

The early second millennium ceramic assemblage from Kenan Tepe, southeastern Turkey. A preliminary assessment

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Abstract

In the initial survey of the upper Tigris river valley the authors of the survey report concluded that 'either this portion of the Tigris basin was bypassed entirely by Middle Bronze Age development attested to elsewhere or, more likely, it is characterised by a thus far unreported and unrecognised assemblage' (Algaze et al. 1991: 183). Recent research by members of the Upper Tigris Archaeological Research Project (UTARP) at the site of Kenan Tepe confirms the latter hypothesis, that the early second millennium in this area is marked by a regionally distinct material culture assemblage that is influenced by ceramic traditions in upper Mesopotamia and other material culture traditions in Anatolia. This article outlines our initial assessment of these data including an analysis of the ceramic corpus, architecture, archaeobotany, small finds and carbon-14, and places these data in a regional context. We conclude by speculating that the inhabitants of Kenan Tepe may have participated in interaction spheres that linked the upper Tigris river region to greater Mesopotamia and Anatolia.

Özet

Dicle Nehri yukarı vadisi yüzey araştırması çalışmalarının ön raporunda yazarlar şu ortak sonuca varmışlardır: 'Dicle havzasının bu bölümüne ya Orta Bronz Çağ sırasında diğer bölgelerde yaşanan gelişmeler hiç uğramadan geçti ya da, daha büyük olasılıkla, henüz rapor edilmeyen ve tanımlanmayan farklı bir karakterde oluştu' (Algaze et al. 1991: 183). Yukarı Dicle Arkeolojik Araştırma Projesi (UTARP) üyeleri tarafından son zamanlarda Kenan Tepe'de yapılan araştırmalar ikinci hipotezi onaylamakta, yani ikinci binyıl başlarında bu bölgeye özgü farklı ve kısmen Yukarı Mezopotamya'daki seramik geleneklerinden ve Anadolu'daki diğer materyal kültür geleneklerinden etkilenen farklı bir kültür oluşumu yaşandığını göstermektedir. Bu makale söz konusu verilerin ilk değerlendirilmesine ait bir ön çalışma olup, seramik koleksiyonları, mimari, arkeobotani, küçük buluntular ve karbon 14 analizlerini de içermekte ve bu verileri bölgesel bağlamda yerlerine oturtmaktadır. Sonuç olarak tahminimiz, Yukarı Dicle bölgesindeki Kenan Tepe halkının Mezopotamya ve Anadolu arasındaki bölgesel etkileşimler içinde yerlerini almış olabilecekleridir.

During the summers of 2000 and 2001, members of the Upper Tigris Archaeological Research Project (UTARP) conducted excavations at the site of Kenan Tepe in the Ilisu dam region of southeastern Turkey (fig. 1). Our main datum was installed at the top of Kenan Tepe's main mound, and is located at 37 49 50.11634 N by 40 48 47.59917 E. Its elevation is 603.724m above the World Geodetic System (WGS) datum. Kenan Tepe is a large multi-period site consisting of a tall main mound and a small lower town (fig. 2). (For preliminary reports of UTARP's excavations at Kenan Tepe see

Parker et al. 2002a; 2002b; 2003; 2004.) During the 2000 field season (Parker et al. 2002a), excavations in two widely separated parts of the site (areas C and D, fig. 3) unearthed significant quantities of ceramics belonging to an interesting assemblage that had been tentatively identified in regional surveys and given the name 'red-brown wash ware' (Algaze 1989; Algaze et al. 1991). Vessels 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 chronological and/or cultural unit.

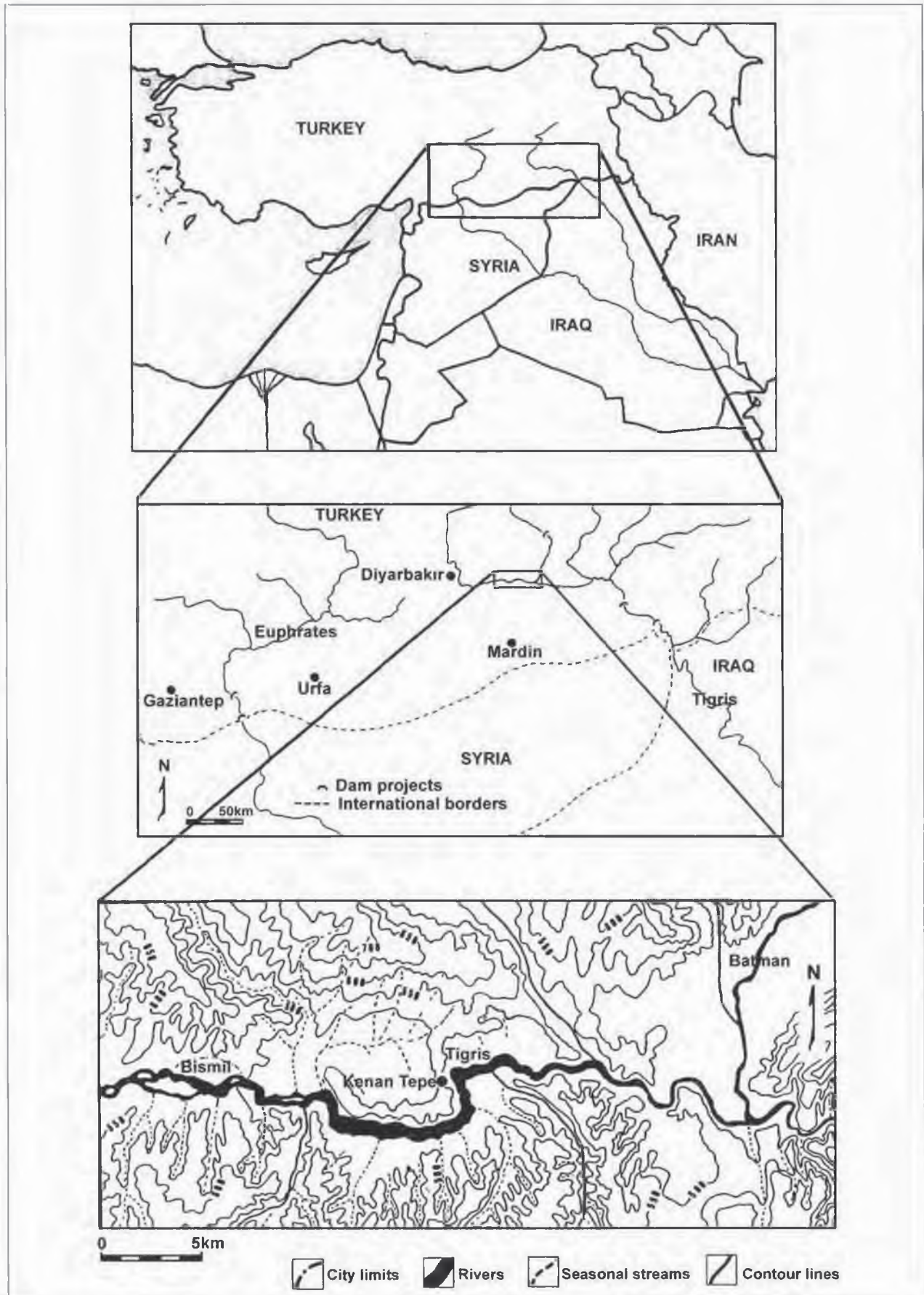


Fig. 1. Map of the modern Middle East with enlargements showing the location of Kenan Tepe

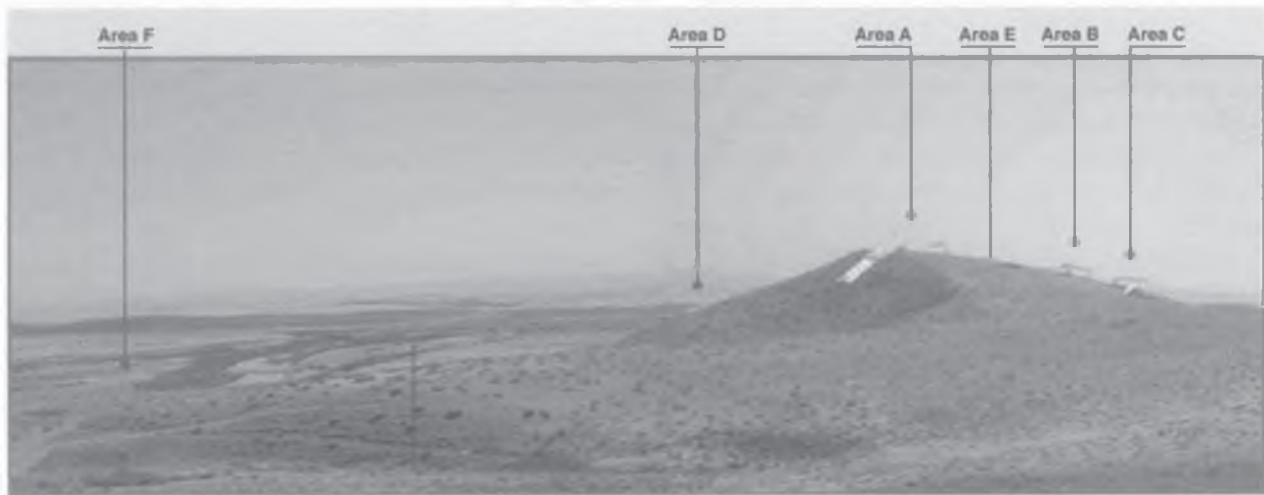


Fig. 2. Photo of Kenan Tepe facing southeast. The locations of various excavation areas are indicated

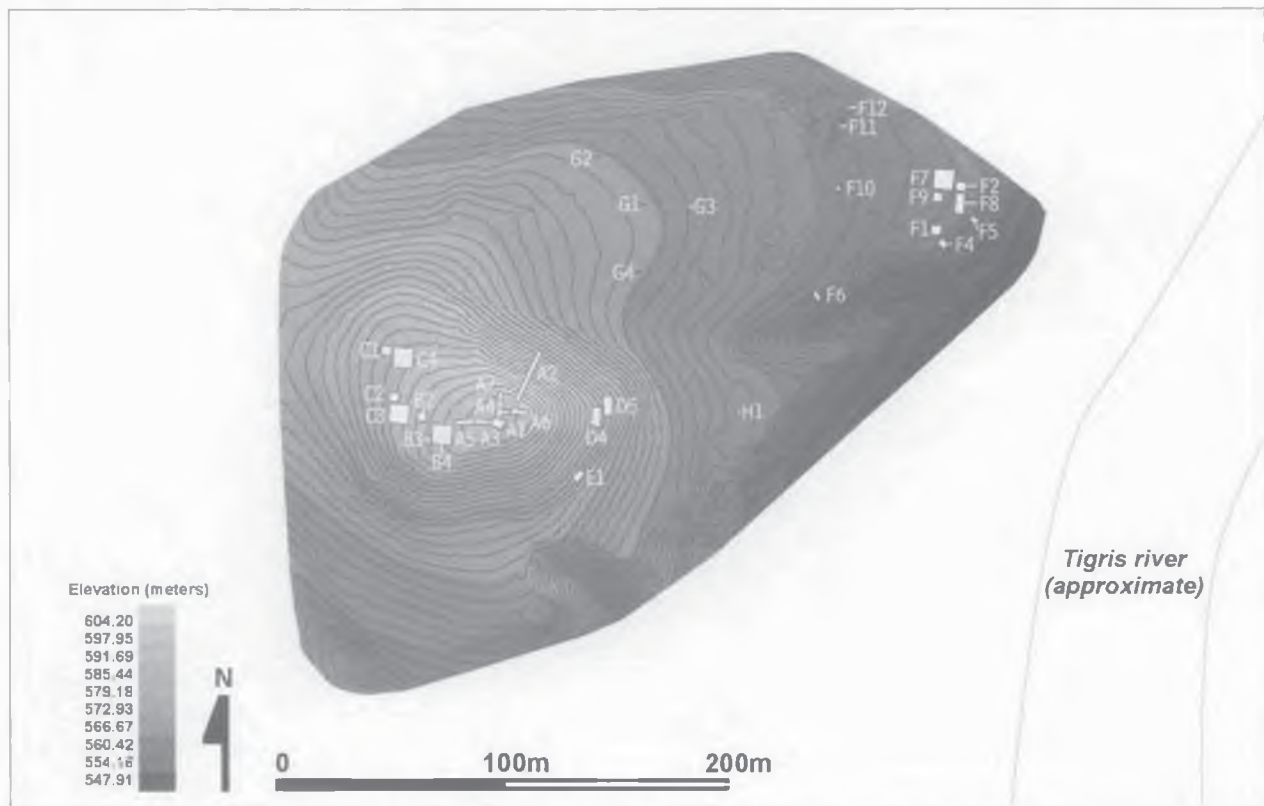


Fig. 3. High resolution topographic map of Kenan Tepe showing the location of various excavation units

Excavations during the 2001 field season concentrated on the two areas where this assemblage was discovered. This research yielded well preserved architectural levels with numerous sealed contexts containing both an array of ceramics belonging to the red-brown wash ware assemblage and a number of carbon samples. An analysis of the carbon samples confirmed our assumption that this ceramic assemblage is a marker of early second millennium BC settlement in the upper

Tigris river region of southeastern Turkey. Our preliminary analysis shows that, although there are some close parallels with the Khabur ware and Old Babylonian period ceramic groups, there is no question that the red-brown wash ware assemblage identified at Kenan Tepe is regionally distinct.

The purpose of this article is to make data about this ceramic assemblage, which has previously been documented only from surface collections, available to

the larger archaeological community as quickly as possible. For this reason we are providing a preliminary assessment of this material as it is known from our first two seasons of excavations at Kenan Tepe, even though our analysis is not yet complete. As we shall demonstrate in the following pages, UTARP's excavations have exposed well preserved architectural levels from which the ceramic vessels constituting this assemblage derive. These contexts also included various small finds, archaeobotanical remains and refuse from high temperature processes (slags). Thus, although our sample will be augmented by future excavation, the extent of exposure (225m² of horizontal exposure and up to 5m of vertical exposure) and the association of the red-brown wash ware assemblage with architecture and other material remains dated by carbon-14, allow us to offer a relatively clear snapshot of the character of early second millennium occupation in this part of Anatolia. It is our hope that the publication of these data will assist others in the further definition, characterisation and dating of archaeological remains from this important period.

The early second millennium is known in some detail from Old Assyrian and Old Babylonian texts as an era of significant inter-regional economic interaction in which extensive trade networks connected distant polities all across the ancient Near East (Larsen 1967; 1976; 1977; Oppenheim 1970; Veenhof 1972; Dalley 1984). Excavations at sites such as Tell al-Rimah (Postgate et al. 1997) have made substantial contributions to the development of a chronology based on epigraphic evidence. Our ability to link components of the red-brown wash ware assemblage to the Old Babylonian and Khabur ware corpora at sites like Tell al-Rimah provide a means of connecting Kenan Tepe, and the upper Tigris river region, to this larger regional political chronology.

Although significant attention has been paid to the rich textual record, less research has focused on the source areas that supplied this vast regional network with its raw materials and commodities (see however, for example, Dercksen 1996; Yener 2000). Located in the foothills of the Taurus range, Kenan Tepe was likely connected to the larger Mesopotamian world through its access to significant natural resources such as metals, wood and other wild and cultivated products. One of the goals of our future research is to clarify the role Kenan Tepe played in this inter-regional trade network and to understand how inter-regional interaction contributed to the socio-economic development of Kenan Tepe and the region as a whole. However, we have only begun to address these research questions. Thus, although this publication will provide information that is pertinent to this line of inquiry, these issues are raised as avenues for further research rather than as completed research hypotheses.

The archaeological contexts

Early second millennium levels were encountered in two areas on Kenan Tepe's main mound (areas C and D, see figs 2 and 3) but have not so far been discovered anywhere in the lower town. This being the case, we estimate the size of Kenan Tepe's early second millennium town to have been about 1.1ha. 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 dating to this period include a variety of well built stone structures. In the case of area C, these structures appear to be domestic in nature, while those recovered in trench D4 appear to be the remains of a larger, more substantial and possibly public building.

Area C is located on the gently sloping western side of Kenan Tepe's main mound (figs 2 and 3). During the 2000 field season UTARP team members opened two 5m by 5m trenches in this area (trenches C1 and C2). In trench C2, beneath Early Iron Age levels, we unearthed what appears to be the northeastern corner of a well built structure (hereafter referred to as structure 1). The excavation of structure 1 continued in the 2001 field season when two additional 10m by 10m trenches were opened in area C (trenches C3 and C4, fig. 3). These trenches have yet to reach early second millennium levels, but it is our hope that in the coming seasons we will achieve broad horizontal exposures of Kenan Tepe's early second millennium remains in this area.

Structure 1 within trench C2 is a multi-phase structure adjacent to surfaces, ash filled pits and refuse areas (fig. 4) that contain pottery from the red-brown wash ware corpus (figs 5 and 6). The stratigraphy of the rooms and outside surfaces, outlined by structure 1 walls L2048 and L2072, is as follows. Both walls were founded on surface L2099. Additionally, wall L2046/2071/2081 outlines a space in the south part of trench C2 that was also founded on surface L2099. The space to the south of L2046/2071/2081 was eventually a locus of trash accumulation, and small pits (L2075, L2084+) were dug into that deposit subsequently. A work area was excavated against the west bank of trench C2, within the space defined by walls L2048 and L2072. In this work area there was evidence of fire related activities, including finds such as a clay andiron (KT 2529), burned earth (KT2531), a bluish crust on soil (KT 2702) and slag pieces (KT2527). These last two finds may be related to metal processing activities.

In the southern section of the trench, in an area bounded on its northern side by wall foundation L2046, UTARP team members excavated a dense accumulation of artefacts (pottery, ground basalt and bone). The surfaces that are associated with this wall include L2095 and L2099. A circular pit (L2084) cut into surface 2095.

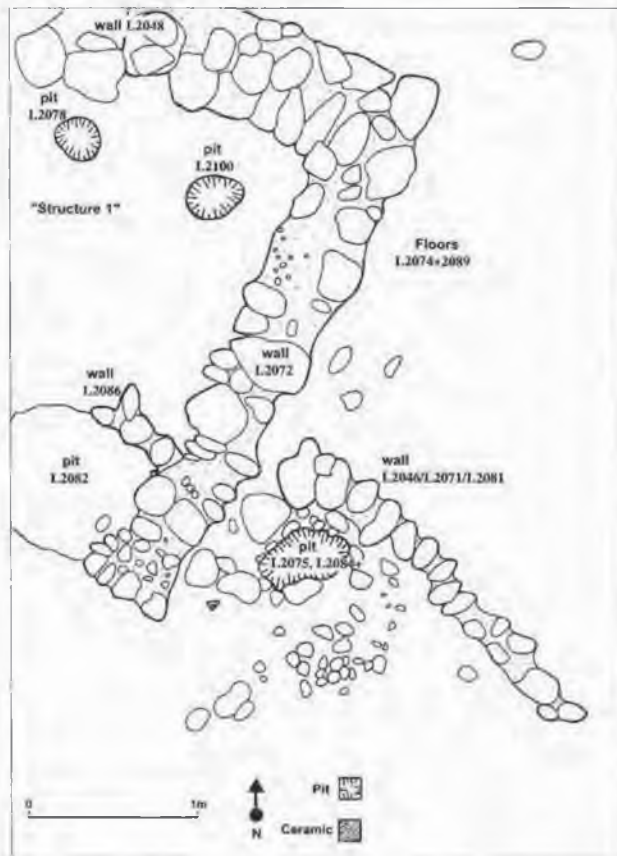


Fig. 4. Plan of Trench C2

This pit (C2 L2084) contained a carbon sample (KT2576), bone, lithics, slag and sherds with surface treatments, fabrics and vessel shapes characteristic of the red-brown wash ware corpus (described below in greater detail) such as KT type characteristic 28 'red-brown wash ware', KT type characteristic 83 'carinated bowls', KT type characteristic 101 'flaring lip jars' and several examples of large neckless jars.

A second carbon sample (KT2614; see below) came from the fill (L2087) surrounding pit L2084. Another sealed pit (L2082) was discovered within the structure created by walls L2048 and L2072. The pit was bounded on its north side by a small wall, L2086. This pit yielded a third carbon sample (KT2584; see below) along with various examples of red-brown wash ware ceramics.

Large jars account for a significant percentage of the vessels recovered in C2, especially in the loci from which the carbon-14 samples were taken, and from surfaces located at the same vertical level as these loci (C2 L2074 and C2 L2089). Animal bones have been encountered throughout these contexts. These data suggest that structure 1 was a domestic complex and work space in which a variety of large jars were used for either storage or delivery and transport, and where a range of specialised high temperature processes were carried out for a significant amount of time (such that

some walls fell out of use and were covered by later ash). In both trenches C1 and C2 early second millennium contexts are overlain by Early Iron Age layers. The Early Iron Age is also characterised by traces of high temperature processes including copper and iron artefacts, attesting to the longevity of these activities at this site. There are as yet no carbon-14 dates for the Early Iron Age levels. For this reason we are not able to ascertain the distance in time between the red-brown wash ware assemblage and the Early Iron Age corrugated and indigenous painted ware traditions. Still, these Early Iron Age remains provide a stratigraphic cap above the Middle Bronze Age layers. Further, because there is no occupation in the Late Bronze Age, the Middle Bronze Age ceramic corpus does not blend into the later period and thus there is no significant admixture of Mitanni or other Late Bronze Age ceramics at Kenan Tepe.

Area D is considerably different in character from Area C, which may be in part due to its location on Kenan Tepe's steep eastern slopes overlooking the Tigris river. As we shall see below, the steep incline of this part of the mound may have contributed to a greater degree of erosion than occurred on the western side of the mound. Excavation in this area began during the 2000 field season when UTARP team members opened two 5m by 5m trenches (D1 and D2) and one 2m by 2m sounding (D3). During the 2001 field season trenches D1 and D2 were combined into a single 5m by 10m trench (renamed D5) and the 2m by 2m trench (D3) was expanded into a 5m by 10m unit (renamed D4). This trench (D4) yielded what we believe to be the eastern portion of a substantial, possibly public building. This second structure (hereafter referred to as structure 2) was unearthed in area D on the east side of the mound, at roughly the same elevation as the Middle Bronze Age layers from area C (figs 2 and 3).

Structure 2 is characterised by a series of well preserved floors and walls. These surfaces cover nearly the entire southern two thirds of the trench except where they are cut by a partly excavated Early Iron Age pit (L4028). North of pit L4028 these surfaces continue into the D3 sounding. This series of floors was divided into several loci to ensure that potentially mixed contexts were kept separate from those that were sealed. (A graphic representation of the stratigraphic relationships of the loci in trench D4 is given in table 1.) The first set of surfaces begins with L4012+ (L4012 consists of L4018/4012/4017/4014). Ceramics from this context are illustrated in fig. 7. This floor sealed the second surface that was excavated as L4023/4027. Ceramics from these loci are illustrated in figs 8 and 9. The removal of surface L4023+ revealed an interesting set of architec-

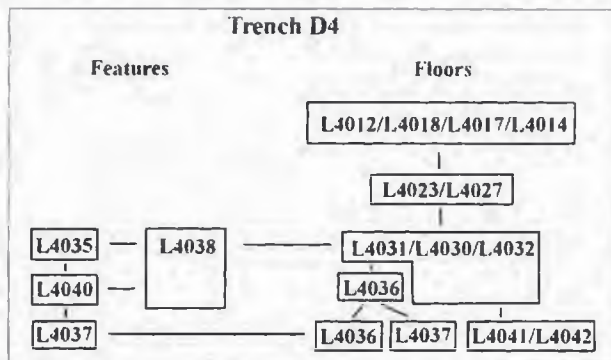


Table 1. Diagram of the loci relationships in trench D4

tural features (fig. 10). This level was bisected by a narrow wall (L4038) made up of a single course of stones, to which floor L4030/4032 was clearly bonded. An exemplary set of ceramics was crushed into the matrix of the floor (ceramics from these loci are illustrated as fig. 11).

Beneath this level was a series of walls (L4043) and associated surfaces (including a 1.4m by 0.65m pavement of river pebbles set on their edges (L4040), a surface paved with large flat stones (L4037) and layers in which broken ceramics were found pressed into the hard soil matrix). Two small pits that contained large amounts of pottery were cut into fill on the north side of wall L4043. The relationship between the pits and the walls is not certain. However it is clear that structure 2 includes at least three phases of walls and associated surfaces containing large quantities of ceramics from the same assemblage. The nature of the deposits in trench D4 suggests that these remains belong to a single large structure, the eastern edge of which protrudes into the trench, and a series of outside surfaces that may be the remains of a narrow street. Further research will be required to determine the speed at which these densely packed, layered floors accumulated.

Carbon-14 analysis

During the 2001 field season, UTARP team members recovered carbon samples from contexts containing ceramics belonging to the red-brown wash ware corpus. Unfortunately no datable carbon was discovered in trench D4. However, several samples consisting of small pieces of unidentified charred material were excavated from trench C2. Of these we ran samples from three different contexts related to structure 1 (see above). These tests produced very close dates falling in the first half of the second millennium BC (tables 2 and 3). Since the ceramic assemblages from trenches C2 and D4 are virtually identical we assume that structure 1 and structure 2 are roughly contemporaneous.

The first carbon sample tested (Beta-165446) was extracted from a stone lined pit (locus C2 L2082) that may have been part of a pyrotechnic facility within structure 1 (fig. 4). This sample yielded a 2-sigma calibrated radiocarbon date of 1930–1680 BC.¹ The stone lining of this feature, which consisted of a worn basalt saddle quern and blocks of river conglomerate, probably protruded from the ground, perhaps creating a windbreak. One of the blocks used to line the pit was within the foundation of a wall belonging to structure 1 (C2 L2072). Thus, although this stratigraphic relationship suggests that this feature belongs to structure 1, the construction of the wall of structure 1 (C2 L2072) slightly predates this feature.

The second carbon sample (Beta-165448) was recovered from a pit (locus C2 L2084) cut into debris that accumulated against the south wall of structure 1 (C2 L2081, fig. 4). This sample yielded a 2-sigma calibrated date of 1950–1730 BC. Unfortunately, there is no direct stratigraphic link between this and the first sample, although we do know that both were deposited after the construction of the large wall of structure 1 (C2 L2072). The accumulation in this pit included a large quantity of animal bone, some lithic material, ground stone and a variety of ceramic sherds belonging to the red-brown wash ware corpus. A sample of the ceramics from this locus is illustrated in fig. 6.

The third carbon sample (Beta-165447) was excavated from the matrix (C2 L2087) into which pit C2 L2084 was cut. This sample yielded a 2-sigma calibrated date of 1960–1630 BC. This locus was composed of packed pottery, river cobbles, river conglomerate, ground stone (basalt) and some bone.

The ceramic corpus

In creating the Kenan Tepe typology we are tracking three sets of attributes: surface treatment, form and fabric. We refer to these attribute sets as type characteristics. By surface treatment we mean any purposeful manipulation of the surface of a vessel including slip, wash, paint, incisions, impressions, smoothing, burnishing or applications. Form refers to the vessel's physical shape. This type characteristic set is often defined by a specific or unusual trait such as a carination or a particular rim shape. The term fabric refers to the material from which the vessel was made, including the clay, temper and inclusions, as well as the effect that

¹ Note that the dates given here differ slightly from those given in our previous reports (Parker et al. 2003; 2004). We would like to thank Stuart Campbell for his assistance in further calibrating these dates and for his assistance in creating table 3.

Lab. number	Sample number	$^{13}\text{C}/^{12}\text{C}$	Radiocarbon age	Calibrated age (2SD)
Beta-165446	L2082 KT 2584	-26.5‰	3480±50BP	1930-1680BC
Beta-165447	L2087 KT 2614	-26.8‰	3490±60BP	1960-1630BC
Beta-165448	L2084 KT 2576	-25.2‰	3520±40BP	1950-1730BC

Table 2. Carbon-14 data from trench C2 (all using AMS on charred material). Calibration using OxCal 3.5

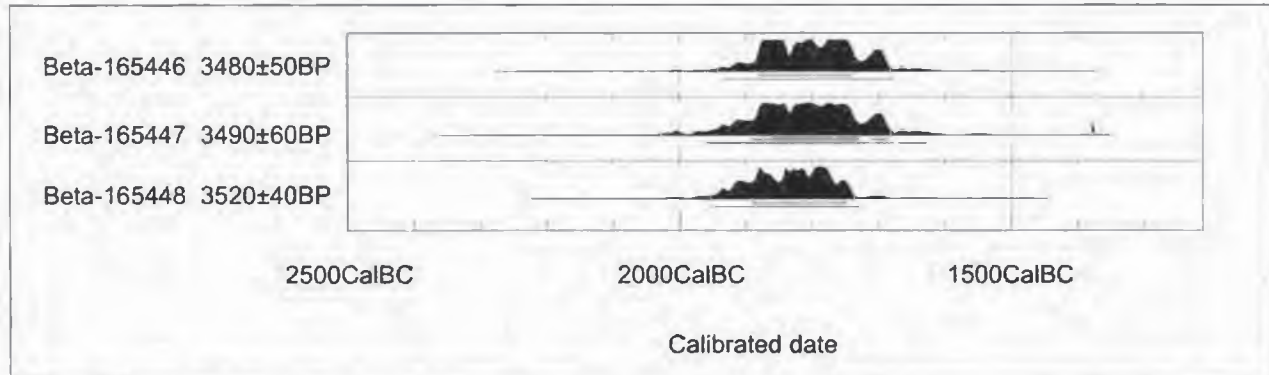


Table 3. Carbon-14 data from Trench C2 L2082, L2084, L2087

manufacturing had on that material.² Ideally, a 'type' emerges when many examples within a group of ceramics share similar characteristics from all three attribute sets.

A preliminary assessment of the ceramic corpus from trenches C2 and D4 at Kenan Tepe shows that the early second millennium assemblage includes at least 15 main type characteristics, 11 of which are described in detail here. Although our preliminary analysis of the ceramics from Kenan Tepe suggests that fabric often correlates with form and size, the relationship between surface treatment and other type characteristic sets appears to be more fluid. Some form type characteristics occur more frequently with particular surface treatment type characteristics, but there is, as far as we can tell so far, no strict canon of correlation between surface treatment and vessel form or size.

Surface treatment and form type characteristics are treated in the following pages. Fabric type characteristics are still being refined, and are discussed here wherever a notable pattern of association has been discerned.

² In our opinion the use of the term 'ware' as a description of ceramics linked by certain surface treatments is problematic. Because 'ware' is often used by archaeologists to refer to what we consider to be a type (a set of ceramics sharing various sets of attributes), or even to refer to an entire assemblage (a corpus of ceramics belonging to the same period and/or region), we feel that this term has become too broad to be useful. Therefore, although the assemblage discussed in this article was initially referred to as 'red brown wash ware', we consider the corpus to be a ceramic assemblage rather than a ware.

A) Surface treatment type characteristics

KT type characteristic 28: red-brown wash

Kenan Tepe type characteristic 28 'red-brown wash' was first recognised in the analysis of the material collected during the initial surveys of the upper Tigris region (Algaze 1989; Algaze et al. 1991). In spite of the fact that the title 'red-brown wash ware' is in many ways inadequate, this distinctive and easily identifiable surface treatment nevertheless gave its name to the assemblage. Technically speaking, this surface treatment is probably neither a wash (a fluid suspension of clay applied to a vessel after firing to form a thin exterior coating [Rice 1987: 149–50]), nor a slip (a fluid suspension of clay applied to a vessel before firing to form a thin exterior coating [Rice 1987: 149–50]), but is instead a thinly applied paint (an applied pigment). Red-brown wash (KT T.C.28) and brown wash (KT T.C.4, below) in many cases probably represent different shades of the same surface treatment. In some cases these two surface treatments have appeared on the same vessel as colour variations of each other (brownier = type characteristic 4 or redder = type characteristic 28), although in most cases they appear on sherds as a single colour, either red or brown. We have left these as separate type characteristics because of the likelihood that surveyors and excavators will find them on fragments of vessels and, because of the wide colour range, may categorise them as two different surface treatments. The colour of red-brown wash varies from 10R 5/6 (red) to 2.5YR 5/6 (red).³ This surface

³ Colours are referred to here using Munsell Soil Color Chart codes.

treatment is often fugitive and in nearly all cases covers the entire outside surface of vessels. Kenan Tepe type characteristic 28 normally appears on the vessel's exterior surface but it has also been occasionally noted on the inside surface, especially on more open forms.

Kenan Tepe type characteristic 28 is by far the most common type characteristic in the early second millennium corpus from Kenan Tepe. Appearing on a wide variety of vessel forms and fabrics, our initial assessment is that this surface treatment occurs on as much as 50% of the diagnostic ceramics thus far recovered at Kenan Tepe. If we consider the number of vessels that only partly exhibit this type characteristic (KT T.C.28 is often so fugitive as to be hardly noticeable), the percentage may be higher. This should be taken into consideration when reading the comparanda sections below. The most significant component of the assemblage is monochromatically coloured, in whole or in part, with this red-brown surface treatment or paint. Where this surface treatment occurs at other sites, such as at Tel Rijim for example (Koliński 2000), it may be described as a thin paint within the Khabur ware tradition.

KT type characteristic 4: brown wash

Kenan Tepe type characteristic 4 'brown wash' is the browner version of KT type characteristic 28 just described. KT T.C.4 brown wash appears on vessels made of various fabrics. The most common fabric observed so far is a well fired tan-orange clay 5YR 6/6 (reddish yellow) with sand temper. This surface treatment is always within a few shades of 5YR 4/2 (dark reddish grey). Our initial impression is that Kenan Tepe type characteristic 4 is more commonly found on medium to large jars, although this hypothesis has yet to be tested quantitatively. This type characteristic should not be confused with KT type characteristic 27 (also 5YR 4/2 [dark reddish grey]) which is also a fairly opaque brown wash (or paint) but one that we believe to be a separate type characteristic.

KT type characteristic 17: red brush strokes

Kenan Tepe type characteristic 17 'red brush strokes' consists of two surface treatment elements.⁴ The surface of a type characteristic 17 vessel has a light coloured slip

or paint (the first element, ranging within a few shades of 7.5YR 7/3 [pink]) upon which a red brush stroke painted decoration (the second element, consistently 2.5YR 4/8) is applied. Our assumption is that this decoration was created by not fully soaking a brush in paint and then lightly stroking the vessel so that paint does not entirely cover the vessel surface. This allows the pale surface treatment element to be clearly visible between the red brush strokes. Vessels bearing Kenan Tepe type characteristic 17 'red brush strokes' most commonly consist of a brown-orange (5YR 6/6 [reddish yellow]) fabric with fine grit temper. Correlation between this surface treatment and form is difficult since many of the examples studied in the analysis of this type characteristic are body sherds. The colour range of the second element of this surface treatment is similar to, and may even be a lightly applied variation of, KT T.C.28 'red-brown wash'.

KT type characteristic 5: brown brush strokes

This type characteristic might be the same as Kenan Tepe type characteristic 17 discussed above. The observable difference is that the paint is significantly darker, ranging around 5YR 6/4 (light reddish brown). In the examples closely examined during the 2001 field season, a cream slip/wash or paint was clearly applied to the surface of the vessel before the brown wash/paint was applied by brush. This underlying cream slip or wash ranges around 7.5YR 8/3 (pink), suggesting that at least one element is shared between Kenan Tepe type characteristics 5 and 17. Most examples of this type characteristic analysed during the 2001 field season appeared on orange fabric with fine grit temper. Thus far no concrete statements can be made about the correlation between the surface treatment and vessel form. In some cases the paint upon slip decoration (whether KT T.C.5 or KT T.C.17) was applied as bands rather than across the entire sherd (examples of this are fig. 7 I and fig. 8 O). In other cases, the decoration appears on or near the lip of the vessel. In other instances, the red or brown wash/paint bands appear lower on the vessel body, including as far down as the vessel's mid-section (see fig. 11 V). In certain examples, the decoration scheme resembles the painted bands of the Khabur ware or Old Babylonian period traditions (see fig. 6 C-F, fig. 7 I and fig. 8 O).

KT type characteristic 18: red painted bands

Red painted bands is a distinctive type characteristic that appears exclusively on closed forms. It consists of two elements. The surface of the vessel is smoothed creating a slight difference in the tone of the clay colour between both the vessel fabric and the exterior surface, and between the interior and the exterior surfaces. This type characteristic therefore has a smooth pale orange surface

⁴ In the Kenan Tepe typology 'elements' are sub-categories of type characteristics. For example, if a group of ceramics always appears with a surface treatment that consists of paint and incisions, this would be considered one surface treatment type characteristic consisting of two elements. The 'order of elements' refers to the chronology in which the elements were applied to the vessel surface. Thus the 'first element' might be a wash upon which paint (the 'second element') was then applied, as is the case with Kenan Tepe type characteristics 17 and 5.

(first element, 5YR 7/4 [pink]) upon which the second element, red or reddish brown painted stripes (2.5YR 5/6 [red]), is applied. No particular decorative canon for the second element (the painted stripes) has yet been discerned. In some cases the stripes are applied vertically (fig. 11 S) while in other examples, the stripes are applied horizontally, and in a few examples the stripes appear only on the vessel's lip. This surface treatment occurs on sherds made of a dense orange fabric varying around 5YR 7/4 (pink) and fading to a black core. Fine chaff and grit temper has been recorded on many of the examples studied thus far.

KT type characteristic 39: cream-green wash

Cream-green wash surface treatment occurs on a variety of vessel forms, but appears to be most common on carinated bowls (KT form type characteristic 83). This type characteristic consists of a cream coloured wash/slip or light paint ranging closely around 10YR 8/4 (very pale brown). This wash or paint resembles, but is not identical to, the surface treatment that appears as the first element in KT type characteristic 5 'brown brush strokes' and KT type characteristic 17 'red brush strokes' (see above). Of the examples studied thus far, it is clear that this decoration is most frequently applied atop rough, low fired fabrics usually with medium chaff and grit temper. Although this surface treatment usually covers entire sherds, it also occurs in bands or wide stripes (none illustrated).

B) Form type characteristics

KT type characteristic 83: carinated bowl (fig. 12 group 1)

This is perhaps the most common vessel shape in the Kenan Tepe corpus. Although this vessel usually has a protruding beaded lip, its most distinguishing characteristic is the strong carination that occurs at the vessel's mid-section. Although the sample illustrated in fig. 12 is meant to capture the variation in this group, our impression is that carinated bowls are usually relatively small (under 20cm in diameter). Nearly all of the examples examined thus far consist of a fine orange fabric with fine chaff and/or calcareous grit temper. Carinated bowls often exhibit some type of surface treatment. The most common surface treatment encountered so far is KT type characteristic 28 'red-brown wash'. Some examples exhibiting KT type characteristic 18 'red painted bands' have also been recorded.

KT type characteristic 34: ribbed shoulder (fig. 12 group 2)

This very distinctive shape consists of a raised ribbed decoration that is distinct from the ribbed bowls and jars of the Old Babylonian ceramic assemblage. This form appears exclusively on very large jars, although there is

a smaller version that has yet to be given a separate type characteristic number. Type characteristic 34 usually occurs on the vessel's shoulder. A few examples analysed during the 2001 field season were well preserved enough to suggest that vessels with this shoulder form are ovaloid and neckless. One example also confirmed that several bands of this ribbed form can occur on a single vessel. The number of ribs can vary from two to five, although groups of four ribs appear to be the most common. The size of the vessel, and thus the thickness of the type characteristic 34 sherds, means that there is invariably a colour shift between the surface and the core making it difficult to generalise about commonalities in vessel fabric. However, the fabric of most of the recorded examples tends toward reddish yellow (around 7.5YR 7/6). The temper is usually a mix of medium chaff and grit. The most common surface treatment occurring on KT T.C.34 forms is red-brown wash (KT T.C.28, see above) although examples of red painted bands on a smoothed surface (KT T.C.18) are also known (fig. 11 V).

KT type characteristic 110: medium neckless jar (fig. 12 group 3)

Medium sized neckless jars with a distinctively inward leaning, thickened lip appear to be common in the Kenan Tepe corpus. The profile of these jar rims suggests that the full vessel shape is ellipsoid or ovaloid. Most of the examples studied so far are made of an orange fabric with fine chaff temper and/or coarse grit temper. Some examples have red wash applied to the rim. Whether the bodies of this neckless jar also were decorated with red wash or brown wash or ribbing is not known at present due to the lack of full vessel profiles for this form.

KT type characteristic 111: flaring lip jar (fig. 12 group 4)

Several examples of necked jars with flaring lips have been identified in the Kenan Tepe corpus. The distinctive attribute of this shape is the fact that the neck bends outward below the lip making the lip flare outward. The examples analysed thus far have fine grit and chaff temper. Some examples have red or brown wash on the exterior surface. Whether the bodies of outward flaring necked jars also were decorated with red wash or brown wash or ribbing is not known at present because of the current lack of full vessel profiles for this form.

KT type characteristic 112: bag shaped or lipped hole mouthed jar (fig. 12 group 5)

Another type of jar recognised in the Kenan Tepe corpus is a bag shaped jar with a hole mouth and slightly everted lip at the rim. The examples we have examined so far are

all medium sized jars and are made of a fabric that has a fine grit and/or chaff temper. Several examples have paint on the interior of the lip, while others have one or more incised bands on the exterior of the vessel.

C) Untyped forms

Bases (fig. 12 group 6)

Three types of bases have been identified so far: a ring base, a flat base with a bulb foot and an ordinary flat base (fig. 12 W and X, Y and Z, and AA respectively). So far no whole vessels have been recovered that would allow us to connect base and rim type characteristics. Some large jars with flat bases are decorated with red or brown brushstrokes (KT T.C.17 or 5).

Larger jars (fig. 13)

We have not yet completed the division of the large jars into type characteristic categories based on form. However, a preliminary examination of these vessels highlights two main shapes that appear regularly in the Kenan Tepe corpus. The first is a hole mouthed jar with a club shaped profile (fig. 13 group 1). The distinguishing characteristic of this potential form type is the fact that there is little or no neck or shoulder on these large vessels. These club shaped rim profiles appear on large ellipsoid hole mouthed jars. A second shape common among the large jars is a collared jar with a folded rim (fig. 13 group 2). The distinguishing characteristic of this potential form type is the lip that is folded sharply outward. Generally speaking, there appears to be a lack of necked jars in the size category of the very large jars. Necks do occur on medium to large jars. One exception to this is illustrated as fig. 13 group 3. The distinctively curved profile of this shape creates a small neck on this otherwise relatively large vessel.

Fabrics in the red-brown wash ware corpus

Notable associations between fabric and form or surface treatment have been discussed above. In general, there are four broad fabric categories discernable in Kenan Tepe's Middle Bronze Age corpus: 1) fine to medium orange fabric with fine grit temper; 2) fine orange fabric with fine chaff temper, with or without calcareous grit; 3) rough and medium fabric low fired with medium chaff and grit temper; and 4) fine fabric with grit and chaff temper. The final fabric is shared among the carinated bowls, the bag shaped jars, and the flaring lip jars, all of which have parallels in the Old Babylonian or Khabur assemblages. The relevance of temper to dating in the Khabur ware corpus is a contentious issue. At Tell al-Rimah, chaff temper was found to be uncommon in level C6 (reign of Hammurapi) while chaff temper was more

common in the earlier contexts, such as C7 and A4 (Postgate et al. 1997: 53). If the Tell al-Rimah material is representative of a regional tradition, the preponderance of chaff inclusions in the sherds that could be from similar vessels found at Kenan Tepe may be indicative of a temporal variation. Further comments about fabrics are included in the detailed comparanda section below.

The Kenan Tepe assemblage in its regional context

Although the ceramic assemblage discussed here is in many respects regionally distinct, there are form and decorative features that are comparable to the Old Babylonian and Khabur ware assemblages known from sites in Syria, Iraq, Iran and Turkey, such as Tell Brak, Tell al-Rimah, Tell Leilan, Chagar Bazar, Tell Rijim, Haradum, Mozan, Tel Jigan, Ziyaret Tepe, Halawa, Dinkha Tepe and other sites where similar assemblages occur. Examples of comparanda from these sites are detailed in the following section. The purpose of this comparison is to show the extent to which certain similar features are shared between Kenan Tepe and elsewhere. As described above, carbon dates situate the Kenan Tepe assemblage and the loci in which these ceramics were found in the early second millennium BC. However, the range of the carbon dates is considerable. Also, as yet, no epigraphic evidence from Kenan Tepe itself ties its Middle Bronze Age pottery assemblage to a specific 'political' period or person. Thus, a goal of the following section is to create a relative correlation between the Middle Bronze Age layers at Kenan Tepe and more closely dated layers at other sites by identifying the similar shapes and decorative schemes. Additionally, common elements shared between Kenan Tepe's Middle Bronze Age assemblage and the Middle Bronze Age assemblages discovered at other sites may provide a means of connecting Kenan Tepe to the broader framework of regional interaction during the early second millennium BC.

There are very few shapes in the Kenan Tepe red brown wash ware assemblage that have an affinity with pottery earlier than the Old Babylonian period or the Khabur ware corpus. Examples include fig. 5 E which is similar to carinated bowls found in Urkesh-Mozan (Buccellati, Kelly-Buccellati 2001: Abb. 15:4). Fig. 5 I shares a similar shape to a larger deep open vessel also from Mozan (Buccellati, Kelly-Buccellati 2001: Abb. 15:6). Fig. 5 K is similar to vessels whose straight walls are more open at the rim than in the central part of the body as seen at Mozan (Buccellati, Kelly-Buccellati 2001: Abb. 15:7, 8). Fig. 5 J has a similar external form to examples from Mozan (Buccellati, Kelly-Buccellati 2001: Abb. 16:9; also see Dohmann-

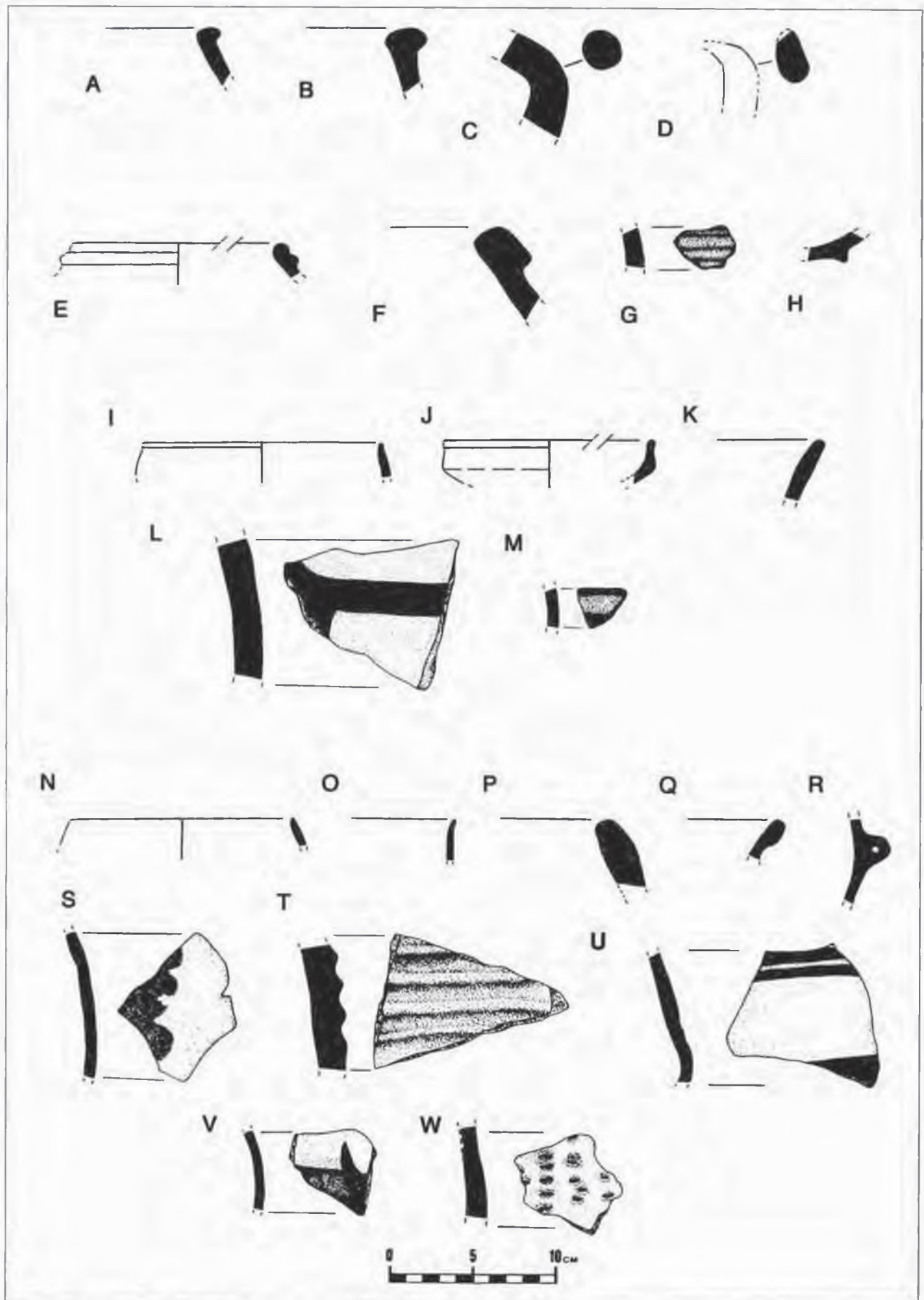


Fig. 5. Ceramics from area C, trench 2, loci 2022, 2034, 2036 and 2039

Fig. 5. Descriptions of ceramics from area C, loci 2022, 2034, 2036 and 2039

- A. C2 L2022 KT2291 no. 6. Pink exterior surface (2.5YR 7/6). Red fabric (2.5YR 5.6) abruptly changing to a reddish yellow core (5YR 6/6). Light red interior surface (7.5YR 7/4). Medium grit temper.
- B. C2 L2022 KT2291 no. 8. Pink exterior surface (5YR 3/1) grading to a dark grey core (5YR 4/1). Very dark grey interior surface (7.5YR 7/4). Wash on exterior surface. Medium chaff temper.
- C. C2 L2022 KT2291 no. 4. Very dark grey exterior surface (2.5YR 4/4). Reddish yellow fabric (5YR 7/6) abruptly changing to a black core (7.5YR 2.5/1). Reddish brown interior surface (5YR 3/1). Medium chaff temper.
- D. C2 L2022 KT2291 no. 5. Very pale brown exterior surface (10YR 7/4) grading to a dark grey core (10YR 4/1). Very pale brown interior surface (10YR 7/4). Black paint (10YR 3/1) on exterior surface. Medium chaff temper.
- E. C2 L2034 KT2204 no. 1. Light brown exterior surface (7.5YR 6/4). Yellowish grey fabric (5YR 5/6) grading to a dark grey core (5YR 4/1). Light brown interior surface (7.5YR 6/3). Medium grit temper.
- F. C2 L2034 KT2204 no. 4. Reddish brown exterior surface (5YR 5/6) grading to a dark reddish grey core (5YR 4/2). Yellowish red interior surface (5YR 5/3). Medium to coarse grit temper.
- G. C2 L2034 KT2204 no. 2. Light brown surface (5YR 5/4). Yellowish red fabric (5YR 5/8) abruptly changing to a dark grey core (5YR 4/1). Reddish brown interior (7.5YR 6/4). Fine grit temper.
- H. C2 L2034 KT2204 no. 3. Light brownish grey exterior surface (7.5YR 6/4). Strong brown fabric (7.5YR 5/6) abruptly changing to a dark grey core (7.5YR 4/1). Light brown interior surface (10YR 6/2). Dark grey paint (7.5YR 4/1) on exterior surface. Coarse grit temper.
- I. C2 L2036 KT2219 no. 4. Dark grey exterior surface (2.5Y 3/1). Grey core (2.5Y 5/1). Very dark grey interior surface (2.5Y 4/1). Wash on exterior surface with paint. Medium chaff temper.
- J. C2 L2036 KT2219 no. 2. Very pale brown exterior surface (10YR 7/4). Very pale brown core (10YR 7/4). Very pale brown interior surface (10YR 7/3). Yellowish red paint (5YR 5/6) on exterior surface. Fine chaff temper.
- K. C2 L2036 KT2219 no. 3. Light yellowish brown exterior surface (10YR 6/3) grading to a brown core (7.5YR 5/4). Pale brown interior surface (10YR 6/4). Fine chaff temper.
- L. C2 L2036 KT2219 no. 1. Very pale brown surface (10YR 7/4) abruptly changing to a grey core (10YR 5/1). Very pale brown interior surface (10YR 7/3). Medium chaff temper.
- M. C2 L2036 KT2219 no. 5. Light grey surface (10YR 6/3) grading to a reddish yellow core (7.5YR 6/6). Pale brown interior surface (10YR 7/2). Wash on exterior surface. Very pale brown paint on exterior surface (10YR 8/2). Very fine chaff temper.
- N. C2 L2039 KT2235 no. 5. Reddish yellow exterior surface (5YR 6/6). Reddish yellow core (5YR 6/6). Yellowish red interior surface (5YR 7/6). Chaff temper.
- O. C2 L2039 KT2235 no. 2. Red exterior surface (2.5YR 5/6) grading to a red core (2.5YR 5/8). Red interior surface (2.5YR 5/8). Fine chaff temper.
- P. C2 L2039 KT2269 no. 5. Pink exterior surface (7.5YR 7/4) grading to a light red core (2.5YR 7/6). Pink interior surface (7.5YR 8/4). Medium chaff temper.
- Q. C2 L2039 KT2235 no. 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. C2 L2039 KT2269 no. 4. Light greenish grey exterior surface (GLE Y1 6/10Y) grading to a grey core (2.5Y 5/1). Greenish grey interior surface (GLE Y1 7/10Y). Burnished interior and exterior surfaces. Very fine grit temper.
- S. C2 L2039 KT2269 no. 2. Pink exterior surface (10YR 7/4) grading to a reddish yellow core (7.5YR 7/6). Very pale brown interior surface (7.5YR 8/4). Wash on the exterior surface with dark reddish brown paint (5YR 3/2). Fine grit temper.
- T. C2 L2039 KT2269 no. 3. Grey exterior surface (7.5YR 5/2) grading to a dark grey core (GLE Y1 4/N). Brown interior surface (5Y 5/1). Wash on exterior. Incised bands on surface. Fine grit temper.
- U. C2 L2039 KT2269 no. 1. Very pale brown exterior surface (2.5Y 7/2). Reddish yellow fabric (7.5YR 6/6) grading to a pale brown core (10YR 6/3). Light grey interior surface (10YR 7/4). Wash on exterior surface. Dark reddish brown paint on exterior surface (5YR 3/3). Fine grit temper.
- V. C2 L2039 KT2235 no. 1. Pale red exterior surface (2.5YR 6/3) grading to a reddish brown core (2.5YR 5/4). Light reddish brown interior surface (2.5YR 6/2). Reddish brown paint on exterior surface (2.5YR 4/3). Fine chaff temper.
- W. C2 L2039 KT2269 no. 6. Light reddish brown exterior surface (2.5YR 6/4) grading to a reddish yellow core (5YR 7/6). Light reddish brown interior surface (5YR 6/4). Fingernail impressions on exterior surface. Very coarse grit temper.

Pfälzner, Pfälzner 2001: Abb. 7: MZ99 C2-q0444-7 Ur III) although the internal profile of the Kenan Tepe version has straighter sides than these earlier examples. Whether this particular area (C2, loci 2034, 2036 and 2039) is in fact slightly earlier or whether there are links to an earlier potting tradition will remain for future analysis.

Beyond the few examples discussed above, the oldest parallels for red-brown wash ware ceramics come from the Old Babylonian period, including examples from Tell Brak that were found in pit AL and a kiln in trench A4. These vessels (such as Oates et al. 1997: nos 301, 302, 307, 289, 290) are dated at Tell Brak by parallel to similar examples at Tell al-Rimah, where epigraphic evidence locates this material in the reign of Shamsi-Adad I (ca. 1800 BC). Vessel shapes include ribbed bowls and dropped shoulder bowls similar to examples found at Kenan Tepe, as seen in fig. 8 O and T, and in other ribbed bowls not illustrated.

Large ribbed bands such as type characteristic 2 (fig. 12 H–M and fig. 5 T) appear on the large, deep, open bowls or jars, similar to those discovered at Leilan (Frane 1996: fig. 74). This plastic decorative scheme is also known at Tell Brak, and in Dinkha Tepe, Chagar Bazar, and Tell al-Rimah.

Fig. 6 B is comparable to an example from Leilan (Frane 1996: fig. 52:2) which is a similar size and has similar temper but has painted bands rather than the red wash of the Kenan Tepe example.

Fig. 6 C–F and I are all body sherds probably from closed vessels with large diameter bodies. The decoration scheme of bands (in red and brownish paint) applied around the upper body of the pot and on the shoulder is paralleled by the so-called ‘wine jars’ at Tell al-Rimah (Postgate et al. 1997: pl. 90; compare p. 52). Kenan Tepe fig. 6 F shows another decorative form: oval splotches between bands. A comparable example is known from Tell al-Rimah’s level C6 (Postgate et al. 1997: pl. 90:1046), which is considered to be Late Old Babylonian (17th century, possibly even late 18th century but not considered a Mitanni level partly because of the absence of Nuzi ware; Postgate et al. 1997: 36). The sometimes careless application of paint is visible on various examples from Tell al-Rimah, including pls 90:1045 and 1046.

Fig. 6 G has a pink slip and is similar to Middle Bronze Age examples at Korucutepe (phase G–H; Griffen 1980: pl. 9:1) where a third bump appears on the rim (in contrast to the two ridges on the Kenan Tepe example). The diameter is 24–5cm in both cases.

Fig. 6 O is a carinated bowl similar to a slightly smaller example from Leilan (see Frane 1996: fig. 37:1 from acropolis temple building level II floor 19 [dated

within the reign of Shamsi-Adad I, 1813–1781 BC, Frane 1996: 28]).

Fig. 7 A has a red slipped parallel from Dinkha Tepe (Hamlin 1974: fig. IV:30 I).

Fig. 7 E and fig. 9 B and C are spherical jars that have a light coloured slip, red-brown paint under the rim and incised lines on the shoulder. These sherds may be a slightly larger version of a pot decoration scheme known from Tell Brak (Oates et al. 1997: fig. 193:307 and without the hatching in fig. 191:246, both are somewhat smaller than the Kenan Tepe examples). This form is also paralleled at Dinkha Tepe although the Kenan Tepe examples are rounder, larger and have less pronounced everted rims than the Dinkha Tepe examples (Hamlin 1974: figs VII:20, VIII:C).

Figs 7 F and 8 D represent a class of very large everted rim jars. The shape is quite common in the Khabur related assemblage but the Kenan Tepe examples are often much larger than the vessels seen elsewhere. For example, at Tell Jigan (Hiroyuki II, Kawamata 1984–1985: fig. 29:34) a similar shape is present in a much smaller jar.

The decorative motif of criss-crossed lines above or below a solid reddish band, with a dot in open space shown in fig. 7 J also occurs at Tell Brak on an Old Babylonian ribbed bowl (Oates et al. 1997: fig. 193:301 and 306, and see also fig. 90, a photo of Mitanni and Khabur ware sherds).

Fig. 8 C is an ovoid jar with a slightly everted short rim and dark red paint in a band inside the rim. A similar shape is known in Tell Jigan (Hiroyuki II, Kawamata 1984–1985: fig. 29:36).

Fig. 8 D is similar to a large pithos from Leilan (Frane 1996: fig. 94:1) and also resembles an example from Tell Jigan (Hiroyuki II, Kawamata 1984–1985: fig. 29:36).

Fig. 8 J and K are both large jars with rounded rims and very short vertical necks. A burnished dark ware variety of this vessel shape is found at Leilan (Frane 1996: fig. 58:4). These sherds also have a smaller diameter parallel at Tell al-Rimah (Postgate et al. 1997: pl. 85:983, coarse buff ware).

Figure 8 M: the corrugated walls of this vessel are straight and open outward, with a slightly overhanging, everted rim. An example from Tel Rijim (Koliński 2000: pl. 47:d) is a pot stand with painted stripes in place of the ribbing on the Kenan Tepe example. As shown in the Tel Rijim example just cited, the pot stand generally has a ledge rim to create a point of contact on which a pot may be set. The rim on the Kenan Tepe example slants downward. For further parallels see also Leilan (Frane 1996: fig. 23:3, a smaller, green-cream slipped version, and fig. 25:2, a similar size, with less everted walls).

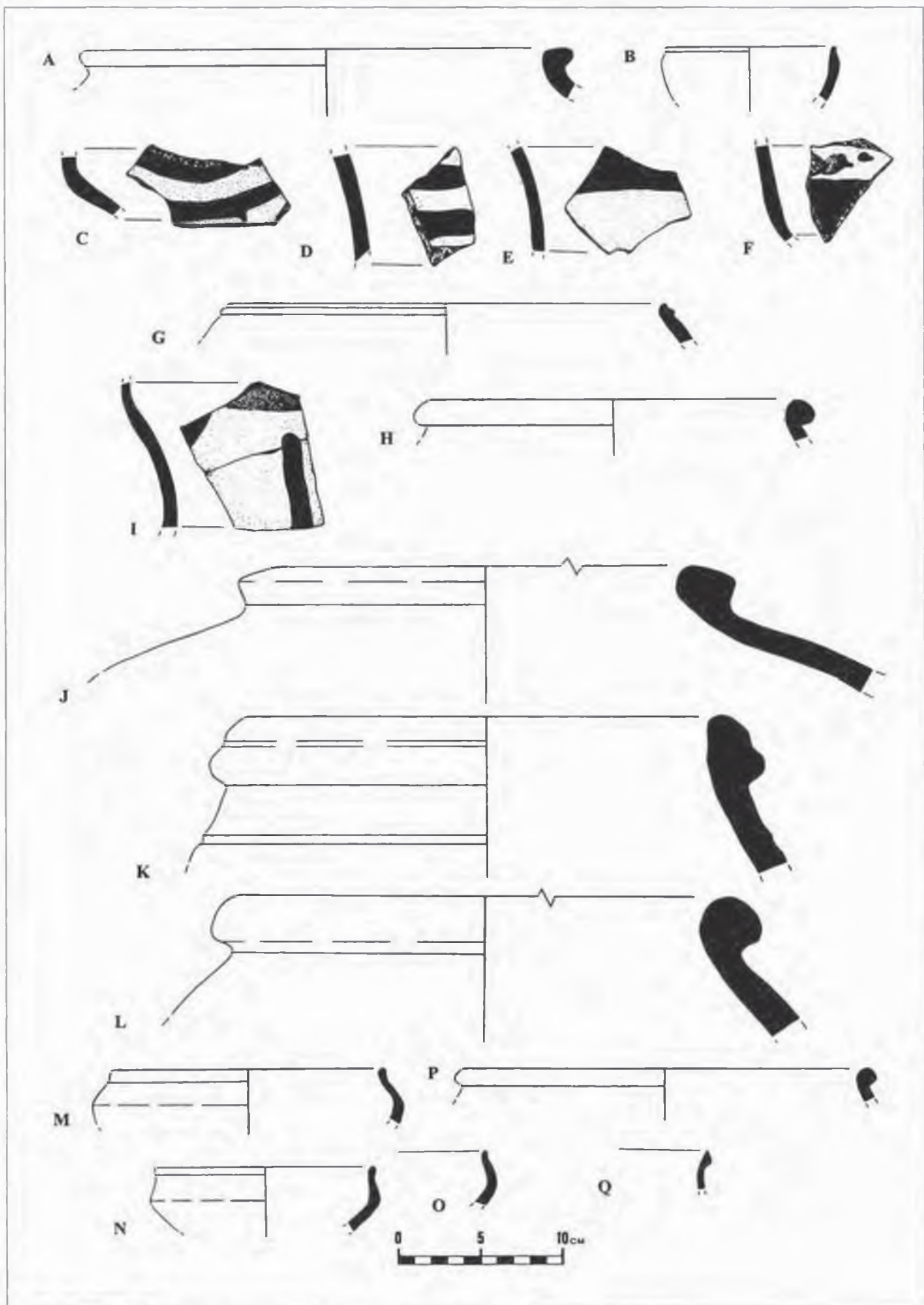


Fig. 6. Ceramics from area C, trench 2, loci 2070, 2083 and 2084

Fig. 6. Description for ceramics from area C, loci 2070, 2073 and 2084

- A. C2 L2070 KT2476 no. 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 no. 1. Grey exterior surface (2.5Y 3/1) grading to a black core (5Y 2.5/1). Very dark grey interior surface (10YR 5/1). Wash on exterior surface. Medium grit and chaff temper.
- C. C2 L2070 KT2476 no. 5. Light grey exterior surface (10YR 7/2). Light yellowish brown fabric (10YR 6/4) grading to a light grey core (2.5Y 7/2). Light grey interior surface (10YR 7/2). Brown paint (7.5YR 4/3) on exterior surface. Medium grit and chaff temper.
- D. C2 L2070 KT2476 no. 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 no. 3. Light brownish grey exterior surface (7.5YR 7/2) grading to a very dark grey core (10YR 3/1). Pinkish grey interior surface (10YR 6/2). Yellowish red paint (5YR 5/6) on exterior surface. Fine grit temper.
- F. C2 L2070 KT2476 no. 4. Dark greyish brown exterior surface (10YR 7/2) grading to a brownish yellow core (10YR 6/6). Light grey interior surface (10YR 4/2). Brown paint (7.5YR 4/2) on exterior surface. Very fine grit temper.
- G. C2 L2073 KT2519 no. 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 no. 4. Dark reddish grey exterior surface (5YR 4/2) grading to a brown core (7.5YR 5/4). Dark reddish grey interior surface (5YR 4/2). Coarse grit temper.
- I. C2 L2073 KT2519 nos 1 and 2. Greyish brown exterior surface (2.5Y 7/2). Dark greyish brown fabric (2.5Y 4/2) grading to a dark grey core (2.5Y 4/1). Light grey 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 no. 1. Reddish yellow exterior surface (5YR 6/6) grading to a very dark grey core (GLE Y1 3/N). Dark grey interior surface (GLE Y1 4/N). Red paint in the groove of the rim (2.5YR 5/6). Medium grit and chaff temper. Diameter 36cm.
- K. C2 L2084 KT2589 no. 1. Pink exterior surface (7.5YR 7/4). Reddish yellow fabric (7.5YR 7/6) abruptly changing to a very dark grey core (10YR 3/1). Pink interior surface (7.5YR 7/4). Medium chaff temper.
- L. C2 L2084 KT2589 no. 2. Very pale brown surface (10YR 7/4) grading to a dark grey core (2.5Y 4/1). Very pale brown interior surface (10YR 7/4). Medium chaff temper.
- M. C2 L2084 KT 2568 no. 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 no. 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 no. 5. Reddish yellow exterior surface (5YR 6/6) grading to yellowish red core (5YR 5/6) with abrupt transition to very dark grey (GLE Y1 3/N). Reddish yellow interior surface (5YR 6/6). Medium grain chaff temper.
- P. C2 L2084 KT 2568 no. 4. Light grey 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 no. 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.

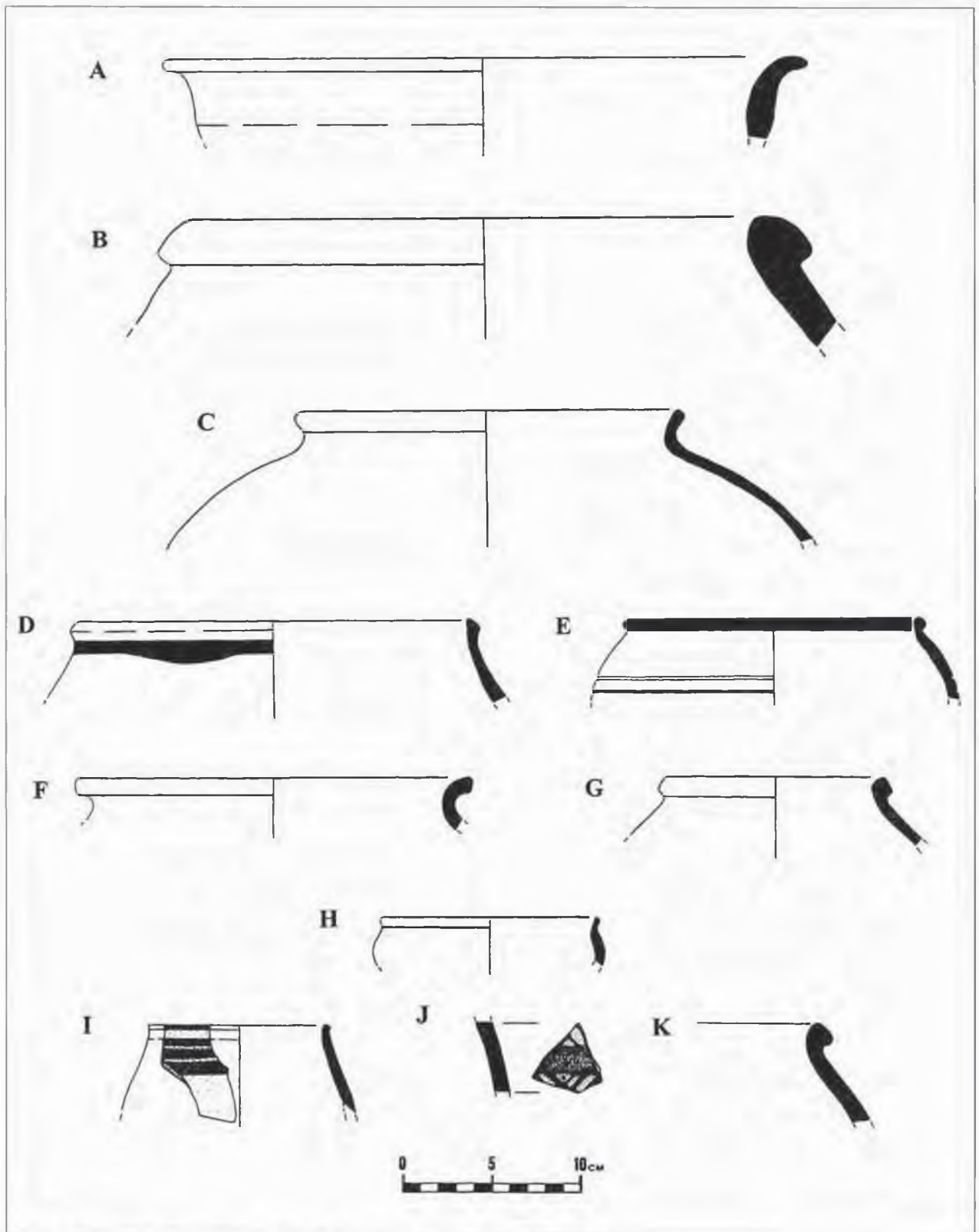


Fig. 7. Ceramics from area D, trench 4, locus 4012

Fig. 7. Descriptions of ceramics from area D, locus 4012

- A. D4 L4012 KT 4108 no. 2. Reddish yellow exterior (7.5YR 6/6) slightly grading to a reddish yellow core (7.5YR 7/6). Reddish yellow interior (5YR 6/6). Brown paint on interior and exterior surfaces (7.5YR 4/2). Fine grit temper.
- B. D4 L4012 KT 4108 no. 14. Pink exterior (7.5YR 7/4) grading to a brown core (10YR 5/3) with an abrupt transition to dark grey core (GLEY1 4/N). Reddish yellow interior (5YR 6/6). Medium grain chaff temper.
- C. D4 L4012 KT 4108 no. 1. Reddish brown exterior (5YR 5.5/4) grading to a yellowish red core (5YR 5/6) with an abrupt transition to black (GLEY1 2.5/N). Reddish brown interior surface (5YR 5/4). Coarse grit temper.
- D. D4 L4012 KT 4108 no. 4. Pale yellow surface (2.5Y 8/2) grading to greyish brown core (2.5Y 5/2). Reddish yellow interior surface (5YR 6/6). Yellowish red paint under exterior rim (5YR 4/6). Medium grain chaff temper.
- E. D4 L4012 KT 4108 no. 6. Pale yellow surface (5Y 8/2) grading to reddish yellow core (5YR 6/6). Pink interior surface (7.5YR 7/4). Very dark grey paint on the interior and exterior rim surfaces (5YR 3/1). Incised pattern of two bands.
- F. D4 L4012 KT 4108 no. 3. Red exterior (2.5YR 5/6) grading slightly to red core (2.5YR 4/6). Reddish yellow interior (5YR 6/6). Coarse grit temper.
- G. D4 L4012 KT 4108 no. 11. KT type 18 surface treatment (faded). Light reddish brown surface (5YR 6/4) grading to reddish yellow core (5YR 6/6) with an abrupt transition to very dark grey (GLEY1 3/N). Reddish brown interior surface (5YR 5/4). Mild burnishing on exterior surface. Coarse grit temper.
- H. D4 L4012 KT 4108 no. 7. KT type 83 shape. Pink exterior surface (7.5YR 7/4) grading to reddish yellow core (7.5YR 6/6) with an abrupt transition to dark greenish grey (GLEY1 4/10Y). Pink interior surface (7.5YR 8/4). Fine chaff temper.
- I. D4 L4012 KT 4108 no. 5. KT type 66 surface treatment. Very pale brown exterior surface (10YR 8/4) grading to a reddish yellow core (7.5YR 6/6). Pink interior surface (7.5YR 7/4). Reddish brown paint on exterior surface (5YR 5/4). Fine chaff temper.
- J. D4 L4012 KT 4108 no. 9. KT type 66 surface treatment. Pink exterior surface (7.5YR 7/4) grading to a reddish yellow core (7.5YR 6/6). Pink interior surface (7.5YR 7/4). Red paint on exterior surface (2.5YR 5/6). Fine grit temper.
- K. D4 L4012 KT 4108 no. 8. Very pale brown surface (10YR 7/3) grading to black core (GLEY1 2.5/N). Dark grey interior surface (GLEY1 4/N). Dark grey exterior rim (GLEY1 4/N). Medium grain grit temper.

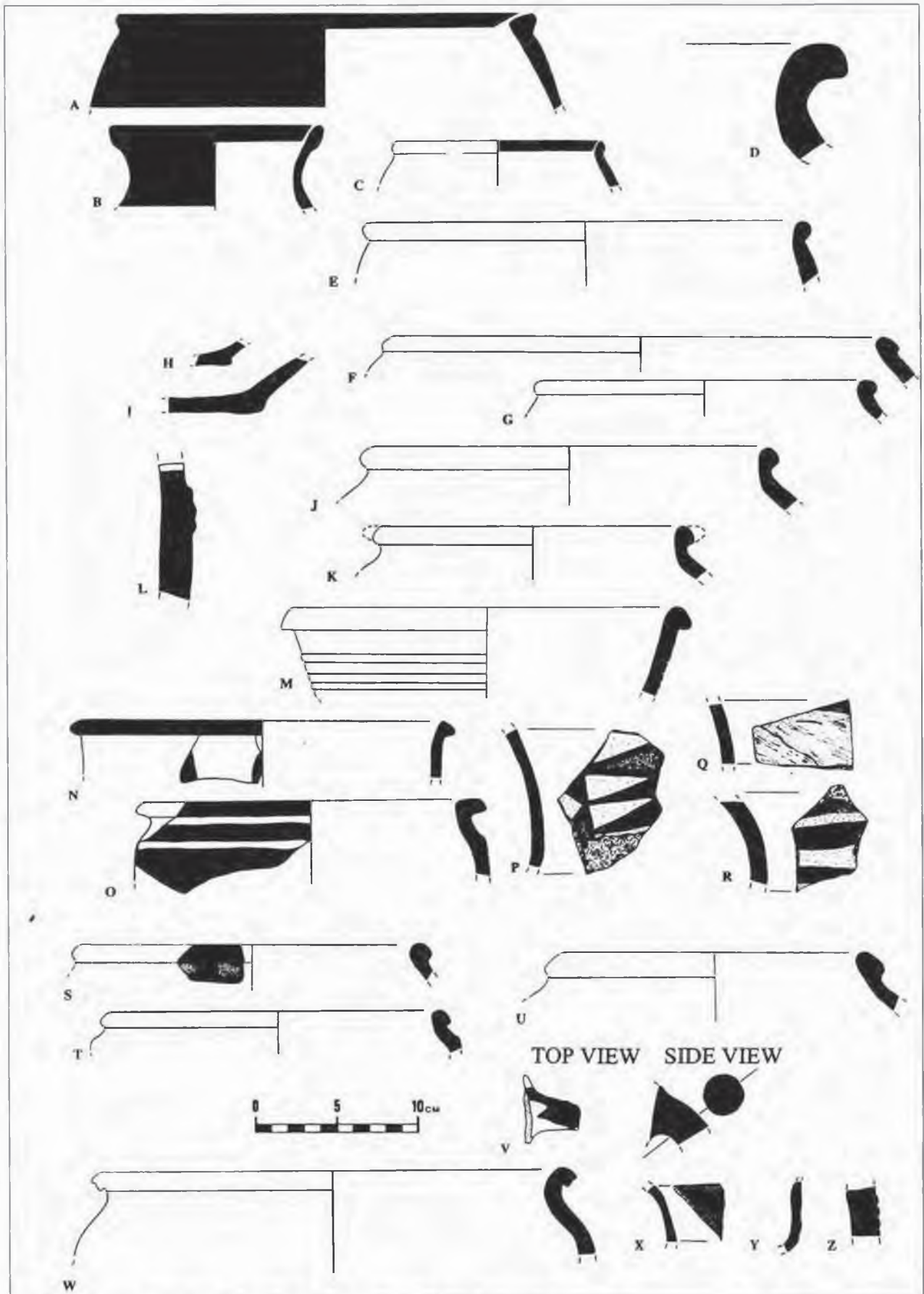


Fig. 8. Ceramics from area D, trench 4, loci 4022 and 4023

Fig. 8. Descriptions for ceramics from area D, loci 4022 and 4023

- A. D4 L4023 KT4112 no. 7. Pale yellow exterior surface (2.5Y 6/2) grading to a very pale brown core (10YR 8/3). Light brownish grey interior surface (2.5Y 8/2). Wash on exterior surface beginning on the top side of the back of the rim. Fine grit temper.
- B. D4 L4023 KT4124 no. 6. Reddish yellow exterior surface (7.5YR 4/6) grading to a yellowish red core (5YR 5/8). Red interior surface (5YR 7/6). Wash on exterior surface. Rim painted light red (2.5YR 6/6) with dark reddish grey stripes (2.5YR 3/1). Fine grit and chaff temper.
- C. D4 L4023 KT4124 no. 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 grey paint (5YR 4/2) on interior rim surface. Fine grit and chaff temper.
- D. D4 L4023 KT4112 no. 13. Reddish yellow exterior surface (10YR 6/2) grading to a light olive brown core (2.5YR 5/3). Light brownish grey interior surface (7.5YR 7/6). Medium chaff temper.
- E. D4 L4023 KT4112 no. 5. Very pale brown exterior surface (10YR 7/2) grading to a pink core (7.5YR 8/4). Light grey interior surface (10YR 7/3). Burnished interior and exterior surfaces. Fine grit temper.
- F. D4 L4023 KT4112 no. 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).
- G. D4 L4023 KT4112 no. 11. Light reddish brown exterior surface (5YR 6/4). Brownish yellow core (10YR 6/6) abruptly changing to a dark grey core (2.5Y 4/1). Light reddish brown interior surface (5YR 6/4). Coarse grit temper.
- H. D4 L4023 KT4124 no. 3. Greyish brown exterior surface (10YR 6/3) grading to a dark greyish brown core (10YR 4/2). Pale brown interior surface (10YR 5/2). Dark greyish brown wash (10YR 4/2) on exterior surface. Very dark brown paint (10YR 3/1) on exterior surface. Fine grit temper.
- I. D4 L4023 KT4124 no. 2. Light grey exterior surface (10YR 7/2). Reddish yellow fabric (5YR 7/6) abruptly changing to a black core (5YR 2.5/1). Light grey interior surface (2.5YR 7/2). Wash on exterior of base. Fine grit temper.
- J. D4 L4023 KT4112 no. 10. Pink exterior surface (7.5YR 6/4). Reddish yellow fabric (7.5YR 6/6) abruptly changing to a very dark grey core (2.5Y 3/1). Light brown interior surface (7.5YR 7/4). Wash on exterior surface. Coarse grit temper.
- K. D4 L4023 KT4112 no. 9. Light reddish brown exterior surface (5YR 7/6). Reddish yellow fabric (7.5YR 7/6) abruptly changing to a very dark grey core (2.5Y 3/1). Reddish yellow interior surface (5YR 6/4). Medium grit temper.
- L. D4 L4023 KT4112 no. 14. Reddish yellow exterior surface (5YR 7/6). Reddish yellow fabric (7.5YR 8/6) abruptly changing to a very dark grey core (2.5Y 3/1). Reddish yellow interior surface (7.5YR 7/6). Incised bands on exterior surface. Fine grit and chaff temper.
- M. D4 L4023 KT4112 no. 1. Pink exterior surface (2.5YR 3/4) grading to a reddish yellow core (5YR 7/8). Dark reddish brown interior surface (5YR 7/4). Wash on the exterior surface. Fine grit temper.
- N. D4 L4023 KT4112 no. 6. Very pale brown exterior surface (2.5Y 8/2) grading to a very pale brown core (10YR 8/4). Pale yellow interior surface (10YR 8/4). Dusky red paint (2.5YR 3/2) on exterior surface. Medium chaff temper.
- O. D4 L4023 KT4112 no. 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 L4023 KT4112 no. 8. Pale yellow exterior surface (5Y 8/1) grading to a very pale brown core (10YR 7/4). White interior surface (2.5Y 8/2). Very dark grey paint (2.5Y 3/1) on exterior surface. Fine grit temper.
- Q. D4 L4023 KT4112 no. 15. Pink exterior surface (10YR 7/4). Yellow fabric (10YR 8/6) grading to a light brown core (7.5YR 6/3). Very pale brown interior surface (7.5YR 7/4). Very dark grey wash (10YR 3/1) on exterior surface. Fine grit temper.
- R. D4 L4023 KT4112 no. 8. Pale yellow exterior surface (5Y 8/1) grading to a very pale brown core (10YR 7/4). White interior surface (2.5Y 8/2). Very dark grey paint (2.5Y 3/1) on exterior surface. Fine grit temper.
- S. D4 L4022 KT4170 no. 7. Pale yellow exterior surface (2.5Y 8/3) grading to a very pale brown core (10YR 8/3). Pale yellow interior surface (2.5Y 8/2). Brown paint on exterior surface (10YR 4/3). Fine to medium grit temper.
- T. D4 L4022 KT4170 no. 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.

- U. D4 L4022 KT4170 no. 4. Yellowish red exterior surface (5YR 5/6). Yellowish red fabric (5YR 4/6) grading to an olive brown core (2.5Y 4/3). Yellowish red interior surface (5YR 5/6). Coarse grit temper.
- V. D4 L4022 KT4170 no. 3. Reddish yellow exterior surface (5YR 7/6) grading to a grey core (5Y 5/1). Reddish yellow interior surface (7.5YR 6/6). Reddish yellow wash on exterior surface (5YR 7/6). Fine grit and chaff temper.
- W. D4 L4022 KT4170 no. 6. Very pale brown exterior surface (10YR 8/2). Reddish yellow fabric (5YR 7/6) grading to dark grey core (7.5YR 4/1). Very pale brown interior surface (10YR 8/2). Reddish paint on exterior surface (5YR 4/3). Medium grit and chaff temper.
- X. D4 L4022 KT4170 no. 8. Pink exterior surface (7.5YR 7/4). Light brown fabric (7.5YR 6/4) with an abrupt change to a dark grey core (2.5Y 4/1). Reddish yellow interior surface (7.5YR 7/6). Incised band on exterior surface. Medium chaff temper.
- Y. D4 L4022 KT4170 no. 1. Light reddish brown exterior surface (5YR 6/4). Pink fabric (5YR 8/4) grading to a very dark grey core (10YR 3/1). Very pale brown interior surface (10YR 7/3). Incised band on exterior surface. Fine grit temper.
- Z. D4 L4022 KT4170 no. 5. Very pale brown exterior surface (10YR 8/2) grading to a very dark grey core (2.5Y 3/1). Reddish yellow interior surface (7.5YR 6/6). Strong brown paint on exterior surface (7.5YR 4/6). Fine chaff temper.

Fig. 8 N is a rim sherd from a vessel with a deep, open form. Its exterior decoration includes red painted lines. The mouth of the vessel flares very slightly outward at the opening, and the everted lip of the rim drops down below the level of the rim to which it is attached directly. Similar vessel shapes with slightly less rounded lips are known from Tell al-Rimah (Postgate et al. 1997: pl. 78:874–6). These examples are somewhat smaller in rim diameter than the Kenan Tepe vessel. The example which is closest in rim shape is Postgate et al. 1997: fig. 78:876, which has a 15.5cm rim diameter, while the Kenan Tepe rim diameter is 20cm. The Kenan Tepe version has chaff temper while the Tell al-Rimah vessels have chaff and grit temper. Postgate et al. 1997: fig. 78:876 is from level A3, which is dated to the Old Babylonian period (ca. 1800–1600 BC).

Fig. 8 O is a vertical sided deep bowl (without ribbing but with three preserved horizontal painted bands). These bowls are a common constituent of the early second millennium BC assemblage across a wide area. Parallels for this shape are known at Tel Rijim (Koliński 2000: pl. 36C) and other 18th and 17th century BC parallels are found in Tell Brak, Leilan (Frane 1996: figs 74:4, 75:3), Taya, Chagar Bazar (layer 1b, dated second half of 18th century, Mallowan 1937: fig. 22:13; McMahon et al. 2001: fig. 12k) and Dinkha Tepe (Hamlin 1974: figs III:12 a, b, VIII:22 a, c, IX:28).

Fig. 8 T: this red washed bowl has a prominent carination that drops straight down from the shoulder and is very like some of the rim shapes of the ribbed Old Babylonian bowls found at the site of Tell Brak (Oates et al. 1997: fig. 193:300, other examples, such as nos 293 and 294, have colour over rim as the Kenan Tepe version also does).

Fig. 8 W is a large version of the open deep bowl-like vessel known from Chagar Bazar (often ribbed) with the indented lip termination on an everted rim (McMahon et al. 2001: fig 12 K).

A parallel for the decoration (solid stripe with hatching in triangular criss-crossing) illustrated in fig. 9 E comes from Tell Fakhariyah (Kantor 1958: pl. 37; see also an example from Tell Brak [Oates et al. 1997: fig. 193:306], which has the incised lines described below and which comes from HH level 6, one of the later Old Babylonian levels).

Fig. 9 D is a grey bowl with ribs below the rim. Tell Brak (Oates et al. 1997: figs 189, 176–8) examples have finer incisions on the bowls, which could imply that Kenan Tepe's examples are a coarser version whose corrugations are a little more like the examples on Tell Brak's fig. 65 (Oates et al. 1997: 170–2), although these have a straight sided bowl profile.

Fig. 9 J is an open vessel with straight, slanted sides (probably a triangle shaped bowl) from which the rim slants downward and out. Tell Brak (Oates et al. 1997: no. 227) has similar rim shapes in smaller bowls, while Dinkha Tepe has examples in the size range of the Kenan Tepe version that are less splayed open.

The diameter of the vessel illustrated in fig. 9 M is unknown but this clearly represents a very large jar. A parallel for this shape is known from level 8/7 at Tell Hataniya (Curtis no date).

Fig. 11 A, a large jar with corrugations below the rim, has equivalent decoration as found at Tell Taya (Reade 1968: pl. LXXXVII:30 from level IV, Khabur-Old Babylonian).

Fig. 11 D resembles a common Dinkha Tepe high shouldered jar (Hamlin 1974: fig. VI:2) that variously occurs with either cream or red slip. The Kenan Tepe

version depicted here has red paint (or wash?) on its exterior. This 17th–18th century BC form is also known from Haradum (Kempinski-Lecomte 1992: fig. 776, 167/173 *Îlot E bât. 7 pièce 6, S 34* wheel made, beige, mineral temper).

Fig. 11 F has parallels in Tell Rijim (Koliński 2000: pl. 24F, painted in contrast to the Kenan Tepe example) and in Tell Brak (Oates et al. 1997: pl. 201:472, surface find, no date), Dinkha Tepe (Hamlin 1971: fig. 2A, Khabur period), Tell Jigan (Hiroyuki II, Kawamata 1984–1985: fig. 4:32) and Haradum (where it dates to the later part of the 18th century, Kempinski-Lecomte 1992: fig. 89:2).

Fig. 11 L is similar to a deep open, ribbed bowl with a slightly out flaring lip. A similar example is known from Dinkha Tepe although the lip is squared off in the case of the Dinkha Tepe example and tapered at Kenan Tepe (Hamlin 1974: fig. VI:8). Tell Rijim has similar bowls (Koliński 2000: pl. 16c) dated to the 18th–17th centuries. Parallels are also known from Tell Brak (Oates et al. 1997: 177, 178, pl. 189), Leilan (Frane 1996: fig. 25:2) and Mohammad Diyab (Bachelot 1992: fig. 4–4).

Multiple incised lines running parallel to the rim around the widest part of the vessel (as seen in figs 11 M and N, and 9 B and F) are a plastic surface treatment common at Tell Rijim (Koliński 2000: pls 38A, 24H). Leilan (Frane 1996: fig. 74:4), Tell Brak (Oates et al. 1997: fig. 191:246), Tell al-Rimah (Postgate et al. 1997: pl. 60:564), Taya, Hammam et-Turkman, Haradum, Ashur and Dinkha Tepe (Hamlin 1974: fig. VII:18).

Fig. 11 O is a sharply carinated bowl. The example from Kenan Tepe is rather larger than at other sites. For instance, at Tell Rijim, there are slight shape parallels but the size of our vessel is very much larger (Koliński 2000: pl. 14, 8cm versus 27cm).

Fig. 11 P (diameter = 19cm) and fig. 5 F (diameter unknown) are large jars with squared rims. A rounder vessel with a similar squareness of rim is an example in level 8 from Eski Mosul at Tell Hateniya (Curtis no date: fig. 1:11). A larger version of this rim shape and orientation is known from later Korucutepe levels (diameter = 3cm, Griffen 1980: pl. 6:374). There, this is a common phase I shape for brown gritty burnished vessels, Late Bronze Age I 1600–1400.

Fig. 11 U, a jar with a short, rounded, everted rim, has a coarsely tempered ware parallel at Tell al-Rimah (Postgate et al. 1997: 1026, pl. 88, diameter = 7cm, Old Babylonian).

Fig. 12 A–G (form 1) is a carinated or S-curved bowl. The carination is located at the maximum width of the vessel. The vessel has inward slanting shoulders and a thickened rim. The diameter range known at Tell Rijim is 8–14cm (Koliński 2000: pl. 14:a,i). At Kenan Tepe there is a propensity for the carination on these bowls to

be a bit higher on the vessel body than is common elsewhere in the Old Babylonian period. Parallels for these bowls are found in Tell Brak's Old Babylonian assemblage (Oates et al. 1997: pls 190:205, 206, 192:280 [a large example], 193:291), at Chagar Bazar and at Hama (Fugmann 1958: figs 120: 2C400 [mid-18th century], 124 2C429; 2C909 [17th century]).

The ceramic parallels noted above situate the Kenan Tepe second millennium ceramic corpus in relationship to a well known assemblage that extends from Syria to Iran and now also northward into Turkey. However, there are a number of notable features differentiating the Kenan Tepe corpus, as it is so far preliminarily known, from the ceramic assemblages of neighboring regions. To an even greater extent than is known at Tell Rijim, there is a proclivity at Kenan Tepe for broad applications of thin paint (red-brown wash) on large open areas of vessels. Paint applied in horizontal bands appears to be much less common at Kenan Tepe than other contemporary sites, although numerous authors have cautioned that the amount of painted pottery has been overrepresented in published examples (for example, Frane 1996: 232). Vessels with hatching and criss-crossed lines or dots that are quite common elsewhere do exist at Kenan Tepe, but are not common.

A significant difference between the Kenan Tepe assemblage and the Khabur assemblages known at other sites is the complete absence at Kenan Tepe of the decorative motif that includes lines running at right angles to the lip edge. This has the effect of making the rim look striped by short, roughly parallel lines that have been stroked from the inside to the outside (or vice versa) of the vessel's rim. This surface decoration is common elsewhere in the Khabur period, including at Tell Brak, Tell al-Rimah and Tell Rijim (Oates et al. 1997: nos 212, 287; Postgate et al. 1997: pl. 58; Koliński 2000: pls 13, 15). A considerable proportion of vessels with this decoration are open bowls and platters from which food might have been served or consumed. The absence of these vessels at Kenan Tepe may represent a difference in the assemblage or it may be a result of either functional bias in the contexts that have thus far been excavated⁵ or chronological variation (red striped rim bowls occur in the Old Babylonian period at Tell al-Rimah, compare Postgate et al. 1997: pl. 58, and in HH levels 6–8 at Tell Brak, compare Oates et al. 1997 fig. 190).

⁵ This was the case at Tell al-Rimah, where there is a vast difference in bowl distribution between contexts. For instance, the rough based bowls were ubiquitous in the domestic areas of the palace, which dates to the Old Babylonian period (levels C6 and C6a), whereas these bowls were less frequently found in the A2 and A3 levels of the temple that existed contemporaneously (Postgate et al. 1997: 65).

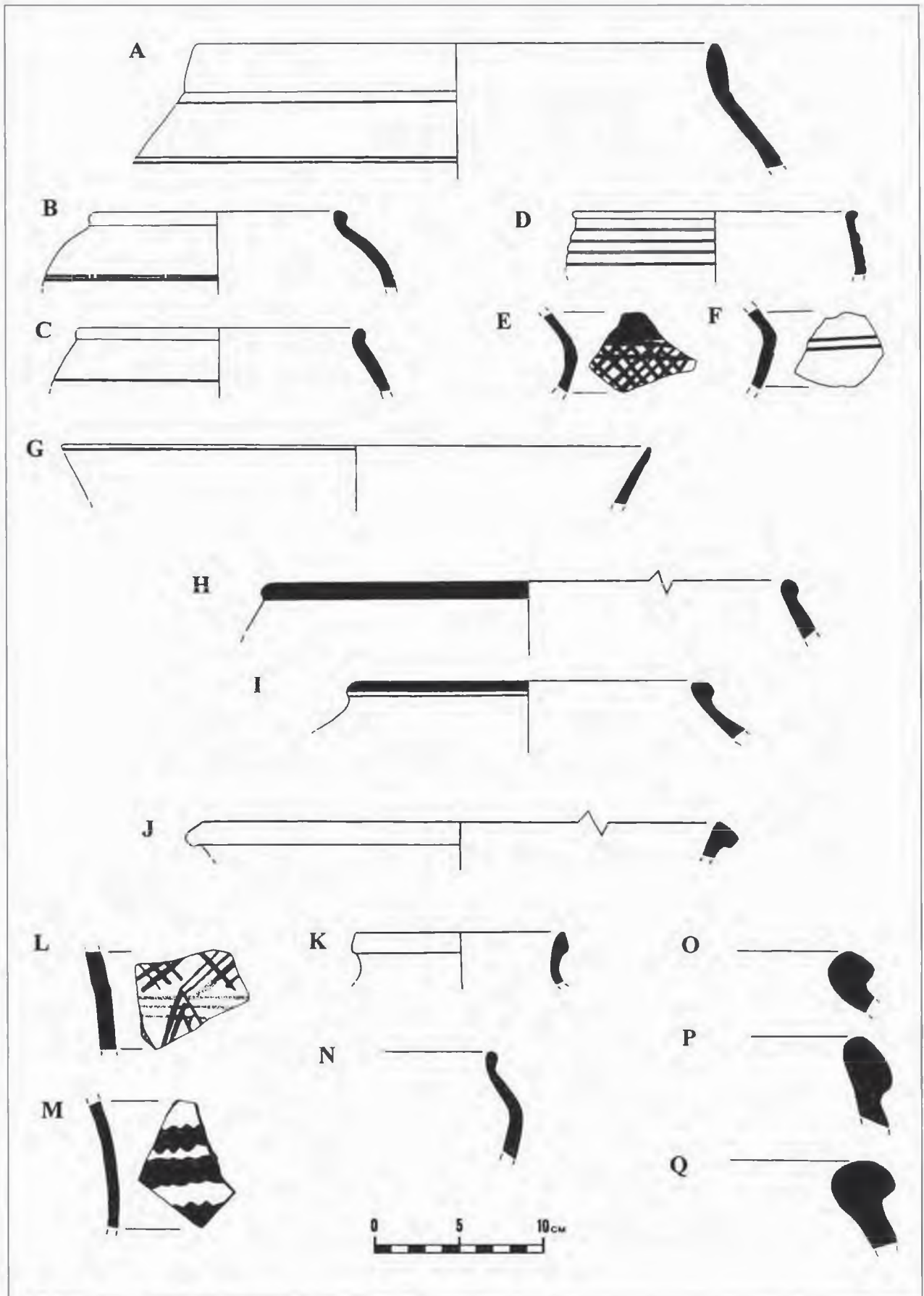


Fig. 9. Ceramics from area D, trench 4, locus 4027

Fig. 9. Descriptions for ceramics from area D, locus 4027

- A. D4 L4027 KT4132 no. 2. Reddish brown exterior (5YR 6/8). Reddish yellow fabric (5YR 7/8) grading to a brown core (10YR 5/3). Light brown interior (7.5YR 6/4). Reddish brown wash on exterior surface (2.5YR 4/4). Fine grit temper. Three incised bands on exterior surface.
- B. D4 L4027 KT4132 no. 7. Pale yellow exterior surface (5Y 8/2) grading to a pale yellow core (2.5Y 8/3). Pale yellow interior surface (2.5Y 7/3). Pale yellow wash on exterior surface (5Y 8/2). Incised band on exterior surface. Fine chaff temper.
- C. D4 L4027 KT4132 no. 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.
- D. D4 L4027 KT4132 no. 6. Greyish brown exterior surface (2.5Y 5/2) grading to a black core (5Y 2.5/1). Dark grey interior surface (2.5Y 4/1). Incised bands on exterior surface. Fine to medium grain chaff temper.
- E. D4 L4027 KT4132 no. 3. Reddish brown exterior surface (5YR 5/4) grading to a brown core (10YR 5/3). Very pale brown interior surface (10YR 7/4). Double incised bands on exterior surface. Reddish paint on exterior surface (5YR 5/4). Medium grain chaff temper.
- F. D4 L4027 KT4132 no. 1. Pink exterior (5YR 7/4). Reddish yellow fabric (7.5YR 7/6) grading to a light brownish core (2.5Y 6/3). Pink interior (7.5YR 7/4). Medium chaff temper. Double incised bands on exterior surface.
- G. D4 L4027 KT4129 no. 6. Pink exterior (7.5YR 7/3) grading to a strong brown core (7.5YR 5/6). Pink interior (7.5YR 7/4). Single band incision on rim. Medium grain grit temper.
- H. D4 L4027 KT4129 no. 4. Reddish yellow exterior (7.5YR 7/6) grading to a reddish yellow core (7.5YR 7/6) and continued gradual grading to a pinkish grey core (7.5YR 6/2). Very pale brown interior (10YR 7/3). Brown paint on rim (7.5YR 5/4). Fine chaff temper. Diameter 46cm.
- I. D4 L4027 KT4132 no. 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.
- J. D4 L4027 KT4132 no. 10. Pale yellow exterior surface (2.5Y 8/3) grading to a reddish yellow core (7.5YR 7/6). Pink interior surface (7.5YR 7/3). Medium grit and chaff temper. Pale yellow wash on exterior surface (2.5Y 8/3).
- K. D4 L4027 KT4132 no. 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).
- L. D4 L4027 KT 4129 no. 5. Very pale brown exterior surface (10YR 8/4) grading to reddish yellow core (5YR 6/6). Very pale brown interior surface (10YR 7/4). Dark reddish grey paint on exterior surface (5YR 4/2). Fine chaff temper.
- M. D4 L4027 KT4132 no. 11. Very pale brown exterior surface (10YR 8/2) grading to a reddish yellow core (5YR 7/6). Pink interior surface (7.5YR 7/3). Reddish paint on exterior surface (5YR 4/4). Medium grit temper.
- N. D4 L4027 KT 4129 no. 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.
- O. D4 L4027 KT4129 no. 2. Reddish yellow exterior (5YR 6/6) grading to a dark grey core (GLE Y1 4/N). Grey interior (7.5YR 6/1). Reddish brown paint in groove of rim (5YR 5/4). Medium chaff and grit temper. Diameter 48cm.
- P. D4 L4027 KT4132 no. 8. Pink exterior surface (7.5YR 7/3). Pale brown fabric (10YR 6/3) grading to a dark grey core (10YR 4/1). Medium chaff temper. Pink wash on exterior surface (7.5YR 6/3). Diameter 60cm.
- Q. D4 L4027 KT 4129 no. 3. Very pale brown exterior surface (10YR 7/4) grading to a pink core (7.5YR 7/4). Reddish yellow interior (7.5YR 7/6). Brown paint on interior and exterior rim surfaces (7.5YR 4/3). Medium grit temper.

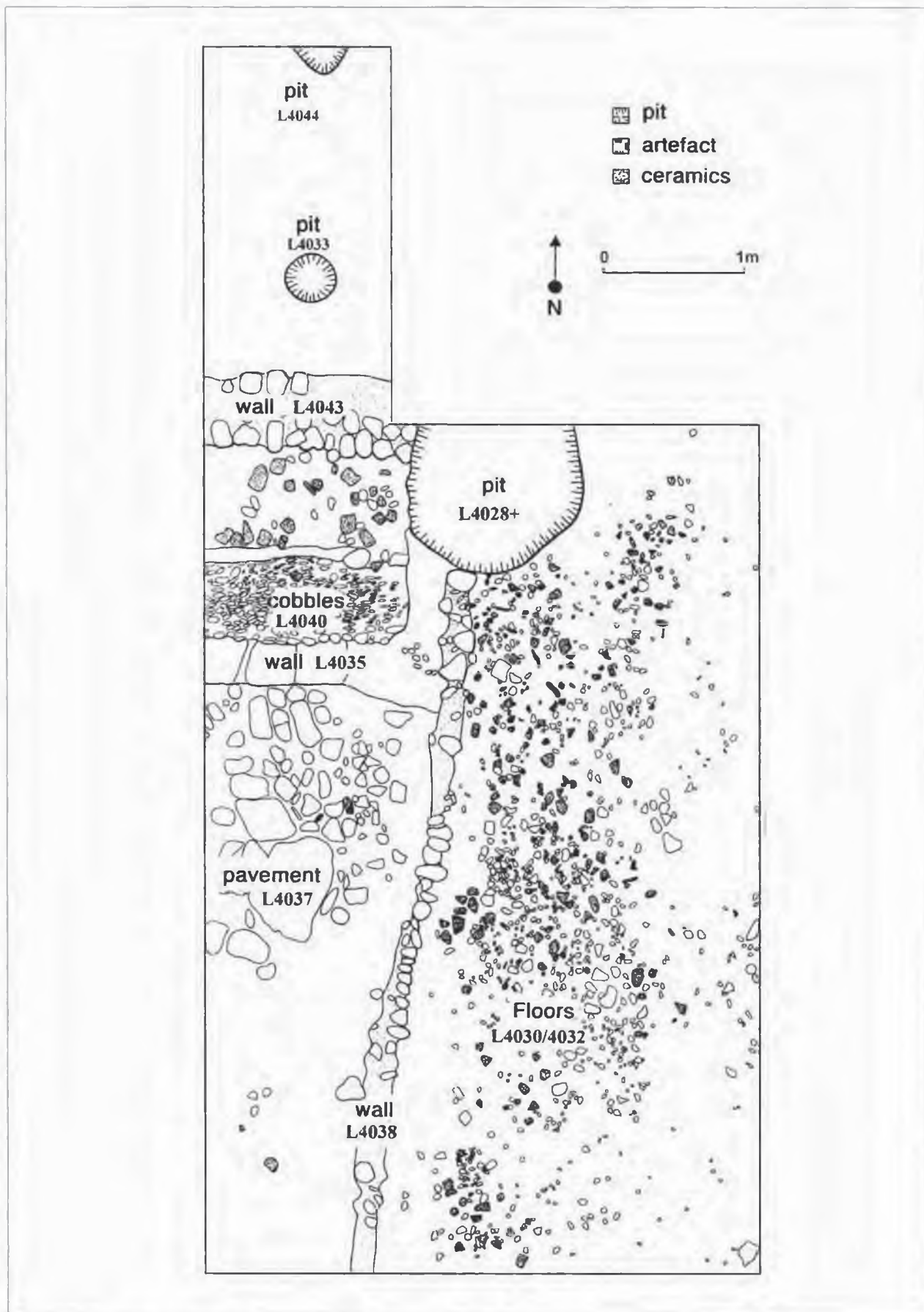


Fig. 10. Plan of trench D4

Another noteworthy difference is morphological. There is a propensity for Kenan Tepe rim shapes to be rounder than similar examples from other sites such as Tell Rijim and Tell Brak (where the assemblages include more flat-topped ledge rims and angular rim shapes). This may be a locally distinct element within an otherwise similar regional potting tradition. The pottery from Tell al-Rimah and Dinkha Tepe includes more examples of rims with rounded profiles than Tell Brak and Tell Rijim, especially in the case of the larger jars. Also noteworthy for the Kenan Tepe assemblage is the significant number of very large jars. This may be a recovery bias and this pattern will be reassessed as a greater number of contexts are excavated and analysed.

Variation within the Old Babylonian-Khabur ware assemblages has already been the topic of study (see for example, Hamlin 1971; 1974; Kühne 1976; Frane 1996; Oguchi 2000; 2001; Hroudá 2001). Some of this variation may be temporal. For instance, certain shapes (such as straight sided bowls) from the later phases of the Khabur assemblage are present, and possibly even common, in places like Ziyaret Tepe (across the river from Kenan Tepe [Helen McDonald, personal communication]), but these same shapes are rare or absent at Kenan Tepe. It is not uncommon for sites to lack a complete sequence, but chronological variation should not be seen as responsible for all variation noted between ceramic assemblages. Certain forms that are commonly attested in Tell al-Rimah do not occur in Tell Brak (Oates et al. 1997: 63). The banded beaker and the rough based bowl are rarely attested at Chagar Bazar (McMahon et al. 2001: n. 19). At Dinkha Tepe approximately 50% of the vessel shapes from the early second millennium assemblage were found to have parallels at other sites, and the number of shared forms between sites does not appear to vary in relation to the distance from Dinkha Tepe (Hamlin 1974: 131).

Whether the inter-site differences may be attributed to regional or temporal variation remains a question for future research. At present, it is clear that at Kenan Tepe there are few clear Middle Bronze Age parallels to the earliest Old Babylonian materials, and even fewer to assemblages predating the Old Babylonian period. Kenan Tepe also lacks vessel forms (such as banded beakers) characteristic of the end of the Old Babylonian period. At Tell al-Rimah, banded beakers only occur in the Late Babylonian to Early Mitanni levels, and so their absence at Kenan Tepe supports the hypothesis that Middle Bronze Age settlement at Kenan Tepe ended before this period.

The earliest occurrence of Khabur ware at Chagar Bazar is dated by tablets of Shamsi-Adad (Mallowan 1937: 82). At Tell al-Rimah, Khabur ware is thought to date no earlier than the 19th century, while at Tell Brak the limit is not earlier than ca. 1950 BC. Some early features of the Khabur ware corpus include deep grooving on jar shoulders and hatching used in combination with intervening dots (Postgate et al 1997: 53). As noted above, while rare, these decorative schemes have been identified at Kenan Tepe (such as figs 7 J, 9 E and L).

This survey of elements common to both the red-brown wash ware corpus and the Old Babylonian and Khabur assemblages situates this newly defined upper Tigris region ceramic corpus in a period that may extend from as early as the 19th century. As detailed above, the greatest percentage of comparable parallels derives from contexts that have been dated to the 18th and into the 17th centuries BC. Thus, in the period of the establishment, expansion and reorganisation of the kingdoms in north Syria and Iraq during the Middle Bronze Age, we can envisage the expansion of consumption pressures, and a desire for élites to develop exchange connections with the Anatolian sites located near resources and along riverine transport routes. Such pressures may have helped shape settlement at sites like Kenan Tepe leading to a material culture that is largely regionally distinct but that shows some affinities with traditions common in northern Mesopotamia.

Thus far the material remains at Kenan Tepe give us no specific information about the demographics of the region during the Middle Bronze Age since no texts have been found to illuminate ethnic or linguistic affiliations of the population. It is possible that the local Anatolian population in this region during the Middle Bronze Age was Hurrian, but this assumption is based on the presence of Hurrian kingdoms across northern Mesopotamia at the end of the Early Bronze Age, Hurrian names in Old Babylonian texts (Sasson 1979) and of the resurgence of Hurrian presence and political fortunes during the mid-second millennium. By the 16th century, Mitanni dominance in Syria and Iraq is presumed on the basis of a wide range of evidence. This evidence includes the construction of the area HH Mitanni Palace and Temple at Tell Brak (Oates et al. 1997: 147); Mitanni hegemony at Assur and the installation of officials with Hurrian names there; and, in the area of Kenan Tepe, a ceramic assemblage at Ziyaret Tepe containing pottery similar to the Mitanni material from Tell Brak (Helen McDonald, personal communication). The fact that Mitanni ceramics are almost completely absent from the assemblage at Kenan Tepe suggests that the site was not occupied during the Mitanni period.

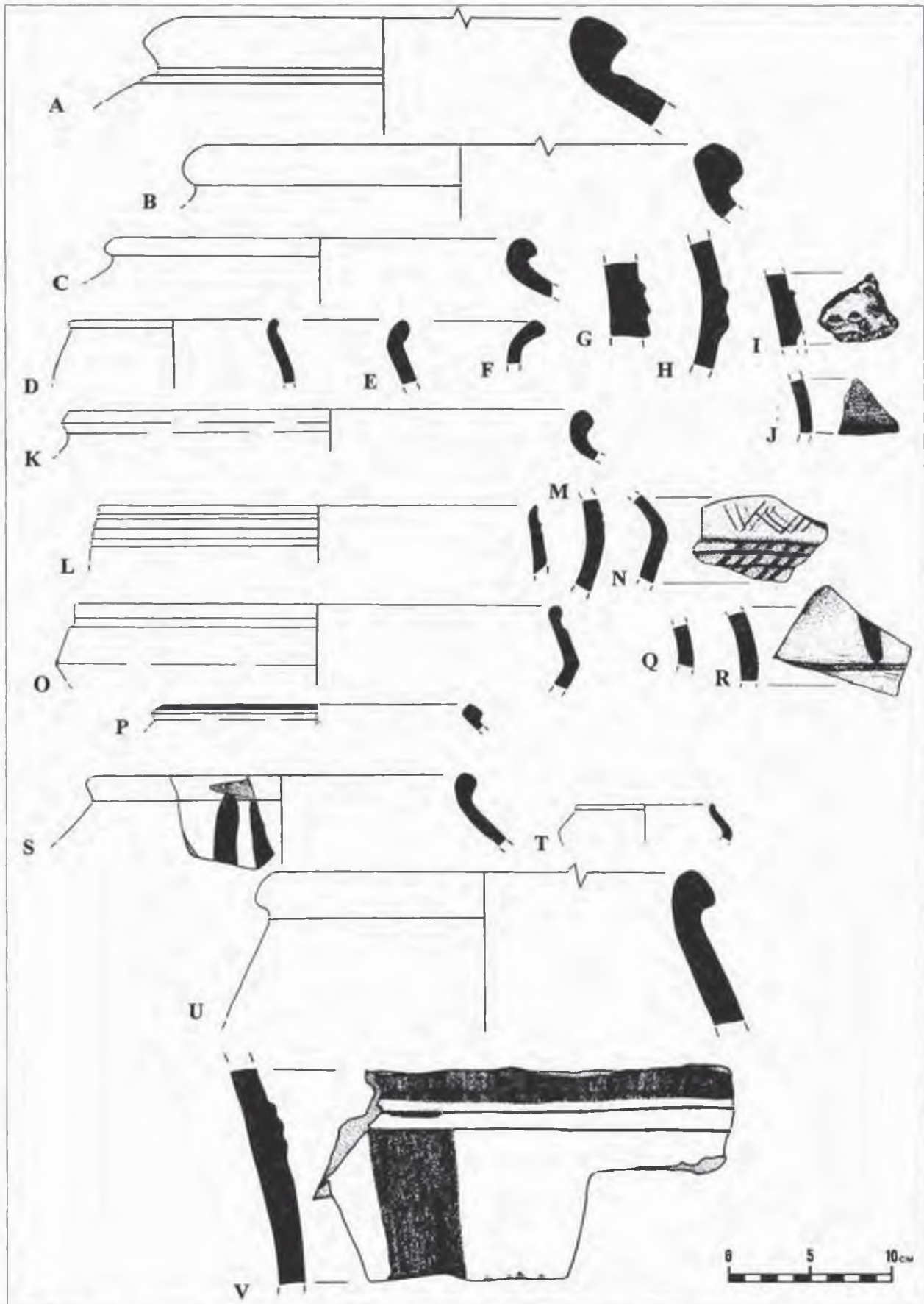


Fig. 11. Ceramics from area D, trench 4, loci 4019, 4030 and 4032

Fig. 11. Descriptions for ceramics from area D, loci D4019, D4030, and D4032

- A. D4 L4032 KT4154 no. 7. Reddish brown exterior surface (7.5YR 8/4) grading to a very dark grey core (5Y 3/1). Pink interior surface (5YR 4/4). Medium chaff temper.
- B. D4 L4032 KT4180 no. 7. Pink exterior surface (7.5YR 7/6). Very pale brown fabric (10YR 7/4) grading to a dark grey core (10YR 4/1). Reddish yellow interior surface (7.5YR 8/4). Medium grit and chaff temper.
- C. D4 L4032 KT4180 no. 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 no. 1. Pink exterior surface (5YR 6/6). Reddish yellow fabric (5YR 6/6) abruptly changing to a grey core (GLEY1 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 no. 2. Dark greyish brown exterior surface (7.5YR 7/4). Very pale brown fabric (10YR 8/4) grading to a very dark grey core (2.5Y 3/1). Pink interior surface (2.5Y 4/2). Fine grit temper.
- F. D4 L4032 KT4154 no. 3. Strong brown exterior surface (7.5YR 5/3). Brown fabric (10YR 5/3) grading to a dark grey (2.5Y 4/1). Brown interior surface (7.5YR 4/6). Medium chaff temper.
- G. D4 L4032 KT4154 no. 14. Reddish grey exterior surface (2.5YR 6/6). Light red fabric (2.5YR 6/1) abruptly changing to a dark grey core (GLEY1 4/N). Light red interior surface (2.5YR 5/1). Incised bands on exterior surface. Medium chaff temper.
- H. D4 L4032 KT4154 no. 8. Pale brown exterior surface (7.5YR 7/4). Reddish yellow fabric (7.5YR 7/6) abruptly changing to a very dark grey core (2.5Y 3/1). Pink interior surface (10YR 6/3). Incised on exterior surface. Fine chaff temper.
- I. D4 L4032 KT4154 no. 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 no. 13. Light red exterior surface (7.5YR 6.5/4). Reddish yellow fabric (5YR 6/6) grading to a grey 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 no. 9. Light brown exterior surface (7.5YR 7/3). Light yellowish brown fabric (10YR 6/4) abruptly changing to a very dark grey 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 no. 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 no. 11. Dark brown exterior surface (5Y 8/2). Pale yellow fabric (5Y 7/3) grading to a light grey core (10YR 7/2). Pale yellow interior surface (7.5YR 3/2). Incised with very dark grey paint (5Y 3/1) on exterior surface. Fine grit temper.
- N. D4 L4032 KT4180 no. 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) and incisions on exterior surface. Medium grit temper.
- O. D4 L4032 KT4154 no. 5. Pale yellow exterior surface (10YR 7/3). Yellow fabric (10YR 7/6) abruptly changing to a very dark grey 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 no. 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 no. 12. Brown exterior surface (10YR 7/2) grading to a pale yellow core (2.5Y 8/3). Light grey interior surface (7.5YR 5/2). Incised bands on exterior surface. Medium grit temper.
- R. D4 L4032 KT4180 no. 2. Pale yellow exterior surface (2.5Y 8/2). Reddish yellow fabric (7.5YR 7/8) grading to a dark greyish 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 no. 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 no. 2. Very pale brown exterior surface (10YR 7/4) grading to a black core (2.5Y 2.5/1). Light grey interior surface (10YR 7/2). Very pale brown wash on exterior surface (10YR 7/4). Medium grit and chaff temper.
- U. D4 L4030 KT4211 no. 3. Pink exterior surface (7.5YR 7/4). Reddish yellow fabric (7.5YR 8/6) grading to a dark grey 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 no. 1. Very pale brown exterior (10YR 7/4) grading to a very dark grey core (10YR 3/1). Pink interior surface (5YR 7/4). Strong brown paint on exterior (7.5YR 5/6). Medium grit temper.



Fig. 12. Form type characteristics

Fig. 12. Shape figure descriptions

- A. D4 L4030 KT4211 no. 2. Very pale brown exterior surface (10YR 7/4) grading to a black core (2.5Y 2.5/1). Light grey interior surface (10YR 7/2). Very pale brown wash on exterior surface (10YR 7/4). Medium grit and chaff temper.
- B. D4 L4012 KT4108 no. 7. Pink exterior surface (7.5YR 7/4). Reddish yellow fabric (7.5YR 6/6) abruptly changing to a dark greenish grey core (GLEY1 4/10Y). Pink interior surface (7.5YR 8/4). Fine chaff temper.
- C. C2 L2049 KT2311 no. 8. Light grey 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 no. 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 no. 5. Pale yellow exterior surface (10YR 7/3). Yellow fabric (10YR 7/6) abruptly changing to a very dark grey 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 no. 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.
- G. D4 L4022 KT4170 no. 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 no. 8. Pale brown exterior surface (7.5YR 7/4). Reddish yellow fabric (7.5YR 7/6) abruptly changing to a very dark grey core (2.5Y 3/1). Pink interior surface (10YR 6/3). Fine chaff temper.
- I. D4 L4023 KT4112 no. 14. Reddish yellow exterior surface (5YR 7/6). Reddish yellow fabric (7.5YR 8/6) abruptly changing to a very dark grey core (2.5Y 3/1). Reddish yellow interior surface (7.5YR 7/6). Fine grit and chaff temper.
- J. D4 L4032 KT4154 no. 14. Reddish grey exterior surface (2.5YR 6/6). Light red fabric (2.5YR 6/1) abruptly changing to a dark grey core (GLEY1 4/N). Light red interior surface (2.5YR 5/1). Medium chaff temper.
- K. C2 L2032 KT2259 no. 1. Light brownish grey exterior surface (5YR 7/4). Very dark grey core (GLEY1 3/N). Pink interior surface (2.5Y 6/2).
- L. C2 L2039 KT2269 no. 3. Grey exterior surface (7.5YR 5/2) grading to a dark grey core (GLEY1 4/N). Brown interior surface (5Y 5/1). Wash on exterior. Fine grit temper.
- M. C2 L2049 KT2311 no. 4. Pink exterior surface (7.5YR 7/3) grading to a dark grey core (GLEY1 4/N). Pink interior surface (5YRf 7/4). Coarse chaff temper.
- N. D4 L4023 KT4112 no. 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 no. 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 no. 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 no. 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 no. 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 grey paint (5YR 4/2) on interior rim surface. Fine grit and chaff temper.
- S. D4 L4027 KT4132 no. 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 no. 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 grey paint (5YR 4/2) on interior rim surface. Fine grit and chaff temper.
- U. D4 L4032 KT4154 no. 1. Pink exterior surface (5YR 6/6). Reddish yellow fabric (5YR 6/6) abruptly changing to a grey core (GLEY1 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 no. 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 no. 3. *Reddish yellow exterior surface (5YR 6/6). Reddish yellow fabric (7.5YR 7/6) abruptly shifting to a grey core (5Y 5/1). Reddish yellow interior surface (7.5YR 6/6). Medium grit temper.*
- X. C2 L2034 KT2204 no. 3. *Light brownish grey exterior surface (7.5YR 6/4). Strong brown fabric (7.5YR 5/6) abruptly changing to a dark grey core (7.5YR 4/1). Light brown interior surface (10YR 6/2). Dark grey paint (7.5YR 4/1) on exterior surface. Coarse grit temper.*
- Y. D4 L4023 KT4124 no. 3. *Greyish brown exterior surface (10YR 6/3) grading to a dark greyish brown core (10YR 4/2). Pale brown interior surface (10YR 5/2). Dark greyish 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 no. 2. *Light grey exterior surface (10YR 7/2). Reddish yellow fabric (5YR 7/6) abruptly changing to a black core (5YR 2.5/1). Light grey interior surface (2.5YR 7/2). Wash on exterior of base. Fine grit temper.*
- AA. C2 L2049 KT2311 no. 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.*
- Fig. 13. Descriptions
- A. D4 L4030 KT4205 no. 3. *Red exterior surface (2.5YR 5/6). Dark grey core (5YR 4/1). Pink interior surface (5YR 7/4). Pink paint on exterior surface (5YR 7/4). Medium chaff temper.*
- B. D4 L4030 KT4205 no. 6. *Pink exterior surface (7.5YR 6/2). Grey core (7.5YR 5/1). Pinkish grey interior surface (7.5YR 6/2). Very fine grit and chaff temper.*
- C. D4 L4070 KT4 no. 2. *Red exterior surface (10R 5/8). Light red core (2.5YR 6/6). Pink interior surface (5YR 7/4). Red paint on the neck, rim and exterior surface (10R 5/8). Fine grit temper.*
- D. D4 L4064 KT6 no. 4. *Pink exterior surface (5YR 7/4). Light red core (2.5YR 6/6). Pink interior surface (5YR 7/4). Light red paint on rim and exterior surface (10R 6/6). Fine grit temper.*
- E. D4 L4032 KT4161 no. 2. *Very pale brown exterior surface (10YR 7/3). Light yellowish brown fabric (10YR 6/4) grading to a reddish yellow core (7.5YR 6/6). Cream wash on exterior and interior surfaces. Yellowish red paint on rim and exterior surface (5YR 5/6). Fine grit temper.*
- F. D4 L4064 KT6 no. 3. *Light red exterior surface (2.5YR 7/6). Pinkish grey core (7.5YR 7/2). Pink interior surface (7.5YR 7/4). Paint on exterior surface. Very fine grit temper.*
- G. D4 L4032 KT 4186 no. 4. *Pink exterior surface (5YR 8/3). Pink core (7.5YR 7/4). Pink interior surface (5YR 8/3). Red paint on the rim and exterior surface (2.5YR 5/6). Fine chaff temper.*
- H. D4 L4032 KT4186 nos 3 and 11. *Handle. Red exterior surface (10R 5/8). Light red fabric (2.5YR 7/6) grading to a light red core (2.5YR 6/8). Red interior surface (10R 4/8). Red wash on interior and exterior surfaces (10R 4/8).*
- I. D4 L4030 KT4205 no. 1. *Red exterior surface (2.5YR 4/6). Grey fabric (5YR 5/1) grading to a pink core (5YR 7/4). Pink interior surface (5YR 7/4).*
- J. D4 L4020 KT4099 no. 1. *Pale yellow exterior surface (2.5Y 8/3). Light reddish brown core (5YR 6/4). Cream slip on exterior surface (7.5YR 8/3) with red paint (10R 5/6). Fine grit temper.*
- K. D4 L4072 KT1 no. 1. *Reddish yellow exterior surface (5YR 6/8). Yellowish brown core (10YR 5/6). Yellow interior surface (10YR 7/6). Red to brown wash on exterior surface. Red paint on exterior surface (2.5YR 5/6). Fine grit and chaff temper.*
- L. D4 L4065 KT2 no. 1. *Reddish yellow exterior (5YR 7/6). Reddish yellow fabric (5YR 6/6) grading to a grey core (7.5YR 5/1). Reddish yellow interior (5YR 6/6). Burnished interior and exterior surfaces. Brown paint on exterior surface (7.5YR 4/R). Incised decorations on exterior. Medium chaff temper.*

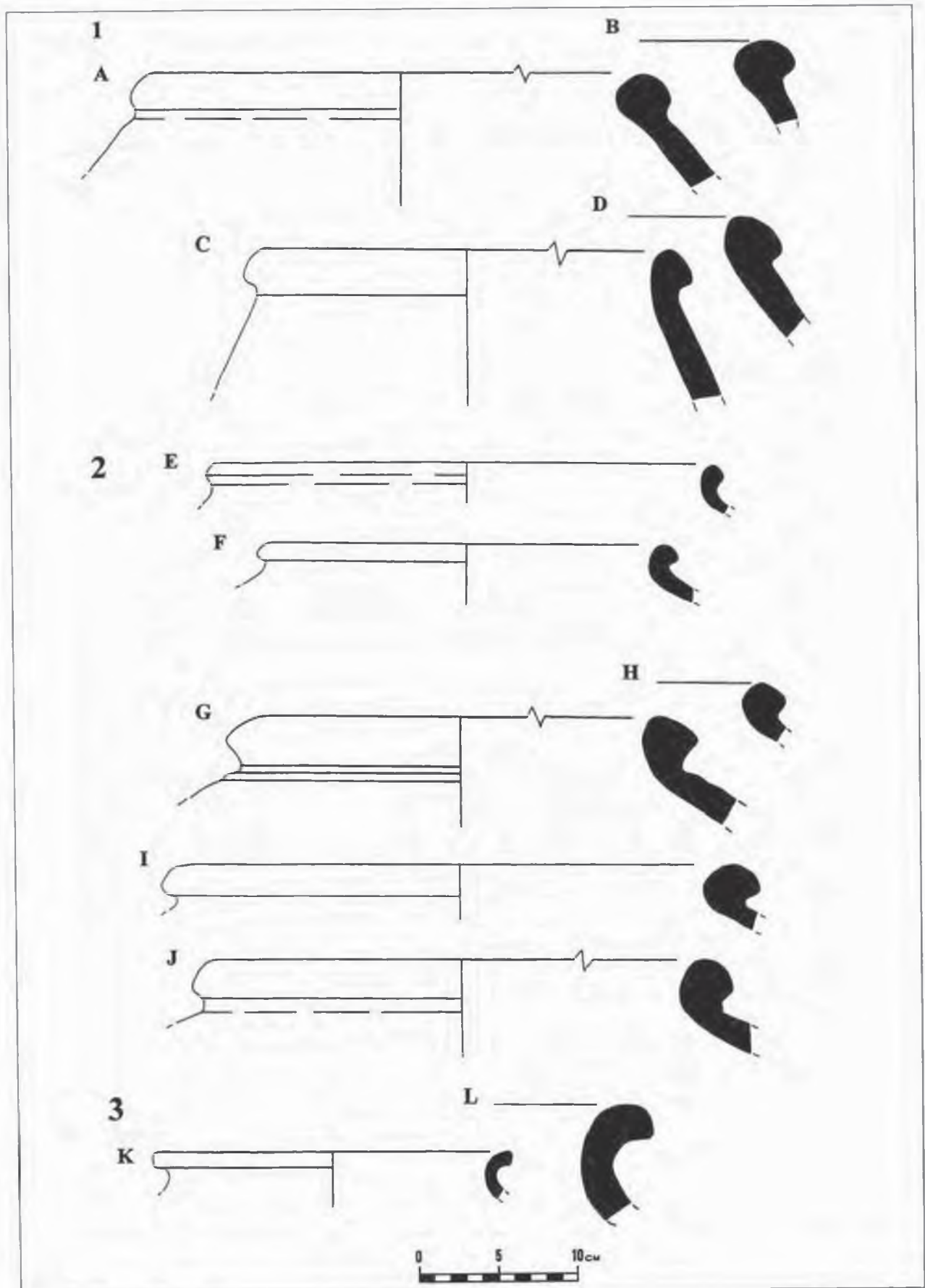


Fig. 13. Untyped forms

In contrast, a significant number of Old Babylonian forms, surface treatments and fabric characteristics are shared between sites in northern Syria and Kenan Tepe, especially during the early 18th and 17th centuries. Thus, although there is significant evidence for the presence of ethnic Hurrians in Anatolia during the Middle Bronze Age, the evidence unearthed thus far at Kenan Tepe does not support the hypothesis that Hurrian dominion extended into the upper Tigris river region during this period.

In order to characterise Middle Bronze Age settlement in the upper Tigris river region and illuminate the nature of inter-regional interaction during this period, we now turn to several other categories of data.

Other pertinent data

Soil samples from all primary contexts from trenches C2 and D4 were analysed during the 2001 field season. The cereals identified are wheat and barley, while legumes include lentil (*Lens culinaris*), field pea, bitter vetch and grass pea. Grape (*Vitis* sp.) seeds were relatively abundant in these deposits (Parker et al. 2004). Although the pips are plump, it is not certain whether these seeds represent the wild or cultivated variety since Kenan Tepe lies within the natural range of wild grapes (Zohary, Hopf 1988). The common occurrence of the grape pips could indicate that grapes or raisins were consumed and/or that wine was being produced. The common occurrence of grape pips in the Middle Bronze Age contexts, combined with the discovery of a few vessels similar to the 'wine jars' known from sites such as Tell al-Rimah (which were found with texts enumerating rations) or at Chagar Bazar (which were found with strainers), adds weight to the hypothesis that wine production was undertaken at Kenan Tepe during this period. Future studies of the organic residue remains in ceramic vessels should help clarify this issue.

The cereal remains recovered from Middle Bronze Age contexts were commonly found with numerous plants parts (such as rachis fragments, glumes and internodes) and field weeds (*Amaranthus*, *Chenopodium*, Leguminosae, *Rumex* and *Neslia* [Parker et al. 2003]) suggesting that cereal processing took place on site (Hillman 1981). Thus, in addition to wine, raisins and/or grapes, grain or beer was also processed at Kenan Tepe. Whether these activities were meant to produce locally consumable food products and/or regionally saleable or exchangeable commodities remains a matter of speculation. However, Kenan Tepe's location on the banks of the Tigris river would have significantly facilitated the downstream transport of large vessels containing such bulky products.

During the 2000 and 2001 field seasons several artefacts that suggest an awareness of broader regional material culture traditions were discovered in secure Middle Bronze Age contexts. These include three figurines and one metal object. In addition, UTARP team members recovered a well crafted cylinder seal in mixed fill. We now believe this seal dates to the Middle Bronze Age.

Two broken animal figurines were recovered from trench D4. The first, D4 L4009 KT4060 (fig. 14 C), was discovered directly above the first floor context (D4 L4012+) in structure 2 described above. This animal figurine is preserved from neck to tail. The light brownish grey (10YR 6/2) fine grit tempered object bears no paint, wash or other decoration. The head is broken off, but the gentle slope at the back of the neck suggests that the animal's neck was not especially long. The three intact legs are short and wide. The hindquarters preserve a long tail that curls down the proper-right rear leg. On the basis of the preserved features, the animal may be a dog or goat, since the tail appears too long to be a sheep and the neck appears too low to be a donkey or horse.

The second partially preserved figurine discovered in trench D4 (D4 L4020 KT4095, fig. 14 B) is missing its head and hindquarters and thus cannot be definitively identified. However, the very pale brown (10YR 8/3) surface bears a single, wide band of dark brown (10YR 3/3) paint extending from the nape of the neck to the tip of the feet. It is notable that this paint is very similar to the colour of the red-brown wash or paint that gives its name to the ceramic corpus discussed in this article.

A third figurine was discovered in trench C2 (C2 L2041 KT2306, fig. 14 A).⁶ It is made of a high fired clay of fine silt with sand particles and a chaff temper. The figurine retains brownish grey (7.5YR 3/1) paint in a stripe extending down the back from neck to tail. A second stripe of paint extends from the edge of this dorsal stripe down each of the legs. The paint used to create these stripes is again very similar to that found on ceramics discovered in the red-brown wash ware corpus. Similarly painted figurines, of zebu or Indian cattle, were identified at Tell Brak (Oates et al. 1997: fig. 239:20) in an Old Babylonian level (HH level 6). The animal represented by the Kenan Tepe figurine cannot be definitively identified, it could be a dog, cow, sheep or goat. However, the scheme of decoration on two of the Kenan Tepe figurines is similar to the painting on the figurine of the zebu found at Tell Brak.

⁶ Our initial impression was that this figurine derived from an Early Iron Age context (Parker et al. 2002b). However, an analysis of the ceramics shows that this initial assumption was incorrect. It is clear now that the context within which it was discovered belongs to the early second millennium BC.

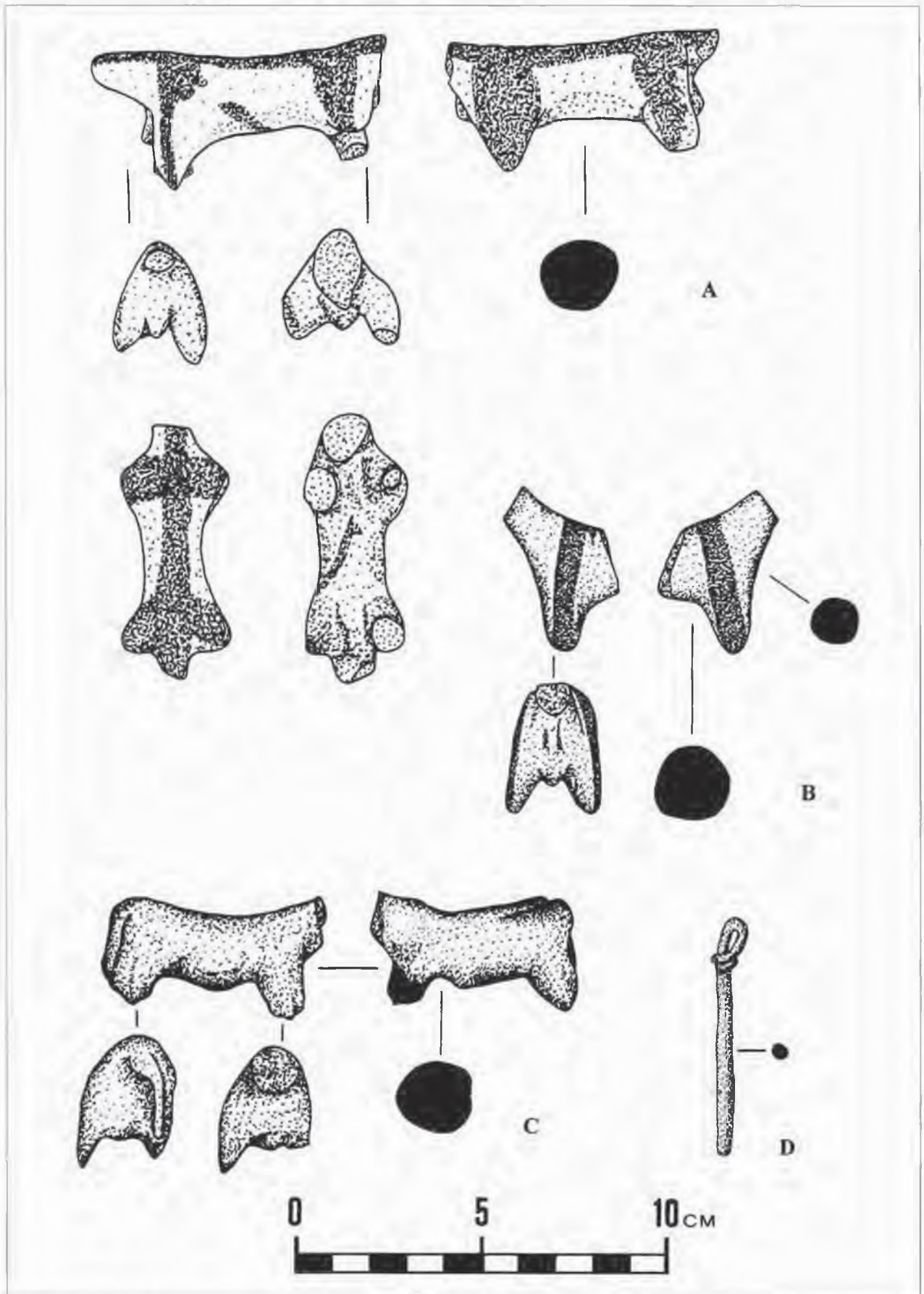


Fig. 14. Small finds from early second millennium contexts

These similarly sized animal figurines, and their shared method of decoration, are thus features common to both sites. Although the sample is small, the close parallels between the Tell Brak figurine and those from Kenan Tepe may be evidence that a broad tradition of small scale representation may have been shared between the upper Tigris river region and the Khabur river of northern Mesopotamia during the Middle Bronze Age.

During the 2000 field season UTARP team members excavated a dark to medium grey-black hematite cylinder seal with a purplish cast (D2 L2001 KT2020) from a mixed context in sub-topsoil in trench D2 (fig. 15). Professor Holly Pittman was kind enough to make an attribution of the seal to the Old Babylonian period.⁷ The face of the seal is incised with an intaglio design depicting a pair of contest scenes separated by a standard topped with a crescent. Both contests involve a nude, bearded god (the protagonist) standing in profile and a lion (the antagonist), also standing in profile. The details of execution and form are similar to Old Babylonian seals engraved in complex, formal style (Buchanan 1981: figs 967–70, dated to the first half of the 18th century), in which case this iconography could be considered a revival of an Akkadian or Ur III contest scene (Collon 1995: 102). The dating of this seal places it within the same time window suggested by the ceramic comparanda and the carbon dates. Thus, although Anatolian style stamp seals from other periods have also been found at Kenan Tepe, this cylinder seal and its iconography link the administrative practices, and perhaps the religious and mythical belief systems, of Kenan Tepe to those of Mesopotamia during the Old Babylonian period.

During the early second millennium, the inhabitants of Kenan Tepe had access to copper, bronze, lead and possibly even adventitiously produced iron. Details of the metals and their analysis may be found in Parker et al. 2003 and 2004. In brief, residents of Kenan Tepe were engaged in high temperature processes that yielded copper, low tin bronzes and small quantities of iron rich slags in all areas where the red-brown wash ware assemblage was found. In area C an iron slag sample (C2 L2041 KT2290) and a copper sample (C1 L1045 KT1315) were



Fig. 15. Seal from early second millennium context

found in different trenches (C1 and C2). The ceramics in these two loci (C1 L1045 and C2 L2028) are similar but the trenches are separated by about 30m of horizontal distance. These finds suggest that an extensive area (approximately 30m in length or more) was used for as yet undefined high temperature craft or metal processing.

Metal objects, especially simple bronze pins and needles, are common in most sites in greater Mesopotamia during the Middle Bronze Age. However, some objects stand out as atypical in the north Mesopotamian tradition. One distinctive example is a thick metal needle or pin (D4 L4022 KT4106, fig. 14 D) that was recovered from fill in trench D4. This object is light bluish grey (GLE2 7/1) on the surface. An eye has been created by looping the end of the metal shaft back down and around the neck of the object. Its is composed of 82.61% lead, which is reasonable for smelted lead.⁸ The presence of lead objects in second millennium contexts is not altogether rare; figurines, pins of various types and foil strips are known. However, the particular style of this lead needle or pin is not common. Indeed, we have located no comparable items from those sites where comparanda for the ceramic vessels have been found (including Tell Brak, Chagar Bazar, Mozan, Tell al-Rimah, Mozan, Leilan, Tepe Yaya, Dinkha Tepe or Tell Rijim). Instead, the lead needle or pin finds parallels at sites located in other regions. A lead needle (with a different shape) dating to the beginning of the second millennium was found in Iran at Hissar in level IIIc (Klein 1992: 229). Other needles or pins with similar coiled loop heads (but made from bronze) come from

⁷ The cylinder seal derives from a mixed context and our initial dating was based on an analysis of the artistic motifs and the material from which the seal was made (Parker et al. 2002a). This being the case we concluded that this seal was probably Late Akkadian/Early Ur III or Old Babylonian in date. We would like to express our appreciation to Professor Holly Pittman for her examination of images of this seal. She concluded that this is not a Late Akkadian seal but instead belongs to the Old Babylonian period. Since the seal is described elsewhere (Parker et al. 2002a) we limit ourselves to a brief description here.

⁸ A second, similar lead object was found in area C3, which contains another Middle Bronze Age context at Kenan Tepe. The second item is not illustrated. Note that in Parker et al. 2003, figs 14 P and Q should be reversed

either Early Bronze Age or Early to Middle Bronze Age contexts in the Amuq (phase H = 2700–2400 BC; Klein 1992: 126/6), from Tarsus (unstratified find; Klein 1992: 126/7), Byblos (from the destruction horizon between Early and Middle Bronze Age levels III and II; Klein 1992: 126/8) and Karkemish (from a tomb in the ‘Inner Town Wall’ dated to the first half of the second millennium BC; Klein 1992: 37, taf. 55/12). In addition to these sites in the far west, similar coiled head pins are known from Korucutepe in central Anatolia (although there the rolled head does not coil around the shaft as is the case at Kenan Tepe; van Loon 1980: pls 34–5).

Conclusion

There are obviously many problems with drawing conclusions based on the limited available excavated and published data. The level of preservation may play a role in the distribution of specific types of artefacts (especially those made of metal), while the bias introduced in the process of the publication of comparative material may also be an issue. In addition to this, the limited number of excavated artefacts from Kenan Tepe (figurines and metal finds) may mean these categories of data are not representative or are too small to draw anything more than very tentative conclusions. We are obviously on much firmer ground with the ceramics and the ceramic comparanda. The sample of ceramics from primary contexts at Kenan Tepe is huge, while the published comparanda is also vast.

Despite the shortcomings of some of the datasets, the patterning of the metal artefacts, such as they are, appears to be distinct from the admittedly more secure patterning of the Old Babylonian/Khabur ware related ceramics and figurines. Sampling biases aside, if we add to this the fact that many aspects of the red-brown wash ware corpus described here appear to be part of a regionally distinct ceramic tradition, such distributions may reflect the existence of overlapping and interconnected material culture traditions stretching across greater Mesopotamia during the Old Babylonian period. If this is the case, it is conceivable that commodities with a higher intrinsic value, including some uncommon lead objects and looped head pins, circulated within a different sphere of regional interaction than was the case, for example, with commodities contained in ceramic vessels.

As a result of recent work in the Ilisu dam area, the long term interest in the upper Tigris river valley on the part of various Mesopotamian states is becoming better documented (Tuna, Öztürk 1999; Tuna, Velibeyoğlu 2000; Tuna et al. 2002; Parker 2001; 2003). The location of Kenan Tepe, isolated in the foothills of the resource rich Taurus mountains yet linked to northern Mesopotamia by the Tigris river, means that this site was ideally located to

facilitate Mesopotamian access to Anatolian materials and commodities, especially during periods like the 18th and 17th centuries BC when the kingdoms of northern Mesopotamia were politically centralised. As noted above, a significant component of the red-brown wash ware corpus and of other aspects of material culture may be considered indigenous to the upper Tigris river region, while certain other features reflect a measure of interaction with sites in the south. This blending must have occurred as a result of Kenan Tepe’s participation in one or several interaction spheres that linked this site to greater Mesopotamia, the end result of which is discernable in the material culture of sites in the upper Tigris river region.

Implicit in such interaction is the exchange of services or commodities. Although the available data do not allow us to make definitive statements about what commodities were being exchanged, they do allow speculation. The data from Kenan Tepe suggest that metals, wine and grain (or perhaps beer) were integral to Kenan Tepe’s Middle Bronze Age economy. Aslihan Yener (2000) has demonstrated the importance of the metals industry in Mesopotamian history. Because the processing of ore requires vast amounts of fuel (two to three times the tonnage of timber or charcoal is needed per tonne of ore), Yener envisions a multi-tiered system of metal production in which intermediate processing sites near procurement areas with ready access to fuel sources played an essential role in the regional economies. Kenan Tepe’s location on the banks of the Tigris river would have facilitated the transport of high bulk products. While the metals industry may have propelled inter-regional interaction, other commodities such as wine and grain may have acted as secondary exchange goods. If sites like Kenan Tepe played such a role in the regional exchange systems then it is not difficult to imagine how the material culture of such sites could have been mixed or taken on hybrid forms.

Whether or not political forces played a role in the economic exploitation of this part of southeastern Anatolia is, at present, impossible to say. However, the dated ceramic parallels and the carbon-14 tests do suggest that the interaction that occurred between the upper Tigris river region and northern Mesopotamia (and perhaps other regions) coincides with important political developments in northern Mesopotamia. The data show that this interaction may have begun as early as the reign of Shamshi-Adad I and is likely to have persisted through the vicissitudes of later rulers, even into the 17th century BC. Conceivably as early as the consolidation of Shamshi-Adad’s power, connections between his kingdom and more peripheral areas were being forged and encouraged as a means of creating and satisfying the demand for the many consumables and raw materials mentioned in texts of this period.

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