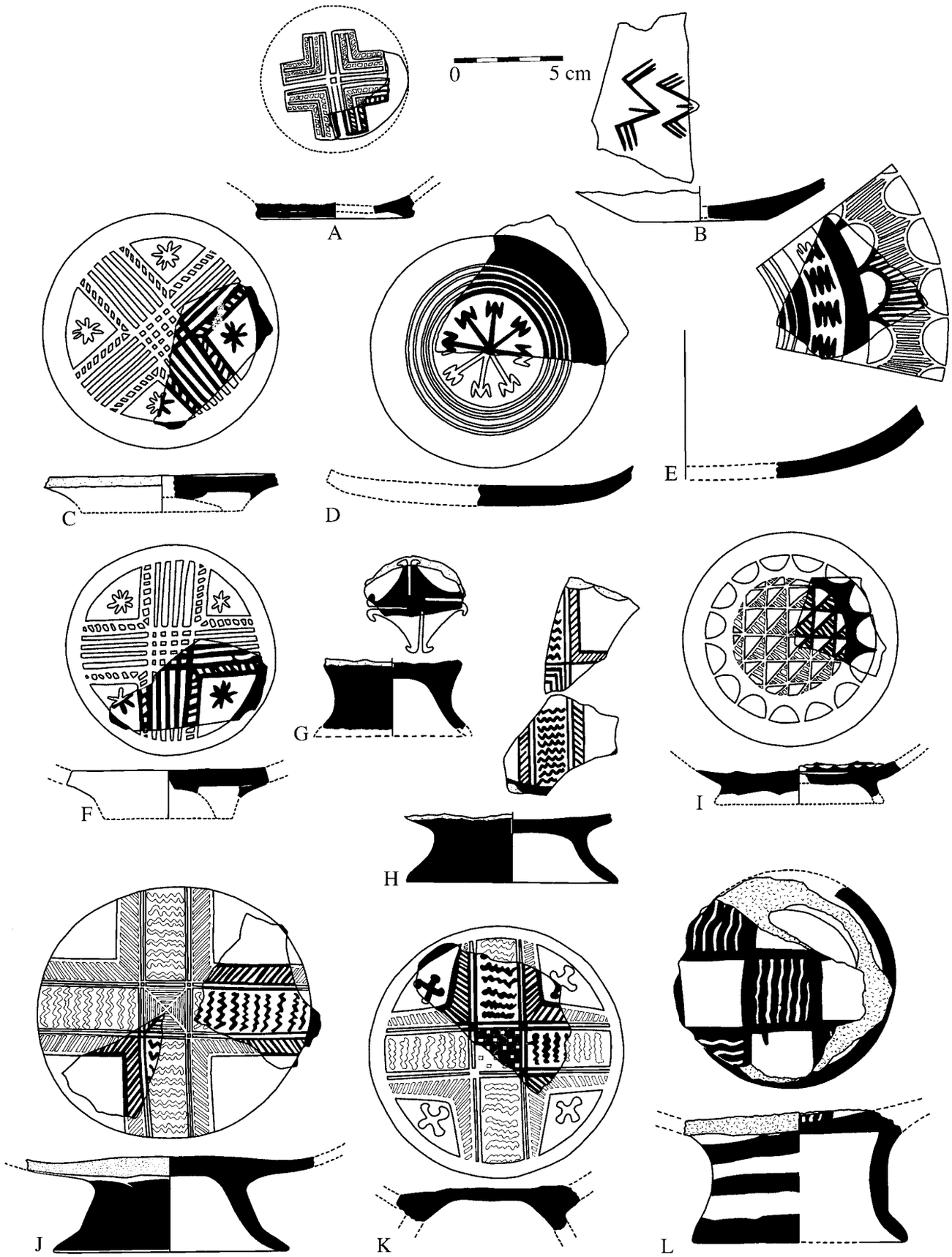


Figure 43. Middle Susiana Pottery Vessels

Figure 44. Middle Susiana Closed Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	9517	S18:918	80.09	Standard buff. Sand tempered. Buff slipped. Smoothed. Black paint
B	9518	S18:918	80.09	Standard buff. Sand tempered. Buff slipped. Smoothed. Black paint
C	9018	S22:902	77.43	Buff ware. Grit and straw tempered. Handmade
D	9297	R18:908	81.13	Standard buff ware. Sand tempered. Dense. Creamy buff slipped. Black paint. Late Middle Susiana
E	6224	P23:607	83.05	Standard buff ware. Sand tempered with scattered grits. Buff slipped. Brown paint. Early Middle Susiana
F	N/A	N/A	N/A	Fine buff ware. No visible inclusions. Creamy buff slipped. Dark paint. Late Middle Susiana
G	6395	P23:601	B.S.	Standard buff ware. Scattered grits. Creamy buff slipped, with a pinkish hue. Dark paint. Late Middle Susiana
H	7128	R23:702	77.78	Standard buff ware. Sand tempered with scattered grits. Buff slipped. Black paint. Early Middle Susiana
I	9551	S18:918 South	81.58	Standard buff ware. Sand tempered. Buff slipped. Black paint
J	7266	Tr. XXXIV	B.S.	Fine buff ware. No visible inclusions. Creamy buff slipped. Black paint. Late Middle Susiana
K	8002	S22:812	76.65	Standard buff ware. Sand tempered with scattered grits. Buff slipped. Black paint. Late Middle Susiana
L	6839	S20:609	78.07	Standard buff ware. No visible inclusions. Buff slipped. Dark paint
M	7403	R23:703	77.36	Fine buff ware. No visible inclusions. Creamy buff slipped. Black paint. Late Middle Susiana
N	8956	Q25:802	77.00	Fine buff ware. No visible inclusions. Probably slipped
O	N/A	N/A	N/A	Standard buff ware. Sand tempered. Buff slipped. Dark paint. Late Middle Susiana
P	VI-43	P23:602	81.70	Standard buff ware. Sand tempered. Buff slipped with a greenish tinge. Black granular paint. See plate 20:G for photograph. Early Middle Susiana
Q	6848	S20:601	78.33	Standard buff ware. No visible inclusions. Greenish buff paste. Olive green paint. Late Middle Susiana
R	9295	R18:908	81.13	Fine buff ware. No visible inclusions. Creamy buff slipped. Black paint. Late Middle Susiana and Late Susiana 1
S	6004	S20:601	0.20 B.S.	Fine buff ware. No visible inclusions. Creamy buff slipped. Black paint. Late Middle Susiana
T	IX-105	R18:908	81.13	Fine buff ware. No visible inclusions. Creamy buff slipped. Dark paint. Late Middle Susiana

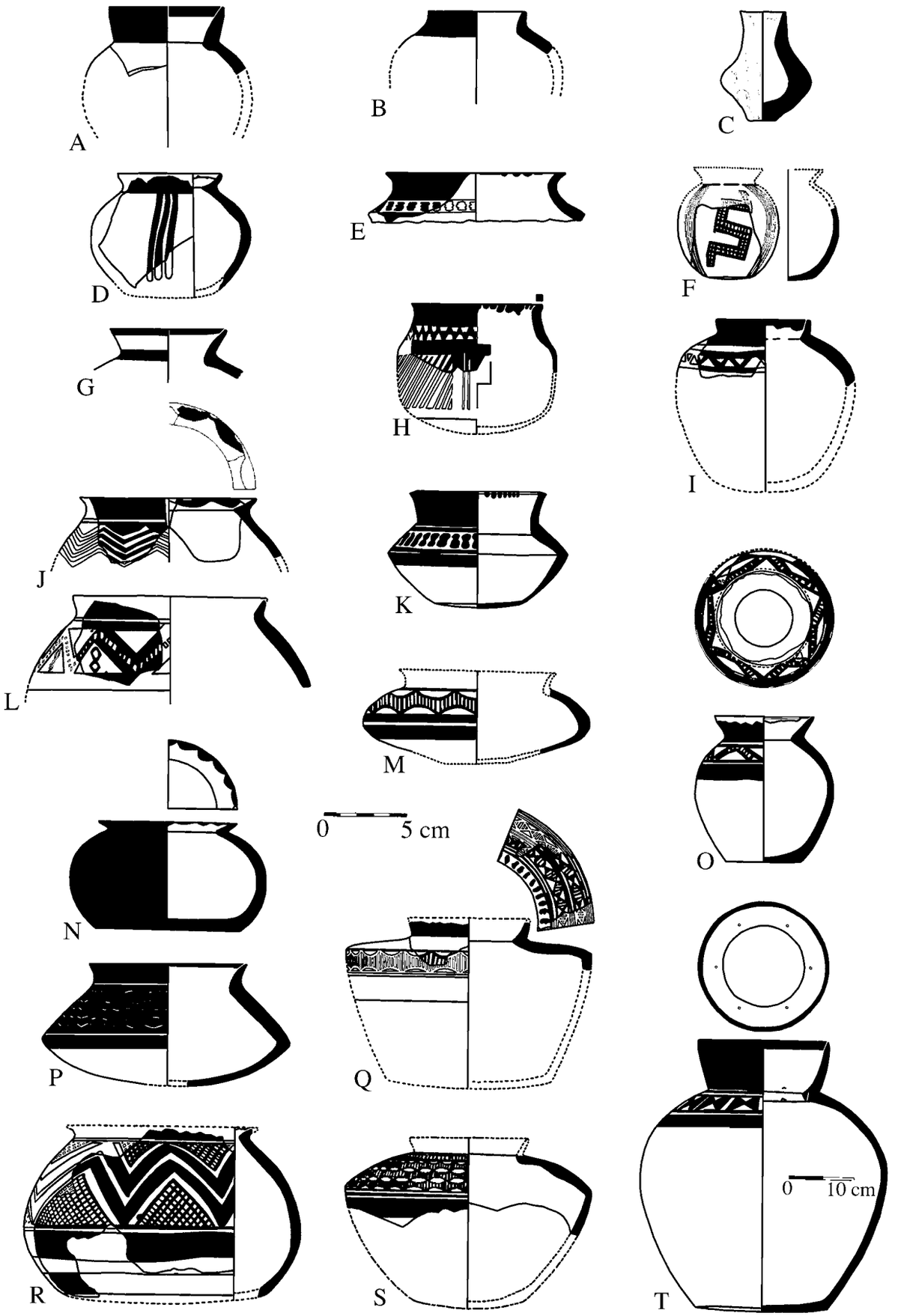


Figure 44. Middle Susiana Closed Pottery Vessels

Figure 45. Middle Susiana Closed Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	N/A	S22:505	N/A	Standard buff ware. Grit tempered. Gritty face. Buff slipped. Black paint. Late Middle Susiana
B	7015	G28:702	80.41	Standard buff ware. Sand tempered with few grits. Buff slipped. Brown paint. Late Middle Susiana
C	6499	Tr. XXXIII	77.02	Buff ware. Grit tempered. Buff slipped. Brown paint. Late Middle Susiana
D	N/A	Surface	N/A	Fine buff ware. No visible inclusions. Creamy buff slipped. Dark brown paint. Late Middle Susiana
E	7100	Tr. XXXIV	Surface	Standard buff ware. Sand tempered with few grits. Buff slipped. Black paint. Late Middle Susiana
F	6850	P22:626	81.96	Buff ware. Sand tempered with a mixture of red, black, and brownish grits, gritty face. Buff slipped. Black paint. Late Middle Susiana
G	BF-1001	H10:102	0.35 B.S.	Standard buff ware. Sand tempered, sandy face. Buff slipped. Black paint. Middle Susiana
H	6116	S20:620	77.92	Buff ware. Grit tempered, gritty face. Buff slipped. Burnished upper body. Late Middle Susiana
I	9333	S22:902	77.08	Buff ware. Sand tempered. Red wash. Late Middle Susiana
J	7401	G28:701	79.87	Gray ware. Small grit inclusions. Smoothed. Irregular striations inside. Late Middle Susiana
K	6851	S20:605	79.05	Standard buff ware. Sand tempered, sandy face. Buff slipped with a greenish tinge. Greenish brown paint. Late Middle Susiana
L	41173	Sdg. H	0.50 B.S.	Standard buff ware. Grit tempered. Buff slipped with a greenish tinge. Smoothed. Dark brown paint. Early Middle Susiana

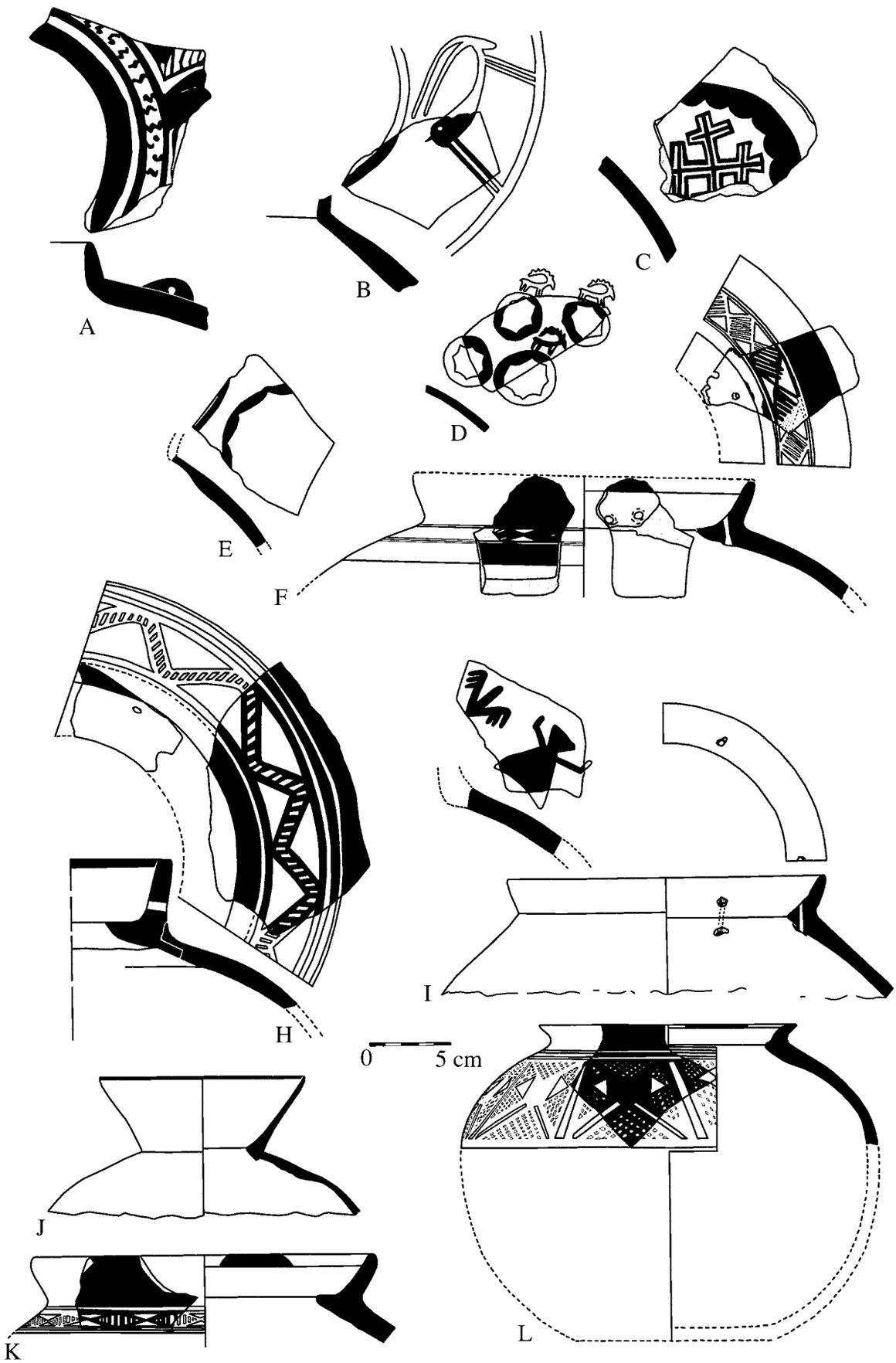


Figure 45. Middle Susiana Closed Pottery Vessels

Figure 46. Middle Susiana Closed Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	9172	R18:908	80.34	Standard buff ware. Sand tempered with some grits. Buff slipped. Black paint. Late Middle Susiana
B	9171	S18:916	80.10	Standard buff ware. Sand tempered with some grits. Creamy buff slipped. Black paint. Late Middle Susiana
C	9677	R18:910	80.34	Standard buff ware. Sand tempered with some grits. Buff slipped. Dark brown granulated paint. See plate 21:D for photograph. Early Middle Susiana
D	7023	G28:705	77.09	Standard buff ware. Sand tempered. Orange buff slipped. Brown paint. Late Middle Susiana
E	IX-113	S18:905 West	81.07	Standard buff ware. Sand tempered, sandy face lower body. Buff slipped. Brown paint. Late Middle Susiana
F	IX-115	S18:905 West	81.07	Standard buff ware. Sand tempered, sandy face lower body. Buff slipped. Brown paint. Late Middle Susiana
G	7402	G28:701	81.27	Standard buff ware. Sand tempered, sandy face lower body. Buff slipped. Brown paint. Late Middle Susiana
H	7164	G28:702	79.60	Red ware. Sand tempered with some grits and straw. White slipped or wash all over. Black paint, abraded
I	9509	R18:914	81.88	Buff ware. Grit tempered. Buff slipped. Black paint. Late Middle Susiana

Figure 46. Middle Susiana Closed Pottery Vessels

Figure 47. Middle Susiana Closed Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	IX-126	S18:905 West	81.86	Standard buff ware. Sand tempered. Buff slipped. Sandy face lower body. Black paint. Late Middle Susiana
B	IX-114	S18:905 West	81.07	Standard buff ware. Sand tempered. Buff slipped. Sandy face lower body. Black paint. Late Middle Susiana
C	9909	S18:905 West	81.07	Standard buff ware. Sand tempered. Buff slipped. Sandy face lower body. Black paint. Late Middle Susiana
D	IX-131	S18:904 West	81.12	Standard buff ware. Sand tempered. Buff slipped. Sandy face lower body. Black paint. Late Middle Susiana

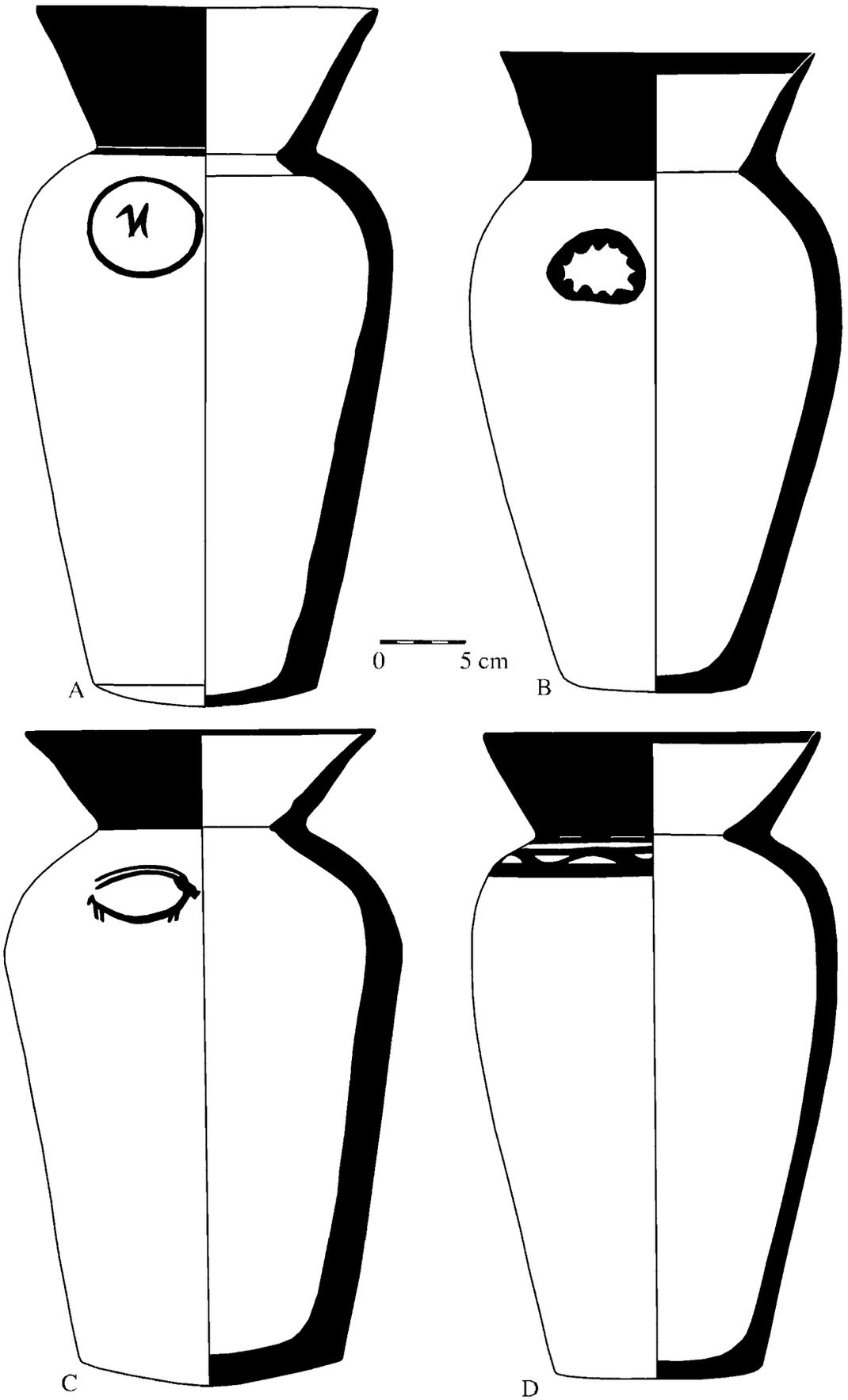


Figure 47. Middle Susiana Closed Pottery Vessels

Figure 48. Middle Susiana Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	2543	Tr. XIII	0.60 B.S.	Standard buff ware. Sand tempered. Dense. Yellowish buff slipped, smoothed. Brown paint
B	6498	S20:606	N/A	Standard buff ware. Sand tempered. Buff slipped, smoothed. Scrape marks on both sides. Black paint. Late Middle Susiana
C	6074	P22:615	81.14	Standard buff ware. Sand and some grits tempered. Red wash on interior. Brownish to plum paint. Early/Middle Susiana transitional
D	7307	G28:705	N/A	Standard buff ware. Some grit inclusions. Smoothed. Dark reddish brown paint. Late Middle Susiana
E	9173	R18:913	81.10	Buff ware. Sand and grit tempered. Buff slipped with a greenish tinge. Black paint. Late Middle Susiana
F	VII-16	G28:705	79.42	Standard buff ware. Sand tempered. Creamy buff slipped. Late Middle Susiana

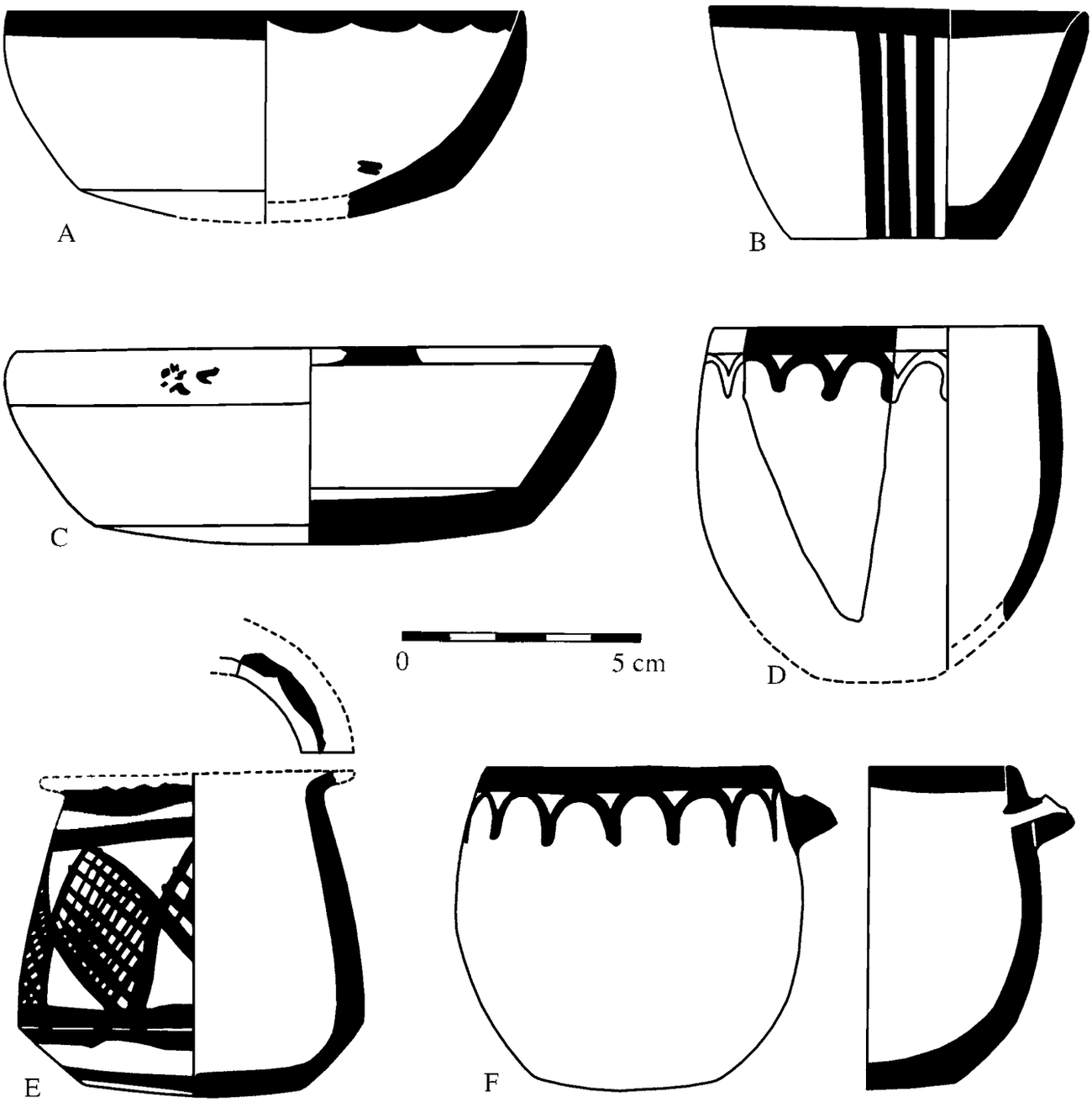


Figure 48. Middle Susiana Pottery Vessels

Figure 49. Middle Susiana Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	9184	S22:902	76.83	Standard buff ware. Sand tempered. Buff slipped. Black paint. Early Middle Susiana
B	8086	S22:806	77.70	Buff ware. Grit tempered. Buff slipped. Black paint. Late Middle Susiana
C	6744	S20:601	78.06	Standard buff ware. Dense. No visible inclusions. Black paint. Early Middle Susiana(?)
D	9187	R18:908	80.91	Buff ware. Grit tempered. Black paint. Middle Susiana
E	9358	S22:902 Northeast	77.65	Buff ware. Some chaff and grit inclusions. Buff slipped
F	9167	S18:918	81.12	Standard buff ware. Sand tempered with occasional grits. Buff slipped. Black paint. Late Middle Susiana

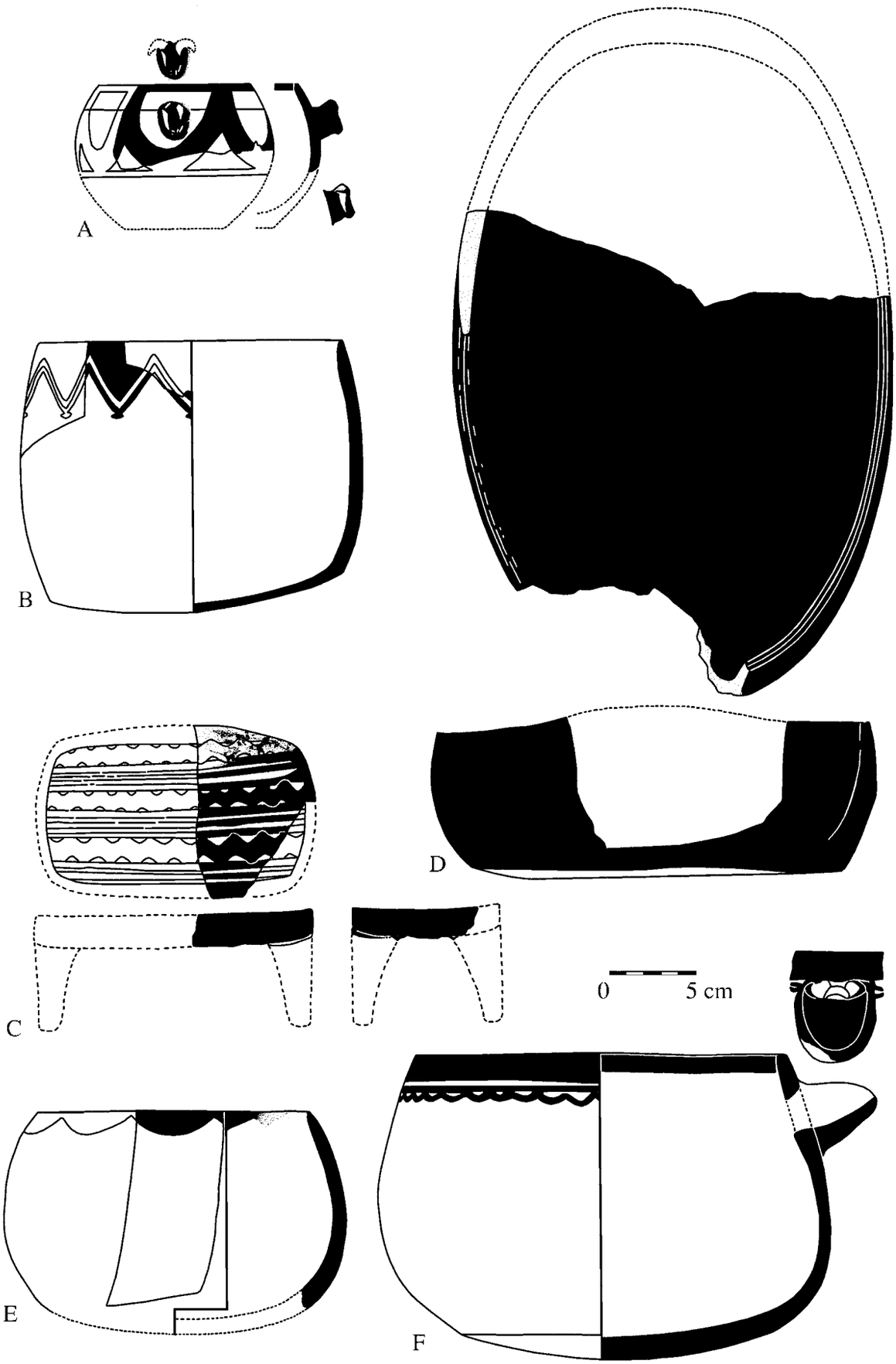


Figure 49. Middle Susiana Pottery Vessels

Figure 50. Middle Susiana Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	9580	S18:919	80.05	Lid. Standard buff ware. Sand tempered. Probably buff slipped. Black paint. Early to Middle Susiana transitional
B	6336	P22:611	82.19	Lid. Standard buff ware. Sand tempered. Probably buff slipped. Slightly pinkish on surface. Black paint. Early to Middle Susiana transitional
C	6853	S20:609 West	78.07	Buff ware. Medium to small dark, brown, and red grits included. Some scattered white particles (calcite) also included. Smoothed. "Comb" scraping marks on neck and lower body. Dark paint. Early to Middle Susiana transitional
D	6202	P23:606	81.32	Ladle fragment. Buff ware. Some grit inclusions. Red paint. Early Middle Susiana
E	6012	P23:604	B.S.	"Sauce boat" vessel fragment. Buff ware. Sand tempered. Buff slipped, smoothed. Gritty black paint. Early Middle Susiana
F	7061	G29:703	B.S.	Standard buff ware. Sand tempered. Brown paint. Early Middle Susiana
G	6177	R20:515	79.15	Lid fragment. Early Middle Susiana

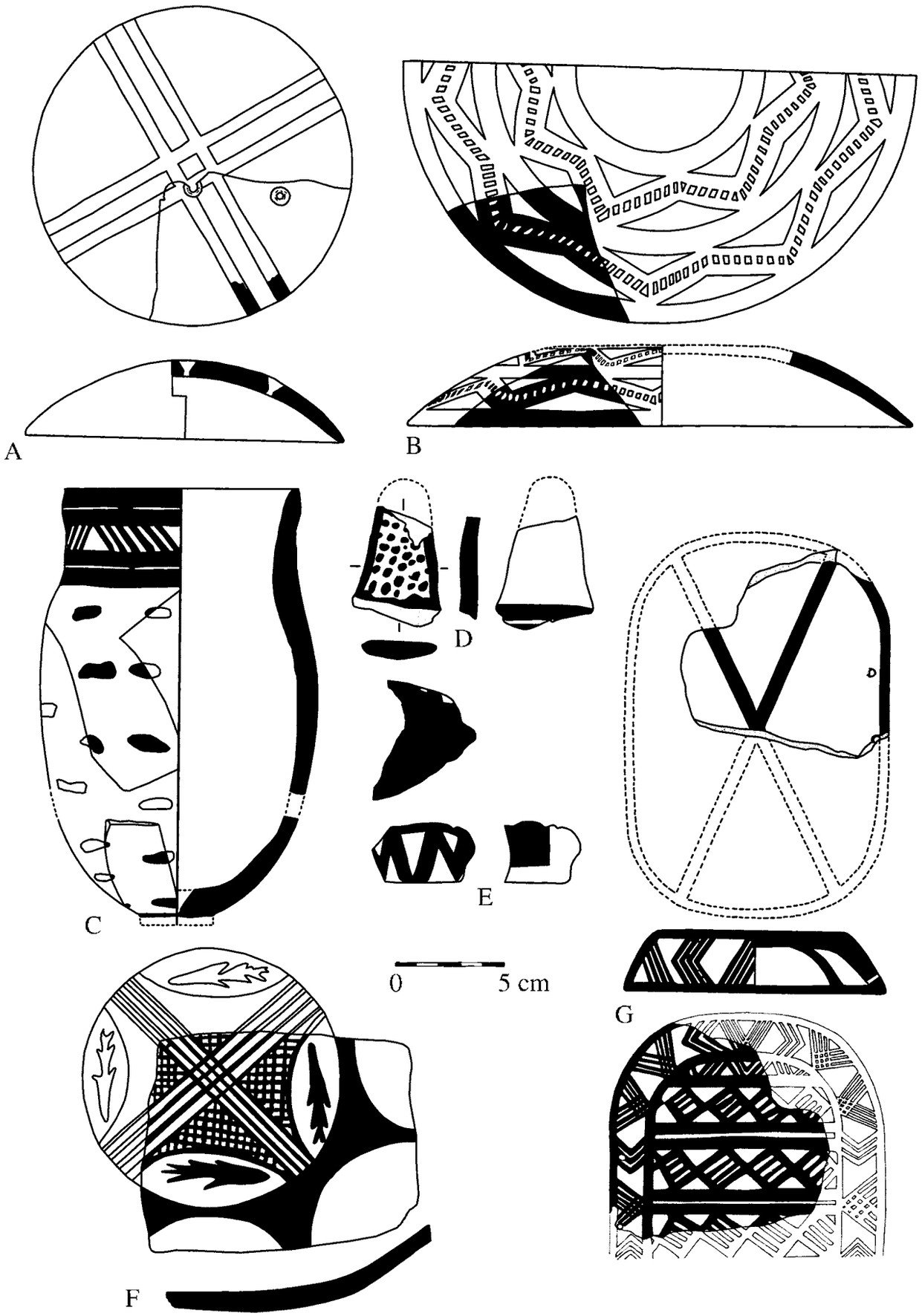


Figure 50. Middle Susiana Pottery Vessels

Figure 51. Middle Susiana Pottery “Stands”

	Registration Number	*Provenance*	*Elevation*	*Description*
A	2523	Tr. XVI	Surface	Buff ware. Grit tempered. Dense, gritty face. Buff slipped with a greenish tinge. Brown paint. Late Middle Susiana
B	4117	Tr. XXVI	N/A	Buff ware. Grit tempered. Buff slipped. Black paint. Late Middle Susiana
C	3822	Q19:301	0.20 B.S.	Buff ware. Grit tempered. Dense, gritty face. Buff slipped with a greenish tinge. Brown paint. Late Middle Susiana
D	8116	Q24:801	79.00	Buff ware. Grit tempered with some chaff. Buff slipped. Black paint. Late Middle Susiana
E	4116	Sdg. H	0.90 B.S.	Buff ware. Grit tempered. Buff slipped. Reddish brown paint. Late Middle Susiana
F	4115	Sdg. G	0.55 B.S.	Buff ware. Grit tempered. Buff slipped. Red paint. Late Middle Susiana
G	41078	West Area	1.30 B.S.	Buff ware. Grit tempered. Dense, gritty face. Buff slipped. Brown paint. Striations on the interior. Late Middle Susiana
H	41043	Tr. XIII	N/A	Buff ware. Grit tempered. Dense, gritty face. Buff slipped with a greenish tinge. Brown paint. Late Middle Susiana

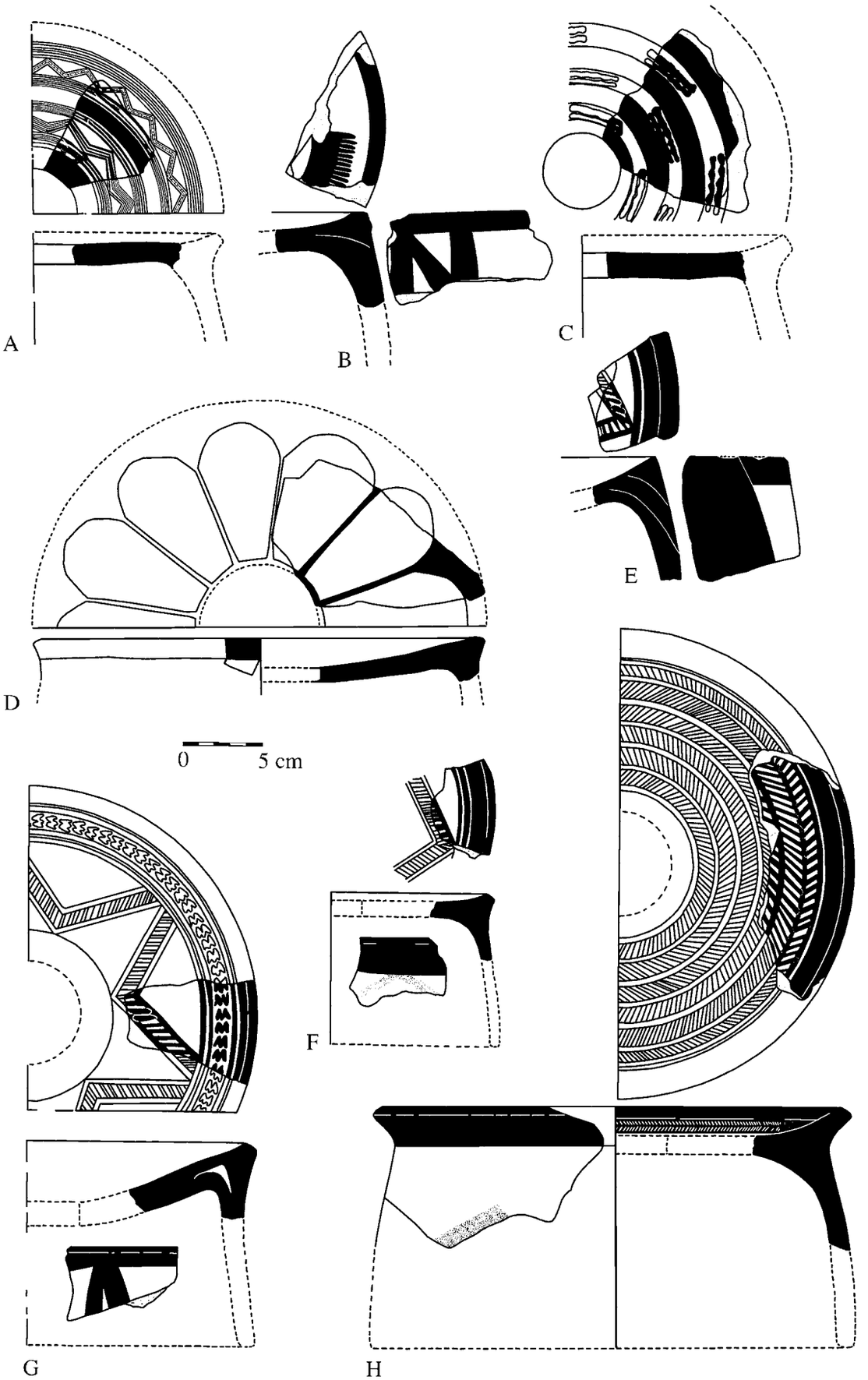


Figure 51. Middle Susiana Pottery “Stands”

Figure 52. Middle Susiana Tortoise Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	7070	R27:702	77.63	Standard buff. Sand tempered. Buff slipped. Black paint. Early Middle Susiana
B	6409a	S20:609 West	78.07	Standard buff. Sand tempered. Buff slipped. Black paint
C	7084	R23:702	77.63	Standard buff. Sand tempered with some chaff. Creamy buff slipped. Black paint
D	7055	G28:704 South	75.54	Standard buff. Small grit tempered with chaff. Buff slipped. Black paint
E	6480	P22:602	81.44	Standard buff. Sand and grit tempered. Creamy buff slipped. Black paint. Early Middle Susiana
F	8251	Q25:802 West	77.10	Fine buff ware. Sand tempered. Creamy buff slipped. Plastic decoration of snake on neck. Dark paint
G	6187	Q23:601	81.40	Buff ware. No visible inclusions. Yellowish buff slipped. Early Middle Susiana
H	7130	R23:702	77.78	Buff ware. Grit tempered with some straw. Buff slipped. Black paint
I	6409a	S20:609 West	78.07	Buff ware. Grit tempered. Yellowish buff slipped, smoothed. Black paint
J	6301	P23:603	N/A	Buff ware. Sand tempered. Creamy buff slipped. Dark paint

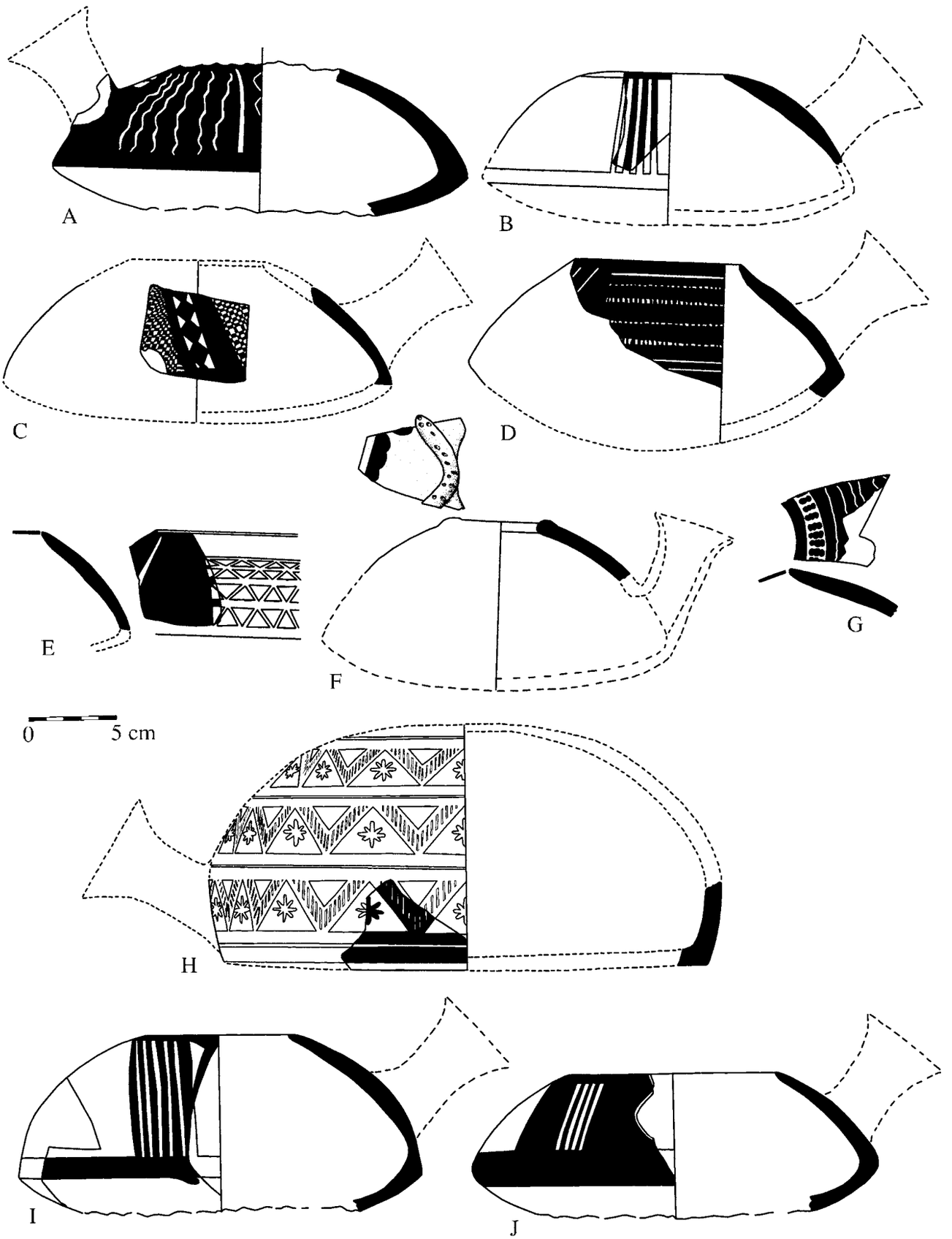


Figure 52. Middle Susiana Tortoise Pottery Vessels

Figure 53. Middle Susiana Plain Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	6858	S20:620	78.20	Standard buff ware. Sand tempered. Creamy buff slipped. Striations on lower body. Black band decoration on the lip. Late Middle Susiana
B	IX-56	S18:907	81.45	Red ware. Grayish core. Some sand. Red wash all over. Uneven lip. Late Middle Susiana
C	9543	R19:905	79.44	Red ware. Red wash all over. Sand tempered. Smoothed. Late Middle Susiana
D	81012	S22:806 North	76.93	Standard buff. Sand tempered. Buff slipped. Sandy face lower part. Smoothed. Late Middle Susiana
E	VII-24	G28:705	N/A	Eggshell buff ware. No visible inclusions. Creamy buff slipped. Smoothed. Late Middle Susiana
F	IX-115	R18:901	81.51	Standard buff ware. Sand tempered. Buff slipped. Smoothed. Late Middle Susiana
G	IX-32	R18:901	81.52	Standard buff ware. Sand tempered. Buff slipped. Sandy face lower part. Late Middle Susiana
H	9514	P17:902	81.61	Fine buff ware. No visible inclusions. Creamy buff slipped. Smoothed. Late Middle Susiana
I	9205	R18:902	81.22	Fine buff ware. Some sand inclusions. Creamy buff slipped. Smoothed. Late Middle Susiana
J	6046	P23:606	82.05	Standard buff ware. Sand tempered. Buff slipped. Late Middle Susiana
K	IX-48	R18:901	80.46	Standard buff ware. Sand tempered. Buff slipped. Inside smeared with bitumen. Early Middle Susiana
L	8833	Q25:802	75.70	Red ware. Sand tempered with some calcite particles. Early Middle Susiana
M	IX-34	R18:901	80.52	Standard buff ware. Sand tempered. Buff slipped. Inside smeared with bitumen. Early Middle Susiana
N	9150	R18:908 South	81.76	Red ware. Sand inclusions. Red wash. Smoothed. Late Middle Susiana
O	9123	R18:901	81.33	Red ware. Sand inclusions. Smoothed. Late Middle Susiana
P	6183	P22:606 North	81.73	Buff ware. Sand and grit tempered. Buff slipped. Early/ Middle Susiana transitional
Q	7049	G28:705	76.08	Eggshell ware. No visible inclusions. Creamy buff slipped. Late Middle Susiana
R	6134	Tr. XXXV	76.47	Eggshell buff ware. No visible inclusions. Creamy buff slipped. Late Middle Susiana
S	6114	S20:620	78.20	Buff ware. Grit tempered. Buff slipped. Smoothed. Late Middle Susiana
T	6133	Tr. XXXV	76.13	Fine buff ware. Some small grits included. Creamy buff slipped. Smoothed. Late Middle Susiana
U	IX-30	S18:904	81.12	Fine buff ware. No visible inclusions. Creamy buff slipped. Smoothed. Late Middle Susiana
V	6859	P23:606	82.05	Standard buff ware. Sand tempered. Buff slipped. Smoothed. Late Middle Susiana

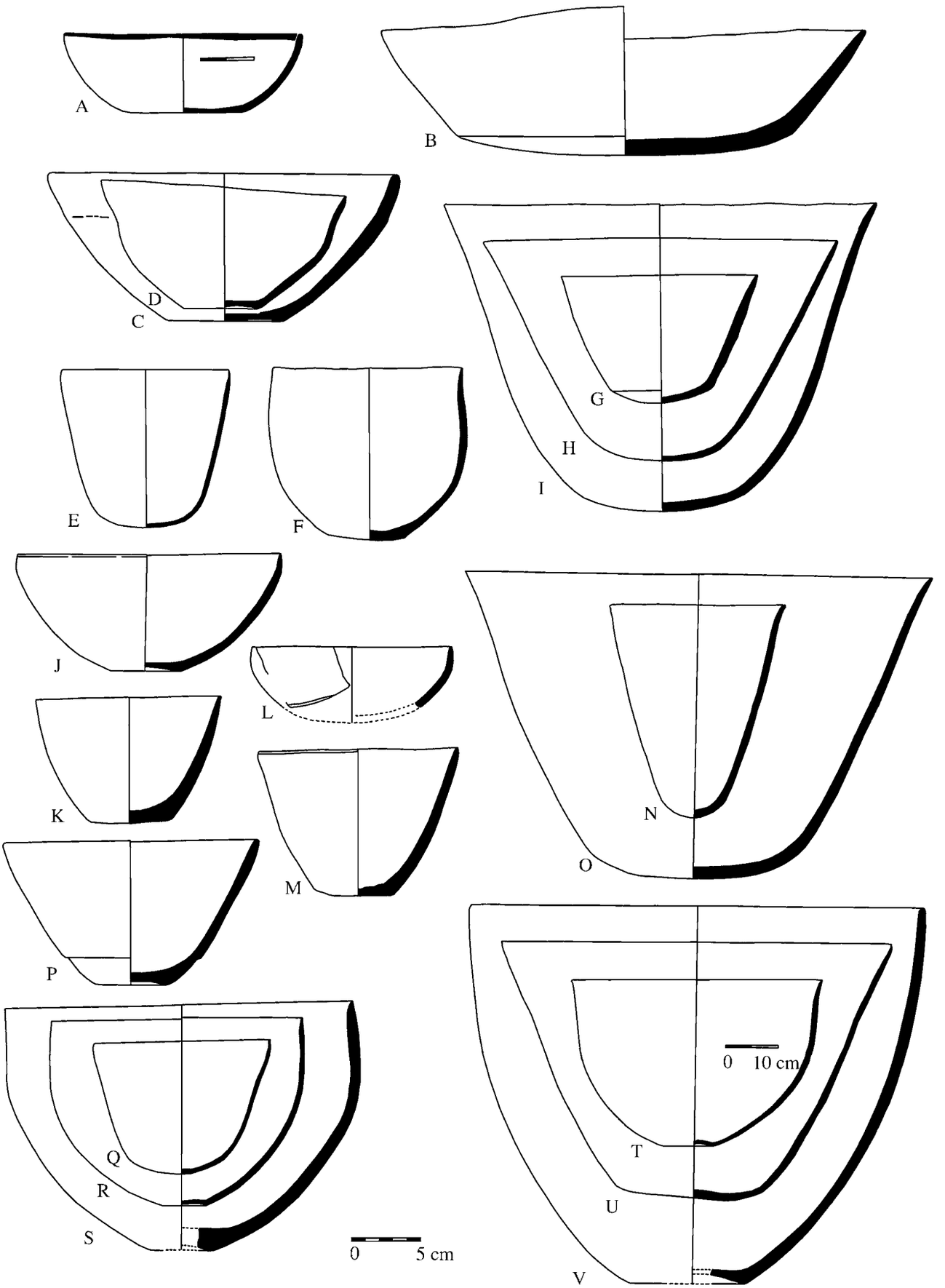


Figure 53. Middle Susiana Plain Pottery Vessels

Figure 54. Middle Susiana Plain Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	IX-127	S18:902	80.40	Standard buff ware. Small dark grits tempered. Buff slipped, lower body gritty face. Smoothed. Early Middle Susiana
B	6015	S20:605	79.05	Fine buff ware. Creamy buff slipped with a greenish tinge. Late Middle Susiana
C	9178	S18:915	81.69	Red ware. Sand tempered. Dense. Smoothed. Late Middle Susiana
D	8957	Q25:802	77.00	Fine buff ware. Light green buff surface. Buff slipped. Some scrape marks on lower body. Late Middle Susiana
E	9176	R18:901	80.52	Fine buff ware. Sand tempered with few grits. Creamy buff slipped. Smoothed. Late Middle Susiana
F	7184	G28:705	74.86	Fine buff ware. Sand tempered. Creamy buff slipped. Smoothed
G	IX-118	R18:901	81.51	Fine buff ware. Sand tempered. Smoothed. Light buff slipped. Late Middle Susiana
H	6142	Tr. XXV	76.13	Standard buff ware. Sand tempered. Creamy buff slipped. Smoothed. Late Middle Susiana
I	IX-128	S18:906	81.50	Standard buff ware. Sand tempered with few grits. Buff slipped
J	9513	R18:905	81.55	Fine buff ware. Some sand included in paste. Creamy buff slipped. Smoothed. Late Middle Susiana
K	IX-31	S18:902	80.97	Fine buff ware. Some sand. Buff slipped. Smoothed. Late Middle Susiana
L	N/A	G28:705	79.60	Fine red ware. Sand tempered. Orange buff paste. Red wash. Dark red paint on the neck. Late Middle Susiana
M	9166	R18:921	80.27	Fine buff ware. Some sand included. Creamy buff slipped. Smoothed. Late Middle Susiana
N	6224	S20:605	79.05	Fine red ware. Dense. Interior dark brown wash, white slip on the exterior. Late Middle Susiana
O	IX-20	N/A	1.0 B.S.	Buff ware. Sand tempered with some grits. Buff slipped. Late Middle Susiana
P	7054	G28:705	81.06	Red ware. Gray core. White slipped. Smoothed. Late Middle Susiana

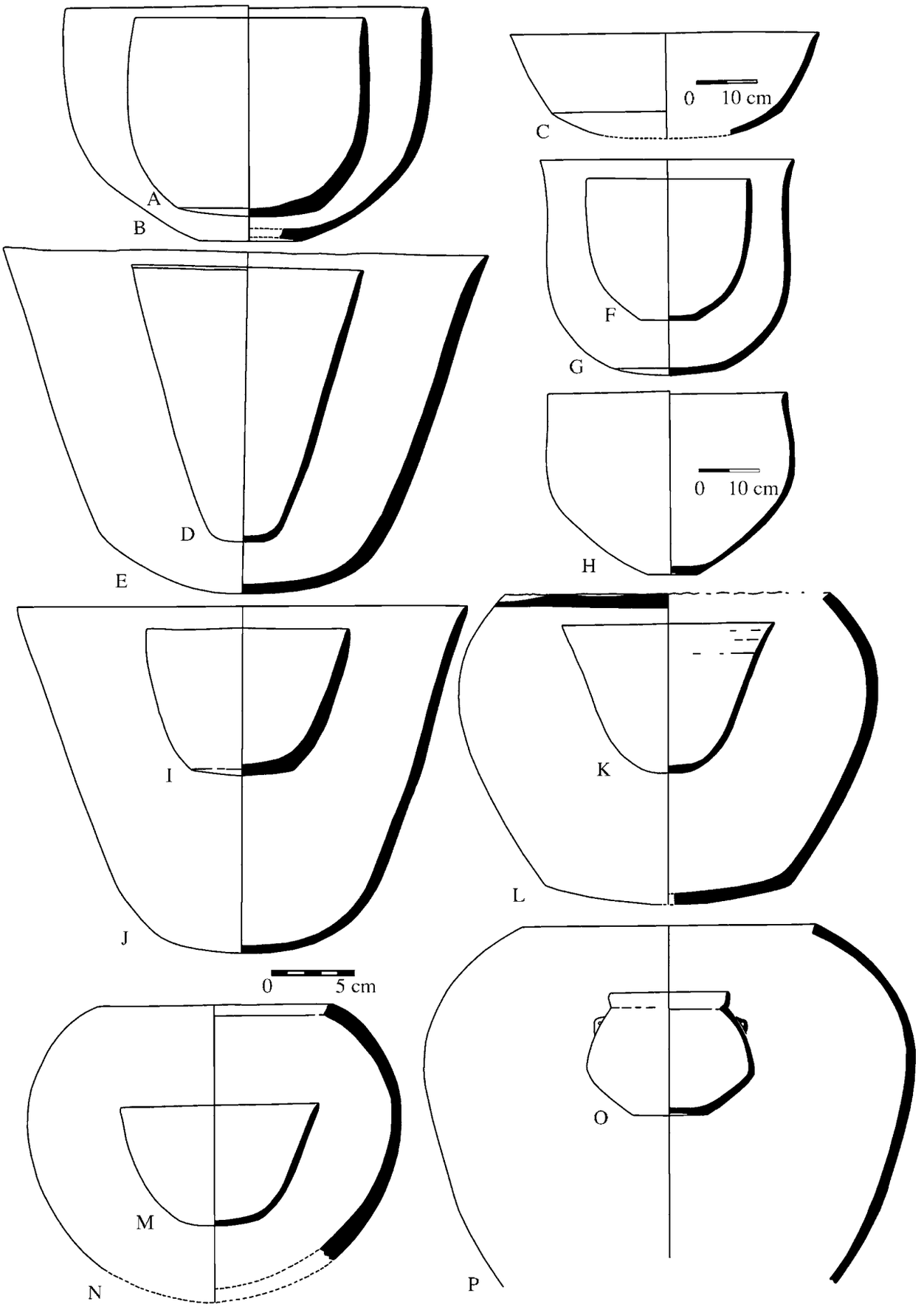


Figure 54. Middle Susiana Plain Pottery Vessels

Figure 55. Early Susiana Open Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	8062	S22:808	75.67	Buff ware. Grit tempered. Buff slipped. Black paint. Reserved wavy line below carination
B	8128	S22:826	75.49	Buff ware. Grit tempered with some chaff. Buff slipped. Black paint
C	8448	S22:823 West	74.24	Buff ware. Grit and sand tempered. Creamy buff slipped. Black paint
D	8427	Gully Cut	Surface	Buff ware. Grit tempered with some chaff. Buff slipped. Black paint. Reserved wavy lines
E	8184	S22:808	75.55	Buff ware. Dense with some grits. Buff slipped. Black paint. Reserved wavy lines
F	6092	S22:622	78.34	Buff ware. Grit tempered. Smoothed. Buff slipped. Dark granulated matte paint. Early/ Middle Susiana
G	8761	S22:823 North	75.03	Buff ware. Dense with some grits. Buff slipped. Black paint
H	8030	S22:808	75.91	Buff ware. Gritty. Buff slipped. Black paint. Reserved wavy lines
I	8137	S22:825	76.24	Buff ware. Gritty. Buff slipped. Black paint. Reserved wavy lines
J	6110	P22:609	81.13	Buff ware. Gritty. Buff slipped. Matte black paint. Reserved wavy lines

Figure 55. Early Susiana Open Pottery Vessels

Figure 56. Early Susiana Open Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	8260	S22:823	75.90	Buff ware. Grit tempered. Buff slipped. Slightly gritty face. Black paint
B	7261	Q23:702	79.08	Buff ware. Grit tempered. Buff slipped. Slightly gritty face. Black paint
C	6018	P23:601	81.80	Buff ware. Grit tempered. Buff slipped. Lip knob. Black paint
D	8230	S22:808	75.91	Buff ware. Grit tempered with some straw. Buff slipped. Black paint
E	8648	S22:823	75.94	Buff ware. Grit and sand tempered. Buff slipped with a greenish hue. Black paint
F	8063	S22:808	75.67	Buff ware. Grit tempered. Buff slipped. Black paint
G	8870	S22:808	75.60	Buff ware. Sand and grit tempered. Buff slipped. Black paint. Reserved wavy band below lip
H	8248	Q24:801 West	77.22	Buff ware. Grit and chaff tempered. Orange pink surface. Black paint. Probably intermediate between Archaic/Early Susiana
I	8287	S22:823	74.98	Red ware. Sand and grit tempered. Pouring lip. Red slipped? Black paint
J	6035	P22:608 North	81.32	Buff ware. Grit tempered. Buff slipped with a greenish hue. Black matte paint. Reserved wavy lines below lip
K	8490	S22:823	75.43	Buff ware. Grit tempered with some chaff. Buff slipped. Black paint
L	6085	P22:609	81.83	Buff ware. Grit tempered. Over-fired greenish buff. Black matte paint
M	6022	P22:609	81.42	Buff ware. Grit tempered. Over-fired greenish buff. Black matte paint

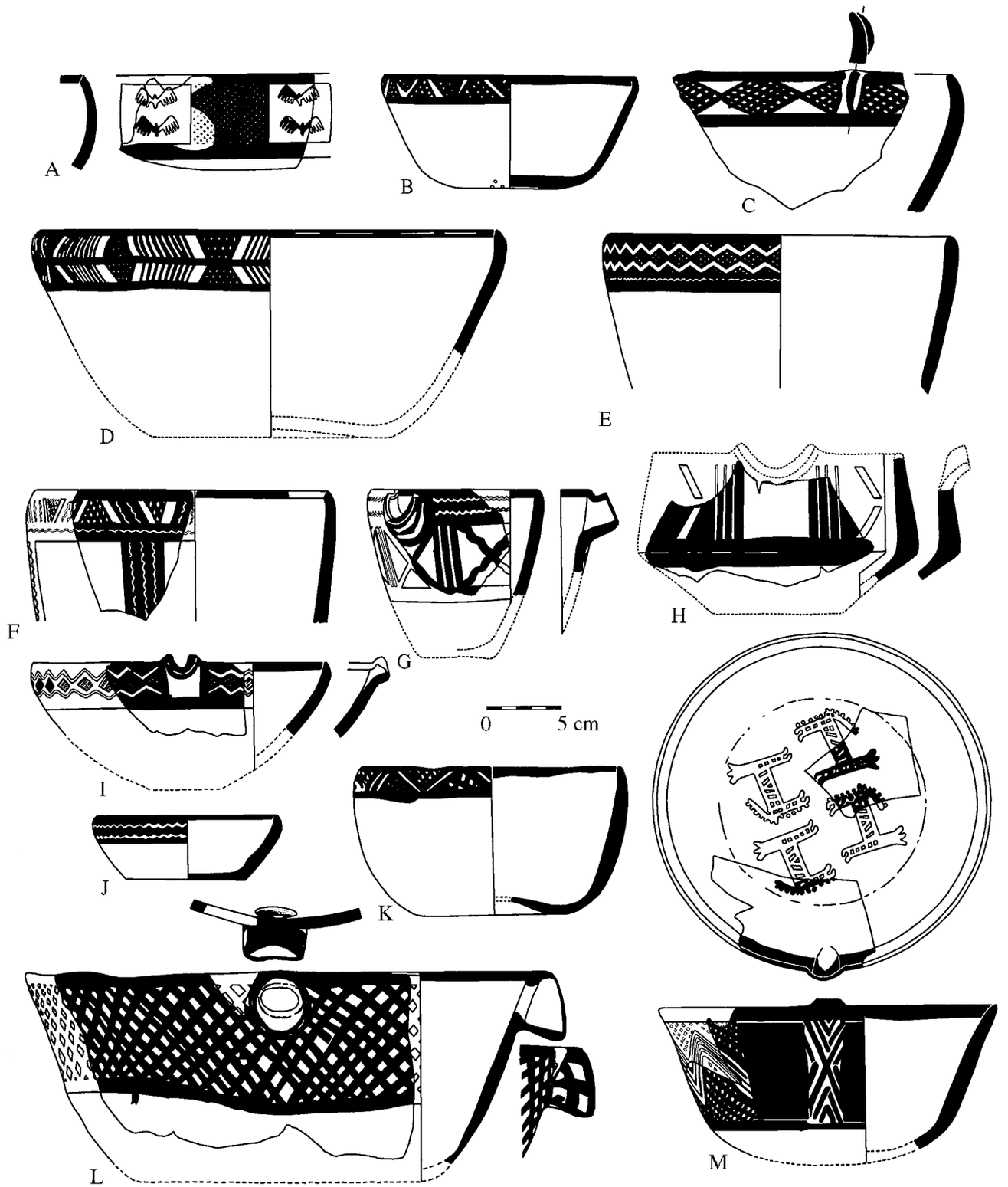


Figure 56. Early Susiana Open Pottery Vessels

Figure 57. Early Susiana Open Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	8064	S22:808	75.67	Buff ware. Grit tempered. Buff slipped. Black paint. Reserved wavy line below carination
B	N/A	P22:609	81.30	Buff ware. Grit tempered. Buff slipped. Black paint
C	8938	S22:826	74.68	Buff ware. Grit tempered. Buff slipped. Black paint
D	8769	S22:823	75.03	Buff ware. Grit tempered. Buff slipped. Black paint
E	6469	S20:607	78.74	Buff ware. Grit tempered. Buff slipped. Scraping marks on lower exterior
F	8027	Q24:802 East	78.07	Buff ware. Grit tempered with some chaff. Buff slipped. Black paint. Reserved wavy lines below lip
G	6132	P22:606	80.86	Buff ware. Inverted rim with pouring lip. Grit tempered. Smoothed. Buff slipped. Black brown matte paint
H	6144	P23:603	82.22	Buff ware. Grit tempered. Smoothed. Buff slipped. Black matte paint
I	8239	S22:808	75.94	Buff ware. Inverted rim with pouring lip. Grit tempered. Smoothed. Buff slipped. Black matte paint
J	6019	P22:608 North	81.13	Buff ware. Inverted rim with pouring lip. Grit tempered. Smoothed. Buff slipped. Black matte paint
K	5216	Boneh Fazl Ali	N/A	Buff ware. Grit tempered. Gritty face, buff slipped. Black paint

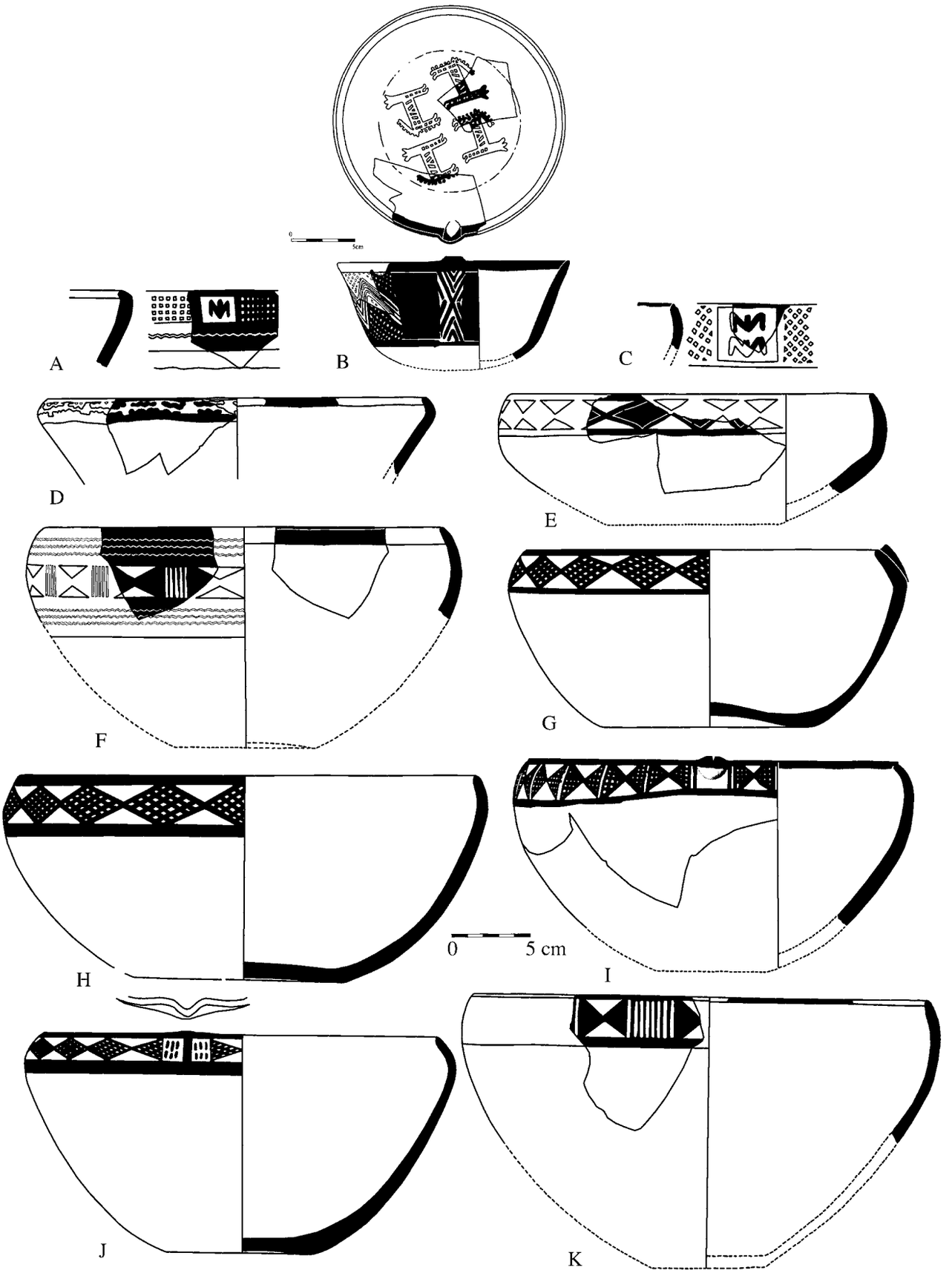


Figure 57. Early Susiana Open Pottery Vessels

Figure 58. Early Susiana Open Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	8114	S22:822	76.18	Buff ware. Sand and grit tempered, mostly sandy. Buff slipped. Smoothed. Black paint. Archaic/ Early Susiana transitional
B	8350	S22:823	74.98	Buff ware. Grit tempered. Probably buff slipped. Dark matte paint. Archaic/Early Susiana transitional
C	8117	S22:823	75.84	Buff ware. Grit and straw tempered. Buff slipped. Black paint. Archaic/Early Susiana transitional
D	6098	P22:608	81.11	Buff ware. Dense. Small grits. Buff slipped. Dark paint. Early/Middle Susiana transitional
E	8104	S22:823	75.98	Buff ware. Grit and sand tempered with some chaff. Buff slipped. Black paint
F	6863	P22:606	81.14	Buff ware. Grit tempered. Buff slipped. Dark paint. Early/Middle Susiana transitional
G	8255	S22:823	75.51	Buff ware. Grit tempered. Gritty face. Buff slipped. Black paint
H	8007	S22:803	76.15	Buff ware. Grit tempered with some straw. Buff slipped. Black paint
I	6167	P22:611	80.37	Buff ware. Grit tempered. Buff slipped. Dark paint
J	6048	P22:606	80.86	Buff ware. Sand and grit tempered. Buff slipped. Black paint. Early/Middle Susiana transitional
K	6862	P22:606	80.86	Buff ware. Grit tempered. Buff slipped. Dark paint

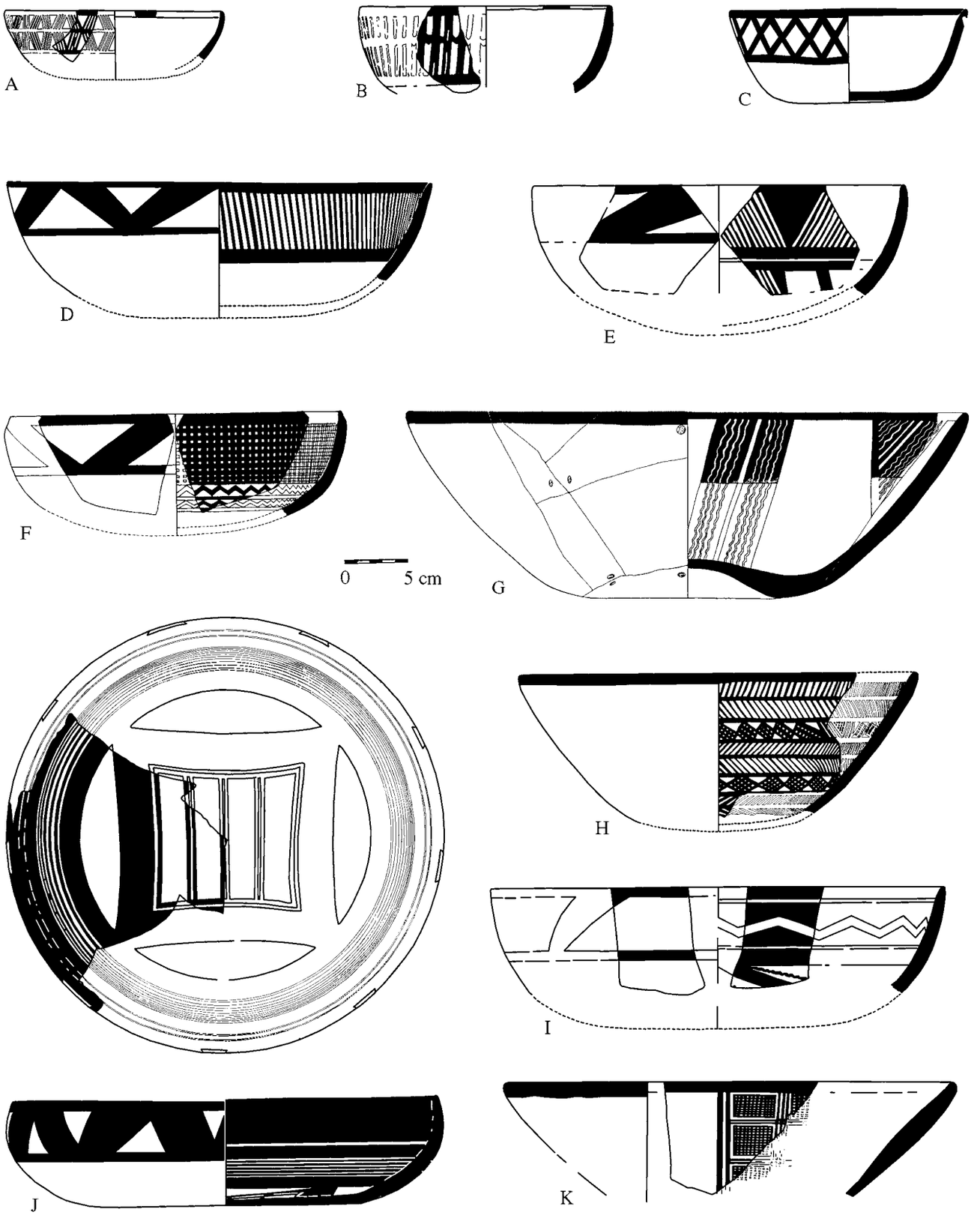


Figure 58. Early Susiana Open Pottery Vessels

Figure 59. Early Susiana Open Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	6533	P22:606	81.52	Buff ware. Grit tempered. Buff slipped. Black paint
B	6082	P22:611	80.37	Buff ware. Grit tempered. Buff slipped. Black matte paint
C	8254	S22:823	75.94	Buff ware. Grit tempered. Buff slipped. Black paint
D	6178	P22:606	N/A	Buff ware. Grit tempered. Buff slipped. Black paint

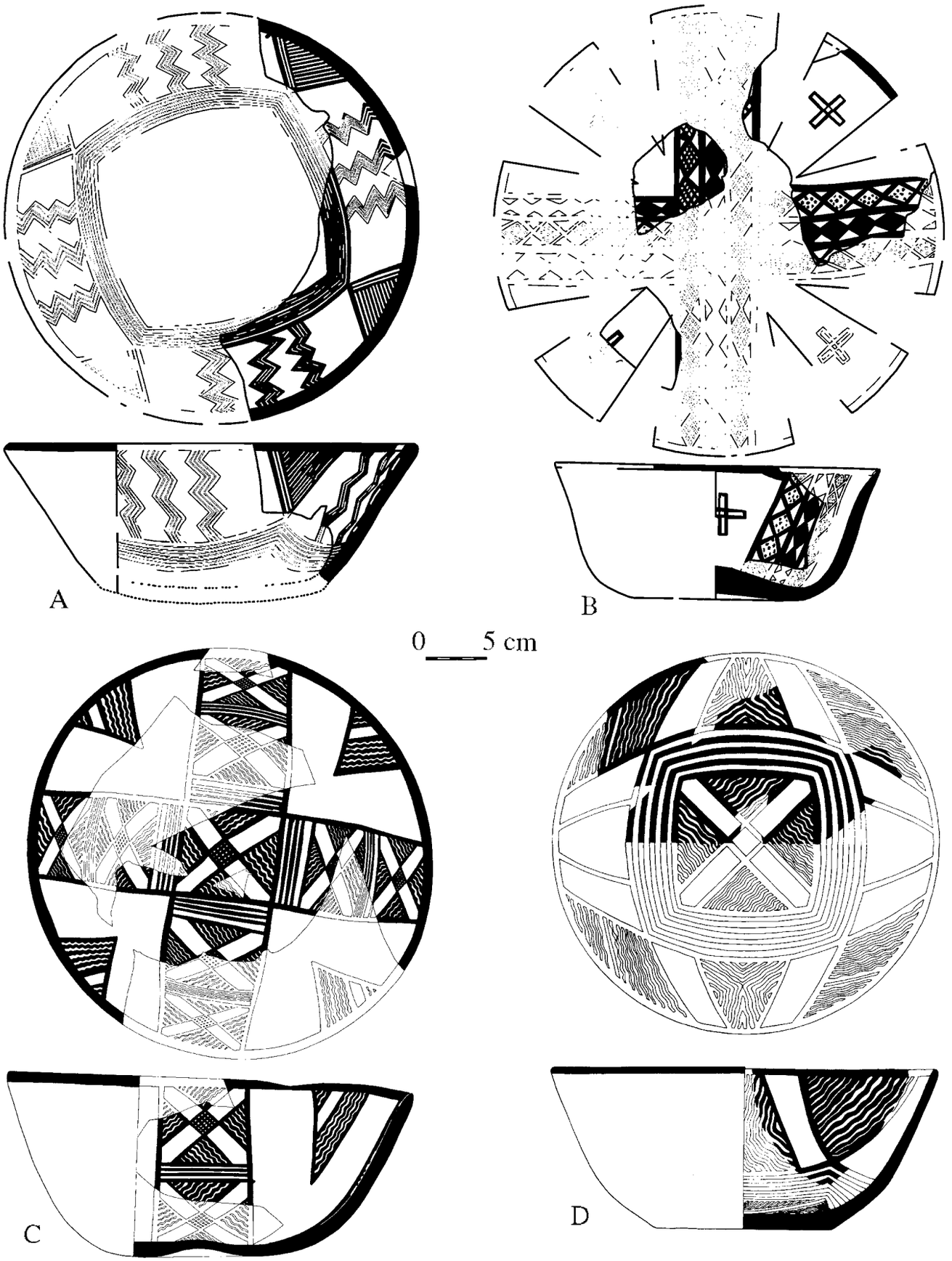


Figure 59. Early Susiana Open Pottery Vessels

Figure 60. Early Susiana Open Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	8001	S22:803	75.91	Buff ware. Grit tempered. Buff slipped. Black paint. Reserved wavy lines
B	8738	S22:808	75.46	Buff ware. Grit tempered. Buff slipped. Black paint
C	7075	Q23:703	79.40	Buff ware. Grit tempered. Buff slipped. Black paint
D	6860	P22:606	N/A	Buff ware. Grit tempered. Buff slipped. Black paint
E	7069	R23:705	76.00	Buff ware. Grit tempered. Buff slipped. Black paint
F	7216	Q23:713	77.59	Buff ware. Grit tempered. Buff slipped. Black paint. Probably transitional Archaic/Early Susiana
G	8099	S22:825	76.35	Buff ware. Grit tempered. Buff slipped. Black paint. Probably transitional Archaic/Early Susiana

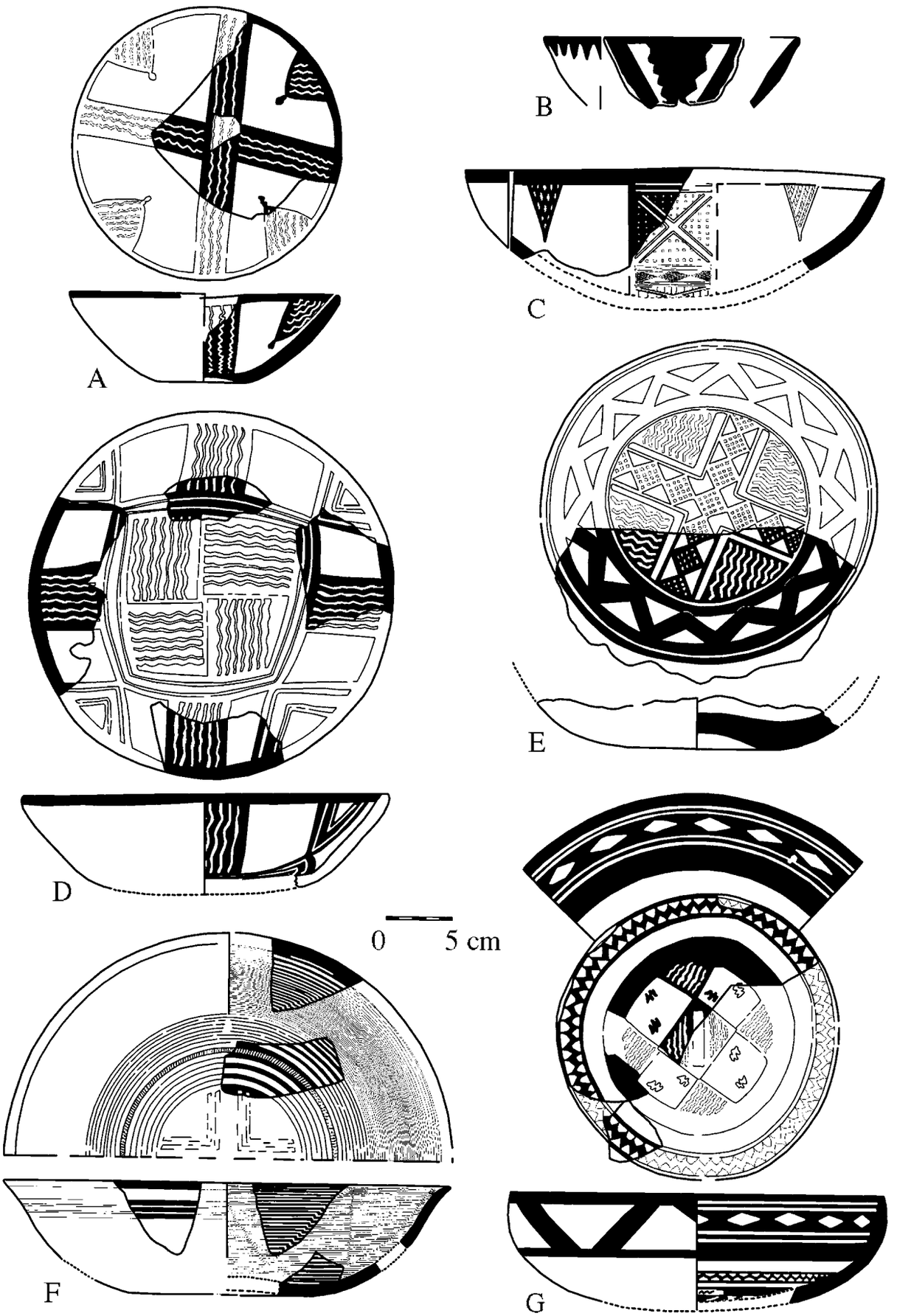


Figure 60. Early Susiana Open Pottery Vessels

Figure 61. Early Susiana Open and Closed Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	VI-29	Q22:602	80.47	Gritty buff ware. Creamy buff slipped. Gritty face. Dark granular matte paint. Reserved wavy lines below lip
B	8856	S22:827	74.30	Buff ware. Chaff tempered. Buff slipped. Black paint. Archaic/Early Susiana transitional
C	VI-30	Q22:602	80.47	Gritty buff ware. Creamy buff slipped. Gritty face. Dark granular matte paint. Reserved wavy lines below lip
D	6861	P22:611	80.81	Gritty buff ware. Creamy buff slipped. Gritty face. Dark granular matte paint. Reserved wavy lines below lip
E	8641	S22:823	74.51	Fine buff ware. Sand tempered. Buff slipped. Black paint. Reserved wavy lines
F	8578	S22:823	75.90	Fine buff ware. Small grit tempered. White slipped on exterior and interior. Black paint. Reserved wavy lines
G	8640	S22:823	76.35	Fine buff ware. Small grit tempered. Buff slipped. Black paint. Reserved wavy lines
H	6111	P22:609	80.74	Fine buff ware. Small grit tempered. Buff slipped. Black paint. Reserved wavy lines
I	8252	S22:823	75.43	Buff ware. Grit tempered. Friable. Buff slipped. Black paint
J	8862	S22:821	76.35	Buff ware. Small grit tempered. Buff slipped. Black paint. Reserved wavy lines
K	8758	S22:823	75.43	Gritty buff ware. Gritty face. Buff slipped. Uneven lip. Black paint
L	8283	S22:823	74.84	Gritty buff ware. Gritty face lower body. Buff slipped. Black paint
M	6248	P22:611	80.50	Gritty buff ware. Gritty face. Buff slipped with greenish hue. Over fired. Olive black paint, vitrified
N	8308	S22:823	74.98	Gritty buff ware. Gritty face. Buff slipped. Black paint
O	8360	S22:823	75.44	Buff ware. Grit tempered. Buff slipped. Black paint

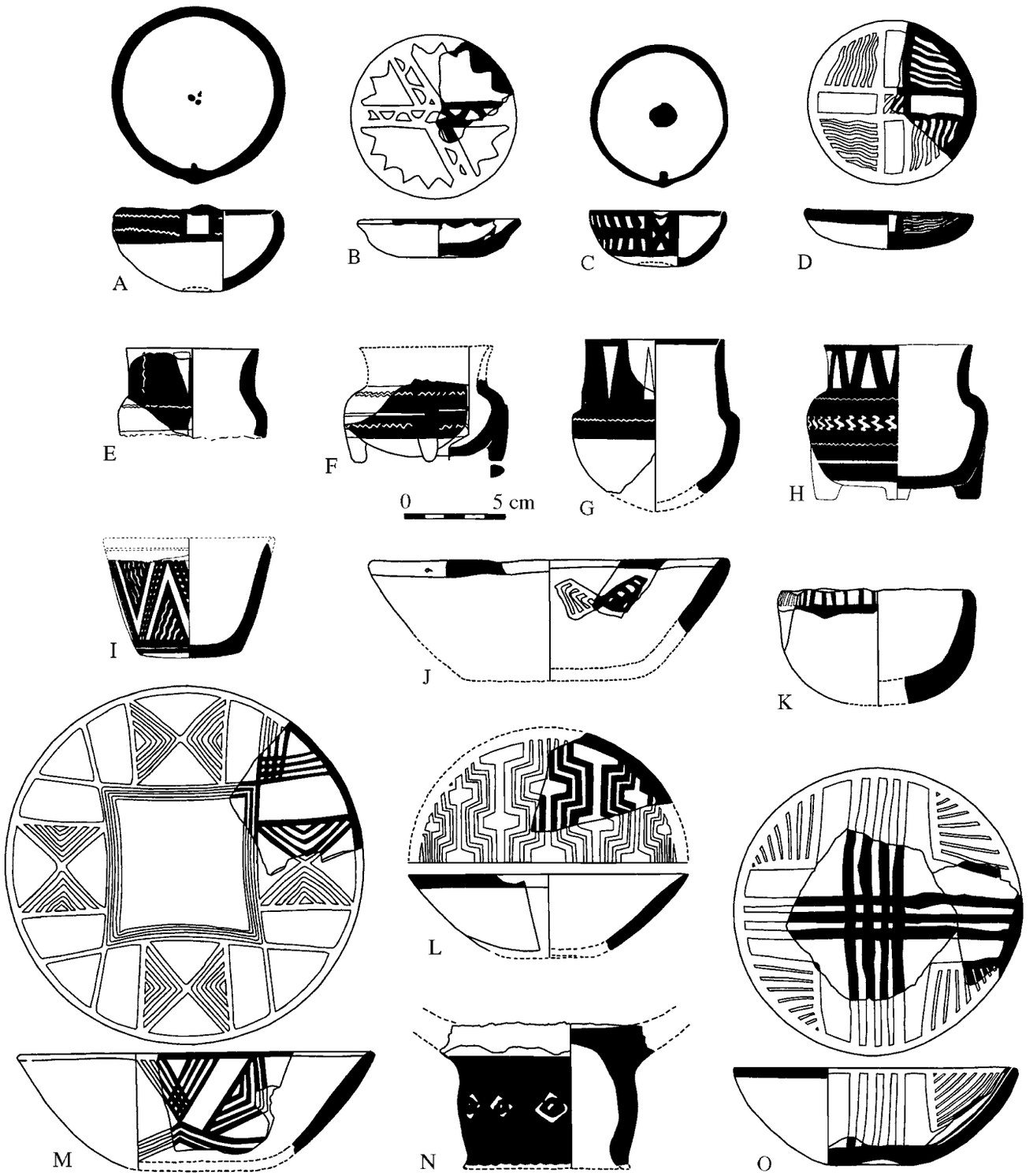


Figure 61. Early Susiana Open and Closed Pottery Vessels

Figure 62. Early Susiana Decorated Pottery Lids

	Registration Number	*Provenance*	*Elevation*	*Description*
A	6466	S20:607	78.74	Buff ware. Grit tempered. Gritty face. Buff slipped. Pinkish buff interior. Black paint
B	6190	Q22:603	81.42	Buff ware. Grit tempered with chaff. Buff slipped. Black paint
C	6864	P22:606	81.77	Buff ware. Grit tempered with chaff. Buff slipped. Black paint
D	8065	G28:802 East	78.32	Buff ware. Grit tempered. Buff slipped. Black paint
E	6026	Q22:601	80.89	Gritty buff ware. Buff slipped with a greenish hue. Dark brown paint
F	6865	P22:606	80.85	Buff ware. Grit tempered. Buff slipped. Black paint
G	VI-38	P22:606	80.85	Buff ware. Grit tempered. Buff slipped with a greenish hue. Olive black paint, somewhat sunken. See plate 20:C for photograph
H	6175	P22:606	80.85	Buff ware. Grit tempered. Buff slipped with a greenish hue. Olive black paint, somewhat sunken

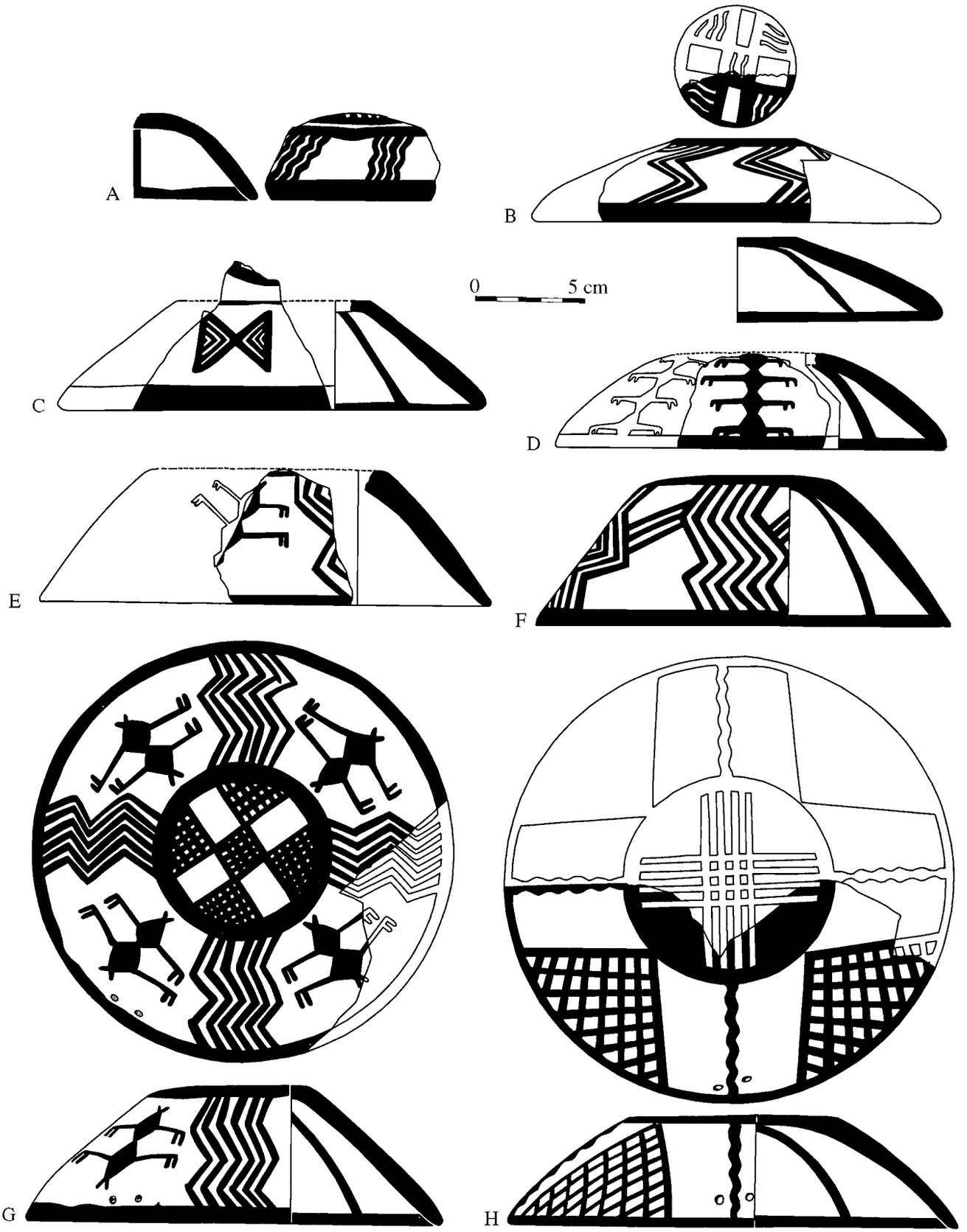


Figure 62. Early Susiana Decorated Pottery Lids

Figure 63. Various Types of Early Susiana Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	6184	P22:608	81.14	Buff ware. Grit and sand tempered. Buff slipped. Black granular paint. Reserved wavy lines
B	7140	P23:704	75.44	Buff ware. Grit tempered. Buff slipped. Black paint. Probably Archaic/Early Susiana transitional
C	9267	S22:914	74.77	Buff ware. Grit and sand tempered. Buff slipped. Black paint. Archaic/Early Susiana transitional
D	6021	P22:607	N/A	Ladle fragment. Buff ware. Grit tempered. Buff slipped. Reddish brown paint
E	8802	S22:808	75.46	Buff ware. Chaff tempered with some grits. Buff slipped. Dark paint. Archaic/Early Susiana transitional
F	8734	S22:808	75.46	Buff ware. Chaff tempered with some grits. Buff slipped. Black paint. Archaic/Early Susiana transitional
G	8040	G23:805	79.04	Buff ware. Grit tempered. Buff slipped. Black paint. Archaic/Early Susiana transitional. (Another example [registration number 9305] comes from S22:913, at an elevation of 74.50)
H	6033	Tr. XXXIII	77.21	Ladle fragment. Buff ware. Grit tempered. Smoothed. Buff slipped. Reddish brown granulated matte paint
I	6101	P22:608	81.11	Rectangular lid fragment. Buff ware. Grit tempered. Smoothed. Black matte paint
J	VI-102	P22:611	80.57	Box fragment. Greenish buff ware. Grit tempered. Gritty face. Probably slipped. Dark brown/black paint. Reserved wavy lines. See plate 20:B for photograph
L	9134	S22:903	75.39	Box fragment. Buff ware. Grit tempered. Creamy buff slipped. Black paint

Figure 63. Various Types of Early Susiana Pottery Vessels

Figure 64. Early Susiana Plain Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	6230	P22:611	80.66	Light reddish ware. Grit tempered. Buff slipped. Gritty face. Smoothed. “Potter’s mark” on base
B	6228	P22:606	81.33	Buff ware. Grit tempered with some chaff. Buff slipped. Gritty face lower body
C	8399	Q23:827 East	78.82	Red ware. Grit tempered. Very smoothed. Gritty face lower body. “Potter’s mark” on base
D	VI-34	P22:606 North	81.75	Buff ware. Grit tempered. Buff slipped. Smoothed. “Potter’s mark” on base
E	VI-36	P22:606 South	81.06	Buff ware. Grit tempered. Buff slipped. Smoothed
F	6866	S20:607	78.74	Buff ware. Grit tempered with some chaff. Buff slipped. Gritty face lower body
G	6241	P22:611	80.50	Buff ware. Grit and chaff tempered. Buff slipped. Smoothed
H	6126	P22:606 North	81.73	Buff ware. Grit tempered with some chaff. Buff slipped. Smoothed. Gritty face lower body. Bitumen stain on interior
I	6867	P22:611 West	81.14	Buff ware. Grit tempered. Buff slipped. Smoothed
J	6123	P22:606	80.86	Buff ware. Grit tempered. Smoothed. Buff slipped
K	6868	P22:606	80.85	Buff ware. Grit tempered. Buff slipped. Smoothed. “Potter’s mark” on base
L	6869	P22:606 South	N/A	Buff ware. Grit tempered. Buff slipped. Smoothed

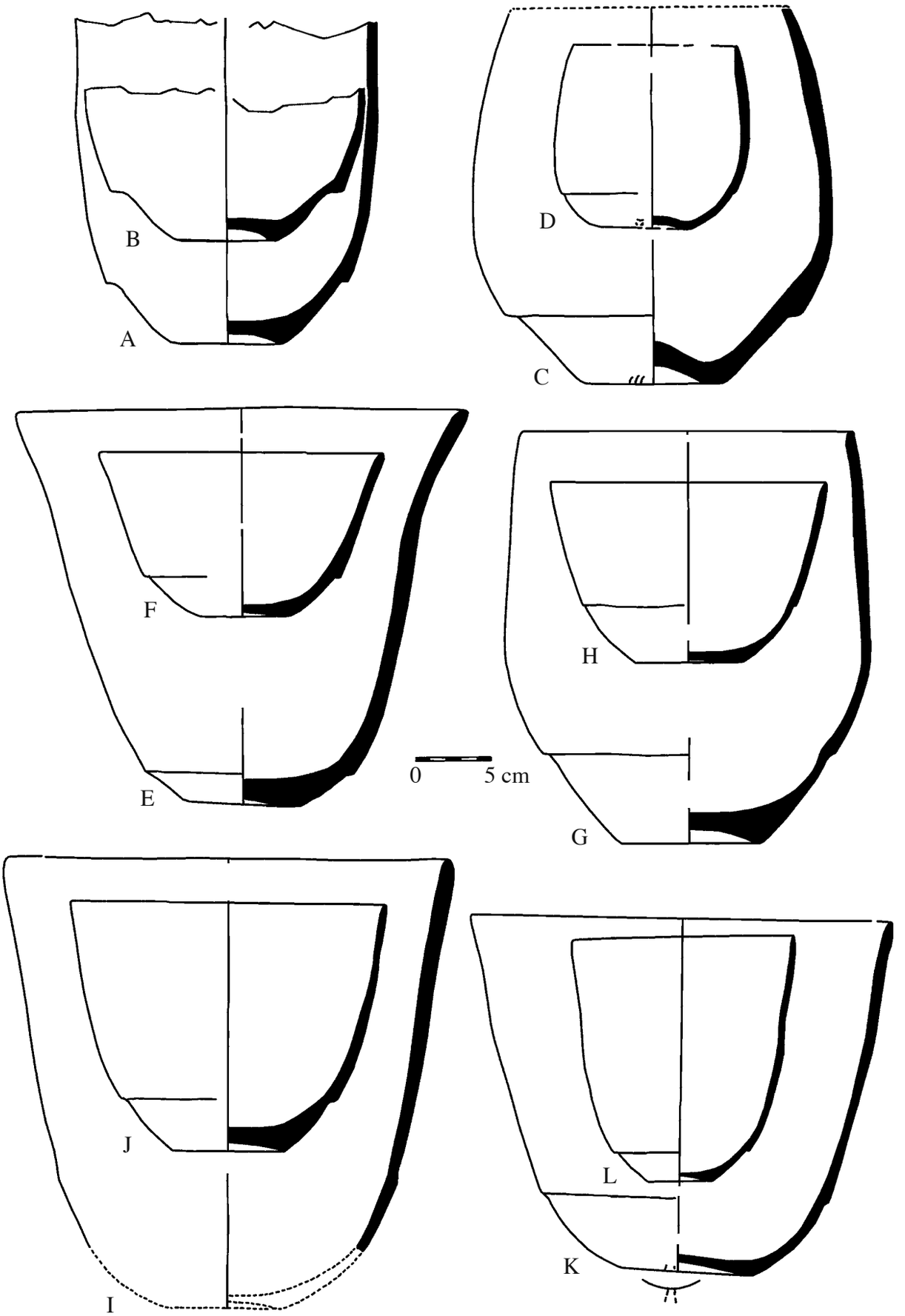


Figure 64. Early Susiana Plain Pottery Vessels

Figure 65. Early Susiana Plain Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	6845	P22:606	N/A	Standard buff ware. Grit tempered with mixture of crushed calcite or shells. Dark and red grits range from small to large. Mottled exterior ranging from light orange to creamy buff. Interior covered with bitumen. “Potter’s mark” on base
B	6231	P22:611	80.38	Standard buff ware. Grit tempered. Small to large grits. Probably buff slipped. Interior covered with bitumen. “Potter’s mark” on base
C	7152	R23:701	77.59	Buff ware. Grit tempered. Gritty face. Buff slipped. “Potter’s mark” on base
D	8762	S22:823	75.84	Standard buff ware. Grit tempered. Gritty face. Buff slipped with a greenish tinge. Smoothed
E	6226	P22:606	80.10	Buff ware. Grit tempered with some chaff. Gritty face. Wall of the vessel made in three layers. Smoothed
F	6229	P22:606	80.12	Red ware. Grit tempered. Tan-cream slipped. Very smoothed
G	9277	S22:909 South	75.00	Buff ware. Red wash all over. Straw tempered. Smoothed
H	8298	S22:823 West	75.90	Buff ware. Dark grit tempered with some chaff. Smoothed. Pouring lip
I	8183	S22:823	75.84	Buff ware. Grit tempered with some chaff. “Potter’s mark” on base
J	6291	P22:611	80.58	Standard buff. Grit tempered. Gritty face. Light buff slipped. “Potter’s mark” on base
K	N/A	Q22:602	80.47	Buff ware. Grit tempered. Gritty face. Buff slipped. Bitumen-coated inside. “Potter’s mark” on base
L	VI-23	Q22:602	80.45	Buff ware. Grit tempered. Gritty face. Buff slipped. “Potter’s mark” on base
M	6422	P22:606	80.50	Buff ware. Grit tempered. Gritty face. Buff slipped. “Potter’s mark” on base
N	6870	P22:606	80.52	Buff ware. Grit tempered. Gritty face. Buff slipped. “Potter’s mark” on base
O	8873	Q24:801 East	77.30	Buff ware. Grit tempered. Smoothed
P	VI-40	P22:614	80.30	Buff ware. Chaff tempered with some grits. Buff slipped. Smoothed
Q	8265	Q23:805	78.80	Buff ware. Grit tempered. Buff slipped. Smoothed
R	6223	P22:625	81.75	Buff ware. Grit tempered. Gritty face. Smoothed
S	6871	S20:621	78.70	Buff ware. Grit tempered. Gritty face. Smoothed
T	6146	P22:606	80.65	Buff ware. Grit tempered. Gritty face. Smoothed
U	7161	R27:704	74.90	Buff ware. Grit tempered. Pink orange slipped. Gray core

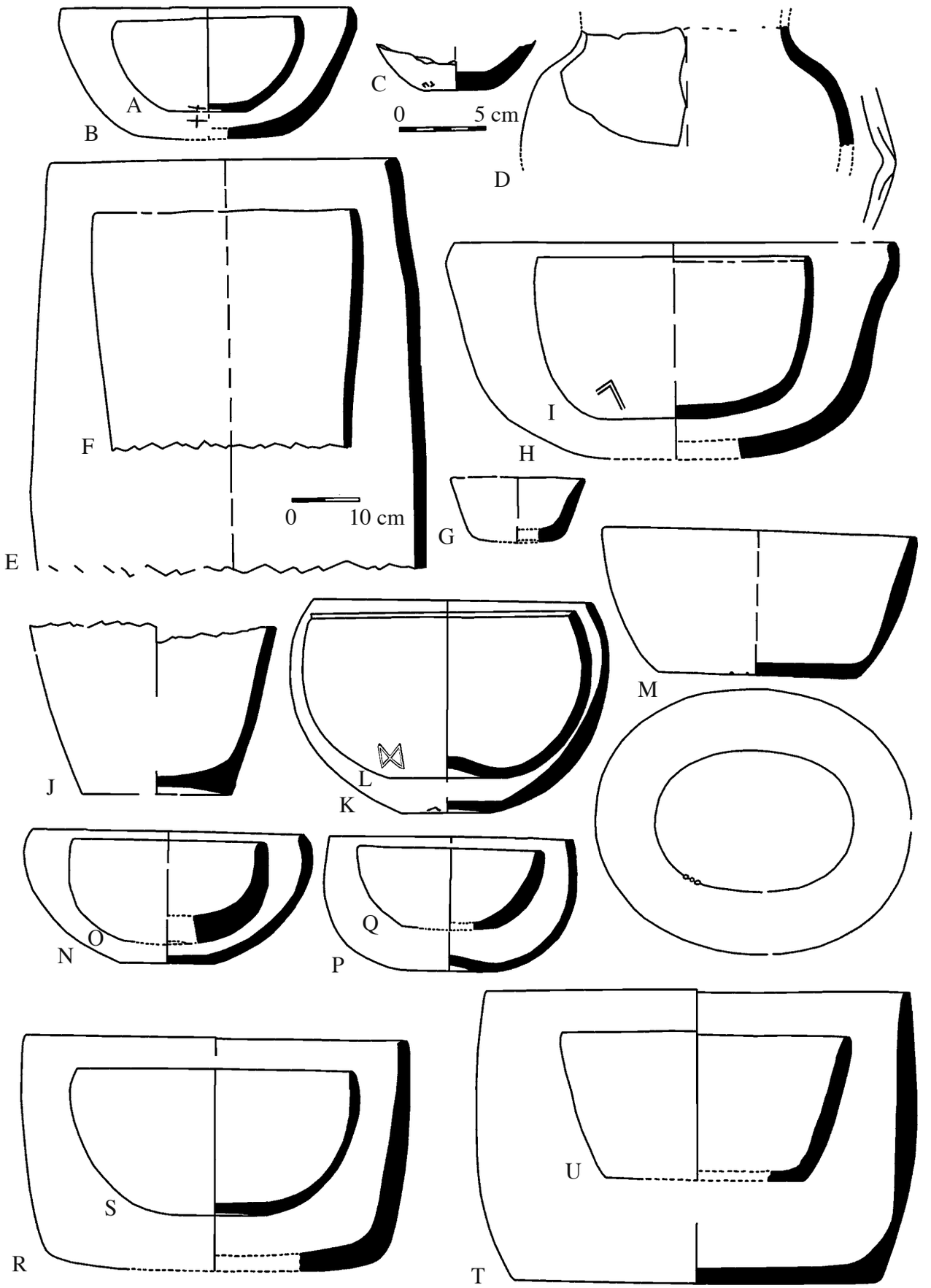


Figure 65. Early Susiana Plain Pottery Vessels

Figure 66. Archaic Susiana 3 Close-line Open Bowls

	Registration Number	*Provenance*	*Elevation*	*Description*
A	7251	R23:710	77.82	Buff ware. Small grit tempered. Buff slipped. Smoothed. Dark paint
B	3083	R21:301 South	B.S.	Buff ware. Small grit tempered. Buff slipped. Smoothed. Black paint
C	8092	Q23:810	77.90	Buff ware. Grit and sand tempered with some fine chaff. Cream slipped. Black paint
D	8110	Q23:815	77.31	Buff ware. Grit and sand tempered. Buff slipped. Black paint
E	8775	Q25:801	76.62	Buff ware. Grit and sand tempered. Buff slipped. Black paint
F	8238	S22:824	75.08	Buff ware. Sand tempered. Creamy buff slipped. Black paint
G	6432	S20:601	74.38	Buff ware. Sand tempered. Buff slipped. Black paint. Interior coated with bitumen
H	BF-1	H16:101	N/A	Buff ware. Sand tempered. Warm buff slipped. Black paint
I	7105	R23:710	77.95	Buff ware. Grit tempered. Creamy buff slipped. Scraping marks on the outside. Black paint
J	81013	Q23:810	77.69	Buff ware. Sand tempered. Buff slipped. Black paint
K	8227	S22:808	75.55	Buff ware. Grit tempered. Buff slipped. Brown paint
L	8497	S22:823	75.13	Buff ware. Grit tempered with some chaff. Buff slipped. Black paint
M	6058	S20:619	75.20	Buff ware. Sand tempered. Tan-buff slipped. Black paint

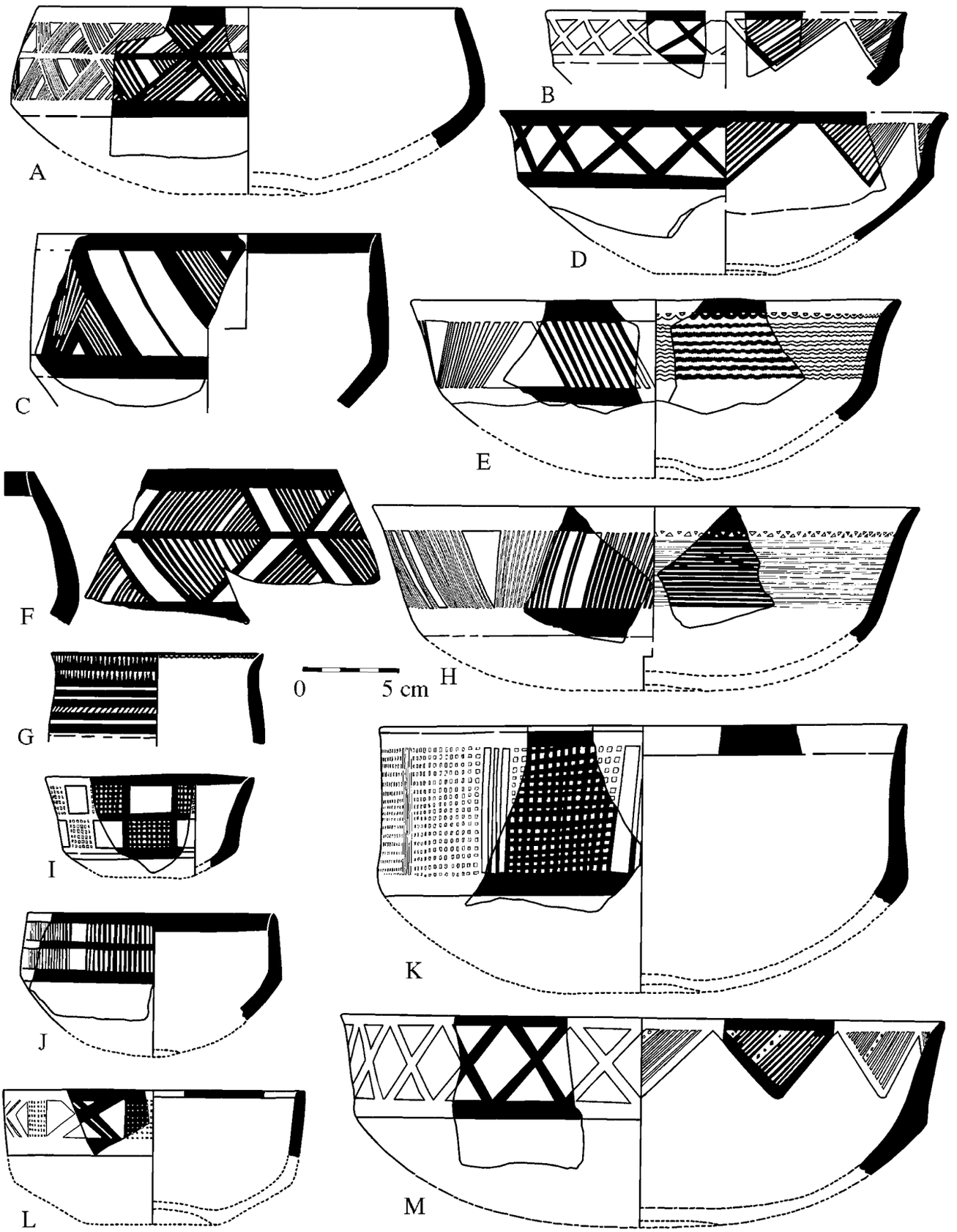


Figure 66. Archaic Susiana 3 Close-line Open Bowls

Figure 67. Archaic Susiana Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	9343	S22:909	74.40	Buff ware. Sand tempered. Buff slipped. Black paint. Archaic Susiana 3
B	6100	P22:606	80.00	Buff ware. Grit tempered with some straw. Buff slipped with a greenish hue. Smoothed. Archaic 3–Early Susiana transitional
C	6872/VI-19	P22:606	80.00	Buff ware. Grit tempered with some straw. Light orange buff interior and exterior. Dark brown paint. Archaic 3–Early Susiana transitional
D	BF-2687	N/A	N/A	Buff ware. Grit tempered with some straw. Light orange buff interior and exterior. Dark brown paint. Archaic 3–Early Susiana transitional. Compare with examples from Chogha Sefid (Hole 1977, fig. 42:a–b)

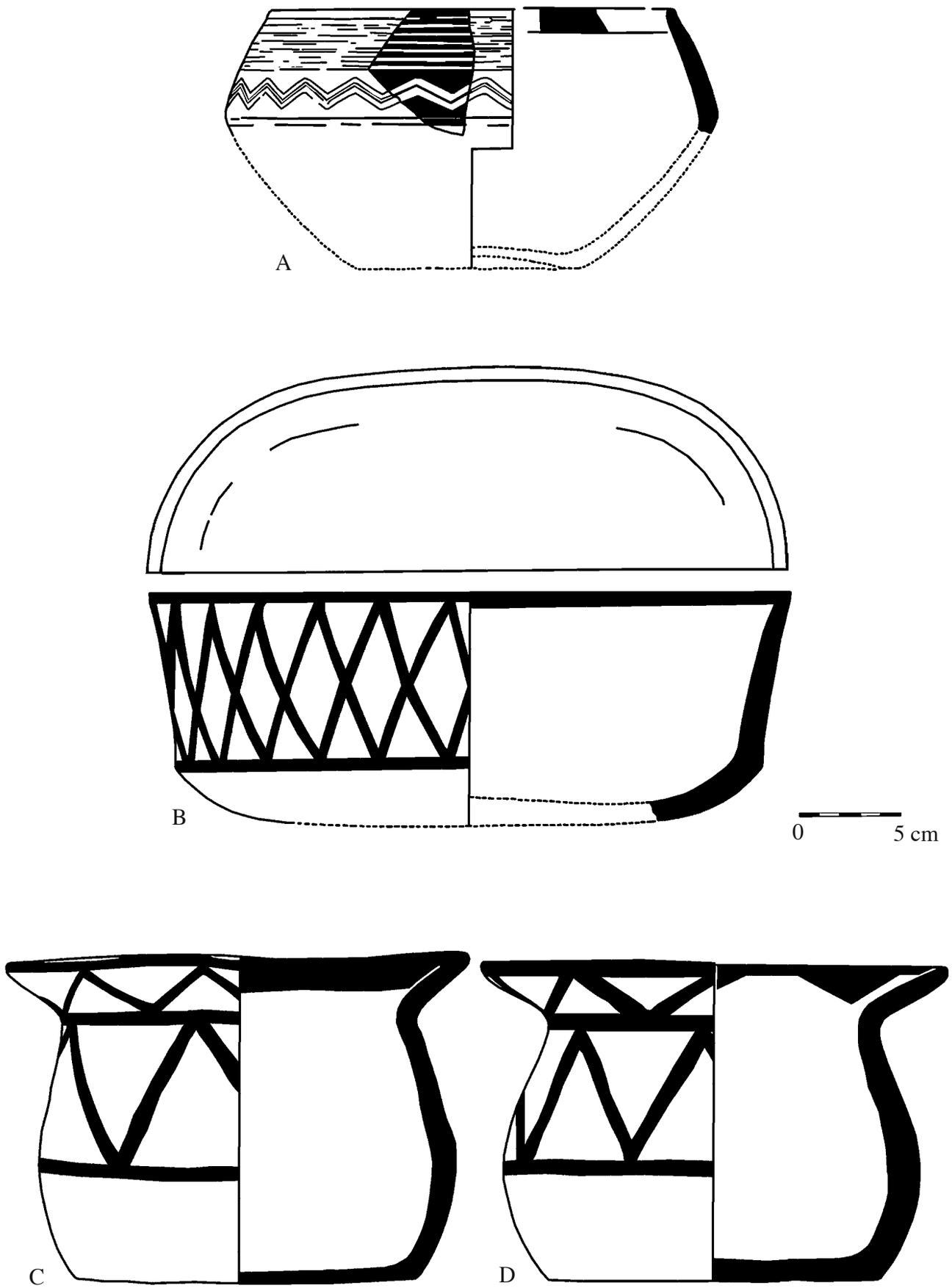


Figure 67. Archaic Susiana Pottery Vessels

Figure 68. Archaic Susiana Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	7253	Q23:712	78.29	Buff close-line ware. Sand tempered. Dense orange buff core. Buff slipped. Black paint. Archaic Susiana 3
B	9512/9370	S22:912, S22:916	73.72, 73.70	Buff ware. Sand tempered. Buff slipped. Smoothed. Brown paint. See plate 21:J–K for photographs. Archaic Susiana 3
C	N/A	S22:601	73.67	Painted-burnished variant. Buff ware. Gray core grading to buff. Sand tempered. Black paint. Archaic Susiana 1
D	8605	S22:823	74.87	Buff ware. Sand tempered with a few grits. Buff slipped. Black paint. Archaic Susiana 3
E	11158	S22:1108 East	72.27	Painted-burnished variant. Sand and straw tempered. Pinkish buff surface. Dark maroon paint. Archaic Susiana 1

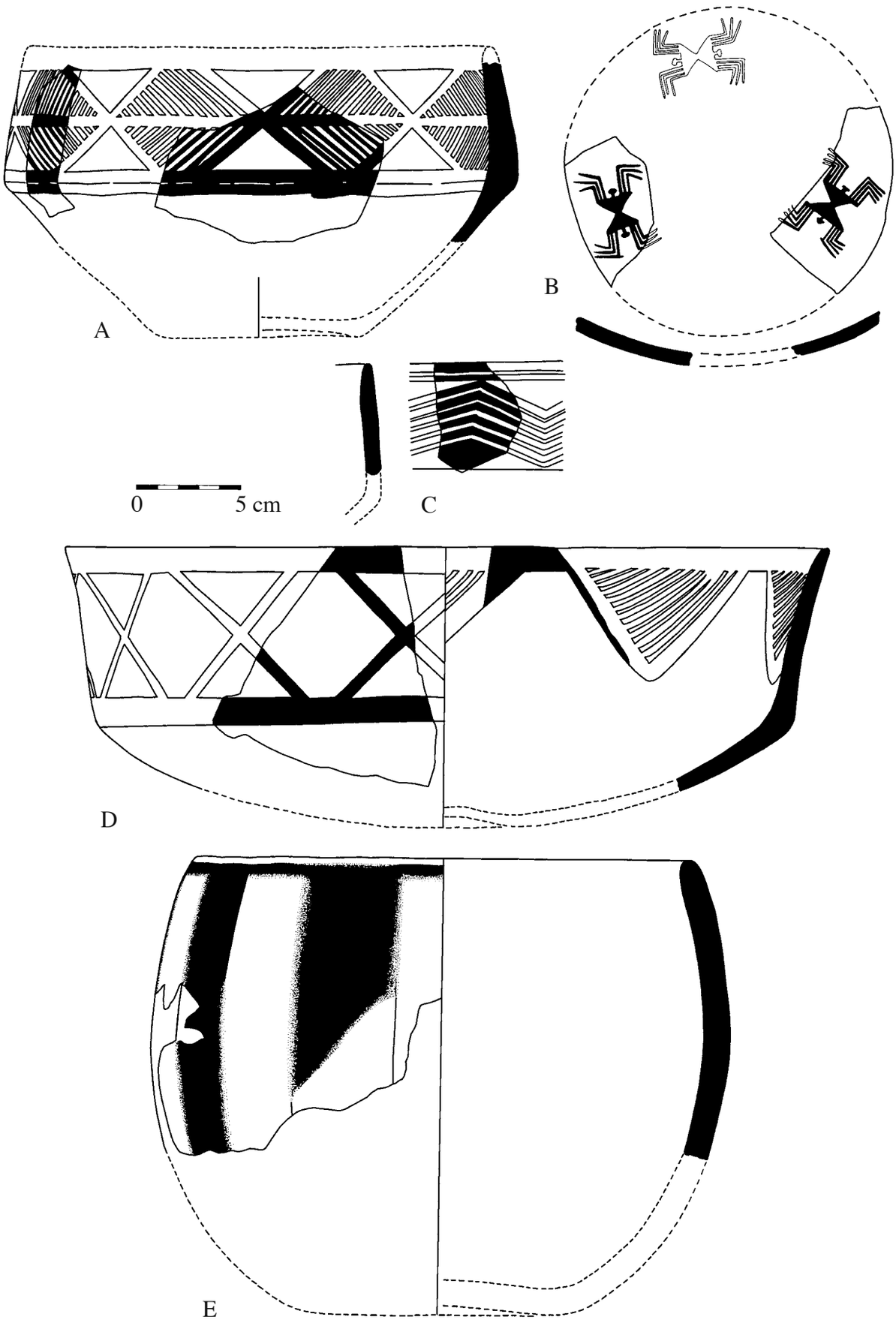


Figure 68. Archaic Susiana Pottery Vessels

Figure 69. Archaic Susiana 3 Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	8760	S22:823	74.92	Buff ware. Sand tempered. Dense. Creamy buff slipped. Black paint
B	9269	S22:911	74.00	Buff ware. Sand tempered. Dense. Creamy buff slipped. Black paint
C	6068	S20:620	78.20	Buff ware. Sand tempered. Smoothed. Buff slipped. Dark matte paint
D	9237	S22:912	74.57	Buff ware. Sand tempered. Dense. Creamy buff slipped. Black paint
E	7079	S22:703	75.25	Buff ware. Sand tempered. Dense. Creamy buff slipped. Black paint
F	8289	Q24:801 West	77.22	Buff ware. Grit tempered. Creamy buff slipped. Black paint
G	6139	P22:620	81.00	Buff ware. Grit tempered. Creamy buff slipped. Brown paint
H	3360	Tr. XXV	1.00 B.S.	Buff ware. Grit tempered. Creamy buff slipped. Black paint
I	6009	P23:604	B.S.	Buff ware. Grit tempered. Creamy buff slipped. Black matte paint
J	BF-1010	H10:102	N/A	Buff ware. Grit tempered. Creamy buff slipped. Black paint. Compare Hole 1977, fig. 42, close to Early Susiana birds
K	9364	S22:912	74.52	Buff ware. Grit tempered. Creamy buff slipped. Black paint

Figure 69. Archaic Susiana 3 Pottery Vessels

Figure 70. Archaic Susiana 3 Matte-painted Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	9312	S22:909	75.00	Buff ware. Straw tempered. Buff slipped. Very smoothed. See plate 21:B for photograph. Black paint
B	6422	P22:606	80.00	Buff ware. Grit tempered. Buff slipped. Smoothed, some shiny spots on exterior. Black paint
C	6426	S22:601	73.63	Buff ware. Straw tempered. Buff slipped. Very smoothed. Black paint
D	8348	S22:823	75.08	Buff ware. Grit and straw tempered. Probably buff slipped. Smoothed. Black paint
E	5125	S23:Steps	75.46	Buff ware. Straw tempered. Reddish buff surface (slip?). Black paint
F	VI-28/ A34802	Q23:810	78.25	Buff ware. Straw tempered. Yellowish buff slipped. Below painted panel, fugitive red wash. Black paint. See plate 20:F for photograph
G	8070	Q23:804	78.60	Buff ware. Sand and chaff tempered. Buff slipped. Black matte paint

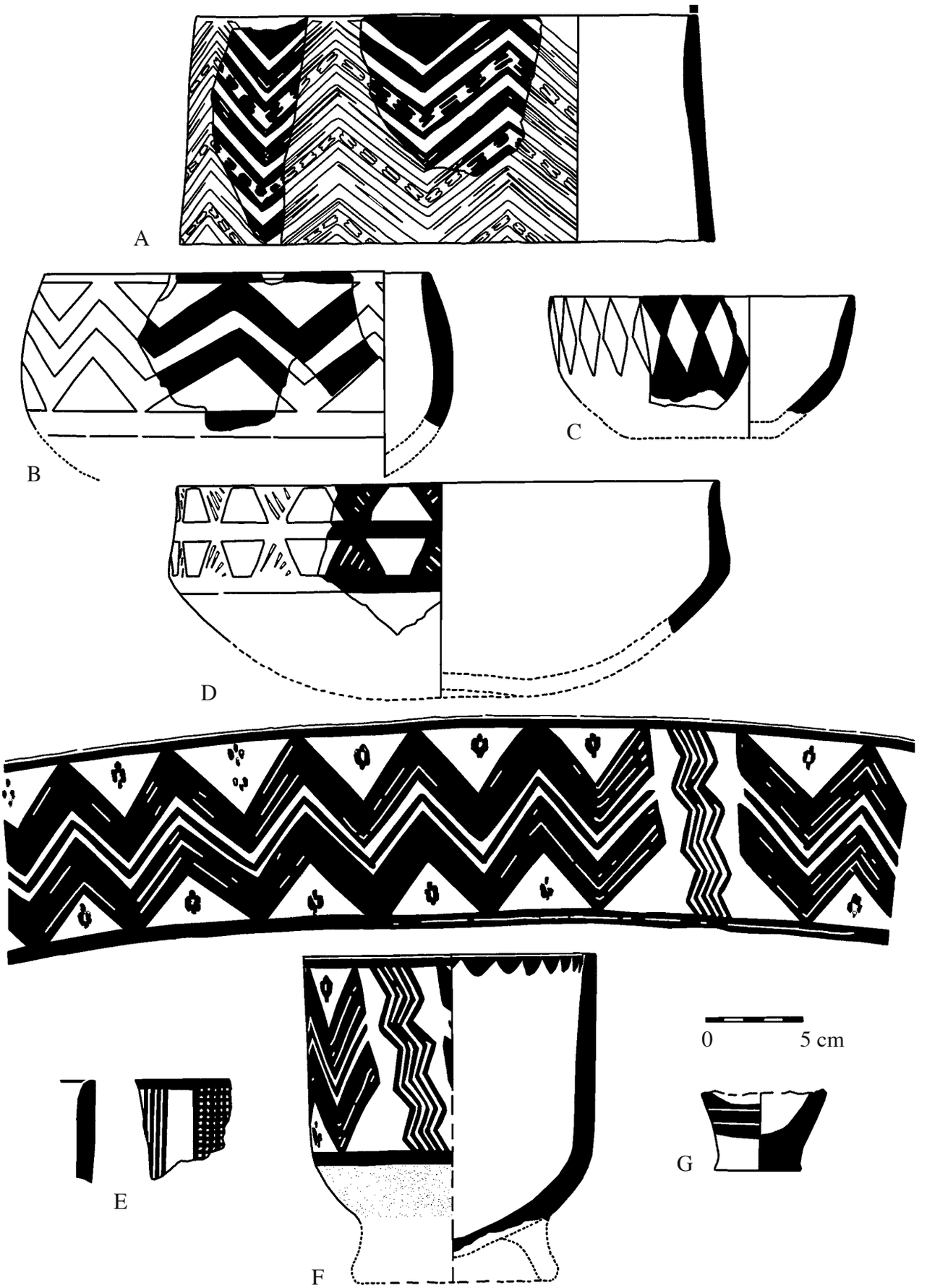


Figure 70. Archaic Susiana 3 Matte-painted Pottery Vessels

Figure 71. Archaic Susiana 3 Matte-painted Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	9268	S22:911	74.00	Buff ware. Straw tempered. Buff slipped. Black matte paint
B	N/A	P22:612 South	79.25	Buff ware. Straw tempered. Buff slipped. Black matte paint
C	N/A	Q23:804	78.50	Buff ware. Straw tempered with some sand. Buff slipped. Black matte paint
D	9511	S22:914	74.02	Buff ware. Chaff tempered. Buff slipped. Smoothed. Black matte paint
E	9282	S22:908	74.45	Buff ware. Straw tempered. Buff slipped. Smoothed. Black matte paint

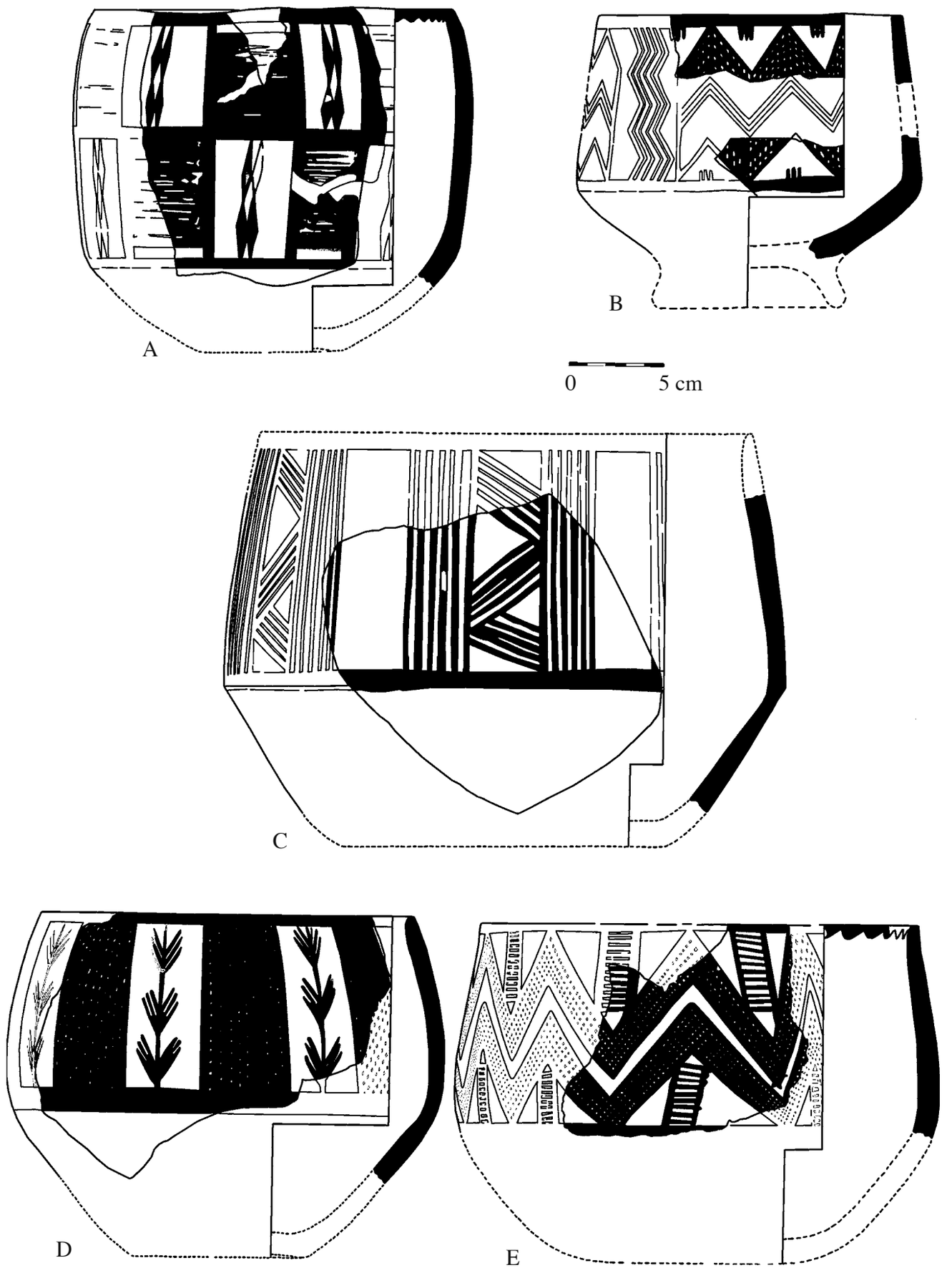


Figure 71. Archaic Susiana 3 Matte-painted Pottery Vessels

Figure 72. Archaic Susiana Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	8667	Q22:804 North	77.48	Buff ware. Chaff tempered. Buff slipped. Smoothed. Black matte paint. Archaic Susiana 3
B	9328	S22:912	74.74	Buff ware, with slightly grayish core. Dense sandy. Chaff tempered. Red wash on exterior and interior. Black paint. Archaic Susiana 2
C	6370	S20:601	74.38	Buff ware. Dense sandy. Gray core. Some chaff included with a small amount of mica. Exterior creamy buff slipped. Pale red paint. Archaic Susiana 2
D	6427	S22:601	73.63	Red-line ware. Dense sandy. Dark buff paste. Sand tempered. Smoothed. Archaic Susiana 2
E	6433	S22:601	73.46	Red-line ware. Dense sandy. Some grits and chaff. Red slipped exterior and interior. Red paint. Archaic Susiana 2
F	6435	S22:601	73.63	Red-line ware. Dense sandy. Pinkish buff slipped. Fugitive red paint. Archaic Susiana 2
G	6372	S20:601	73.63	Red-line ware. Dense sandy, some chaff. Grayish buff core. Light orange, bright red glossy paint. Solid red wash below carination. Archaic Susiana 2
H	6841	S22:601	73.67	Red-line ware. Dense sandy with some chaff. Brownish buff core grades to orange buff toward surface. Red paint. Red wash below carination. Archaic Susiana 2
I	6232	S22:601	73.60	Red-line ware. Dense sandy with a lot of chaff. Light brown core grades to orange toward surface. Some burnish strokes on exterior. Matte fugitive paint. Red wash below carination. Archaic Susiana 2
J	6447	Q22:602	79.57	Straw-tempered, red wash ware. Red fugitive paint. Archaic Susiana 2
K	N/A	S22:601	75.67	Red-line ware. Dense sandy with chaff. Brownish core grades to orange buff toward surface. Red paint. Archaic Susiana 2

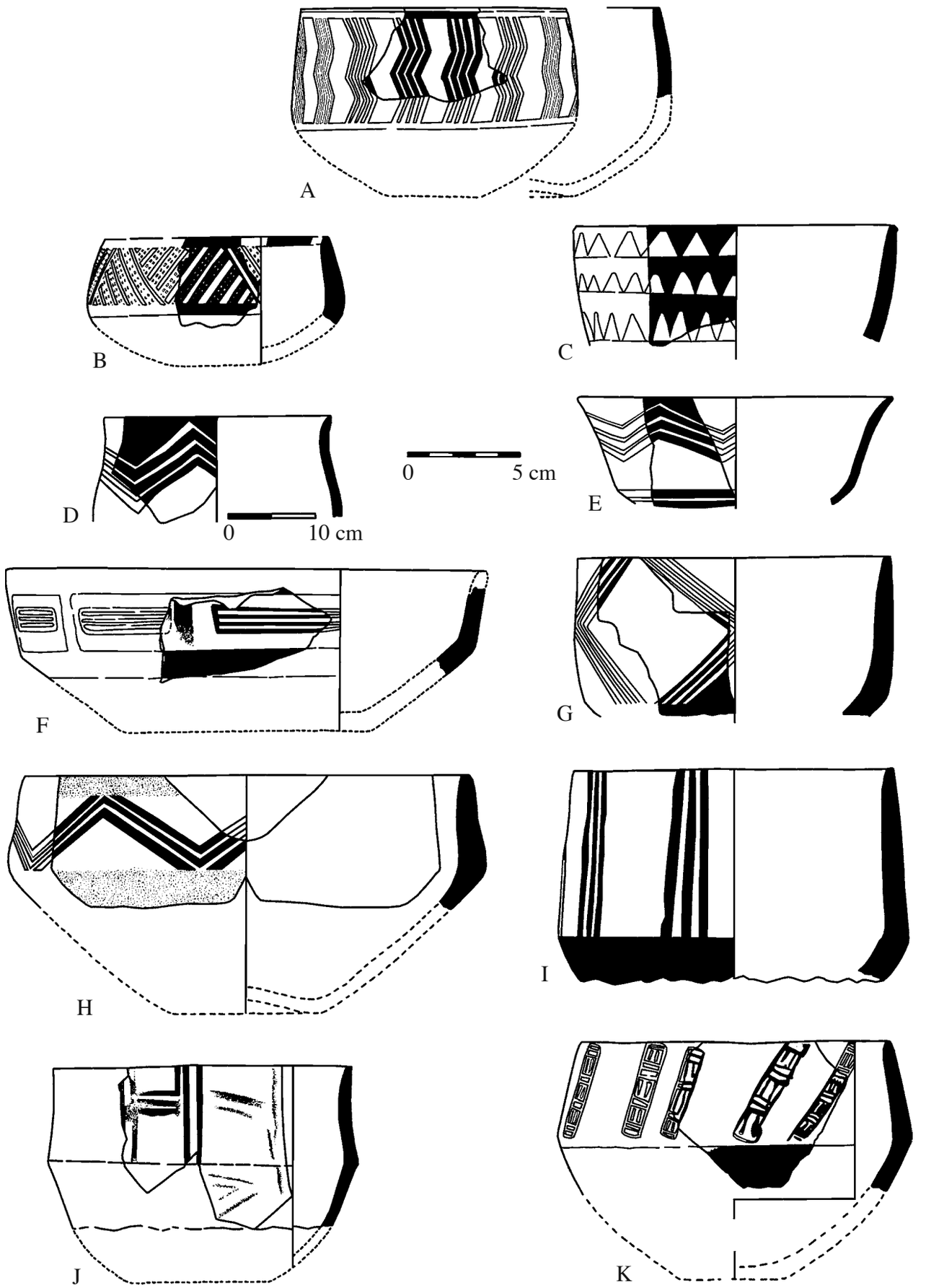


Figure 72. Archaic Susiana Pottery Vessels

Figure 73. Archaic Susiana 1 Painted-burnished Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	6164	Q22:608	79.57	Buff ware. Grayish core grades to pale orange buff toward surface. Dense straw tempered. Black paint, See plate 20:F for photograph
B	41050	R22:401	74.13	Buff ware. Dense straw tempered. Gray core changes to orange buff toward surface. Yellowish buff slipped all over. Deep brown paint
C	4520	R22:401	74.15	Buff ware. Dense straw tempered. Gray core changes to orange buff toward surface. Yellowish buff slipped all over. Deep brown paint

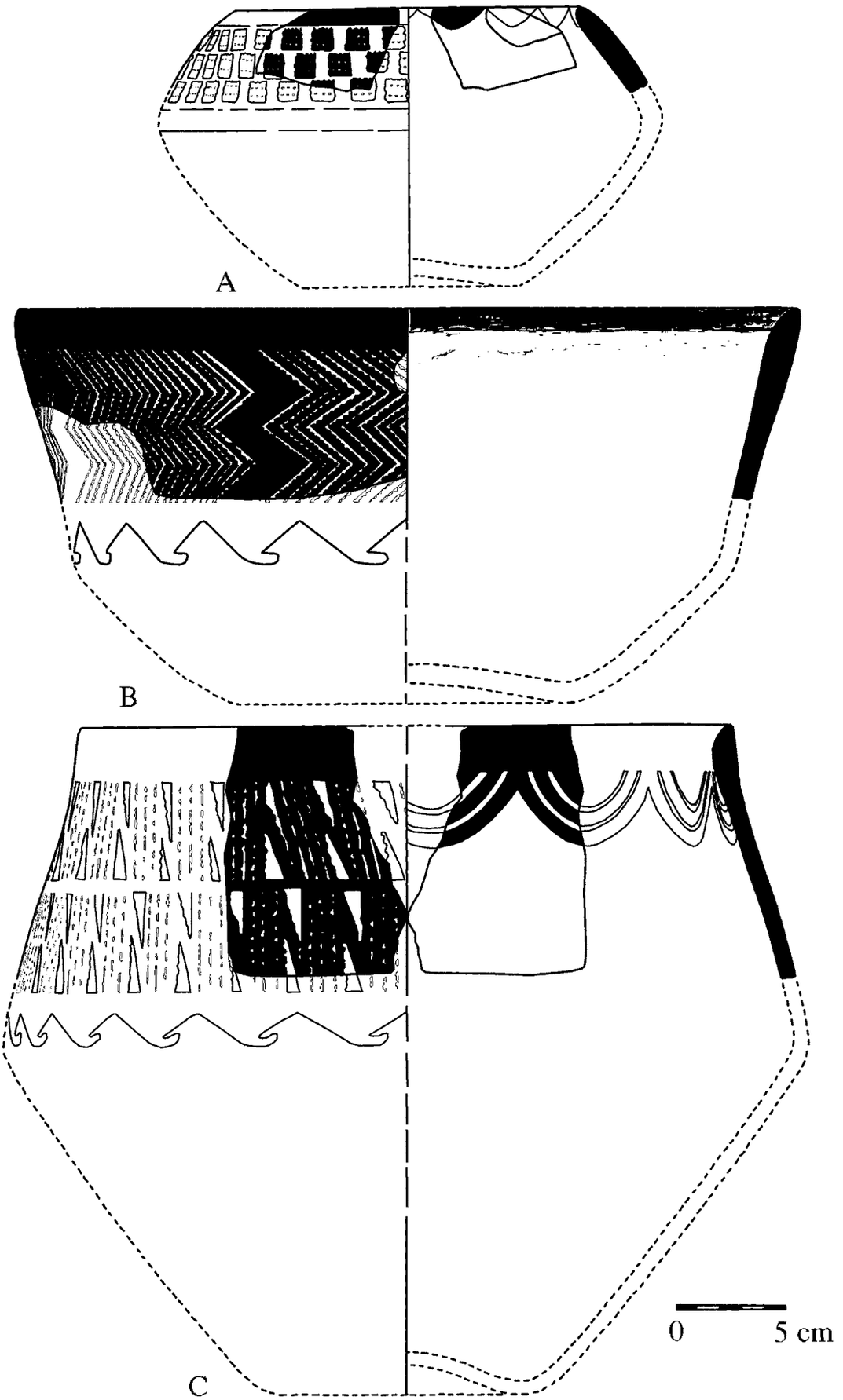


Figure 73. Archaic Susiana 1 Painted-burnished Pottery Vessels

Figure 74. Archaic Susiana Plain Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	IX-102	S22:923	74.54	Straw-tempered smoothed ware. Dense. Archaic Susiana 3
B	6542	S22:609	78.07(?)	Straw-tempered coarse ware. Buff paste, red washed. Uneven surface
C	6025	P22:608 Middle	80.20	Buff ware. Straw and grit tempered. Smoothed. Probably buff slipped. Archaic/Early Susiana
D	8155	Q23:802	78.30	Straw-tempered buff ware. Buff slipped. Crudely made, lop-sided. Archaic Susiana 3
E	6180	P22:606	79.50	Straw-tempered buff ware. Some grits. Warm buff slipped. Archaic Susiana 3
F	VI-39	P22:606	80.55	Red ware, grading to warm buff. Grit and chaff tempered. Wet smoothed. Archaic/Early Susiana

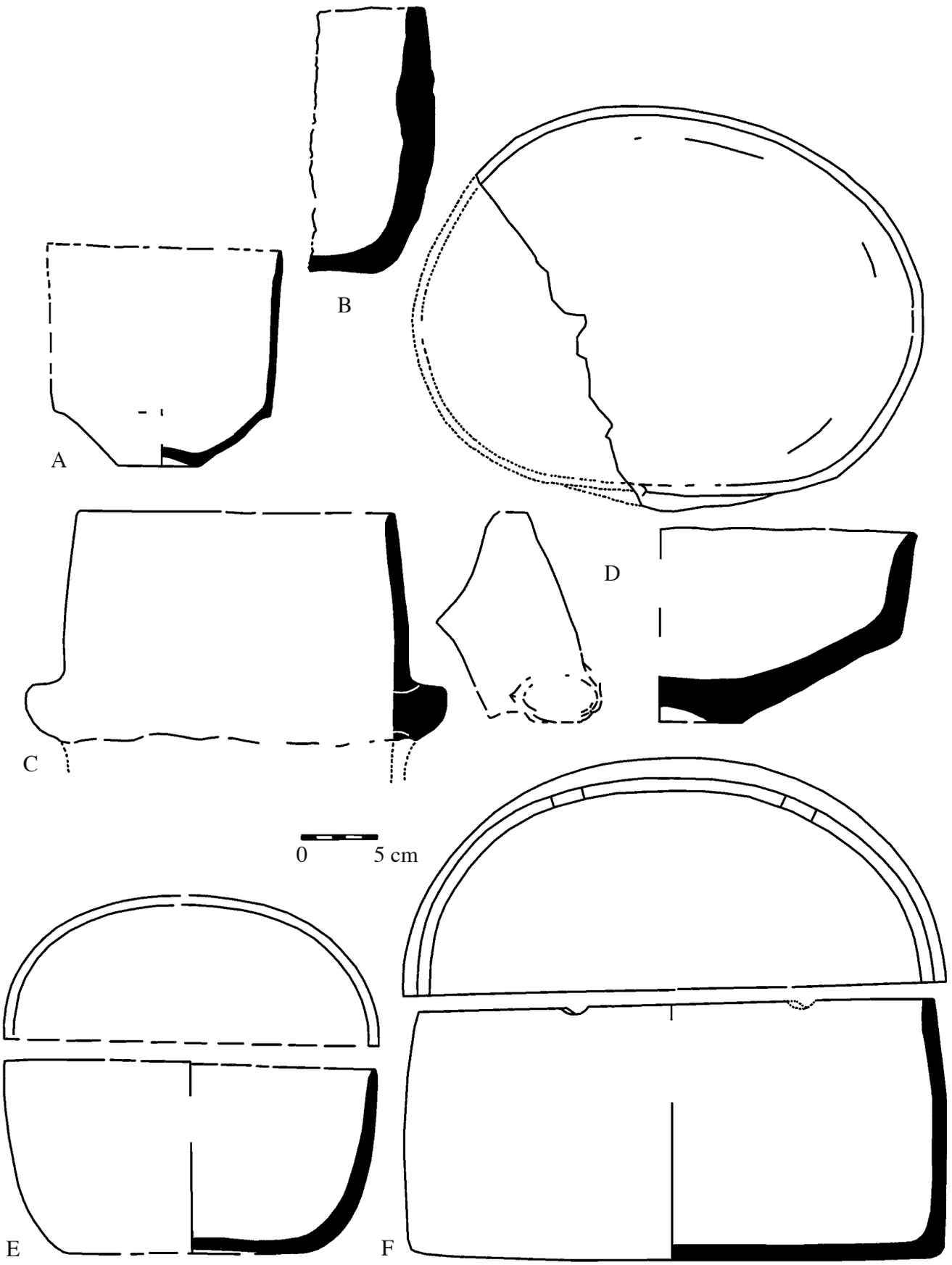


Figure 74. Archaic Susiana Plain Pottery Vessels

Figure 75. Archaic Susiana Plain Pottery Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	9107	S22:909	74.57	Buff ware. Grit and straw tempered. Coarse. Interior covered with bitumen. Archaic Susiana 2
B	8358	S22:823	74.98	Buff ware. Grit and straw tempered. Smoothed. Archaic Susiana 2
C	9225	S22:914	73.70	Straw-tempered smoothed ware. Mottled on the exterior. Archaic Susiana 2
D	VI-25	Q22:602	79.50	Straw-tempered smoothed ware. Gray core, buff surface with pinkish spots. Traces of red wash on the exterior. Archaic Susiana 3
E	7178	S22:703	74.86	Straw-tempered smoothed ware. Probably buff slipped. Archaic Susiana 3
F	11068	S22:904	74.72	Straw-tempered smoothed ware. Gray core, pinkish buff exterior, mottled interior. Archaic Susiana 3
G	VII-25	Q22:708	79.40	Straw-tempered smoothed ware. Gray core with reddish brown layers on exterior and interior surfaces. Made in two layers. Archaic Susiana 3
H	8292	S22:831 North	75.02	Straw-tempered smoothed ware. Buff slipped, rough interior. Archaic Susiana 3
I	N/A	S22:1101	78.95	Straw-tempered smoothed ware. Gray core, buff slipped. Archaic Susiana 3
J	8440	S22:823	75.30	Straw-tempered ware. Light gray core grading to warm buff toward surface. Red wash exterior. Archaic Susiana 3
K	8249	Q24:802	77.40	Straw-tempered ware. Some grits included. Light gray core, pinkish buff surface. Archaic Susiana 3
L	11064	S22:1103	73.20	Straw-tempered smoothed ware. Light gray core. Mottled light orange surface. Archaic Susiana 3
M	11142	S22:1108	72.68	Dense sandy ware. Some chaff. Light gray core. Buff surface covered with red wash. Archaic Susiana 3
N	11179	S22:1107	72.20	Straw-tempered smoothed ware. Light gray core. Mottled light orange surface. Archaic Susiana 3
O	11006	S22:1102	73.40	Straw-tempered smoothed ware. Light gray core. Mottled light orange surface. Archaic Susiana 3
P	8660	Q23:802	78.30	Straw-tempered smoothed ware. Gray core grading to buff toward surface. Mottled gray, orange exterior. Archaic Susiana 3
Q	6239	S22:601	73.21	Straw-tempered smoothed ware. Gray core grading to buff toward surface. Mottled gray, orange exterior. Archaic Susiana 3
R	11186	S22:1103	72.89	Straw-tempered smoothed ware. Gray core grading to buff toward surface. Mottled gray, orange exterior. Archaic Susiana 2(?)
S	11180	S22:1103	72.74	Straw-tempered smoothed ware. Gray core grading to buff toward surface. Mottled gray, orange exterior. Archaic Susiana 3
T	7091	S22:703	75.25	Straw-tempered smoothed ware. Gray core grading to buff toward surface. Red wash on exterior. Archaic Susiana 3
U	6439	S22:601	73.46	Coarse buff ware. Gray core abruptly changing to buff toward surface. Pinkish buff slipped. Smoothed. Archaic Susiana 3
V	6240	S22:601	73.63	Straw-tempered smoothed ware. Gray core grading to buff toward surface. Mottled gray, orange exterior. Archaic Susiana 3

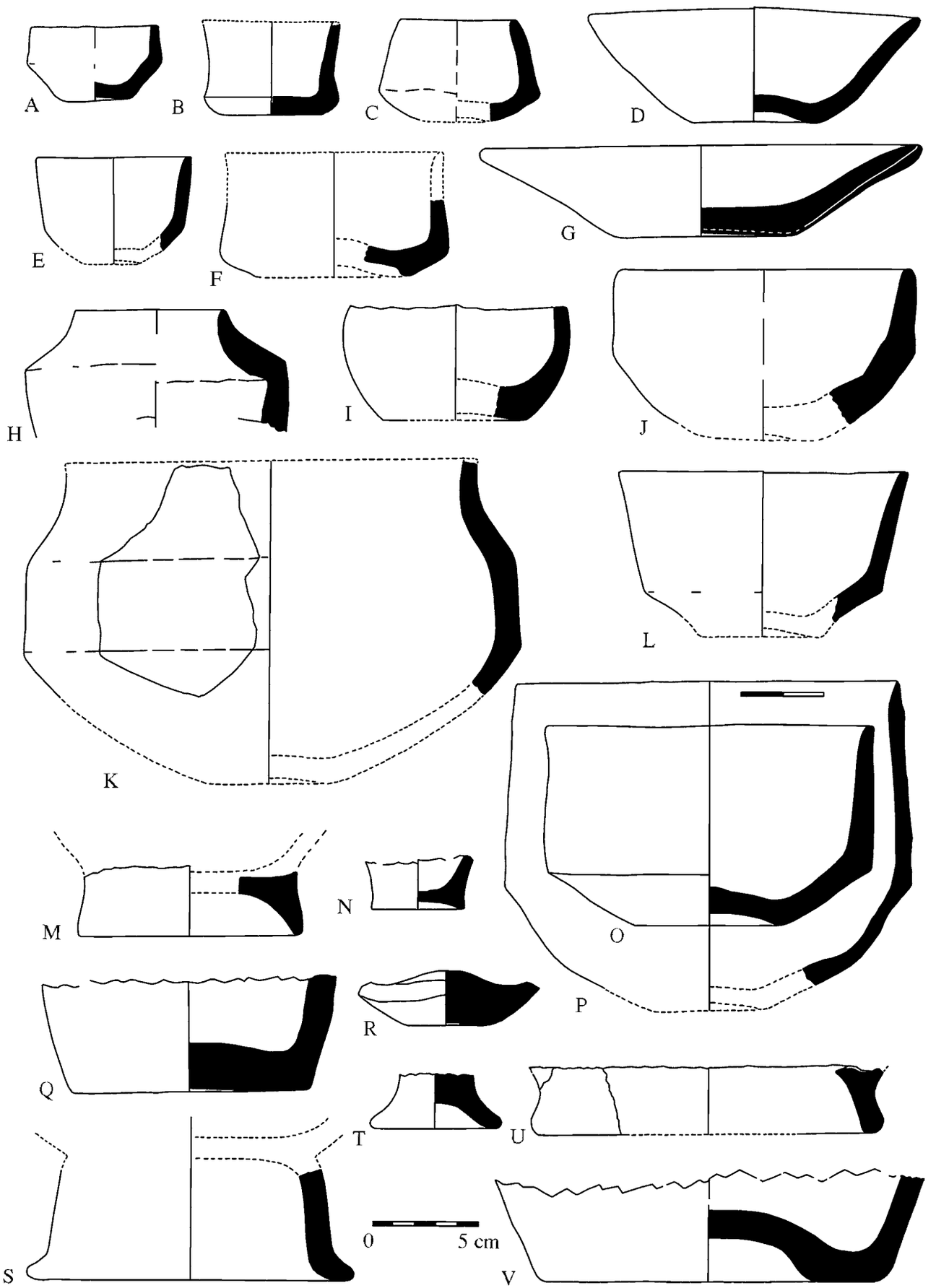


Figure 75. Archaic Susiana Plain Pottery Vessels

Figure 76. Seals and Sealings

	Registration Number	*Provenance*	*Elevation*	*Description*
A	VIII-14	High Mound	Surface	Stone stamp seal with perforated handle. Late Susiana(?)
B	9906	N/A	N/A	Baked-clay stamp seal. Drill hole in center. See plate 22:C. Late Susiana(?)
C	VIII-41	High Mound	Surface	Baked-clay stamp seal. Incised design. Late Susiana(?)
D	VII-67	R17:705	83.77	White stone cylinder seal. Protoliterate
E	9090	R18:903	81.05	Black stone stamp seal. Late Susiana(?)
F	II-202	Tr. VI	N/A	Seal impression of a “lamb” on a clay ball. Protoliterate
G	II-241	Tr. V	1.50 B.S.	Impression of a female with butter-churning vessel on a jar sealing. Protoliterate
H	N/A	East Area	N/A	Seal impression on a bale sealing. Protoliterate
I	III-831	Q18:314	Sifting	Seal impression on a bale (flat) sealing. Protoliterate
J	II-213	Tr. V	1.20 B.S.	Seal impression of a female on a door sealing. Protoliterate
K	9903	R16:910	83.46	Clay ball fragment with the impression of two rows of sacks of grain(?). Protoliterate
L	7390b	R17:701	83.85	Fragment of a bale sealing with a much eroded impression. Protoliterate
M	9898	R16:901	84.21	Clay ball fragment with an impression of birds (chicken?). Protoliterate
N	9873	P17:902	81.15	Bulla with impression of men working. See plate 24:D for photograph. Protoliterate
O	III-804	R18:305	1.75 B.S.	Jar sealing with a much eroded impression probably of animals. Protoliterate
P	7390a	R17:713	82.64	Jar sealing with a much eroded impression. Protoliterate
Q	9899	R16:910	83.59	Flat sealing with an impression of a building facade? Protoliterate
R	9900	R16:910	83.59	Clay ball fragment with an impression of superimposed animals. Protoliterate
S	7392	G27:704	N/A	Jar sealing fragment with an impression of hindquarters of a feline(?). Protoliterate
T	9901	R16:909	84.21	Jar sealing fragment with an impression of a procession. Protoliterate
U	VII-2	High Mound	Surface	Door sealing fragment with an impression of a stamp seal. Late Susiana(?)
V	9874	R18:908	80.91	Door sealing fragment with a much eroded seal impression. Protoliterate
W	N/A	S20:608 East	78.73	Bale sealing fragment with an impression of top of “staff.” Protoliterate
X	8664	R17:803	83.28	Bottle stopper/sealing with the impression of cloth. Seal design completely eroded. Protoliterate
Y	6836	S20:601	0.40 B.S.	Door sealing with stamp seal impressions. Late Susiana(?)
Z	9902	R18:904	82.05	Jar sealing fragment with an impression of a human, much eroded. Protoliterate
AA	7387	R17:714	82.65	Clay ball with two different seal impressions of a procession and herding. See plate 24:F for photograph. Protoliterate
BB	7389	R17:704 West	83.49	Fragment of a bale sealing with stamp seal impression. See plate 23:B for photograph. Protoliterate
CC	9904	S18:902	81.14	Sealing with four impressions of a decorated cylindrical object (cylinder seal?) tapering slightly at each end. For design, see FF. Highly unusual. See plate 22:J for photograph. Protoliterate
DD	7388	R17:714	82.65	Clay ball with an impression of a battle scene. Protoliterate
EE	VI-100	S22:601	74.38	Clay tablet with impressed patterns of stippled triangles and bands. See plate 25:A for photograph. Probably Archaic Susiana
FF	9905	S18:902	81.14	Sealing(?) with four impressions. See plate 22:K for photograph. Protoliterate

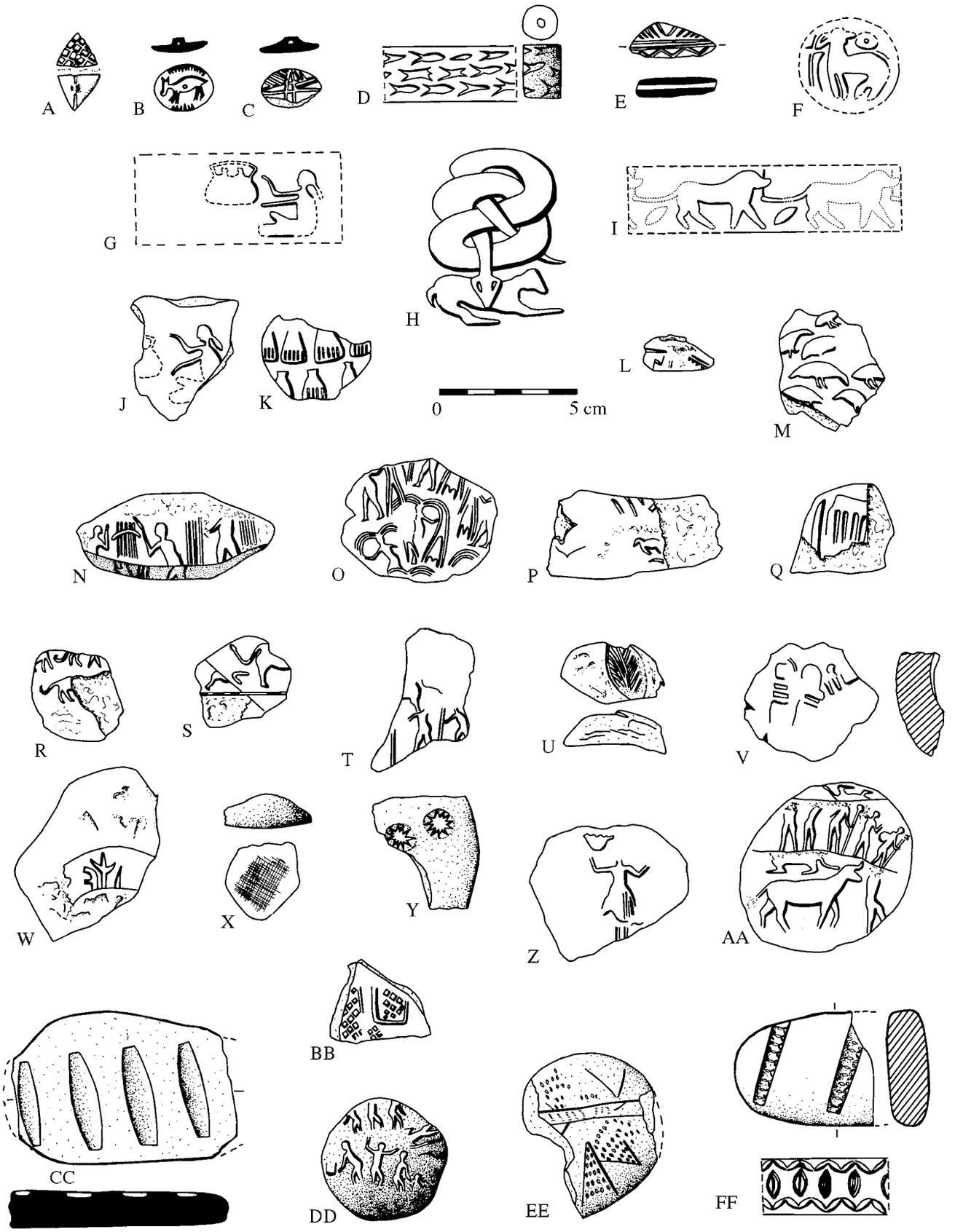


Figure 76. Seals and Sealings

Figure 77. Clay and Stone Tokens and Studs

	Registration Number	*Provenance*	*Elevation*	*Description*
A	9494	S22:923	74.52	Baked-clay token. No visible inclusions. Pinkish buff surface. Archaic Susiana
B	VIII-62	S22:824	74.98	Stone token. Polished white stone. Archaic Susiana
C	9028	S22:902	77.51	Baked-clay token. No visible inclusions. Early Susiana
D	VII-6	G27:702	82.43	Baked-clay token. No visible inclusions. Orange buff surface. Smoothed. See plate 25:C for photograph. Early Susiana
E	VII-11	Q22:704	79.34	Stone token. Marble. Early Susiana
F	VII-7	R23:702	77.82	Baked-clay token or “thorn”-shaped figurine. Buff brown surface. See plate 25:C for photograph. Early Susiana(?)
G	9495	R16:903	83.26	Stone token or pendant. White stone, perforated. Protoliterate
H	VIII-61	Q23:821	78.59	Stone token. Polished white stone. Early Susiana
I	VII-58	S22:714	75.76	Baked-clay token or figurine. No visible inclusions. Archaic Susiana
J	7398	G29:701 South	77.47	Bone token. Early Susiana(?)
K	VII-90	Q23:713	76.98	Baked-clay token(?). No visible inclusions. Dark brown paint. See plate 25:G for photograph. Early Susiana
L	VII-75	R17:716	84.30	Clay token. No visible inclusions. Buff. Protoliterate
M	VII-77	R17:710	82.89	Clay token. Buff, no visible inclusions. Protoliterate
N	VII-69	R17:705	83.77	Stone token or pendant. White speckled black stone. Perforated. Protoliterate
O	9061	S22:909 Middle	N/A	Unbaked clay token. Perforated. Archaic Susiana
P	9064	R18:913	80.23	Clay token. No visible inclusions. Finger marks on both sides. Protoliterate
Q	9110	S18:918	81.12	Clay token. No visible inclusions. Finger marks on both sides. Protoliterate
R	9175	East Area	Surface	Clay token. No visible inclusions. Finger marks on both sides. Protoliterate
S	VII-37	Q22:703	79.28	Clay token. Plano-convex. Buff ware with no visible inclusions. Excised groove on one side, perforated. Early Susiana(?)

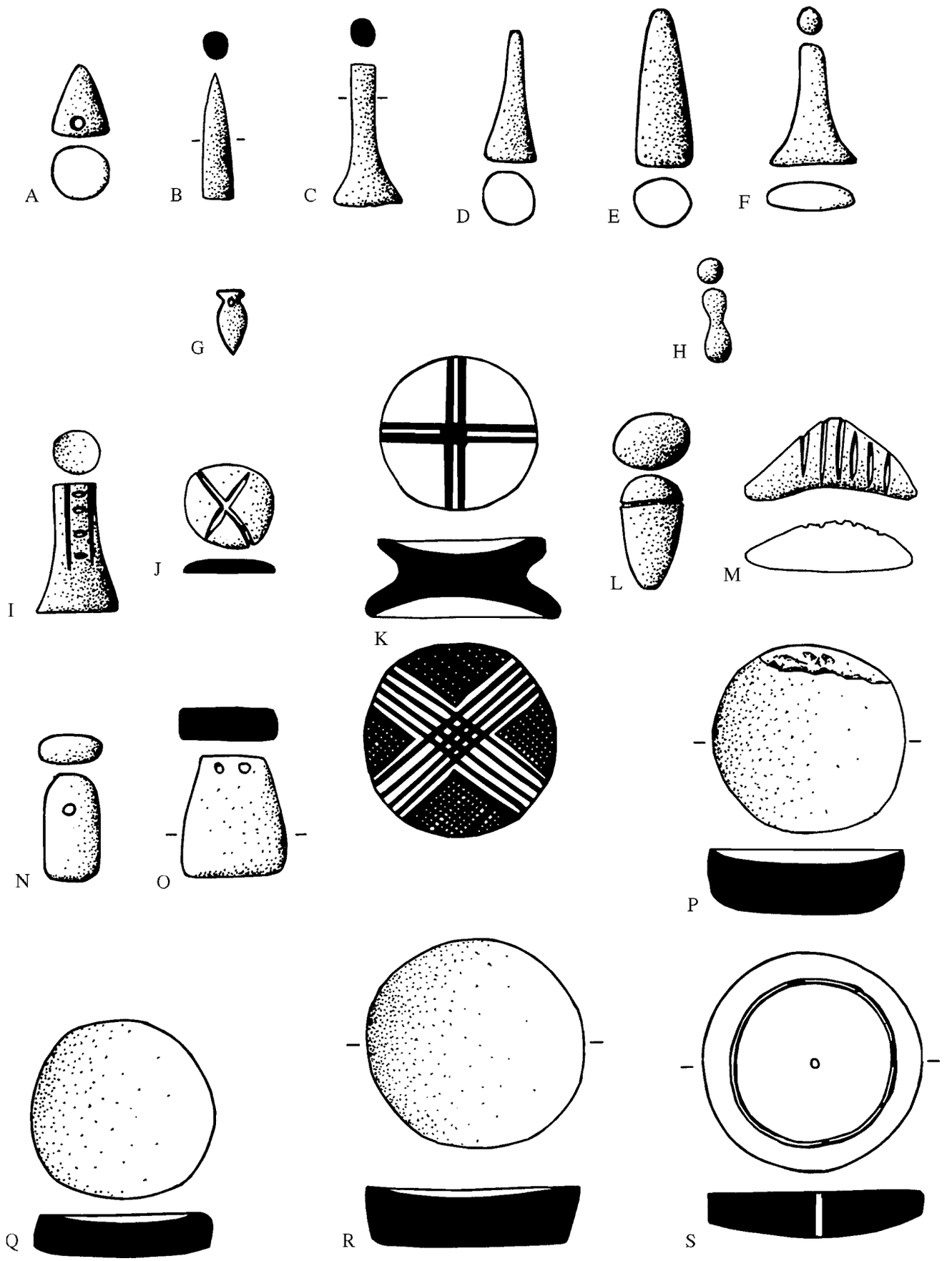


Figure 77. Clay and Stone Tokens and Studs. Scale 1:1

Figure 78. Clay Human Figurines

	Registration Number	*Provenance*	*Elevation*	*Description*
A	VIII-84	S22:823 North	75.74	Mid-section of a female figurine. Baked clay. Buff color, sand tempered. Smoothed. Black paint. Pubic area shown with excised lines. For possible reconstruction, see frontipiece; see plate 28:D for photograph. Early Susiana
B	V-100	Q23:504	79.27	Baked-clay figurine. Body broken. Yellowish buff clay, no visible inclusions. Early Susiana
C	VIII-85	S22:826	74.66	Baked-clay head of a human figurine. Buff clay, no visible inclusions. Dark paint. The eyes and the nose are molded. The head may have originally been elongated (representing elongated skull seen in actual skeletal evidence from Chogha Mish; see *Chogha Mish* I, pl. 69), but the upper part is broken. If the whole body was originally attached to the head, the height of the figurine may have reached over 30 cm. Black paint. Pubic area shown with excised lines. For possible reconstruction, see frontipiece; see plate 27:A for photograph. Early Susiana
D	9039	S22:913	74.54	Head and torso of a highly stylized human figurine. Baked clay, buff ware, no visible inclusions. Black paint. See plate 28:K for photograph. Archaic Susiana 3
E	8695	S22:808 North	74.99	Torso of a baked-clay female figurine. Reddish buff ware, no visible inclusions. Black paint. Unlike the majority of the Early Susiana figurines, this example is made in a naturalistic style. The painted strokes on the breasts may represent tattoos. See plate 28:A for photograph. Early Susiana
F	VI-3	S22:601	74.93	Baked-clay waist and lower body of a female figurine. Yellowish buff ware. Grit tempered. Black paint. See plate 28:J for photograph. Early Susiana
G	8043	S22:823 North	75.74	Baked-clay waist and lower body of a female figurine. Buff ware. Grit and sand tempered. Probably slipped. Black paint. See plate 28:C for photograph. Early Susiana
H	8174	S22:827	74.30	Baked-clay waist and body of a female figurine. Buff ware, grit tempered. Black paint. See plate 28:B for photograph. Archaic/Early Susiana

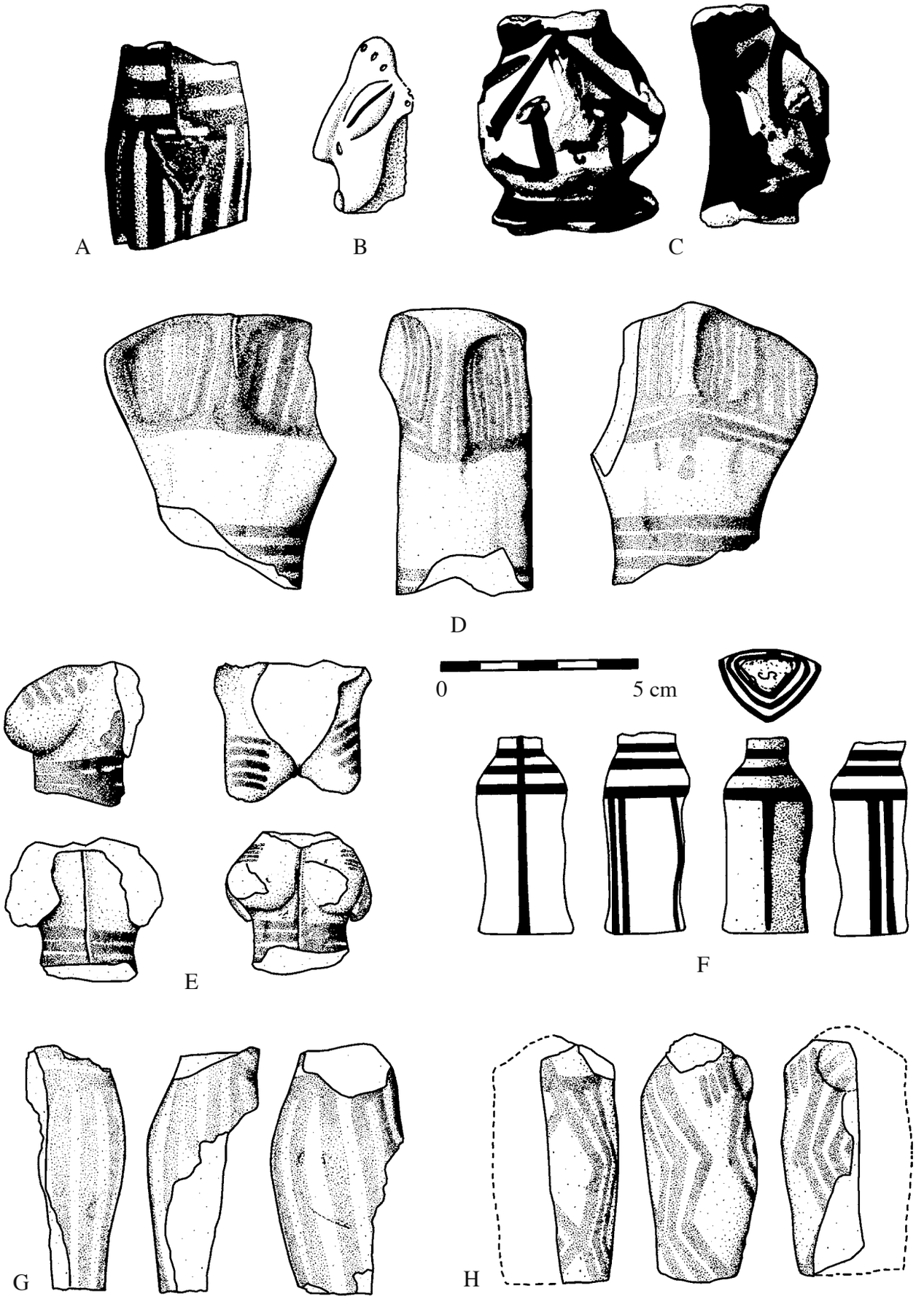


Figure 78. Clay Human Figurines

Figure 79. Clay Human Figurines

	Registration Number	*Provenance*	*Elevation*	*Description*
A	9127	S22:916	77.19	Baked-clay female figurine. Impressed dots perhaps represent tattoos on the breasts and back. Archaic Susiana 3
B	VIII-1	S22:808	75.77	Baked-clay figurine of a seated female. The head is comparatively low. The head is triangular and a deep incision splits it in two equal parts. The whole face consists of three blobs of clay presumably representing the nose and cheeks. The breasts are highly exaggerated. See plate 27:F for photograph. Early Susiana
C	9063	S22:913	74.21	Unbaked clay figurine, presumably of a female. The preserved buttocks are naturalistically rendered. Early Susiana
D	VIII-74	S22:831 North	75.02	Baked-clay figurine of a female. Buff clay, sand tempered. Creamy buff slipped. The lower body is covered with a long skirt, the design of which is indicated by incision marks. Early Susiana
E	N/A	Tr. XXV	N/A	Baked-clay human female figurine. Buff ware, no visible inclusions. Probably Archaic Susiana 3
F	9040	S22:912 East	74.46	Baked-clay human figurine. Buff ware, no visible inclusions. Upper part of the body is missing. The cloth on the lower part is decorated with four sunken panels and incisions. Traces of red paint on the raised parts of the lower body. See plate 28:F for photograph. Archaic Susiana 3
G	VII-60	R17:704	83.25	Baked-clay figurine. Buff clay with no visible inclusions. Head and arms are missing. Protoliterate
H	N/A	S22:1103	74.20	Baked-clay human figurine. Buff, no visible inclusions. Highly abstract figurine of a female. Archaic Susiana 3
I	9126	S22:916	76.19	Unbaked-clay chessman figurine. Impressed dots and the diagonally painted band probably represent some elements of clothing. Archaic/ Early Susiana
J	9008	S22:909 South	75.13	Unbaked-clay chessman figurine. Impressed decoration on the lower body. See plate 28:I for photograph. Archaic Susiana 2
K	8471	S22:831	75.41	Unbaked-clay chessman figurine. Circular impressions decorate the body. Archaic Susiana 2
L	N/A	Gully Cut	N/A	Archaic Susiana/Early Susiana
M	VII-59	R23:706	76.64	Unbaked-clay chessman figurine. Upper part is missing; lower part decorated with impressed motifs indicating pubic area. Archaic Susiana 2
N	9060	S22:910 South	74.68	Unbaked-clay chessman figurine. Side perforation. Archaic Susiana 3

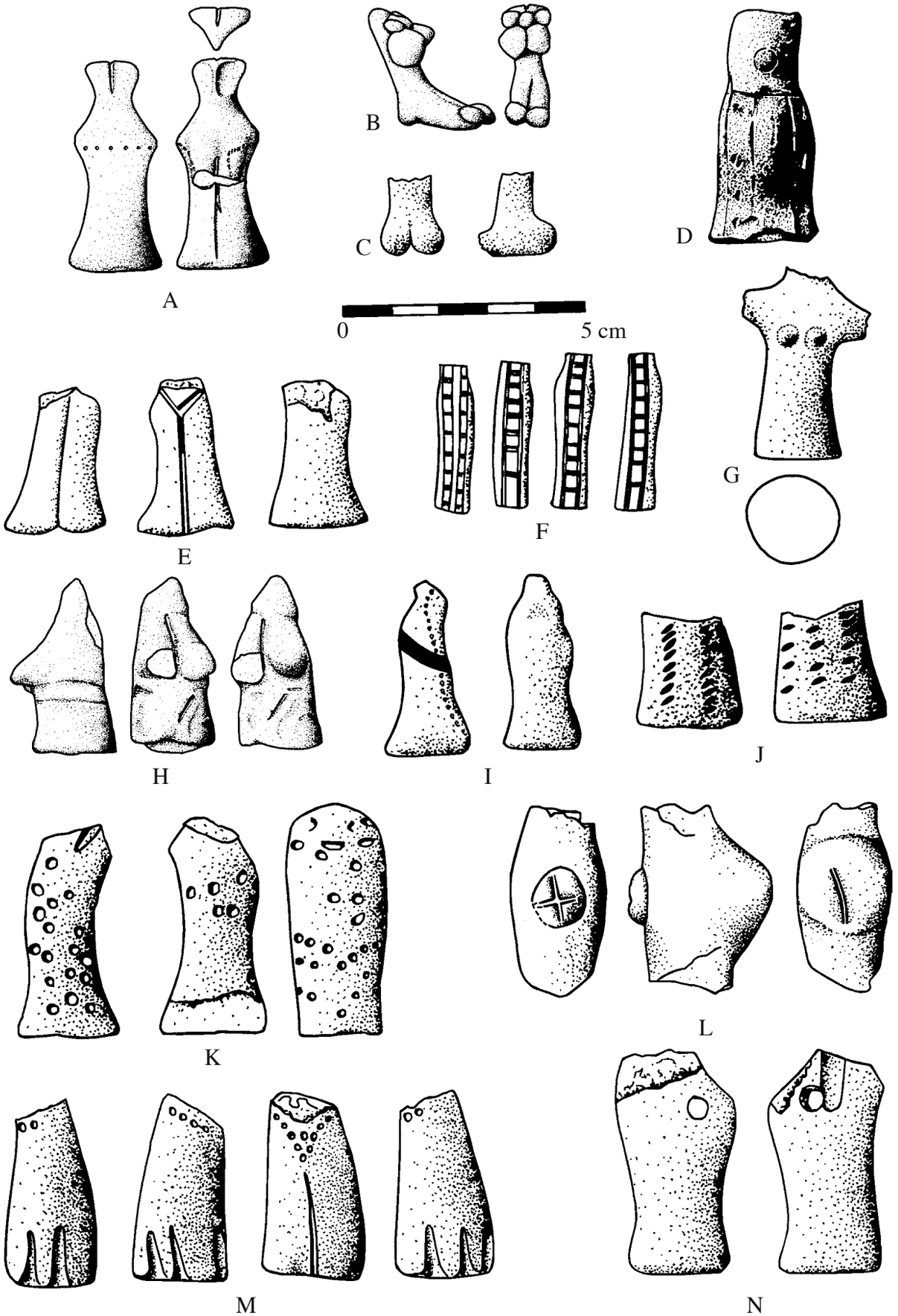


Figure 79. Clay Human Figurines

Figure 80. Clay and Stone Animal Figurines

	Registration Number	*Provenance*	*Elevation*	*Description*
A	VIII-83	R16:807	82.69	Baked clay. Buff ware. No visible inclusions. Legs made separately. Faint traces of red paint. Protoliterate
B	VI-2	P23:601	B.S.	Baked-clay figurine of a bull or ram. Dense, sandy brownish buff clay. See plate 27:E for photograph. Middle Susiana
C	9195	P17:902	82.48	Baked-clay figurine of a sheep(?). Red ware, no visible inclusions. Ears (or horns) are missing. Eyes are small lumps of clay added separately. Nostrils are indicated by two small depressions. Possibly plastic decoration of a vessel. Protoliterate context
D	VII-38	G28:705	76.08	Baked-clay figurine. Buff ware with no visible inclusions. Dark brown paint. Middle Susiana
E	9093	R18:904	81.78	Baked clay. Buff ware. No visible inclusions. Dark paint. Middle Susiana
F	VIII-60	S22:823	76.35	Stone figurine of a boar. Light brown stone with white dots. Perforated rump suggests it may have been used as pendant. Archaic/Early Susiana
G	VI-1	S20:601	0.20 B.S.	Baked-clay bull figurine/pendant. Buff ware, sand tempered, greenish black paint. Middle Susiana
H	9128	S22:916	77.19	Baked-clay figurine of a dog(?). Buff ware mixed with some grits. Middle Susiana
I	9561	R18:903	81.38	Baked-clay horn. Buff ware, no visible inclusions, buff slipped. Dark paint. Protoliterate context, but probably Middle or Late Susiana
J	9253	S22:912 East	74.46	Baked-clay horn. Buff ware, buff slipped. Black paint. Archaic Susiana/Early Susiana
K	7185	R23:710 West	78.18	Baked-clay animal figurine. Buff ware, grit tempered, black paint. Early Susiana

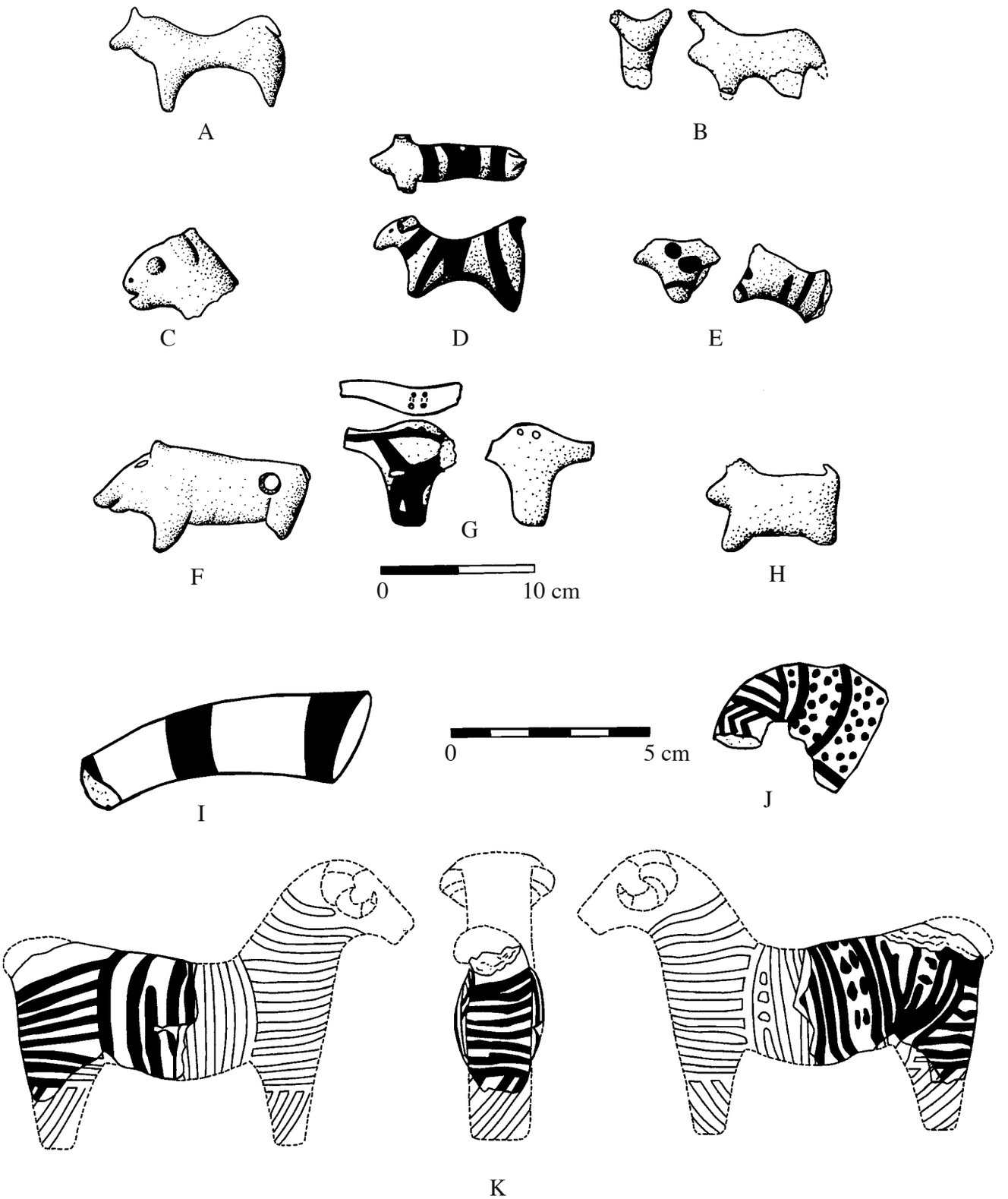


Figure 80. Clay and Stone Animal Figurines

Figure 81. Personal Ornaments

	Registration Number	*Provenance*	*Elevation*	*Description*
A	VIII-42	Q23:821	78.42	White stone “plug” with two heads. Early Susiana
B	VIII-52	S22:827	74.30	White stone “plug.” Archaic Susiana 3
C	VIII-54	S22:822	76.18	White stone with dark veins. Early Susiana
D	VIII-67	Q23:821	79.19	Black-and-white stone “plug.” Early Susiana
E	VIII-53	Tr. XIII	Surface	Stone “plug.” Yellowish white stone. Date(?)
F	VII-1	Tr. XXXVI	N/A	White stone “plug” with dark vein used as the “eye” of the plug. See plate 25:C for photograph. Middle Susiana
G	VII-8	R23:602	76.92	Black stone “plug.” See plate 25:C for photograph. Middle Susiana
H	VII-9	G29:701	78.03	Baked-clay “plug.” No visible inclusions. See plate 25:C for photograph. Middle Susiana
I	VII-68	R17:711	83.49	Gray black stone pendant in the shape of a bird. Perforated. Protoliterate
J	VI-33	P22:605	80.95	Bitumen bracelet. See plate 25:E for photograph. Early Susiana
K	VI-32	P22:605	80.95	Bitumen bracelet. See plate 25:D for photograph. Early Susiana
L	9468	R18:921	81.13	Yellowish white stone bead. Protoliterate
M	9162	Gully Cut	Dump	White stone bead
N	9464	S18:916	81.86	Turquoise bead. Protoliterate
O	9467	R18:921	81.13	Turquoise bead. Protoliterate
P	9194	S18:901	83.87	Barrel-shaped baked-clay bead. Protoliterate
Q	VII-32	S22:701	76.68	Mother-of-pearl pendant. Early Susiana
R	VIII-63	S22:823	74.79	Mother-of-pearl pendant. Archaic Susiana
S	VII-34	Q22:702	79.23	Mother-of-pearl disc. Early Susiana

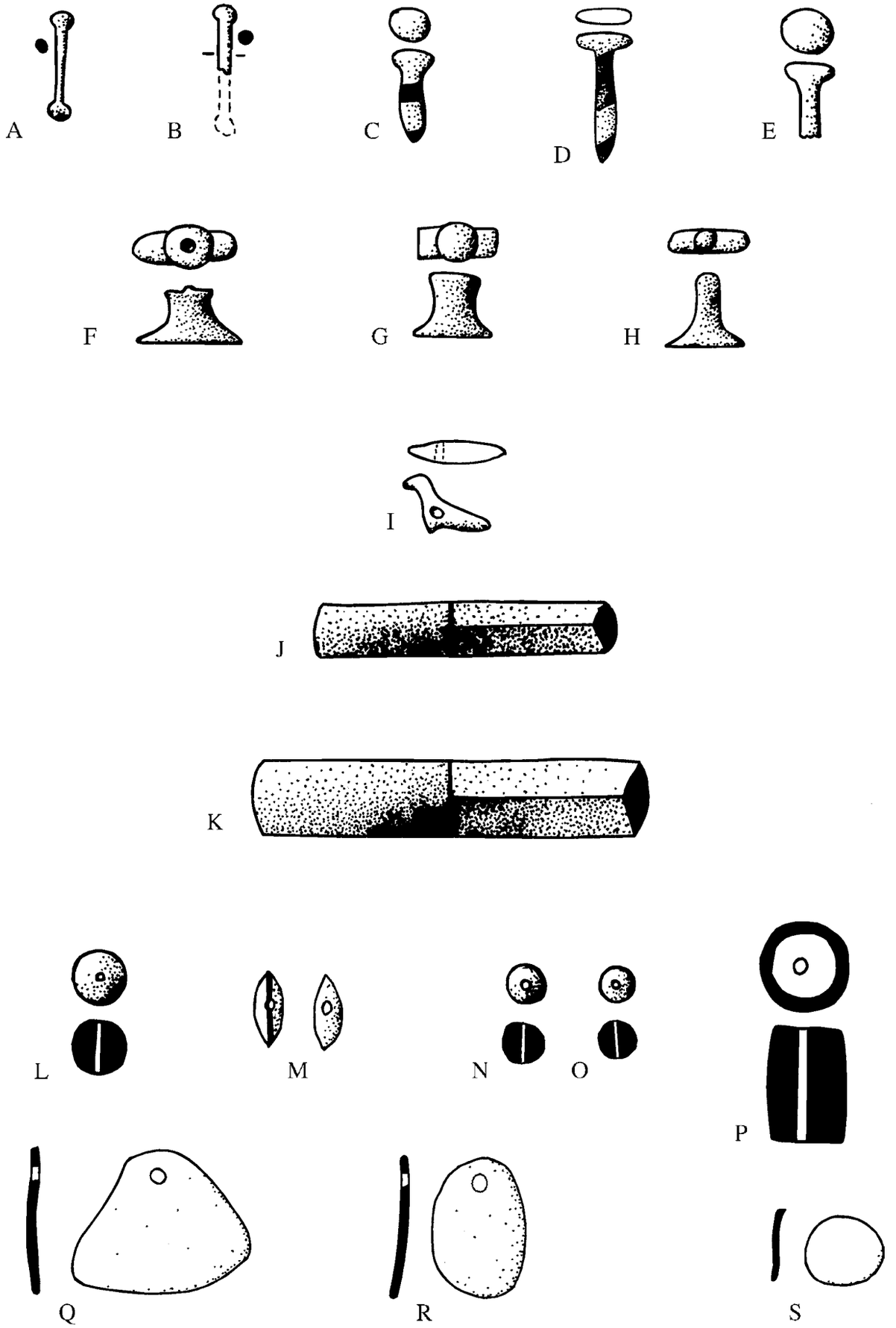


Figure 81. Personal Ornaments. Scale 1:1

Figure 82. Clay Objects and Tools

	Registration Number	*Provenance*	*Elevation*	*Description*
A	6300	P22:624	80.85	Lid(?) fragment. Buff ware. Dense sandy. Brown paint. Early Middle Susiana
B	9033	S22:908	76.90	Stand/cup(?) fragment. Red ware. Grit and sand tempered. Protoliterate pit. See D and H
C	9021	Q17:903 West	83.64	Baked-clay spool. Protoliterate
D	9215	R16:907	83.13	Red ware. Grit and sand tempered. Protoliterate
E	X-6	Q17:1002 North	83.58	Baked-clay sinker/loom weight. Buff ware. Sand and grit tempered. Protoliterate
F	9217	Q17:907 Northeast	83.60	Baked-clay object. Buff ware. Sand tempered. Smoothed. Protoliterate
G	VII-22	G28:701	78.87	Baked-clay sinker/loom weight. Buff ware with sand. Protoliterate
H	9215	R16:905	83.13	Red ware. Sand and grit tempered. Protoliterate
I	7212	R17:701	84.12	Buff ware. Dense. Buff slipped. Red paint. Protoliterate
J	7211	R17:701	84.12	Buff ware. Dense. Buff slipped. Red paint. Protoliterate
K	VIII-82	R17:808	83.68	Buff ware. Dense. Buff slipped. Polished. Red paint. Protoliterate
L	IX-59	S22:904	76.22	Strainer. Buff ware. Sand tempered. Smoothed. Protoliterate
M	VIII-92	R17:704	82.50	Left-handed sickle. Yellowish green buff. Sand and grit tempered. Protoliterate
N	VII-94	R17:714	82.64	Left-handed sickle. Yellowish green buff. Sand and grit tempered. Protoliterate

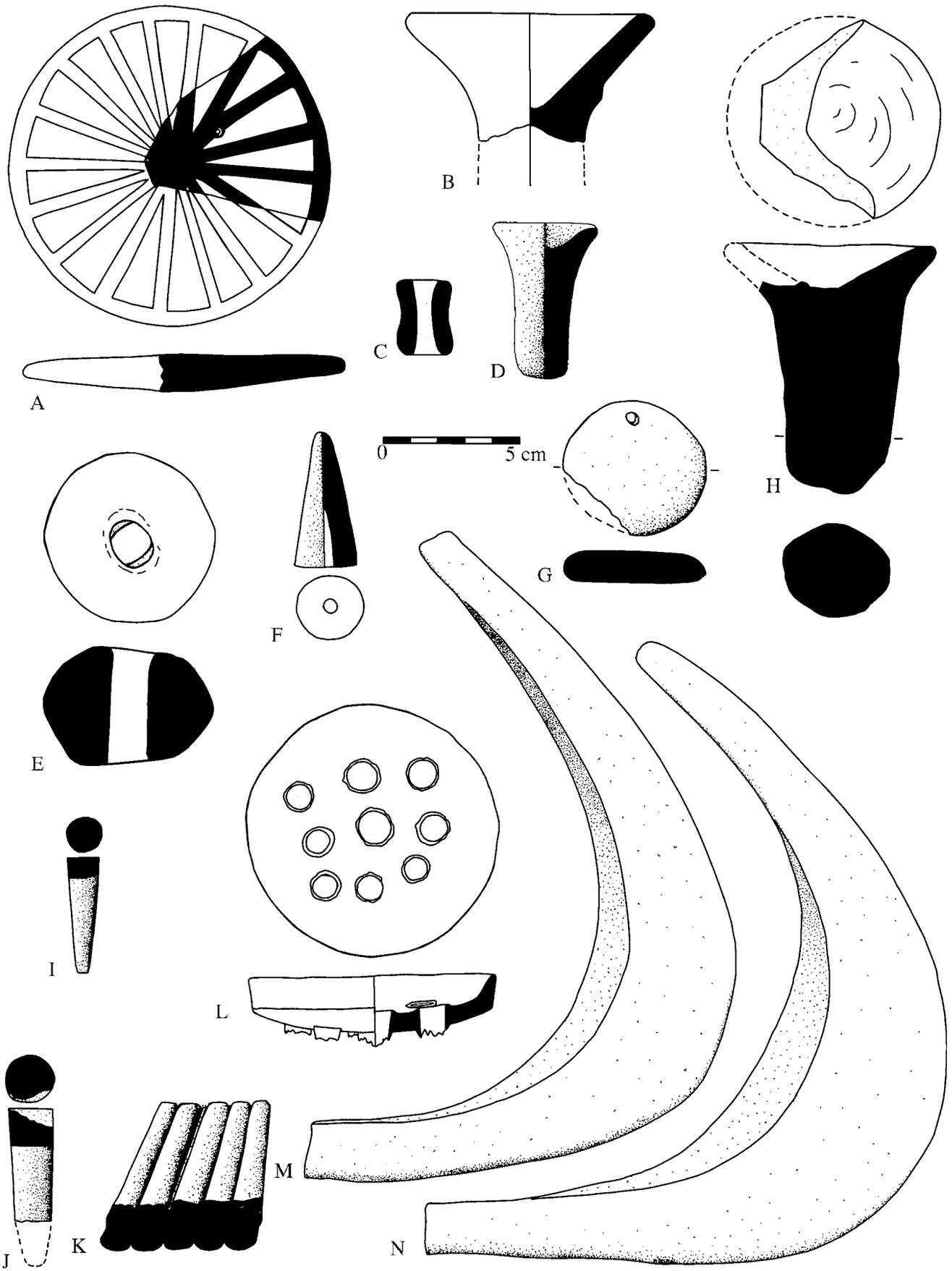


Figure 82. Clay Objects and Tools

Figure 83. Spindle Whorls

	Registration Number	*Provenance*	*Elevation*	*Description*
A	9135	R18:921	81.13	Buff ware. Sand tempered with some grits. Buff slipped. Black paint. Late Middle Susiana
B	8923	S22:819	B.S.	Buff ware. Sand tempered. Creamy buff slipped. Black paint. Late Middle Susiana
C	9044	R18:908 South	81.13	Buff ware. Grit and sand tempered. Creamy buff slipped. Black paint. Late Middle Susiana
D	8589	S22:819	76.71	Buff ware. Over-fired greenish buff. Sand and grit tempered. Greenish brown paint. Early Middle Susiana
E	VIII-38	S22:823 North	75.81	Buff ware. Grit and sand tempered. Dark paint. Early Susiana
F	VIII-39	Q23:803	78.72	Buff ware. Grit tempered. Buff slipped. Red paint. Early Susiana
G	VI-8	P22:601	82.55	Buff ware. Grit tempered. Gritty face. See plate 25:H for photograph. Middle Susiana context, but is Early Susiana
H	9036	R18:912	81.22	Pale red ware. Sand tempered. Red paint. Late Middle Susiana
I	B II-33	Chogha Bonut/ M10:208	77.81	Buff ware. Over-fired greenish buff. Grit tempered. Olive brown paint. Middle Susiana

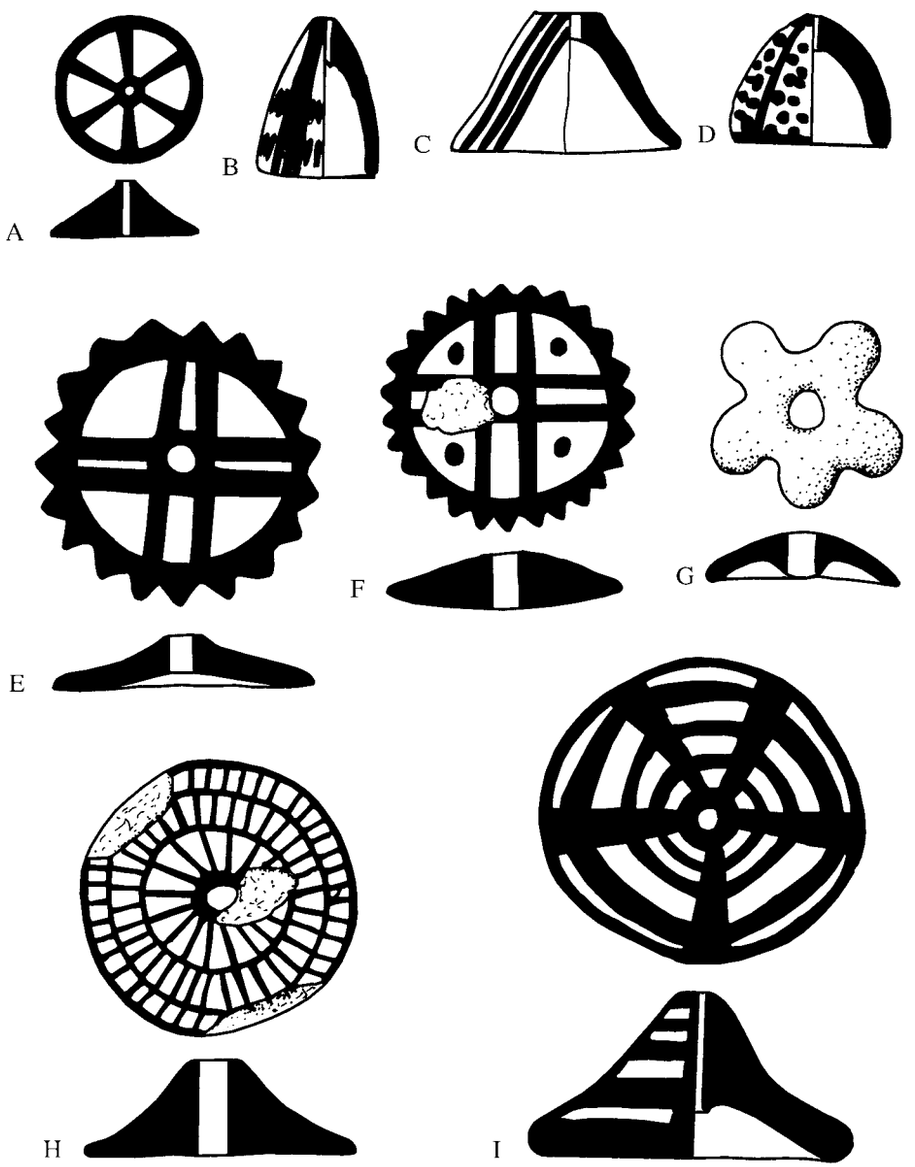


Figure 83. Spindle Whorls. Scale 1:1

Figure 84. Metal Objects

	Registration Number	*Provenance*	*Elevation*	*Description*
A	VII-5	G27:701	82.32	Copper pin/nail. Protoliterate
B	9137	R18:920	81.97	Copper pin. Protoliterate
C	VIII-56	S22:819 North	76.06	Copper pin. Pit. Old Elamite(?)
D	VIII-58	S22:823	74.79	Copper. Edge of 808 pit. Protoliterate
E	VIII-15	East Area	N/A	Bronze arrowhead. Achaemenid
F	VII-66	R17:705	82.92	Copper pin. Protoliterate
G	VIII-55	Q17:804 South	82.85	Copper pin/nail. Protoliterate
H	VII-88	R17:914	83.39	Copper/bronze pin. Protoliterate

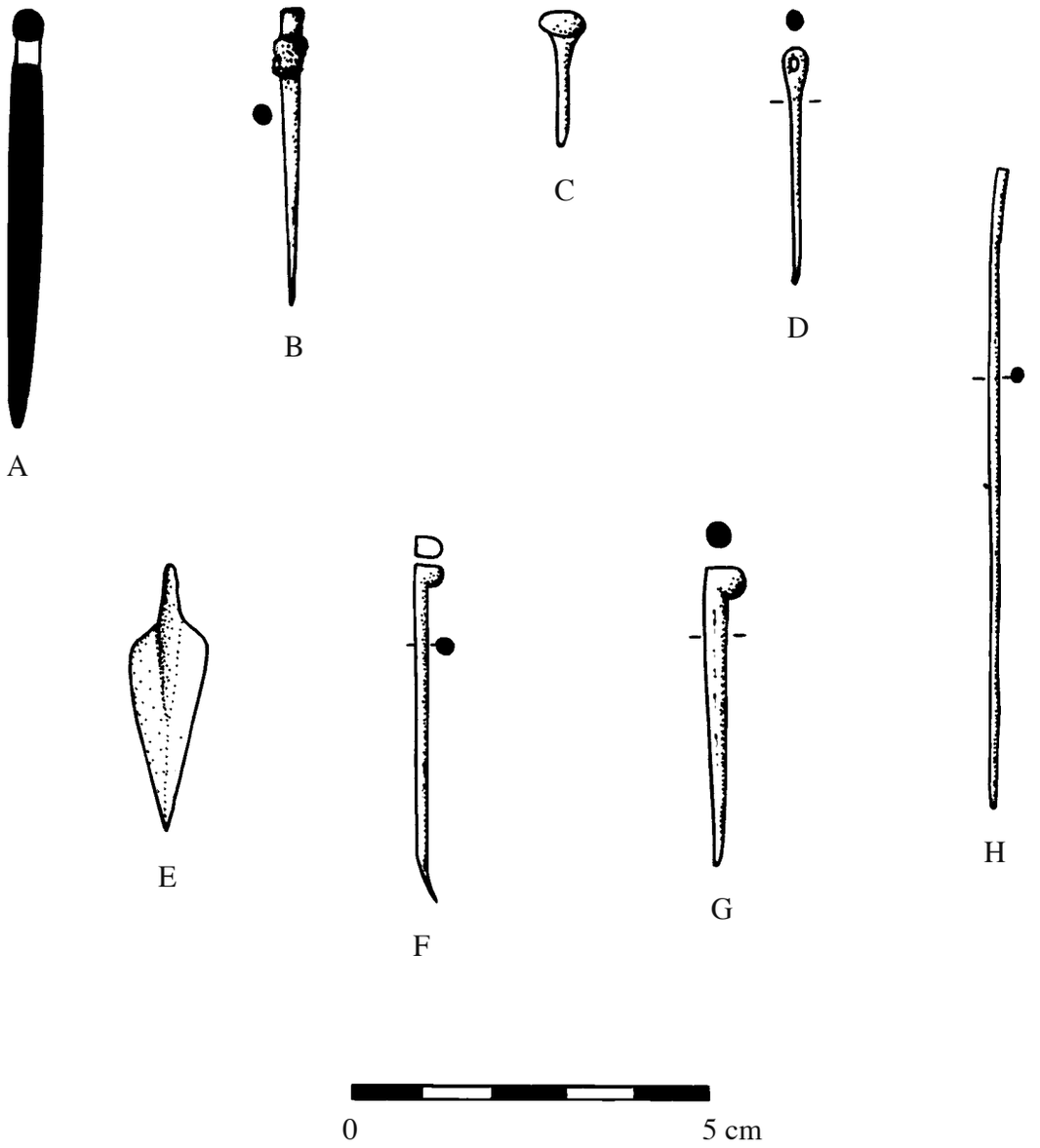


Figure 84. Metal Objects

Figure 85. Bone Objects

	Registration Number	*Provenance*	*Elevation*	*Description*
A	VI-14	P22:625	82.09	Pin with stubby shaft. Middle Susiana
B	VI-13	S20:609	77.05	Pin or awl. Polished edges. See plate 25:B for photograph. Early Susiana
C	9183	S22:914	73.70	Spatula fragment. Perforated handle. Archaic Susiana
D	VII-35	Q23:709	79.99	Awl. Polished with sheen. Early Susiana
E	9454	S22:926	77.09	Awl. Smoothed but not highly polished. Tip broken. Middle Susiana
F	VIII-49	S22:813	76.29	Polished needle. Tip broken. Middle Susiana
G	9080	S22:902	76.83	Bone tool. Some sheen on lower edge. Middle Susiana
H	VIII-57	S22:823	75.94	Awl with sheen on edges. Early Susiana
I	VIII-50	S22:819	76.06	Needle. Early Susiana
J	9465	S22:916	74.94	Awl. Highly polished with sheen. Archaic Susiana
K	9101	S22:914	75.76	Awl. Early Susiana
L	IV-24	Tr. IX	0.75 B.S.	Double-eyed needle. Archaic Susiana
M	8468	S22:823	76.35	Awl. Smoothed and polished. Early Susiana
N	9114	R18:919	82.76	Awl. Middle Susiana
O	8465	S22:823 North	76.35	Awl. Early Susiana
P	8467	S22:823	76.35	Awl. Early Susiana

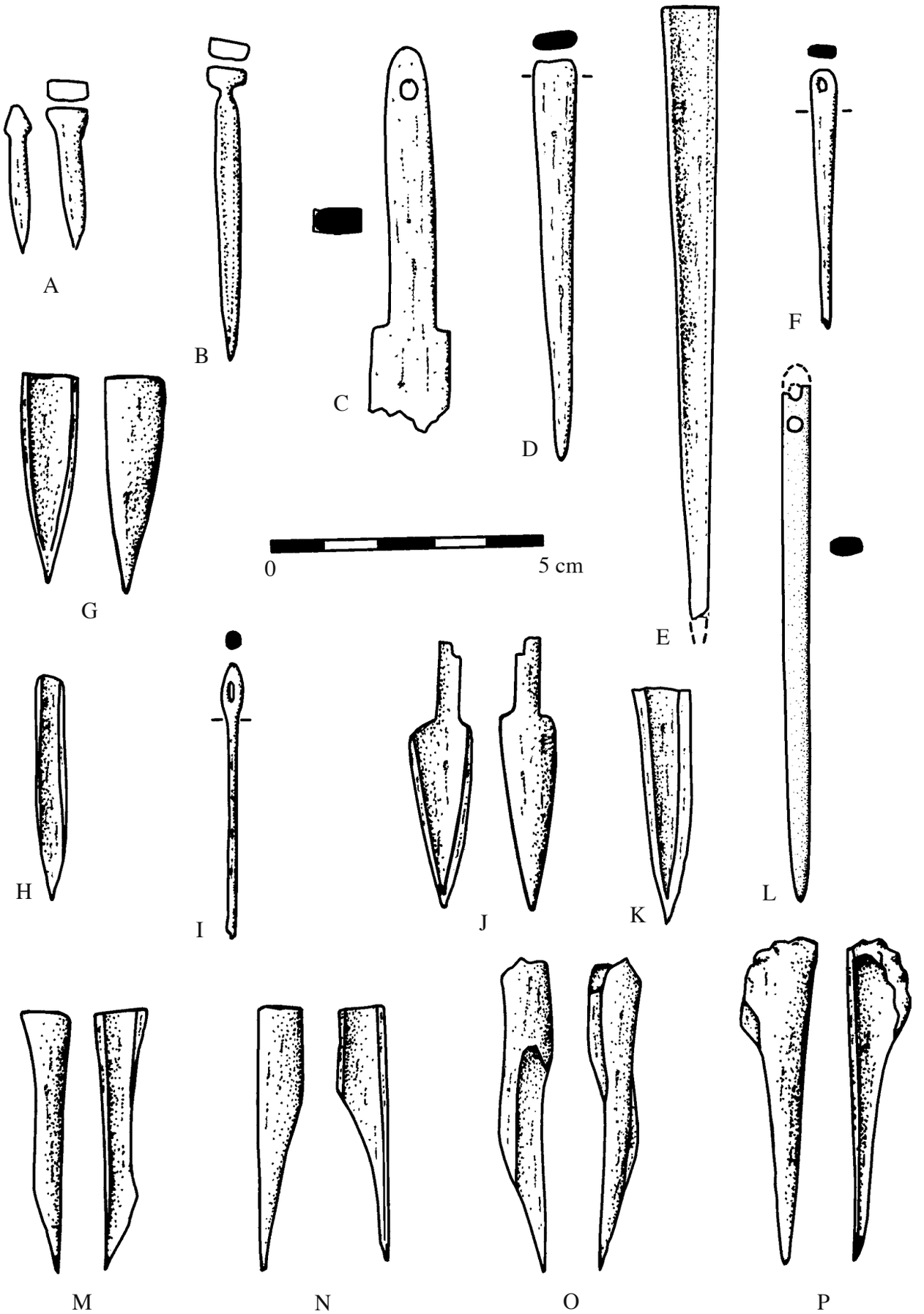


Figure 85. Bone Objects

Figure 86. Stone Vessels

	Registration Number	*Provenance*	*Elevation*	*Description*
A	9047	S22:912	74.52	White stone with horizontal gray veins in wavy lines alternating with pinkish veins and spots. Archaic Susiana 3
B	N/A	R23:502	0.65 B.S.	Limestone. Early Susiana
C	N/A	R23:710 West	78.18	Bitumen vessel. Early Susiana
D	7068	R23:710 West	78.18	Bitumen vessel. Early Susiana
E	VIII-16	Q22:804 South	78.56	Bowl of alabaster-like gypsum. Translucent white with a pinkish cast. Early Susiana
F	7040	G27:701	82.62	Obsidian bowl fragment. Light gray. Archaic or Early Susiana
G	VII-84	R17:704	82.90	Black-and-white streaked stone. Smoothed. Protoliterate
H	N/A	Tr. XXXIII	77.40	Limestone. Early Middle Susiana(?)
I	9043	S22:909 Middle	74.40	Gray white transparent stone. Archaic Susiana 3
J	9502	R18:906	81.66	Gray sandstone. Protoliterate
K	VIII-18	Q23:802	78.30	Bitumen. Early Susiana
L	VIII-19	Q23:802	78.30	Bitumen. Early Susiana
M	9026	S18:916	81.71	Black-and-white stone (marble?). Middle Susiana
N	N/A	R17:1115	83.00	Black-and-white stone (marble?). Mending original. Protoliterate
O	VIII-21	S22:809	76.77	Yellow stone with white spots and a brown vein. Middle Susiana
P	9051	S18:918	81.12	Black and white marble(?). Protoliterate
Q	VIII-20	R17:808	83.15	Buff colored stone. Protoliterate
R	5510	P27:502	79.14	Cream color translucent stone. Middle Susiana
S	VIII-17	R17:807	83.80	Yellow translucent stone. See plate 29:B for photograph. Protoliterate
T	9480	R19:903	79.52	Greenish gray sandstone. Protoliterate
U	IX-53	S22:809	77.21	Gray sandstone. Late Middle Susiana
V	9141	S22:816	77.19	Bitumen. Late Middle Susiana

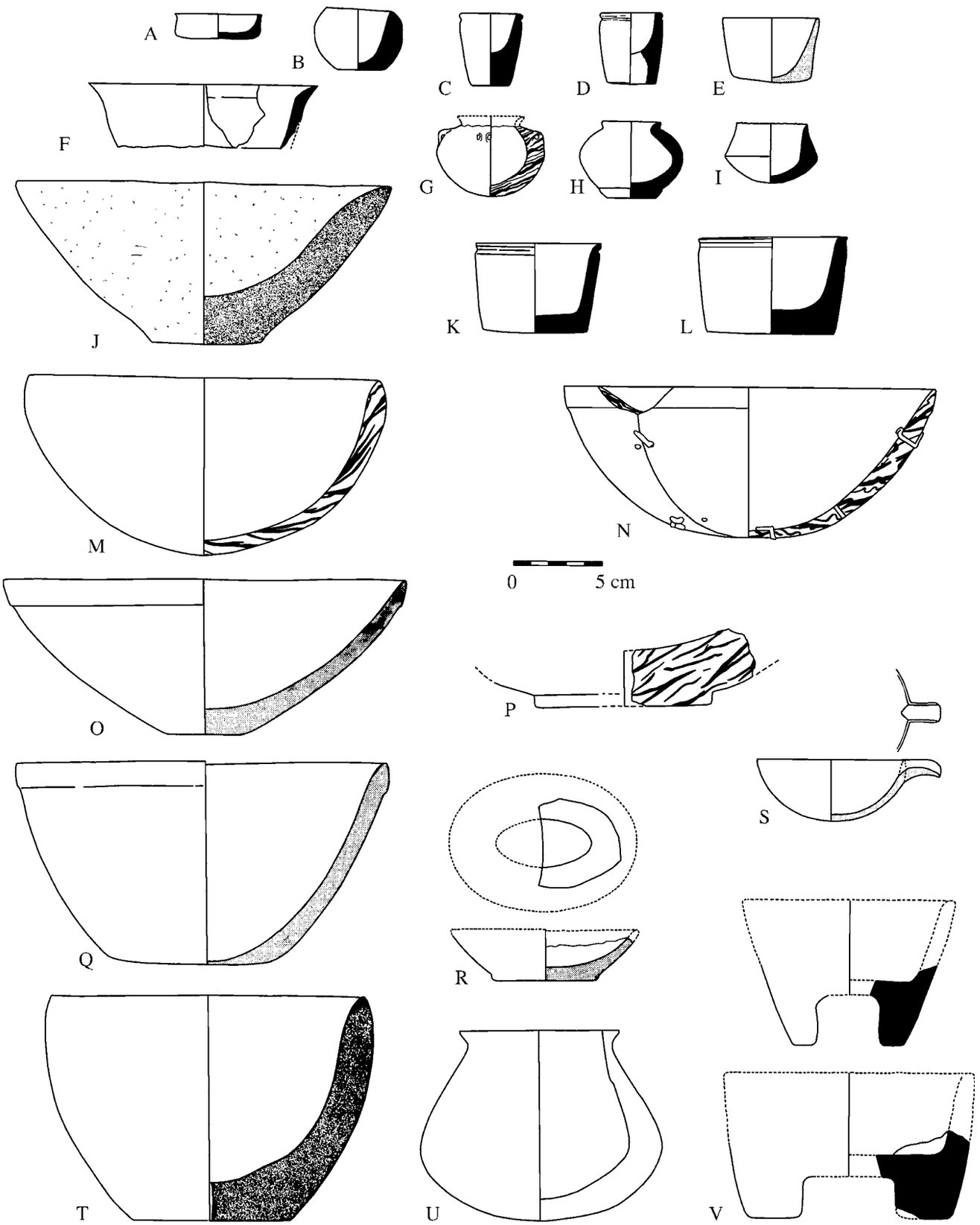


Figure 86. Stone Vessels

Figure 87. Stone Objects and Tools

	Registration Number	*Provenance*	*Elevation*	*Description*
A	9046	R18:908	81.13	Bitumen-hafted flint tool. Late Middle Susiana
B	9045	R18:908	81.13	Bitumen-hafted flint tool. Late Middle Susiana
C	VI-16	P22:623	80.50	Stone hoe. Tang covered with bitumen bearing impressions of string. Early Susiana
D	VIII-4	S22:823	75.08	Brownish gray sandstone. Highly polished. Archaic Susiana 3
E	VIII-5	Q23:802	78.29	Dark gray stone. Polished. Early Susiana
F	VIII-6	Q23:801	78.47	Whitish stone. Polished. Early Susiana
G	VIII-72	Q17:816	82.59	Alabaster miniature jar(?). Protoliterate
H	IX-26	S22:813	76.30	Sandstone mill. Early Susiana
I	8665	Q23:820	79.31	Ball of bitumen stone. Early Susiana
J	VII-53	Q22:701	N/A	Stone hoe. Light gray. Smoothed on one side, rough surface on another. Rounded tang. See plate 30:F for photograph. Early Susiana
K	9115	S22:918	76.53	Stone pestle fragment. Gray stone. Red pigment (ochre?) on the base and around the shaft. Early Susiana
L	VI-79	P22:626 Southwest	80.85	Stone hoe. Greenish gray stone. Much secondary retouch. Early Susiana
M	VI-84	Q22:605	80.11	Stone celt. Dark bluish black stone. Polished. Retouched. Early Susiana
N	VI-83	Q22:606 North	80.35	Stone celt. Grayish black stone. Pitted surface but smoothed. Early Susiana
O	VI-80	Q22:614	80.77	Stone hoe. Light gray stone. Retouched sides and tang. Early Susiana

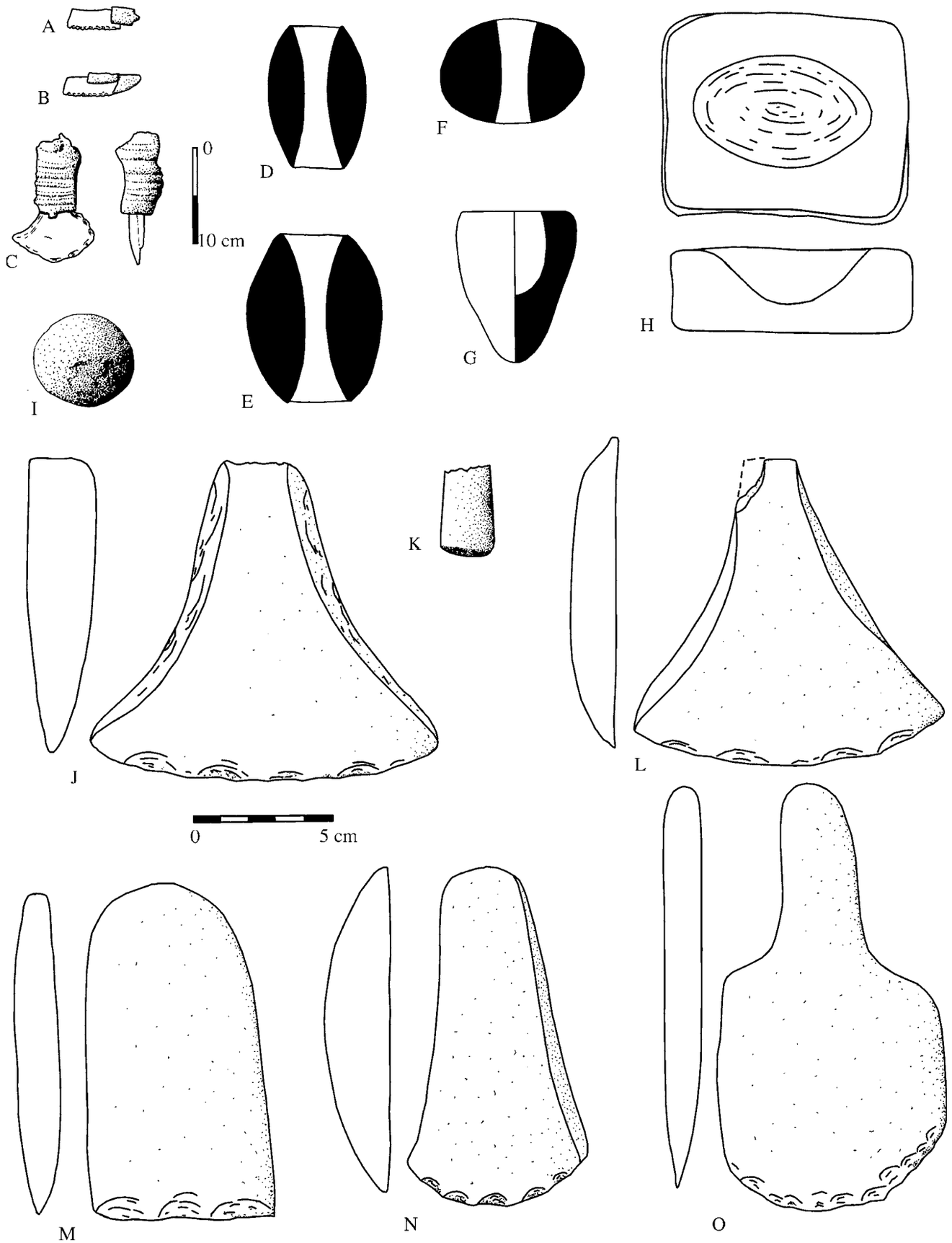


Figure 87. Stone Objects and Tools

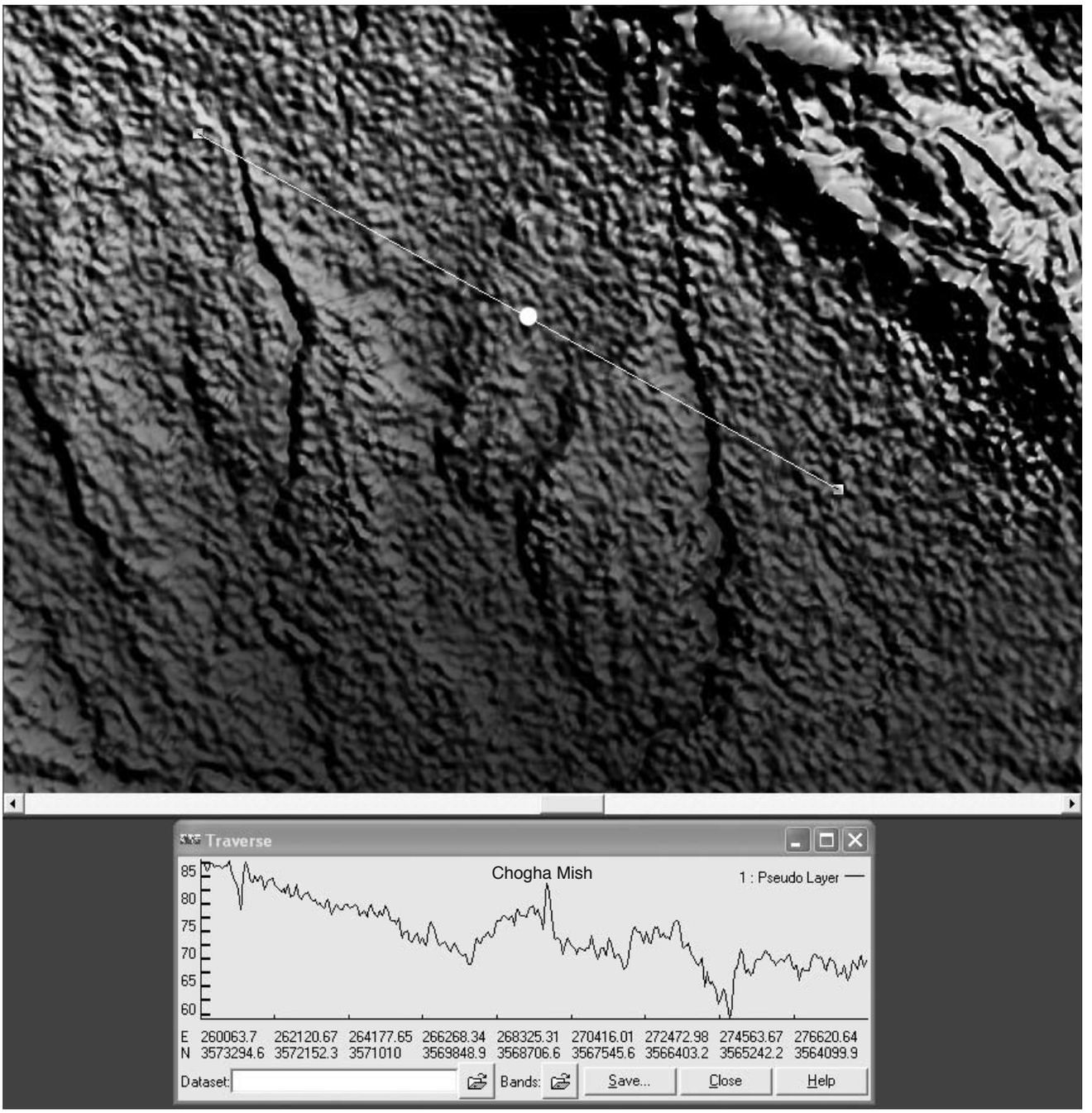


Figure 88. Composite Satellite Image of Central Khuzestan Showing the Elevation of Chogha Mish and Its Immediate Environs (courtesy of Nick Kouchoukos)

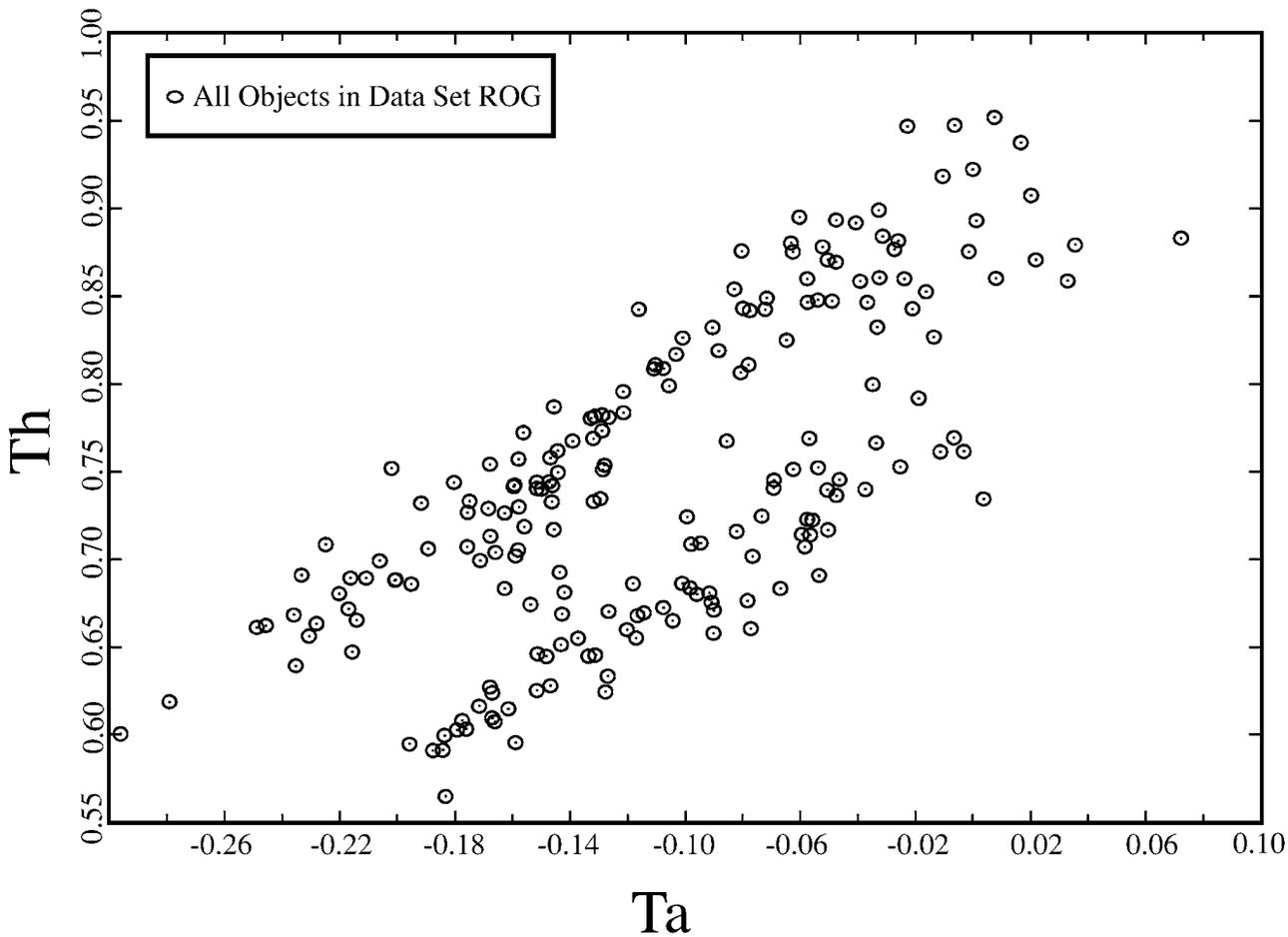


Figure 89. Bivariate Plot of Tantalum (Ta) and Thorium (Th) for All Specimens (200 in number) Studied in These Reports

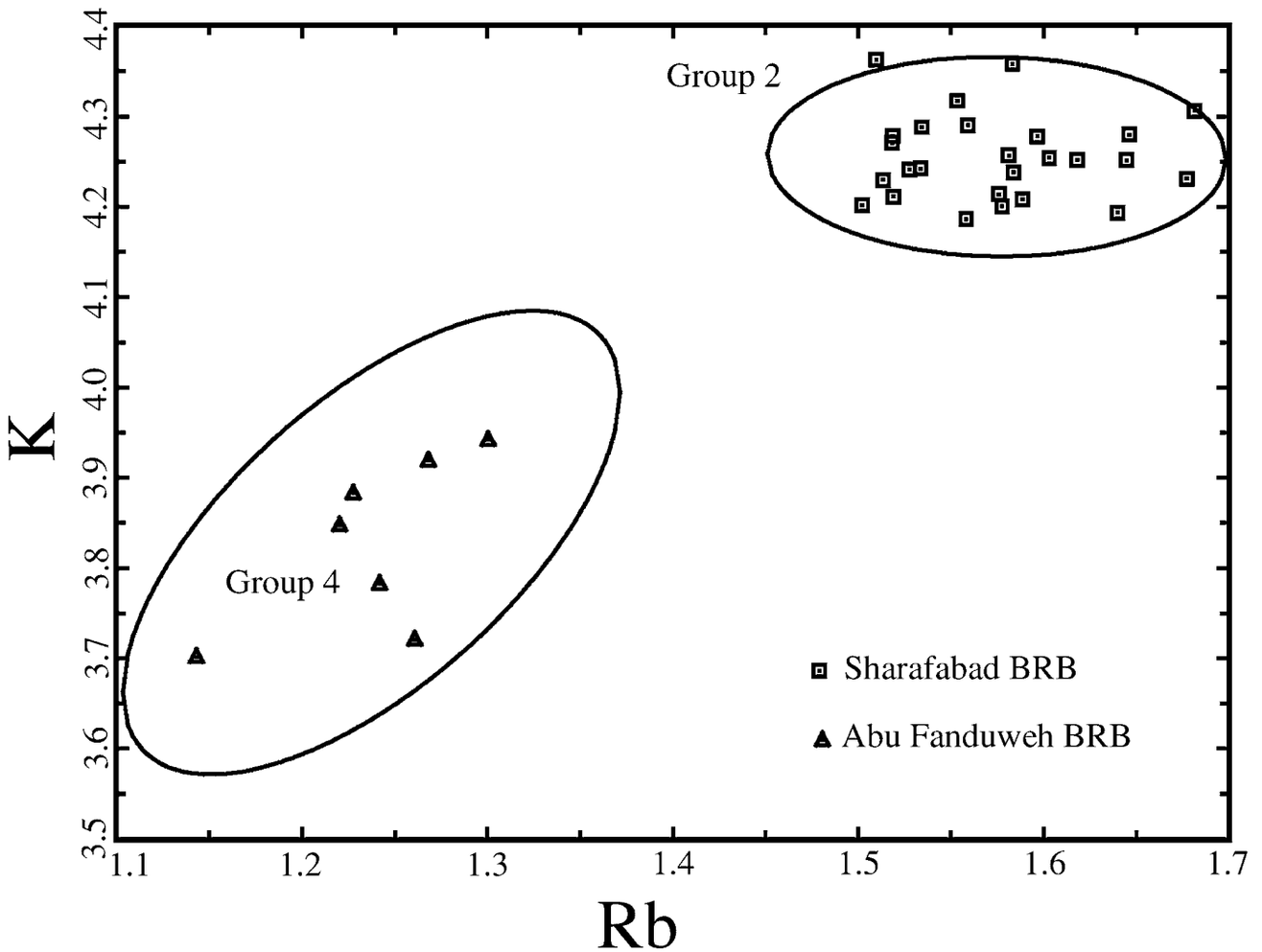


Figure 90. Log Base-10 Projection for Beveled-rim Bowls from Sharafabad (Group 2) and Abu Fanduweh (Group 4). Rubidium (Rb) and Potassium (K) Concentrations. Ellipses Represent a 90% Confidence Interval

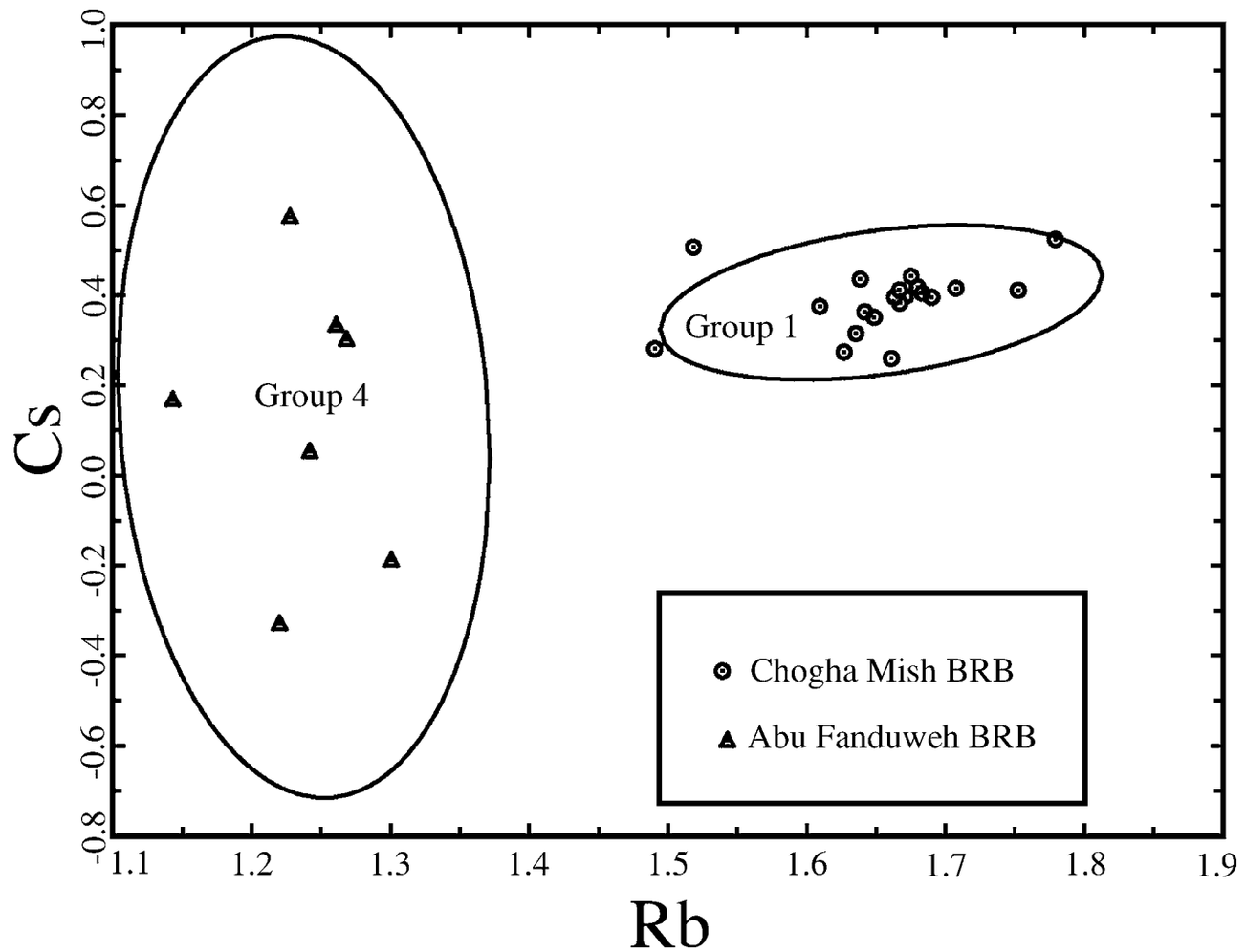


Figure 91. Log Base-10 Projection for Beveled-rim Bowls from Chogha Mish (Group 1) and Abu Fanduweh (Group 4). Rubidium (Rb) and Cesium (Cs) Concentrations. Ellipses Represent a 90% Confidence Interval

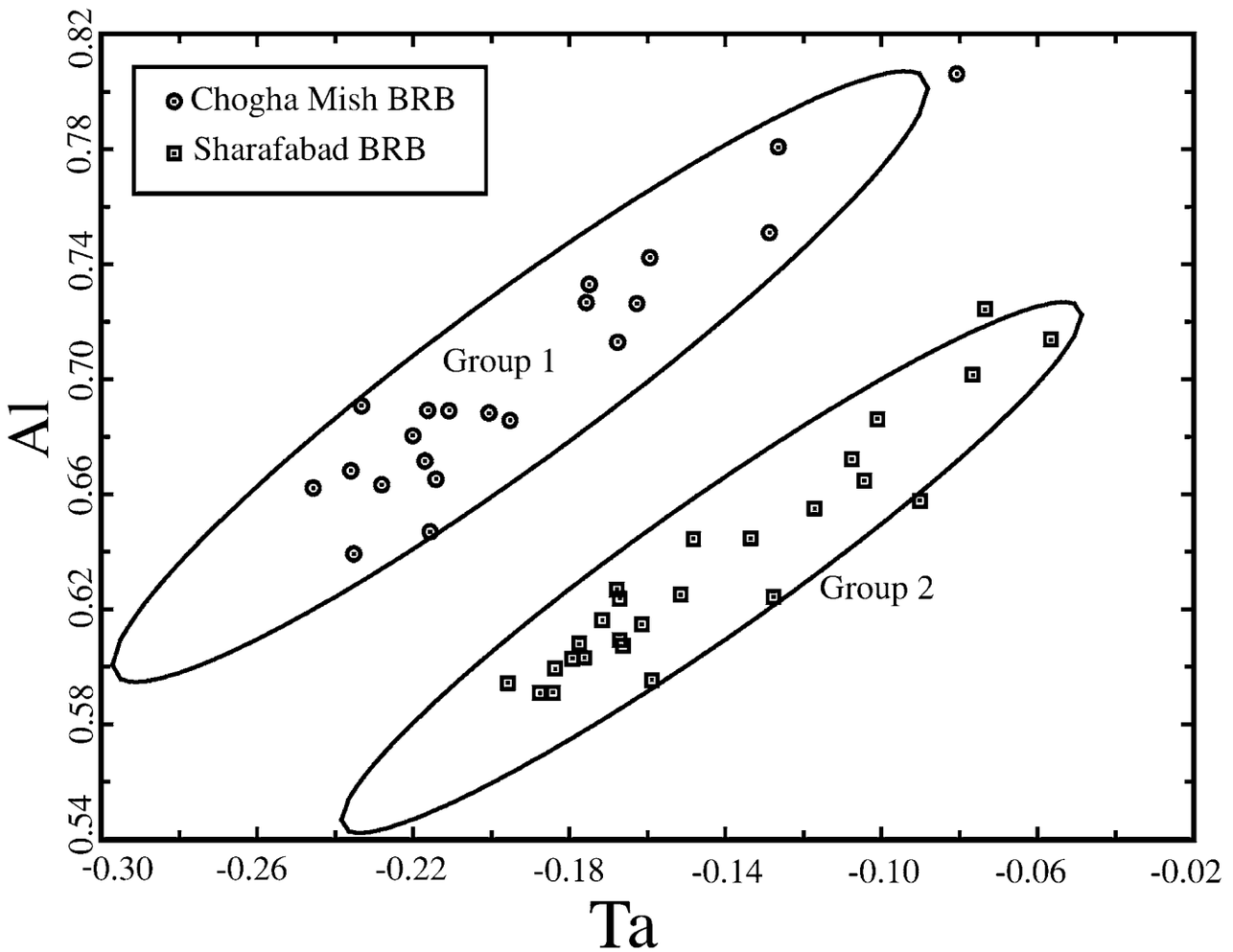


Figure 92. Log Base-10 Projection for Beveled-rim Bowls from Chogha Mish (Group 1) and Sharafabad (Group 2). Tantalum (Ta) and Aluminum (Al) Concentrations. Ellipses Represent a 90% Confidence Interval

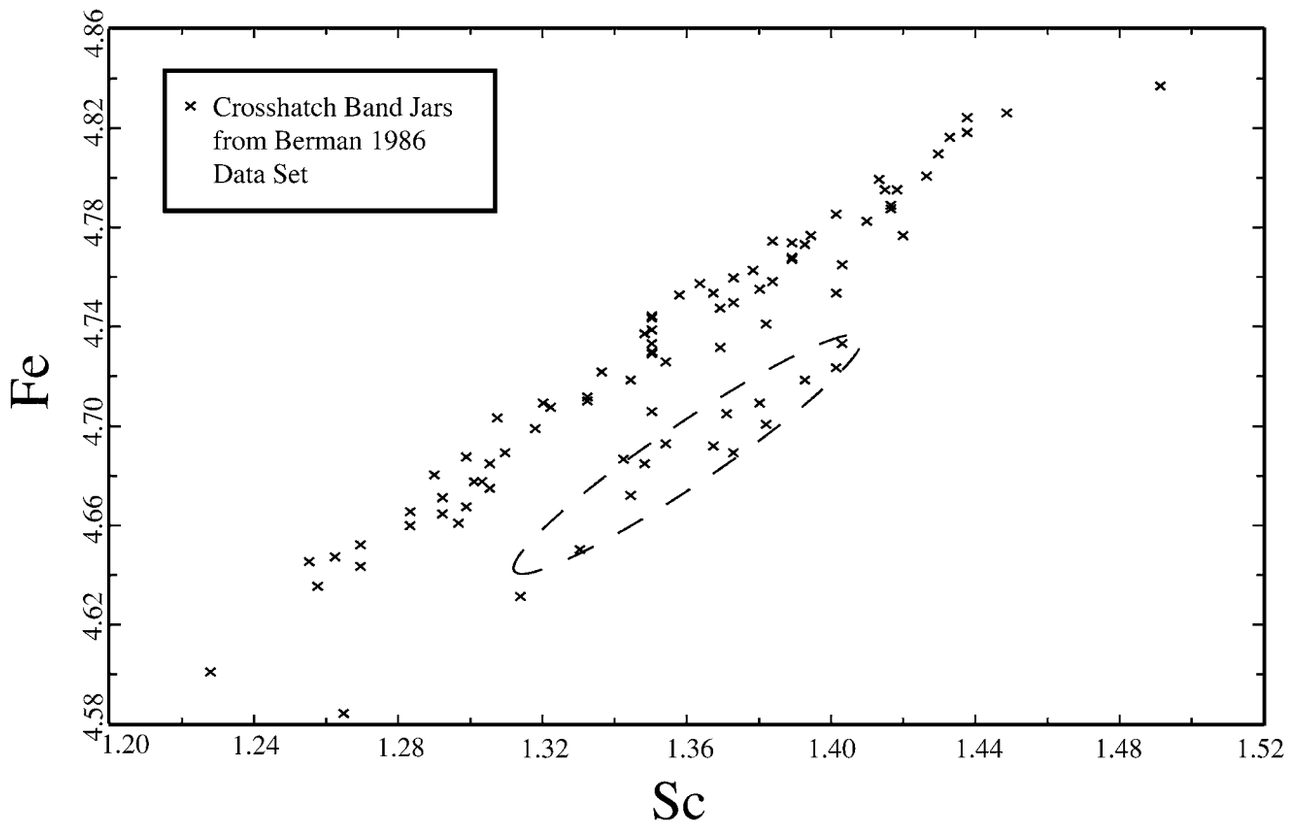


Figure 93. Bivariate Plot of Scandium (Sc) and Iron (Fe) Concentrations Produced for Eighty-seven Crosshatch Band Jars. Scatter-plot Reproduced from Berman (1986: 947). Dashed Ellipse Added by Author for Sake of Clarity (Note elements are not log transformed as in the original publication)

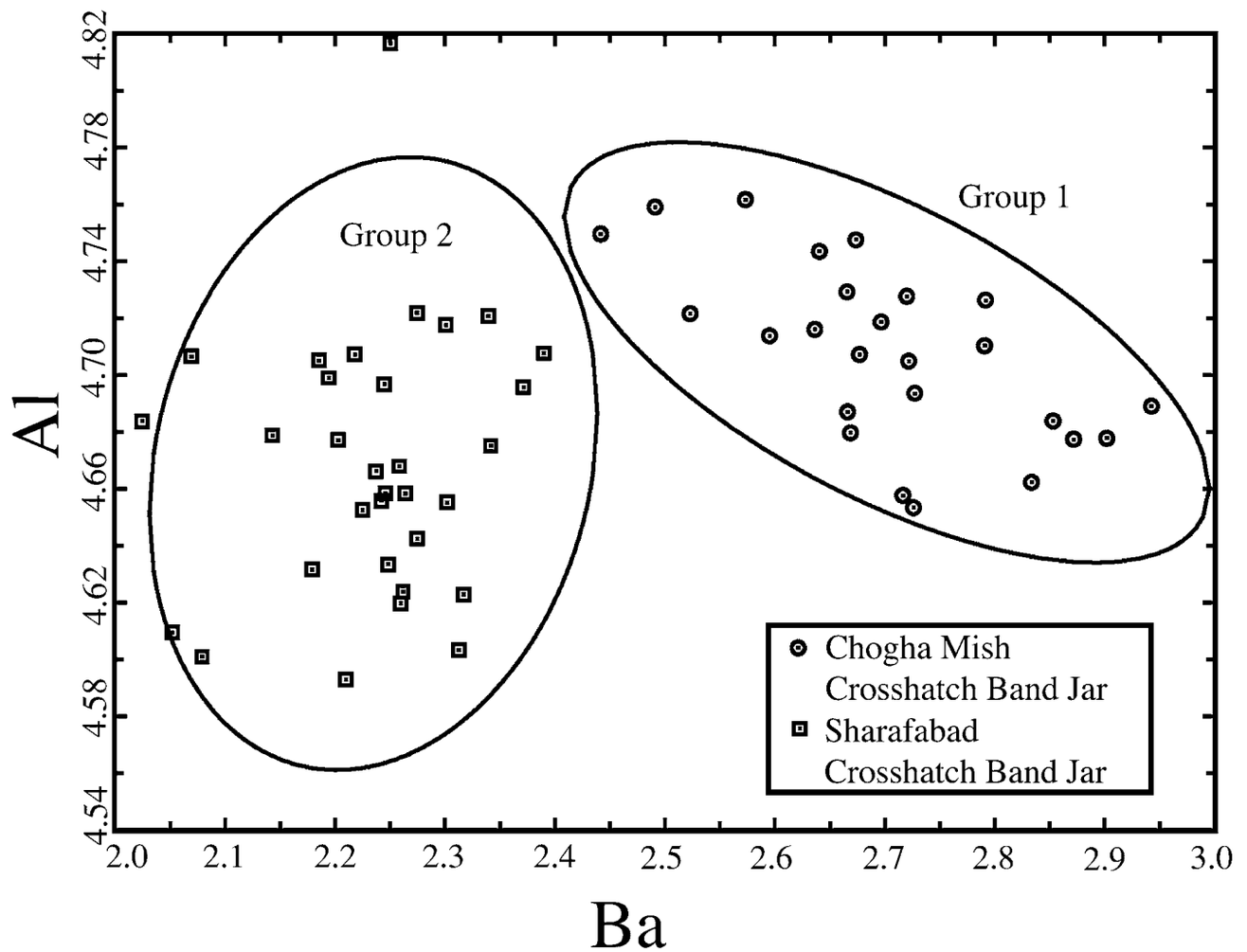


Figure 94. Log Base-10 Projection of Barium (Ba) and Aluminium (Al) Concentrations for Crosshatch Band Jars from Chogha Mish (Group 1) and Sharafabad (Group 2). Ellipses Represent a 90% Confidence Interval

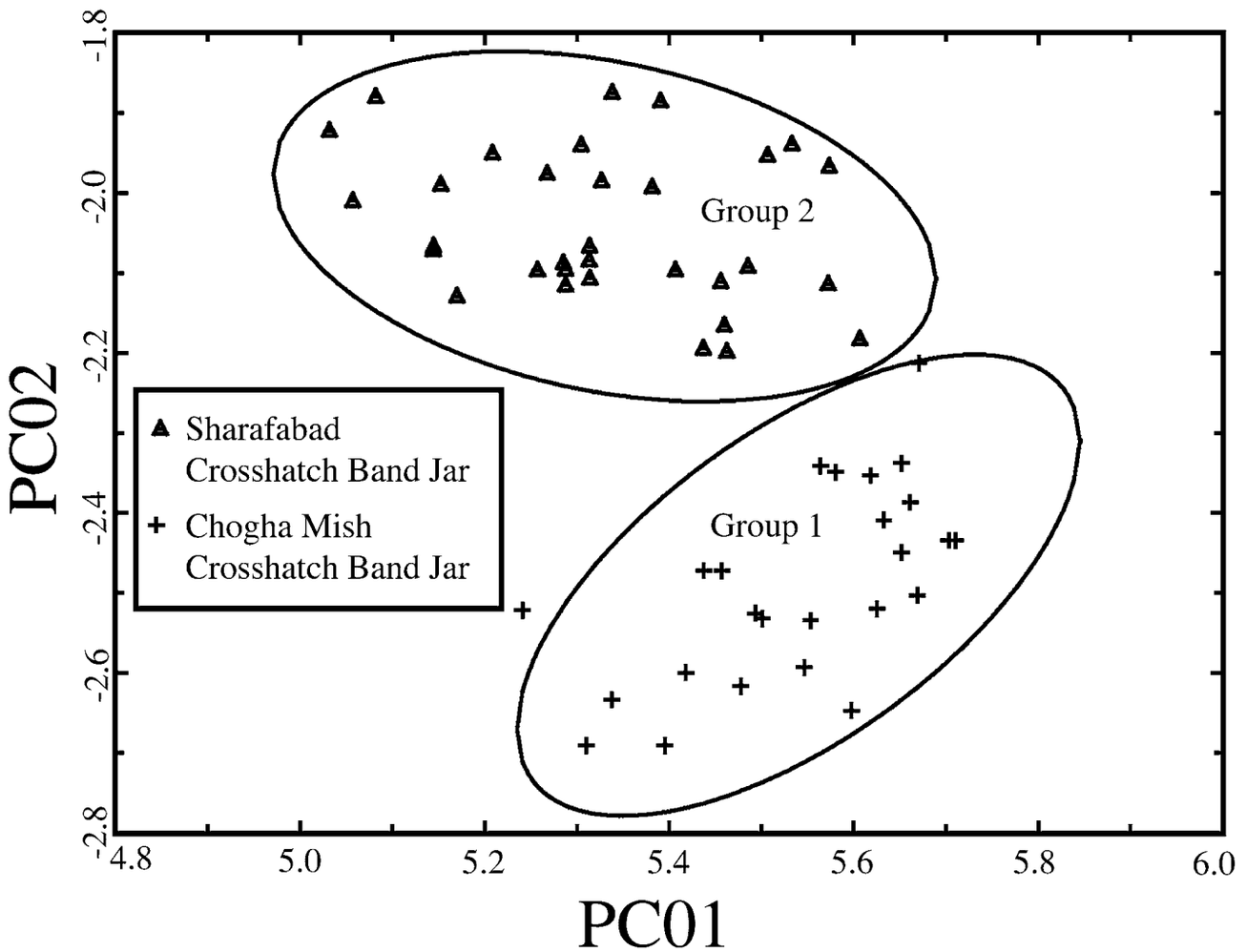


Figure 95. Principal Component Plot of First Two Components Comparing Crosshatch Band Jars from Sharafabad (Group 2) and Chogha Mish (Group 1). Ellipses Represent a 90% Confidence Interval

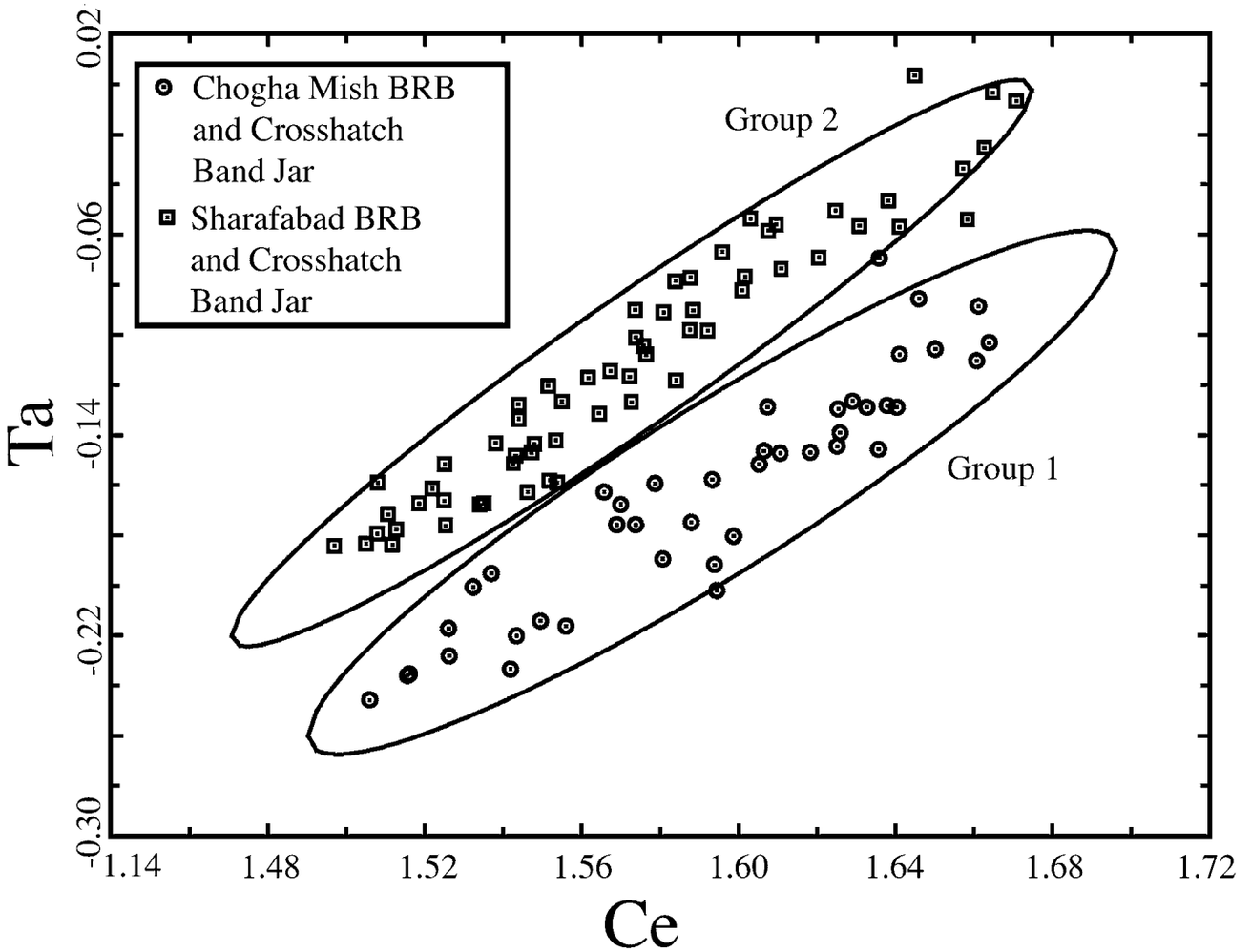


Figure 96. Bivariate Plot of Cesium (Cs) and Tantalum (Ts) for Both Beveled-rim Bowl and Crosshatch Band Jar Specimens from Chogha Mish (Group 1) and Sharafabad (Group 2). Ellipses Represent a 90% Confidence Interval

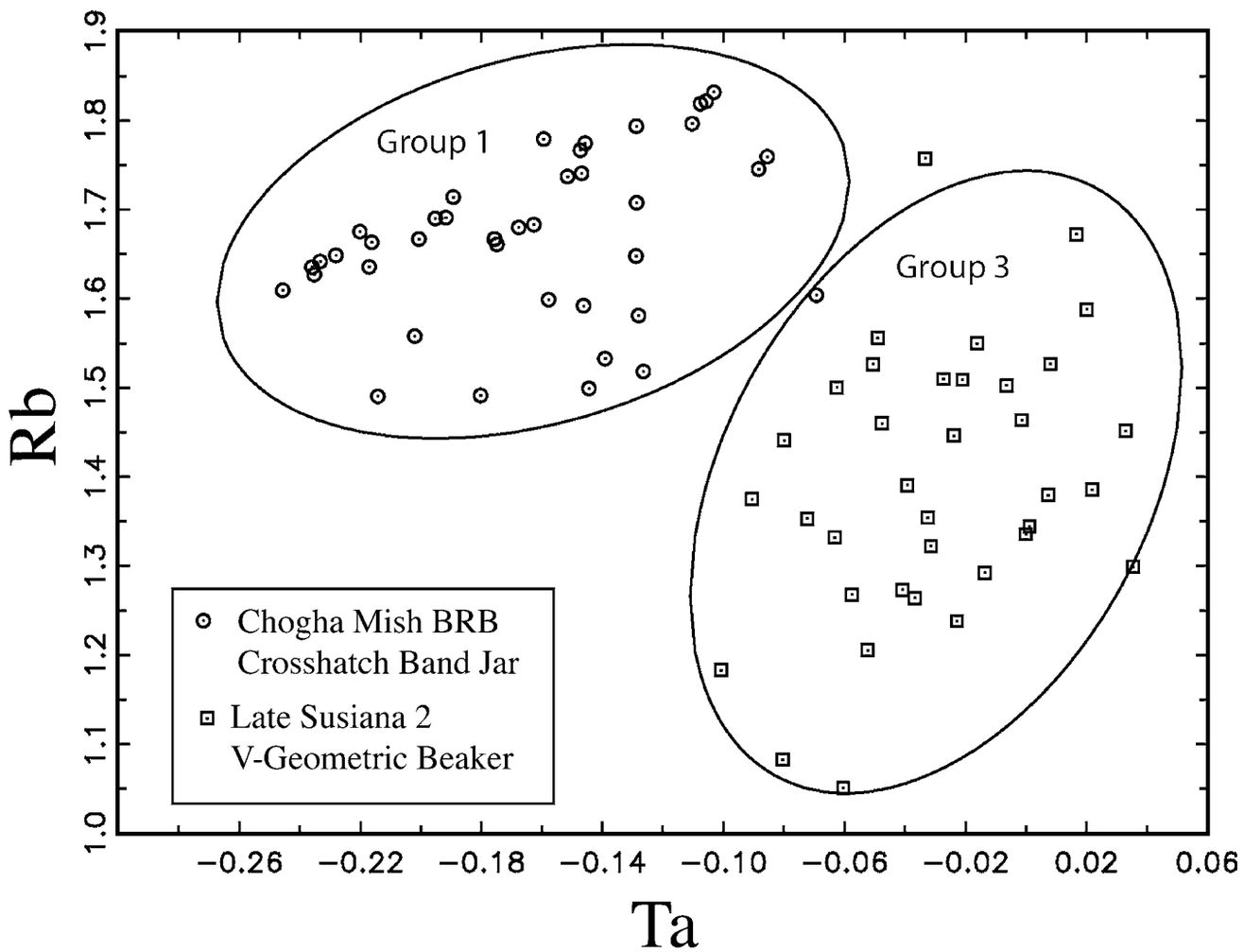


Figure 97. Bivariate Plot of Tantalum (Ta) and Rubidium (Rb) for Beveled-rim Bowl and Crosshatch Band Jar Aggregate Group from Chogha Mish (Group1) and the Combined Late Susiana 2 V-Geometric Beakers (Group 3). Ellipses Represent a 90% Confidence Interval

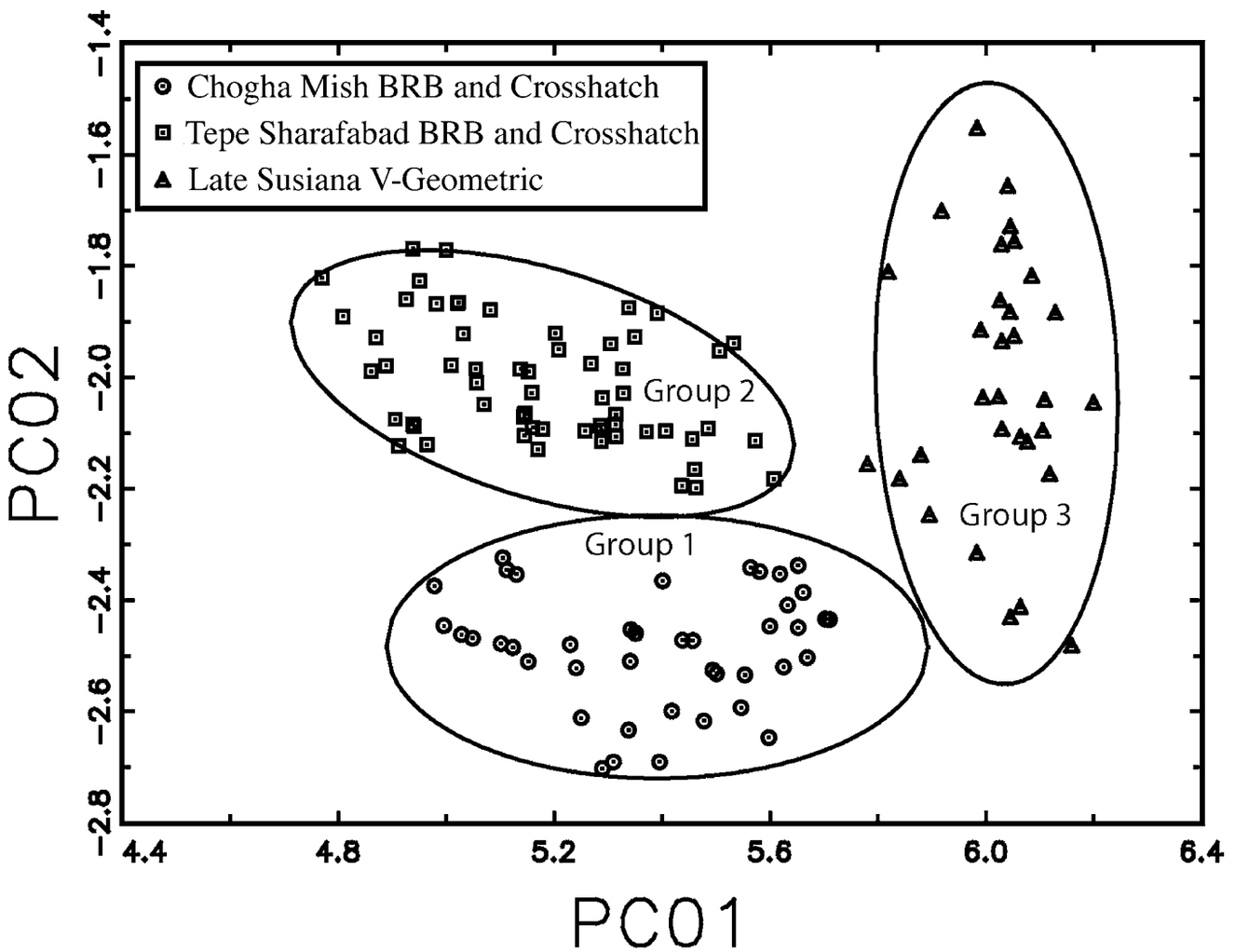


Figure 98. Principle Component Plot of Aggregate Groups Composed of Crosshatch Band Jars and Beveled-rim Bowls from Chogha Mish (Group 1) and Sharafabad (Group 2), as Well as V-Geometric Beakers (Group 3). Ellipses Represent a 90% Confidence Interval

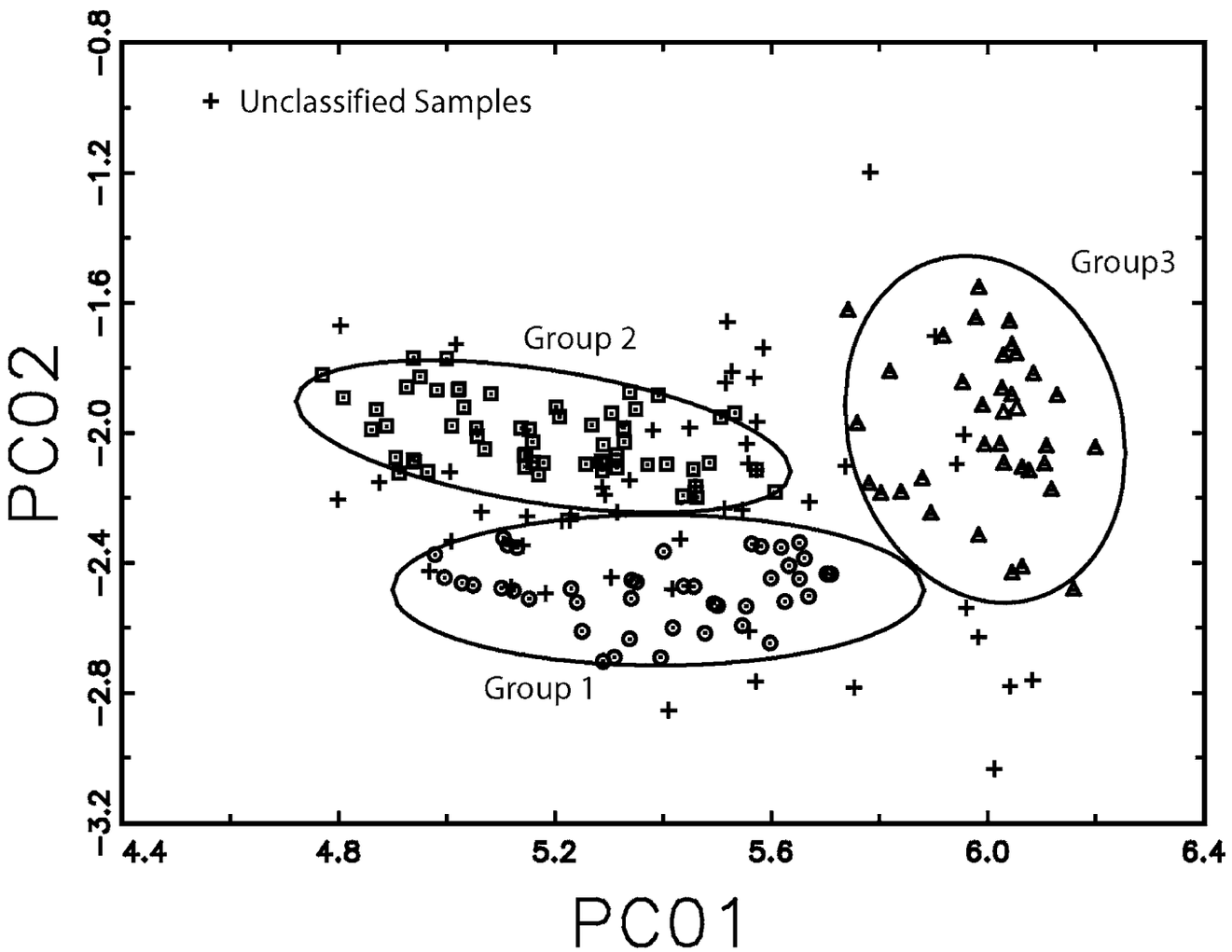
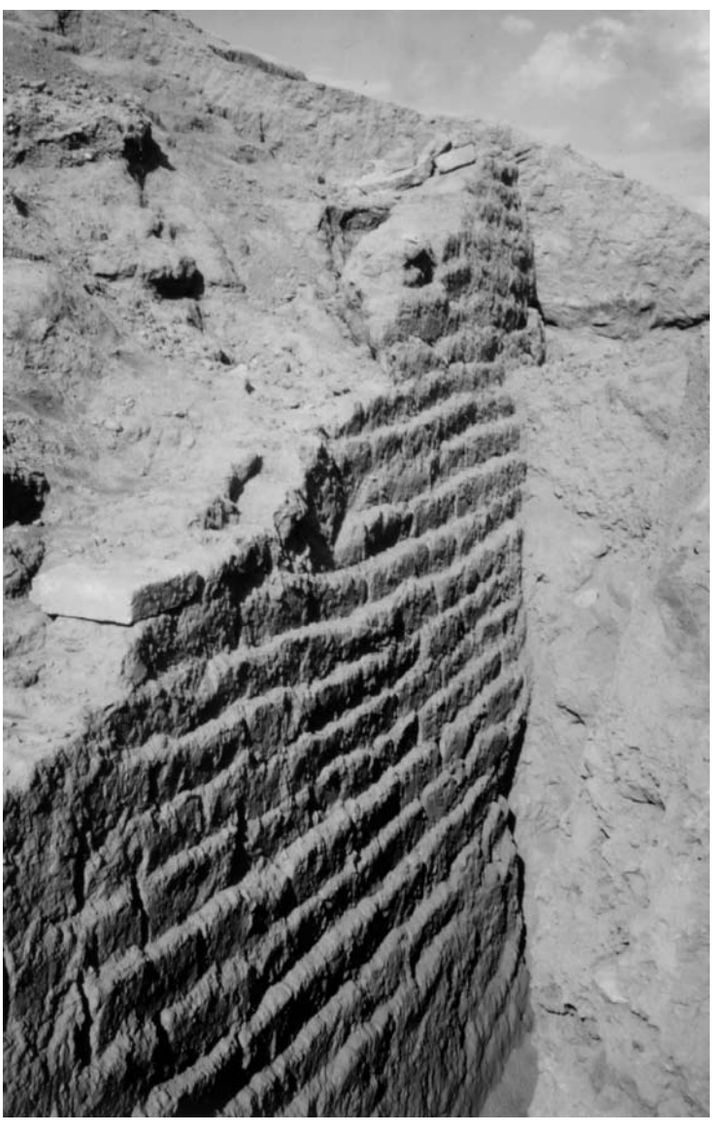


Figure 99. Principle Component Plot of Aggregate Groups Composed of Crosshatch Band Jars and Beveled-rim Bowls from Chogha Mish (Group 1) and Sharafabad (Group 2), as Well as V-Geometric Beakers (Group 3). Projected Against These Three Groups Are All the Unclassified Samples in the Present Data Analysis (fifty-two in number). Ellipses Represent a 90% Confidence Interval

A



B

A: Panoramic View of Chogha Mish, Zagros Mountains in the Background. Photo by Helene J. Kantor.
B: Eastern Face of Old Elamite Fortification Wall

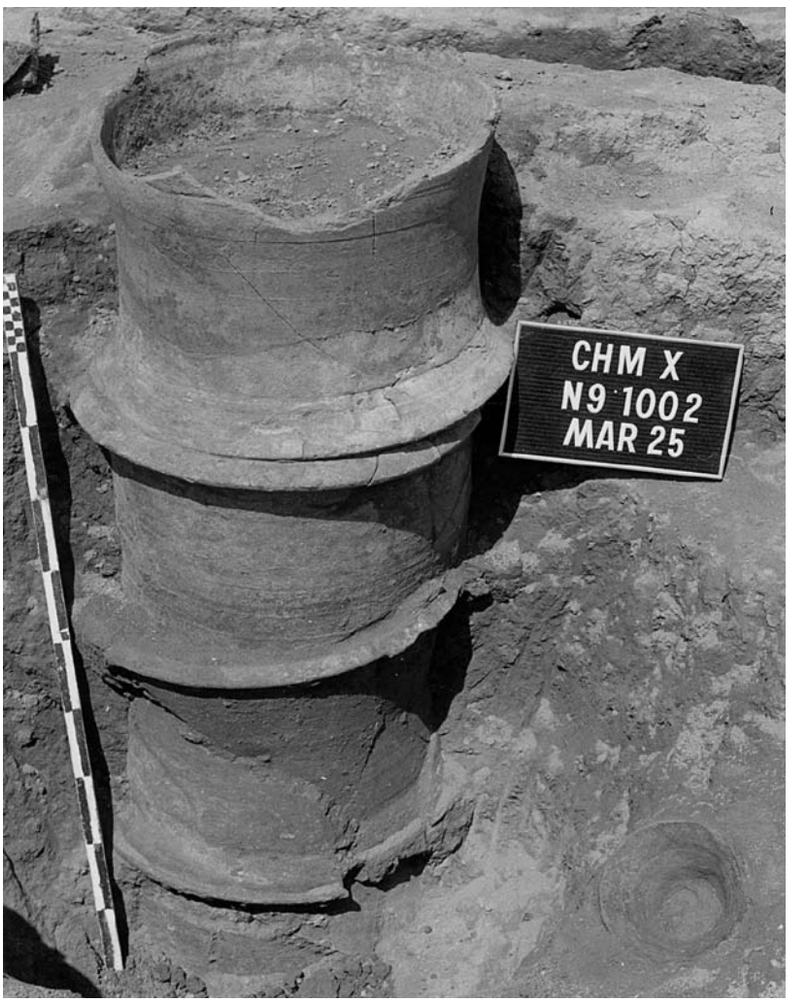
Plate 2

A

B

A: Old Elamite Fortification Wall and Gate, Looking Northwest.
B: Detail of Fortification Wall, Looking Northwest. Photos by Diana Olson-Rasche

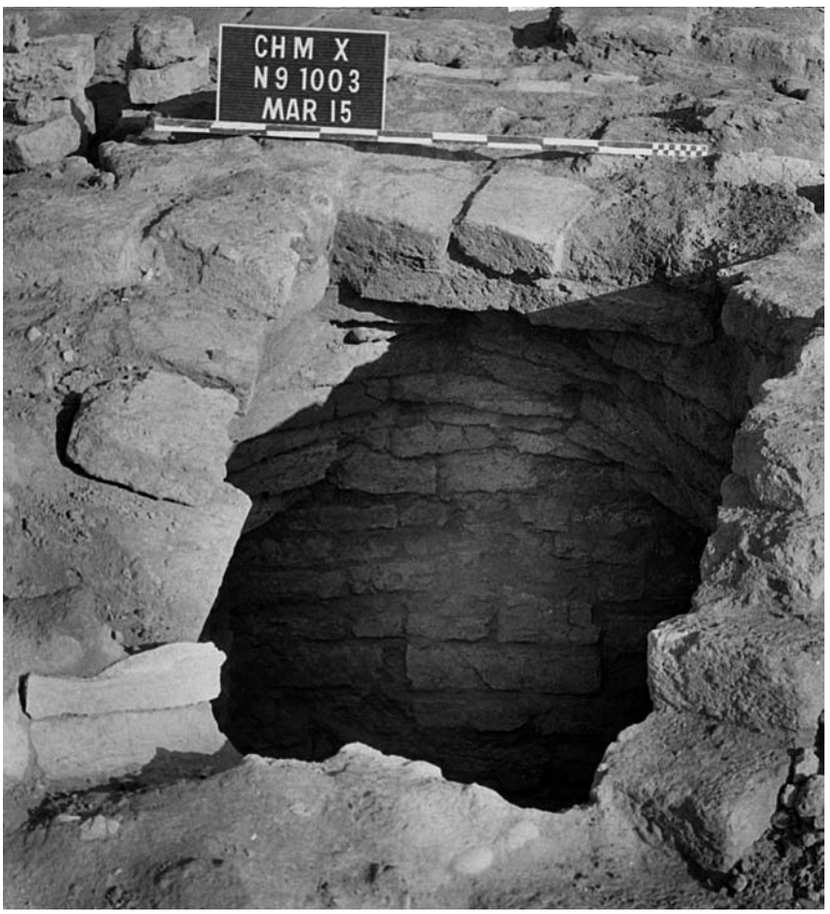
A



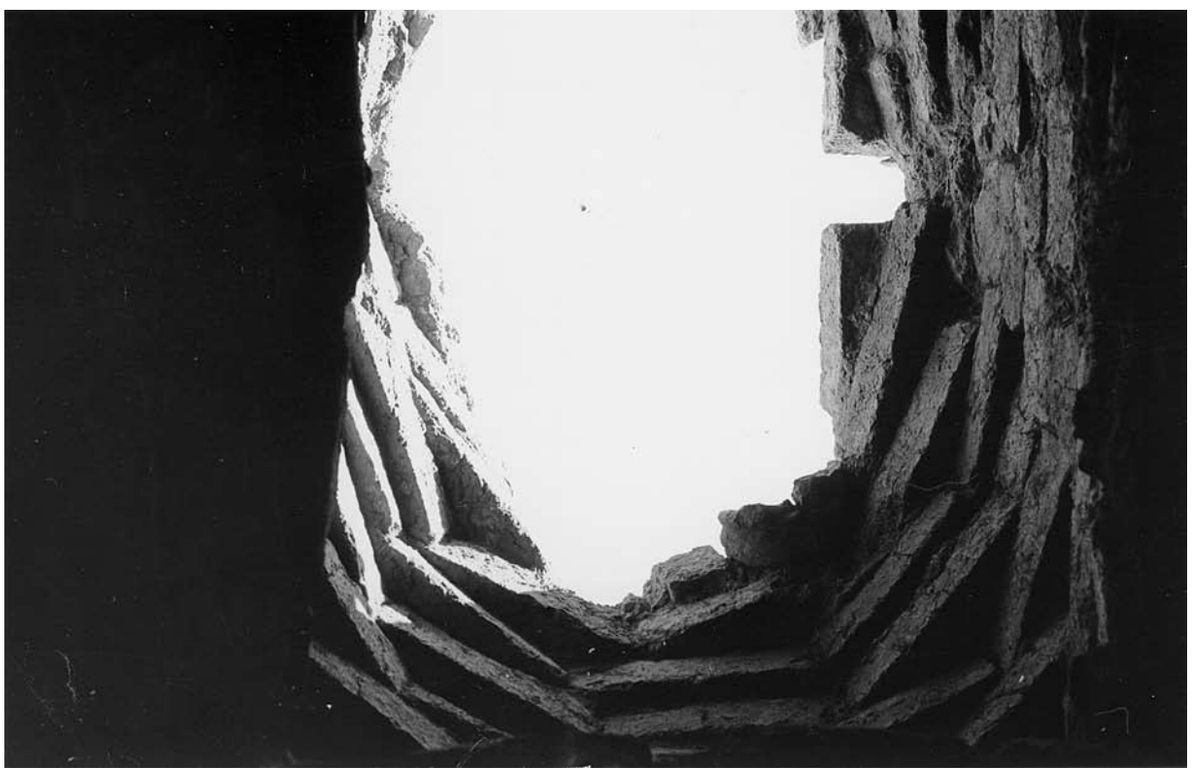
B

A: Old Elamite Trough in Square N8:1003, Looking East.
B: Old Elamite Pottery Pipes, Looking North (n.b., the sign marking the location is incorrect).
Photos by Diana Olson-Rasche

Plate 4



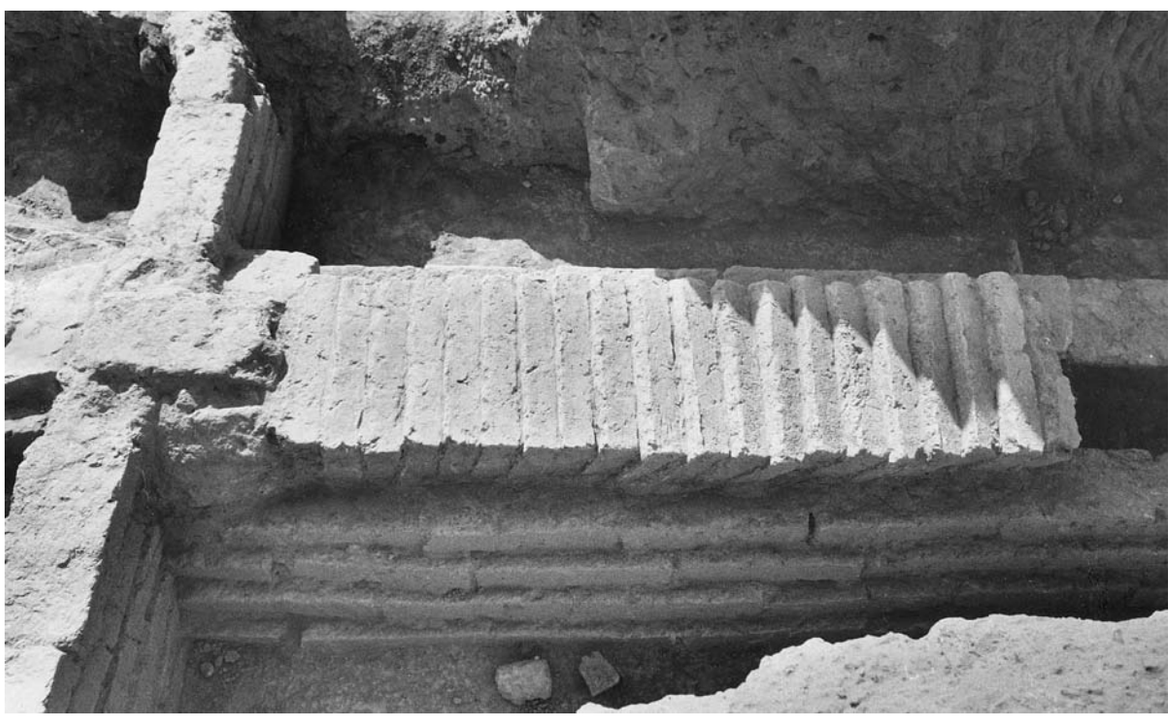
A



B

A: Old Elamite Water Cistern in Square N9:1003.
B: Inside View of Old Elamite Water Cistern. Photos by Diana Olson-Rasche

A



B

A: Old Elamite Brick Threshold in Square O8:1006, Looking North.
B: Protoliterate Drain in N9:1006, Looking Northwest. Photos by Diana Olson-Rasche

Plate 6

A

B

C

D

A: General View of Gully Cut, Looking Northeast.
B: Early Susiana Brick Pavement and a Circular Structure in Gully Cut, Looking Southeast.
C: Sample of an Early Susiana Impressed Mudbrick from Gully Cut.
D: Archaic Susiana 3 Pottery and Stone Objects in situ in Courtyard Q22:602, Looking North. Photos by Diana Olson-Rasche

A

B

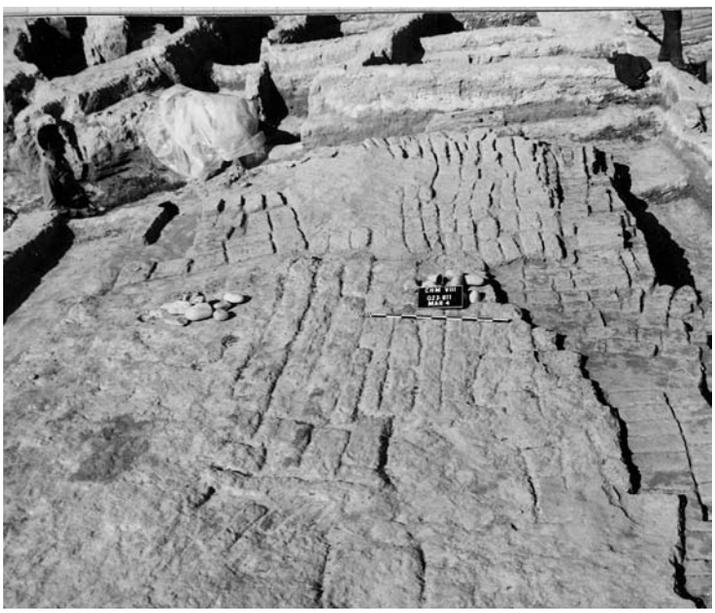
C

D

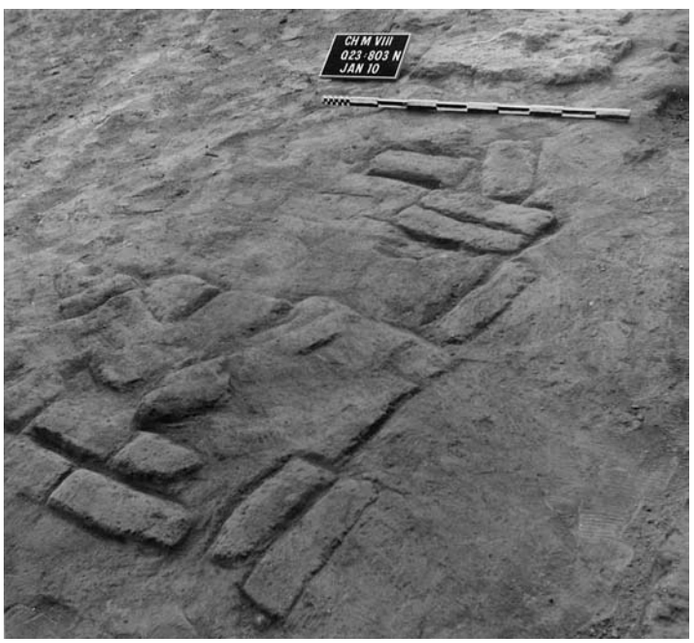
E

A: Early Susiana Storage Magazines in P22:625, 621, 616S, and 621S, Looking West.
B: Archaic Susiana 3 Stone-filled Hearth in Q22:605, Looking North.
C: Details of Middle Susiana Mudbrick Wall in P22:602E, Looking East. D: Archaic Susiana 3 Long Magazine in Q22:604, Looking South. E: Early Susiana Courtyard in Q23:504/703. Photos by Diana Olson-Rasche

Plate 8



A



B

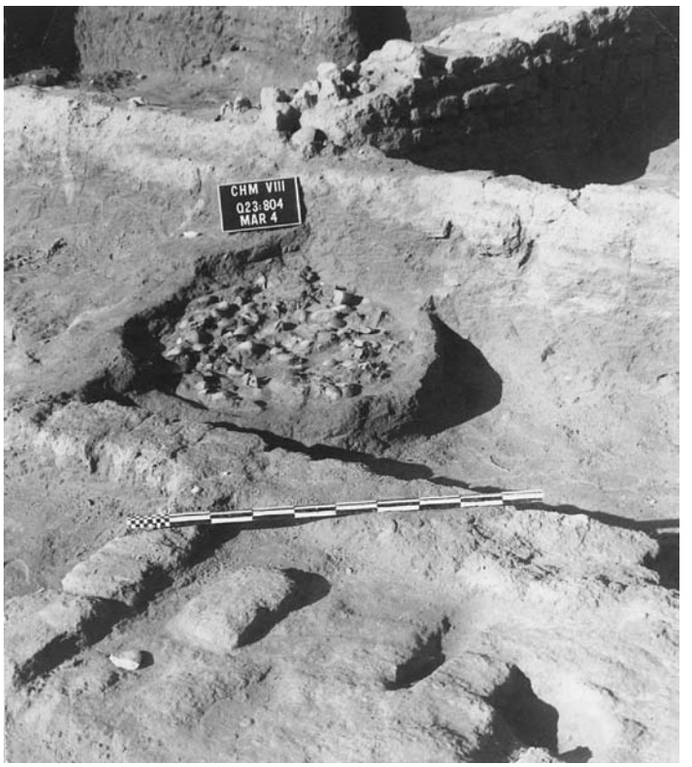
C

A: Early Susiana Brick Platform in Q23:811, Looking North.
B: Early Susiana Mudbrick Pavement in Q23:803/813, Looking Northwest.
C: Archaic Susiana 3 Pottery Vessels and Other Objects in situ in Q23:802, Looking West. Photos by Diana Olson-Rasche

A

B

C



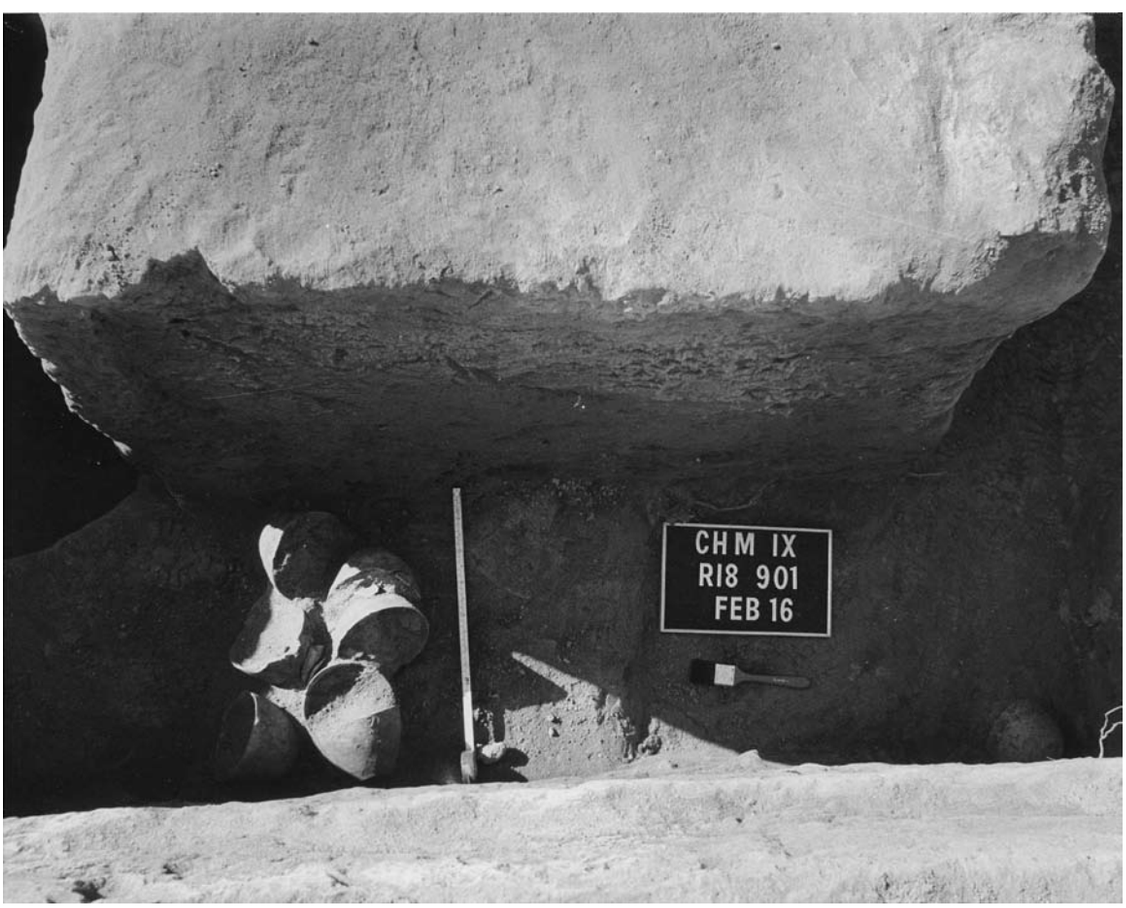
D

A: Early Susiana Mudbrick-paved Room in Q23:813, Looking Northeast.
B: Details of Early Susiana Mudbrick Wall in Q23:502, Looking Northeast.
C: Archaic Susiana Stone Pavement in Q23:801N, Looking Northeast.
D: Archaic Susiana Circular Hearth in Q23:804, Looking Southwest. Photos by Diana Olson-Rasche

Plate 10

Eastern Wing of the Late Middle Susiana Burnt Building, Looking Northeast. Photo by Diana Olson-Rasche

A

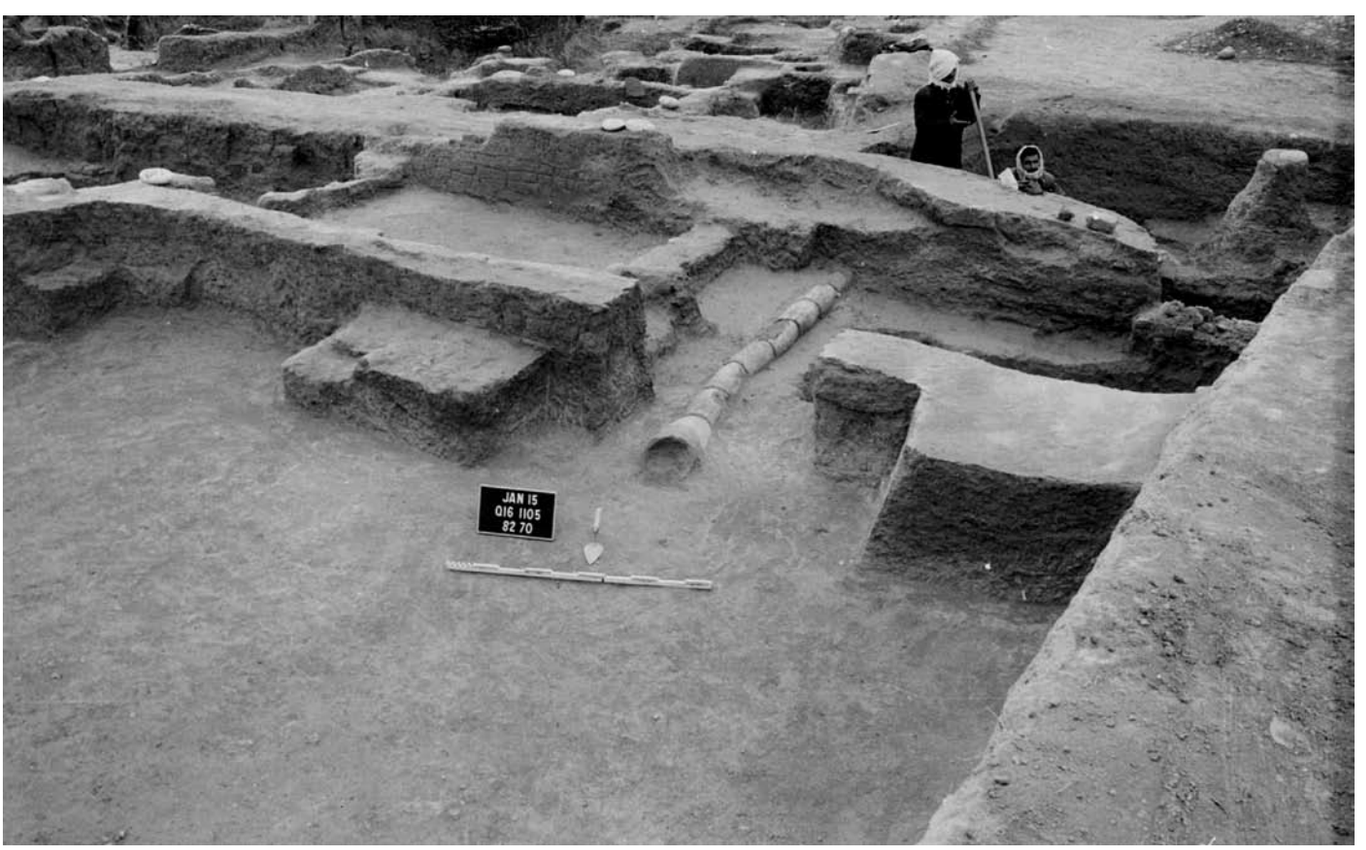


B

A: Room S18:904 of the Late Middle Susiana Burnt Building, Looking South.
B: Top View of Mudbrick Platform in Room R18:901 in Late Middle Susiana Burnt Building.
Photos by Diana Olson-Rasche

Plate 12

A



B

A: Entrance to Courtyard of Protoliterate Tripartite Building, Q17:1111, Looking North.
B: Drain Pipes Leading from Courtyard of Protliterate Tripartite Building, Q16:1105. Looking Southwest.
Photos by Diana Olson-Rasche

A

B

A: Drain Pipes in Alley Q17:1106, South of Entrance to Protoliterate Tripartite Building, Looking Southwest.
B: Gazelle Femur Bones in situ in Vestibule Q17:1005 of Protoliterate Tripartite Building, Looking Southwest.
Photos by Diana Olson-Rasche

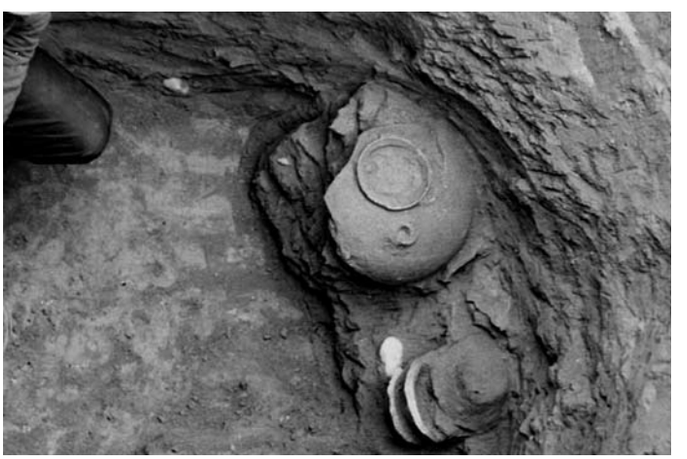
Plate 14

A

B

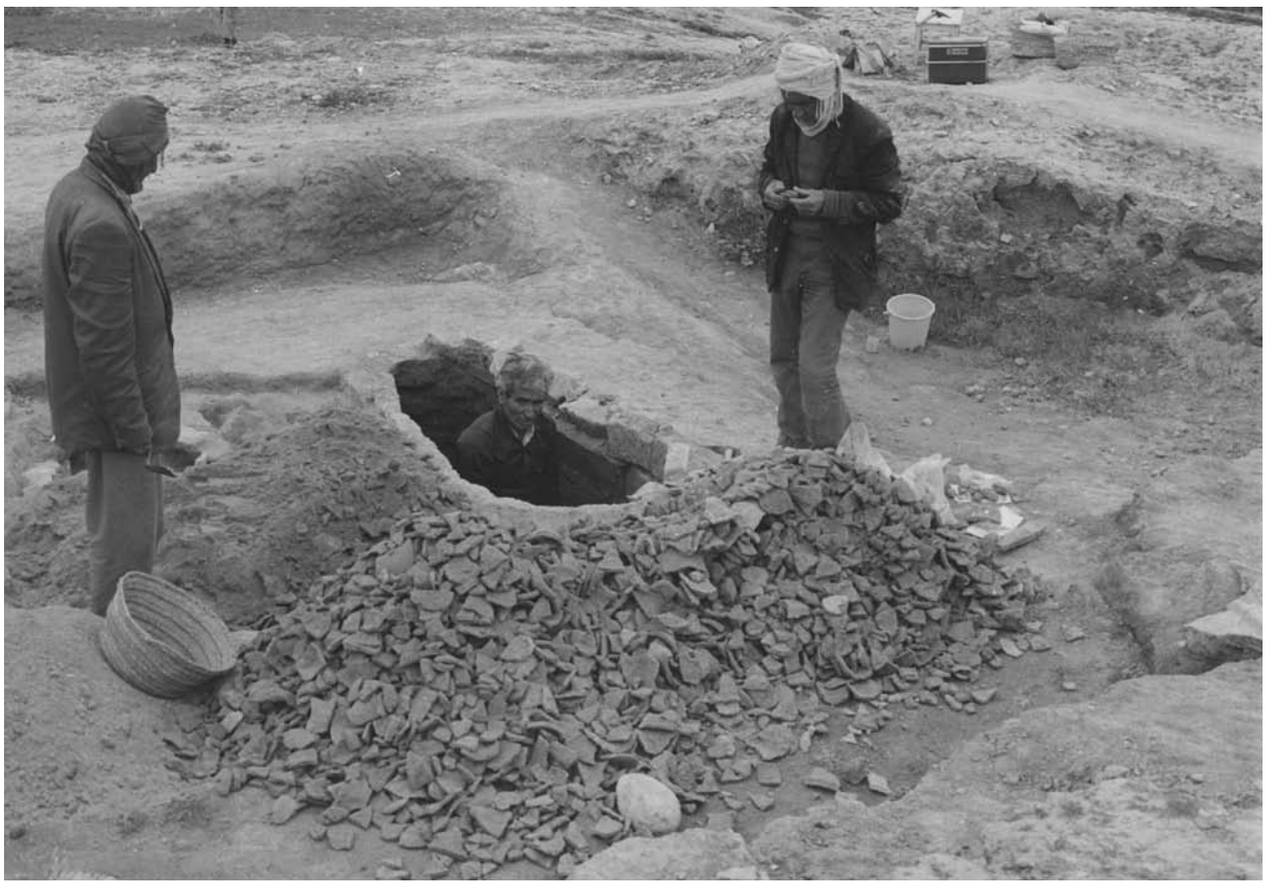
C

D



E

A: Protoliterate Pottery Vessels in situ in P17:1108. B: Cache of Beveled-rim Bowls in R18:920, Looking Northwest. C: Protoliterate Mudbrick Wall and Pottery Vessels in situ in Q17:806, Looking Northwest. D: Top View of Protoliterate Pit R19:903 Filled with Beveled-rim Bowls. E: Top View of Protoliterate Pit Filled with Pottery Vessels. Photos by Helene J. Kantor



A

B

A: Old Elamite Cistern in N9:1002, Looking Southeast. B: Archaic Susiana 3 Stone-filled Hearth in Q22:605, Looking Northeast. Photos by Diana Olson-Rasche

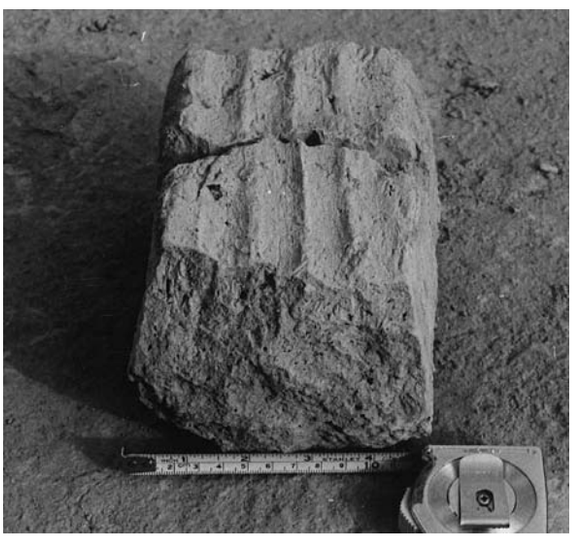
Plate 16

A

B

C

D

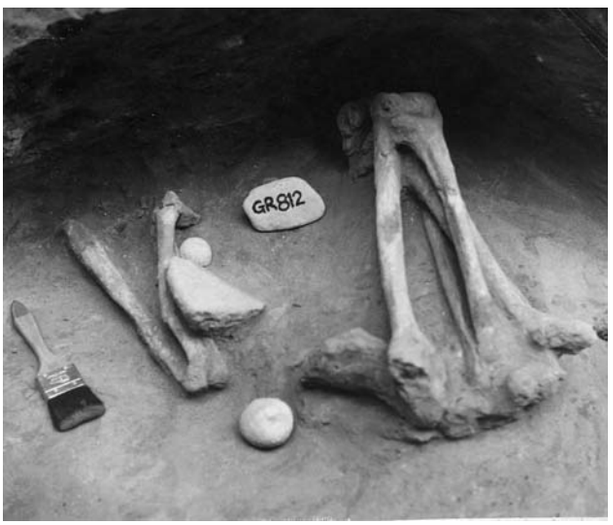


E

A: Early Susiana Room S22:813 in Gully Cut, Looking South. B: Protoliterate, Phase 2, Architecture in Q17:815. C and E: Samples of Archaic Susiana Mudbricks. D: Rocks Mixed with Chipped Stone Blades and Pottery Sherds in Middle Susiana S22:909/919 in Gully Cut. Photos by Helene J. Kantor

A

B



C

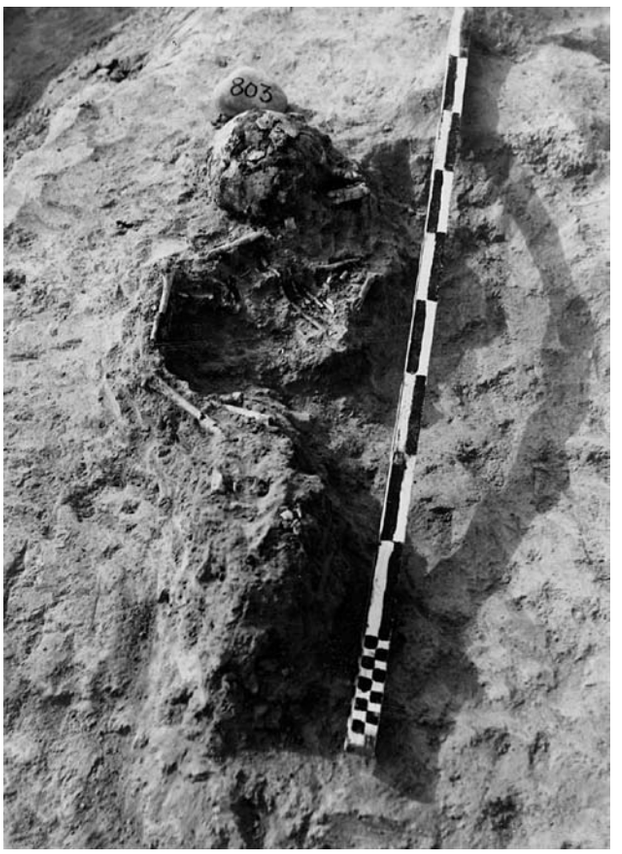
D

E

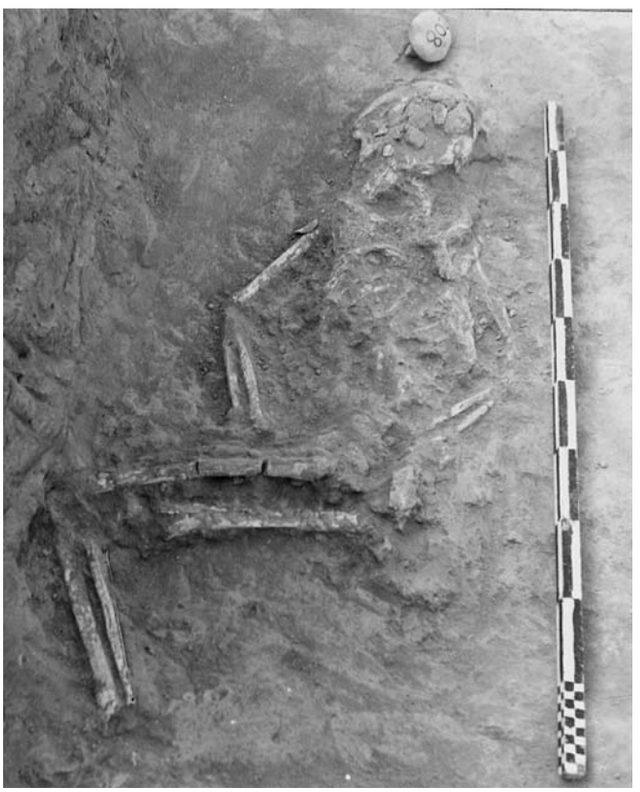
A: Archaic Susiana 3 Grave 806 in Q23:801, Looking East. B: Archaic Susiana 3 Funerary Gifts from Grave 807 in Q23:807, Looking North. C: Archaic Susiana 3 Grave 812 in Q23:809, Looking North. D: Archaic Susiana 3 Grave 811 in S22:824. E: Early Susiana Grave 808 in Q23:802. Photos by Diana Olson-Rasche

Plate 18

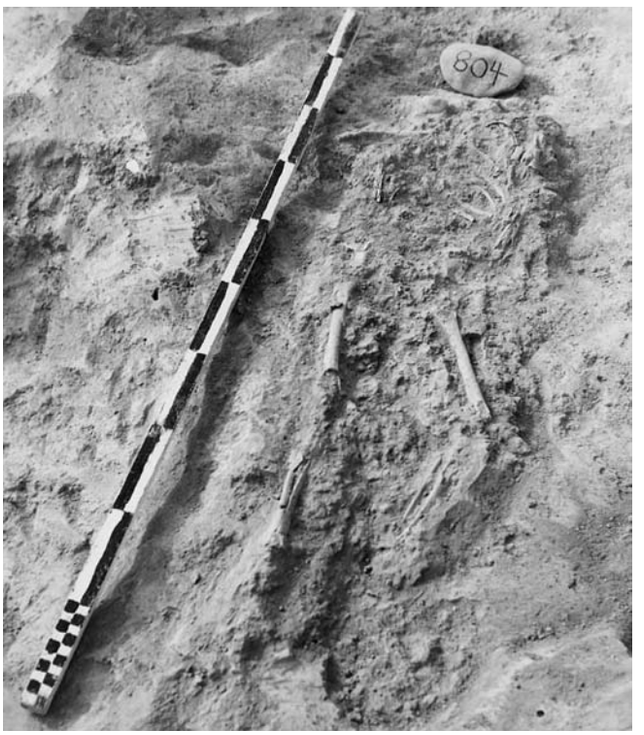
A



B



C



D

A: Archaic Susiana 3 Grave in Q23:803, Looking Southwest. B: Archaic Susiana 3 Grave in Q23:803, Looking Northwest. C: Middle Susiana Grave 802 in P23:607, Looking Northwest. D: Archaic Susiana 3 Grave 804 in Q23:810S. Photos by Diana Olson-Rasche

Plate 19. Late and Middle Susiana Pottery

	Registration Number	*Provenance*	*Elevation*	*Description*
A	6752	N10	High Mound	Buff ware. Sand tempered with scattered small grits. Buff slipped. Dark brown paint. Diameter ca. 30 cm, height 10 cm. Late Susiana 2
B	9631	S17:901	81.20	Creamy buff fine ware. No visible inclusions, black paint. See figure 35:A for drawing and scale. Late Susiana 2
C	6028	Tr. XXXIII	77.68	Fine buff ware. No visible inclusions. Creamy buff slipped. Brown paint. See figure 42:S for drawing and scale. Late Middle Susiana
D	6024	Tr. XXXIII	76.40	Fine buff ware. No visible inclusions. Creamy buff slipped. Brown paint. See figure 42:R for drawing and scale. Late Middle Susiana
E	6040	S20:601	78.33	Fine buff ware. No visible inclusions. Creamy buff slipped with a greenish tinge. Olive black matte paint. See figure 42:C for drawing and scale. Late Middle Susiana
F	6050	R20:602	B.S.	Fine buff ware. No visible inclusions. Creamy buff slipped. Black matte paint. See figure 42:A for drawing and scale. Late Middle Susiana
G	N/A	R18:921	80.35	Fine buff ware. No visible inclusions. Creamy buff slipped. Height 6.5 cm. Late Middle Susiana
H	6036	S20:601	0.40 B.S.	Buff ware. Small grit tempered. Smoothed. Light buff slipped. Dark brown paint. Base plate fragment. Height 7 cm. Late Middle Susiana
I	6118	Tr. XXXIII	76.32	Fine buff ware. No visible inclusions. Creamy buff slipped. Brown paint. Height 3 cm. Late Middle Susiana
J	6051	R20:602	B.S.	Fine buff ware. No visible inclusions. Creamy buff slipped. Black matte paint. See figure 42:Q for drawing and scale. Late Middle Susiana
K	VI-41	S20:620	77.86	Fine buff ware. Dense. No visible inclusions. Creamy buff slipped. Somewhat shiny surface. Black granulated paint. See figure 41:E for drawing and scale. Late Middle Susiana
L	N/A	R18:921	80.40	Fine buff ware. Dense. No visible inclusions. Yellowish buff slipped. Black paint. Height 11 cm. Late Middle Susiana
M	6001	Tr. XXV	78.56	Fine buff ware. No visible inclusions. Creamy buff slipped. Black paint. See figure 41:B for drawing and scale. Late Middle Susiana
N	6751	High Mound	N/A	Buff ware. Yellowish buff slipped. Very fine sand tempered, occasional small grits. Dark paint. Height 12.5 cm. Late Middle Susiana

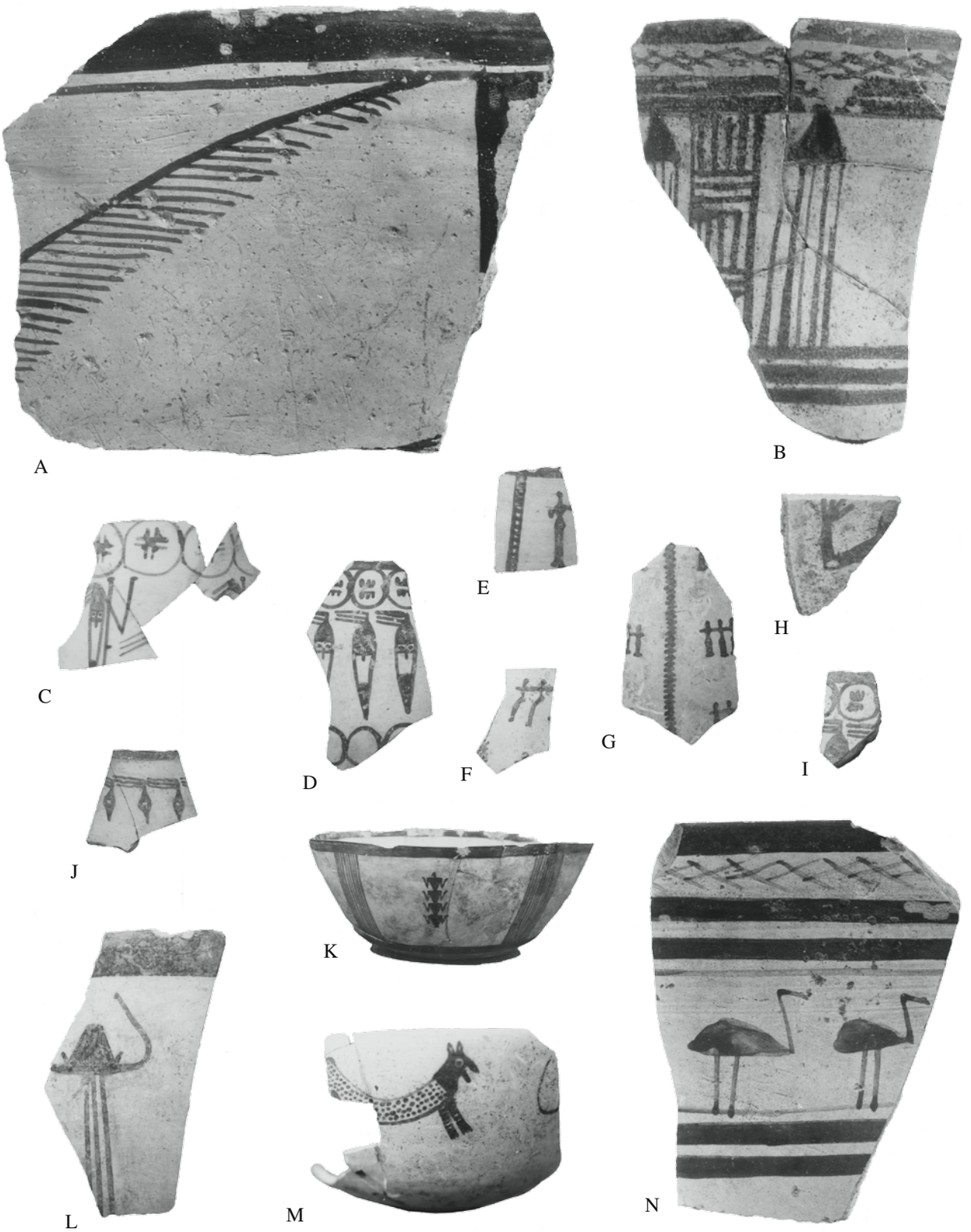
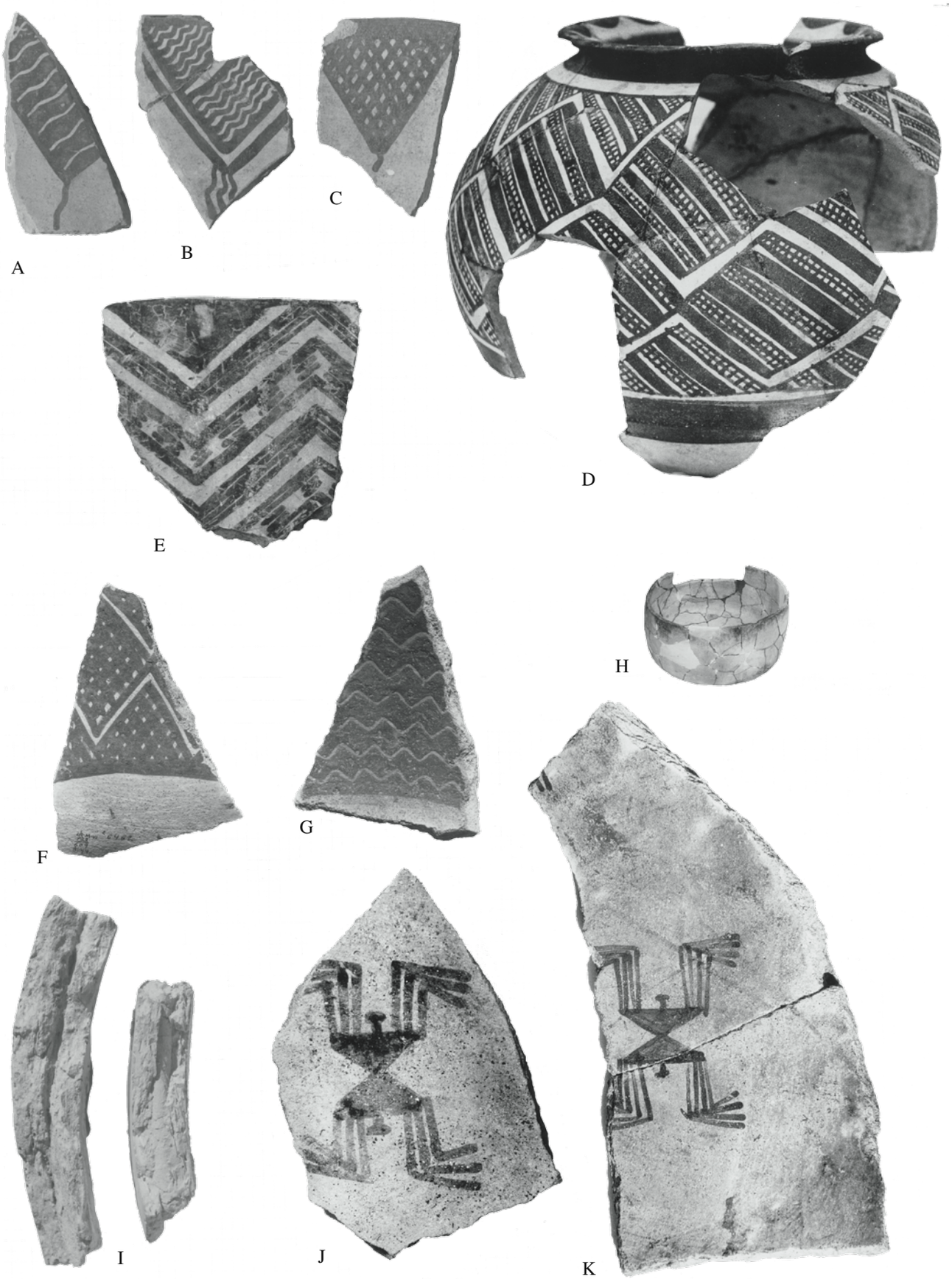


Plate 20. Archaic–Middle Susiana Pottery

	Registration Number	*Provenance*	*Elevation*	*Description*
A	VI-74	P22:606	B.S.	Buff ware. Greenish buff surface. Grit tempered. Paring marks on base. Thick, dark granular paint, almost vitrified. Wavy lines in reserve in broad wash. Height 9.2 cm. Early Middle Susiana
B	VI-102	P22:611	80.57	Box fragment. Greenish buff ware. Grit tempered. Gritty face. Probably slipped. Dark brown/black paint. Reserved wavy lines. See figure 63:J for drawing and scale. Early Susiana
C	VI-38	P22:606	80.85	Buff ware. Grit tempered. Buff slipped with a greenish hue. Olive black paint, somewhat sunken. See figure 62:G for drawing and scale. Early Susiana
D	VI-19/6872	P22:606	80.00	Buff ware. Grit tempered with some straw. Light orange buff interior and exterior. Dark brown paint. See figure 67:D for drawing and scale. Archaic 3–Early Susiana transitional
E	VI-28/A34802	Q23:810	78.25	Buff ware. Straw tempered. Yellowish buff slipped. Below painted panel, fugitive red wash. Black paint. See figure 70:F for drawing and scale. Matte-painted. Archaic Susiana 3
F	6164	Q22:608	79.57	Painted-burnished. Buff ware. Grayish core grades to pale orange buff toward surface. Dense straw tempered. Black paint. See figure 73:A for drawing and scale. Archaic Susiana 1
G	VI-43	P23:602	81.50	Dense greenish buff ware. Sand and grit tempered. Matte, granular dark paint, mostly flaked off. Wavy lines incised into broad wash. See figure 44:P for drawing and scale. Early Middle Susiana
H	7002	G28:703 South	76.98	Standard buff ware. Sand tempered. Creamy buff slipped. Dark brown paint. See figure 39:B for drawing and scale. Early Middle Susiana
I	7061	G29:703	B.S.	Standard buff ware. Sand tempered. Brown paint. See figure 50:F for drawing and scale. Early Middle Susiana

Plate 21. Archaic, Early, and Middle Susiana Pottery

	Registration Number	*Provenance*	*Elevation*	*Description*
A	9739	S22:923	75.22	Buff ware. Grit tempered. Buff slipped. Black paint. Reserved wavy lines. Height 11 cm. Early Susiana
B	9783	S22:919	76.61	Buff ware. Grit tempered. Buff slipped. Black paint. Reserved wavy lines. Height 9.3 cm. Early Susiana
C	N/A	S22:825	76.30	Buff ware. Grit tempered. Buff slipped. Black paint. Reserved wavy lines. Height 8.5 cm. Early Susiana
D	9677	R18:910	80.34	Standard buff ware. Sand tempered with some grits. Buff slipped. Dark brown granulated paint. See figure 46:C for drawing and scale. Early Middle Susiana
E	9312	S22:909	75.00	Matte-painted. Buff ware. Straw tempered. Buff slipped. Very smoothed. Black paint. See figure 70:A for drawing and scale. Archaic Susiana 3
F	6462	P22:609	81.40	Buff ware. Grit tempered. Buff slipped. Black paint. Reserved wavy lines. Height 6.8 cm. Early Susiana
G	6462	P22:609	81.40	Interior of F
H	VIII-39	P22:606	81.73	Buff ware. Grit and chaff tempered. Gritty face, smoothed, light red core grading to buff toward surface. Height 16.4 cm, diameter ca. 30 cm. Early Susiana
I	11212	S22:929	74.90	Yellowish buff ware. Straw tempered with some sand. Vessel made of vertical layers. Length 14 and 10 cm. Archaic Susiana 1
J	9512	S22:912	73.72	Buff ware. Sand tempered. Buff slipped. Smoothed. Brown paint. See figure 68:B for drawing and scale. Archaic Susiana 3
K	9370	S22:916	73.70	Buff ware. Sand tempered. Buff slipped. Smoothed. Brown paint. See figure 68:B for drawing and scale. Archaic Susiana 3



Archaic, Early, and Middle Susiana Pottery

Plate 22. Seals and Sealings

	Registration Number	*Provenance*	*Elevation*	*Description*
A	IX-20	High Mound	N/A	Pink stone stamp seal. Scale 1:1. Late Susiana 2
B	IX-23	P17:1102	81.08	Gray stone button seal. Loop handled. Scale 1:1. Protoliterate
C	9906	N/A	N/A	Baked-clay stamp seal. Drill hole in the middle. Late Susiana(?). See figure 76:B for drawing and scale
D	IX-25	P17:1102	81.08	Black stone stamp seal with the impression of a foot drilled in. Scale 1:2. Protoliterate
E	N/A	P17:1102	81.60	Unbaked clay “tablet” with one circular depression. 3.5 cm long. Protoliterate
F	IX-17	P17:1102	81.64	Slightly baked clay tablet or token with two large and one small depressions. Plain back. Scale 1:2. Protoliterate
G	N/A	P17:1102	81.60	Unbaked clay “tablet” with at least two large oval and two small circular depressions. Length 5.5 cm. Protoliterate
H	IX-26	P17:1102	81.90	Unbaked numerical tablet. No seal impression on either side. Scale 1:2. Protoliterate
I	IX-24	P17:1102	81.90	Unbaked numerical tablet. No seal impression on either side. Scale 1:2. Protoliterate
J	9904	S18:902	81.14	Sealing with four impressions of a decorated cylindrical object (cylinder seal?) tapering slightly at each end. Highly unusual. See figure 76:CC for drawing and scale. Protoliterate
K	9905	S18:902	81.14	See above H and figure 76:FF for drawing and scale. Protoliterate

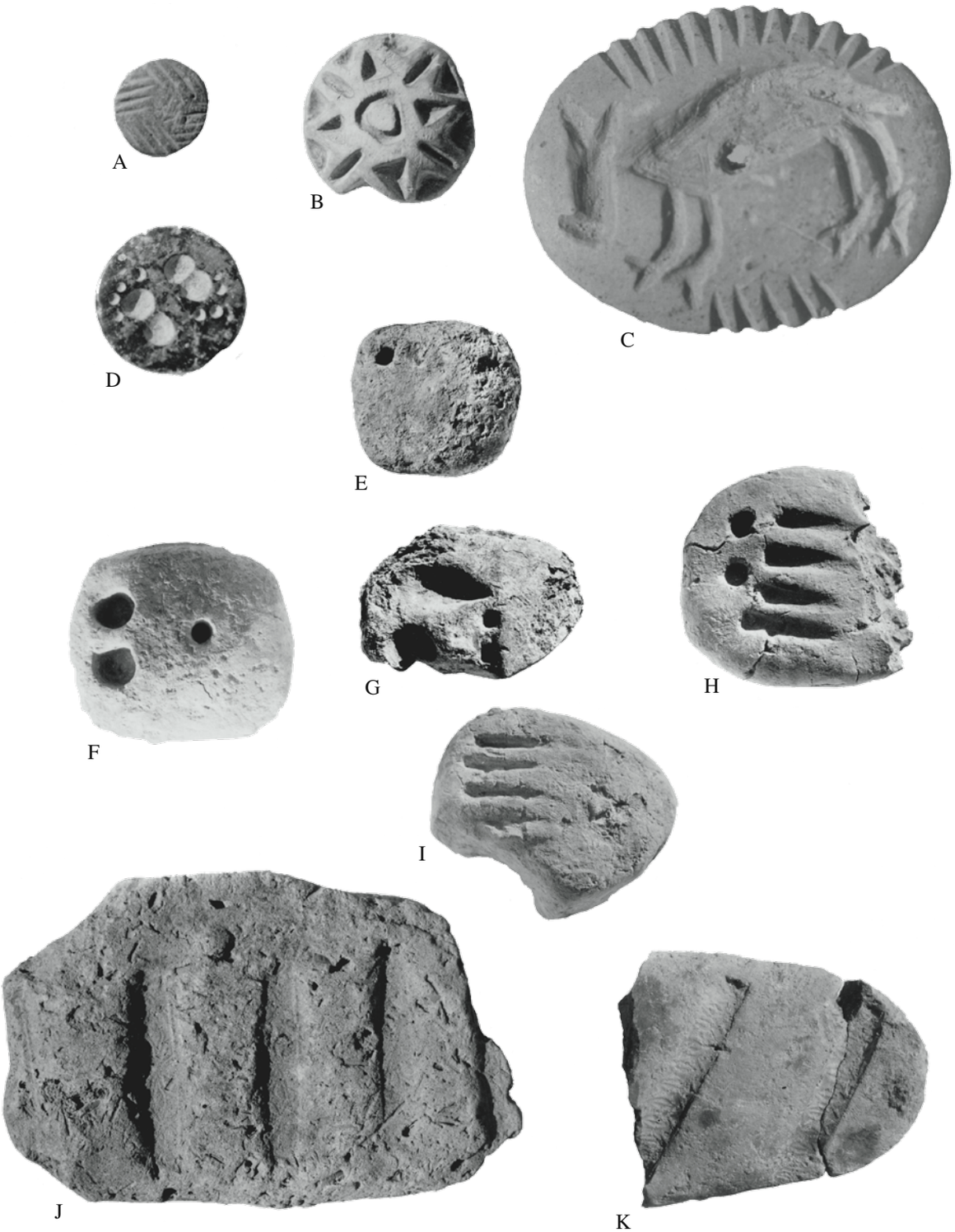
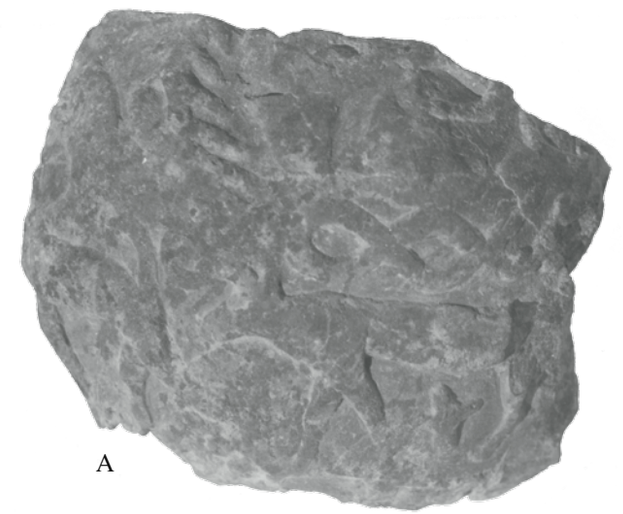


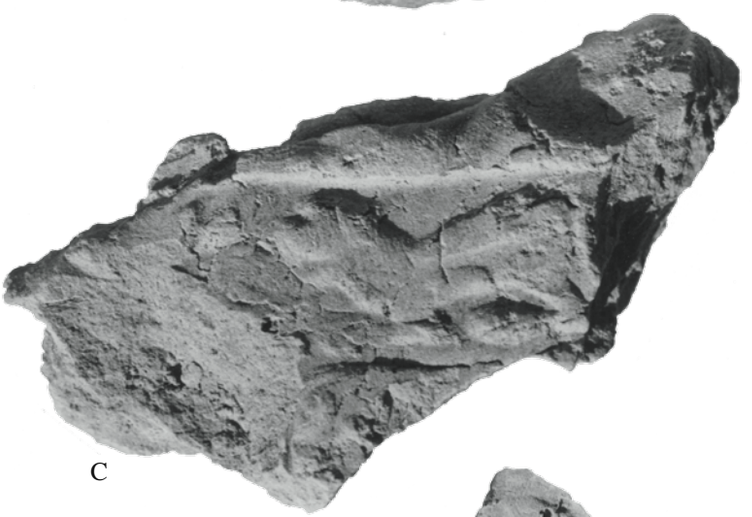
Plate 23. Sealings

	Registration Number	*Provenance*	*Elevation*	*Description*
A	10092	R16:801	82.80	Jar sealing fragment. Baked clay with no visible inclusions. Three impressions of a cylinder seal design with a quadruped, intertwined snakes, and a lion(?). Length 4.2 cm. Protoliterate
B	7389	R17:704 West	83.49	Bale sealing fragment. Unbaked clay with some sand. Two impressions of a cylinder seal with "net" design. Height 4.5 cm. See figure 76:BB for drawing. Protoliterate
C	81186	R16:801	82.80	Jar sealing fragment. Baked clay with no visible inclusions. Cylinder seal impression of a crouching feline. Length 6.2 cm. Protoliterate
D	81185	R16:801	82.75	Jar sealing fragment. Baked clay with no visible inclusions. Cylinder seal impression of a marching feline(?). Length 3.5 cm. Protoliterate
E	N/A	R16:801	82.75	Jar sealing fragment. Baked clay with no visible inclusions. Cylinder seal impression of a walking animal. Height 5.2 cm. Protoliterate
F	4658	K22:402	N/A	Jar sealing fragment. Baked clay. Stamp seal impression of a twelve-petaled rosette. Length 2.8 cm. Late Susiana/Protoliterate
G	10093	R16:803	82.45	Door sealing fragment with rope and peg impressions. Baked clay with some sand inclusions. Length 3.2 cm. Protoliterate
H	10916	R16:803	82.45	Door sealing fragment. Baked clay with no visible inclusions. Cylinder seal impression of a quadruped. Height 6.2 cm. Protoliterate



A

B



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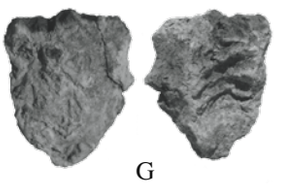


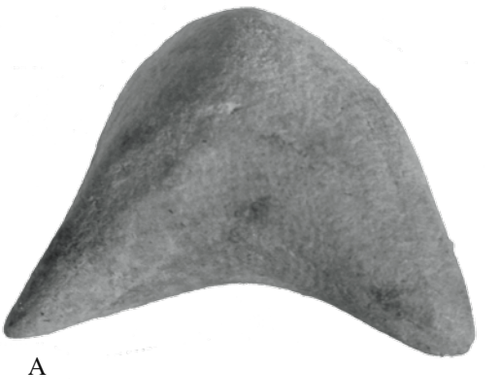
G

H

Sealings

Plate 24. Sealings and Tokens

	Registration Number	*Provenance*	*Elevation*	*Description*
A	11243	P17:806	83.28	Crescent-shaped clay token. Width 1.5 cm. Protoliterate
B	11245	Q17:806	83.30	Jar sealing fragment. Baked clay with no visible inclusions. Cylinder seal impression of a workshop. Length 5.2 cm. Protoliterate
C	41030	S17:404	82.28	Horned conical clay token. Length 2.5 cm. Protoliterate
D	9873	P17:806	81.15	Bulla with cylinder seal impression of workshop. Length 6.8 cm. See figure 76:N for drawing. Protoliterate
E	81189	Q17:806	83.28	Conical clay token. Length 2 cm. Protoliterate
F	7387	R17:714	82.65	Clay ball with equatorial and polar cylinder seal impressions of bearers and animal file. See figure 76:AA for drawing. Diameter 5 cm. Protoliterate



A

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Plate 25. Miscellanea

	Registration Number	*Provenance*	*Elevation*	*Description*
A	VI-100	S22:601	74.38	Baked-clay object (token?) with incised and impressed patterns. Length 5.9 cm, width 4.9 cm. See figure 76:EE for drawing and scale. Archaic Susiana
B	VI-13	S20:609	75.05	Bone needle. See figure 85:B for drawing and scale. Early Susiana
C	—	—	—	A group of tokens and labrets. Top row, left to right: VII-58, VII-33, VII-55, VII-6, VII-7, VII-9; middle row: VII-57, VII-1, VII-8, VII-11; bottom row: VII-10, VII-61, VII-65. Note VII-9 and VII-65 are chessman figurines. Scale not available
D	VI-32	P22:605	80.95	Bracelet made of bituminous stone. See figure 81:K for drawing and scale. Early Susiana
E	VI-33	P22:605	80.95	Bracelet made of bituminous stone. See figure 81:J for drawing and scale. Early Susiana
F	N/A	Q22:602	78.80	Stone ball with incised mark. Scale 1:1. Early Susiana
G	VII-90	Q23:713	76.98	Baked-clay token(?). See figure 77:K for drawing and scale. Early Susiana
H	VI-8	P22:601	82.55	Baked-clay spindle whorl. See figure 83:G for drawing and scale. Early Susiana
I	VI-88	L22:504	81.16	Sinker/weight stone. Khakhi stone with natural hole. 10.4 × 9.1 cm. Middle Susiana
J	VI-86	Tr. XIII	82.24	Stone socket/sinker. Light brown stone. Highly polished. Bored from both sides. Length 15.5 cm. Middle Susiana
K	VI-89	R17:407	1.20 B.S.	Discoidal socket/weight. Light gray stone. Bored from both sides. 10.7 × 10.1 cm. Protoliterate
L	VI-87	Tr. XIII	0.95 B.S.	Stone sinker(?). Mottled buff gray stone with natural hole. Length 11.8 cm. Middle Susiana

A

B

C

D

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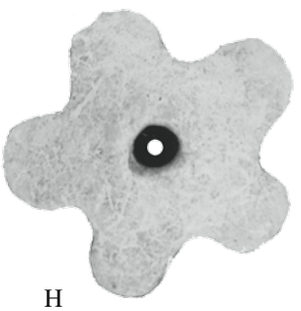
G



H

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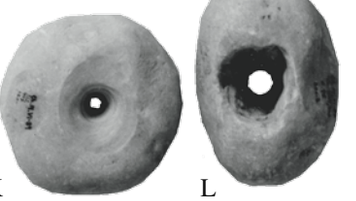


K L

A

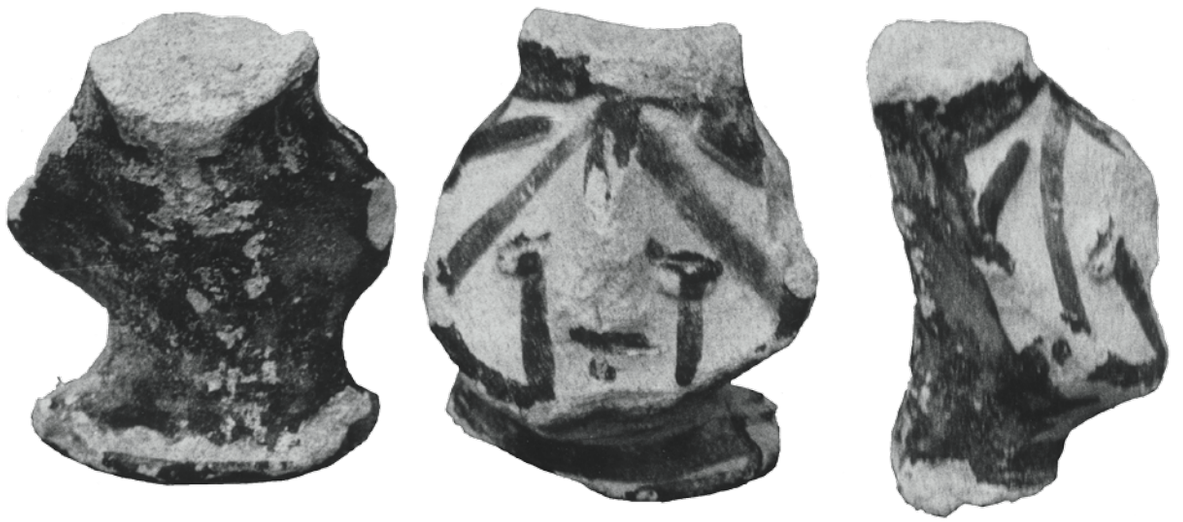
B

C

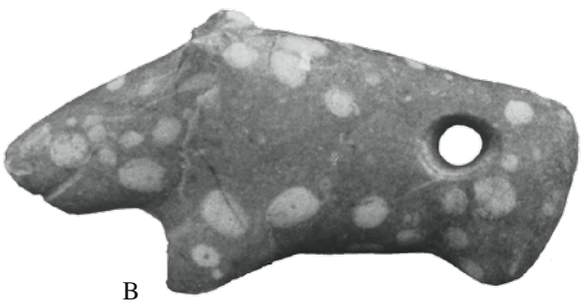
A: Protoliterate Bone Female Figurine (IX-111) (height 3.5 cm). B and C: Old Elamite Goat-handled Cup (IX-112) of Bituminous Stone (height of goat handle, 16.80 cm; height of vessel, 14.25 cm; diameter at base, 7.30 cm).
Photos by Helene J. Kantor

Plate 27. Archaic–Middle Susiana Figurines

	Registration Number	*Provenance*	*Elevation*	*Description*
A	VIII-85	S22:826	74.66	Baked-clay head of a human figurine. Buff clay, no visible inclusions. Dark paint. The eyes and the nose are molded. The head may have originally been elongated (representing elongated skull seen in actual skeletal evidence from Chogha Mish; see *Chogha Mish* I, pl. 69), but the upper part is broken. If originally the whole body was attached to the head, the height of the figurine may have reached to over 30 cm. For a possible reconstruction, see frontispiece; see figure 78:C for drawing and scale. Early Susiana
B	VIII-60	S22:823	76.35	Stone figurine of a boar. Light brown stone with white dots. Perforated rump suggests it may have been used as pendant. See figure 80:F for drawing and scale. Archaic/ Early Susiana
C	VIII-68	Q23:820	79.28	T-shaped figurine. Black stone with white veins. Incised line around the base. Facial features indicated with incised lines. Height 2.6 cm, width 3.2 cm. Archaic Susiana 1–2
D	VI-5	P22:606	81.42	Yellowish buff clay. Sand tempered. Red washed. See figure 78:B for drawing and scale. Early Susiana
E	VI-2	P23:601	B.S.	Baked-clay figurine of a bull or ram. Dense, sandy brownish buff clay. Height 4.2 cm, length 6.7 cm. Middle Susiana
F	VIII-1	S22:808	75.77	Baked clay figurine of a seated female. The head is comparatively low. The head is triangular and a deep incision splits it in two equal parts. The whole face consists of three blobs of clay presumably representing the nose and cheeks. The breasts are highly exaggerated. See figure 79:B for drawing and scale. Early Susiana



A



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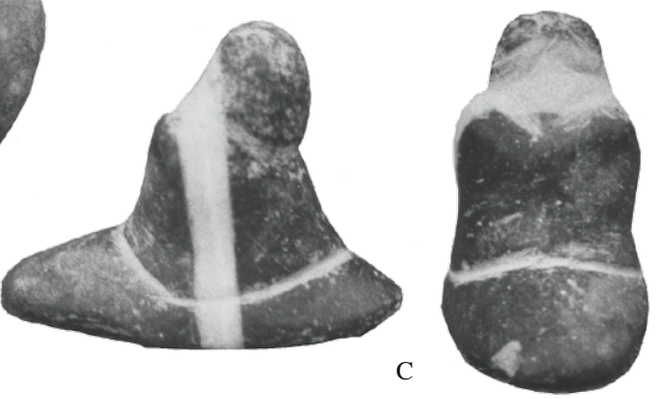


C

D

E

F

Archaic–Middle Susiana Figurines

Plate 28. Archaic–Early Susiana Figurines

	Registration Number	*Provenance*	*Elevation*	*Description*
A	8695	S22:808 North	74.99	Torso of a baked-clay female figurine. Reddish buff ware, no visible inclusions. Black paint. Unlike the majority of the Early Susiana figurines, this example is made with a naturalistic flavor. The painted strokes on the breasts may represent tattoos. For a possible reconstruction, see frontispiece; see figure 78:E for drawing and scale. Height 5 cm. Early Susiana
B	8174	S22:827	74.30	Baked-clay waist and body of a female figurine. Buff ware, grit tempered. Black paint. See figure 78:H for drawing and scale. Height 9.2 cm. Archaic/Early Susiana
C	8043	S22:823 North	75.74	Baked-clay waist and lower body of a female figurine. Buff ware. Grit and sand tempered. Probably slipped. Black paint. See figure 78:G for drawing and scale. Early Susiana
D	VIII-84	S22:823 North	75.74	Mid-section of a female figurine. Baked clay. Buff color, sand tempered. Smoothed. Black paint. Pubic area shown with excised lines. For a possible reconstruction, see frontispiece; see figure 78:A for drawing and scale. Early Susiana
E	N/A	S22:912 East	75.55	Baked-clay figurine. Sand and grit tempered. Black paint. Height 6 cm. Early Susiana
F	9040	S22:912 East	74.46	Baked-clay human figurine. Buff ware, no visible inclusions. Upper part of the body missing. The cloth on the lower part is decorated with four sunken panel and incisions. Traces of red paint on the raised parts of the lower body. Height 3.7 cm. See figure 78:F for drawing and scale. Archaic Susiana
G	9138	S22:909	73.70	Buff ware, sand tempered. Head missing. Pleated skirt(?) with band holding pleats together. Height 2.8 cm. Archaic Susiana 2
H	9138	S22:909	73.70	Profile of G
I	9008	S22:909 South	75.13	Chessman figurine. Buff ware. Brownish buff surface. Some sand inclusions. See figure 79:J for drawing and scale. Archaic Susiana 2
J	VI-3	S22:601	74.93	Baked-clay waist and lower body of a female figurine. Yellowish buff ware. Grit tempered. Black paint. See figure 78:F for drawing and scale. Early Susiana
K	9039	S22:913	74.54	Head and torso of a highly stylized human figurine. Baked clay, buff ware, no visible inclusions. Black paint. See figure 78:D for drawing and scale. Archaic Susiana 3

A

B B

C

D

E E

F

G

H

I

J

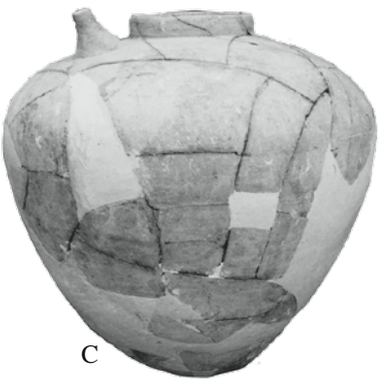
K

Plate 29. Miscellanea

	Registration Number	*Provenance*	*Elevation*	*Description*
A	X-1	Q17:1001	82.65	Libation(?) vessel in the shape of a hedgehog. Bristles indicated with incised lines. See figure 34 for details and drawing. Protoliterate
B	VIII-17	R17:807	83.80	Trough-spouted bowl. Yellowish translucent stone. Diameter 9 cm, height 3.5 cm. Protoliterate
C	N/A	P17:1108	81.70	Standard buff ware. Height 45 cm. Protoliterate
D	6765	P22:620	81.43	Bitumen fragments with basket impression. Scale N/A. Early Susiana
E	6765	P22:620	81.43	Fragment of a basket bitumen coating/shell. Width ca. 15 cm. See plate 30:C for another view. Early Susiana

A

B



C

D

E

Plate 30. Miscellanea

	Registration Number	*Provenance*	*Elevation*	*Description*
A	VII-51	P22:622	80.94	Hafted flint hoe with bitumen and rope impressions. Height 11.8 cm. Early Susiana
B	VII-52	Q22:702	79.11	Hafted flint hoe with bitumen and rope impressions. Height 16 cm. Early Susiana
C	6765	P22:620	81.43	Fragment of a basket bitumen coating/shell. Width ca. 15 cm. See plate 29:E for another view. Early Susiana
D	VI-27	Q22:602	80.47	Stone mill made of a medium- to large-grained sandstone. The other side, E, has a round depression. Length 37.6 cm, width 22.3 cm. Early Susiana
E	VI-27	Q22:602	80.47	Back view of D
F	VII-53	Q22:701	N/A	Stone hoe. Length 10.8 cm. Grayish flint. Back side rough. Early Susiana
G	VII-21	G27:701	81.62	Stone hoe. Length 16.5 cm. Grayish flint. Back side rough. Early Susiana
H	VII-50	Q22:702	79.11	Stone hoe with bitumen stain on handle. Rough back. Length 9.5 cm. Early Susiana
I	VI-26	Q22:602	8047	Stone pestle. Light brownish gray limestone. Length 20.5 cm. Early Susiana
J	VI-92	R22:401	2.2 B.S.	Stone pestle. Greenish brown sandstone. Length 13.5 cm. Early Susiana
K	VI-90	Tr. XIII	N/A	Stone pestle. Grayish green stone. Length 14 cm. Early Middle Susiana
L	VI-91	Gully Cut	Surface	Stone pestle. Grayish green stone. Length 18.5 cm. Early Susiana
M	VI-93	P22	Surface	Stone pestle. Gray stone. Length 18.5 cm. Middle Susiana
N	VI-15	Q22:602 North	80.41	Stone pestle. Dark gray stone. Length 24.5 cm. Early Susiana

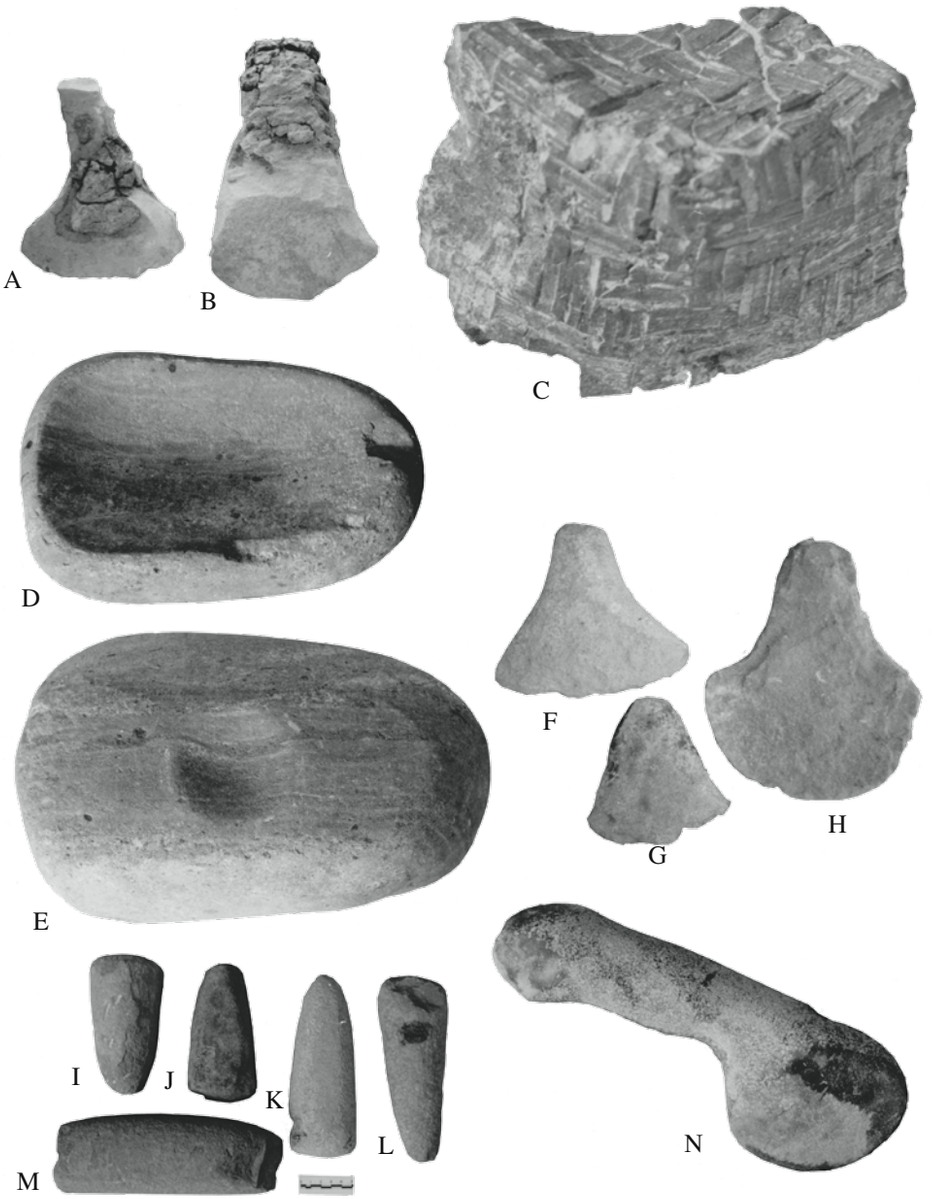


Plate 31

Bakhtiyari Mobile Pastoralists Camping on East Area at Base of High Mound at Chogha Mish, Winter 2004