

Taçdam 2001: A Preliminary Synthesis of the Cultural History of Kenan Tepe¹

By

Bradley J. Parker, Andrew Creekmore and Lynn Swartz Dodd,
with contributions from Cathryn Meegan, and Meg Abraham²

Copyright © 2001 UTARP.

This paper may not be reproduced or cited in any context, nor may it be copied to any other Internet-accessible page or site, without prior written permission of the authors. Such permission may be requested by corresponding with Dr. Bradley Parker at Bradley.J.Parker@m.cc.utah.edu.

The purpose of this report is to summarize the current state of our knowledge of the cultural history of the important archaeological site of Kenan Tepe in the Ilisu dam area of southeastern Turkey (figure 1). This synthesis is based largely on research conducted by members of the Upper Tigris Archaeological Research Project (UTARP) during the summer of 2001, although it also draws on data excavated during the year 2000 field season. This report does not contain detailed descriptions of the data used to construct this history. For this information the reader is referred to other UTARP reports (Parker et al. 2002a, 2002b, 2003a, 2003b).

Research during the summer of 2001 took place between June 21st and August 24th, 2001. At this time UTARP team members conducted various operations in seven areas of the site (figure 2). In Area A we continued excavation in the 2 by 25 meter step trench begun last year (trench A2) while a team of anthropologists from the University of Utah opened a series of 2 by 10 meter trenches to explore the extent of Kenan Tepe's late period cemetery (A3-A7). We opened one new 10 by 10 meter trench in Area B (B4). In Area C we opened two new 10 by 10 meter trenches (C3 and C4) and continued

¹ Archaeological research is always a collaborative effort. We owe a great debt of gratitude to many people and institutions for helping us make the Upper Tigris Archaeological Research Project (UTARP) a reality. We would like to thank Numan Tuna, the director of TAÇDAM, Necdet Şenal, the director of the Diyarbakir Museum and our Turkish government representative for their valuable assistance to the UTARP project. The 2001 field season was funded by generous grants from National Geographic Society, the Office of the Vice President for Research at the University of Utah, the Curtiss T. and Mary G. Brennan Foundation, the University of Southern California, the University of Utah's Dee Council and the University of Utah's International Studies Center. This research was also supported in part by the National Science Foundation's Graduate Fellowship.

² Our team was made up of Bradley Parker (Director), Andrew Creekmore (Assistant Director), Richard Paine (Ostiologist), Lynn Swartz Dodd (Ceramic Specialist), Chiara Cavallo (Zooarchaeologist), Cathryn Meegan (Archaeobotanical Specialist), Peter Cobb (Computer Specialist), Drew McGaraghan (Photographer/Artist), Eleanor Moseman (Art Historian), Michaelle Stikich (Videographer), Debbie Dillie (Field Lab Manager), Elvan Bastürk (Translator), Baris Uzel (Draftsman), Chris Moon, Dawnell Somerville Moon, Marco Baldi, Brian Bingham, Robert Sinnot, Jonathan Schnereger, Greer Rabicca, Kathryn Smith, Andrew Ugan, Amy Stevens and Sibel Torpil. Debbie Dilley, and Kathryn Smith inked the drawings that appear in this article. Jonathan Schnereger was instrumental in preparing the metals, slags and ores for analysis.

excavation in two 5 by 5 meter trenches begun last year (C1 and C2). Trenches begun last year in Area D were expanded into two 5 by 10 meter units (D4 and D5). We also concentrated research on Area F where we completed the excavation of a 4 by 5 meter trench begun last year (F4), continued excavation in three of last year's 5 by 5 meter trenches (F1, F2 and F3), opened one new 10 by 10 meter trench (F7), one new 5 by 10 meter trench (F8), one 1 by 1 meter sounding (F10), and three section clearings (F6, F11 and F12). We further dug five 1 by 1 meter soundings in two new areas (areas G and H). UTARP team members also positioned the site in the Universal Transverse Mercator (UTM) world grid, made a high-resolution topographic map, took nearly 2000 digital photographs, continued to develop a method of making trench maps using digital images, and perfected our database which now contains all of the data collected during the 2000 and 2001 field seasons.

Sixty-five metal artifacts, slags and ore samples were discovered at Kenan Tepe during the first two seasons (2000 and 2001). Of these, twenty-seven samples have been analyzed in various ways over the past year. Techniques employed include SEM photographic and X-ray based elemental analysis using either proton induced X-ray emission with Rutherford Back Scatter analysis (PIXE with RBS) or energy dispersive X-ray analysis (EDX). The microstructure and corrosion components from a number of samples were examined under various light regimes. Scanning electron microscope (SEM) and EDX analysis gave initial qualitative information on the structure and composition of each sample. PIXE was used for quantitative analysis and in order to identify trace elemental concentrations and variations within each sample matrix.³

After two seasons of excavation we are now in a position to offer a preliminary analysis of the cultural history of Kenan Tepe. What follows is a brief summary of that cultural history as we currently understand it.

Kenan Tepe is a large multi-period site composed of a tall central mound and extensive lower town stretching off to the northeast of the main mound (*figure 2*). Kenan Tepe is located on a natural terrace on the north bank of the Tigris River about twenty kilometers west of the Tigris-Batman confluence and ten kilometers east of the modern town of Bismil. The site measures approximately 350 meters on its long axis (southwest to northeast) and 225 meters on its short axis (southeast to northwest). The total area of the site is approximately 6 hectares. Our main datum, which is located at the top of Kenan Tepe's main mound is 37 49 50.11634 N by 40 48 47.59917 E and is 603.724 meters above the World Geodetic datum.⁴

Kenan Tepe's location overlooking the Tigris River in the Anatolian foothills of the Taurus Mountains was instrumental in shaping its history. Throughout the history of the

³ Analysis of the metals from Kenan Tepe was conducted at University of Oxford, Department of Materials, Los Angeles County Museum of Art, Conservation Department and University of Southern California, Center for Electron Microscopy and Microanalysis. We wish to thank the staff at all of these institutions for their assistance to the UTARP project.

⁴ To place Kenan Tepe on the Universal Transverse Mercator (UTM) world grid we rented a Trimble GPS system from the British Institute of Archaeology at Ankara. UTARP would like to thank Dr. Roger Mathews and the staff of the B.I.A.A. for their generosity in allowing us access to this equipment.

ancient Near East, the Taurus foothills of southeastern Turkey represented a formidable boundary between the Mesopotamian lowlands of Iraq and north Syria and the highland regions of central Anatolia. This area was not only a political frontier between the states and civilizations that rose in the Mesopotamian heartland and the scattered chiefdoms and petty kingdoms of its Anatolian periphery, but was also an economic frontier between the resource-poor Mesopotamian lowlands and the resource-rich Anatolian highlands (Algaze 1989a, 1993; Kohl 1989; Yener 1982). In the fertile Mesopotamian lowlands intensive irrigation agriculture, extensive dry-farming and animal husbandry supported large and extremely complex population centers (Adams 1981; Pollock 1999; Weiss 1986). Despite its fertility, the region had few other natural resources to offer. The opposite was true of the Anatolian highlands where much smaller and far less centralized indigenous polities emerged in an area rich in timber, metals and precious stones. The geographic, economic and political dichotomy between lowland Mesopotamia on the one hand and highland Anatolia on the other, meant that the Taurus foothills were not a barrier but a bridge between two vastly different yet inextricably linked regions. The geographic complementarity of these regions also meant that interaction in this frontier zone was crucial to the emergence of complexity and subsequent sociopolitical developments in both Mesopotamia and Anatolia.

Our initial research shows that Kenan Tepe was occupied during four broad time periods: the Late Chalcolithic, the first half of the Early Bronze Age, the early second millennium and the Early Iron Age (Parker et al. 2003a, 2003b).

The Late Chalcolithic and Early Bronze Age

Remains dating to the Late Chalcolithic and the first half of the Early Bronze Age were discovered in abundance in the eastern portion of the lower town (in Area F [figure 2]). Soundings in the western portion of Area F and in areas G and H (between our trenches in Area F and the main mound) suggest that the northern and western portions of Area G in the lower town were either not occupied during these periods, or erosion has removed significant amounts of these deposits. However, the same soundings show that there are deep deposits dating to the Late Chalcolithic and the first half of the Early Bronze Age in the southern portion of Area G and in Area H (figure 3). The extent to which the depth of these deposits, which reaches over three meters in soundings G4 and H1, is composed of debris eroded from the main mound is yet to be determined. If the disturbed upper deposits in trench A2 are any indicator, we can expect as much as one meter of deposition, especially in Area H, to be cultural debris re-deposited by erosion from the slopes of the main mound. Data from soundings G4 and H1 also suggest that there may be significant remains dating to these periods buried underneath Kenan Tepe's main mound.

These data have several important implications. First, since the remains dating to the Late Chalcolithic and the Early Bronze Age are not covered by later material, the data suggest that Kenan Tepe probably reached its largest extent during the late fourth and early third millennia B.C. Several variables make it difficult to be more precise in our estimates of the total size of the site during these periods. These variables include: whether or not all

of Area G was occupied, whether early remains extend under the main mound, and the extent of occupation in Area H. Another consideration is the site size fluctuation between the Late Chalcolithic and the Early Bronze Age. Finally, our team has yet to adequately explore the terrace south of the main mound (this terrace is not illustrated on figure 2). Taking into consideration all of these variables it is premature to give conclusive site size estimates. It is nevertheless quite clear that Kenan Tepe was a relatively large town during the Late Chalcolithic period when the absolute site maximum may have reached as much as five to six hectares. If we exclude the main mound and portions of Area G, then this number could drop to around three hectares. Similar or perhaps slightly lower numbers could be assumed for the first half of the Early Bronze Age.

The nature of occupation during the Late Chalcolithic and Early Bronze Age uncovered at Kenan Tepe is very interesting. Thus far, none of our trenches in Area F have yielded domestic architecture. Instead, these levels are characterized by several large pyrotechnic installations, some up to 2 meters in diameter (figure 4), and significant ash deposits. These data indicate that during the Late Chalcolithic period, Area F at Kenan Tepe was home to large scale production of some product requiring the use of fire. Unfortunately, the artisans in charge of production were evidently quite meticulous as they regularly cleaned their ovens/kilns and in doing so not only spread large amounts of ash around their production area, but also disposed of any byproducts of their production. Archaeobotanical remains from debris that built up inside one of these ovens/kilns (probably after it fell out of use) included charcoal from various tree types suggesting that wood or wood charcoal was the predominant fuel during the Late Chalcolithic.

It is also interesting to note that a preliminary analysis of the ceramics from Area F has not yet revealed any of the characteristic "Uruk" style ceramics. Instead, the ceramic assemblage appears to be of a local flavor. The only exception to this is a nearly complete ceramic vessel that, although its spout is missing, might be an example of an Uruk style "drooping spout" vessel (figure 5A).⁵ Nor have we recovered any of the other "markers," such as Uruk glyptic, clay cones and accounting tools, commonly used by scholars to argue for the direct involvement, or the presence, of southerners in the Mesopotamian periphery (Algaze 1989a, 1993; Stein 1998, 1999, 2001). This being the case, the potential to research the effect that the so-called "Uruk Outreach" (Algaze 1989a, 1993; Pollock 1992; Rothman 2001; Stein 1999; 2000) had on the local Late Chalcolithic population of southeastern Anatolia is obvious. In future seasons part of our research agenda will be to discover if pyrotechnic production at Kenan Tepe was driven by intra or interregional demand, to investigate whether or not local elites controlled production, and to examine how interregional contact impacted the development of complexity at the site.

In the mean time we are conducting a comprehensive analysis of the most reliable loci excavated from our Late Chalcolithic contexts in an effort to clarify the Late Chalcolithic ceramic sequence at Kenan Tepe and contribute to the analysis of the overall chronology of interregional interaction in this period (cf. Wright and Rupley 2001). Figure 6 illustrates the ceramics excavated from a well-preserved oven/kiln (L4009/L4027) in

⁵ It may be significant that this vessel appears near the end of the Late Chalcolithic sequence (see below).

trench F4. Fortunately this feature was sealed by later debris while the oven/kiln walls, which are preserved to a height of 1.3 meters, provide clear boundaries for a series of undisturbed archaeological contexts. The debris inside this feature consisted of numerous layers of black, gray and white ash, with occasional lenses of clay numerous animal bones and ceramics (figure 7). These layers curved up against the walls of the installation, which were composed of 15 cm by 7 cm mud bricks laid lengthwise in two rows and stacked at least twelve courses high (figure 4 & figure 7). The material recovered from this oven/kiln yielded few clues to its function and it is quite possible that the upper most layers of debris are secondary trash deposits that accumulated after the oven/kiln fell out of use. The deposits inside this feature were rich in artifacts including a 12.4 by 2.8 cm chert blade (L4007 KT4088, figure 5C), an anvil or kiln stand (L4023 KT4225) and several spindle whorls or loom weights made from bored pot sherds. Animal bones were the most common material found inside this installation. These bones, many of which were burnt, represented a variety of animals including pig and wild sheep (a complete analysis of this material will be undertaken during the 2002 field season). Two of the contexts in this kiln provided datable C-14 samples (the C-14 data are presented as figure 8). The earliest C-14 samples, which come from the lowermost locus in the oven/kiln (L4023 figure 7), yielded 2-sigma calibrated dates of 3360-3030 (KT4157), 3630-3570 and 3540-3360 (KT4229), and 3660-3620 and 3600-3520 (KT4253 [see figure 8 for details]). Another date comes from a sample taken from near the top of the feature in a locus (L4004) just below that which contained the possible "drooping spout" vessel illustrated in figure 5A. This sample yielded a 2-sigma calibrated radiocarbon age of 3350 to 2910 B.C. (figure 8).

In discussing these dates and the ceramics from within the oven/kiln (L4009/L4027), several issues come to mind. To begin with, since three of the carbon samples (L4023 KT4157, KT4229 and KT4253) are from the same sealed context (L4023) we would expect these dates to fall relatively close to each other. This is not the case. In fact, one of the dates (L4023 KT4157) is significantly later than the other two. Given the nature of the context we see no reason to believe that debris could have accumulated in this locus for several hundred years. One factor that may have contributed to the difference in these dates is the material analyzed: L4023 KT4257 is charred material while L4023 KT4229 and KT4253 are organic material. Nevertheless, the fact that the other two samples (L4023 KT4229 and KT4253) are so close together suggests that these dates are more reliable.

If we follow this reasoning then we must assume that the ashy debris in the lowest level of feature L4009/L4027 began to accumulate during the late LC 3 or early LC 4 period (see Rothman 2001: 5-8 for a discussion of this terminology) somewhere around 3500 B.C. Furthermore, since this oven/kiln is built into virgin soil, the Late Chalcolithic occupation at Kenan Tepe, or at least the operation of the pyrotechnical facilities in Area F, may also have begun at or around the same time. After this oven/kiln fell out of use it filled with debris. The upper levels of this debris date to the middle or the end of the LC 5 period somewhere around 3100 B.C. These parameters also pertain to the ceramics illustrated in figure 6: this corpus should represent a relatively late set that slightly post-dates Hacinebi B2 (Pierce 2000; Pollock and Coursey 1995). Although preliminary, these

data lead to several interesting conclusions. First, if we assume that the first layers of debris that accumulated in feature L4009/L4027 mark the beginning of its use-life, then this evidence suggests that occupation at Kenan Tepe (or at least the operation of the pyrotechnic facilities in Area F) probably begins quite late in the Late Chalcolithic sequence. Unlike other sites in Turkey such as Arslantepe and Hacinebi there does not, so far, appear to be a long development through the LC sequence. Second, the dating of feature L4009/4027 places Kenan Tepe's Late Chalcolithic occupation in the midst of the "contact period" at Hacinebi (period B2) when the material culture shows a significant amount of intrusive southern Mesopotamian elements (Pierce 2000). Although our exposures to this period are still limited, such elements are conspicuously absent from the material culture thus far excavated at Kenan Tepe.

Numerous sherds of pedestaled bowls, alternatively called "chalice ware" (Spesier 1932:5-10) or "fruit stands," have been recovered on and around several cobble surfaces discovered in area F. These forms occur in the Chalcolithic, but not in the variety that we find at Kenan Tepe. The Kenan Tepe examples are chaff-faced fine wares, red slipped and vertically burnished (figure 5B). These forms proliferate in the Ninevite V period (ca. 3100–2500 B.C. [Ay 2001:723; Rova 1988]). Pedestaled bowls and other Ninevite V forms, including 'beakers' and pierced lugs, have been found throughout Area F, but so far concentrate in trenches F2, F7, F8 and F9. These ceramics, along with one C-14 date (Parker et al. 2002b),⁶ suggest that occupation at Kenan Tepe continued through the transition from the Late Chalcolithic to the first centuries of the Early Bronze Age. This is marked in Area F at Kenan Tepe by a curious phenomenon. It appears that the ash and other debris created by decades of production during the Late Chalcolithic Period was, by the beginning of the third millennium, too much for the inhabitants of Kenan Tepe to bear. To alleviate this problem the inhabitants of the Early Bronze Age town sealed the mess of the Late Chalcolithic levels by covering the debris by, in one case a mud brick pavement (in trench F1), and in another, re-deposited virgin soil (in trench F9 [see Parker et al. 2003a for details]). The discovery of several ovens (in F2 and F8) and one larger kiln (in F1) dating to the first half of the Early Bronze Age suggests that upon this new foundation, the inhabitants of the Early Bronze Age town continued the tradition of pyrotechnic production by constructing new pyrotechnic facilities and creating new deposits of ash and other debris.

Two 1 by 1 meter soundings placed in areas G and H (G4 and H1), between the pyrotechnic facilities in Area F and the main mound (figure 2), yielded deep deposits dating to the Early Bronze Age and the Late Chalcolithic Period (figure 3). Although our sample is still very small, the discovery of a child interred in a large ceramic jar (in sounding G4 [Parker et al. 2003a]), mud brick debris that may belong to walls (in G4 and H1), and the abundance of cooking pot sherds, suggests that the remains in these areas are domestic in nature. These data support the hypothesis that habitation in these periods was concentrated in the area of the main mound well away from the pyrotechnic facilities in Area F.

⁶ One carbon sample was extracted from a Early Bronze Age context during the year 2000 field season. This sample yielded 2 sigma calibrated dates of 2920-2870 and 2800-2770 B.C.

The Early Second Millennium

In the initial survey of the Upper Tigris River Valley (Algaze 1989b; Algaze et al. 1991) no Middle Bronze Age sites were recognized suggesting that this part of Turkey was sparsely populated during this period. This theory came as somewhat of a surprise since elsewhere in upper Mesopotamia including the Cizre Plain in the far southeastern corner of modern Turkey (Algaze et al. 1991; Parker 2001), the Khabur plains of Syria (Meijer 1986; Stein and Wattenmaker 1990), the Sinjar plains of northern Iraq (Wilkinson 1990b; Wilkinson and Tucker 1995) and in the Upper Euphrates Basin (Algaze et al. 1994), the early second millennium is a period of great florescence. This situation led the authors of the survey report to conclusion that "either this portion of the Tigris basin was bypassed entirely by Middle Bronze Age development attested to elsewhere or, more likely, it is characterized by a thus far unreported and unrecognized assemblage (Algaze et al. 1991: 183)." The past two years of excavation at Kenan Tepe have confirmed this assumption by showing that the early second millennium in the Upper Tigris River region is marked, not by the Khabur ware assemblage of north Syria, nor by the monochrome wares of central Anatolia. Instead, this period is marked in the Upper Tigris River region by the so-called Red-Brown Wash Ware assemblage. Shapes and wares with this characteristic surface treatment occur at Kenan Tepe in the context of a larger assemblage that has not been previously documented, or even identified, as a coherent group (figures 9 and 10). Excavations during the 2001 field season concentrated on the two areas where this assemblage was discovered (areas C and D [figure 2]). This research unearthed well-preserved architectural levels with numerous sealed contexts containing both an array of ceramics belonging to this assemblage, a few small finds, including three animal figurines (*Figure coming soon), and a number of carbon samples.⁷

The carbon samples, which were taken from three different contexts in trench C2, yielded very close dates. The first (C2 L2082 KT2584) came from a sealed stone-lined pit that might be the remnants of a pyrotechnic activity area. This sample yielded a 2 sigma calibrated radiocarbon age of 1920-1680 B.C. A second sample (C2 L2084 KT 2576) was extracted from level of debris that accumulated against the south wall of what we believe to be a domestic structure (see figure 11). It yielded a 2 sigma calibrated radiocarbon age of 1940-1740 B.C. A third sample (C2 L2087 KT 2614) was extracted from similar debris inside the same structure. The 2 sigma radiocarbon age of this sample is 1950-1670 B.C. These dates both confirm our assumption that this assemblage dates to the early second millennium B.C. and at the same time underscore the importance of this as of yet unknown ceramic assemblage as a marker of the early second millennium B.C. in this part of southeastern Turkey.

Well preserved levels dating to the early second millennium have been discovered on both sides of Kenan Tepe's main mound (areas C and D) but were absent from the soundings in areas G and H. Thus it is safe to say that early second millennium occupation at the site encompassed the entire main mound but did not extend into the lower town. This being the case, we estimate the size of Kenan Tepe's early second

⁷ A preliminary report of this material is currently in preparation.

millennium town to have been about 1.1 hectares. In spite of its small size, our preliminary assessment of the remains discovered in trenches C2 and D4 suggests that Kenan Tepe was home to a relatively sophisticated settlement during this period. Architectural remains include a variety of well-built stone structures. In the case of Area C, these structures appear to be domestic in nature (figure 11), while those recovered in Area D appear to be the remains of a large public building (figure 12).

Several slag pits and an apparent metal processing area were also discovered in Area C. Although the analysis of these data is still underway, remains of copper, bronze and, surprisingly, iron, have been discovered in reliable early second millennium contexts. Although there is still too little evidence to interpret the scale of metal working at Kenan Tepe, our analysis shows that copper and low tin bronzes were being used or made on the west side of the mound. The early date of the iron finds from Kenan Tepe is notable, as is the fact that the iron slags lack most substances aside from iron and calcium carbonate. For instance, the levels of silicon, potassium, aluminum, and manganese are quite low demonstrating that these are very clean slags. It is, however, difficult to determine whether the inhabitants of Kenan Tepe were intentionally making iron or whether these samples are a by-product of other pyrotechnic activities. With iron-rich rock in abundance in the surrounding area, and with so little else in these slags aside from iron and calcium carbonate, (which can act as a flux) there was little else to fall out of local ores but iron, if only sufficient heat were applied. Thus these iron samples certainly could be the byproduct of copper and/or tin processing. However, the slag and iron debris analyzed thus far show little or no evidence of copper or tin except in very low trace levels. Furthermore, these samples have high levels of heavily reduced calcium and carbon. These observations would support the hypothesis that the discovery of iron-rich slag in early second millennium contexts at Kenan Tepe might be evidence of very early experimentation with iron production.

A preliminary assessment of the ceramic corpus from trenches C2 and D4 at Kenan Tepe shows that the Red-Brown Wash Ware assemblage includes at least fifteen main type characteristics (for a sample of this assemblage see figures 9 and 10).⁸ The surface treatments thus far identified as early second millennium type characteristics include the following:

1) "Red-Brown Wash." This is by far the most common type characteristic in the early second millennium corpus from Kenan Tepe. Technically speaking this surface treatment is probably not a wash but is instead a thinly applied paint. The color varies from 10R 5/6 (red) to 2.5YR 5/6 (red).

⁸ In creating the Kenan Tepe typology we are tracking three sets of attributes: surface treatment, shape and ware. Ideally a 'type' would be a group of ceramics that share the same type characteristics within each attribute set. Although our preliminary analysis of the ceramics from Kenan Tepe suggests that ware often correlates with shape and size, surface treatment appears to be more fluid. Some shape type characteristics occur more frequently with particular surface treatment type characteristics, but there is, as far as we can tell, no strict standard of correlation between surface treatment and shape.

2) "Brown Paint." Browner than Red-Brown Wash Ware, brown paint appears on various wares. This surface treatment is always within a few shades of 5YR 4/2 (dark reddish-green). Our initial impression is that this surface treatment is more common on medium to large jars.

3) "Red Brush Strokes." This surface treatment consists of two elements. The surface of a vessel has a tan wash (ranging within a few shades of 7.5YR 7/3 [pink]) with a red brush stroke painted decoration (2.5YR 4/8). Our assumption is that this decoration was applied by not fully soaking a brush in paint and then lightly stroking the vessel thus not entirely covering the vessel surface. The effect is to allow the tan surface treatment to be clearly visible between the red brush strokes.

4) "Red Painted Bands." This decoration consists of red or reddish-brown (2.5YR 5/6 [red]) painted stripes on a fine orange fabric with a smoothed pale orange surface (5YR 7/4 [pink]).

Common shapes in this corpus include: the carinated bowl (figure 13 #1 A-G), the ribbed shoulder (figure 13 #2 H-M), a medium-sized neckless jar (figure 13 #3 N-P), and flaring lip jar (figure 13 #4 Q-S), a hole mouthed jar (figure 13 #5 T-V) and various types of bases (figure 13 #6 W-AA).

Since virtually nothing is known about the nature of occupation in much of southeastern Anatolia during the early second millennium, data from Kenan Tepe promise to be extremely important to the understanding of frontier dynamics in this period. Although our sample is still relatively small,⁹ a preliminary analysis of the data recovered thus far leads to several interesting hypotheses about the nature of early second millennium society and economy at Kenan Tepe. First, the data show that the total occupied area at Kenan Tepe contracted considerably from its peak at the end of the fourth and the beginning of the third millennia B.C. In spite of this contraction, the architecture thus far recovered in areas C and D on Kenan Tepe's main mound suggests that Kenan Tepe's early second millennium town was relatively prosperous. The regionally distinct nature of the ceramic assemblage suggests that parameters of ceramic style and production were focused on the Upper Tigris River region making this in a unique cultural (and ideological?) sub-zone within the larger Syro-Anatolian world. Evidence of metal processing, whether it be copper, bronze or iron, not only indicates a high level of pyrotechnical expertise, but also implies a complex system for the extraction and exploitation of local natural resources. This combined with the existence of what appears to be a large public building, implies that local elites wielded considerable power over labor and surplus production.

⁹ Thus far two 5 by 5 meter trenches in area C, one 5 by 5 meter trench in Area B and two 10 by 5 meter trenches in Area D have exposed levels dating to this period. This period has also been reached in our step trench (A2). It should be noted however, that three 10 by 10 meter trenches in areas B and C should reach early second millennium levels in the coming season.

The Early Iron Age

Archaeological data thus far recovered suggests that there was a hiatus of occupation at Kenan Tepe during the Late Bronze Age. Only a handful of sherds of the Middle Assyrian and Mitannian assemblages (Pfälzner 1995; Wilkinson and Tucker 1995) have been identified in the hundreds of ceramics processed during the 2001 field season.

Kenan Tepe was again the home to a flourishing settlement during the Early Iron Age (ca. 1100-900 B.C.). Remains from this period have been discovered in abundance in areas B and C, although there is no indication of Iron Age remains either in the lower town or on the eastern slopes of the high mound (in and around Area D). As noted above, parts of Kenan Tepe show signs of severe erosion. Thus it is quite likely that some of the remains dating to the Early Iron Age were eroded away, especially from the steep eastern and northern slopes of the high mound. This being the case, it is difficult to give a precise estimate of the size of the Early Iron Age settlement. We can be quite certain that at its maximum extent Kenan Tepe's Early Iron Age occupation did not exceed the total size of the main mound (ca. 1.1 ha). However, if erosion did not play a significant role in disturbing the Early Iron Age remains at Kenan Tepe, then the size of the site during this period could be slightly smaller.

In the case of Kenan Tepe's Early Iron Age settlement, it is quite clear that we are dealing with an indigenous Anatolian village. The assemblage includes types belonging to the "corrugated wares" from Norshun Tepe (Bartle 1994 [see figure 14]) as well as types previously defined as "indigenous Iron Age" based on survey material from the Upper Tigris River region (Parker 1997, 2001). Although many of the contexts dating to this period are somewhat disturbed due to the proximity of this material to ground surface, we are nevertheless in a good position to evaluate the nature of occupation during the Early Iron Age. To begin with, the chronology of the town appears to be limited to the Early Iron Age, as there is no indication of occupation during the Neo-Assyrian Imperial Period. In fact, it appears that the town was either abandoned or destroyed in the wake of Assyrian colonization of the region in the ninth century B.C. (Parker et al. 2002a). Further excavation at Kenan Tepe might, therefore, illuminate the impact that Neo-Assyrian imperialism had on the indigenous population of the Upper Tigris River region.

Excavations have thus far revealed several large walls running, in several cases, the entire length of our excavation units. Walls discovered in trenches C3 and C4 presumably belong either to very large houses or some type of public building. In trench B4 we uncovered large piles of stones. We theorize that these stones belonged either to another large building or, perhaps, to a fortification wall. There is also evidence of metal working during the Early Iron Age. Slag, ovens and outdoor work surfaces have been discovered in abundance in Area C. Slags thus far analyzed consist mostly of Iron.

Works Cited:

Adams, R. M. (1981). *Heartland of Cities: Surveys of Ancient Settlement and Land Use on the Central Floodplain of the Euphrates*. Chicago, The University of Chicago Press.

Algaze, G. (1989a). "Uruk Expansion." *Current Anthropology* 30.5: 571-608.

Algaze, G. (1989b). "A New Frontier: First Results of the Tigris-Euphrates Archaeological Reconnaissance Project, 1988." *Journal of Near Eastern Studies* 48(4): 241-281.

Algaze, G. (1993). *The Uruk World System: The Dynamics of Expansion of Early Mesopotamian Civilization*. Chicago, The University of Chicago Press.

Algaze, G. (2001). The Prehistory of Imperialism: The Case of Uruk Period Mesopotamia. *Uruk Mesopotamia and its Neighbors: Cross-Cultural Interactions in the Era of State Formation*. M. S. Rothman. Sante Fe, School of American Research Press: 27-83.

Algaze, G., R. Breuninger, et al. (1991). "The Tigris-Euphrates Archaeological Reconnaissance Project: A Preliminary Report of the 1989-1990 Seasons." *Anatolica* 17: 175-240.

Algaze, G., R. Breuninger, et al. (1994). "The Tigris-Euphrates Archaeological Reconnaissance Project: Final Report of the Birecik and Carchemish Dam Survey Areas." *Anatolica* 20: 1-96.

Ay, E. (2001). Upper Tigris Valley Survey: 1999 Season. *Salvage Project of the Archaeological Heritage of the Ilisu and Carchemish Dam Reservoirs, Activities in 1999*. J. Ö. by Numan Tuna, and Jale Velibeyoglu. Ankara, Middle East Technical University, Centre for Research and Assessment of the Historic Environment: 715-728.

Bartl, K. (1994). "Die Frühe Eisenzeit in Ostanatolien und Ihre Verbindungen zu den Benachbarten Regionen." *Baghdader Mitteilungen* 25: 473-518.

Cooke, S. R. B. and S. Aschenbrenner (1975). "The Occurrence of Metallic Iron in Ancient Copper." *Journal of Field Archaeology* 2: 251-266.

Kohl, P. (1989). The Use and Abuse of the World Systems Theory: The Case of the "Pristine" Asian State. *Archaeological Thought in America*. C. C. Lamberg-Karlovsky. Cambridge, Cambridge University Press: 218-240.

Meijer, D. (1986). *A Survey in Northeastern Syria*. Istanbul, Nederlands Historisch-Archaeologisch Instituut te Istanbul.

Parker, B. J. (2001). *The Mechanics of Empire: The Northern Frontier of Assyria as a Case Study in Imperial Dynamics*. Helsinki, The Neo-Assyrian Text Corpus Project.

Parker, B. J., A. Creekmore, et al. (2002a). The Upper Tigris Archaeological Research Project (UTARP): Preliminary Report from the Year 2000 Excavations at Kenan Tepe. *Salvage Project of the Archaeological Heritage of the Ilásu and Carchemish Dam Reservoirs. Activities in 2000*. N. Tuna, J. Öztürk and J. Velibeyoglu. Ankara, Middle East Technical University, Centre for Research and Assessment of the Historic Environment.

Parker, B. J., A. Creekmore, et al. (2002b). The Upper Tigris Archaeological Research Project (UTARP) Year 2000 Excavations at Kenan Tepe. *23. Kazá Sonuçları Toplantısı*. Ankara, T.C. Kültür Bakanlığá Anátlar ve Müzeler Genel Müdürlüğü.

Parker, B. J., A. Creekmore, et al. (2003a). "The Upper Tigris Archaeological Research Project (UTARP): A Preliminary Report from the 2001 Field Season." *Anatolica XXIX*.

Parker, B. J., A. Creekmore, et al. (2003b). The Upper Tigris Archaeological Research Project (UTARP): An Overview of Archaeological Research Conducted at Kenan Tepe During the 2001 Field Season. *24. Kazá Sonuçları Toplantısı*. Ankara, T.C. Kültür Bakanlığá Anátlar ve Müzeler Genel Müdürlüğü.

Pearce, J. (2000). The Late Chalcolithic Sequence at Hacánebi Tepe, Turkey. *Chronologies des pays du Caucase et de l'Euphrate aux IVE-IIIe millenaires*. C. Marro and H. Hauptmann. Paris, Institut Francais d'etudes Anatoliennes d'Istanbul: 115-143.

Pfálzner, P. (1995). *Mittanische und Mittelassyrische Keramik: Eine Chronologische, Funktionale und Produktionsökonomische Analyse*. Berlin, Dietrich Reimer Verlag.

Pollock, S. (1999). *Ancient Mesopotamia*. Cambridge, Cambridge University Press.

Pollock, S. (1992). "Bureaucrats and Managers, Peasants, Imperialists and Traders: Research on the Uruk and Jemdet Nasr Periods in Mesopotamia." *Journal of World Prehistory* 6: 297-336.

Pollock, S. and C. Coursey (1995). "Ceramics from Hacánebi Tepe: Chronology and Connections." *Anatolica* 21(101-141).

Rothman, M. S., Ed. (2001). *Uruk Mesopotamia and its Neighbors: Cross-Cultural Interactions in the Era of State Formation*. Sante Fe, School of American Research Press.

Rova, E. (1998). *1988 Distribution and Chronology of the Niniveh 5 Pottery and its Culture*. Roma, Università Degli Studi di Roma, "La Sapienza".

Shell, C. (1997). *Analyses of Iron, Copper and Related Materials. The Excavations at Tell al Rimah. The Pottery*. C. Postgate, D. Oates and J. Oates. Wiltshire, England, Aris and Phillips.

Speiser, E. A. (1932). "The 'Chalice' Ware of Northern Mesopotamia and its Historical Significance." *Bulletin of the American Schools of Oriental Research* 48: 5-10.

Stein, G. (1998). World System Theory and Alternative Modes of Interaction in the Archaeology of Culture Contact. *Studies in Culture Contact: Interaction, Culture Change and Archaeology*. J. Cusick. Carbondale, Center for Archaeological Investigations: 220-255.

Stein, G. J. (1999). *Rethinking World-Systems: Diasporas, Colonies, and Interaction in Uruk Mesopotamia*. Tucson, The University of Arizona Press.

Stein, G. J. (2001). Indigenous Social Complexity at Hacánebi (Turkey) and the Organization of Uruk Colonial Contact. *Uruk Mesopotamia & its Neighbors: Cross-Cultural Interactions in the Era of State Formation*. M. S. Rothman. Santa Fe, School of American Research Press: 265-305.

Stein, G. J. and P. Wattenmaker (1990). The Tell Leilan Regional Survey: Preliminary Report. *Economy and Settlement on the Near East: Analysis of Ancient Sites and Materials*. N. Miller. Philadelphia, University of Pennsylvania Press: 1-18.

Tylecote, R. F., T. A. Wertime, et al. (1980). *The Coming of the Age of Iron*. New Haven, Yale University Press.

Weiss, H., Ed. (1986). *The Origins of Cities in Dry-Farming Syria and Mesopotamia in the Third Millennium B.C.* Guilford, Connecticut, Four Quarters Publishing Co.

Wilkinson, T. J. (1990a). *Town and Country in Southeastern Anatolia. Vol. 1: Settlement and Land Use at Kurban Höyük and Other Sites in the Lower Karababa Basin*. Chicago, Oriental Institute Press.

Wilkinson, T. J. (1990b). "The Development of Settlement in the North Jazira Between the 7th and 1st Millennia BC." *Iraq* 52: 49-62.

Wilkinson, T. J. and D. J. Tucker (1995). *Settlement Development in the North Jazira, Iraq: A Study of the Archaeological Landscape*. Baghdad, British School of Archaeology in Iraq.

Wright, H. T. and E. S. A. Rupley (2001). *Calibrated Radiocarbon Age Determinations of Uruk-Related Assemblages. Uruk Mesopotamia & its Neighbors: Cross-Cultural Interactions in the Era of State Formation*. M. S. Rothman. Santa Fe, School of American Research Press: 85-122.

Yener, K. A. (1982). "A Review of Interregional Exchange in Southwest Asia." *Anatolica* VIII: 33-76.

Figures:

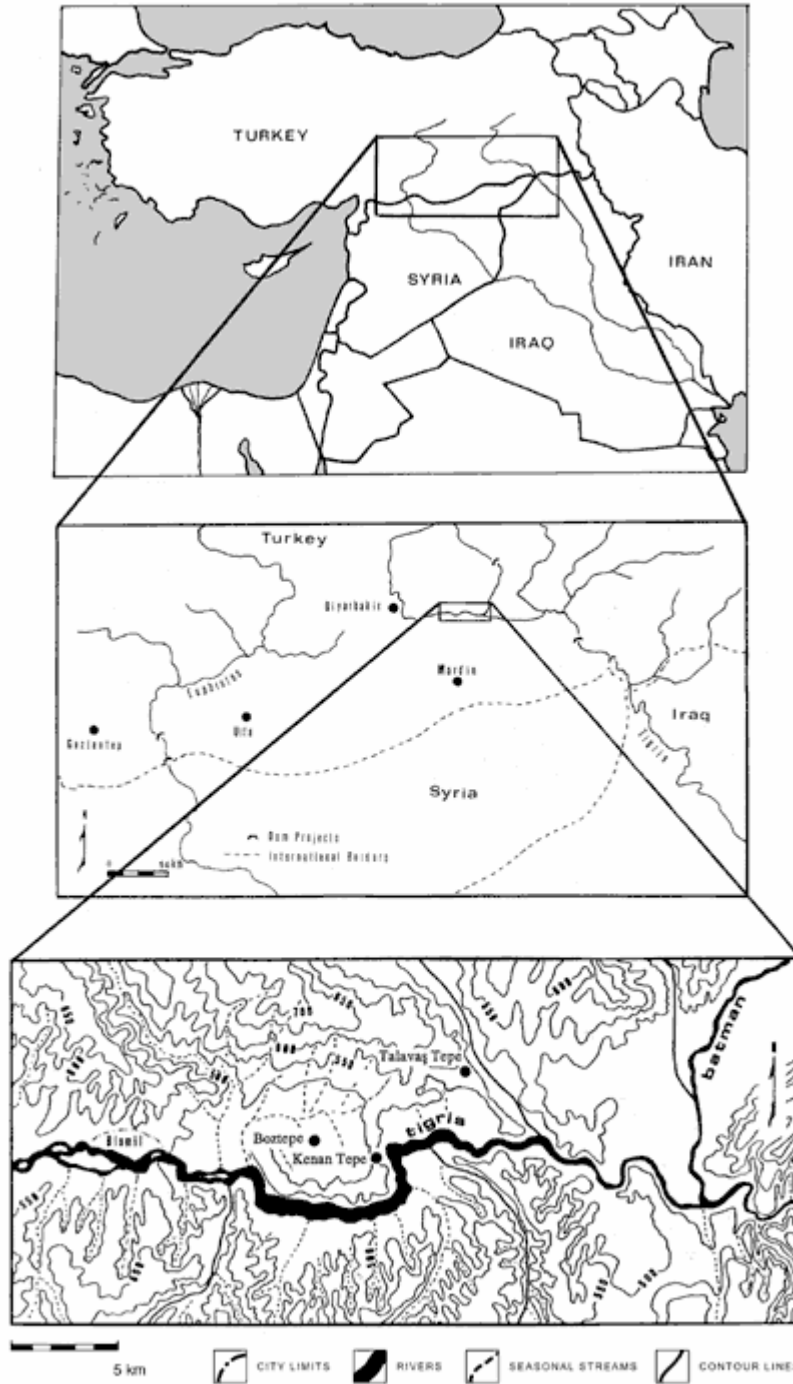


Figure 1: Map of Southeastern Turkey with Enlargements Showing the Upper Tigris River Valley and the Location of Kenan Tepe

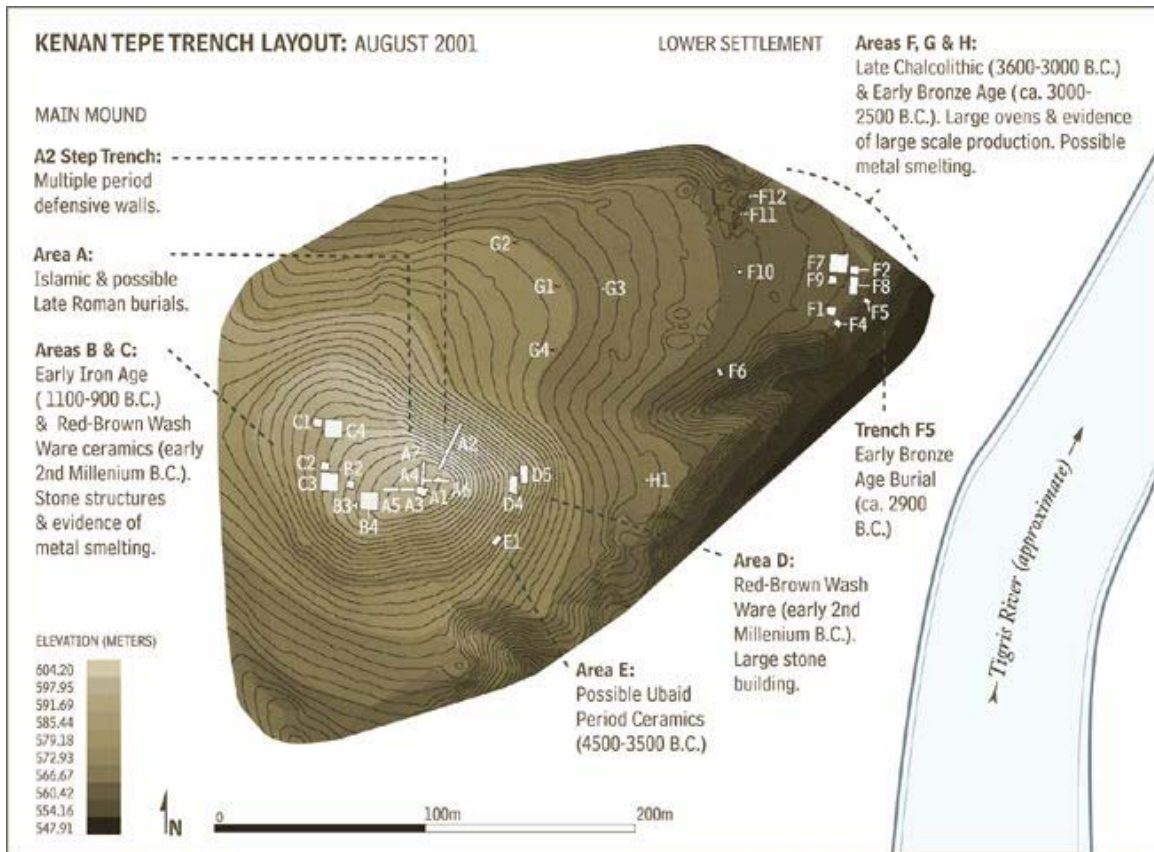


Figure 2: Map of Kenan Tepe with excavation areas listed.

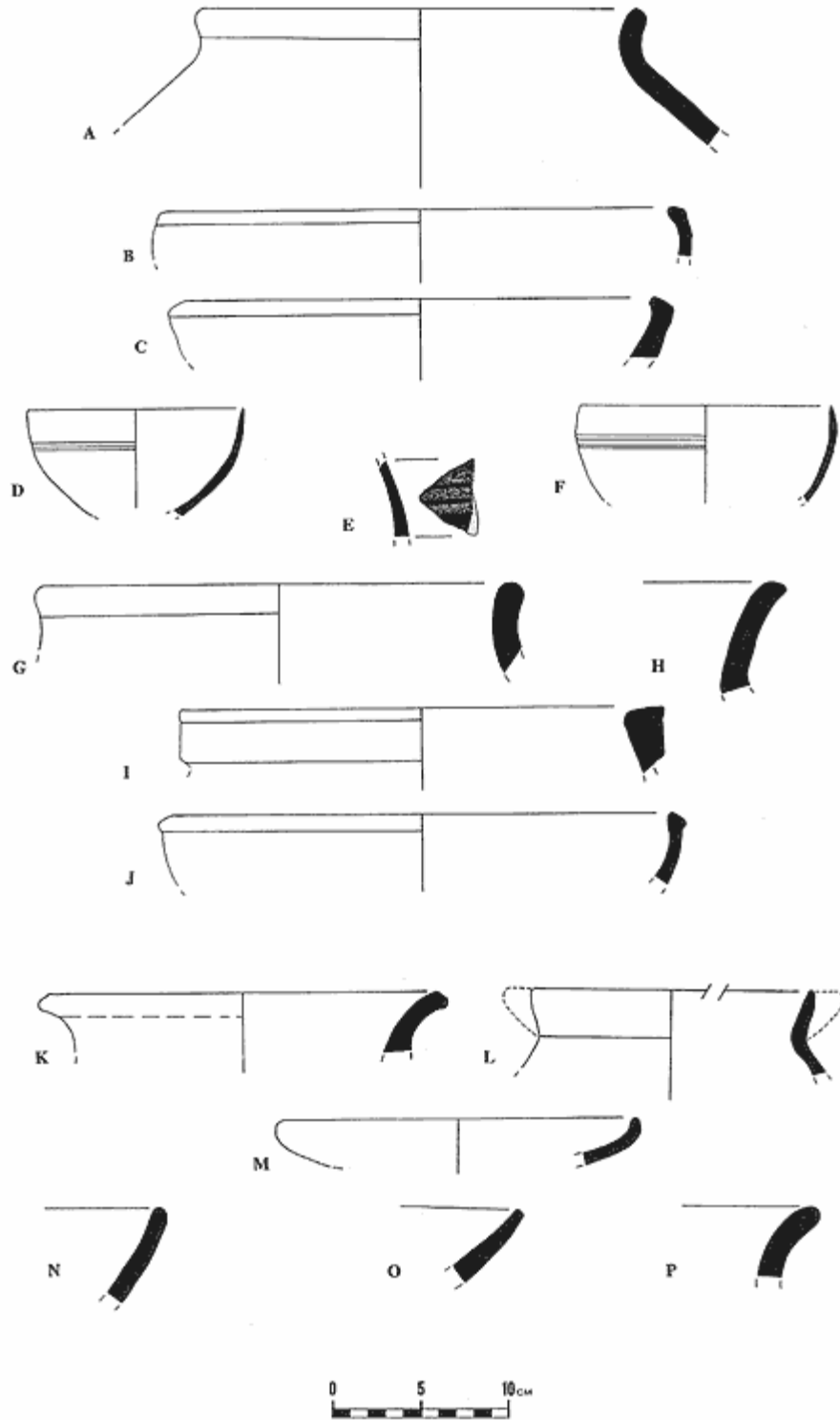


Figure 3: Ceramics for Areas G and H.

Figure 3: *Descriptions for Assorted Ceramics from Soundings G and H*

A. **G4 L4007 KT4013 #9:** Light brown exterior surface (7.5YR 6/3) grading to a brown core (7.5YR 5/4). Light brown interior surface (7.5YR 6/4). Coarse grit and chaff temper.

B. **G4 L4007 KT4013 #6:** Light brown exterior surface (7.5YR 6/4) grading to a reddish yellow core (5YR 6/6). Reddish yellow interior surface (7.5YR 6/6). Fine grit temper.

C. **G2 L2002 KT2005 #2:** Light brown exterior surface (7.5YR 6/4). Strong brown fabric (7.5YR 5/6) abruptly changing to a dark brown core (7.5YR 3/2). Light brown interior surface (7.5YR 6/4). Very fine grit temper.

D. **G4 L4007 KT4013 #7:** Very pale brown exterior surface (10YR 8/4) grading to a yellow core (10YR 8/6). Very pale brown interior surface (10YR 8/4). Incised band on exterior surface. Fine grit temper.

E. **G4 L4007 KT4013 #3:** Very pale brown exterior surface (10YR 7/4) grading to a yellowish brown core (10YR 5/4). Light brown interior surface (7.5YR 6/3). Medium grit temper. Cmd. unknown.

F. **G4 L4007 KT4013 #4:** Pink exterior surface (7.5YR 7/3) grading to a light brown core (7.5YR 6/4). Light brown interior surface (7.5YR 6/4). Incised band on exterior surface. Very fine grit temper.

G. **G4 L4007 KT4013 #8:** Very pale brown exterior surface (10YR 8/2). Reddish yellow fabric (5YR 6/6) abruptly changing to a very dark gray core (5Y 3/1). Reddish yellow interior surface (5YR 7/8). Very coarse chaff temper.

H. **G4 L4007 KT4013 #2:** Light yellowish brown exterior surface (10YR 6/4). Light yellowish brown fabric (10YR 6/4) abruptly changing to a dark bluish gray core (GLEY 23/5b). Light yellowish brown interior surface (10YR 6/4). Coarse chaff temper. Cmd. unknown.

I. **G2 L2002 KT2005 #1:** Light brown exterior surface (7.5YR 6/4) grading to a dark grayish brown core (10YR 4/2). Light brown interior surface (7.5YR 6/4). Light brown wash on exterior surface ((7.5YR 6/4). Fine grit and chaff temper.

J. **G4 L4007 KT4013 #5:** Reddish yellow exterior surface (7.5YR 6/6). Reddish yellow fabric (7.5YR 6/6) abruptly changing to a dark brown core (7.5YR 3/2). Light brown interior surface. Fine to medium chaff temper

K. **H1 L1002 KT1006 #3:** Light gray exterior surface (10YR 7/2). Yellow core (10YR 8/6) grading to a dark olive gray core (5Y 3/2). Very pale brown interior surface (10YR 7/3). Burnished exterior and interior surfaces. Medium to coarse chaff temper.

L. H1 L1002 KT1006 #5: Pink exterior surface (7.5YR 7/4) grading to a light yellowish brown core (10YR 6/4). Pink interior surface 7.5YR 7/4). Coarse grit and chaff temper. Cmd. unknown.

M. H1 L1002 KT1006 #4: Yellowish red exterior surface (5YR 5/6) grading to a strong brown core (7.5YR 5/6). Reddish yellow interior surface (5YR 6/6). Burnished interior surface. Fine grit temper.

N. H1 L1002 KT1006 #2: Light reddish brown exterior surface (5YR 6/4) grading to a dark yellowish brown core (10YR 4/6). Reddish brown interior surface (5YR 5/4). Medium chaff temper. Cmd. unknown.

O. H1 L1002 KT1006 #1: Light brown exterior surface (7.5YR 6/4) grading to a yellowish brown core (10YR 5/4). Pink interior surface (7.5YR 7/4). Burnished interior and exterior surface. Coarse chaff temper. Cmd. unknown.

P. H1 L1002 KT1006 #6: Light reddish exterior surface (5YR 6/4) grading to a reddish yellow core (5YR 6/6). Reddish yellow interior surface (5YR 7/6). Burnished exterior surface. Coarse grit temper. Cmd. unknown.

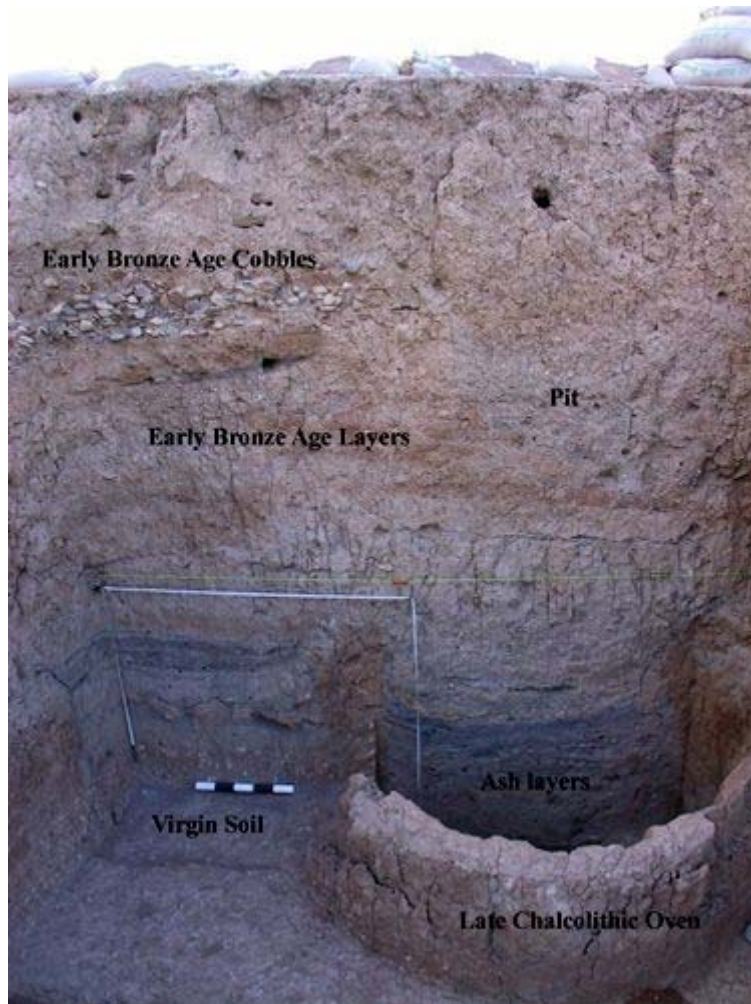


Figure 4: View of Late Chalcolithic oven in Trench F4. Note the layers of ash in and around the oven. Also note the Early Bronze Age cobble surface and other Early Bronze Age remains in the baulk

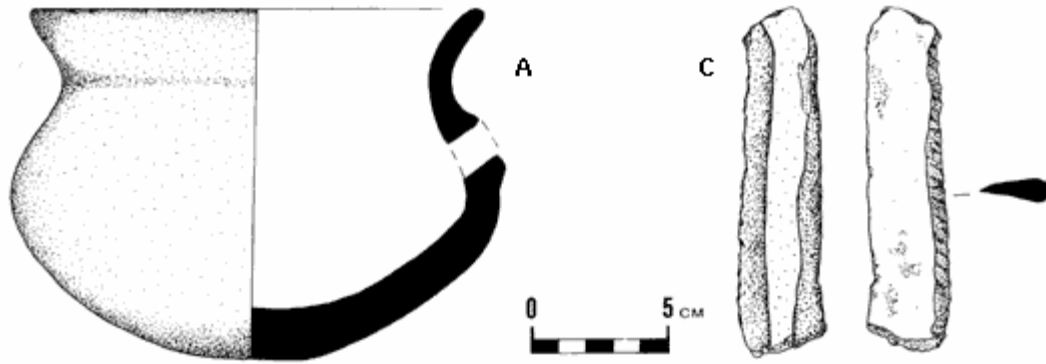


Figure 5A: Late Chalcolithic pot from trench F4. Fabric: Medium chaff temper. Color: 2.5Y 8/1.

Figure 5C: Lithic blade from trench F4. Measurements: Length 12.4 cm., width 2.8 cm. Material: Chert. Color: Grayish-brown (Munsell 2.5YR 5/2).

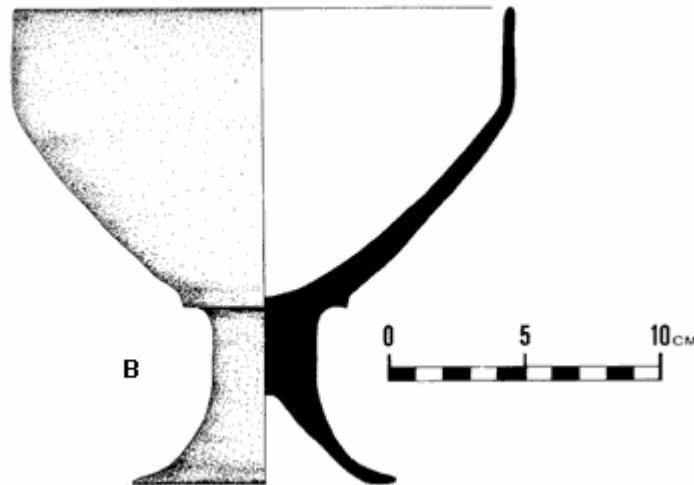


Figure 5B: Early Bronze Age pot from trench F2. Exterior surface 7.5YR 6/6. Interior surface 5YR 6/6. Core color 7.5YR 6/6. Fine chaff temper. Vertical burnishing on surfaces.

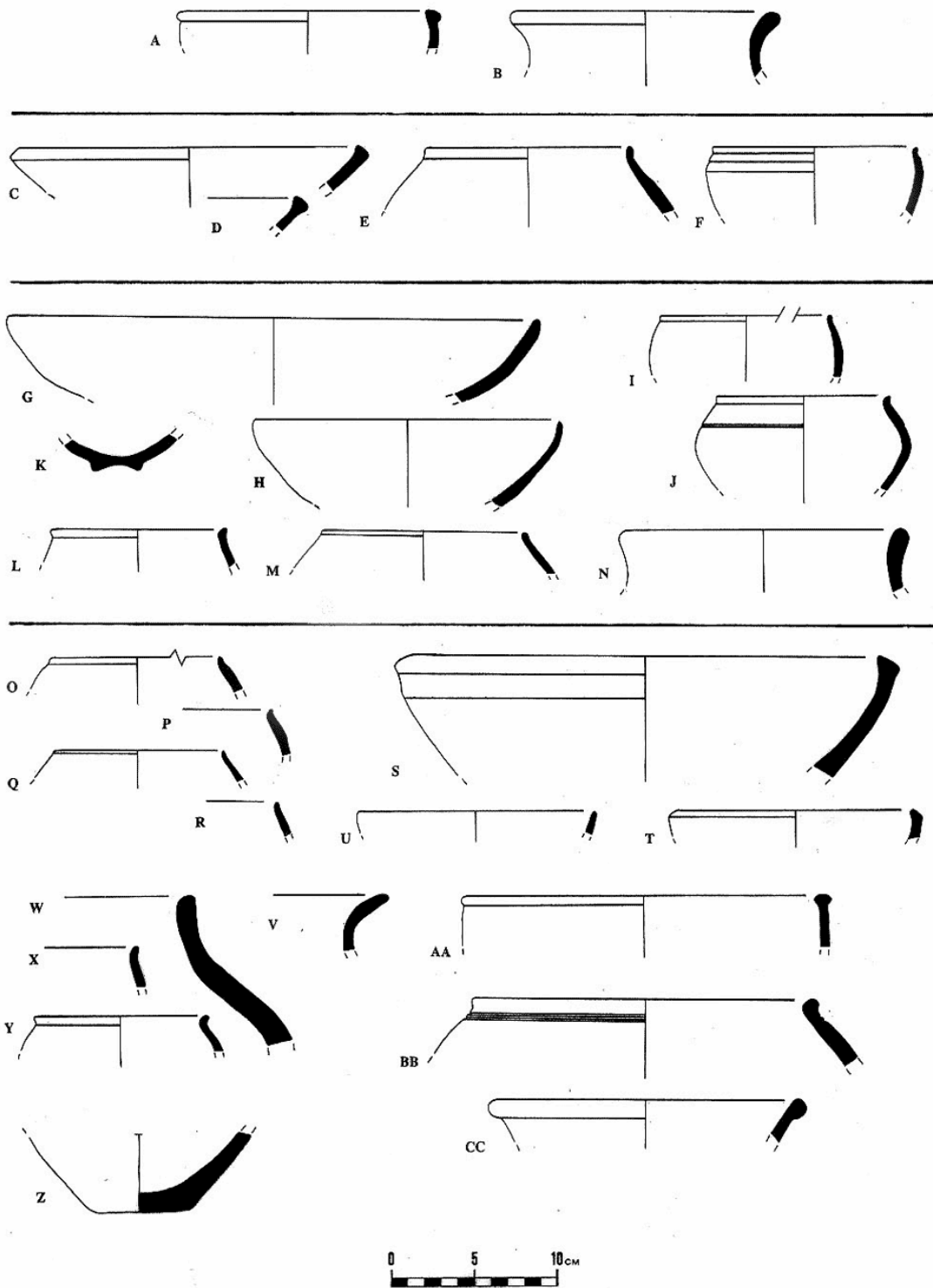


Figure 6: Late Chalcolithic Ceramics from Trench F4.

Figure 6: *Descriptions for Late Chalcolithic Ceramics from Trench F4.*

A. **F4 L4004 KT4047 #1:** Reddish yellow exterior surface (5YR 6/6) grading to a reddish yellow core (5YR 7/6). Reddish yellow interior surface (5YR 6/6). Burnished exterior. Fine grit temper.

B. **F4 L4004 KT4047 #2:** Light brown exterior surface (7.5 YR 6/4). Pink fabric (7.5YR 7/4) abruptly changing to a black core (10 YR 2/1). Pink interior surface (7.5YR 7/4). Medium chaff temper.

C. **F4 L4005 KT4062 #2:** Pink exterior surface (7.5 YR 6/3) abruptly changing to a pinkish gray core (7.5YR 6/2). Light brown interior surface (7.5YR 7/4). Pink wash on exterior surface (7.5YR 6/3). Fine chaff temper.

D. **F4 L4005 KT4062 #6:** Reddish yellow exterior surface (5YR 5/6) grading to a reddish yellow core (5YR 6/6). Reddish yellow interior surface (5YR 6/6). Reddish yellow wash on exterior surface (5YR 5/6). Pink paint on exterior surface (5YR 7/4). Very coarse chaff temper. Cmd. unknown.

E. **F4 L4005 KT4062 #4:** Reddish yellow exterior surface (5YR 7/3) grading to a reddish yellow core (5YR 6/6). Pink interior surface (5YR 6/6). Fine chaff temper.

F. **F4 L4005 KT4062 #5:** Reddish yellow exterior surface (5YR 6/6) grading to a yellowish red core (5YR 6/6). Reddish yellow interior surface (5YR 7/6). Reddish yellow wash on exterior surface (5YR 6/6). Very coarse chaff temper.

G. **F4 L4007 KT4086 #2:** Reddish yellow exterior (10 YR 7/4). Red fabric (2.5YR 5/6) abruptly changing to a reddish yellow core (7.5YR 7/6). Very pale brown interior surface (5YR 6/6). Reddish yellow wash on exterior surface (10YR 7/4). Medium grit temper.

H. **F4 L4007 KT4086 #1:** Reddish yellow exterior surface (5 YR 6/6) grading to a reddish yellow core (5 YR 6/8). Reddish yellow interior surface (7.5 YR 7/6). Non-visible temper.

I. **F4 L4007 KT4065 #2:** Reddish yellow exterior surface (7.5 YR 6/6) grading to a reddish yellow core (7.5 YR 7/6). Reddish yellow interior surface (5 YR 6/6). Fine grit temper. Cmd. unknown.

J. **F4 L4007 KT4077 #1:** Reddish yellow exterior surface (5 YR 6/4) grading to a light brown core (7.5 YR 6/4). Light reddish brown interior surface (5 YR 6/6). Fine grit temper.

K. **F4 L4007 KT4086 #5:** Light brown exterior surface (10YR 7/4) grading to a yellowish brown core (10YR 5/4). Very pale brown interior surface (7.5YR 6/4). Medium grit temper.

L. F4 L4007 KT4065 #1: Light brown exterior surface (7.5 YR 6/4) grading to a light reddish brown core (7.5 YR 6/4). Light brown interior surface (7.5 YR 6/3). Light brown wash on exterior surface (7.5 YR 6/4). Fine grit temper.

M. F4 L4007 KT4086 #3: Pale brown exterior surface (10YR 7/3) grading to a dark gray core (10YR 4/1). Very pale brown interior surface (10YR 6/3). Medium grit temper.

N. F4 L4007 KT4086 #4: Light brown exterior surface (10YR 5/3). Brown fabric (10YR 5/3) abruptly changing to a black core (10YR 2/1). Brown interior surface (7.5YR 6/4). Light brown wash on exterior surface (10YR 5/3). Burnished on interior and exterior surfaces. Coarse chaff temper.

O. F4 L4023 KT4111 #2: Very pale brown exterior (10YR 6/4). Yellow fabric (10YR 8/6) grading to a dark gray core (10YR 6/1). Light yellowish brown interior surface (10YR 7/3). Medium grit temper.

P. F4 L4023 KT4202 #2: Reddish yellow exterior surface (5YR 6/6). Reddish yellow core (5YR 6/6). Reddish yellow interior surface (5YR 6/6). Fine chaff temper. Cmd. unknown.

Q. F4 L4023 KT4217 #2: Reddish yellow exterior surface (7.5YR 7/6). Reddish yellow core (7.5YR 7/6). Reddish yellow interior surface (7.5YR 7/6). Burnished exterior. Fine grit temper.

R. F4 L4023 KT4202 #4: Pink exterior surface (7.5YR 7/3). Pink fabric (7.5YR 7/4) abruptly changing to a pink core (7.5YR 7/3). Pink interior surface (7.5YR 7/4). Fine grit temper. Cmd unknown.

S. F4 L4023 KT4202 #1: Pink exterior surface (10YR 6/6). Reddish yellow fabric (7.5YR 6/6) grading to a strong brown core (7.5YR 5/6). Very pale brown interior surface (7.5YR 7/4). Fine chaff temper.

T. F4 L4023 KT4111 #4: Pink exterior surface (7.5YR 6/4) grading to a reddish yellow core (7.5YR 6/6). Light brown interior surface (7.5YR 7/4). Fine grit and chaff temper.

U. F4 L4023 KT4217 #1: Reddish yellow exterior surface (7.5YR 7/4) grading to a reddish yellow core (5YR 7/6). Pink interior surface (5YR 7/6). Fine grit temper.

V. F4 L4023 KT4111 #1: Reddish yellow exterior surface (7.5YR 6/4) grading to a reddish yellow core (7.5YR 6/6). Light brown interior (7.5YR 6/6). Burnished exterior. Very coarse grit temper.

W. F4 L4023 KT4251 #1: Pink exterior surface (7.5YR 6/6). Light brown fabric (7.5YR 6/4) abruptly changing to a black core (7.5YR 2.5/1). Reddish yellow interior surface (7.5YR 7/3). Burnished exterior. Fine grit and chaff temper. Cmd. unknown.

X. F4 L4023 KT4202 #3: Reddish yellow exterior surface (5YR 5/6) grading to a yellowish red core (5YR 5/6). Yellowish red interior surface (5YR 6/6). Burnished exterior. Fine grit temper. Cmd. unknown.

Y. F4 L4023 KT4251 #2: Reddish yellow exterior surface (7.5YR 6/6) grading to a strong brown core (7.5YR 5/6). Reddish yellow interior surface. Fine grit and chaff temper.

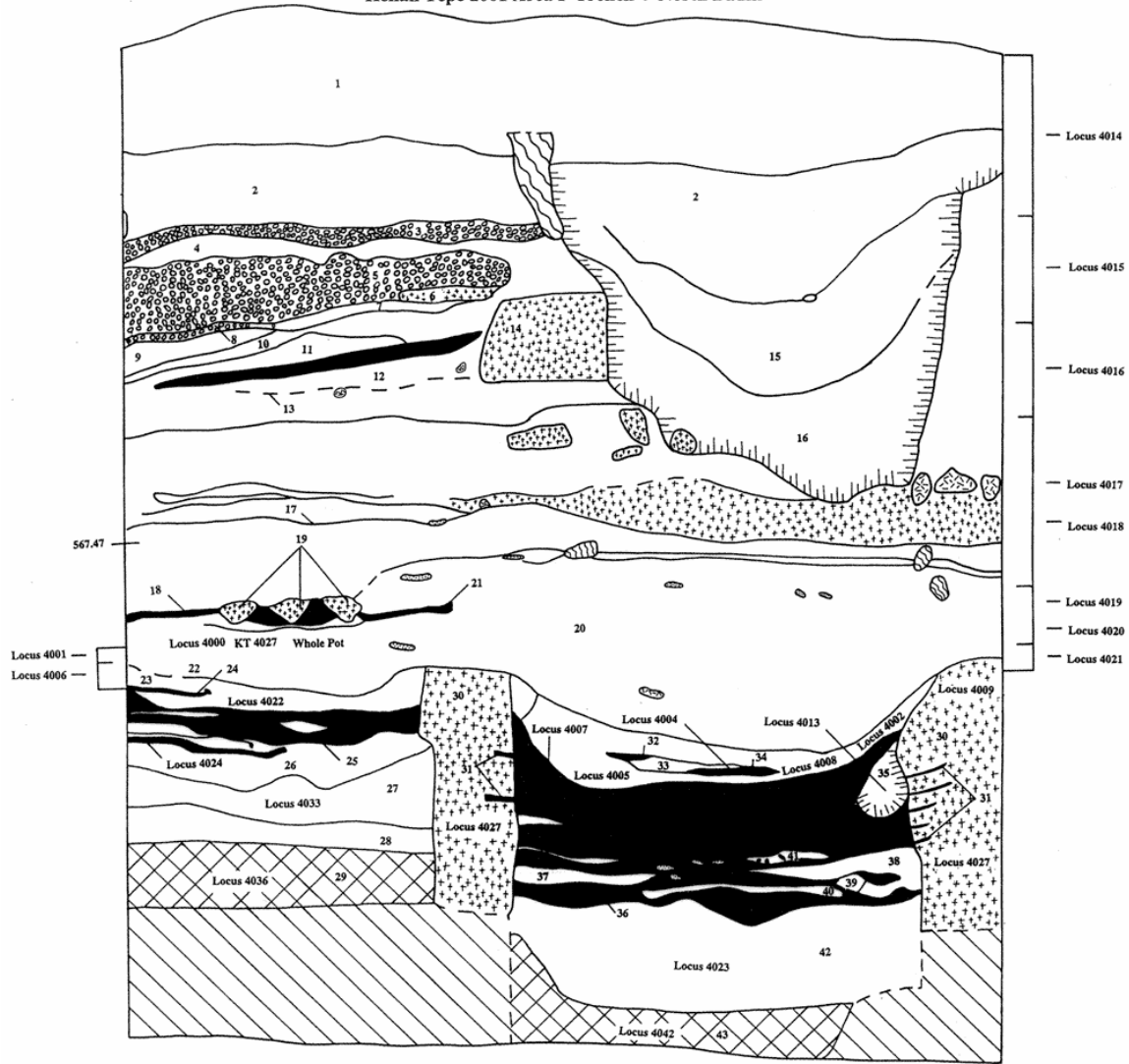
Z. F4 L4023 KT4111 #6: Pink exterior surface (7.5YR 7/4). Pink core (7.5YR 7/4). Pink interior surface (7.5YR 7/4). Coarse chaff temper.

AA. F4 L4023 KT4111 #5: Reddish yellow exterior (7.5YR 7/4) grading to a reddish yellow core (5YR 6/6). Pink interior surface. Fine grit temper.

BB. F4 L4023 KT4111 #3: Yellowish red exterior surface (7.5YR 5/4). Brown fabric (7.5YR 3/3) grading to a yellowish red core (5YR 5/8). Brown interior surface (5YR 5/6). Yellowish red wash on exterior surface (7.5YR 5/4). Double incised bands. Coarse grit temper.

CC. F4 L4023 KT4251 #3: Light brown exterior surface (5YR 6/6) grading to a yellowish red core (5YR 5/6). Reddish yellow interior surface (7.5YR 6/4). Light brown wash on exterior surface (5YR 6/6). Fine grit and chaff temper.

Kenan Tepe 2001 Area F Trench 4 North Baulk



1 METER

Line Elevation: 567.47

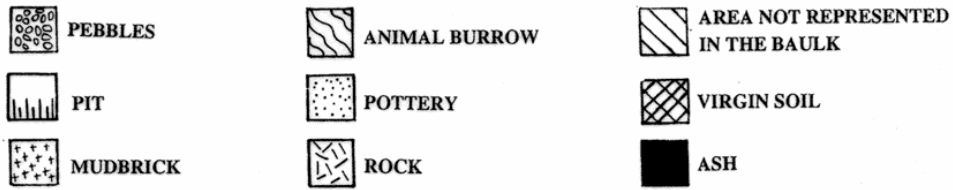


Figure 7: Trench F4 North Section. Note that the carbon dates came from L4004 and L4023.

Figure 8: 2001 Carbon 14 Data.

Carbon 14 data from Trench C2

| <i>Sample Data</i> | <i>Measured Radiocarbon Age</i> | <i>13C/12C Ratio</i> | <i>Conventional Radiocarbon Age(*)</i> |
|--------------------|-------------------------------------|----------------------|--|
|--------------------|-------------------------------------|----------------------|--|

| | | | |
|---------------|----------------|------------|----------------|
| Beta - 165446 | 3500 +/- 50 BP | -26.5 o/oo | 3480 +/- 50 BP |
|---------------|----------------|------------|----------------|

SAMPLE : L2082 KT 2584

ANALYSIS : AMS-Standard delivery

MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid

2 SIGMA CALIBRATION : Cal BC 1920 to 1680 (Cal BP 3870 to 3630)

| | | | |
|---------------|----------------|------------|----------------|
| Beta - 165447 | 3520 +/- 60 BP | -26.8 o/oo | 3490 +/- 60 BP |
|---------------|----------------|------------|----------------|

SAMPLE : L2087 KT 2614

ANALYSIS : AMS-Standard delivery

MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid

2 SIGMA CALIBRATION : Cal BC 1950 to 1670 (Cal BP 3900 to 3620)

| | | | |
|---------------|----------------|------------|----------------|
| Beta - 165448 | 3520 +/- 40 BP | -25.2 o/oo | 3520 +/- 40 BP |
|---------------|----------------|------------|----------------|

SAMPLE : L2084 KT 2576

ANALYSIS : AMS-Standard delivery

MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid

2 SIGMA CALIBRATION : Cal BC 1940 to 1740 (Cal BP 3900 to 3690)

Carbon 14 data from Trench F4

| <i>Sample Data</i> | <i>Measured Radiocarbon Age</i> | <i>13C/12C Ratio</i> | <i>Conventional Radiocarbon Age(*)</i> |
|--------------------|-------------------------------------|----------------------|--|
|--------------------|-------------------------------------|----------------------|--|

| | | | |
|---------------|----------------|------------|----------------|
| Beta - 155572 | 4430 +/- 60 BP | -24.4 o/oo | 4440 +/- 60 BP |
|---------------|----------------|------------|----------------|

SAMPLE : KT#4061

ANALYSIS : AMS-Standard delivery

MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid

2 SIGMA CALIBRATION : Cal BC 3350 to 2910 (Cal BP 5300 to 4860)

| | | | |
|---------------|----------------|------------|----------------|
| Beta - 166341 | 4510 +/- 40 BP | -25.9 o/oo | 4500 +/- 40 BP |
|---------------|----------------|------------|----------------|

SAMPLE : KT#4157 (F4.4023.4157)

ANALYSIS : AMS-Standard delivery

MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid

2 SIGMA CALIBRATION : Cal BC 3360 to 3030 (Cal BP 5310 to 4980)

| | | | |
|---------------|----------------|------------|----------------|
| Beta - 166342 | 4700 +/- 40 BP | -25.5 o/oo | 4690 +/- 40 BP |
|---------------|----------------|------------|----------------|

SAMPLE : KT#4229 (F4.4023.4229)

ANALYSIS : AMS-Standard delivery

MATERIAL/PRETREATMENT : (organic material): acid/alkali/acid

2 SIGMA CALIBRATION : Cal BC 3630 to 3570 (Cal BP 5580 to 5520)

.....AND Cal BC 3540 to 3360 (Cal BP 5480 to 5310)

| | | | |
|---------------|----------------|------------|----------------|
| Beta - 166343 | 4820 +/- 40 BP | -24.9 o/oo | 4820 +/- 40 BP |
|---------------|----------------|------------|----------------|

SAMPLE : KT#4253 (F4.4023.4253)

ANALYSIS : AMS-Standard delivery

MATERIAL/PRETREATMENT : (organic material): acid/alkali/acid

2 SIGMA CALIBRATION : Cal BC 3660 to 3620 (Cal BP 5610 to 5570)

.....AND Cal BC 3600 to 3520 (Cal BP 5540 to 5470)

Carbon 14 data from Trench F5.

| <i>Sample Data</i> | <i>Measured Radiocarbon Age</i> | <i>13C/12C Ratio</i> | <i>Conventional Radiocarbon Age(*)</i> |
|--------------------|-------------------------------------|----------------------|--|
|--------------------|-------------------------------------|----------------------|--|

| | | | |
|---------------|----------------|------------|----------------|
| Beta - 156415 | 4210 +/- 40 BP | -22.1 o/oo | 4260 +/- 40 BP |
|---------------|----------------|------------|----------------|

SAMPLE : KT5030

ANALYSIS : AMS-Standard delivery

MATERIAL/PRETREATMENT : (bone collagen): collagen extraction: with alkali

2 SIGMA CALIBRATION : Cal BC 2920 to 2870 (Cal BP 4860 to 4820)

.....AND Cal BC 2800 to 2770 (Cal BP 4750 to 4720)

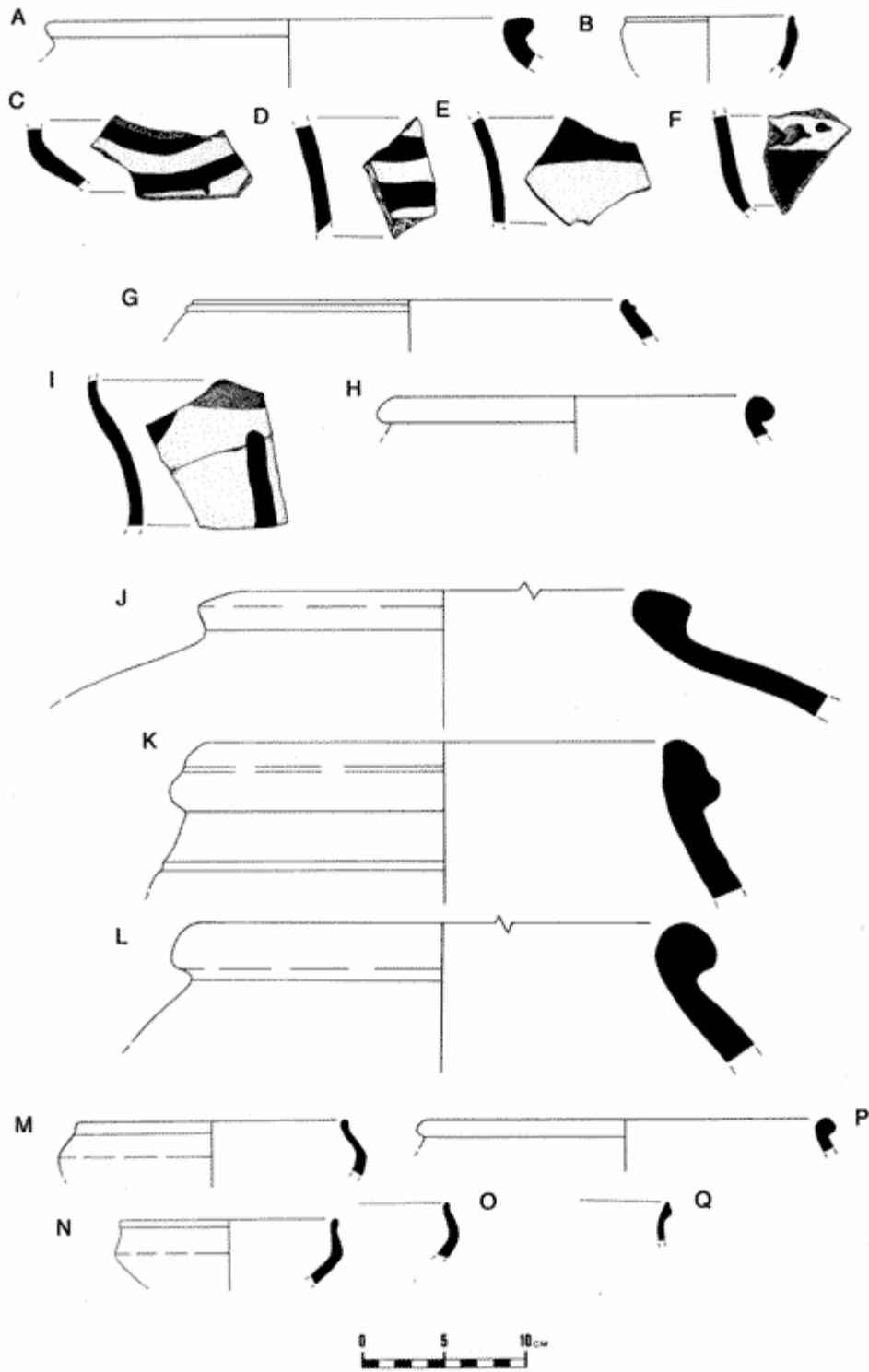


Figure 9: Early Second Millennium Ceramics From Trench C2.

Figure 9: *Descriptions for Assorted Early Second Millennium Ceramics from Trench C2*

A. **C2 L2070 KT2476 #6:** Light reddish brown exterior surface (7.5YR 7/3) grading to a pink core (7.5YR 7/4). Pink interior surface (5YR 6/4). Medium grit and chaff temper.

B. **C2 L2070 KT2476 #1:** Gray exterior surface (2.5Y 3/1) grading to a black core (5Y 2.5/1). Very dark gray interior surface (10YR 5/1). Wash on exterior surface. Medium grit and chaff temper.

C. **C2 L2070 KT2476 #5:** Light gray exterior surface (10YR 7/2). Light yellowish brown fabric (10YR 6/4) grading to a light gray core (2.5Y 7/2). Light gray interior surface (10YR 7/2). Brown paint (7.5YR 4/3) on exterior surface. Medium grit and chaff temper.

D. **C2 L2070 KT2476 #2:** Reddish yellow exterior surface (5YR 7/4). Yellowish red fabric (5YR 6/8) abruptly changing to a reddish yellow core (5YR 6/6). Pink interior surface (5YR 6/6). Reddish brown paint (2.5YR 4/4) on exterior surface. Fine grit temper.

E. **C2 L2070 KT2476 #3:** Light brownish gray exterior surface (7.5YR 7/2) grading to a very dark gray core (10YR 3/1). Pinkish gray interior surface (10YR 6/2). Yellowish red paint (5YR 5/6) on exterior surface. Fine grit temper.

F. **C2 L2070 KT2476 #4:** Dark grayish brown exterior surface (10YR 7/2) grading to a brownish yellow core (10YR 6/6). Light gray interior surface (10YR 4/2). Brown paint (7.5YR 4/2) on exterior surface. Very fine grit temper.

G. **C2 L2073 KT2519 #3:** Pink exterior surface (5YR 5/6). Reddish yellow fabric (7.5YR 7/6) grading to a light olive brown core (2.5Y 5/4). Yellowish red interior surface (7.5YR 7/4). Pink wash (5YR 5/6) on exterior surface. Medium chaff temper.

H. **C2 L2073 KT2519 #4:** Dark reddish gray exterior surface (5YR 4/2) grading to a brown core (7.5YR 5/4). Dark reddish gray interior surface (5YR 4/2). Coarse grit temper.

I. **C2 L2073 KT2519 #1 and #2:** Grayish brown exterior surface (2.5Y 7/2). Dark grayish brown fabric (2.5Y 4/2) grading to a dark gray core (2.5Y 4/1). Light gray interior surface (2.5Y 5/2). Reddish brown paint (2.5YR 4/4) on exterior surface. Burnished exterior surface. Fine grit temper.

J. **C2 L2084 KT2568 #1:** Reddish yellow exterior surface (5YR 6/6) grading to a very dark gray core (GLE Y1 3/N). Dark gray interior surface (GLE Y1 4/N). Red paint in the groove of the rim (2.5YR 5/6). Medium grit and chaff temper. Cmd. 36

K. **C2 L2084 KT2589 #1:** Pink exterior surface (7.5YR 7/4). Reddish yellow fabric (7.5YR 7/6) abruptly changing to a very dark gray core (10YR 3/1). Pink interior surface (7.5YR 7/4). Medium chaff temper.

L. **C2 L2084 KT2589 #2**: Very pale brown surface (10YR 7/4) grading to a dark gray core (2.5Y 4/1). Very pale brown interior surface (10YR 7/4). Medium chaff temper.

M. **C2 L2084 KT 2568 #3**: Reddish-yellow surface (5YR 6/6) that continues through to the core. Pale yellow wash on interior surface (5Y 8/3). Medium grain chaff temper.

N. **C2 L2084 KT 2568 #2**: Very pale brown exterior surface (10YR 7/4) grading to light yellowish brown core (2.5Y 6/4). Pale brown interior surface (10YR 6/3). Fine grit temper.

O. **C2 L2084 KT 2568 #5**: Reddish yellow exterior surface (5YR 6/6) grading to yellowish red core (5YR 5/6) with abrupt transition to very dark gray (GLE Y1 3/N). Reddish yellow interior surface (5YR 6/6). Medium grain chaff temper. Cmd. unknown.

P. **C2 L2084 KT 2568 #4**: Light gray surface (10YR 7/2) grading to light brown core (7.5YR 6/4). Reddish yellow interior surface (5YR 6/6) Reddish brown paint on the top edge of the rim (2.5YR 5/4). Fine chaff temper.

Q. **C2 L2084 KT2589 #3**: Pink exterior surface (7.5YR 8/4) grading to a brown core (7.5YR 5/4). Pink interior surface (7.5YR 7/4). Medium grit temper.

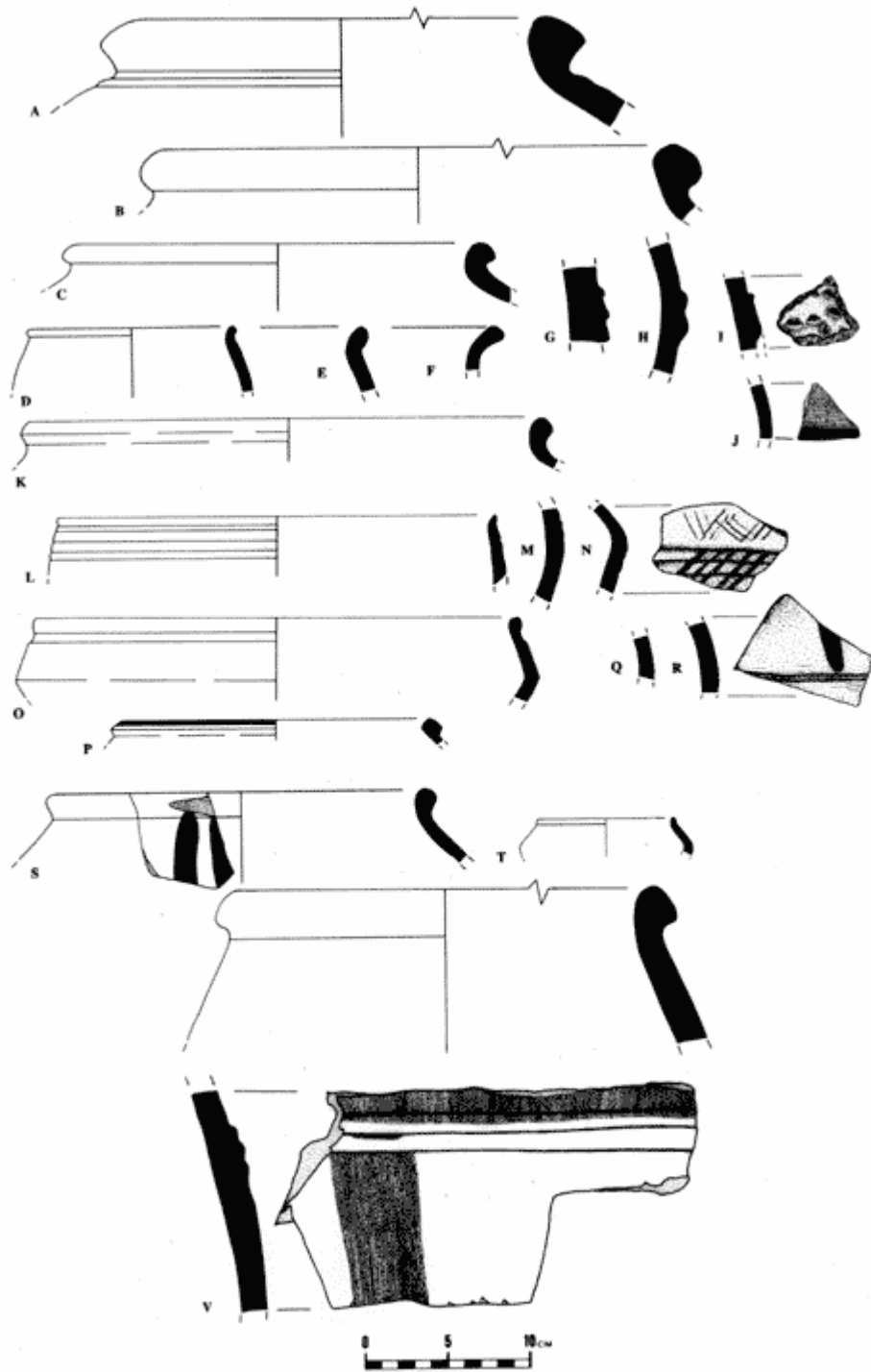


Figure 10: Early Second Millennium Ceramics from Trench D4.

Figure 10: *Descriptions for Assorted Early Second Millennium Ceramics from Trench D4*

A. **D4 L4032 KT4154 #7:** Reddish brown exterior surface (7.5YR 8/4) grading to a very dark gray core (5Y 3/1). Pink interior surface (5YR 4/4). Medium chaff temper.

B. **D4 L4032 KT4180 #7:** Pink exterior surface (7.5YR 7/6). Very pale brown fabric (10YR 7/4) grading to a dark gray core (10YR 4/1). Reddish yellow interior surface (7.5YR 8/4). Medium grit and chaff temper.

C. **D4 L4032 KT4180 #8:** Yellowish red exterior surface (5YR 5/6). Strong brown fabric (7.5YR 4/6) abruptly changing to a black core (10YR 2/1). Yellowish red interior surface (5YR 5/6). Very coarse grit temper.

D. **D4 L4032 KT4154 #1:** Pink exterior surface (5YR 6/6). Reddish yellow fabric (5YR 6/6) abruptly changing to a gray core (GLE Y1 5/N). Reddish yellow interior surface (7.5YR 6/4). Red paint (2.5YR 4/6) on exterior surface. Medium to coarse grit temper.

E. **D4 L4032 KT4154 #2:** Dark grayish brown exterior surface (7.5YR 7/4). Very pale brown fabric (10YR 8/4) grading to a very dark gray core (2.5Y 3/1). Pink interior surface (2.5Y 4/2). Fine grit temper.

F. **D4 L4032 KT4154 #3:** Strong brown exterior surface (7.5YR 5/3). Brown fabric (10YR 5/3) grading to a dark gray (2.5Y 4/1). Brown interior surface (7.5YR 4/6). Medium chaff temper.

G. **D4 L4032 KT4154 #14:** Reddish gray exterior surface (2.5YR 6/6). Light red fabric (2.5YR 6/1) abruptly changing to a dark gray core (GLE Y1 4/N). Light red interior surface (2.5YR 5/1). Incised bands on exterior surface. Medium chaff temper.

H. **D4 L4032 KT4154 #8:** Pale brown exterior surface (7.5YR 7/4). Reddish yellow fabric (7.5YR 7/6) abruptly changing to a very dark gray core (2.5Y 3/1). Pink interior surface (10YR 6/3). Incised on exterior surface. Fine chaff temper.

I. **D4 L4032 KT4154 #6:** Pink exterior surface (7.5YR 6/4) grading to a pinkish yellow core (7.5YR 6/5). Pink interior surface (7.5YR 6/4). Impressed decorations on exterior surface. Medium grit temper.

J. **D4 L4032 KT4154 #13:** Light red exterior surface (7.5YR 6.5/4). Reddish yellow fabric (5YR 6/6) grading to a gray core (5YR 5/1). Light pinkish brown interior surface (2.5YR 6/6). Interior badly corroded. Red band of paint (2.5YR 5/6) on exterior of the upper edge of the sherd.

K. **D4 L4032 KT4154 #9:** Light brown exterior surface (7.5YR 7/3). Light yellowish brown fabric (10YR 6/4) abruptly changing to a very dark gray core (2.5Y 3/1). Pink interior surface (7.5YR 6/3). Wash on exterior surface. Burnished on exterior surface. Medium to coarse grit temper.

L. D4 L4032 KT4154 #10: Pink exterior surface (7.5YR 8/3). Very pale brown fabric (10YR 8/4) grading to a pale brown core (10YR 6/3). Pink interior surface (7.5YR 7/4). Incised bands on exterior surface. Fine grit temper.

M. D4 L4032 KT4154 #11: Dark brown exterior surface (5Y 8/2). Pale yellow fabric (5Y 7/3) grading to a light gray core (10YR 7/2). Pale yellow interior surface (7.5YR 3/2). Incised with very dark gray paint (5Y 3/1) on exterior surface. Fine grit temper.

N. D4 L4032 KT4180 #4: Very pale brown exterior surface (10YR 8/3). Reddish yellow core (7.5YR 6/6). Pale yellow interior surface (10YR 8/3). Dark yellowish brown paint (10YR 4/4) on exterior surface. Medium grit temper.

O. D4 L4032 KT4154 #5: Pale yellow exterior surface (10YR 7/3). Yellow fabric (10YR 7/6) abruptly changing to a very dark gray core (5Y 3/1). Very pale brown interior surface (2.5Y 7/3). Burnished interior and exterior surfaces. Fine chaff temper.

P. D4 L4032 KT4180 #3: Pink exterior surface (7.5YR 8/4) grading to a reddish yellow core (7.5YR 8/6). Pink interior surface (7.5YR 8/4). Reddish brown paint (2.5YR 4/4) on the rim. Very fine grit temper.

Q. D4 L4032 KT4154 #12: Brown exterior surface (10YR 7/2) grading to a pale yellow core (2.5Y 8/3). Light gray interior surface (7.5YR 5/2). Incised bands on exterior surface. Medium grit temper.

R. D4 L4032 KT4180 #2: Pale yellow exterior surface (2.5Y 8/2). Reddish yellow fabric (7.5YR 7/8) grading to a dark grayish brown core (10YR 4/2). Pale yellow interior surface (2.5Y 8/3). Incised on exterior surface. Brown paint (7.5YR 4/2) on exterior surface. Fine grit temper.

S. D4 L4030 KT4211 #1: Pink exterior surface (7.5YR 7/4) grading to a reddish yellow core (5YR 7/6). Pink interior surface (7.5YR 7/4). Burnished exterior with a reddish brown painted surface (2.5YR 5/4). Fine grit temper.

T. D4 L4030 KT4211 #2: Very pale brown exterior surface (10YR 7/4) grading to a black core (2.5Y 2.5/1). Light gray interior surface (10YR 7/2). Very pale brown wash on exterior surface (10YR 7/4). Medium grit and chaff temper.

U. D4 L4030 KT4211 #3: Pink exterior surface (7.5YR 7/4). Reddish yellow fabric (7.5YR 8/6) grading to a dark gray core (10YR 4/1). Reddish yellow interior surface (7.5YR 5/6). Pink wash on exterior surface (7.5YR 7/4). Coarse chaff temper.

V. D4 L4019 KT4087 #1: Very pale brown exterior surface (10YR 7/4) grading to a very dark gray core (10YR 3/1). Pink interior surface (5YR 7/4). Strong brown paint on exterior surface (7.5YR 5/6). Medium grit temper.



Figure 11: *Digital top plan of Trench C2 showing the northeastern corner of an early second millennium domestic structure. Note that this top plan was constructed by superimposing 9 digital images.*



Figure 12: *View of Trench D4 showing early second millennium B.C. architecture.*

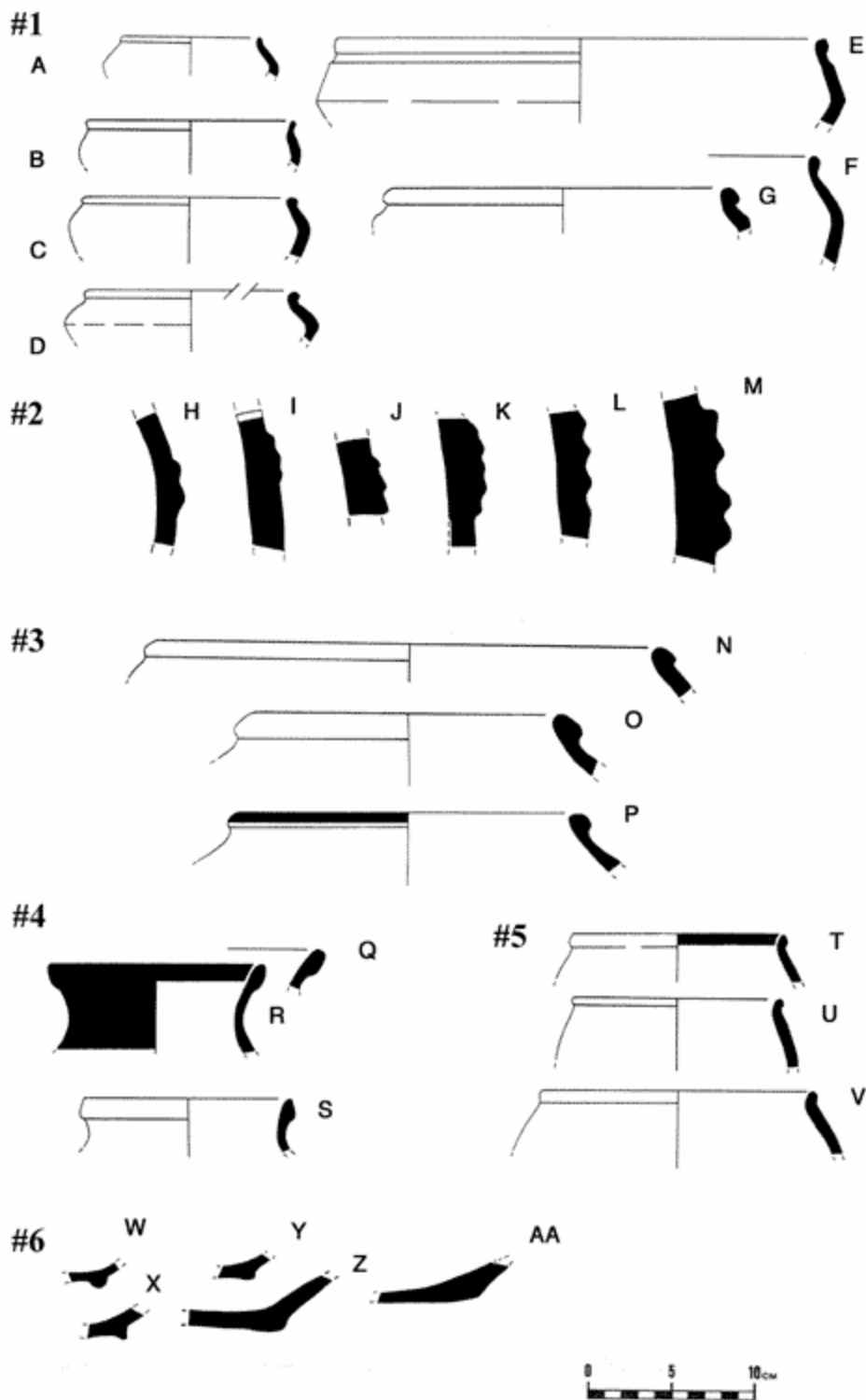


Figure 13: Assorted Early Second Millennium Ceramics with Particular Shape Type Characteristics

Figure 13: *Descriptions for Assorted Early Second Millennium Ceramics with Particular Shape Type Characteristics*

A. D4 L4030 KT4211 #2: Very pale brown exterior surface (10YR 7/4) grading to a black core (2.5Y 2.5/1). Light gray interior surface (10YR 7/2). Very pale brown wash on exterior surface (10YR 7/4). Medium grit and chaff temper.

B. D4 L4012 KT4108 #7: Pink exterior surface (7.5YR 7/4). Reddish yellow fabric (7.5YR 6/6) abruptly changing to a dark greenish gray core (GLEY1 4/10Y). Pink interior surface (7.5YR 8/4). Fine chaff temper.

C. C2 L2049 KT2311 #8: Light gray exterior surface (7.5YR 7/4) grading to a very pale brown core (10YR 7/4). Pink interior surface (2.5Y 7/2). Wash on exterior surface. Fine grit temper.

D. C2 L2032 KT2259 #4: Red exterior surface (10YR 7/4). Light yellowish brown core (10YR 6/4). Very pale brown interior surface (2.5YR 5/6). Fine grit temper.

E. D4 L4032 KT4154 #5: Pale yellow exterior surface (10YR 7/3). Yellow fabric (10YR 7/6) abruptly changing to a very dark gray core (5Y 3/1). Very pale brown interior surface (2.5Y 7/3). Burnished interior and exterior surfaces. Fine chaff temper.

F. D4 L4027 KT4129 #1: Light reddish brown exterior (5YR 6/4) grading to a reddish yellow core (7.5YR 6/6). Reddish yellow interior surface (5YR 6/6). Small area of yellowish red paint on interior surface (5YR 5/6). Fine to medium grain grit temper. Cmd. unknown.

G. D4 L4022 KT4170 #2: Reddish yellow exterior surface (5YR 7/6). Reddish yellow fabric (7.5YR 7/6) grading to a light yellowish brown core (2.5Y 6/3). Reddish yellow interior surface (5YR 7/6). Red paint on exterior surface (2.5YR 4/8). Medium grit and chaff temper.

H. D4 L4032 KT4154 #8: Pale brown exterior surface (7.5YR 7/4). Reddish yellow fabric (7.5YR 7/6) abruptly changing to a very dark gray core (2.5Y 3/1). Pink interior surface (10YR 6/3). Incised on exterior surface. Fine chaff temper.

I. D4 L4023 KT4112 #14: Reddish yellow exterior surface (5YR 7/6). Reddish yellow fabric (7.5YR 8/6) abruptly changing to a very dark gray core (2.5Y 3/1). Reddish yellow interior surface (7.5YR 7/6). Incised bands on exterior surface. Fine grit and chaff temper.

J. D4 L4032 KT4154 #14: Reddish gray exterior surface (2.5YR 6/6). Light red fabric (2.5YR 6/1) abruptly changing to a dark gray core (GLEY1 4/N). Light red interior surface (2.5YR 5/1). Incised bands on exterior surface. Medium chaff temper.

- K. C2 L2032 KT2259 #1:** Light brownish gray exterior surface (5YR 7/4). Very dark gray core (GLE Y1 3/N). Pink interior surface (2.5Y 6/2). Incised bands on exterior surface.
- L. C2 L2039 KT2269 #3:** Gray exterior surface (7.5YR 5/2) grading to a dark gray core (GLE Y1 4/N). Brown interior surface (5Y 5/1). Wash on exterior. Incised bands on surface. Fine grit temper.
- M. C2 L2049 KT2311 #4:** Pink exterior surface (7.5YR 7/3) grading to a dark gray core (GLE Y1 4/N). Pink interior surface (5YRf 7/4). Incised bands on exterior surface. Coarse chaff temper.
- N. D4 L4023 KT4112 #12:** Pink exterior surface (7.5YR 8/3) grading to a very pale brown core (10YR 7/4). Pink interior surface (7.5YR 8/4).
- O. D4 L4023 KT4112 #2:** Light reddish brown exterior surface (7.5YR 8/4). Reddish yellow fabric (5YR 7/6) abruptly changing to a reddish yellow core (7.5YR 7/6). Pink interior surface (5YR 6/4). Reddish brown paint (5YR 5/4) on exterior surface. Medium grit temper.
- P. D4 L4027 KT4132 #5:** Very pale brown exterior surface (10YR 8/4) grading to a reddish yellow core (7.5YR 7/6). Pink interior surface (7.5YR 7/4). Burnished exterior surface. Brown wash on rim (7.5YR 4/4). Medium chaff temper.
- Q. C2 L2039 KT2235 #3:** Pale brown exterior surface (7.5YR 6/3) grading to a brown core (7.5YR 5/4). Light brown interior surface (10YR 6/3). Medium chaff temper.
- R. D4 L4023 KT4124 #5:** Pale yellow exterior surface (2.5YR 5/3) grading to a light olive brown core (2.5YR 5/3). Light yellowish brown interior surface (5Y 7/3). Dark reddish gray paint (5YR 4/2) on interior rim surface. Fine grit and chaff temper.
- S. D4 L4027 KT4132 #4:** Pale yellow exterior surface (2.5Y 8/2) grading to a yellow core (10YR 7/6). Pale yellow interior (2.5Y 8/2). Medium grit temper. Pale yellow wash on exterior surface (2.5Y 8/2).
- T. D4 L4023 KT4124 #5:** Pale yellow exterior surface (2.5YR 5/3) grading to a light olive brown core (2.5YR 5/3). Light yellowish brown interior surface (5Y 7/3). Dark reddish gray paint (5YR 4/2) on interior rim surface. Fine grit and chaff temper.
- U. D4 L4032 KT4154 #1:** Pink exterior surface (5YR 6/6). Reddish yellow fabric (5YR 6/6) abruptly changing to a gray core (GLE Y1 5/N). Reddish yellow interior surface (7.5YR 6/4). Red paint (2.5YR 4/6) on exterior surface. Medium to coarse grit temper.

V. **D4 L4027 KT4132 #9**: Very pale brown exterior surface (10YR 8/4) grading to a reddish yellow core (7.5YR 7/6). Pink interior surface (7.5YR 7/4). Incised band on exterior surface. Fine grit and chaff temper.

W. **C2 L2049 KT2311 #3**: Reddish yellow exterior surface (5YR 6/6)/. Reddish yellow fabric (7.5YR 7/6) abruptly shifting to a gray core (5Y 5/1). Reddish yellow interior surface (7.5YR 6/6). Medium grit temper.

X. **C2 L2034 KT2204 #3**: Light brownish gray exterior surface (7.5YR 6/4). Strong brown fabric (7.5YR 5/6) abruptly changing to a dark gray core (7/5YR 4/1). Light brown interior surface (10YR 6/2). Dark gray paint (7.5YR 4/1) on exterior surface. Coarse grit temper.

Y. **D4 L4023 KT4124 #3**: Grayish brown exterior surface (10YR 6/3) grading to a dark grayish brown core (10YR 4/2). Pale brown interior surface (10YR 5/2). Dark grayish brown wash (10YR 4/2) on exterior surface. Very dark brown paint (10YR 3/1) on exterior surface. Fine grit temper.

Z. **D4 L4023 KT4124 #2**: Light gray exterior surface (10YR 7/2). Reddish yellow fabric (5YR 7/6) abruptly changing to a black core (5YR 2.5/1). Light gray interior surface (2.5YR 7/2). Wash on exterior of base. Fine grit temper.

AA. **C2 L2049 KT2311 #5**: Light red exterior surface (5YR 6/6) grading to a reddish yellow core (5YR 6/6). Reddish yellow interior surface (2.5YR 7/6). Medium grit temper.

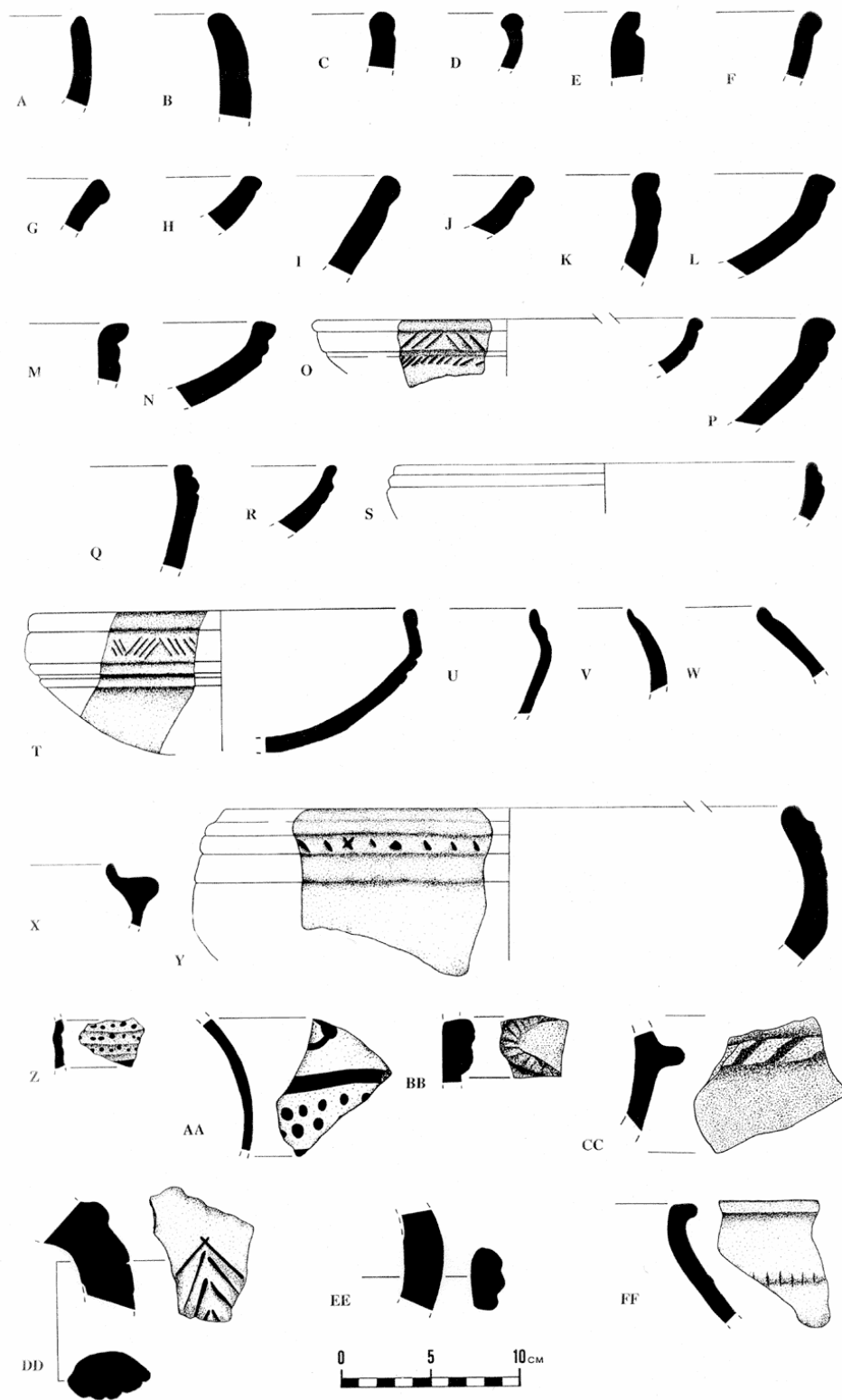


Figure 14: Early Iron Age Ceramics. This figure includes corrugated types (A-Y) indigenous painted types (Z and AA), "snake decoration" (BB) and the rope imitation band (CC).

Figure 14: *Descriptions of Assorted Early Iron age Ceramics*

- A. **B1021 KT1110 #4:** Surface exterior is light brownish gray (10YR 7/2), interior surface is light gray (10YR 7/2), core color is very pale brown (10YR8/4); fine chaff temper; 24 cm diameter.
- B. **B1021 KT1110 #13:** Surface exterior is brown (7.5YR 6/4), interior surface is light brown (7.5 YR 4/3), core color is black (10YR 2/1); medium grit/chaff temper; 50 cm diameter.
- C. **B1021 KT1110 #12:** Surface exterior is grayish brown (2.5Y 7/2), interior surface is light gray (2.5Y 5/2), core color is very pale brown (10YR 7/3); medium to coarse chaff temper; 42 cm diameter.
- D. **B1021 KT1110 #3:** Surface exterior is pink (10YR 6/2), interior surface is light brownish gray (7.5YR 7/3), core color is dark gray (10YR 4/1); medium chaff temper; 17 cm diameter.
- E. **B1027 KT1189 #3:** Surface exterior is reddish yellow wash (7.5YR 8/3), interior surface is pink (5YR 7/6), core color is light red (2.5YR 6/6); coarse chaff temper; 34 cm diameter.
- F. **B1027 KT1140 #10:** Surface exterior is reddish yellow (5YR 6/4), interior surface is light reddish brown (5YR 7/6), core color is red (2.5YR 5/6); fine chaff temper; cm diameter is indeterminate.
- G. **B1021 KT1110 #2:** Surface exterior is light brown (7.5YR 7/8), interior surface is reddish yellow (7.5YR 6/4), core color is brownish yellow (10YR 6/6); fone grit temper with very minor chaff inclusions; 54 cm diameter.
- H. **B1027 KT1189 #5:** Surface exterior is a light brown wash (5YR 6/6), interior surface is reddish yellow (7.5YR 6/4), core color has an abrupt change from very pale brown (10YR 7/3) to very dark gray (5Y 3/1); coarse chaff temper; cm diameter indeterminate.
- I. **B1027 KT1140 #5:** Surface exterior is pale red (2.5YR 7/4), interior surface is light reddish brown (10R 7/4), core color is light red (2.5YR 6/6); fine chaff temper; 27 cm diameter.
- J. **B4013 KT4179 #2:** Surface exterior is strong brown (7.5Yr 6/4), interior surface is light brown (7.5YR 5/6), core color is yellowish brown (10YR 5/4); medium chaff temper; cm diameter is indeterminate.
- K. **B1021 KT1110 #8:** Surface exterior is a burnished reddish yellow (5YR 7/6), interior surface has mild burnishing and is a reddish yellow (5YR 6/6), core color has a abrupt change from strong brown (7.5YR 5/6), to a very dark gray (7.5YR 3/1); medium grit/chaff temper, 49 cm diameter.

L. **B1027 KT1140 #1**: Surface exterior is pale red (10YR 7/3), interior surface is pale red (10R 6/3), core color is light red (10R 6/8); fine chaff temper; cm diameter is indeterminate.

M. **B1027 KT 1140 #12**: Surface exterior is light reddish brown (2.5YR 5/4) interior surface is reddish brown (2.5YR 6/4), core color is light red (10R 6/6); very fine chaff temper, cm diameter is indeterminate.

N. **B1025 KT1130 #1**: Surface exterior is pink (10YR 7/2), interior surface is light gray (7.5YR 7/4) core color is very dark gray (10YR 3/1); medium to coarse grit/chaff temper; cm diameter is indeterminate.

O. **B1014 KT1057 #5**: Surface exterior is pink (7.5YR 7/4), interior surface is pink (7.5YR 7/4), core color grades from pink (7.5YR 7/4) to brown (7.5YR 5/2); temper is indeterminate; 40 cm diameter.

P. **B1012 KT1089 #1**: Surface exterior is pink (5YR 7/4), interior surface is very pale brown (10YR 8/2), core color is reddish yellow (5YR 6/6); medium chaff temper, 20 cm diameter.

Q. **B1014 KT1057 #3**: Surface exterior is a burnished reddish yellow (7.5YR 7/6), interior surface is a burnished reddish yellow (5YR 6/6), core color grades from reddish yellow (7.5YR 6/6) to grayish brown (10YR 5/2); coarse chaff temper; cm diameter is indeterminate.

R. **B1027 KT1140 #2**: Surface exterior is red (7.5R 6/6), interior surface is light red (7.5R 5/6), core color is light red (10R 5/6); medium chaff temper; 20 cm diameter.

S. **B1014 KT1057 #4**: Surface exterior is reddish yellow (5YR 6/6), interior surface is reddish yellow (5YR 6/6), core color is reddish yellow (5Yr 7/6); coarse chaff temper; 22 cm diameter.

T. **B4013 KT4179 #1**: Surface exterior is a burnished light brownish gray (7.5YR 5/4), interior surface is brown(10YR 6/2), core color has an abrupt change from strong brown (7.5YR 4/6) to brown (7.5YR 4/2); coarse grit temper, 20 cm diameter

U. **B1012 KT1089 #2**: Surface exterior is very pale brown (10YR8/4), interior surface is pink (7.5YR 7/4), core color is reddish yellow (5YR 6/6); medium chaff temper; cm diameter is indeterminate.

V. **B1027 KT1140 #9**: Surface exterior is pale red (10R 6/4), interior surface is pale red (10R 6/4), core color is light red (10R 6/6); fine chaff temper; 9 cm diameter.

W. **B1027 KT1189 #2**: Surface exterior is light reddish brown (5YR 6/6), interior surface is reddish yellow (5YR 6/3), core color is very dark gray (5Y 3/1); medium grit/chaff temper; cm diameter is indeterminate.

X. **B1027 KT1140 #11**: Surface exterior is light reddish brown (2.5 YR 6/3), interior surface is light reddish brown (2.5YR 6/4), core color is reddish brown (2.5YR 5/3); fine chaff temper; cm diameter is indeterminate.

Y. **B1013 KT1078 #1**: Surface exterior is a burnished light reddish brown (5YR 6/4), interior surface is brown (7.5YR 5/4), core color is reddish brown (2.5YR 5/4); medium to coarse grit temper; 50 cm diameter.

Z. **B1014 KT1072 #1**: Surface exterior is reddish yellow (5YR 6/6), interior surface is reddish yellow (5YR 6/6), core color is reddish yellow (5YR 6/6); no visible temper; body sherd.

AA. **B4012 KT4163 #1**: Surface exterior is pinkish gray (7.5YR 7/4), surface paint is reddish brown (5YR 4/4), interior surface is pink (7.5YR 7/2), core color is reddish yellow (7.5YR 6/6); fine to medium grit/chaff temper; body sherd.

BB. **B1027 KT1140 #6**: Surface exterior is light reddish brown (2.5YR 6/3), interior surface is light reddish brown (2.5YR 7/3), core color is weak red (10YR 4/3); fine chaff temper; body sherd.

CC. **B1035 KT117 #5**: Surface exterior is light brown (7.5YR 6/3), interior surface is light brown (7.5YR 6/4), core color is black (2.5Y 2.5/1); medium chaff temper; body sherd.

DD. **B1027 KT1140 #3**: Surface exterior is light reddish brown (2.5YR 6/3), interior surface is light reddish brown (2.5YR 7/3), core color is reddish brown (5YR 6/6); coarse chaff temper; handle.

EE. **B1027 KT1140 #4**: Surface exterior is light red (2.5YR 6/6), interior surface is light red (2.5YR 6/6), core color is reddish brown (2.5YR 5/2); medium chaff temper; handle.

FF. **B1027 KT1140 #8**: Surface colors and temper information is unavailable; cm diameter is indeterminate.