

## REPORT ON EXCAVATIONS AT ZİYARET TEPE, 2006 SEASON

*Timothy Matney, Lynn Rainville, Kemalettin Köroğlu, Azer Keskin,  
Tasha Vorderstrasse, Nursen Özkul Fındık, and Ann Donkin*

### INTRODUCTION

The tenth season of archaeological exploration at Ziyaret Tepe in the Diyarbakır Province of southeastern Turkey started on 19 July and ended on 8 September 2006 [see Fig. 1 for location of the site]. The project director was Dr. Timothy Matney (University of Akron) and the assistant director was Dr. Lynn Rainville (Sweet Briar College). The field director for excavations on the high mound was Prof. Dr. Kemalettin Köroğlu (Marmara University). An international team of eighteen archaeologists from the United States, Europe, and Turkey were present during the 2006 season and the findings discussed in this preliminary report are only possible due to their dedication and hard work in the field.<sup>1</sup> Since 1997, the Ziyaret Tepe archaeological project has been part of a larger salvage project initiated by the Turkish authorities prior to the construction of a large hydroelectric dam downstream on the Tigris River at the modern site of Ilisu. After years of delays, on 5 August 2006, an official groundbreaking ceremony was held at the future Ilisu Dam site and an anticipated completion date for the reservoir of 2012 was officially announced. Our work at Ziyaret Tepe has now taken on a renewed urgency in anticipation of the completion of this development project.

Fieldwork at Ziyaret Tepe was carried out in two areas of the site in 2006. First, excavation took place across four 10m by 10m squares on the high mound in Operation L, as a continuation of excavations started there in 2004. The primary goal of these excavations was to uncover and record deposits post-dating the collapse of the Late Assyrian urban center at Ziyaret Tepe/Tushhan in 610 BC (see Matney et al. 2002; 2003; Matney and Rainville 2005; Parpola forthcoming). In general, the material assemblage from the Upper Tigris River valley during the Late Iron Age through the Late Medieval periods (c. 600 BC to AD 1600) is poorly understood. This article presents a preliminary publication of a well-stratified corpus of ceramics and other remains in order to better understand the human use of the valley after the collapse of the Assyrian empire. Most of the archaeological work being carried out under the aegis of the Ilisu Dam Salvage Project focuses on the prehistoric and early historic periods, with the notable exception of

<sup>1</sup> This project was conducted under the auspices of the Diyarbakır Museum and its acting director Nevin Soyukaya. Zerrin Akdoğan from the General Directorate in Ankara served as our *temsilci* for this season. Funding was provided by the National Endowment for the Humanities (NEH) in the United States, as well from public and private institutions in the United States and Europe.

excavations at the important Medieval center of Hasankeyf, located on the Tigris River 55 km downstream from Ziyaret Tepe. As such, our work represents an important contribution to the archaeology of these later periods in the region.

The second field operation carried out in 2006 was the continuation of subsurface geophysical survey conducted by a University of Akron team in the western lower town adjacent to earlier excavations in Operations G, J, and K. In particular, the 2006 electrical resistance survey expanded on an earlier survey first conducted in the western lobe of the lower town in 2004 (Matney and Rainville 2005). The 2004 geophysical survey showed a monumental gateway through the city fortifications dating to the Late Assyrian period, as well as several other major public buildings near the southwestern corner of the site. The primary objective of the 2006 season was to expand this survey to the west and north of the previous surveys in order to map additional Late Assyrian architecture prior to planned digging seasons in 2007 and 2008.

This preliminary report is organized as follows. First, the results of the excavations in Operation L are presented, organized temporally by occupational level. Four levels were recognized in the 2004-2006 excavations in Operation L: L1 (Ottoman?), L2 (Medieval), L3 (Late Iron Age), L4 (Late Assyrian). Several of these occupational levels are further subdivided into earlier and later phases. The occupational levels mark major stratigraphic breaks, while the phases represent different manifestations, often re-buildings or multiple floor deposits, of the same chronological period. Preliminary reports on the ceramics and other finds are incorporated within the discussion of each of the occupational levels. Additionally, preliminary results from a study of microdebris taken from the Medieval (L2) architecture are described in that section. Second, the results of the electrical resistance survey are discussed. Finally, a brief report on the continuing analysis of Late Assyrian finds excavated at Ziyaret Tepe is presented. In particular, we discuss the continuing development of a comprehensive Late Assyrian ceramic typology from Ziyaret Tepe based in large part on excavations in Operation G conducted between 2001 and 2004.

#### EXCAVATIONS IN OPERATION L (2006)

During the 2000-2004 seasons, the primary areas of excavation on the high mound were Operations A and E [Fig. 2]. These excavations initially suggested that large-scale settlement on the eastern part of the mound ended in the Late Assyrian period, with only ephemeral later use of the high citadel mound. At least one phase of Medieval architecture, mostly found as isolated wall fragments, was recorded and published initially as Phase D of Operation A (Matney et al. 2002: 56-57). In addition, Operation A saw extensive pitting subsequent to the Late Assyrian occupation. We suggested earlier that sherds spanning a wide time range from the Late Iron Age to Islamic periods were recovered in Operation A (Matney et al. 2002: 58). However, the main focus of work in Operation A was a monumental mudbrick building, possibly a palace, dating to the Late Assyrian period. In Operation E, stratified remains extending from 3<sup>rd</sup> millennium BC to the Late Assyrian period have been uncovered in a long step-trench, but these excavations

add little to our documentation of the post-Assyrian use of Ziyaret Tepe. Subsequent test trenches exposed on the northern half of the mound (Operations I and L) supplied the first evidence of substantial post-Assyrian occupation.

The Operation L excavations, started in 2004 in a single 10m by 10m trench (N1080 E1030)<sup>2</sup>, revealed at least three occupational phases in a 1.0-1.5m thick deposit above the Late Assyrian level, originally called Phases B, C, and D (Matney and Rainville 2005: 36-37). The goals of the 2006 excavations in Operation L were to expose the post-Late Assyrian levels over a broad area in order to understand the occupational sequence at Ziyaret Tepe after the collapse of the Assyrian empire in the late 7<sup>th</sup> century BC. Work also focused on documenting changes in settlement types and the nature of the hiatuses between settlement periods.

The Operation L excavations in 2006 were undertaken in four 10m by 10m trenches (N1070 E1030, N1080 E1030, N1090 E1030, N1080 E1040) on the high mound. The excavation area slopes generally downward towards the south at this place. The elevation difference between the northernmost point and the southern edge is about 2m, presumably caused by extensive erosion over the centuries on the high mound. Operation L comprises remains from the Ottoman period, Medieval period, and Late Iron Age, all lying above the Late Assyrian building levels. Interestingly, the nature of occupation shifted dramatically through time at Ziyaret Tepe, as described below. During excavation, these levels were given shorthand names reflecting the distinct nature of each occupational event. From top to bottom the four levels are “Tent Level”, “Medieval Level”, “Pit Level”, and the “Late Assyrian Level”.

#### LEVEL L1: OTTOMAN PERIOD (THE “TENT LEVEL”)

##### **Architecture and Stratigraphy**

Remains of this occupation level (L1) were found just below the topsoil in all four trenches of Operation L, although it was badly disturbed in places. We have tentatively dated this level to the Ottoman period primarily on its stratigraphic location above the Medieval level and on the nature of its architecture, as discussed below. The architectural remains point to a settlement with at least two phases (L1a = later; L1b = earlier). In general, the architecture of Level L1 has oval, circular, or rectilinear walls comprising a mixture of medium- and small-sized pebbles and mud. No multi-roomed buildings were found in the last phase (L1a). The stones which comprised these walls are pebbles of various sizes that are usually unworked, although their location on the top of a 23m-high mound proves that they were deliberately transported here. These are not load-bearing walls and, in fact, more accurately form “alignments” rather than walls *per se*. [Fig. 3].

<sup>2</sup> Trenches are designated by northings and eastings from an imaginary datum established to the southwest of Ziyaret Tepe. Trench numbers refer to the southwestern corner of the 10m by 10m grid square.

One of the better preserved examples of the L1a architecture are walls L-203 and L-244<sup>3</sup> in trench N1090 E1030, which look like stone courses partly surrounding an oval building that was at least 6m in length shown in Fig. 3 by dashed lines. Likewise, stone courses (L-324) in the southwest corner of trench N1080 E1040 form a circular plan. In contrast, stones found in the eastern part of trench N1080 E1030 do not form a distinct plan, suggesting they had been scattered on an ancient surface before their burial. Three linear alignments in the western and southern parts of trench N1080 E1030 (L-106, L-107, and L-108) may represent segments of wall alignments dating to level L1a. The phasing of trench N1070 E1030 remains under investigation. Flat stones with smooth surfaces surrounded by smaller stones could have been supports for wooden posts used in the L1a buildings, although an alternative explanation is suggested below. No signs of mudbricks above the stones were identified, although mud appears to have been used to hold the stones together in Level L1a. Likewise, there were no dense concentrations of stone collapse surrounding these features, suggesting that additional stone courses did not exist. Apart from a few uncertain cases, there were no *tannurs* or storage pits associated with the architectural remains in this building level.

An earlier phase, termed L1b, shows a more regular plan. For example, walls or wall foundations L-313 and L-318 found in the north part of trench N1080 E1030 are rectilinear in plan have widths varying between 60 and 80cm. While complete plans of the L1b buildings could not be documented, this earlier phase had more permanent buildings. Here, mudbrick traces in addition to mud on top of the stone wall foundations were also documented, suggesting that these walls may have held some sort of superstructure. In the southwest corner of N1070 E1030, a rectangular storage pit also points to a permanent settlement of long duration within a building that contained at least two rooms built of mud and stones. In the southern part of Operation L, in trench N1070 E1030, remains of similar walls or wall foundations (L-362 and L-363) belonging to a building were also found. The floors of the L1b structures were simply beaten earth and, given their proximity to the surface, it was nearly impossible to define them with certainty. No scatters of flat-lying broken potsherds or features were present to enable us to definitively follow floor surfaces. As such, the attribution of specific artefacts to the “Tent Level” is problematic.

## Ceramics

We found a number of handmade portable bread baking pots from this level. These pots are similar to those that are used by villagers who, until quite recently spent their summers in high pastures with their livestock in the Eastern Black Sea region<sup>4</sup>. However, it is not entirely clear whether these vessel fragments are confined

<sup>3</sup> The recording system used at Ziyaret Tepe is based on a locus system. Each feature (e.g., wall, floor, pit, contents of pit, etc.) is given a unique site-wide identifier. The format of the identifier, or locus number, is Operation letter, followed by a hyphen, followed by a unique serial number (e.g., L-201, L-202, etc.).

<sup>4</sup> We would like to thank Şahin Koroğlu who documented the ethnohistorical pottery from Arvin.

stratigraphically to level L1, or whether they also are found in the preceding Medieval (L2) occupational level. A complete handmade, miniature ceramic vessel (ZT 19513, L-253) made of very coarse ware perhaps dates to the 19<sup>th</sup> or 20<sup>th</sup> century, although we have no exact parallels for this artefact [Fig. 4: A]. Our understanding of Late Islamic pottery remains problematic, although there have been some recent publications from northern Mesopotamia (e.g., Simpson 1993: Fig. 3 illustrates a beescarer from Diyana in Iraq. This material was brought back from the region in 1956 and is now in the Pitt-Rivers Museum; see also Simpson and Watkins 1995; Simpson 1997).

### Small Finds

As with the pottery, there are few small finds that can be securely identified as belonging stratigraphically to Level L1. However, several Ottoman period finds, some from Operation L, suggest some occupation during this period. Of particular interest is a clay disc (ZT 20057, L-301) with a hole through it and Arabic writing stamped on either side found in the topsoil in trench N1080 E1040 [Fig. 4: B]. Originally, it was thought that the disk was a sealing that would have had a hole in the middle so that the text could be attached with a string around a document. Another suggestion, however, was that the object was a Shi'ite prayer stone and this latter interpretation now appears more likely.<sup>5</sup> The use of such "stones" by Shi'ites when they pray is well documented. A special type of textile, known as the *Jā Namāz*, is opened out and the prayer stone is placed on it (Khosronejad 2006: 33). Prayer stones are made of light brown clay from Mecca, usually ornamented with words or symbols stamped on it (Mortensen 1993: 145, No. 14.6.77). When an individual prays, their head comes into contact with the prayer stone, which eventually produces chronic skin changes on the forehead (Vollum and Azadeh 1979; for the clinical changes brought about by praying in general, see Abanmi et al. 2002). These objects are rarely found in archaeological contexts. So far, only two parallels have been found, both from Bahrain, where they were found in graves and dated to possibly the 16<sup>th</sup>/17<sup>th</sup> and the 16<sup>th</sup> century respectively (Kalus 1990: 95-98, nos. 48-49; Kervran 2005: 338, 342-343. Pl. 100). The fact that the piece has a hole through the middle of it, however, may indicate that it was a Shi'ite amulet. Amulets are known to be made from clay from shrines, particularly from Karbala. Talismans are round often with circles encircling the names of prophets, etc (Donaldson 1938: 205-206). The Shi'ite practice of using sacred earth for talismans goes back at least to the 10<sup>th</sup> century AD (Bosworth 1976a: 199, v. 60, 297, v. 27; Bosworth 1976b: 86, 146; Ruska and Barra de Vaux with Bosworth 2000: 500). If the identification of this object as being Shi'ite correct, it is of great interest, as it is clear from the Ottoman writers of the area that the region was extremely heterogeneous from a linguistic, religious, and ethnic point of view (Van Bruinessen 1988: 29-30, 32; for the Arabic of this area see Socin 1904; Jastrow 1969a; Jastrow 1969b; Sasse 1971).

<sup>5</sup> We would like to thank Nevin Soyukaya of the Diyarbakır Museum for this suggestion.

Also of Ottoman date are several fragments of fired clay tobacco pipes that were found on the surface elsewhere at Ziyaret Tepe. Finds of pipes occur throughout the Ottoman world and are found even in small village sites (Boas 2000: 555; Van der Lingen 2003: 131) and at sites where there is no accompanying architecture and very little other Ottoman pottery (Avissar 1996a: 198-201; Avissar 1996b: 117). Three pipes have been examined. ZT 12891 (J-063) is very crudely made with a large bowl that could date to the 19<sup>th</sup> century [Fig. 4: C]. This dating is based upon parallels with a pipe with a particularly large bowl found in Beirut (Van der Lingen 2003: 136, Fig. 5). ZT 0201 (surface find) is made from light brown clay which could indicate an early date at the end of the 17<sup>th</sup> century or beginning of the 18<sup>th</sup> century [Fig. 4: D]. ZT 0206 (surface find) is likely to be of 18<sup>th</sup> or 19<sup>th</sup> century date (Robinson 1983: 266; Robinson 1985: 161; Simpson 2000: 147) [Fig. 4: E].

### Interpretation

In light of these observations, it is difficult to say whether or not the latest settlement (L1: “the Tent Level”) was associated with a full time sedentary group employing subsistence agriculture. It seems most likely that this was a camp used by semi-nomadic tribes in the Ottoman period, although the lack of well-stratified late material at the site raises questions about whether one should date Level L1 to the Ottoman period, or perhaps earlier (i.e., in the late Medieval period). The circular arrangement of irregular stones in L1a most likely belonged to tents, and the pebble and mud foundations to seasonal shelters. Taylor, who conducted the first archaeological observations in the upper Tigris region in the mid 19<sup>th</sup> century, described communities living in tents, in the most northern part of Mesopotamia, and divided them into two main tribes called Kikeea (Kikan) and Milleea (Milli). His observations demonstrate the importance of nomadic groups in the region during the late Ottoman period (Taylor 1865).

Ziyaret Tepe sits approximately halfway between the high Taurus Mountains to the north, and the lowlands of the northern Jazira to the south. Pastoralists moving their flocks from summer pastures in the Taurus Mountains would have first passed through the fertile, low-lying Upper Tigris River valley before reaching the traditional winter pastures of northern Syria, approximately 120km south of Ziyaret Tepe. While it is not certain that these ephemeral structures were used by pastoral nomads, the insubstantial nature of the architecture, their form, and their location on a high point overlooking the entire Tigris River valley is strongly suggestive of such a use.

We know that there was a considerable nomadic population in the Ottoman period and one large tribe accounted for about 10% of the population (Van Bruinessen 1988: 35). According to the tax registers for the Urfa region on the Euphrates to the west, in the 1560s, 23% of the province lived in cities, 46% lived in villages, and 31% were nomads (İlhan 2001: 10). The mountains of Diyarbakır to the north of Ziyaret Tepe provided excellent summer pastures for the flocks of nomadic tribes. In 1540 the Boz Ulus confederacy owned almost two million sheep and paid considerable taxes. Moreover, many sedentary villages kept sheep, goats, and cows (Van Bruinessen 1988: 41). Sixteenth century land registers in Diyarbakır note that there are five nomadic tribes in the region:



the Keke (probably Kikan), Reşi, Aluci Kuçer, Döğerni and Berazi (İlhan 2000: 98). Likewise, during the same period and according to the same land register in Depekendi (Tepe) along with the hamlet of Koki there were seventeen homes, suggesting that Tepe, immediately west of ancient Ziyaret Tepe, was a tiny village at this time (Ibid: 156).

Finding actual evidence for these or other nomads in the archaeological record is problematic, as some argue that nomads are archaeologically invisible, while others point out that nomads do leave traces in the archaeological record (Armstrong 2001: 282). The nomads would have probably spent the winter in one place (sometimes settling there permanently in a village) and in the summer moved to a series of several pastures (Loeffler 1988: 7, 9; Yalçın-Heckmann 1991: 145; Van Bruinessen 1992: 17). The tents would have likely have had stone foundations built around them in order to keep out the wind (Watson 1979: 263; Digard 1981: 153-154; Cribb 1991: 80, 86, 88, 95-96). If the remains in Operation L at Ziyaret Tepe represent a nomadic village dating to the Ottoman period, one might expect to find a wide variety of objects at the site of that date, such as was found at the late Ottoman village of ʿOrvat ʿEleq in Palestine (Boas 2000: 547, 552) or Belmont Castle (Knowles 2000: 114-115). On the other hand, not much material was found in the Late Islamic villages of Kharbeh (Simpson and Watkins 1995) or Khirbet Khatuniyeh (Curtis and Green 1997: 12-13). In other words, the relative abundance of material remains is not, in itself, necessarily indicative of the permanence of a settlement. There are some historical sources that describe how a nomadic encampment might have appeared during the Ottoman period. For example, a drawing touched with colour dating to 1400-1403 is accompanied by a *diwan* of poetry written by Sultan Ahmad Jalayir. The drawing depicts a nomadic encampment and is full of details, particularly about the nature of the tent (Sims with Marshak and Grube 2002: 152, No. 171). Such depictions suggest that ephemeral scatters or alignments of stone, such as those found at Ziyaret Tepe, may indeed be the remains of semi-nomadic or nomadic encampments.

## LEVEL L2: MEDIEVAL PERIOD

Architecture dating to the Medieval period (L2) is stratified immediately below Level L1. The remains from this period were reached in Operation L in all four trenches, although N1070 E1030 was not finished in the 2006 field season and our interpretation of that trench must await the 2007 excavations. The architecture in Level L2 is quite different from that of the later occupational level. The Operation L Medieval buildings are rectilinear and built primarily of mudbrick. Stone was not used significantly, except for repairs to a few walls. The length of occupation in Operation L during the Medieval period is difficult to determine accurately. Evidence for at least two building phases (L2a = later, and L2b = earlier) suggest that occupation in Operation L spanned at least a century. The dating of artefacts, both those associated with the architecture and those found in other Medieval contexts at Ziyaret Tepe, suggest a longer occupation, perhaps covering the 12<sup>th</sup> through 15<sup>th</sup> centuries AD. A single radiocarbon date from Operation L taken in 2004 provided a one-sigma determination spanning the 14<sup>th</sup> century, a date which accords well with the ceramic and other small finds evidence.

In order to understand the situation at Ziyaret Tepe in the Medieval period, it is necessary to place the site within its Medieval context. The region was one that was important for various political dynasties due to its geographic location on the axis of trade routes from Iran to Anatolia and Syria. Under the Muslims, the region formed part of the province of the Jazira, whose capital was in Mosul. The area under examination here was known as the region of Diyār Bakr (abode of the tribe of Bakr), after the tribe that was settled in the area. Beginning in the end of the 11<sup>th</sup> century, the region came under the sway of the Turcoman Artuqid dynasty, who ruled parts of the region until the beginning of the 15<sup>th</sup> century. The region was politically divided between the Artuqids and the Ayyubids when the Mongols invaded in the late 1250s and early 1260s. After the Mongol conquest of the area, they allowed both dynasties to rule, in a somewhat restricted form. Then, during and after the time of the invasions of Timur in the 15<sup>th</sup> century, the area became part of the struggle between the Aqqoyunlu and the Karakoyunlu tribal confederations. The Aqqoyunlu eventually triumphed in 1467 but were in their turn defeated by the Safavid Persians in 1507 and then the area fell to the Ottomans in 1517 (Amedroz 1902; Amedroz 1903; Cahen 1934; Cahen 1935: 219; Cahen 1955: 65, 67-68, 84-85, 95-97; Cahen 1960: 662, 665; Minorsky 1960: 311-312; Dahan 1962: 115-116; Canard and Cahen 1965: 343-344; Woods 1976; Vāth 1987; Cahen 1988: 55, 119, 331; Hillenbrand 1990; Ripper 2000; İlhan 2001: 11. For an overview of the sources see İlhan 1989). The area was a rich cultural center where manuscripts, metalwork, and other artefacts were produced, particularly in the Artuqid period (Von Berchem and Strzygowski 1910; Çağman and Tanındı: 30-31; Hill 1974; Ward 1985; Creswell 1988; Stepan 1995).

### Architecture and Stratigraphy

A single well-preserved room (1201)<sup>6</sup> of Medieval date was excavated in 2004 (Matney and Rainville 2005). In 2006, we were able to expand this plan to include over a dozen rooms, probably belonging to two or three different buildings with an intervening courtyard [Fig. 5]. These remains are provisionally called level L2a. In trench N1090 E1030 the plan of four rooms of a rectilinear mudbrick house (Rooms 1202, 1203, 1204, and 1205) were excavated, as well as an associated *tannur* (L-210) and pits [Fig. 6]. It appears possible that these rooms are part of a larger complex as the southern wall of Room 1205 (L-148, excavated in 2004) has its return in the northwestern corner of trench N1080 E1040. Four additional rooms to this building were recovered in trenches N1080 E1030 and N1080 E1040 (Rooms 1206, 1207, 1208, 1209), as well as part of a large open or courtyard space (1215).

The overall dimensions of the house are maximally 16m by 8m, or about 128m<sup>2</sup>. Mudbricks of variable dimensions (42cm by 30cm, 41cm by 42cm, 31cm by 30cm) were

<sup>6</sup> Rooms are numbered sequentially by Operation. Starting in 2006, a convention was adopted where the first two digits correspond to the operation letter (L=12) and the last two digits are a sequential room number. This system was applied retroactively to the 2004 excavations in Operation L.



used for the walls. For this reason, the walls appear to vary in thickness from a minimum of 30cm to a maximum of 50cm. The walls were preserved to a maximum of three or four courses, and in several places only a single course of mudbricks could be discerned. Flat stones located in the northeastern part of the house where the mud brick walls defining Rooms 1202 and 1203 in trench N1090 E1030 ended indicate an entrance that was probably a semi-open portico on wooden posts (L-236). Few *in situ* finds indicating the functions of the rooms were unearthed on the floors. This being said, it is possible to make some observations on the probable use of the building.

Starting in the north, the long and narrow Room 1203 (1.5m by 5.8m) and Room 1202 (1.8m by 5.8m) resemble common magazines of the region and could have been used as storage rooms. The two smaller rooms (Rooms 1204 and 1205) are about 2.0m by 2.6m, too small for many domestic functions. In trench N1080 E1040, Rooms 1206, 1208, and 1209 sat upon a terrace prepared on the part of the mound that slopes down towards the east. Room 1206 measured 1.4m by 2.8m and had a *tannur* (L-323) at its northern end. There were clearly at least two, and almost certainly several, different phases within this building. For example, in the northwest corner of trench N1080 E1040 Room 1215 appears to have had a southern wall and a lower floor that could have been used for storage. This earlier room, which was destroyed by a fire, extends into trench N1080 E1030. There was a dense ash layer and burned beam parts on the floor, which disturbed a portion of an earlier Late Assyrian courtyard pavement. Likewise, the floor of Room 1208 had quantities of burned organic remains and was perhaps a storeroom for cereals. The clear lack of a doorway also suggests that this may have been a cellar or basement room, entered from the ceiling.

While the architecture is not monumental in scale, the mudbrick wall footings were clearly built within foundation trenches in the northern area of this building. Two of the foundation pits dug for the mudbrick house in trench N1090 E1030 were 45-75cm deep and went down to the Late Assyrian building level. These foundation pits were filled with mud up to the floor level. In one foundation trench, a cow skull and other bovine bones were placed at the bottom of the foundation trench (L-220) with the mudbrick wall being built directly on top of these large intact animal bones. Such a deposit suggests a votive offering during a foundation ceremony [Fig. 7].

Separated from this eight-room complex by a narrow north-south alleyway at the eastern edge of N1080 E1040 were two rooms of a second mudbrick building (Rooms 1212 and 1213). The northernmost room (Room 1212) leads to an open space, possibly a courtyard, to the north, suggesting that our excavations discovered only the northwestern corner of a larger mudbrick building of Medieval date. Likewise, three walls (L-117, L-118, and L-119) and two *tannurs* (L-114 and L-139) belonging to a third mudbrick building associated with this level were investigated in the southwestern part of trench N1080 E1030 in 2004. This building comprises, at the moment, only Room 1201, although the two north-south walls L-118 and L-119 clearly continue into the southernmost trench N1070 E1030. Stratigraphically, wall L-119 cuts the earlier *tannur* L-139 demonstrating again a sequence of architectural phases within the Medieval village. With the completion of excavation in this trench in 2007, we hope to extend the

plan of this well-preserved building. The Medieval deposits are thickest in this area of Operation L and are correspondingly better preserved.

A second, earlier phase of Medieval occupation (L2b) is in evidence in Operation L, although it has largely been destroyed by the later phase. Evidence for this phase is seen principally in the form of numerous pits which were sealed by Medieval mudbrick architectural remains. At least two of these pits (L-247 and L-249) are storage pits widening towards the bottom, although there is no architecture associated with Level L2b recovered in Operation L at this time.

## Ceramics

Medieval pottery has been recovered during the course of surveys in the Upper Tigris region, but has not been systematically published. Likewise, although there have been Medieval excavations at the sites of Diyarbakır and Hasankeyf for many years, little published data from the Medieval levels has appeared (Aslanapa 1962; Aslanapa 1965a; Neither of these articles publish any pottery from the site. A few pieces have been published in Aslanapa 1965b: Abb. 1-3. For discussion of the survey of the region, see Algaze 1989; Algaze et al. 1994). Other sites also remain largely unpublished, such as the excavations at Harran (Rice 1952). There is more plentiful comparative material from the western Euphrates area in Turkey (Goell and Otto-Dorn 1963; Schneider 1970; Whallon 1979; Bakırer 1980; Mitchell 1980; McNicoll 1983; Wilkinson 1990; Moore 1993; Redford 1995; Redford 1998) and from northern Mesopotamia (Boehmer and Fenner 1973; Simpson and Watkins 1995; Wilkinson and Tucker 1995; Simpson 1997). As such, our study of the stratified Medieval pottery from Ziyaret Tepe is an important contribution to the study of the Upper Tigris region in the Medieval period and places the occupation here into a wider historical and social context.

### *Unglazed pottery*

The fabric of the glazed and unglazed pottery can be roughly divided into two groups: cream-white wares and red wares. The majority of the unglazed coarse wares found at the site were probably produced at Ziyaret Tepe. A common form of unglazed ware was cooking pots with lids, which were probably produced on the site, although there is no firm evidence yet for this. However, there is evidence that at least some of the finer cream wares were produced at the site, shown by the presence of one kiln waster. The presence of wasters may not always indicate kiln production, however. For example, the excavators at Tille Höyük suggested that the three glazed wasters found at their site might have been sold as second rather than to be taken as an indication that pottery was made on the site (Moore 1993: 71). This evidence for ceramic production at Ziyaret Tepe is not surprising. Pottery is necessary for daily life and local potters doubtless produced various types of vessels for domestic use. The production of pottery at Ziyaret Tepe was probably low-level family production, who were not skilled or well enough organized so as to belong to a guild. It is possible that there were small workshops within the local community that might have traded with other communities in the area (Rezq 1988: 4-5, 12). In an ethnoarchaeological study in Qamishli in northeast Syria, the pottery workshop

was owned by a small family where the men made wheel-thrown pots and the women produced hand-made pottery and *tannurs*. In Dara, near Mardin, only a few women made pottery, which again, was hand-made. Such local potteries generally concentrate on making common domestic wares (for Qamishli see Taniguchi 2003: 143, 148-149 and for Dara see Dönmez and Brice 1953. For studies of modern potters in the Middle East see, among others, Blackman 1927: 135, 165; MacFayden 1947; Wulff 1966: 151-165; Matson 1974; Brissaud 1982; Golvin et al. 1982; Matson 1983; Mershen 1985; Crane 1988; Güner 1988; Henein 1997; Salem 1994; Van der Kooij and Wendrich 2002; Nicholson 2002. For ovens see also MacQuitty 1984 and MacQuitty 1993-4). At Ziyaret Tepe, aside from the waster, there is no evidence for ovens or tripod stilts, such as is found at sites where kilns have been discovered. At Terqa, a kiln was dated by coins to the 12<sup>th</sup> century AD (Mahmoud 1978). Mitchell argued that he had found a large scale pottery workshop at Aşvan Kale (Mitchell 1980: 51-53). Öney and Redford both suggested that Samsat produced its own pottery although there was no direct evidence from the site for this (Öney 1994: 287-290; Redford 1995:66). At Korucutepe, excavators found tripod stilts for firing glazed pottery but no kilns (Bakırer 1980: 196). The kilns found at Ziyaret Tepe all pre-date the Medieval period.

As noted above, one of the most common forms found at Ziyaret Tepe are unglazed cooking pots with both lug and strap handles. The pieces are often very coarse, chaff-tempered, and show signs of burning. In addition, lids have been found for these pieces [Fig. 8: A and B]. It is possible that these cooking pots were bread ovens or stewing pots that would have been placed in *tannurs* overnight in order to bake their contents. There seems to be an absence of large storage vessels at the site, which is remarked upon by Armstrong in her study of the material from Lycia (Armstrong 2001: 281-282). She argues that if the population was consuming large amounts of grain and oil, then one would expect large storage vessels. She also suggests that the absence of these vessels indicate that individuals were subsisting on milk and meat, roasting animals over a large fire and not requiring huge cooking pots. Interestingly, however, the depiction of nomadic camp life in a 15<sup>th</sup> century miniature does, in fact, show nomads cooking in what seems to be a fairly large pot, although this depiction may not be accurate. The large number of *tannurs* at the site, however, argue for the fact that bread was a dietary staple at Ziyaret Tepe. When a full corpus of these wares has been established, it will be useful to compare these with Mongol and Iraqi cookbooks, to see if the dishes prepared in these cookbooks would have been part of the fare for the residents of Ziyaret Tepe and if any changes can be observed through time (Arberry 1939; Buell 1990; Buell 1998; Buell and Anderson with Perry 2000; Rodinson et al. 2001; Perry 2005).

In addition to the coarse cooking pots, fine cream wares have been found at the site. These are typical of pottery found in the area that has its roots in Sasanian white wares and were very popular in Islamic period pottery starting in the 'Abbasid period after the capital moved to Mesopotamia. This pottery became a popular type of coarse ware and were often used to store water. This function is further indicated by the discovery of a filter neck, unfortunately broken, at the site [Fig. 8: C]. Filter necks were

used to prevent small insects from entering and contaminating the water inside (Scanlon 1986: 1; Watson 2004: 132).

### *Glazed pottery*

The glazed pottery can be divided into several types including monochrome plain glazed wares: green and blue glazed wares (sometimes decorated with black under-glaze paint), blue and white ware, sgraffiato decorated wares, and slip wares. Most, if not all of the glazed pottery was likely to have been imported to the site, although nothing yet found precludes its production at Ziyaret Tepe. It is likely, however, that the majority of the pottery was produced in the local area, perhaps at the regional centers of Diyarbakır, Mayyāfariqīn, and Hasankeyf. Blue glazed ware at Ziyaret Tepe is one of the more common types of fine glazed pottery found at the site [Fig. 9: A and B]. Such wares were originally produced in the 12<sup>th</sup> century to imitate Chinese porcelain and they continue to be found into the 15<sup>th</sup> and 16<sup>th</sup> centuries AD (Watson 2004: 395, 450). This type of blue glazed pottery was common throughout the Euphrates valley (Tonghini 1998: 55) and at Harran (Rice 1952: 67, 69). Its ubiquity caused Tonghini to term it a “common use” type of pottery, which would have been produced locally to be used for storage, transport, food preparation, and tableware and not have been widely traded (Tonghini 1998: 55).

In addition to the blue glazed ware, blue and white ware was also found at the site, as discussed in more detail below. Generally, such wares are seen as imitations of Chinese porcelains, first imported into the Near East in the 14<sup>th</sup> century AD and then copied by local potters. Determining centers of production of this type of pottery has been problematic (Bailey 1996: 7; Golombek 1996: 3; Watson 2004: 418, 449). Mason has suggested that pottery produced in Diyarbakır was exported to both Persia and Kenya (Mason 1996: 36; Mason et al. 1996: 115. For further suggestions that Diyarbakır was the center of ceramic production, see Raby 1977-1978. The ceramics from Siraf have yet to be fully published. For a few of them see Whitehouse 1969: 54-58) and it is possible that the blue and white pottery found at Ziyaret Tepe was produced in Diyarbakır. However, recent excavations at Hasankeyf have produced blue and white Ottoman imitations of Chinese porcelains from reliable 15<sup>th</sup> century contexts, including eight kilns recently excavated in association with blue and white ceramics. Furthermore, many of the monochrome, under-glaze, sgraffiato, and rouletted ceramics of the 14<sup>th</sup> century date from Ziyaret Tepe have close parallels from Hasankeyf, where production is now documented.

Redford has suggested that sgraffiato ware found in eastern Anatolia, northern Syria, and the Jazira belongs to local production centers that shared similar shapes, glazes, and decoration (Redford 1995: 67; Vorderstrasse 2005) [Fig. 9: C, D, E]. Monochrome and polychrome sgraffiato pottery is ubiquitous throughout the Near East in the 13<sup>th</sup> and 14<sup>th</sup> centuries and therefore it should not be surprising that it is found here. Polychrome sgraffiato pottery was found in Diyarbakır (Aslanapa 1965b: Abb. 2) as well as at the Euphrates sites (see discussion in Redford 1998: 55; Tonghini 1998; and Vorderstrasse 2005), but it is not reported to have been found at Harran (Rice 1952: 67, 69).

A detailed study of glazed ceramics was undertaken by Dr. Nurşen Fındık who examined 301 glazed ceramic fragments from Operation L (104 fragments from 2004;

197 fragments from 2006). Together with the few surface finds, this small corpus can be used to define several distinctive typological groups. Pottery sherds found at Ziyaret Tepe indicate that a number of different decorative techniques were used at the site. Furthermore, some of the sherds have lost their glazes and decorative elements altogether, further complicating the study of glazed ware form distribution. Monochrome glazed wares (210 fragments) dominate the glazed pottery assemblage, followed by polychrome sgraffiato wares (54 fragments). The other decorative techniques utilized on Ziyaret Tepe glazed ceramics include under-glaze color painting (12 fragments), incision (11 fragments), splashing (4 fragments), blue-white technique (2 fragments), and champlévé decoration (3 fragments).

The Medieval glazed wares at Ziyaret Tepe are characterized by colors varying between red (5YR 6/6, 2.5YR 5/6, and 7.5YR 6/4) and brown. Fabrics are generally hard with few voids. Color variations that are probably related to firing conditions are observed on some fragments. Limestone, mica, sand, and grog inclusions are observed in the fabrics, with limestone the most common. Fabrics from a group of monochrome glazed water jugs, bases and bowl rim fragments are light gray (2.5Y 7/2), medium fired or under-fired with few inclusions like the unglazed Medieval ceramics of Ziyaret Tepe and form a distinctive group typologically.

In terms of form, bowls are the most common form documented at Ziyaret Tepe. Convex-bodied bowls with their rounded or grooved rims, shallow dishes, and bowls with extended ledges, storage jars, and jugs are also common in the Medieval glazed pottery corpus [Fig. 10]. Storage jars occur in two principal forms, one open and the other one closed like *pithoi*. Water jugs have closed forms with necks and handles. Two base types – ring and flat – are observed in the Ziyaret Tepe ceramics. Diameters of ring bases vary between 6cm and 11cm. Bases with dents are also represented within ring bases. Flat bases are generally observed in jugs and *pithoi* with flanged and disc-shaped variations.

Monochrome glazed wares mostly have green or, less commonly, blue (or turquoise) glazes but there are few brown and yellow glazed fragments [Fig. 9: C]. An important observation made during our 2006 study season is that the green and blue/turquoise wares have different fabrics and shapes. The blue/turquoise wares have a distinctive light gray and brown fabric. Likewise, the blue/turquoise wares have a range of fabric textures, both soft and hard. In general, the interiors are fully glazed but exteriors are rarely glazed. The differences between the green and blue/turquoise wares suggests that they are possibly being produced at different centers, although both may be produced at the same site. Light green dominates the glazes of the polychrome sgraffiatos. Purple, green, and mustard colors are used individually or in various combinations in order to enhance the sgraffiato decorations.

Glazed ware fragments with under-glaze painted decoration show considerable intra-group variation. This group includes a Raqqa-type transparent under-glaze blue-black painted base, a blue/turquoise under-glaze black painted base, body, and dish rim fragments. These types of ceramics, which are sometimes considered local imitations of Syrian types are widely produced and used during 13<sup>th</sup> and 14<sup>th</sup> centuries at Samsat, Korucutepe, Ahlat and Hasankeyf. Shapes, decorative elements, and technical

characteristics of the other under-glaze base and lid fragments imply that these are local imitations of 15<sup>th</sup> century Ottoman blue-whites. They have thick white slip, and transparent, lusterless glaze. Their fabric colors are pale yellow and light brown. Base fragments display a different application; and similar dark green under-glaze bases were found at Hasankeyf.

Looking regionally, monochrome glazed wares and polychrome sgraffiatos dominate the Ziyaret Tepe pottery assemblage, like the other settlements in Turkey that have Medieval layers. But the domination of green glaze in monochrome wares is noteworthy for Ziyaret Tepe. Fabrics with limestone and mica inclusions of this group are similar to 13<sup>th</sup> and 14<sup>th</sup> century ceramics of Gritille, Hasankeyf, Samsat, Aşvan Kale, and Korucutepe (Redford 1986: 103-106; Öney 1982: 71-80; Bakırer 1980: 189-249; Mitchell 1980: 69-228). Some of these sites are located in the neighborhood of the Euphrates and Tigris Rivers. These rivers were important waterways for centuries on the trade route extending from east to west, from south to north, from the Persian Gulf to the Mediterranean Sea and cities founded around these rivers became trade centers (Orhonlu and Işinsal 1962: 77-102; Tuncel 1994: 281-282). Raqqa, Baghdad, and Mosul were among the important cities on sides of these rivers. Intensive trade relations and social interactions of this region naturally influenced the ceramics which could be transported easily. Samsat, Korucutepe, and Hasankeyf were the important ceramic production centers in the region. The nearest of these sites to Ziyaret Tepe is Hasankeyf, which was an important trade center with its significant bridge over the Tigris River. The production of monochrome glazed wares, polychrome sgraffiatos, under-glaze color decorated wares, and unglazed wares continued until the 16<sup>th</sup> century in this region. At this point, our preliminary interpretation is that the majority of the Ziyaret Tepe ceramics are Hasankeyf products, dated between the end of the 13<sup>th</sup> century and the 15<sup>th</sup> century. Shapes, motifs, and colors of the polychrome sgraffiatos have similarities with the Korucutepe, Aşvan Kale and Ahlat examples, dated between the second half of the 13<sup>th</sup> century and beginning of 14<sup>th</sup> century (Karamağralı 1982: 391-462; Karamağralı 1991). Only a few body fragments could be considered as 12<sup>th</sup>-13<sup>th</sup> century Al-Mina examples (Lane 1938: 19-78).

### **Small Finds**

A number of small finds of Medieval date have been found at Ziyaret Tepe. First, although not discovered during excavation, several datable coins were found during the initial survey of the site. In total, eight coins have been discovered at Ziyaret Tepe; all are bronze and in varying states of preservation [Fig. 11]. Two of the coins (ZT 0003 and ZT 11105) were pierced and could have been worn as amulets (for Islamic coins worn as amulets see Fodor 1988: 11, 140). All the coins, with one exception (ZT 0004), can be associated with the Medieval occupation at the site. Further, it is possible that ZT 0004 may have been re-used in the later period. There is little information from the region for coin circulation during the Medieval period, but various coin hoards, often reported with no definite find spot, seem to have been primarily deposited in the 13<sup>th</sup> century, perhaps in reaction to the Mongol conquest. Söylemez and Lightfoot record coins found in the course of Algaze's survey of the region, but these coins come from villagers rather than



the survey itself (Söylemez and Lightfoot 1991: 313). Find spots can only be approximated. Further, the coins were almost exclusively early and the latest coins are Middle Byzantine. No Middle or Late Islamic coins were recorded. For coins from the Euphrates area see: Schneider 1970; Mitchell 1973; Van Loon 1980; Moore 1993; Redford 1998; Heidemann 2002. For references to the Mongol conquest see Lowick et al. 1977: 14-15, 17-18). One example, the Mardin hoard, includes both Byzantine and Islamic coins. The Islamic coins were all minted in Mardin and Erzurum (Lowick et al. 1977: 27).

The coins are presented here in chronological order. The earliest coin (ZT 0004) dates to the Early Byzantine period [Fig. 11: F]. This coin, which is very worn, dates to the reign of the emperor Heraclius. The folles is a Class 3 folles that shows on the obverse Heraclius in the center with Heraclius Constantine to his right and Martina (who is not at all preserved) to his left. The reverse is very hard to read but appears to be Year XII, which means that the coin would have been struck in AD 621/622. It seems to have been minted in the "A" officina. The mint name itself is extremely hard to read and may be Constantinople or Nicomedia [Greirson (1968): 89-96 (Constantinople), 162-164 (Nicomedia). In neither example is a Year 12 folles published] and was overstruck. The coin could have been dropped at the site during the Early Byzantine period by a traveler, as there seems to be no indication of settlement in this period. Another possibility is that the coin could have been lost in the course of a military campaign. The region fell to the Persians in about 609 and was visited by Heraclius on campaign in 624, although he was ultimately forced to withdraw westwards to the Euphrates. In 628, Heraclius is supposed to have proceeded in the vicinity of Amid to spend the rest of the winter which indicates that the city was back in Byzantine hands at that point (Kaegi 2003: 39, 67, 131). The third possibility is that the coin was in circulation during the Medieval period and dropped by an inhabitant of the village at this time. In the absence of any accompanying pottery evidence, this scenario seems the most likely (see Vorderstrasse in press). Other material was found at Tell Kurdu which leads to the suggestion that it might have been a military encampment in this period in that instance. Söylemez and Lightfoot (19xx: 317) record the presence of a coin of Heraclius of the same type as the one recorded here (dating to 626/7 and minted in Constantinople). There is no indication that this coin would have been re-used in later periods, however, since its context is lacking. Similarly, Redford records the presence of a coin of Justinian I that could have been used as currency at medieval Gritille (Redford 1998: 159). Further, evidence from the Mardin hoard points to the presence of Early Byzantine coins still in circulation in this period as does the fact that the Artuqids copied coins of Heraclius and other rulers (Lowick et al. 1977: 14-15, 17-19). The earliest coin in the Mardin hoard dates to Anatasius (491-518 AD). The hoard also included 10 coins of Heraclius, one of which had a countermark, with 8 folles minted in Constantinople in years 3, 6, and 23, one folles of Nicomedia of Year 8, and the countermark was on a coin of Constantinople of Year 10 (Edhem 1894; Lowick 1974; Lowick 1985; Spengler and Sayles 1996. For other examples of this phenomenon see Morrisson 1983; Vorderstrasse forthcoming).

ZT 0003 [Fig. 11: E] is a copper coin that is badly effaced, but it is probably a coin of Ilkhanid Ghazan Mahmud (1295-1304) minted in Erzincan (Lane-Poole 1881: 42-

43, nos. 122-123). ZT 20586 [Fig. 11: A] is a copper coin of Abu Sa'id (1316-1335) (Lane-Poole 1881: Nos. 264-265. Mint and date illegible). ZT 0007 [Fig. 11: G] is copper coin from the mint of Semnan dating to the reign of Sati Bek Han (1338-1339) (Aykut 1992: No. 845). One might have expected the coins from Ziyaret Tepe to come from local mints, but Semnan is located in Iran, east of Tehran. It is not uncommon to find coins minted in Iran in eastern Anatolia. McNicoll records an Ilkhanid coin from Taksun Kale minted in Tabriz (McNicoll 1983: 189) while other Ilkhanid coins from Taksun, Asvan, and Korucutepe were minted in Erzincan (McNicoll 1983: 189; Van Loon 1980: 264). ZT 5540 [Fig. 11: H] is an Ak Koyunlu coin of Jahāngir (1443-1453) minted in Amid (Diyarbakır) (Rabino di Borgomle 1950: 138, No. 127 incorrectly attributed to Qasim; Album 2001: No. 2). In addition, there are three other coins which still need to be identified. ZT 0234 [Fig. 11: D] may be Mamluk in date and ZT 11105 [Fig. 11: B] and ZT 1044 [Fig. 11: C] are still not identified. The majority of the coins are late 13<sup>th</sup> or early 14<sup>th</sup> century, however.

In addition to the coins, there was what appeared to a lead seal (ZT 20083, L-301), unfortunately illegible. The seal resembles in a general sense Byzantine seals that were used on the eastern frontier in the 10<sup>th</sup> and 11<sup>th</sup> centuries (McGeer et al. 2001), as well as Crusader seals imitating Byzantine types from Edessa (Schlumberger 1943: 99). Byzantine Greek lead seals were found at Aşvan Kale in 12<sup>th</sup>/13<sup>th</sup> century levels but are unfortunately unpublished (Mitchell 1980: 55). The dating or further identification of the Medieval lead seal from Ziyaret Tepe would be purely speculative.

A bronze ring (ZT 19037, L-205) shows a stylized inscription commonly found on rings of this type (Content 1987: 128, no. 79 Safavid, 15<sup>th</sup>-17<sup>th</sup> centuries) [Fig. 12]. ZT 19037 appears to date, following Content's dating system, to either the 15<sup>th</sup> or 16<sup>th</sup> century (Content 1987: 128, no. 79; Wenzel 1993: 132, no. 417). Rings from earlier periods have been found in large numbers at Aşvan Kale where they found several bronze seal rings. One of these has a circular seal which is in shape (although not design) similar to the one at Ziyaret Tepe, but the way the ring is drawn makes it difficult to see how tall the seal part of the ring is in reference to the ring itself (Mitchell 1980: 234-235, No. 60 circular seal ring). It is hoped that further study will clarify the dating of the ring and produce more exact parallels.

In the course of excavating the Medieval levels, a number of small horseshoe-shaped objects were found. Horseshoes are a common find at Medieval sites in Anatolia and elsewhere in the Near East, but usually the width of the metal that makes up the shoe is quite wide (Stronach 1963: Pl. 74.23 photo, Pl. 75.23 drawing; Ploug and Oldenbourg 1969: 58, Fig. 22.1 and Fig. 23.1; Grabar et al. 1978: 185, 4b; Van Loon 1980: Pl. 116A (5 cm long and 7.5 cm wide); Moore 1993; Redford 1998: Fig. 4:3 A-C; Raphael 1999: Fig. 10; Grey 2000: No. 39. For modern farriers, see Wulff 1966: 53-54). At Korucutepe, however, a thinner shoe that more closely resembles the shoes from Ziyaret Tepe was found. Both ends of the horseshoe had been sharpened and bent at right angles to serve as additional nails (Van Loon 1980: 255, Pl. 115N. This shoe is 7 cm long and 6.5 cm wide). Similar shoes are also found in Russia and Bulgaria where they are connected with the Mongol cavalry (Nedashkovsky 2004: 39). These horseshoes seem very small, a fact

which is commented on by the excavators at Korucutepe (Van Loon 1980: 255). Some have been identified as donkey shoes, but this seems to be based primarily on their size. She suggested that there are also donkey shoes which measured 8cm long and 6.5cm wide while the horseshoes were 11cm long and 10cm wide (Mortensen 1993: 159, 179). Other metal objects found include a very large number iron studs. A similar stud was found at Gritille and is identified by Redford as an iron stud for a leather garment or bag (Redford 1998: 162. For similar studs see Stronach 1963: Pl. 74. 20 photo, 75.20-21 drawing; Van Loon 1980: Fig. 4:2, no. 257).

Only a few pieces of glass have so far been studied from the site. No glass from excavations in the Upper Tigris area have previously been published and our nearest point of comparison is the material published from the Euphrates area (Moore 1993; Redford 1994). One of the pieces of glass is part of a foot of a wine glass or lamp. This type of piece is ubiquitous in glass beginning in the Early Byzantine period and continues to be used in the Medieval period (Vorderstrasse 2005: 58-59 with references). Whether or not it came from a wine glass or a lamp remains unclear. Stern used the context in order to determine the function of the glass at Anemurium (Stern 1983: 44), but in a domestic context they could be either. Next season the glass will be studied in more detail and a typology will be produced.

### **Microdebris Study of Medieval Period**

For the past five years, micro-archaeological samples have been taken from excavated features in a variety of contexts at Ziyaret Tepe to provide additional insight into daily activities. This work is directed by Dr. Lynn Rainville, with crucial support provided by site supervisors who help collect samples from diverse chronological and qualitative contexts. In this update, we will discuss the 114 samples collected during the 2006 season from Operation L. Approximately 10 litres of sediment were collected per sample. Each sediment sample was floated and the resultant heavy fraction was poured into four sorting sieves (ranging in size from 1mm, 2mm, 5mm to 8mm) to increase the ease of separating small artefacts from geological material. Analyzing the micro-artefacts in the heavy fractions provides valuable qualitative and quantitative data on everyday activities from domestic and non-domestic contexts. Micro-artefacts are defined as those under 1cm in size and most often include small pieces of ceramics, lithics, animal bones, plaster, bitumen, plaster, and beads. Qualitatively, the micro-artefacts provide information on personal adornment (e.g., earrings, bronze pins, and perforated shells), construction techniques (e.g., iron studs, nails, and rods), and accounting practices and/or games (e.g., tokens of various sizes). Earlier reports provide a complete discussion of the micro-debris methodology (Matney et al. 2003: 194-197; Matney and Rainville, eds. 2005: 37-39; Rainville 2005).

During the 2006 Ziyaret Tepe season, 114 micro-archaeological samples were collected from four trenches in Operation L. These samples came from diverse features and contexts in order to provide a reference for the distribution of micro-debris across a synchronic and diachronic perspective. As discussed elsewhere in this report, Operation L contained four stratigraphic levels: the most recent dated to the Ottoman Period and

contained evidence of stone tent foundations that lacked associated *tannurs* or storage pits. Beneath this layer were Medieval Period remains that included mudbrick buildings, *tannurs*, and trash pits. The third identifiable period was Late Iron Age in date and characterized by heavy pitting, often cutting through the lower Late Assyrian level. Finally, the Late Assyrian level, although heavily damaged by the pits, contained a cobble and baked brick courtyard with traces of mudbrick walls. Micro-archaeological samples were collected from 47 features in these four levels. The majority of these features were supra-floors (material lying approximately 5cm above the floor level, totaling 49 samples) and pit contents (totaling 26 samples). Other sampled features include floors (6 samples), *tannurs* (15 samples), room fill (9 samples), building collapse (2 samples), and tertiary contexts for comparison (3 samples). The results from these samples enable us to refine our collection strategies and enhance our understanding of the formation processes that structure the remains in our trenches.

### *Medieval Glass Debris*

Because this past season was the first time that Medieval and Ottoman levels were intensively sampled at Ziyaret Tepe, it provided us with a new set of micro-artefact types to study. These types included glass fragments (from Medieval beakers and cups), Medieval bead forms, and glazed sherds. Ironically, although glazed sherds are obvious at the macro-level, a piece chipped from a vessel often loses its thin coating of glaze, making it difficult to identify Islamic-period sherds via glazing among micro-artefacts. To the contrary, micro-archaeology is perfectly suited for recovering glass shards and developing form typologies for Medieval glass vessels which preserve poorly at the macro-level. Seven shards of glass were recovered from the Medieval levels, including green, clear, and amber colored shards. For example, micro-debris sample 1701 (ZT 19047) contained two very small pieces of glass, less than half a centimeter in size. One glass piece (ZT 21514) was blue-green in color, and although very fragmentary, Vorderstrasse identified it as part of a vessel 4cm in diameter which dates to the 12<sup>th</sup> through 14<sup>th</sup> centuries A.D. The second piece of glass (ZT 21513) was also blue-green and probably dates to the Medieval period. It most likely from a beaker or vase, such as the complete example of a beaker from Tille Hüyük which probably dates to the 12<sup>th</sup> or 13<sup>th</sup> century (Moore 1993: Fig. 93.251) and glass from Gritille that dates to the 13<sup>th</sup> century (Redford 1998: Fig. 4:7W, 4:7Y, 4:7AA, 4:7CC). These micro-shards were recovered from a *tannur* sample (L-205) located in trench N1090 E1030. In addition, the fill (L-228) from the areas west of Room 1202, adjacent to *tannur* L-210 contained an amber-colored rim from a Medieval cup (ZT 21537). Because the vessel itself was absent from the feature, the shards were probably deposited into the archaeological record from vessels chipped during use. If so, these remains may be from a vessel that was used in conjunction with bread production or as part of the kitchen assemblage of a Medieval house. Although our current sample size is small, the future recovery of such small fragments from an artefact type that is rarely preserved at the macro-level (i.e., a complete glass vessel) will hopefully allow us to reconstruct Medieval vessel forms that are otherwise not visible in the archaeological record.

### *Medieval Features*

Micro-archaeology can provide additional insight into the function of features. In Fig. 13 we calculated micro-artefactual signatures for different types of loci. For example, trench N1080 E1030 contained a heavily pitted level that dated to the Late Iron Age. Micro-debris samples were taken from 11 pits, totaling 14 samples (some pits were sampled from both the top and bottom). By calculating the density of micro-artefacts (both quantitatively in terms of sherd, bone, and lithic counts and qualitatively, in terms of ceramic wares, animal species, and lithic raw material types), we can define a micro-archaeological signature for each pit. These data can be used to infer the function of storage pits where the original, stored materials were removed in antiquity. Taken together, the 11 pits had a mean micro-ceramic density of 0.96 sherds/litre, 4.5 bones/litre, and 0.38 lithic fragments/litre. Compared to the 8 pits sampled from other layers in Operation L, these 11 pits had a low overall density of ceramics, bones, and lithics. But their ceramic-ware signature included a high density of sandy wares, very few cooking wares, and an average amount of fine and coarse wares. The distribution of lithic raw material types also provides a clue as to the original function of the pits in this level. Pits L-273, L-277, and L-278 contained a high density of red, tan, and dark brown debitage respectively. This technique is also useful for analysing trash pits because it provides a quantitative measure of artefact variability. This calculation is often hard to achieve at urban sites where it is not feasible to calculate the quantity of artefacts in each volume of excavated soil.

We can also use micro-artefact count distributions to differentiate room use patterns. For example, in trench N1090 E1030, micro-debris samples were collected from two adjacent rooms, Room 1202 (L-226) and Room 1203 (L-225). Locus-226 contained a high density of micro-ceramics, bones, and lithics, including high densities of tan, red, and white debitage and large numbers of cooking and coarse ware sherds. In contrast, L-225 (located on the other side of a mudbrick wall) contained a high density of lithic debitage, but only dark brown and gray materials, and low densities of both faunal and ceramic debris. This level of activity area analysis should be supplemented by a thorough analysis of the macro-remains from these two rooms. Finally, this trench contained six small glass shards that reveal a glass-vessel assemblage that is invisible among macro-artefacts.

### *Micro-Ceramic Types*

Because we have collected count densities of ceramic wares per sampled feature we can quantify the relative distribution of pottery types within Operation L. Not surprisingly, the most commonly recovered ceramics were sandy wares (with a mean density of 0.8 pieces per litre from micro-archaeological samples). The next most frequent type was fine-ware vessels (with a mean density of 0.2 pieces per litre), followed by coarse wares (0.1 pieces per litre), and finally, cooking wares (0.04 pieces per litre). These micro-sherds may correlate with chipped vessels. If so, the micro-ceramic densities are a better indicator of the complete ceramic assemblage used in any room than often intrusive, larger sherds. Micro-debris samples are particularly useful for studying cooking wares. Because of their sturdy construction and long-term use, sherds from cooking pots

are rarely recovered from excavated samples at Ziyaret Tepe (Keskin, personal communication). However, because of the systematic nature of micro-debris collection, a larger percentage of samples contained cooking wares (38 of the 114 samples, or 33%). This provides a valuable typology of ware types and pastes associated with cooking wares over a 2,500-year sequence.

### *Bead Typology*

The post-Assyrian micro-archaeological samples provided an additional 2,000 years of bead samples, adding to an earlier effort to create a bead typology for Ziyaret Tepe (Rainville in Matney et al. 2003) [Fig. 14]. Of the 114 Operation L samples, 17 (or 15%) contained beads. The beads collected from these samples ranged from the most common, flat discs to rare hexagonal forms and spheres [Fig. 15]. The materials included gypsum, lapis lazuli, glass, stone, bone, carnelian, and unidentified materials. As a group, these samples may reveal differences in personal adornment, wall hangings, or craft production that may correlate with socio-economic status. Ethnographic parallels illustrate the use of beads in a wide variety of domestic contexts. Since we rarely recover textiles at Mesopotamian sites, beads represent one of the few pieces of domestic decoration that we can recover from archaeological contexts.

### *Activity Areas and Micro-Artefacts*

Because of the systematic sampling of known volumes (usually between 10 and 20 litres) and the discrete horizontal location of most micro-debris samples, micro-archaeology provides us with quantitative baselines for high and low artefact densities. And when “whole earth samples” are taken for micro-archaeology, enabling us to count micro- and macro-artefacts (regularly sized, greater than 1cm<sup>2</sup> artefacts), we can calculate mean densities for sherds, animal bones, lithic debitage, and rarer finds, such as iron nails, metal rods, beads, worked sherds, and bronze earrings. Taken together, these measurements provide a better means for interpreting activity areas and determining high traffic areas. At urban sites it is difficult to keep track of the large volume of earth that is processed from each feature, especially from amorphous features that lack clear edges. Discrete samples from known points with calculated volumes provides a control for both macro and micro-artefact densities at urban sites.

### **Interpretation**

As a preliminary interpretation, the architecture in Level L2 appears to represent the remains from as many as three buildings of Medieval date, possibly in use contemporaneously. The northernmost building, which is the best preserved, has storage rooms, as well as small living spaces, *tannurs*, and surrounding courtyards or open spaces. The size of the rooms and walls, as well as the contents of the rooms, suggests that this was a farmstead. The dating of this occupational layer is reasonably certain from the late 13th through 15<sup>th</sup> centuries AD, although it is quite possible that the initial settlement of Level L2 was as early at the 12<sup>th</sup> century AD. The position of the buildings, at the northern edge of the high mound overlooking the broad floodplain of the Tigris



would have been ideal to watch over agricultural fields and flocks in the surrounding area. There is evidence both for the local production of pottery, as well as imports, suggesting that Ziyaret Tepe in the Medieval period was tied into a communication network with established centers such as Diyarbakır and Hasankeyf.

#### LEVEL L3: THE LATE IRON AGE (“PIT LEVEL”)

##### **Architecture and Stratigraphy**

A number of pits of various sizes and depths were found between the Medieval occupation in level L2 and the Late Assyrian levels (L4) in two trenches (N1090 E1030 and N1080 E1030) in Operation L. As noted above, glazed pottery sherds coming from within some of these pits indicate that they belong to the earlier building level of the Medieval period (L2b). However, some of these pits appear to belong to an earlier occupational level, which we have called L3. The majority of the pits go down to destroy a Late Assyrian courtyard that was paved with cobbles and baked bricks. Therefore, stratigraphically they belong to a period later than the Late Assyrian building level. The diameters of the pits vary between 0.85m (L-294) and 2.25m (L-272) at the bottom. Four storage pits (L-240, L-241, L-245, and L-403) successively cutting one another as well as the Late Assyrian building level were dug into the same area in the south west of trench N1090 E1030. This strongly suggests that this area was used for storage over a long period of time.

In addition to the pits, a drainage channel (L-409) was cut into the Late Assyrian pavement (level L4), destroying it for a length of a few meters. The north end of this channel, which extends from the western part of trench N1080 E1030 towards northeast and north, is cut by a Medieval pit L-247. The width of the channel, lined with cobbles and mud on the sides and then covered by flat stones, is about 13-18cm. In trench N1090 E1030 two additional drainage channels were also found cut into the Late Assyrian building level; one built of flat cobbles, and the other of 76cm long baked clay pipes with a diameter of 12.5cm (L-410 and L-411). Both are cut by a pit. Apart from the pits and drains, a few stones that could have been wall foundations were disturbed by later Medieval foundation trenches. Planned excavation in 2007 in the southernmost trench in Operation L, where these deposits are thickest and better preserved, may bring to light a better understanding of the function of these drainage channels.

##### **Ceramics**

While the architecture from this period is uninformative, consisting mostly of pits, the ceramic remains are, on the contrary, quite important for understanding the occupational history of the region. A type of pottery observed in this area supplies us with important information about the dating of these pits and architectural remains that are stratigraphically positioned between the Medieval and Late Assyrian and Medieval levels.

This pottery group, described below, comes from the pits and especially from the fill in the northern part of N1090 E1030.

This type of Late Iron Age pottery, referred to as “triangle ware” and “festoon ware” because of their painted decoration, has been reported from Üçtepe (Sevin 1990: 105; Köroğlu 1995: 28, fig. 5), Kavuşan (Kozbe and Köroğlu in press), Giricano (Schachner 2002: fig 15) where Schachner dates this painted pottery to the Early Iron Age, based on style, and Salat Tepe (Ökse and Alp 2002: fig 15, second and fourth on the bottom; fig 16 on the middle) in the Upper Tigris region. In all these mounds this painted pottery is associated with post-Late Assyrian occupational levels. At Üçtepe, there are two building levels (5<sup>th</sup> and 6<sup>th</sup> levels) above the Late Assyrian level (7<sup>th</sup> Level), associated with this pottery, which are Hellenistic in date. At Üçtepe, there are no signs of settlement in between the two periods. This type of pottery was also found in the earlier phase of a Hellenistic building at Elazığ/İmikuşağı (Sevin 1995), and above Urartian levels in the Van area. This pottery, which has a wide distribution area including eastern Anatolia (Sevin 1998) and northwest Iran, seems to represent the end of the Late Iron Age tradition and the Hellenistic period according to stratigraphic data from the Upper Tigris region.

Some of the examples from Ziyaret Tepe belong to jars with handles and painted decoration on them. On the shoulders there is festoon decoration in between two horizontal bands, and triangular motifs extending from the bands towards the bottom, all in red paint. In addition to these, bowls with red painted inverted rims and undecorated bowls with flaring rims also belong to this group [Fig. 16].

### **Interpretation**

The presence of a long period of pitting at the site of Ziyaret Tepe in Operation L accords well with our discovery of similar post-Assyrian pitting in Operation A during the 2000-2003 excavation seasons. The recognition that, in addition to Medieval pottery, there was a significant deposit of Late Iron Age or Hellenistic pottery fills in a lacunae in the occupational history of the site, although a detailed analysis of the pit contents is required before a detailed chronology of the post-Assyrian, pre-Medieval levels can be presented.

#### **LEVEL L4: LATE ASSYRIAN PERIOD**

### **Architecture and Stratigraphy**

The Late Assyrian building level in Operation L was reached in two trenches (N1090 E1030 and N1080 E1030) in the 2006 campaign. As noted above, the Late Assyrian building level was disturbed, quite heavily in places, by later pits, drainage channels and the Medieval foundation trenches. The principal feature of the Late Assyrian level L4 was a cobble and baked brick paved courtyard (L-402, L-287) oriented NW-SE and measuring 10.00m by 8.30m in extent [Fig. 17]. The eastern part of the courtyard was paved with medium and small cobbles and the western part with baked bricks. However,

these baked bricks are not perfect squares: three sides measure 28cm, and the fourth measures 23cm. Narrow pebbles were on edge, end-to-end, in the mortar between the baked bricks. While the pavement does not suggest precise craftsmanship, it reminds us of the courtyard pavement found in Operation K in the lower town (Matney and Rainville 2005: 31-35). On the southeast of the courtyard was a well contemporaneous with the pavement.

The wall surrounding the courtyard pavement did not survive because of the later disturbances. Only in the northwest corner, on the southeast edge, and on the south were there traces of mudbrick that can be associated with the surrounding wall. These suggest that the courtyard was surrounded by 70-80cm wide walls without stone foundations. The main building associated with this courtyard was probably located to the west of the excavated area. Just outside of the mudbrick wall to the south of the courtyard were found two intrusive child burials.

## Ceramics

The pottery from the Late Assyrian levels in Operation L has only been examined cursorily. In general, the pottery that came from the fill of the level L4 pavement and associated building is similar to that found in Operations A, K, and G, all firmly dated to the Late Assyrian period. A complete bowl (ZT 19370) found in a *tannur* (L-406) that did not survive in good condition just outside of the courtyard wall on the northwest also supports this dating. The ceramics associated with the Late Assyrian pavement are typical of those from other Late Assyrian sites of the 7<sup>th</sup> century BC.

One of the goals of the study season of 2005, as well as the 2006 excavation season, was the continued processing of pottery excavated from the Late Assyrian levels in Operation G in 2001-2004. This is the largest and most architecturally coherent area of Late Assyrian date at Ziyaret Tepe, hence, it is the logical starting point for creating a Late Assyrian ceramic typology for the site. So, while the report that follows does not describe the Operation L remains *per se*, they do describe a contemporary corpus of materials from Operation G currently under analysis. This portion of the report was written by Azer Keskin, who is in charge of processing the Late Assyrian ceramics from Ziyaret Tepe. Accordingly, the majority of the pottery coming from floor and suprafloor (defined as the debris up to 5cm above the floors) contexts were processed, and a preliminary ware and form typology was established based on the pottery processed so far.

The great majority of the Late Assyrian sherds fall into a single ware type. This ware is most frequently reddish brown in color, but can also be brown, yellowish or orangey brown, or red, in decreasing frequency. The fabric has occasional to common fine black and white mineral inclusions, and sparse to occasional fine and/or medium vegetal inclusions. Mica inclusions are observable in virtually all sherds and, therefore, was probably in the natural clay, rather than as an addition by the potters. The ware is usually well fired, with the core the same color as the paste, although it may also be grayish, especially with vessels with thicker walls. The surfaces are either left untreated, or wet-smoothed. Approximately one-fourth of the sherds of this ware are burnished, mostly on the exterior. Generally, open forms are burnished horizontally, and closed forms vertically or in

both directions. Common forms associated with this ware are bowls, followed by jars, and beakers. Small cups and potstands are also represented in smaller numbers.

Bowls make up the most common forms among all Late Assyrian pottery from Operation G. Shallow bowls most commonly have everted rims, with flat [Fig. 18: A, B] inclined [Fig. 18: C, D] tops. The diameters range from 11cm to 27cm. Deeper bowls [Fig. 18: E-F, H-J] most commonly have thickened/rolled rims, sometimes inverted on the lip [Fig. 18: E, F, I]. Similar published examples come from other Assyrian sites from a wide area, including Nineveh (Lumsden 1999: fig. 4:10), Tell Ahmar (Jamieson 1999: fig. 1:10), Sultantepe (Lloyd and Gökçe 1953: fig. 7:18), Tell Rad Shaqrah on the Khabur Valley (Reiche 1999: Fig. 5:k,m), Qasrij Cliff (Curtis 1989: figs 10:29, 28: 86, 92; 29:99, 100, 102), Tell Schech Hamad (Kreppner 2006: Taf. 46:7, 51:3,6), Seh Gubba (Green 1999: fig 7:1), and Tell Sheikh Hassan (Schneider 1999: Abb. 6:5). As can be observed from Figure 18, these are larger bowls on average, with larger average height and diameter. A bowl type that is similar to the shallower bowls in terms of rim shape, but to deeper bowls in terms of general size and shape was also observed [Fig. 18: G], but in small numbers. Apart from the colors, the main difference of the Ziyaret assemblage from the contemporaneous pottery of the Assyrian heartland is the burnishing on the surfaces. Particularly interesting is the patterned burnishing applied on the interior surfaces of deep bowls, created by application of burnish in vertical bands.

Jars, which make up the second most common form group, vary considerably in size, from small jars to large storage jars. The diameters or rim types by themselves do not necessarily indicate the size of the vessels as a whole (compare, for example, Fig. 19: C, E], therefore it is at this point difficult to evaluate the relative frequency of various jar types at the site. However, rolled rims with triangular lips seem to indicate larger jars with oblong bodies [Fig. 19: A, D]. This rim type follows thickened/rolled rims in frequency [Fig. 19: C, F, E], which are the most common among jars, and slightly triangular rims. These types are attested on other Late Assyrian sites, and close parallels include jars from Rimah (Postgate et al. 1997: plate 81: 923,924; plate 82: 950) and Qasrij Cliff (Curtis 1989: fig. 37:228, 239, fig. 40:269). A typical occurrence in jars is a series of horizontal shallow grooves on the shoulder (Fig. 19: A, E]. The bases can be flat [Fig. 19: F], rounded [Fig. 19: C], or pointed disc shaped [Fig. 19: B].

Another pottery group consists of cooking wares. The analysis of this group is not finalized, therefore only a brief description will be given: This ware is distinguished by the common to abundant coarse grit inclusions, and is hand-made into forms that are markedly different from wheel made forms described above. The vessels of this ware are usually of closed shapes, with inverted rims and globular bodies heavily burnished on the exterior, sometimes with horizontal grooves on the upper part of the body. They sometimes have lugs and/or spouts. The color can be red, brown, brownish red, or grey. This ware is uncommon amongst the Operation G pottery, but see the discussion of micro-wares above for an increased frequency among micro-sherds.

To summarize, a great majority of the pottery from Operation G consists of typical Late Assyrian forms. One observation can be the scarcity of fine wares compared to Operation A, which yielded vessels of Palace ware and 'Near Palace Ware' (McDonald in

Matney and Rainville 2005). Although the processing of the pottery is not final, and therefore the results are preliminary, it can be said that glazed pottery is also rare in the Operation G assemblage. The examples that were studied have pink or yellowish pink paste, and cores with the same colors. Forms are restricted to small jars. The glaze is green-blue; with no surviving discernible pattern.

### Small Finds

Of particular importance this year was the discovery of a number of iron artefacts associated with the Late Assyrian level L4. These include: two knives (ZT 19862, L-283 and ZT 19776, L-286) [Fig. 20: A and B] a spear head (ZT 19858, L-285) [Fig. 20: C], an arrowhead (ZT 20923, L-564) and a fragment of scale mail armor. Coincidentally, during the 2006 season, we continued conservation and recording of materials excavated in Operation A in the 2000-2003 seasons. The most important discovery made during the cleaning process was a large corroded mass of scale armor, made of iron, dating to the Late Assyrian period (ZT 8087, A-923) [Fig. 21]. The armor was found on a floor of the Operation A building. Perhaps significantly, one of the cuneiform texts discovered at Ziyaret Tepe in 2002 (ZTT 8, G-710) is an affidavit concerning military garments that are being loaned by a man named Gīrītu to a boatsman. Included in the loan are three armoured undercoats, including a set of scale armour (TÚG.DÙL) which are usually assumed to be made of bronze in the Neo-Assyrian texts. The correlation of the texts and archaeology suggest that iron is a more likely material for such military hardware (Parpola forthcoming). Other important finds from the Late Assyrian period included two bronze fibulae (L-367 ZT 20604; L-245 ZT 19257). The excavations also produced hundreds of iron studs, briefly described above, used to decorate leather, iron harness fittings and nails used for various construction purposes.

### Interpretation

It is clear from the excavations during the 2000-2004 and 2006 seasons that most if not all of the high mound was settled in the Late Assyrian period. Although the courtyard pavement technique is not precise, its size – exceeding 80m<sup>2</sup> – gives the impression that it was a part of a large and important building. No signs of a fire ending the Late Assyrian period were observed and it seems that the mound was simply abandoned. This is consistent with excavation and survey data from a variety of sources, which suggest that the inhabitants of Ziyaret Tepe/Tushhan simply fled at the end of the Late Assyrian empire and were spared a widespread destruction of their city. The continued elaboration of level L4 is a primary goal of our planned 2007 excavation season.

## LOWER TOWN ELECTRICAL RESISTANCE SURVEY

As noted above, subsurface geophysical prospection was continued in the Lower Town at Ziyaret Tepe in 2006 using an electrical resistance survey. Approximately 0.75ha had been surveyed previously in 2004 and the goal of the 2006 survey was to expand that area in the western Lower Town where substantial Late Assyrian architecture lay immediately below the modern ground surface. At the beginning of the season, we experimented with various methods of introducing water into soil in the survey area to improve electrical contact between the resistance meter probes and the soil. The method we used in the 2004 season which involved drilling precisely spaced holes and adding water (Matney and Rainville 2005) was effective, but we hoped to increase the speed of our survey, and hence the size of the area surveyed while maintaining the quality of data. Several test squares were sampled using three methods and then the results were compared for image clarity.

After this period of experimentation, the method chosen for our broad-scale surveys relied on the continuous supply of water that flowed from nearby cotton field irrigation. Water was transported by a 1.5 horsepower, gas-powered pump and sprayed over the 10m by 10m survey squares to be sampled the next day. Each unit was sprayed at least three times and allowed to soak in overnight. The quantity of water and the amount of time allowed for moisture to penetrate the soil deeply enough to provide sufficient contact with the ground. Using a sample and transect interval of 0.5m, during the 2006 season we collected 41,200 data points over an area of 10,300m<sup>2</sup>.

The results of the 2006 electrical resistivity survey show a number of clear features which represent well-preserved subsurface structures, almost certainly dating to the Late Assyrian period, as seen in the preliminarily processed data [Fig. 22: A]. The line of the city fortification wall in the south and west is clearly shown on the final electrical resistance plan [Fig. 22: a]. Two parallel sets of rooms, possibly with an intervening courtyard, can be seen near the Operation G building excavated between 2001 and 2004 [b]. These groups of rooms measure approximately 30m in length by 8m in width. The intervening “courtyard” space is 27m across [c]. To the northeast, a large mudbrick building, at least 25m by 30m in dimension, can be seen. There appear to be at least six internal rooms visible on the electrical resistivity survey [d]. Immediately adjacent to this building on its west side is another large structure. A solid mass of mudbrick approximately 32m by 18m in size may represent a platform of some type [e], while an additional area of mudbrick walls and rooms is visible to the northwest [f]. All of these features may represent the buildings of a single massive complex, perhaps tied to the Operation G building. This building has been tentatively identified as the treasury to the Temple of Ishtar of Nineveh, the patron goddess of ancient Ziyaret Tepe/Tushhan (Parpola forthcoming).

In the northwest corner of the survey area, a single large building with dimensions of 23m by 15m can be seen [g], with at least two large rooms, probably open courtyards. This building is separated from the others by a wide area of high electrical resistivity, perhaps a street during the Late Assyrian period. An area of very low resistance in the extreme northwestern corner of the survey area is probably modern or geological in



nature [h]. Two large circular features – one an area of low resistance [i] and the other of high resistance [j] – remain unexplained.

The 2006 electrical resistance survey allows us to further develop our understanding of the lower city during the Late Assyrian period. We find scattered large buildings, presumably public offices of some sort, with an intervening space showing a low contrast between the walls and rooms. While ground-truthing is necessary to definitively show that these are Late Assyrian in date, the overwhelming surface survey and excavation data over the past ten field seasons suggest that this is the most likely scenario. These intervening spaces between the large buildings may be the location of domestic housing, or other small-scale uses of the site. Linear high resistance features are probably streets, which are poor electrical conductors due to their compact structure. In 2007, we plan to excavate at least one of these buildings in order to test the veracity of our electrical resistivity data.

## SUMMARY

Perhaps the most interesting discovery during the 2006 field season was the possible location of a nomadic encampment on the high mound at Ziyaret Tepe in level L1. When examining the evidence for semi-sedentary occupation in the Upper Tigris Valley, one finds some information about nomads, primarily from the Ottoman period (16<sup>th</sup> century and later). Early Arab geographers tended not to be very interested in nomadism, but, according to Rowton, the limited evidence from the Medieval period points to a mixture of agricultural and nomadic inhabitants in the Tigris valley (Rowton 1973a; Rowton 1973b: 205; Rowton 1974: 1-3, 8. For the lack of information about peasant rural life in general in this period see Faroqhi 2000: 175. For information about modern nomads see Hütteroth 1969). The region of Diyarbakır provided excellent summer pastures for the flocks of nomadic tribes (Woods 1976: 43). Further, we know both the Turcoman and Mongol invasions brought many nomadic tribes into this region (Woods 1976: 2; Cribb 1991: 12; Golden 2000: 1-2, 5). The region was described by Sykes: “ill-cultivated land and miserable villages were the first things that impressed one.” (Sykes 1915: 357) Level L2 probably represents one of these “miserable villages” which flourished atop the prominent high mound for at least a century, possibly longer within the timeframe of the 12<sup>th</sup>-15<sup>th</sup> centuries AD. Both the Late Iron Age and Late Assyrian remains in Operation L are tantalizing, especially given the discovery of well-preserved iron artefacts in good primary contexts in level L4. These will form the subject of our next campaign and preliminary field report.

## Appendix A: Catalogue of Pottery

8.A. ZT 20590/6, L-360. Handmade cooking pot which has been fire-blackened on inside and parts of outside. D. = 18. Inclusions: common medium vegetal, occasional fine white grit or fine mica. Munsell exterior surface 2.5 YR 6/6 pale red. Interior surface 2.5 YR 5/1 reddish grey. Paste varies from 7.5 YR 6/3 pale red to 10 R 5/1 reddish grey.

8.B. ZT 19086/3 L-211. Coarse ware lid. Inclusions: common coarse vegetal. Munsell external surface 2.5 YR 6/6 light red. Interior surface 2.5 YR light red. Paste is a light reddish brown.

8.C. ZT 20543/6, L-351. Filter neck with pale brown exterior slip. Inclusions: common fine white grit. Munsell external surface 10 YR 8/3 very pale brown. Interior surface 5 YR 8/2 pinkish white. Paste 5 YR 6/6 reddish yellow.

9.A. ZT 20156/1, L-330. Blue glazed rim sherd. D. = 25. Glazed on interior and exterior. Inclusions: occasional fine white grit. Munsell external surface below glaze: 7.5 YR 7/4 pink. Paste 10 R 6/4 light red.

9.B. ZT 19527/2, L-255. Blue-green glazed rim sherd. D. = 28 (18.5% extant). Glazed on interior and exterior. Inclusions: occasional mica and occasional fine black grit. Paste 2.5 Y 8/1 white.

9.C. ZT 19025/8, L-201. Yellow glazed rim sherd. D. = 20 (23% extant). Glazed on interior and exterior. Inclusions: none visible. Munsell exterior surface 10 R 6/3 pale red and 7.5 Y 6/6 olive yellow. Interior surface 5 YR 6/2 pinkish grey and 2.5 Y 6/6 olive yellow. Paste 7.5 R 6/4 pale red.

9.D. ZT 20169, L-333. Sgraffiato base with light yellow, yellow-brown, green, purple glaze. D. = 9.5 (100% extant). Inclusions: occasional fine mica, fine black grit, fine white grit. Munsell exterior surface 2.5 YR 6/6 light red. Interior surface 2.5 Y 8/3 pale yellow, 10 R 4/2, 10 YR 6/8 brown. Paste 10 R 6/8 light red.

9.E. ZT 19501/1, L-251. Sgraffiato sherd with red and green glaze. Inclusions: occasional fine white grit and mica. Munsell exterior surface 2.5 YR 6/6 light red. Interior surface 7.5 R 3/3 dusky red. Paste 7.5 R 6/6 red.

9.F. ZT 20002/3, L-301. Sgraffiato sherd with interior white slip, pale yellow, green, manganese glazes. D. = 20 (12% extant). Inclusions: occasional medium white grit and occasional fine mica. Munsell exterior surface 10R pale red, slip 54R 8/4 pink. Paste 7.5 YR 6/6 Red.

10.A. ZT 16516, L-104. Green and yellow glazed bowl fragment. Glazed on interior. D. = 21 (10% extant). Inclusions: sparse white grit, occasional mica, sand, and grog. Paste 7.5 YR 5/6.

10.B. ZT 1019/4, A-304. Green glazed bowl fragment. Glazed on interior and exterior. D. = 24 (10% extant). Inclusions: Occasional white grit, mica, sand, grog. Paste 5 YR 6/6.

10.C. ZT 1500/2, B-001. Green glazed bowl fragment. Glazed on interior. D. = 24 (5% extant). Inclusions: occasional white grit, mica, sand. Paste 5 YR 5/4.

10.D. ZT 16676, L-115. Green glazed bowl fragment. Glazed on interior and exterior with dark band at rim. D. = 22 (10% extant). Inclusions: sparse white grit, occasional mica, sand, grog. Paste 2.5 Y 7/3.

10.E. ZT 1028/2, A-302. Green glazed bowl fragment. Glazed on interior and exterior. D. = 24 (15% extant). Inclusions: occasional white grits, sand, grog, sparse mica. Paste: 5 YR 5/6.

10.F. ZT 16741, L-116. Green glazed bowl fragment. Glazed on interior and exterior with dark band at rim. D. = 29. Inclusions: sparse white grit and mica, occasional sand. Glaze applied with fine combs with deep grooves. Large lime inclusion have exploded on exterior. Paste 5 YR 6/6.

10.G. ZT 16699, L-116. Unglazed rim fragment. D. = 10 (15% extant). Inclusions: occasional white grit, mica, sand, grog. Paste 2.5 Y 7/3.

10.H. ZT 16595, L-111. Unglazed jar rim fragment. D. = 12 (15% extant). Inclusions: occasional sand, white grit, sparse mica. Rouletted decoration. Corrugated banding around neck. Paste 5 Y 7/3.

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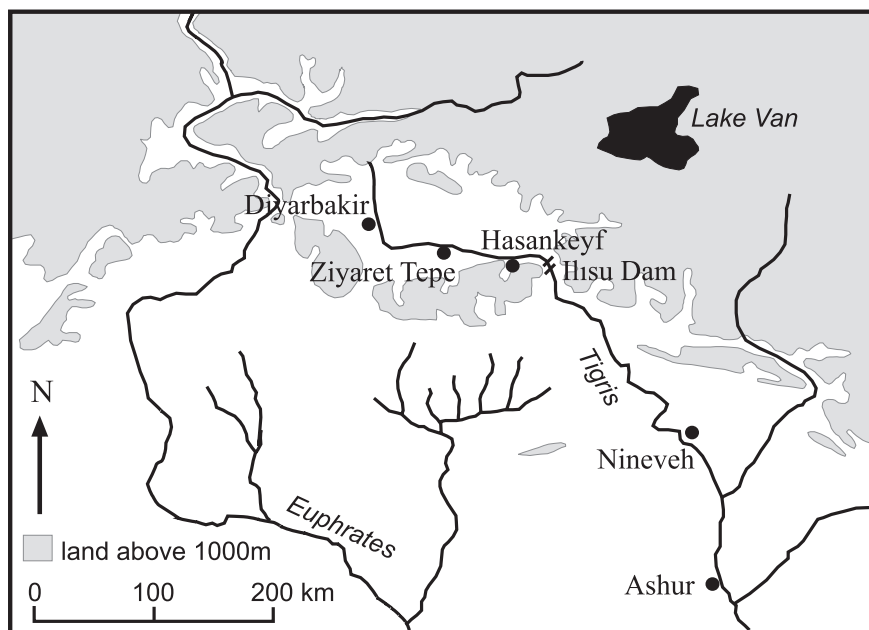


Fig. 1. Regional map showing location of Ziyaret Tepe, Hasankeyf, Diyarbakir, and the Ilisu Dam.

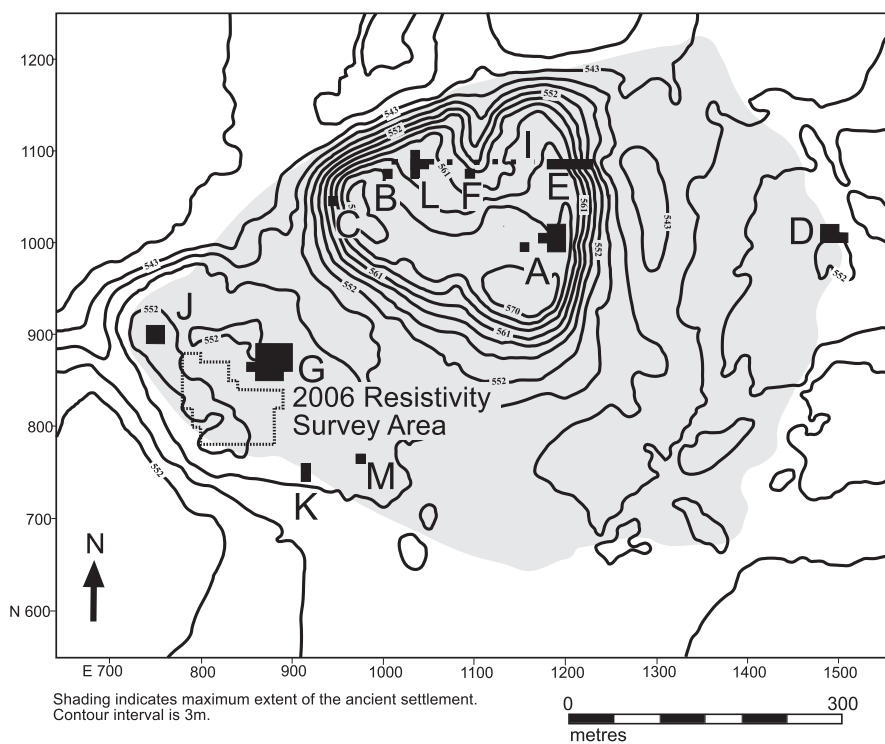


Fig. 2. Topographic map showing areas of excavation at Ziyaret Tepe. Operation L is on the northern edge of the High Mound. The 2006 resistivity survey (dashed lines) is in the southwestern sector of the Lower Town.

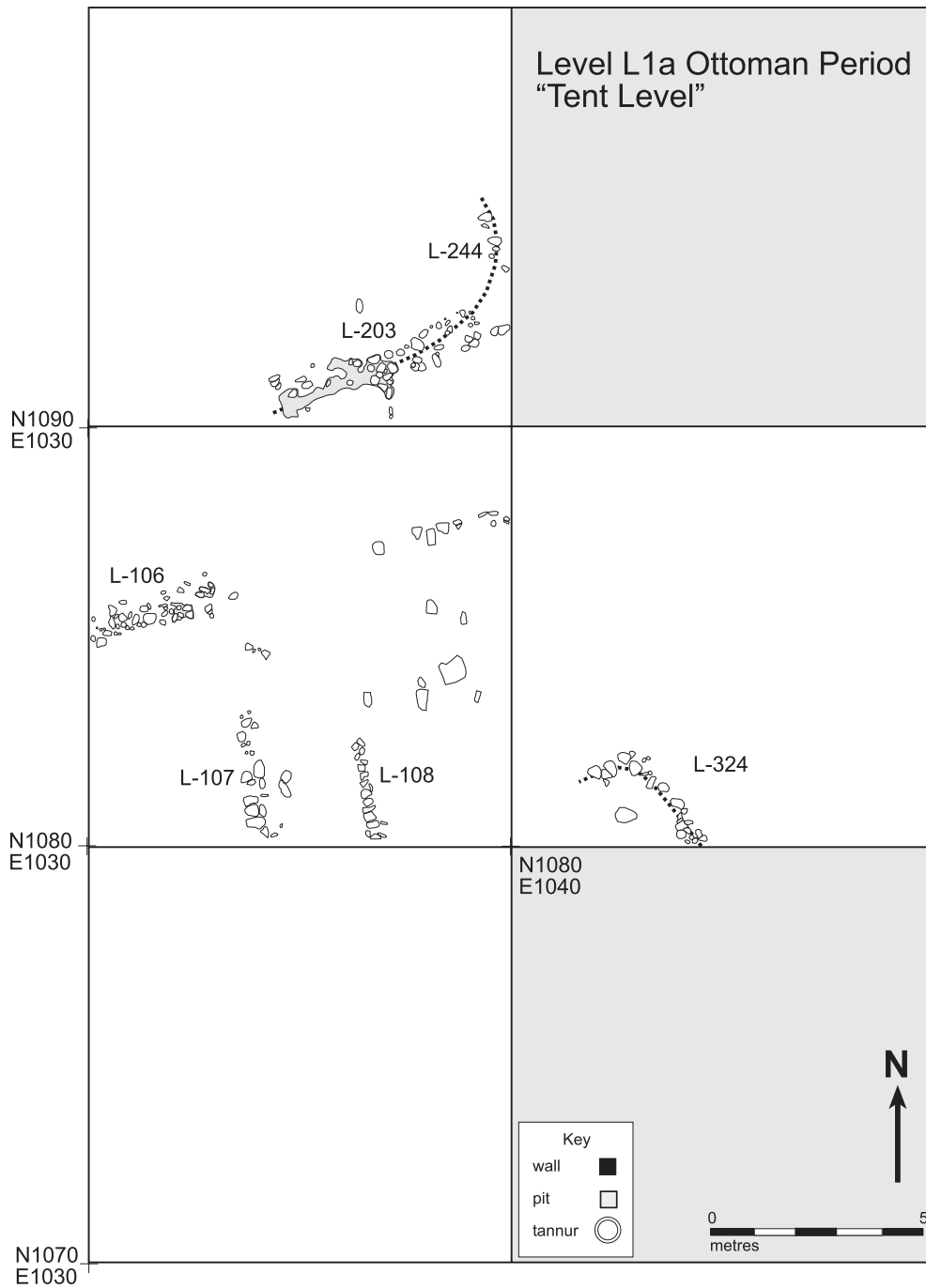


Fig. 3. Plan of architecture from level L1a (the "Tent-level"). These stones were placed at the bottoms of tents to hold them down.

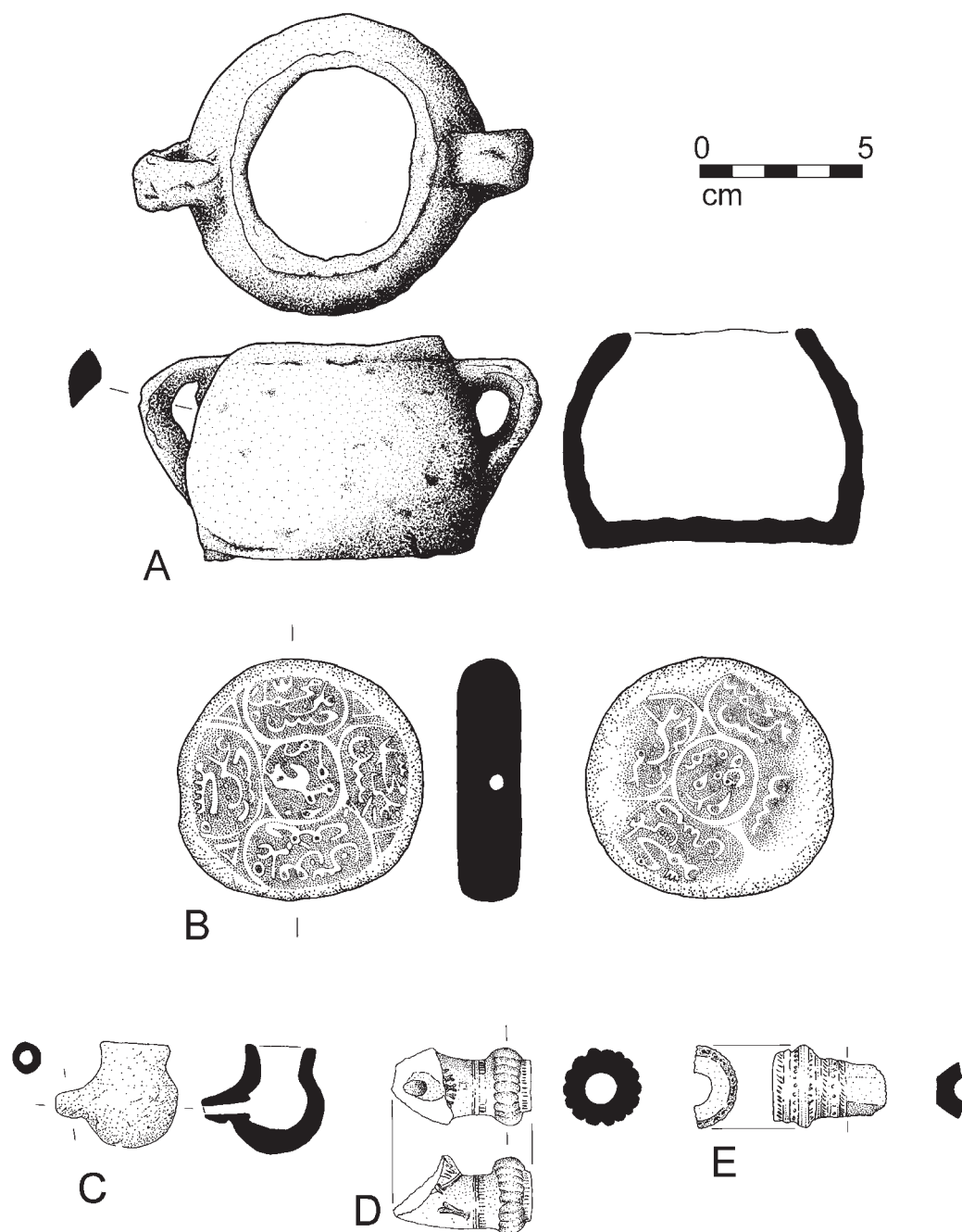


Fig. 4. Finds from the Ottoman period. (A) handmade pot ZT 19513, L-253; (B) clay disk ZT 20057, L-301; (C) clay tobacco pipes ZT 12891, J-063; ZT 0201, surface find; ZT 0206, surface find.



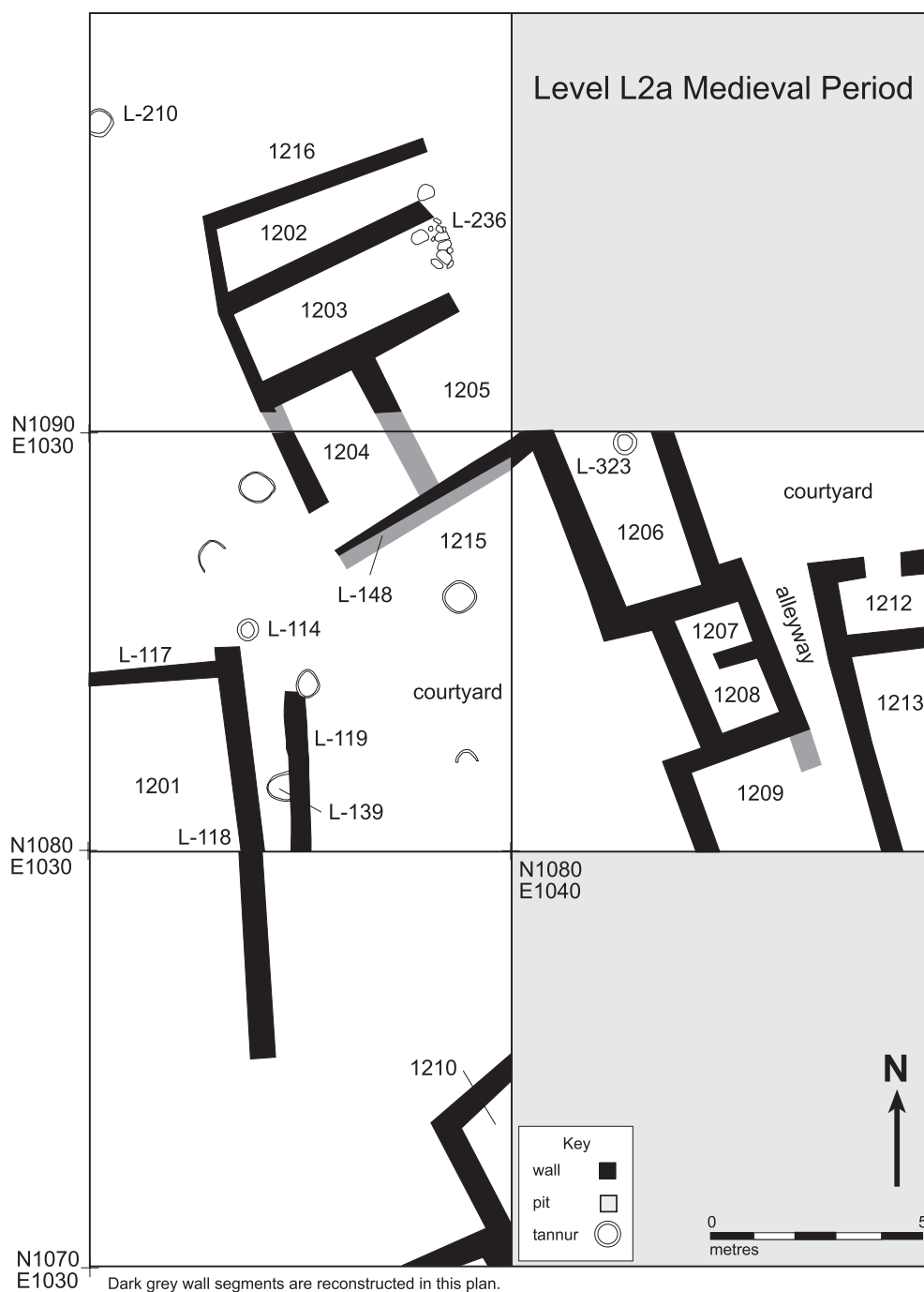


Fig. 5. Plan of architecture from level L2a. This architecture dates to the Medieval period and represents the principal post-Assyrian occupation of Ziyaret Tepe.



Fig. 6. Medieval architecture from trench N1090 E1030 in Operation L. The flat stones at the edge of the walls (foreground) may represent the bases for wooden posts for a portico.



Fig. 7. Photograph of cow skull and other bones placed as a votive deposit in the foundation trench (L-220) of the latest Medieval building in N1090 E1030.

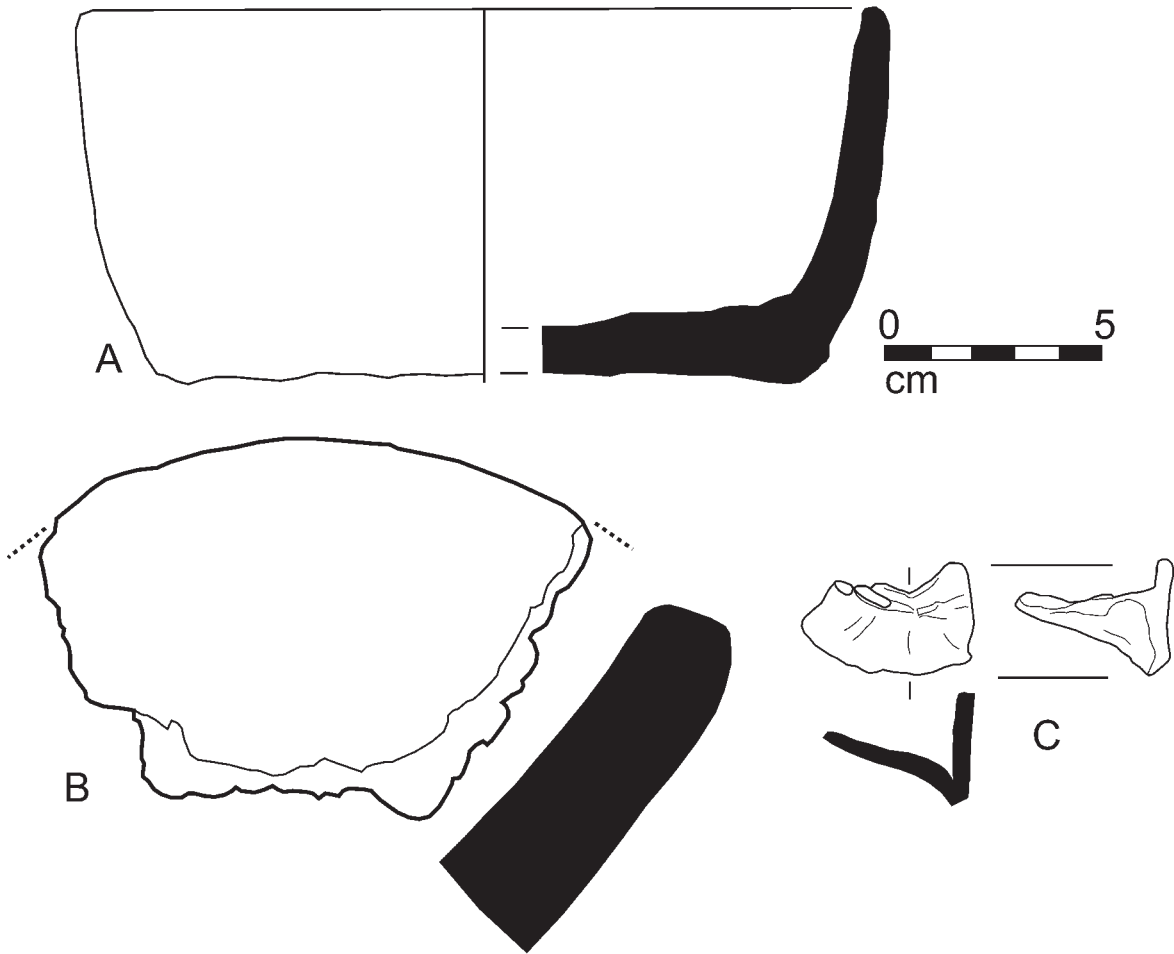


Fig. 8. Medieval pottery. (A) cooking pot ware ZT 20590/6, L-360; (B) cooking pot lid fragment ZT 19086/3 L-211; (C) filter neck ZT 20543/6, L-351.

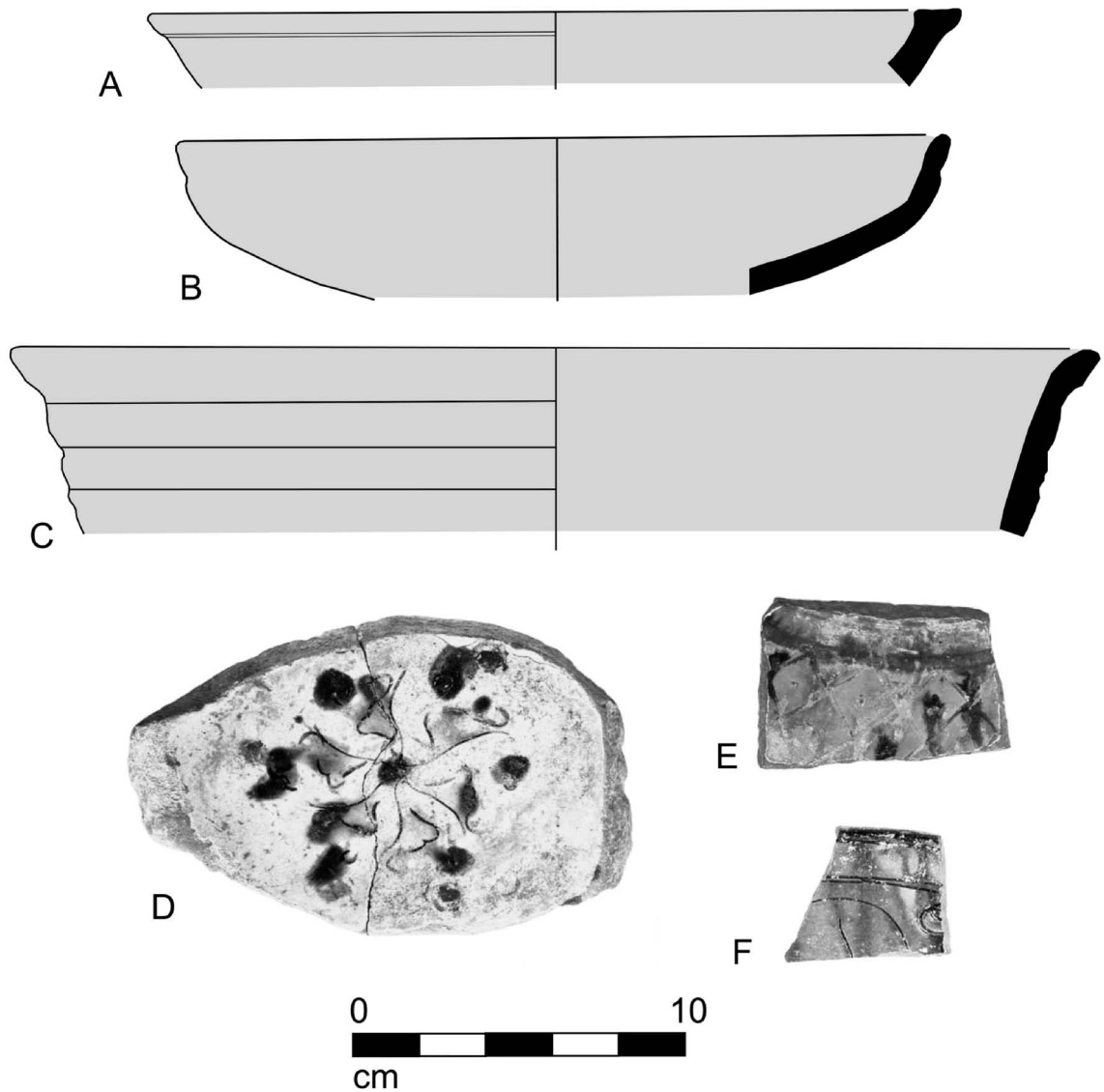


Fig. 9. Medieval glazed pottery. Monochrome glaze ware. (A) ZT 20156/1, L-330 blue; (B) ZT 19527/2, L-255 blue; (C) ZT 19025/8, L-201 yellow. Sgraffiato ware. (D) ZT 20169, L-333; (E) ZT 19501/1, L-251; (F) ZT 20002/3, L-301.

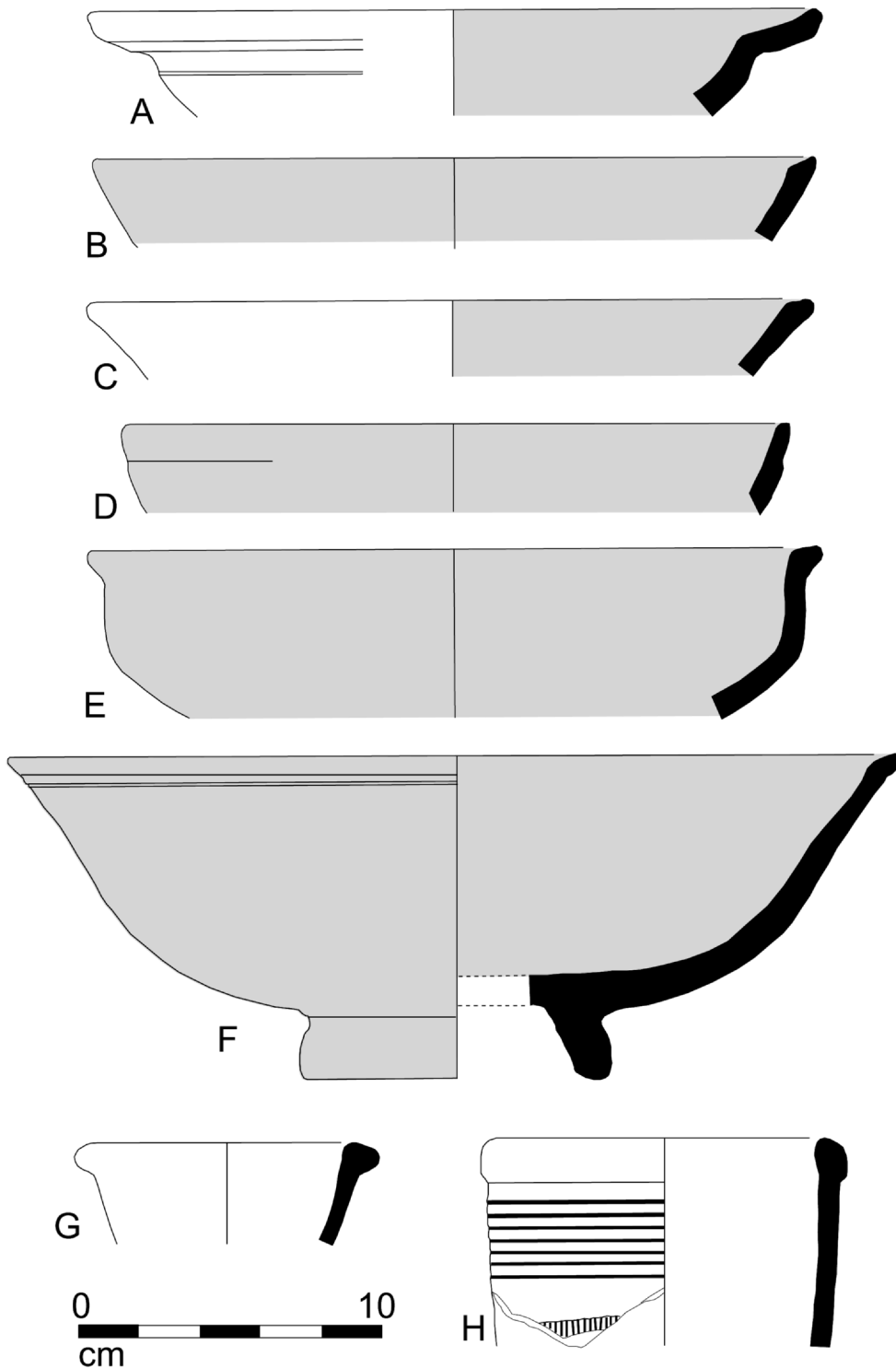


Fig. 10. Medieval pottery from Ziyaret Tepe. Glazed ware forms. (A) ZT 16516, L-104; (B) ZT 1019/4, A-304; (C) ZT 1500/2, B-001; (D) ZT 16676, L-115; (E) ZT 1028/2, A-302; (F) ZT 16741, L-116; (G) ZT 16699, L-116; (H) ZT 16595, L-111.

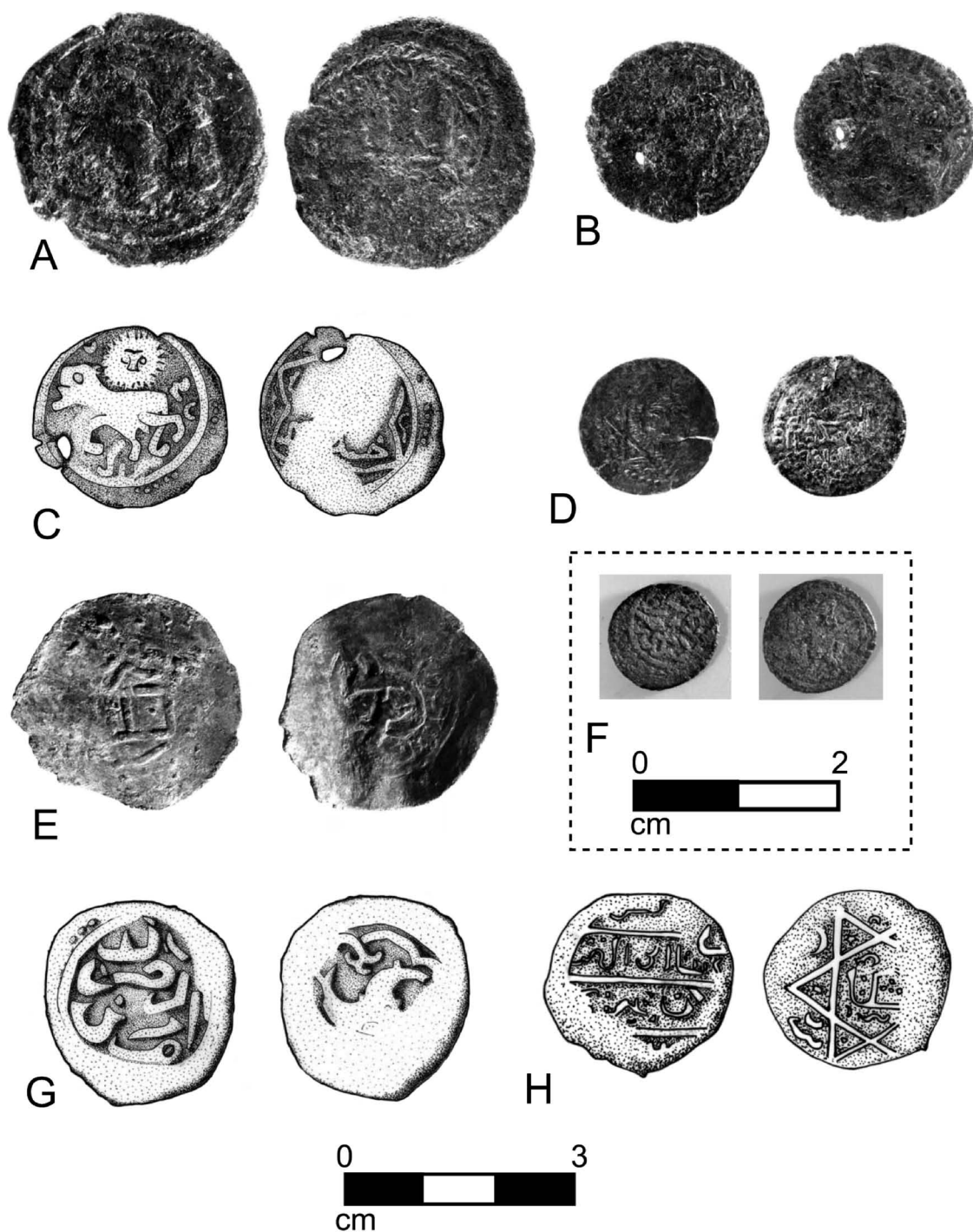


Fig. 11. Coins from Ziyaret Tepe. (A) ZT 0004; (B) ZT 0003; (C) ZT 20586, L-360; (D) ZT 0007; (E) ZT 5540, A-707; (F) ZT 0234; (G) ZT 1044, A-304; (H) ZT 11105.



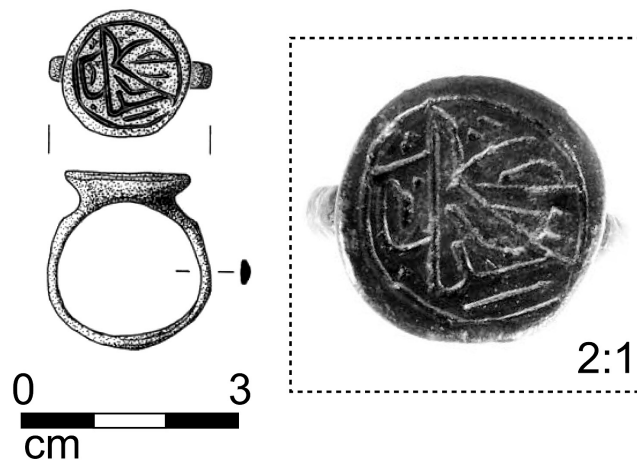


Fig. 12. Inscribed copper alloy ring of Medieval date (ZT 19037, L-205).

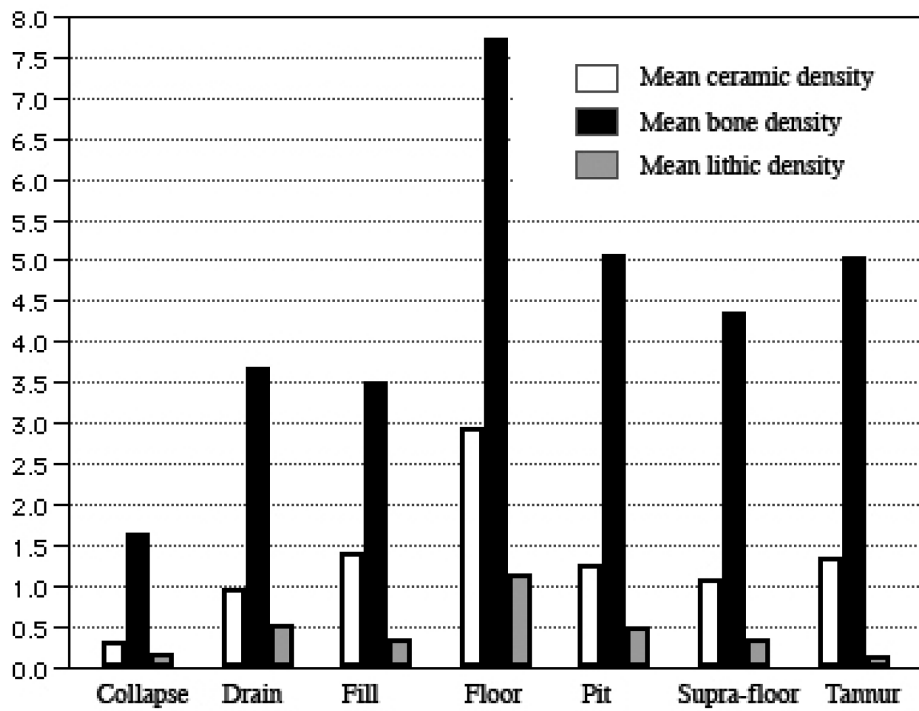


Fig. 13. Mean micro-artefact count densities per locus type in Operation L.

Micro-debris Sample#	ZT #	Bead material	Ht.	Diam.	Hole	Color	Shape
1676	21502	Unknown	2mm	3mm	1mm	Gray	Disc, flat
1678	21502b	Unknown	3mm	3mm	1mm	Black	Disc, flat
1693	21508	Gypsum	2mm	3mm	1mm	White	Disc, flat
1699	21511	Gypsum	2mm	4mm	2mm	White	Disc flat
1701	21512	Stone	3mm	5mm	1,5mm	Tan	Oval, oblong
1703	21515	Frit ?	2mm	3mm	1mm	Gray	Disc, curved
1704	21517	Carnelian	4mm	9mm	2mm	Orange	hexagon
1707	21519	Gypsum	1.5mm	3mm	1mm	White	disc
1715	N/A	Glass	3mm	2mm	1mm	Clear	cylinder
1723	21528	Glass	3mm	3mm	1mm	Green	Curved disc
1735	21535	Gypsum	4mm	5mm	1mm	White	sphere
1738	21539	Lapis lazuli	5mm	4mm	1mm	Blue	Barrel
1742	21541	Lapis lazuli	3mm	3mm	1mm	Blue	Short cylinder
1755	21545	Lapis lazuli	3mm	3mm	.5mm	Blue	Sphere
1773	21546	Glass	2mm	1.5mm	.5mm	Silver	cylinder
1773	21547	Bone	3mm	3mm	1mm	White	Cylinder
1774	21551	Ceramic (?)	6mm	5mm	1mm	Orange	Sphere
1775	21552	Gypsum	2mm	2,5mm	1mm	White	disc

Fig. 14. Beads collected from Operation L micro-debris samples.

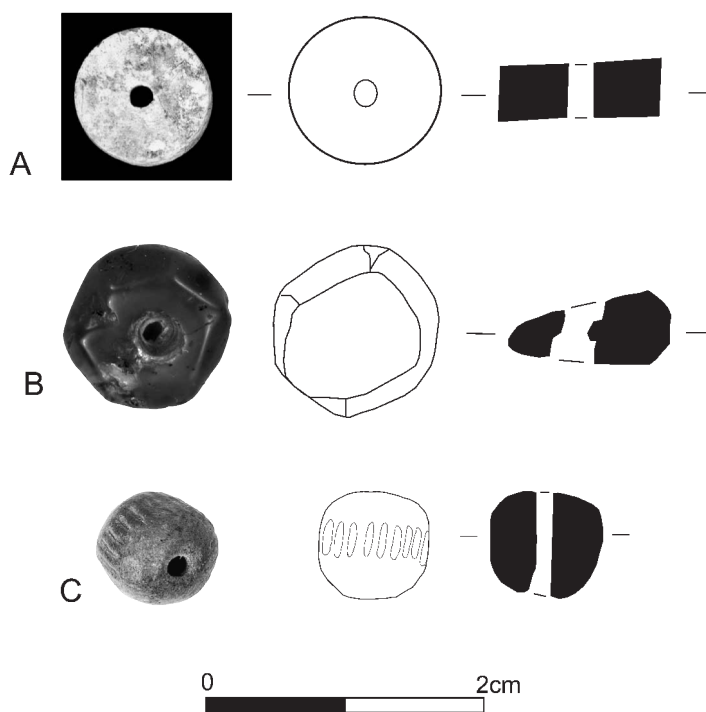


Fig. 15. Flat discs and hexagonal beads recovered in micro-debris samples from Operation L. (A) ZT 19639, L-267; (B) ZT 19534, L-255; (C) ZT 21551, L-372.

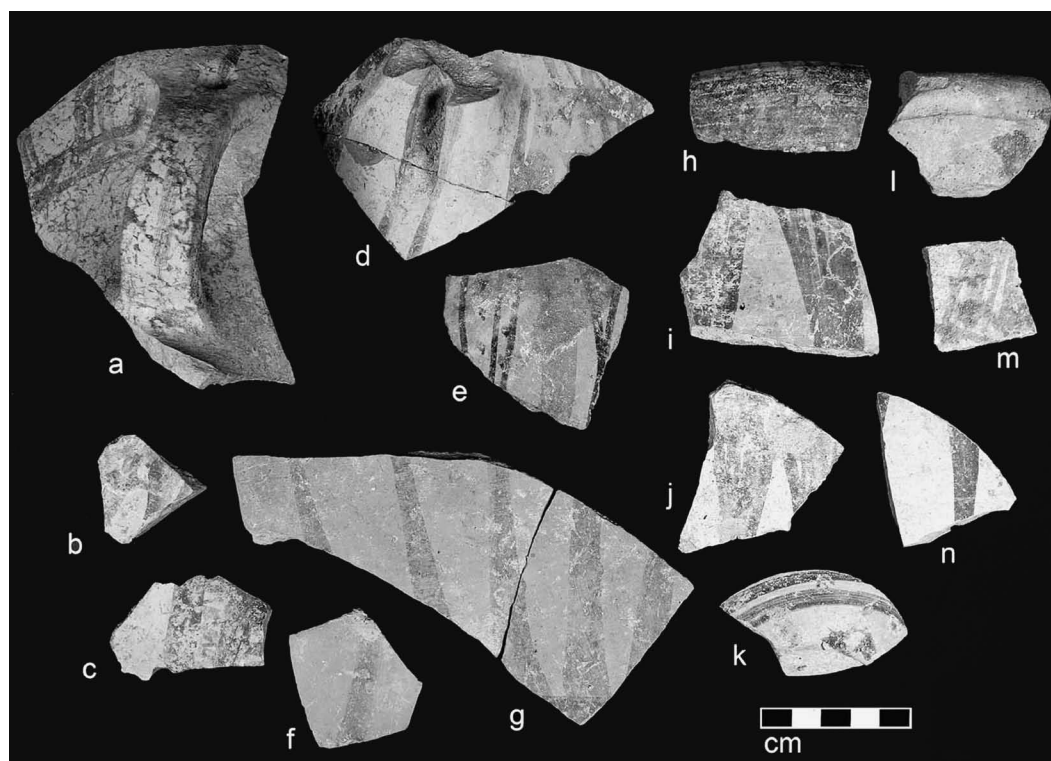


Fig. 16. Late Iron Age pottery from Operation L, level L3.

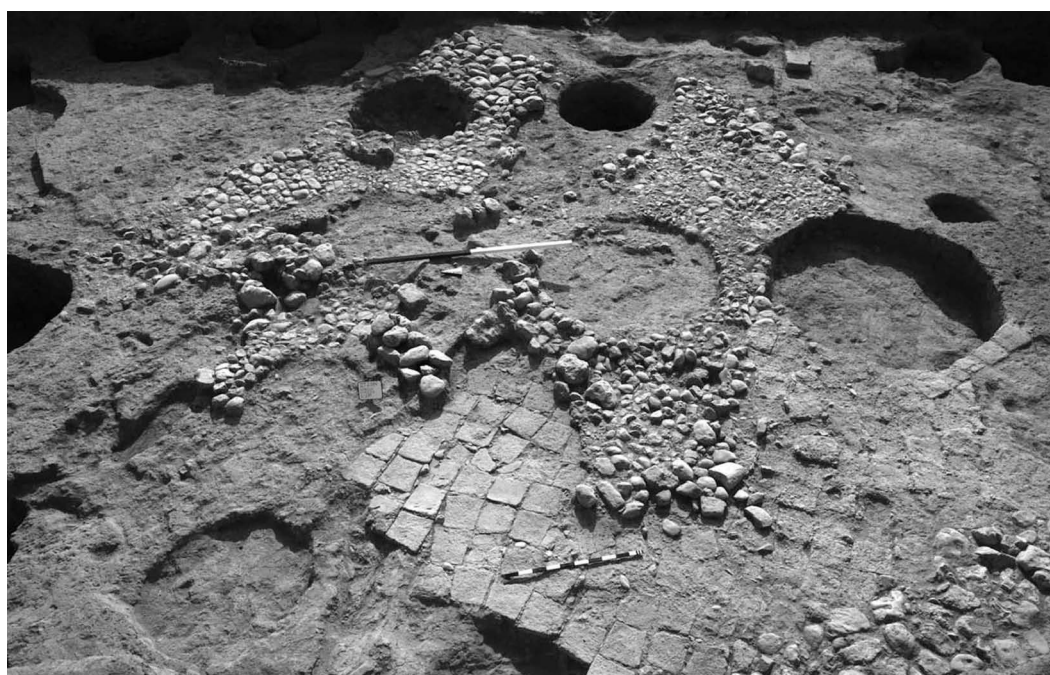


Fig. 17. Late Assyrian pavement (L-287) recovered in Operation L, Level L4. Note pits cutting the pavement from later strata.

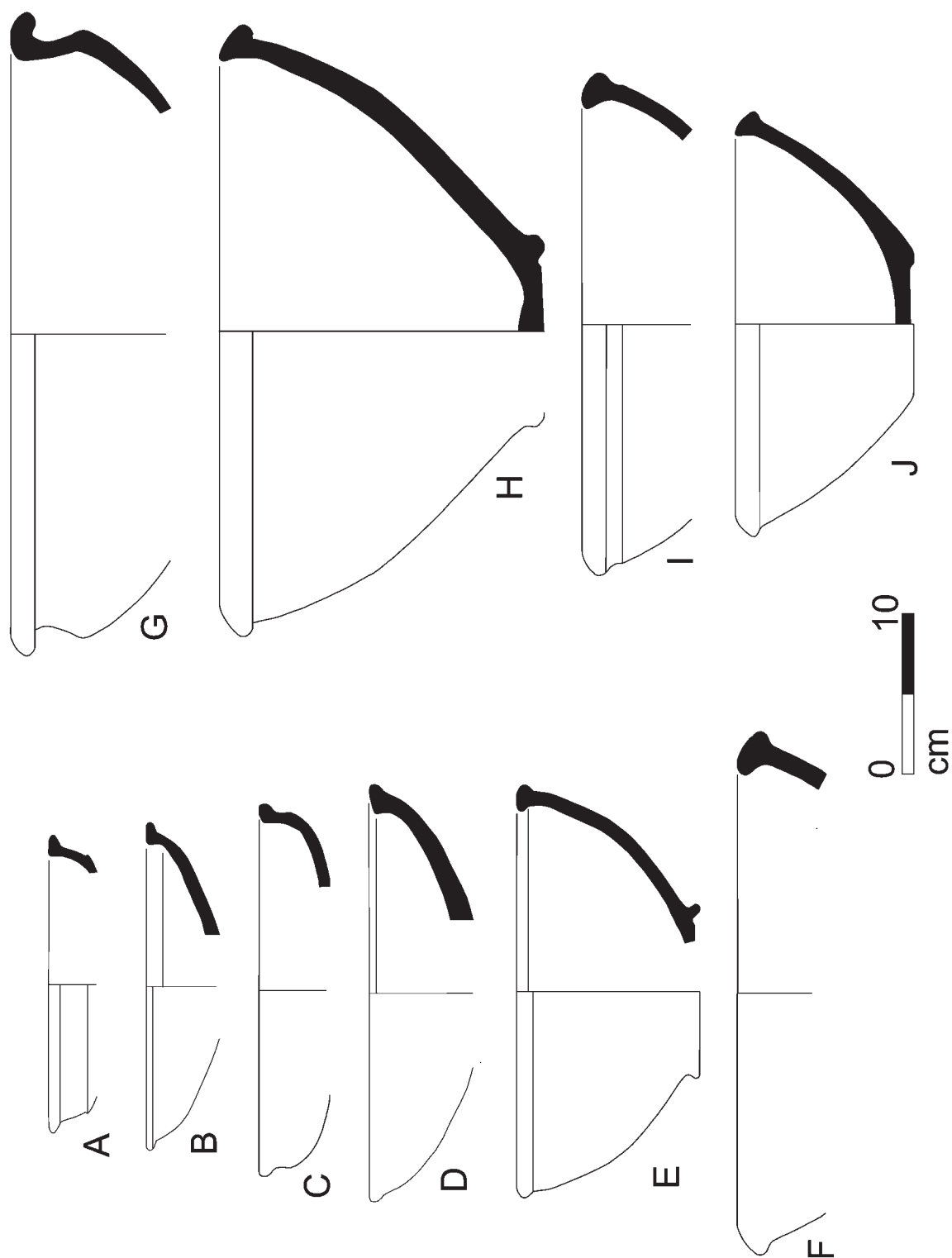


Fig. 18. Operation G pottery – showing typical Late Assyrian bowl forms

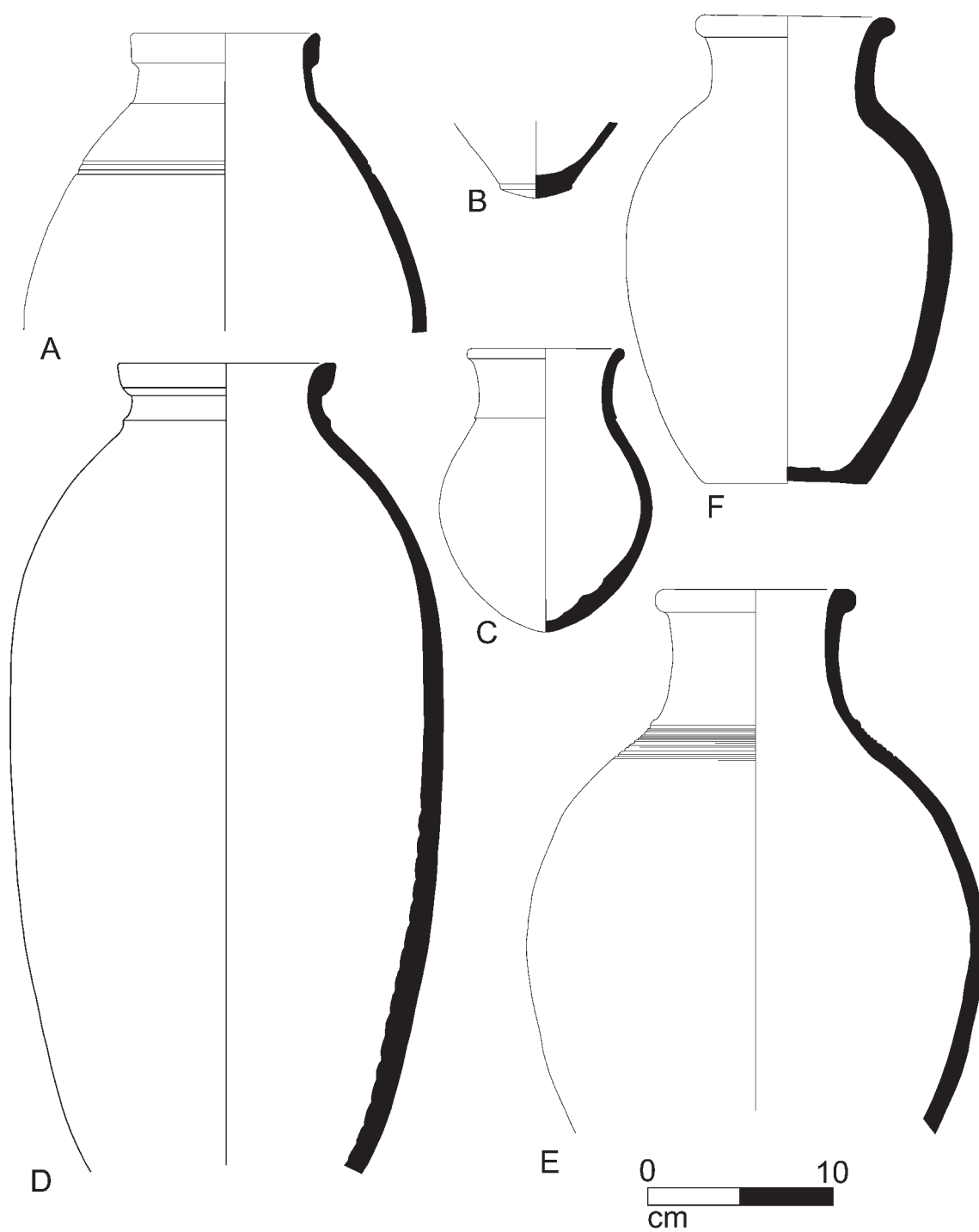


Fig. 19. Operation G pottery – showing typical Late Assyrian jar forms

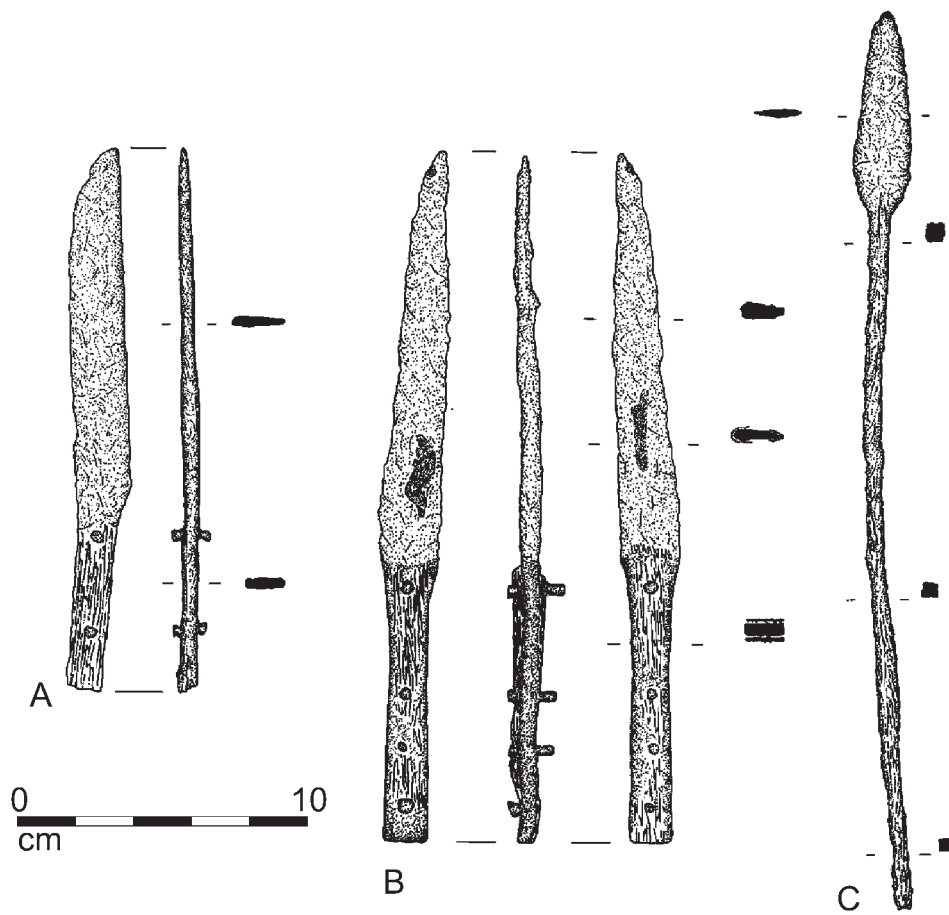


Fig. 20. Late Assyrian metalwork discovered in Operation L (A) ZT 19862, L-283; (B) ZT 19776, L-286; (C) ZT 19858, L-285.

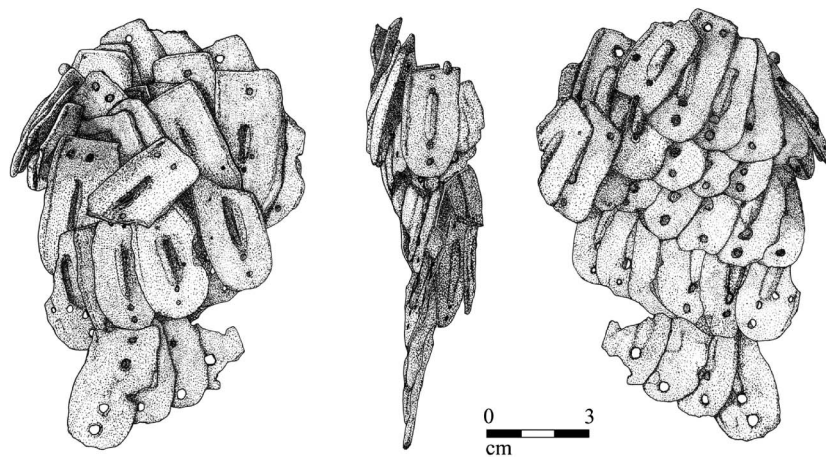


Fig. 21. Scale mail armour from Operation A, ZT 8087, A-923.



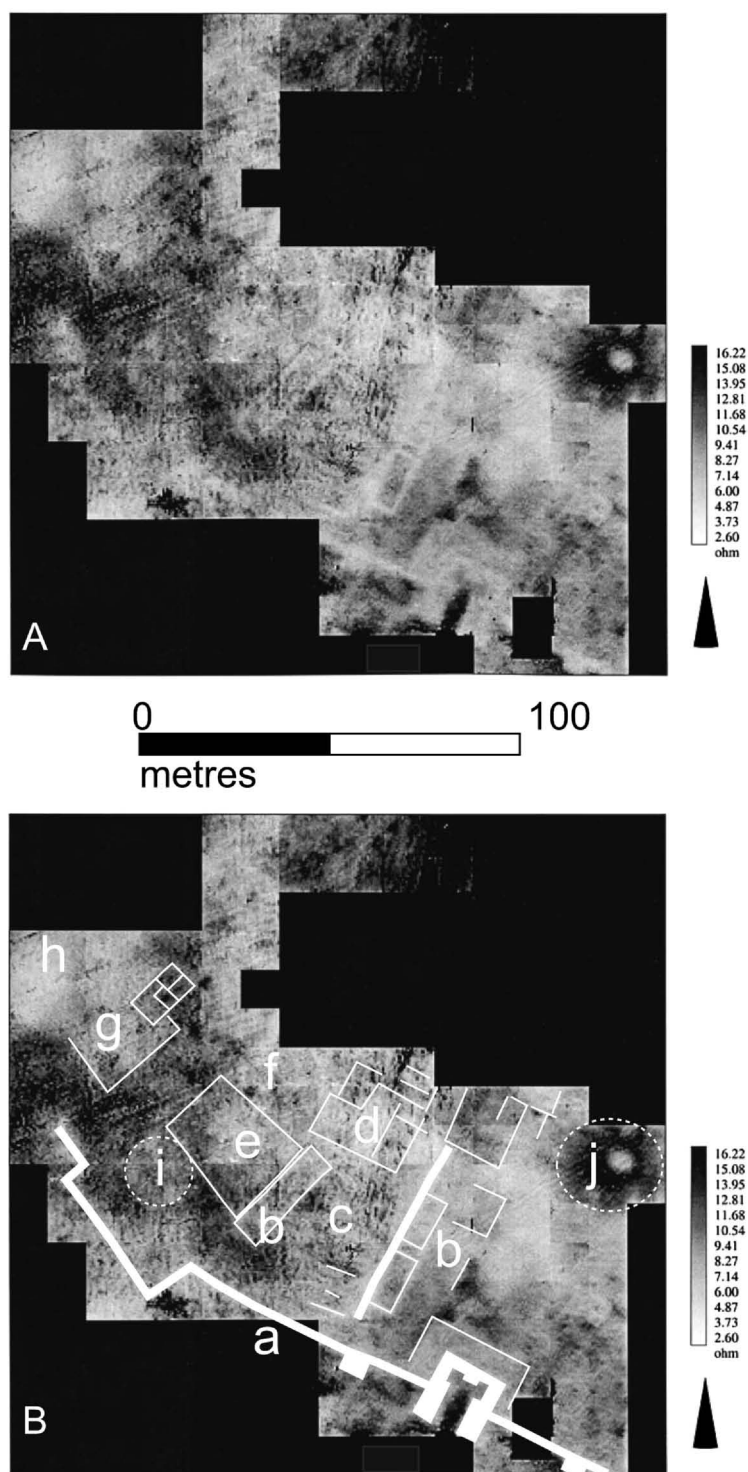


Fig. 22. Results of shallow subsurface geophysical survey in 2004-2006.

(A) Electrical resistance map from western lower town. (B)  
Interpretation of the geophysical map.